T1.8.2

PNNL-11085
UC-402

1995 Annual Water Monitoring Report LEHR Environmental Restoration University of California at Davis

D. L. Stewart
R. M. Smith
D. R. Sauer
D. J. Bates
D. C. Lanigan
G. V. Last
T. L. Liikala
J. K. Merz
R. Schalla
F. A. Spane
C. D. Taylor
W. D. Webber

March 1996

Prepared for
the U.S. Department of Energy
Contract DE-AC06-76RLO 1830

Pacific Northwest National Laboratory
Operated for the U.S. Department of Energy
by Battelle

Battelle

PNNL-11085

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor Battelle Memorial Institute, nor any of their employees, makes **any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.** Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof, or Battelle Memorial Institute. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

PACIFIC NORTHWEST NATIONAL LABORATORY
operated by
BATTELLE
for the
UNITED STATES DEPARTMENT OF ENERGY
under Contract DE-AC06-76RLO 1830

Printed in the United States of America

Available to DOE and DOE contractors from the Office of Scientific and Technical Information, P.O. Box 62, Oak Ridge, TN 37831; prices available from (615) 576-8401.

Available to the public from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Rd., Springfield, VA 22161

This document was printed on recycled paper.

Pacific Northwest National Laboratory
Operated by Battelle for the U.S. Department of Energy

July 24, 1996

Mr. Pete McKereghan
Weiss Associates
6500 Shellmound St.
Emeryville, CA 94608

Dear Mr. McKereghan:

As per our telephone conference call on July 23, 1996, and your fax dated July 22, 1996, I am providing copies of the attached documents for your use in the transition of the LEHR Data Management function to Weiss. Enclosed are the following:

- Copies of the Standard Operating Procedures used for the LEHR Data Validation Process. A total of five are provided.

- A copy of Dames & Moore Data Management Summary describing the mechanisms used to manage the LEHR data. PNNL has continued to follow this summary. Included as part of the document is the description of the Electronic Deliverable received from the analytical laboratory.

- A copy of the Statement of Work (SOW) to Lockheed and other letters associated with this SOW that describe the requirements imposed on the analytical laboratory.

- A copy of the 1995 Annual Water Monitoring Report for LEHR.

If you have any questions regarding these documents, please don't hesitate to call. The other information we discussed will follow soon.

Sincerely,

Dorothy L. Stewart

Dorothy L. Stewart, Manager
Ground-Water and Compliance Monitoring
ENVIRONMENTAL TECHNOLOGY DIVISION

DLS/vaa

Battelle Boulevard ■ P.O. Box 999 ■ Richland, WA 99352

(509) 376-5056 ■ dl_stewart@pnl.gov ■ (509) 372-1704

An assessment of the groundwater monitoring network was conducted based on groundwater data presented in this 1995 Annual Water Monitoring Report. The revised monitoring program was considered sufficient to monitor environmental hazards from LEHR. Although the extent of constituents in the upper aquifer is laterally defined using hydropunch sampling and groundwater monitoring data, the current monitoring network should be supplemented to the east and northeast of the site to further evaluate the downgradient extent of site constituents.

As reported in the past, the lateral extent of site constituents is greater in HSU-2 than in HSU-1. As chloroform migrates downward from HSU-1 into HSU-2, it migrates laterally from the apparent source area north of Landfill 2 downgradient to the east, northeast beyond the UC Davis property boundary. Tritium appears to be migrating downgradient of well UCD1-14, where it is reported regularly. Nitrate decreases rapidly downgradient of site source areas to generally regional concentrations at the UC Davis property boundary. Based on this analysis, the monitoring network should be supplemented to further evaluate downgradient migration of, at a minimum, chloroform, hexavalent chromium, and tritium in HSU-2.

The new wells added to the network indicate that site contamination is not migrating to the south and is staying in HSU-I and the upper half of HSU-2. Contamination is not present or is present at low concentrations in the lower part of the upper aquifer.

Contents

Executive Summary iii

Acronyms and Abbreviations xv

1.0 Introduction 1.1

1.1 Purpose and Objectives 1.1
1.2 Organization of Report 1.2
1.3 Project Overview 1.3

2.0 1995 Water Monitoring Program 2.1

2.1 Groundwater Monitoring 2.1
2.2 Surface Water and Storm Water Monitoring 2.2
2.3 Analytical Program 2.3
2.4 Quality Assurance/Quality Control Program 2.3

2.4.1 Source Surveillance 2.4
2.4.2 Laboratory Audit 2.4

3.0 Quality Assurance and Data Validation Summary 3.1

3.1 Quality Assurance Criteria 3.1

3.1.1 Precision 3.1
3.1.2 Accuracy 3.2
3.1.3 Representativeness 3.3
3.1.4 Completeness 3.4
3.1.5 Comparability 3.4

3.2 Data Validation Methods 3.4
3.3 Summary of Data Validation Results 3.5
3.4 Data Validation Results by Chemical Group 3.6

3.4.1 Volatile Organic Compounds 3.6
3.4.2 Semivolatile Organic Compounds 3.8
3.4.3 Pesticides/Polychlorinated Biphenyls 3.9
3.4.4 Metals 3.11
3.4.5 Radionuclides 3.12
3.4.6 General Chemicals 3.13

4.0 Hydrogeology 4.1

4.1 Regional Setting 4.1
4.2 LEHR Site Hydrogeology 4.2
4.3 Groundwater Elevations and Gradients 4.5

4.3.1 Seasonal/Annual Groundwater Elevations 4.5
4.3.2 Groundwater Elevations During 1995 . . . . . 4.6
4.3.3 Horizontal Groundwater Gradients During 1995 . . . . . 4.7
4.3.4 Vertical Groundwater Gradients During 1995 . . . . . 4.8

5.0 Groundwater Analytical Results 5.1

5.1 Volatile Organic Compounds 5.2
5.2 Semivolatile Organic Compounds 5.4
5.3 Pesticides and PCBs 5.4
5.4 Metals 5.5
5.5 Radionuclides 5.8
5.6 Anions and Cations 5.11

5.6.1 Stiff Diagrams 5.11
5.6.2 Nitrate 5.12

6.0 Surface Water and Storm Water Analytical Results 6.1

6.1 Volatile Organic Compounds 6.1
6.2 Semivolatile Organic Compounds 6.2
6.3 Pesticides and PCBs 6.2
6.4 Metals 6.2
6.5 Radionuclides 6.4
6.6 Anions and Cations 6.4

6.6.1 Summary of Major Ion Chemistry 6.4
6.6.2 Stiff Diagrams 6.5
6.6.3 Nitrate 6.5

7.0 Statistical Analysis 7.1

7.1 Comparison Strategy 7.2
7.2 Parameters with No Results Above Detection Limit in 1995 Downgradient Samples (Class I) 7.3

7.3 Parameters with Results Above Detection Limit in 1995 Downgradient Samples (Class II) 7.3
7.4 Results of Statistical Comparison of Downgradient to Background 7.4

7.4.1 Upper Tolerance Limit Comparison Results 7.4
7.4.2 Fisher's Exact Test Comparison Results 7.5

7.5 Discussion of Statistical Analysis Results 7.5

8.0 Evaluation of Water Monitoring Program 8.1

8.1 Analyte List 8.1
8.2 Monitoring Locations 8.4
8.3 Sampling Frequency 8.5
8.4 Analytical Techniques 8.6
8.5 Conclusions 8.6

9.0 References 9.1

Appendix A - Groundwater and Trip Blank Analytical Results A.1

Appendix B - Surface Water and Storm Water Analytical Results B.1

Appendix C - Time Series Tables C.1

Appendix D - Fall Quarter 1995 Water Monitoring D.1

Appendix E - Groundwater Elevation Data E.1

Figures

1.1	LEHR Site Vicinity Map	1.4
2.1	Location Map - Water Monitoring Points	2.5
2.2	Location Map - HSU-1 Groundwater Monitoring Wells	2.7
2.3	Location Map - HSU-2 Groundwater Monitoring Wells	2.9
2.4	Location Map - Surface Water Monitoring Points	2.11
2.5	Location Map - Storm Water Runoff Monitoring Points	2.13
4.1	Average Elevation of HSU-1 and HSU-2 and Their Relationship to Regional Stratigraphy and Hydrostratigraphy	4.10
4.2	Location of West to East and North to South Cross-Sections of Across the LEHR Site	4.11
4.3	West to East Cross-Section Across the LEHR Site	4.13
4.4	North to South Cross-Section Across the LEHR Site	4.15
4.5	Groundwater Elevation Hydrograph, UCD1-20 and UCD2-7	4.17
4.6	Monthly Precipitation Totals	4.19
4.7	Groundwater Elevation Hydrograph, Selected HSU-1 Wells	4.21
4.8	Groundwater Elevation Hydrograph, Selected HSU-2 Wells	4.23
4.9	Groundwater Elevation Hydrograph, UCD1-25, -34, and UCD2-2, -35	4.25
4.10a	Groundwater Elevations for HSU-1, February 17, 1995	4.27
4.10b	Groundwater Elevations for HSU-1, May 25, 1995	4.29
4.10c	Groundwater Elevations for HSU-1, August 21, 1995	4.31
4.10d	Groundwater Elevations for HSU-1, November 27, 1995	4.33
4.11a	Groundwater Elevations for HSU-2, February 17, 1995	4.35
4.11b	Groundwater Elevations for HSU-2, May 25, 1995	4.37
4.11c	Groundwater Elevations for the HSU-2, August 31, 1995	4.39
4.11d	Groundwater Elevations for HSU-2, November 27, 1995	4.41
4.12	Groundwater Elevation Hydrograph UCD1-1 and UCD2-16	4.43
4.13	Groundwater Elevation Hydrograph UCD1-3, -20, and UCD2-7	4.45
4.14	Groundwater Elevation Hydrograph UCD1-4 and UCD2-15	4.47
4.15	Groundwater Elevation Hydrograph UCD1-8, -13, and UCD2-14	4.49
4.16	Groundwater Elevation Hydrograph UCD1-18 and UCD2-17	4.51
4.17	Vertical Hydraulic Head Gradients	4.53
5.1	Chloroform Concentrations Detected in HSU-1 Monitoring Wells, 1995	5.14
5.2	Chloroform Concentrations Detected in HSU-2 Monitoring Wells, 1995	5.14
5.3	Nitrate Concentrations Detected HSU-1 Monitoring Wells, 1995	5.15
5.4	Nitrate Concentrations Detected in HSU-2 Monitoring Wells, 1995	5.15
5.5	Chromium Concentrations Detected in HSU-1 Monitoring Wells, 1995	5.16
5.6	Chromium Concentrations Detected in HSU-2 Monitoring Wells, 1995	5.16
5.7	Tritium Concentrations Detected in HSU-1 Monitoring Wells, 1995	5.17
5.8	Tritium Concentrations Detected in HSU-2 Monitoring Wells, 1995	5.17
5.9	Carbon-14 Concentrations Detected in HSU-1 Monitoring Wells, 1995	5.18
5.10	Carbon-14 Concentrations Detected in HSU-2 Monitoring Wells, 1995	5.18
5.11	Concentration Contour Plot - Chloroform in HSU-1, 1995	5.19
5.12	Concentration Contour Plot - Chloroform in Upper Portion of HSU-2, 1995	5.21
5.13	Concentration Contour Plot - Chloroform in Middle Portion of HSU-2, 1995	5.23
5.14	Concentration Contour Plot - Nitrate in HSU-1, 1995	5.25

5.15 Concentration Contour Plot - Nitrate in Upper Portion of HSU-2, 1995 ..... 5.27
5.16 Concentration Contour Plot - Nitrate in Middle Portion of HSU-2, 1995 ..... 5.29
5.17 Concentration Contour Plot - Hexavalent Chromium in HSU-1, 1995 ..... 5.31
5.18 Concentration Contour Plot - Hexavalent Chromium in Upper Portion of HSU-2, 1995 ..... 5.33
5.19 Concentration Contour Plot - Hexavalent Chromium in Middle Portion of HSU-2, 1995 ..... 5.35
5.20 Concentration Contour Plot - Tritium in HSU-1, 1995 ..... 5.37
5.21 Concentration Contour Plot - Tritium in Upper Portion of HSU-2, 1995 ..... 5.39
5.22 Concentration Contour Plot - Tritium in Middle Portion of HSU-2, 1995 ..... 5.41
5.23 Stiff Diagram Map - Groundwater Chemistry at Monitoring Wells 5.43
5.24 Stiff Diagrams - HSU-1 Wells, Mean 1990 - 1995 ..... 5.45
5.25 Stiff Diagrams - HSU-2 Wells, Mean 1990 - 1995 ..... 5.47
6.1 Chloroform Concentrations in Surface Water Samples, 1995 ..... 6.6
6.2 Total Trihalomethane Concentrations in Surface Water Samples, 1995 ..... 6.6
6.3 Tritium Concentrations in Surface Water Samples, 1995 ..... 6.7
6.4 Nitrate Concentrations in Surface Water Samples, 1995 ..... 6.7
6.5 Total Dissolved Solids in Surface Water Samples, 1995 ..... 6.8
6.6 Surface Water Monitoring Locations Mean 1990 - 1995 ..... 6.9
7.1 Statistical Test Selection Flow Chart 7.8
8.1 Putah Creek Ammonia-Nitrogen 8.2
8.2 Concentrations of Nitrogen-Containing Compounds in UC Davis Wastewater Treatment Plant Outfall 8.3

Tables

2.1 Groundwater Monitoring Parameters and Schedule for LEHR Site Beginning Summer 1995 . . . . . 2.15
2.2 Summary of Water Monitoring - February through December 1995 . . . . . 2.16
2.3 Analytical Constituents for Groundwater Samples 2.18
2.4 Analytical Constituents for Surface Water 2.19
2.5 Analytical Constituents for Storm Water Runoff Samples 2.20
2.6 Water Monitoring Constituents and Analytical Methods 2.21
3.1 Quality Control Sample Evaluation Criteria 3.3
3.2 Relative Percent Difference for Field Duplicates, Groundwater, Winter Quarter 1995 . . . . . 3.15
3.3 Relative Percent Difference for Field Duplicates, Groundwater, Spring Quarter 1995 . . . . . 3.16
3.4 Relative Percent Difference for Field Duplicates, Groundwater, Summer Quarter 1995 . . . . . 3.17
3.5 Relative Percent Difference for Field Duplicates, Groundwater, Fall Quarter 1995 . . . . . 3.18
3.6 Relative Percent Difference for Field Duplicates, Groundwater, Surface Water, Winter Quarter 1995 . . . . . 3.19
3.7 Relative Percent Difference for Field Duplicates, Groundwater, Surface Water, Spring Quarter 1995 . . . . . 3.20
3.8 Relative Percent Difference for Field Duplicates, Groundwater, Surface Water, Summer Quarter 1995 . . . . . 3.21
3.9 Relative Percent Difference for Field Duplicates, Groundwater, Surface Water, Fall Quarter 1995 . . . . . 3.22
3.10 Relative Percent Difference for Field Duplicate, Storm Water Runoff, Winter Quarter 1995 . . . . . 3.23
3.11 Samples Matrix Spike and Duplicate Results Ranges of Accuracy and Precision . . 3.24
3.12 Analytical Laboratory Control Sample Spike Results Ranges of Accuracy 3.27
3.13 Summary of Detections in Trip Blanks 3.31
4.1 Hydrogeologic Contracts in the LEHR Site Wells 4.55
4.2 Comparison of HSU-1 Lateral Hydraulic Head Gradient and Groundwater Flow Direction Determinations at the LEHR Site for Four 1995 Water-Level Measurement Surveys 4.56
4.3 Comparison of HSU-2 Lateral Hydraulic Head Gradient and Groundwater Flow Direction Determinations at the LEHR Site for Four 1995 Water-Level Measurement Surveys 4.56
4.4 Screened Intervals for Well Pairs 4.57
4.5 Screened Intervals for the Westbay Well 4.57
5.1 Numbers of Detections, Positive Results, and Maximum Values in Groundwater, 1995 . . . . . 5.49
5.2 Summary of Detected Constituents in Groundwater, 1995 - Volatile Organics 5.51
5.3 Summary of Detected Constituents in Groundwater, 1995 - Semivolatile Organic Compounds 5.68

5.4 Summary of Detected Constituents in Groundwater, 1995 - Pesticides and PCBS 5.77
5.5 Summary of Detected Constituents in Groundwater, 1995 - Metals 5.81
5.6 Summary of Detected Constituents in Groundwater, 1995 - Radiochemicals 5.98
5.7 Summary of Detected Constituents in Groundwater, 1995 - Anions and Cations 5.113
5.8 Summary of Detected Constituents in Groundwater, 1995 - Other Parameters 5.121
5.9 Major Ion Chemistry - LEHR Facility 5.125
5.10 Major Ion Chemistry - LEHR Facility 5.126
6.1 Number of Detections, Positive Results, and Maximum Values in Surface Water, 1995 . . . . . 6.10
6.2 Summary of Detected Constituents in Surface Water and Storm Water, 1995, Volatile Organics 6.11
6.3 Summary of Detected Constituents in Surface Water and Storm Water, 1995, Semivolatile Organic Compounds 6.16
6.4 Summary of Detected Constituents in Surface Water and Storm Water, 1995, Pesticides and PCBs 6.19
6.5 Summary of Detected Constituents in Surface Water and Storm Water, 1995, Metals 6.21
6.6 Summary of Detected Constituents in Surface Water and Storm Water, 1995, Radiochemicals 6.26
6.7 Summary of Detected Constituents in Surface Water and Storm Water, 1995, Anions and Cations 6.31
6.8 Summary of Detected Constituents in Surface Water and Storm Water, 1995, Other Parameters 6.34
6.9 Surface Water Major Ion Chemistry 6.36
6.10 Surface Water Change Balance 6.37
7.1 Summary of Samples and Detects for Two-Year Background and 1995 Downgradient Samples 7.9
7.2 Parameters with at Least One Downgradient Result Above the Detection Limit 7.17
7.3a Percent of Results Exceeding UTL in Downgradient HSU-1 Wells During 1995 . . . . . 7.19
7.3b Percent of Results Exceeding UTL in Downgradient HSU-2 Wells During 1995 . . . . . 7.20
7.4a Probability the Results in Downgradient HSU-1 Wells During 1995 Could Be from Background 7.21
7.4b Probability the Results in Downgradient HSU-2 Wells During 1995 Could Be from Background 7.22
7.5 Parameters Above Detection Limit and Significantly Different from Background 7.23
7.6 Regulatory Significance of Parameters That Exceeded Background 7.24

List of Acronyms and Abbreviations

as P	as phosphorus
as N	as nitrogen
bgs	below ground surface
CLP	(U.S. Environmental Protection Agency) Contract Laboratory Program
CLP SOW OLC	USEPA Contract Laboratory Program Statement of Work for Low Concentrations for Organic Analysis
CLP SOW OLM	USEPA Contract Laboratory Program Statement of Work for Organic Analysis Multi-media, Multi-concentration
CPT	cone penetrometer test
CQA	Coordinator of Quality
CRDL	contract required detection limit
DOE	(U.S.) Department of Energy
DQO	data quality objectives
DWR	(State of California) Department of Water Resources
EC	Electrical Conductivity
Eh	Redox Potential
FS	Feasibility Study
GC	gas chromatograph
GC/MS	gas chromatograph/mass spectrometer
HSU	hydrostratigraphic unit
IDL	instrument detection limit
ILC SOW	Statement of Work for Low Concentration Water Inorganics (USEPA Contract Laboratory Program)
LAS	Lockheed Analytical Services (Standard Operating Procedure)
LEHR	Laboratory for Energy-Related Health Research
MCL	Maximum Contaminant Level
MDA	Minimum Detectable Activity
mg/L	milligrams per liter
NIOSH	National Institute for Occupational Safety and Health
NTU	nephelometric turbidity unit
PARCC	precision, accuracy, representativeness, completeness, and comparability
PCB	polychlorinated biphenyls
PCD	Putah Creek Downstream
pCi/L	picocurie per liter
PCU	Putah Creek Upstream
PNL	Pacific Northwest Laboratory
PQL	practical quantitation limit

QA	quality assurance
QAPjP	Quality Assurance Project Plan
QAPP	Quality Assurance Program Plan
QC	quality control
RI/FS	Remedial Investigation/Feasibility Study
RPD	relative percent difference
SOW	Statement of Work
STPO	Wastewater treatment plan outfall
SVOC	semivolatile organic compound
SWAT	Solid Waste Assessment Test
TDS	total dissolved solids
TEM	transient electromagnetics
TIC	tentatively identified constituents
TKN	Total Kjeldahl Nitrogen
UC	University of California
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UTL	upper tolerance limit
μg/L	micrograms per liter

1.0 Introduction

This 1995 Annual Water Monitoring Report presents analytical data collected between January 1995 and December 1995 at the Laboratory for Energy-Related Health Research (LEHR) located at the University of California (UC), Davis (Figure 1.1). This report has been prepared in compliance with the Water Monitoring Plan (PNL 1994) as revised for the LEHR site. The Water Monitoring Plan presents the sample collection, analysis, and quality assurance/quality control (QA/QC) procedures and reporting requirements for the water monitoring program. Water monitoring during 1995 was conducted in conjunction with the Remedial Investigation/Feasibility Study (RI/FS) currently being implemented at the LEHR site as part of a U.S. Department of Energy (DOE)-sponsored environmental restoration program. A detailed description of the RI/FS program being conducted at the LEHR site is presented in the Final Draft RI/FS Work Plan (DOE 1994a).

The Water Monitoring Plan (PNL 1994 and revisions) and this report are intended to comply with the DOE General Environmental Protection Program presented in DOE Order 5400.1. This Order specifies the purpose, scope, policy, and responsibilities for environmental protection and includes environmental monitoring and surveillance programs at all DOE facilities. This Order also specifies that water monitoring programs conducted by DOE will conform with federal, state, and local regulations.

1.1 Purpose and Objectives

The purpose of the water monitoring program at the LEHR site is to monitor the presence or absence of constituents of concern in groundwater and surface water and changes in their concentrations (or movement) with time. As stated in the Water Monitoring Plan (PNL 1994), the purpose of this 1995 Annual Water Monitoring Report is to present a more detailed analysis of the results contained in the 1995 quarterly data transmittals (PNL 1995a, 1995b) and a statistical evaluation of the data. The specific objectives of this report are to

- present an evaluation and discussion of water monitoring data for groundwater and surface water samples collected during 1995
- discuss changes in the hydrogeological conceptual model
- present data validation methods and results in relation to QA criteria
- identify data gaps and potential deficiencies in the water monitoring program
- evaluate the presence of constituents of concern in downgradient wells in relation to background wells

- evaluate the presence of constituents of concern at surface water and storm water sampling locations.

This report is based on water monitoring data collected during the winter, spring, summer, and fall quarters of 1995.

1.2 Organization of Report

The organization of this report was developed based on the following documents:

- the Water Monitoring Plan (PNL 1994 and revisions)
- the 1994 Annual Water Monitoring Report for the LEHR site (DOE 1995)
- the document entitled "Long Term Ground Water Monitoring Program Guidance" (California Base Closure Environmental Committee 1994).

Groundwater investigation background material, including the history, objectives, and results of site investigations and water monitoring, is described in the remainder of Section 1. Section 2 describes the development of groundwater, surface water, analytical, and QA/QC programs conducted during 1995. Data validation methods and results are presented and discussed in relation to QA criteria in Section 3. Section 4 presents a discussion of the hydrogeologic setting and includes an update of the LEHR site conceptual hydrogeologic model. Section 4 also discusses horizontal and vertical groundwater gradients observed during 1995, including water level elevation contour maps and hydrographs of water level elevations and vertical gradients for well pairs.

Section 5 contains an evaluation and discussion of water monitoring data for groundwater samples collected during 1995 using summary tables, graphical illustrations, and Stiff diagrams for major anions and cations. In addition, summary tables of all historical measurements are provided for selected constituents. Similar tabular and graphical presentations support the discussion of surface water and storm water monitoring results in Section 6. Section 7 presents an evaluation of the constituents of concern in downgradient wells in relation to background wells based on applicable statistical comparisons. Section 8 presents an evaluation of data gaps and potential deficiencies in the monitoring program. References cited are listed in Section 9.

Five appendixes accompany this report. Appendix A contains tables of analytical data for groundwater samples collected during 1995. Appendix B presents tables of 1995 surface water and storm water analytical data. Appendix C provides historical data tables for each well and each analyte that has been regularly detected in at least one well. New wells are not included in Appendix C because they have been sampled only once. Appendix D presents the groundwater, surface water, analytical, and QA/QC programs conducted during fall quarter 1995; groundwater elevation data, presented as a cumulative table, hydrographs, and contour maps, are included in Appendix E.

1.3 Project Overview

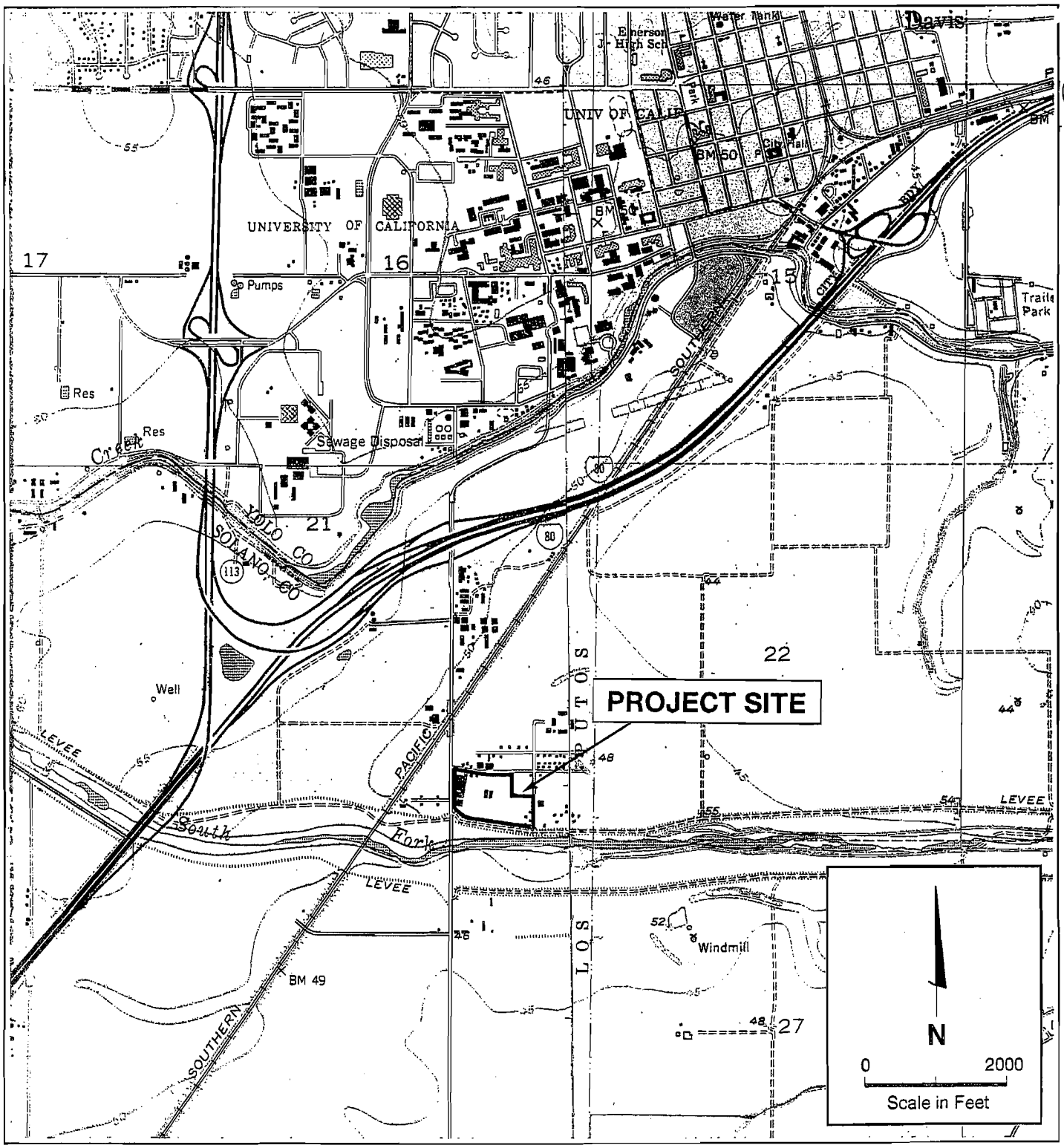
DOE funded research on laboratory animals at the LEHR site from 1960 until 1985. As a result of these studies, a variety of laboratory wastes, including radioactive, organic, and inorganic materials, were generated and disposed onsite. Portions of the site were previously used as the UC Davis landfill, which included two disposal units. A third disposal unit is located approximately 600 feet east of the site. These disposal units total approximately six acres (Dames & Moore 1990a).

Additional waste management areas at the LEHR site include DOE and UC Davis disposal trenches, outdoor dog pens, domestic septic tanks, and radiologic effluent treatment systems. Impacts from these disposal and chemical dispensing areas have been evaluated during previous investigations or will be evaluated during the RI/FS program. Detailed descriptions of known waste-generating and disposal processes are included in the *Environmental Survey Preliminary Report* (DOE 1988). A discussion of potential environmental impacts at the LEHR site is presented in the Phase II Site Characterization Report (Dames & Moore 1993) and the Draft RI/FS Work Plan (DOE 1994a).

The DOE and UC Davis have sponsored 11 environmental evaluations at the LEHR site and adjacent landfills. Two surveys, the initial Assessment Survey (Rockwell 1984) and the Environmental Survey Preliminary Report (DOE 1988), documented the potential environmental impacts from past operations at the LEHR site. The Phase I investigation (Wahler 1988, 1989) was an initial investigation of environmental impacts from past LEHR activities.

Two additional studies, the *Solid Waste Assessment Test* (SWAT) investigation (Dames & Moore 1990a) and the *Old UC Davis Landfill Additional Characterization* (Dames & Moore 1991a), addressed potential impacts from the former UC Davis landfill. A *Contaminant Pathway Analysis* was conducted to assess health risk exposure from the LEHR site on the main UC Davis campus (Dames & Moore 1990b). Other environmental evaluations include the following: *Evaluation of Potential Nitrate and Hexavalent Chromium Sources* (Dames & Moore 1990c); *Waste Burial Trench Investigation* (Dames & Moore 1991b); *Sediment and Surface Water Sampling in the South Fork of Putah Creek* (Dames & Moore 1990d); and *CEQA Preliminary Study for Characterization* (Dames & Moore 1991c), which provided a summary of the previous investigations and presented results of additional soil and groundwater investigations at the LEHR site. A more comprehensive study for the LEHR site was presented in the *Phase II Site Characterization* (Dames & Moore 1993).

The purpose of the RI/FS being conducted at the LEHR site is to develop the appropriate amount of information to support an informed risk management decision regarding the most appropriate remedial actions. This information includes data obtained from the Water Monitoring Program.



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

Figure 1.1. LEHR Site Vicinity Map

Executive Summary

This 1995 Annual Water Monitoring Report presents analytical data collected between January and December 1995 at the Laboratory for Energy-Related Health Research (LEHR) located at the University of California (UC), Davis. This report has been prepared by Pacific Northwest National Laboratory[(a)] in compliance with the Water Monitoring Plan for the LEHR site, which contains the sample collection, analysis, and quality assurance/quality control procedures and reporting requirements. Water monitoring during 1995 was conducted in conjunction with the Remedial Investigation/Feasibility Study currently being implemented at the LEHR site as part of a U.S. Department of Energy (DOE)-sponsored environmental restoration program. The Water Monitoring Plan and this report are intended to comply with DOE Order 5400.1, General Environmental Protection Program.

The 1995 water monitoring program continued the basic program from 1994 with two major changes. First, the sampling and analytical schedule for the 18 monitoring wells in the program was modified; second, five new monitoring wells were constructed and added to the monitoring program.

Based on a review of historical groundwater monitoring data compiled since the fall of 1990, the list of analytes included in the program was reduced and the schedule for analyzing the remaining analytes was revised. The revision was implemented for the first time in the summer monitoring period. Analytes eliminated from the program were those that were 1) important for establishing baseline groundwater chemistry (alkalinity, anions, Eh, total organic carbon, and chemical oxygen demand); 2) important for establishing sources of contamination (ammonia); 3) not detected in water samples or not from the LEHR site (formaldehyde, ammonia, total kjeldahl nitrogen); and 4) duplicates of another measurement (laboratory turbidity). Reductions in the analytical schedule were based on the monitoring history for each well; the resultant constituents of concern list was developed for individual wells. Depending on its importance in a well, each analyte was analyzed quarterly, semi-annually, or annually.

Because specific wells are not monitored for every analyte every quarter, monitoring results must be evaluated quickly to determine whether the current quarter's sampling results follow historical trends. If not, the sampling schedule must be adjusted to ensure the specific well and analyte are included in the next sampling period (if they are not automatically included).

Groundwater elevation data were assessed by compiling groundwater elevation hydrographs and elevation contour plots to establish generalized flow conditions. This analysis supports previous conclusions that the uppermost water-bearing zone can be

---

(a) Pacific Northwest National Laboratory is operated for the U.S. Department of Energy by Battelle under Contract DE-AC06-76RLO 1830.

separated into two hydrostratigraphic units (HSUs). Groundwater flow directions were similar to those reported previously, but water levels were much higher in 1995 than in 1994. During 1995, the lateral gradient in HSU-1 was toward the east with a slight northerly component. A water table mound appeared in the winter of 1995, but it dissipated quickly. The lateral gradient in HSU-2 continues to be consistently toward the east, with a slight northerly component. The vertical gradient between HSU-1 and HSU-2 reversed direction, as reported in previous years. Groundwater flow was downward during the winter through summer period as the water table was falling; this gradient switched to upward following the summer irrigation season.

The geology in the vicinity of the LEHR site was characterized during the Phase II Site Characterization. The lithologic data collected as part of this effort are consistent with the hydrogeologic model developed during the Phase II Characterization.

For this report, approximately 14,000 analytical values were reviewed with respect to data quality objectives stated in the Water Monitoring Plan for the LEHR site. The data were reviewed using validation procedures described in this plan. After evaluation for quality, the data were accepted if they met the precision, accuracy, representativeness, and completeness goals.

A statistical analysis was conducted on analytical results from 1995 groundwater samples (Section 7.0). The purpose of this analysis was to compare data from downgradient wells with data from background wells to evaluate impacts to groundwater in the vicinity of the LEHR site. Data for HSU-1 and HSU-2 were evaluated separately. Based on the results of the statistical analyses, concentrations of nitrate, total chromium, hexavalent chromium, and barium were concluded to be significantly higher at the 95% confidence level in most downgradient wells than established background concentrations for both HSUs. Other constituents, including arsenic, selenium, chloroform (and several other volatile organic compounds), carbon-14, tritium, and the pesticide dieldrin, were found at concentrations exceeding background concentrations at the 95% confidence level in only a few wells. These parameters appear to be located beneath a small or localized portion of the site; results are similar to those reported for 1994.

Chloroform, acetone, and methylene chloride were reported in surface water samples collected at the LEHR site in 1995. The remaining volatile organic compounds were reported only sporadically in surface water. Acetone and methylene chloride are routinely found in laboratory samples as a result of laboratory contamination, but methylene chloride has never been detected in upstream samples and is regularly detected in STPO samples. The only semivolatile organic compounds detected in 1995 surface water or storm water sampling were phthalate compounds attributed to laboratory contamination. Several metals were reported above maximum concentration levels in surface water and storm water samples. No radionuclides were reported in downstream surface water in concentrations exceeding upstream levels. Ammonia and nitrate were found in STPO samples at concentrations well above background, causing downstream samples to have elevated levels of these constituents also.

2.0 1995 Water Monitoring Program

Groundwater and surface water monitoring at the LEHR site began under the Phase II Site Characterization in November 1990 and, until 1995, consisted of quarterly sampling and analysis of groundwater and surface water and weekly groundwater level sounding. The Phase II water monitoring program, developed initially by UC Davis and DOE, was modified in the second half of 1995 so that a specific list of analytes and their sampling frequency was identified for each well. As a result, some analytes were eliminated from the program, while others were measured in specific wells in selected quarters. In addition, water levels were monitored monthly, and five new wells were drilled and added to the monitoring system. Since November 1990, monitoring has been conducted for DOE under the management of Pacific Northwest National Laboratory (PNNL).[a]

The following sections describe water monitoring activities conducted during the winter through fall quarters of 1995. Water monitoring locations are shown in Figure 2.1. Section 2.1 presents a brief description of the groundwater monitoring program; the surface water monitoring program, including storm water monitoring, is described in Section 2.2; and Section 2.3 presents a summary of the analytical program. A detailed description of groundwater and surface water monitoring procedures can be found in the Water Monitoring Plan (PNL 1994).

2.1 Groundwater Monitoring

The 1995 water monitoring program at LEHR was the same as that of 1994 for the first half of the year; groundwater samples were collected, field measurements were made, and samples were analyzed in the laboratory. All wells in the monitoring program were sampled each time, and samples from each well were analyzed for a complete set of analytes. In June 1995, DOE, UC Davis, and regulatory personnel agreed to modify the program to include fewer analytes and to sample wells at a reduced frequency, depending on the history of each well. The revised program applied to the 18 wells in the monitoring network and was implemented in the summer quarter. The modified sampling program is presented in Table 2.1, at the end of Section 2. During the summer and early fall, five additional monitoring wells were drilled. These wells were sampled for the first time as part of the monitoring program during the fall quarter 1995.

As described in previous annual reports, the wells are all completed within the uppermost aquifer beneath the LEHR site. The upper aquifer consists of 1) a fine-grained sequence called hydrostratigraphic unit one (HSU-1), which extends from the water table to approximately 80 feet below ground surface (bgs); and 2) a coarse-grained sequence that extends from 80 feet to about 135 feet bgs, called HSU-2. The upper aquifer is

---

(a) Pacific Northwest National Laboratory is operated by Battelle for the U.S. Department of Energy under Contract DE-AC06-76RLO 1830.

bounded below by a thick clay sequence that acts as an aquitard between the upper and the second aquifers. Sediments in HSU-1 were deposited as discontinuous bands with alternating fine and coarse-grained materials. Because of the lateral discontinuity of the layers, HSU-1 is characterized by a low transmissivity and poor water-supply production capability. HSU-2, on the other hand, has a much higher transmissivity than HSU-1. The upper boundary of the first aquifer is the water table, which has fluctuated seasonally in the past from about 35 to 70 feet bgs. During 1995, the water table was high because of the high amount of precipitation in the winter and spring and fluctuated from a spring high of about 28 feet bgs to a summer low of about 48 feet bgs (based on UCD1-20). The hydrogeology of the site is discussed in more detail in Section 4.0.

At the start of 1995, the monitoring network included 13 wells completed in HSU-1 and five wells completed in HSU-2. Five other existing wells (UCD1-3, UCD1-5, UCD1-6, UCD1-8, and UCD1-9), are generally dry and are not included in the sampling network. They are used to measure water levels if the water table is sufficiently high to reach the screened interval in the wells. Well specifications and the 1995 sampling history for each well are presented in Table 2.2. Well UCD1/2-27 was completed with a Westbay monitoring system in which seven different screened zones can be sampled. This well was constructed to determine the nature of groundwater chemistry as a function of vertical position in the upper aquifer. Three of the seven sample zones are in HSU-1 and four are in HSU-2, as indicated by the number designation in the well name. Wells with a "1" after the UCD designation (e.g., UCD*1*-20) are completed in HSU-1, and wells with a "2" are completed in HSU-2 (e.g., UCD*2*-14). Figures 2.2 and 2.3 show these well locations. Two wells, UCD1-18 and UCD2-17, are located upgradient of the LEHR site and are considered background wells for HSU-1 and HSU-2, respectively. New wells UCD1-34 and UCD2-35 are located immediately south of the LEHR site and are also considered upgradient wells, but have not been designated background wells.

2.2 Surface Water and Storm Water Monitoring

The existing surface water monitoring program at the LEHR site began in November 1990 and is conducted at three locations along the South Fork of Putah Creek (see Figure 2.4). Surface water samples are collected quarterly in conjunction with groundwater monitoring from three sampling points: point PCU, located upstream of the LEHR site; point PCD, located downstream of the LEHR site and UC Davis property; and point STPO, located at the outfall of the UC Davis wastewater treatment plant, which discharges into the South Fork of Putah Creek between points PCU and PCD, upstream of the LEHR site. The outfall is located approximately one mile from the UC Davis wastewater treatment plant on the main campus. A listing of surface water samples collected during 1995 is provided in Table 2.2.

Storm water runoff monitoring at the LEHR site began in the fall of 1994. Storm water samples are scheduled to be collected twice each year—once at the beginning of the rainy season (fall or early winter) and once near the end of the rainy season (late winter or early spring). During 1995, storm water samples were collected only during the winter. Grab

samples were collected from two locations onsite during each event (Figure 2.5). One location, SWL-1, is the lift station located on the western edge of the site; the second location, SWL-2, is a storm drain located west of the western dog pens.

Storm water runoff at the site is collected in storm drains on the western portion of the site only. The runoff is directed to the lift station where it is pumped across Old Davis Road and channeled to Putah Creek. Rain water that lands on the remaining portions of the site either ponds and infiltrates or is directed to the UC Davis wastewater treatment plant.

2.3 Analytical Program

Tables 2.3, 2.4, and 2.5 summarize the requested chemical and radiological analyses of groundwater, surface water, and storm water runoff samples (respectively) collected during 1995 from the water monitoring locations discussed. Methods for each analysis are listed in Table 2.6. Water samples were collected according to procedures described in the Water Monitoring Plan (PNL 1994). Samples were shipped daily via Federal Express for overnight delivery to Lockheed Analytical Services (Lockheed) in Las Vegas, Nevada. Immediately upon receipt of the sample shipment, Lockheed documented the condition of the sample containers on the chain-of-custody form and faxed a copy to the task manager. If the condition of the sample was acceptable, Lockheed was given approval to begin analyses.

2.4 Quality Assurance/Quality Control Program

The overall quality assurance (QA) objective is to sample and analyze water from the LEHR site in a manner that ensures that technical data generated during the monitoring program are accurate and representative, able to withstand scientific and legal scrutiny, and useful for evaluating site conditions and remedial alternatives. The criteria commonly used to specify QA goals are precision, accuracy, representativeness, completeness, and comparability (PARCC). Precision is determined by analyzing and evaluating sample duplicates. Accuracy is determined by analyzing spiked samples. Representativeness is determined by evaluating the results of trip blanks, laboratory method blanks, blind duplicate samples, and laboratory duplicate samples. Comparability is achieved through standard sampling procedures, analytical methods, and units of measurement. Completeness is defined as the percentage of valid data relative to the total number of analytes.

An evaluation of the PARCC parameters is accomplished through data validation. The purpose of the data validation is to verify that data meet data quality objectives (DQOs) and QA criteria required for the water monitoring program, risk assessment, and the objectives set forth in the Quality Assurance Project Plan (QAPjP). The QAPjP is presented as

an appendix in both the Water Monitoring Plan (PNL 1994) and the Final Draft RI/FS Work Plan (DOE 1994a). A summary of data validation results is presented in Section 3.

One source surveillance of field activities and one laboratory audit were conducted by the LEHR QA Representative and a LEHR Technical Representative to verify compliance to the appropriate requirements during the reporting period. Both of these activities were performed in accordance with PNNL Quality Instruction QP-05, Revision 0, "Supplier and Hanford Contractor Audits." Details of each of these verification activities are described in the following paragraphs.

2.4.1 Source Surveillance

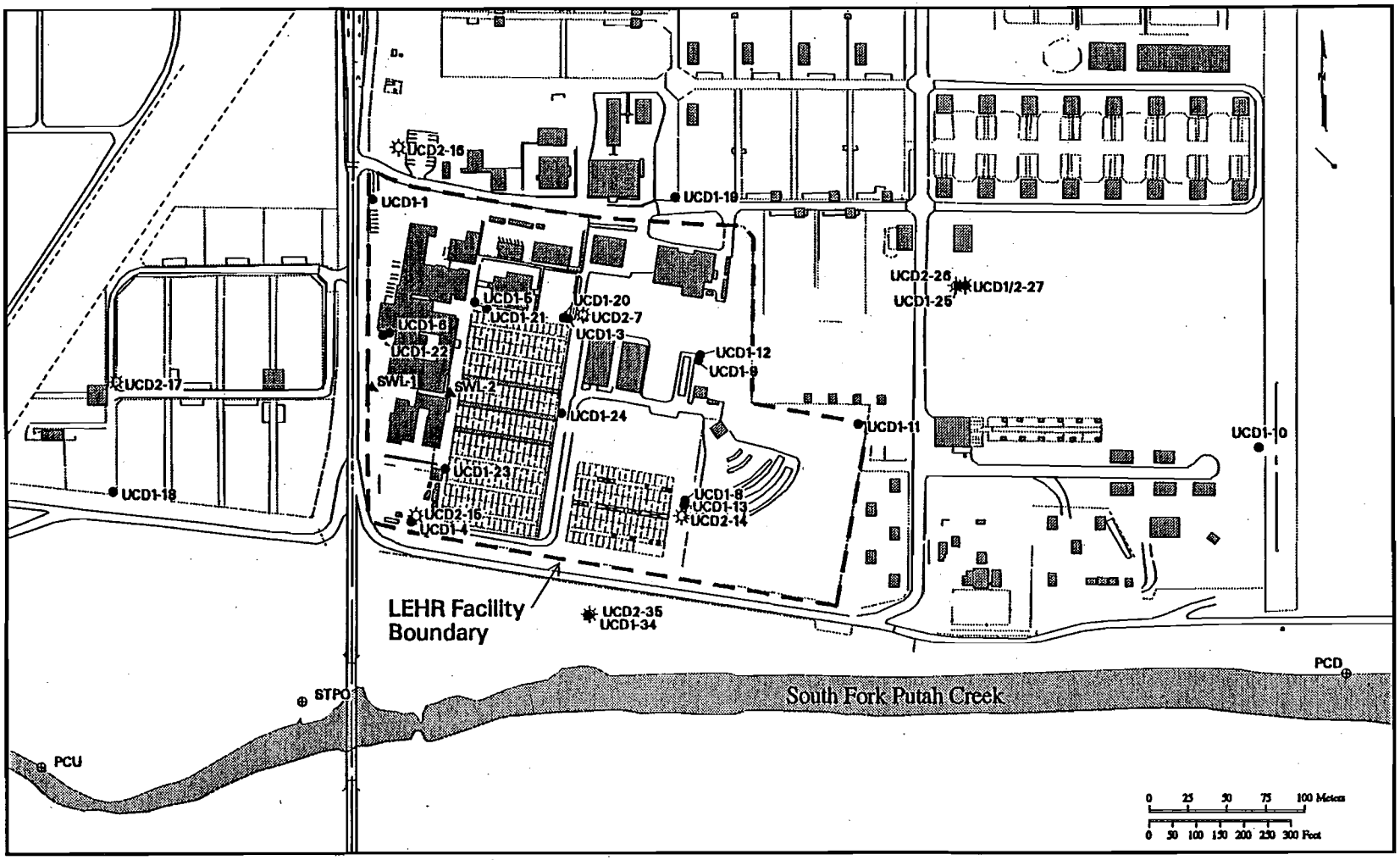
The source surveillance of field activities in support of the LEHR Groundwater Monitoring Program was performed December 4-5, 1995. The surveillance was based on the requirements delineated in the Amendment to Water Monitoring Plan as revised in August 1995.

During this source surveillance, three findings and two observations were identified. The two observations identified during the surveillance precipitated revisions to the Water Monitoring Plan. IT Corporation provided timely and appropriate corrective action responses to these findings and observations. Following verification of implementation of the corrective action through review of field memoranda by PNNL QA, the source surveillance was closed.

2.4.2 Laboratory Audit

An audit was conducted on December 6-7, 1995, to verify that Lockheed Analytical Services (LAS) has effectively implemented the PNNL QA requirements specified in the Novated Laboratory Services Agreement, Contract No. 241303-A-I8 for the LEHR project, and the QA requirements specified within the Lockheed Quality Assurance Management Plan, Revision 3, and applicable administrative and technical procedures.

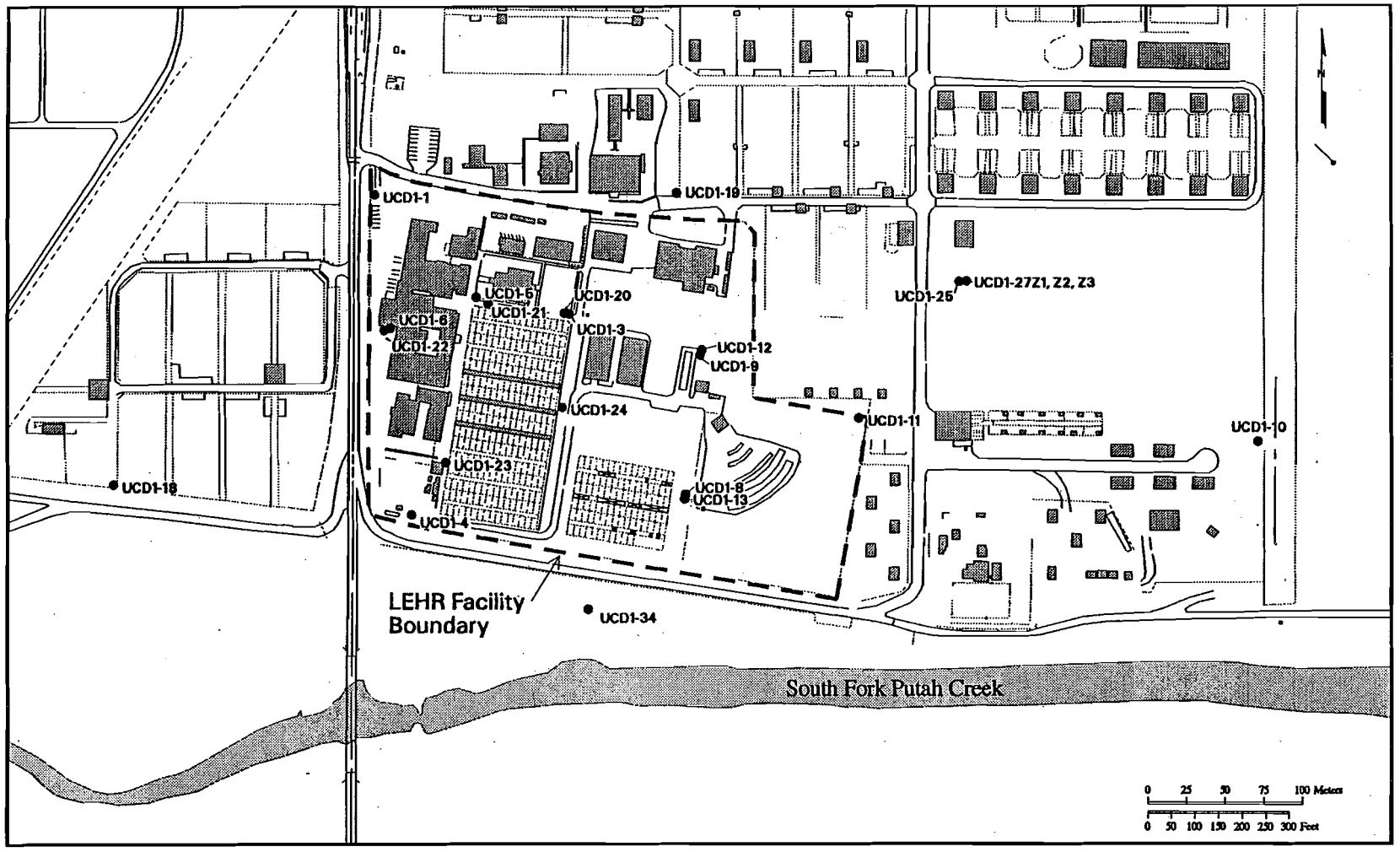
Seven findings and three observations were identified during the audit. Lockheed Analytical Services provided timely corrective action responses including evidence of completion in many cases. Following review of the corrective action responses and the evidence of completion submitted by Lockheed, the audit was closed.



EXPLANATION

- ● HSU–1 Monitoring Well
- ☼ HSU–2 Monitoring Well
- ⊕ Surface Water Monitoring Point
- ▲ Storm Water Runoff Monitoring Point

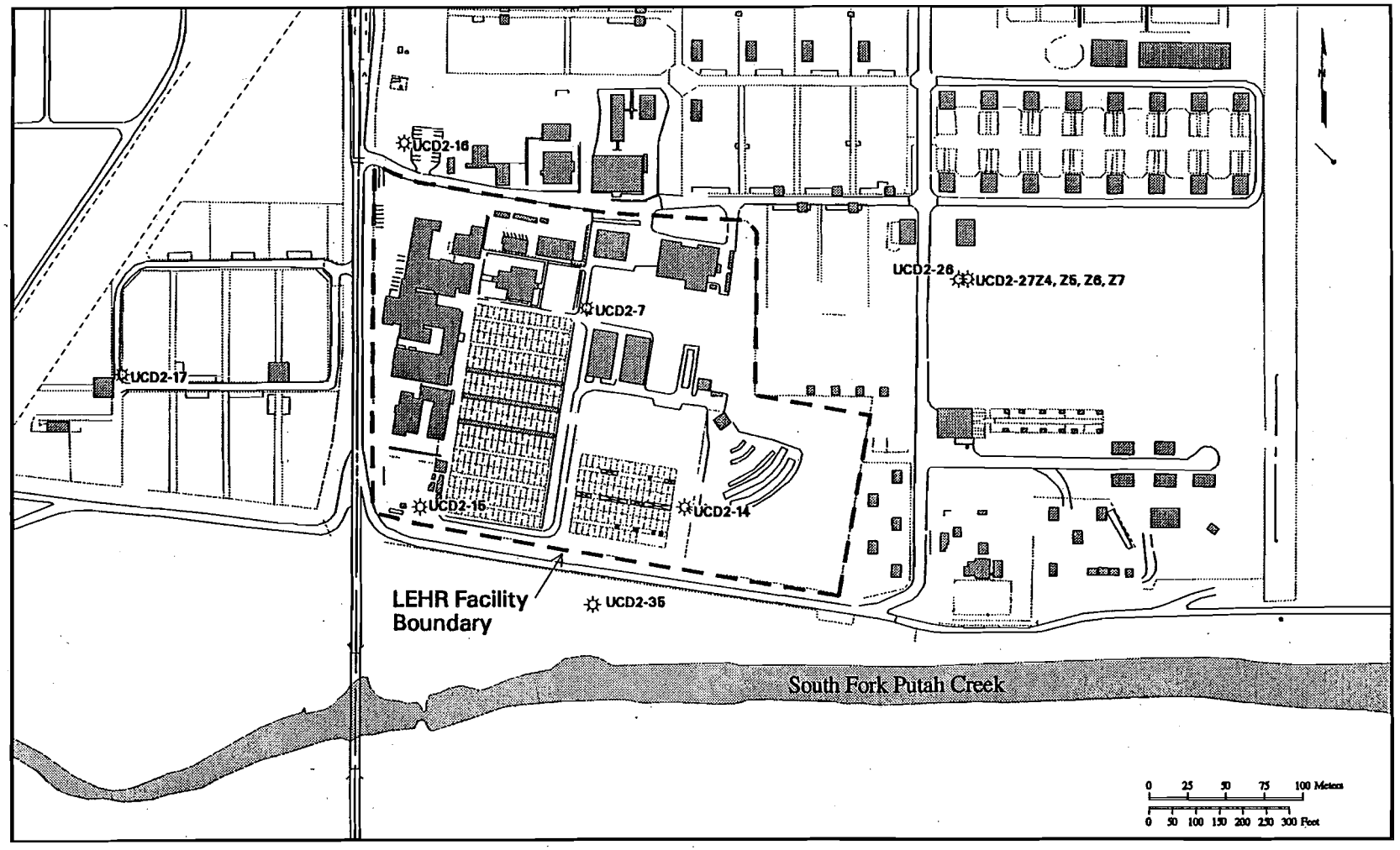
Figure 2.1. Location Map - Water Monitoring Points



EXPLANATION

- HSU–1 Monitoring Well

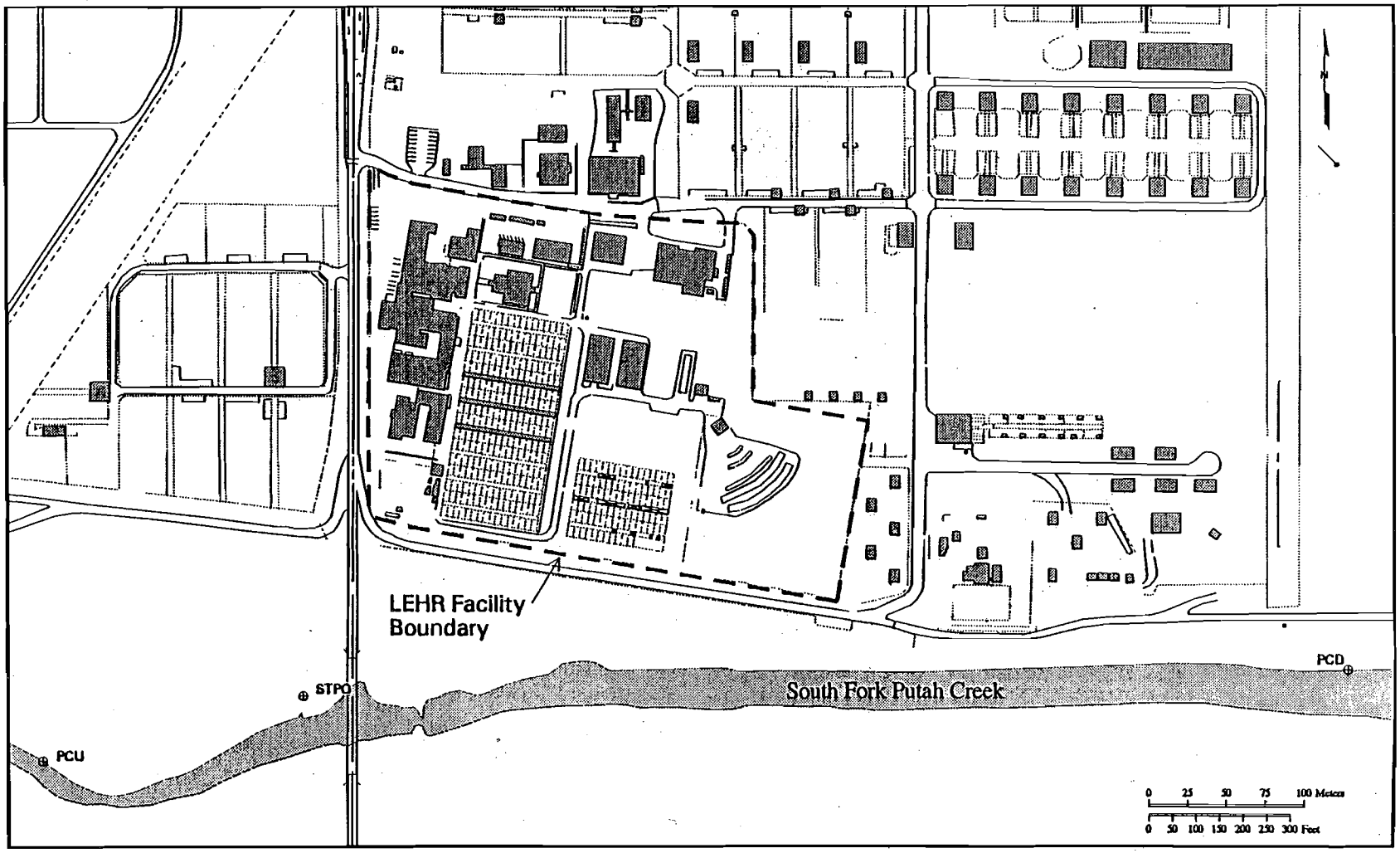
Figure 2.2. Location Map - HSU-1 Groundwater Monitoring Wells



EXPLANATION

☼ HSU–2 Monitoring Well

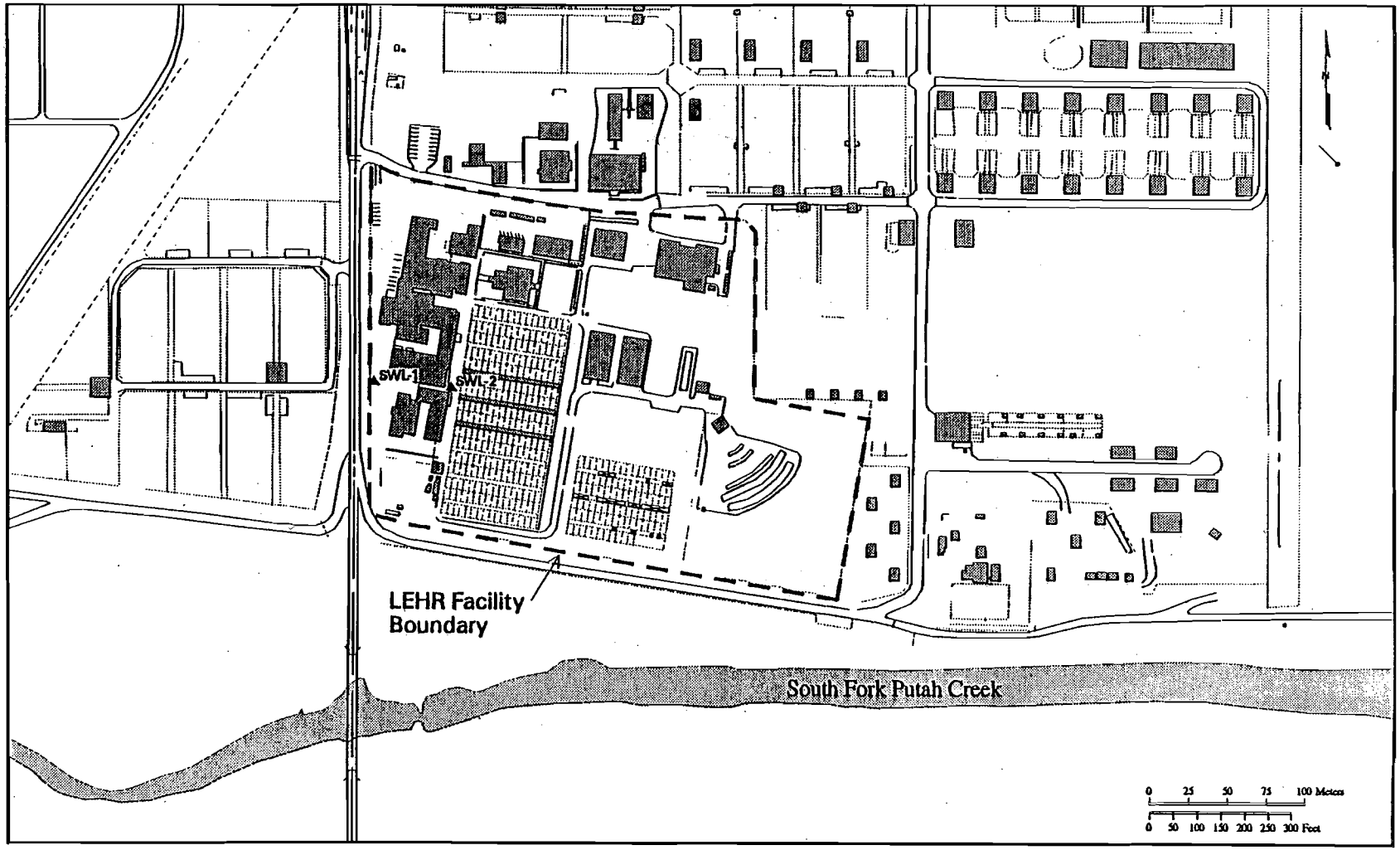
Figure 2.3. Location Map - HSU-2 Groundwater Monitoring Wells



EXPLANATION

⊕ Surface Water Monitoring Point

Figure 2.4. Location Map - Surface Water Monitoring Points



EXPLANATION

▲ Storm Water Runoff Monitoring Point

Figure 2.5. Location Map - Storm Water Runoff Monitoring Points

Table 2.1. Groundwater Monitoring Parameters and Schedule for LEHR Site Beginning Summer 1995[a]

	Analyte/Analysis															
	Radiological Analytes															
Well	Gamma	Tritium	C-14	Sr-90	Ra-226	Pu-241	Am-241	Gross beta	Gross alpha	VOCs[b]	SVOCs[c]	Metals	Nitrate	Chromium (hexavalent)	TDS	Pesticides & PCBs
UCD1-18	A	A	A	*	*	*	*	A	A	A	A	A	S	S	A	A
UCD1-1	*	*	*	*	*	*	*	*	*	*	*	*	S	S	*	*
UCD1-4	Q	Q	*	Q	Q	*	*	Q	Q	Q	A	A	Q	Q	Q	Q
UCD1-10	A	A	*	*	*	*	*	A	A	Q	A	A	Q	Q	Q	A
UCD1-11	A	A	*	*	*	*	*	A	A	A	*	A	S	S	A	A
UCD1-12	Q	Q	Q	Q	Q	*	*	Q	Q	Q	A	A	Q	Q	Q	Q
UCD1-13	Q	Q	Q	Q	Q	*	*	Q	Q	Q	A	A	A	Q	Q	Q
UCD1-19	A	A	*	*	*	*	*	A	A	A	*	A	A	Q	A	A
UCD1-20	S	S	S	S	S	*	*	S	S	A	A	A	A	S	A	A
UCD1-21	A	A	A	A	A	A	A	A	A	A	*	A	A	A	A	*
UCD1-22	S	S	*	S	S	S	S	S	S	*	*	*	*	*	S	*
UCD1-23	S	S	S	S	S	*	*	S	S	A	*	A	*	A	A	*
UCD1-24	A	A	A	A	A	*	*	A	A	A	*	A	A	A	A	A
UCD1-25	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
UCD1-34	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
UCD2-17	A	A	A	*	*	*	*	A	A	A	A	A	S	S	A	A
UCD2-7	S	S	S	S	S	*	*	S	S	A	*	A	S	S	A	A
UCD2-14	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	A	Q	Q	Q	Q	Q
UCD2-15	Q	Q	*	Q	Q	*	*	Q	Q	Q	A	A	Q	Q	Q	Q
UCD2-16	S	S	*	S	S	*	*	S	S	S	*	Q	S	Q	Q	*
UCD2-35	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
UCD2-26	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
UCD1/2-27[d]	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q

A = annual sampling (February); S = semi-annual sampling (February and August); Q = quarterly sampling (Feb., May, Aug., and Nov.,); * = sample not analyzed for constituent

(a) At each sampling event, samples are analyzed for pH, electrical conductivity, temperature, and turbidity in the field; water levels are measured before each sampling event.
(b) Volatile organic compounds.
(c) Semivolatile organic compounds.
(d) At well UCD1/2-27, two to seven intervals may be sampled, based on previous sampling results.

Table 2.2. Summary of Water Monitoring - February through December 1995

Well or Sample Location	Total Depth (feet bgs)	Screened Interval (feet bgs)	HSU	Date Completed	Winter 1995 2/14-2/23	Spring 1995 5/16-5/25	Summer 1995 8/23-8/31	Fall 1995 11/28-12/12
UCD1-1	56.5	46.5-56.5	1	10/09/87	S	S[a]	R	R
UCD1-4	57.2	45-55	1	10/14/87	S	S	R	R
UCD2-7	90	80-90	2	11/05/87	S[a]	S	R	-
UCD1-10	70.0	54-69	1	10/11/89	S	S	R	R
UCD1-11	66.5	50-65	1	10/17/89	S	S	R	-
UCD1-12	65.0	49.5-64.5	1	10/19/89	S	S	R[a]	R[a]
UCD1-13	65.0	50-65	1	10/26/89	S	S	R	R[a]
UCD2-14	85	75-85	2	11/15/89	S	S	R[a]	R
UCD2-15	120.5	91-116	2	03/28/90	S	S	R	R
UCD2-16	122	92-117	2	04/04/90	S	S	R	R
UCD2-17	143	88-113	2	04/10/90	S	S	R	-
UCD1-18	70	54-69	1	10/04/90	S[a]	S	R	-
UCD1-19	74.5	56.5-71.5	1	10/01/90	S	S[a]	R	R
UCD1-20	73	57-72	1	10/09/90	S	S	R	R
UCD1-21	73	57-72	1	10/11/90	S	S	-	-
UCD1-22	73	57-72	1	10/25/90	S	S	R	-
UCD1-23	73	56.5-71.5	1	10/17/90	S	S	R	-
UCD1-24	73	57-72	1	10/22/90	S	S	-	-
UCD1-25	75	60-75	1	10/6/95	-	-	-	R
UCD2-26	102	87-102	2	10/6/95	-	-	-	R

Table 2.2. (contd)

Well or Sample Location	Total Depth (feet bgs)	Screened Interval (feet bgs)	HSU	Date Completed	Winter 1995 2/14-2/23	Spring 1995 5/16-5/25	Summer 1995 8/23-8/31	Fall 1995 11/28-12/12
UCD1-27Z1	136	53-55	1	10/6/95	-	-	-	B
UCD1-27Z2	136	63-65	1	10/6/95	-	-	-	B
UCD1-27Z3	136	73-75	1	10/6/95	-	-	-	B
UCD2-27Z4	136	86-88	2	10/6/95	-	-	-	B
UCD2-27Z5	136	96-98	2	10/6/95	-	-	-	B
UCD2-27Z6	136	106-108	2	10/6/95	-	-	-	B
UCD2-27Z7	136	116-118	2	10/6/95	-	-	-	B
UCD1-34	80	61-76	1	10/6/95	-	-	-	R
UCD2-35	130	107-122	2	10/6/95	-	-	-	R
PCU	-	-	-	-	G	G[a]	G[a]	G
PCD	-	-	-	-	G	G	G	G[a]
STPO	-	-	-	-	G[a]	G	G	G
SWL-1	-	-	-	-	-	G[a,b]	-	-
SWL-2	-	-	-	-	-	G[b]	-	-

(a) Field duplicate sample collected.
(b) Storm water runoff samples collected.
B Sampled collected with a Westbay bailer. A revised suite of samples was obtained.
G Grab surface water or storm water sample.
R Well purged and sampled with a dedicated submersible pump. A revised suite of samples collected.
S Well purged and sampled with dedicated submersible pump. A full suite of samples was obtained.
- Not applicable.
Note: Wells UCD1-3, UCD1-5, UCD1-6, UCD1-8, UCD1-9 are not sampled as part of the quarterly monitoring program.

Table 2.3. Analytical Constituents for Groundwater Samples[a]

Field	Laboratory	
pH Electrical conductivity Temperature Turbidity [Eh] Water level	Volatile organic compounds Semivolatile organic compounds Radiologic analyses tritium, strontium-90, gross alpha, gross beta, gamma emitters, carbon-14, radium-226, americium-241, and plutonium-241 Pesticides and PCBs Metals antimony, arsenic, barium, beryllium, cadmium, cobalt, copper, iron, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium zinc	total chromium hexavalent chromium nitrate [ammonia] [TKN] [alkalinity] cations [anions] total dissolved solids [turbidity] [total organic carbon] [chemical oxygen demand] [formaldehyde]

(a) UCD1-1, UCD1-4, UCD2-7, UCD1-10, UCD1-11, UCD1-12, UCD1-13, UCD2-14, UCD2-15, UCD2-16, UCD2-17, UCD1-18, UCD1-19, UCD1-20, UCD1-21, UCD1-22, UCD1-23, UCD1-24, UCD1-25, UCD2-26, UCD1/2-27, UCD1-34, UCD2-35.

[ ] Parameter eliminated from the monitoring program starting summer quarter 1995.

Table 2.4. Analytical Constituents for Surface Water[a]

Field	Laboratory	
pH Electrical conductivity Temperature Turbidity [Eh] Approximate flow rate (obtained from Solano County Irrigation District)	Volatile organic compounds Semivolatile organic compounds Pesticides and PCBs Radiologic analyses tritium, strontium-90, gross alpha, gross beta, gamma emitters, carbon-14, radium-226, americium-241, plutonium-241 Metals antimony, arsenic, barium, beryllium, cadmium, cobalt, copper, iron, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium zinc	total chromium hexavalent chromium nitrate [ammonia] [TKN] [alkalinity] cations [anions] total dissolved solids [turbidity] [total organic carbon] [chemical oxygen demand] [formaldehyde]

(a) Collected at locations PCD, PCU, and STPO.
[ ] Parameter eliminated from the monitoring program starting summer quarter 1995.

Table 2.5. Analytical Constituents for Storm Water Runoff Samples

Field	Laboratory — Each Storm Event	
To be collected during two storm events per year from two locations[a]	To be collected during two storm events per year from two locations[b]	
pH Electrical conductivity Temperature Turbidity Eh	Volatile organic compounds Semivolatile organic compounds Pesticides and PCBs Radiologic analyses tritium, strontium-90, gross alpha, gross beta, gamma emitters, carbon-14, radium-226, americium-241, plutonium-241 Metals antimony, arsenic, barium, beryllium, cadmium, cobalt, copper, iron, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, zinc	total chromium hexavalent chromium nitrate ammonia alkalinity cations anions turbidity total suspended solids total dissolved solids total organic carbon total oil and grease formaldehyde

(a) SWL-1 and SWL-2
(b) After two years of monitoring (four events), parameters may be modified.

Table 2.6. Water Monitoring Constituents and Analytical Methods

Analyte Fraction	Analytical Parameter	Method Reference
VOCs	Target Compound List	CLP SOW OLC 02.0
SVOCs	Target Compound List	CLP SOW OLM 01.8
Pesticides/PCBs	Target Compound List	CLP SOW OLM 01.8
Metals	antimony	ILC SOW 2.0
	arsenic	ILC SOW 2.0
	barium	ILC SOW 2.0
	beryllium	ILC SOW 2.0
	cadmium	ILC SOW 2.0
	chromium (total)	ILC SOW 2.0
	chromium^{6+} (hexavalent)	USEPA 7196
	cobalt	ILC SOW 2.0
	copper	ILC SOW 2.0
	iron	ILC SOW 2.0
	lead	ILC SOW 2.0
	mercury	ILC SOW 2.0
	molybdenum	ILC SOW 2.0
	nickel	ILC SOW 2.0
	selenium	ILC SOW 2.0
	silver	ILC SOW 2.0
	thallium	ILC SOW 2.0
	vanadium	ILC SOW 2.0
	zinc	ILC SOW 2.0
Radiological	tritium	USEPA 906.0
	strontium-90	USEPA 905.0
	gamma spectral analysis	USEPA 901.1
	gross alpha	USEPA 9310
	gross beta	USEPA 9310
	carbon-14	USEPA C-01 M
	radium-226	USEPA 903.1
	americium-241	LAS 108
	plutonium-241	LAS 178
Miscellaneous organics	formaldehyde	Modified NIOSH 3500
	total organic carbon	415.2 (9060)
	total oil and grease	413.2

Table 2.6. (contd)

Analyte Fraction	Analytical Parameter	Method Reference
Miscellaneous inorganics	alkalinity, as $CaCO_3$	USEPA 310.1
	ammonia-nitrogen	USEPA 350.1 (350.2)
	anions	
	chloride	USEPA 300.0
	nitrate, as N	USEPA 300.0
	phosphate, total (as P)	USEPA 365.2
	sulfate	USEPA 300.0
	cations	
	calcium	USEPA 6010
	magnesium	USEPA 6010
	sodium	USEPA 6010
	potassium	USEPA 6010
	chemical oxygen demand	USEPA 410.1
	total dissolved solids	USEPA 160.1
	total suspended solids	USEPA 160.2
	total kjeldahl nitrogen (TKN)	USEPA 351.2
	turbidity	USEPA 180.1
Field parameters	pH	SOP 2.0
	turbidity	SOP 2.0
	temperature	SOP 2.0
	electrical conductivity (EC)	SOP 2.0
	redox potential (Eh)	SOP 2.0

VOCs - volatile organic compounds
SVOCs - semivolatile organic compound
PCBs - polychlorinated biphenyls

3.0 Quality Assurance and Data Validation Summary

Data validation was performed on analytical results received from Lockheed Analytical Services in Las Vegas, Nevada, for 1995 groundwater, surface water, and storm water runoff samples. As stated in Section 2, the purpose of the data validation is to verify that the data meet DQOs and QA criteria required for the water monitoring program and risk assessment as set forth in the QAPjP.

This section describes the methods and presents the results of the data validation. Section 3.1 presents the criteria used to review the DQOs for each PARCC parameter. Section 3.2 summarizes the data validation procedures. Section 3.3 presents an overall summary of the data validation results; data validation results for each analysis in relation to the PARCC parameters are discussed in Section 3.4.

3.1 Quality Assurance Criteria

Samples collected during the 1995 water monitoring program were analyzed and validated according to criteria established in the program's QAPjP. Included in the QAPjP are quality control sample collection requirements and specific QA goals for the measurement data. These QA goals, or DQOs, are quantitative and qualitative statements that specify the quality of data used to support project decisions. They are expressed in terms of precision, accuracy, representativeness, completeness, and comparability (PARCC) (see Table 3.1).

3.1.1 Precision

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

$$RPD = \frac{|A - B|}{\left[\frac{|A + B|}{2}\right]} \times 100$$

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

Sampling (field) Precision

Blind duplicate samples are collected and analyzed to evaluate the precision of the measurement systems and estimate the variability in the sampling process. The RPD has been calculated for those analyte pairs with at least one detection above the reporting limit. If the RPD between the duplicate sample results is greater than the 100% acceptance criteria as defined in the QAPjP, the system is considered to be out of

statistical control, and further investigation is initiated. As outlined in the QAPjP, one blind duplicate is collected for every 10 samples or matrix type. Thirteen blind duplicate samples were collected during 1995 from groundwater, surface water, and storm water runoff locations and analyzed for the various constituents that were outlined in Tables 2.3, 2.4, and 2.5. A summary of the field duplicate results is presented in Tables 3.2 through 3.10 at the end of Section 3.

Analytical Precision

Following recommended methodologies, sample duplicate and matrix spike duplicates are performed to estimate the precision in the analytical process. The required frequency for duplicate analysis is set forth in the analytical methods. Both sample and matrix spike duplicates assess matrix effects and analytical variability.

Specific acceptance criteria for each standard method and parameter measured have been established and outlined in the QAPjP. If the RPD between duplicate results falls outside the acceptance criteria, the analytical system is considered to be out of control, and other data quality results are reviewed to establish the validity of the data. Laboratory duplicates were prepared and analyzed for the various constituents that were outlined in Tables 2.3 through 2.5. A summary of the sample duplicate and matrix spike duplicate results is presented in Table 3.11.

3.1.2 Accuracy

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

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

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

Analysis of matrix or surrogate spikes and laboratory control spike samples are used to evaluate analytical accuracy. A matrix spike is a solution of method analytes (at known concentrations) that is added ("spiked") into a field sample before the sample is prepared for analysis. Laboratory control spike analyses have the same function as matrix spike analyses and differ only in that the spike solution is added to a laboratory blank sample rather than a field sample. The results of these spike sample analyses are used to measure the percent recovery of each spiked compound. This percent recovery is a measure of the accuracy of the method. Specific acceptance criteria have been established for each standard method and parameter measured and are outlined in the QAPjP.

Table 3.1. Quality Control Sample Evaluation Criteria

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

Surrogate spikes are compounds other than method analytes that have been selected for each organic compound analysis. The percent recovery is monitored to ensure adequate performance on a measurement-by-measurement basis. Surrogate spike recoveries are summarized for each sample analysis in the laboratory data packages. These recoveries are compared with specific acceptance criteria, which are outlined in the analytical methods. High surrogate recoveries indicate that reported results are higher than the actual concentrations of analytes in field locations; low surrogate recoveries may indicate that reported results are lower than actual concentrations.

The results of the sample matrix and surrogate recoveries and laboratory control spike samples are reviewed as part of the validation process. Results for sample matrix and laboratory control spike analyses are presented in Tables 3.11 and 3.12, respectively. The results are compared with the acceptable ranges established in the QAPjP to provide an indication of laboratory analytical performance.

3.1.3 Representativeness

Representativeness is a qualitative parameter that evaluates how the data represent the actual environmental conditions. Representativeness is determined by evaluating the results of trip blanks, laboratory method blanks, and blind duplicate samples.

Travel blanks were used to identify volatile organic compounds (VOCs) that might have been introduced during sample transit or storage at the laboratory. The blanks were supplied by Lockheed and returned each sampling day in the cooler used to transport samples for volatile analyses. Thirty two trip blank samples were collected and analyzed during the 1995 water monitoring program. The results of the trip blank samples are presented in Table 3.13 and discussed in Section 3.4.1.

Laboratory method blanks are used to demonstrate that all glassware and reagents used in the analytical procedure are free of interferences and compounds of primary interest. Each method blank is subjected to all laboratory procedures from sample preparation to quantitation. If an analyte is detected in a method blank, either an interference or contamination in the laboratory process is indicated. The required frequency for analyzing method blanks is specified in the standard operation procedure for each analytical method, at least one per day for each method/instrument and/or per sample preparation set. Laboratory method blanks are evaluated as part of the validation process. Identification of these compounds at similar concentrations in primary samples results in questionable data because of biases introduced by the analytical process.

Blind duplicate samples collected and analyzed for this program are evaluated to determine if results are similar in concentration to the primary sample data. Analyses of blind duplicate samples are also used to estimate precision in the sampling and analytical process (Section 3.1.1).

3.1.4 Completeness

Completeness is defined as the percentage of valid data compared with the total number of samples collected for analysis. Completeness is determined after precision and accuracy are calculated, and the results are compared with the DQOs. As outlined in the QAPjP, the objective for completeness for all measurements is 95%. The percentage of valid data is determined using the following equation:

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

Valid data are determined by comparing analytical results with a set of guidelines designed to establish defensibility and reliability of a given data result. Data that fall outside these criteria are labeled, or qualified, as rejected. Data that are determined to have limited usefulness, or that are indicative of bias, are qualified as estimated. Data that have been qualified as estimated are considered valid.

3.1.5 Comparability

Comparability is an expression of the confidence with which one data set can be compared with another. Comparability is achieved through standard sampling procedures, analytical methods, and units of measurement. Reported methodologies and quantitation limits are compared with those outlined in the QAPjP.

3.2 Data Validation Methods

Table 3.1 presents the criteria used to review DQOs for each PARCC parameter. These criteria include 1) a review of quality control (QC) samples collected in the field, 2) laboratory QC samples, and 3) analytical method performance. The field QC samples and analytical data reports were reviewed in accordance with validation procedures established in the QAPjP. Data validation procedures presented in the Water Monitoring Plan (PNL 1994) were applied to data collected during the water monitoring activities.

QC samples included field duplicates, trip blanks, laboratory method blanks, and control spikes. One field duplicate was collected for every 10 primary samples and evaluated to identify sources of error affecting the quality of the data. The locations of field duplicate samples were randomly selected during the planning stage for quarterly monitoring activities. Trip blanks were used to identify VOCs that might have been introduced during sample transit (to and from the field) or laboratory storage. One set of trip blanks was included in each shipment cooler containing samples for volatiles analysis. In addition, the laboratory analyzed a method blank and a method blank spike for each analytical batch to detect reagent contamination and proper instrument performance.

The three primary objectives of validation are 1) a review of sampling, analytical, and data reduction protocols for correctness, 2) a quantitative assessment of the measurement data validity, and 3) an assessment of data completeness. The project data validation procedures were designed to review each data set and identify biases inherent to the data, including assessment of laboratory performance, overall precision and accuracy, representativeness, and completeness.

A U.S. Environmental Protection Agency Contract Laboratory Program (CLP) or CLP-quivalent data package was obtained for samples collected during 1995. A CLP data package includes raw data generated during the analytical process along with the sample results. At a minimum, 10% of the laboratory data were randomly subjected to validation in accordance with the *USEPA National Functional Guidelines for Laboratory Data Review, Organics* (EPA 1991) and *Inorganics* (EPA 1989a). This level of validation included a detailed review of sample data and was performed along with a complete review of QC summary information provided by the laboratory. The remaining 90% of the laboratory data were reviewed using a subset of the National Functional Guidelines validation criteria described in the Water Monitoring Plan (PNL 1994). This review included an assessment of holding time violations, blank contamination, calibration, precision, and accuracy.

3.3 Summary of Data Validation Results

Samples collected during the 1995 water monitoring program were analyzed and validated according to criteria established in the program QAPjP. Included in the QAPjP are quality control sample collection requirements and specific DQOs for the measurement data. Data are evaluated and compared with these quality goals through data validation.

Validation discrepancies identified during the 1995 water monitoring program included equipment calibration failure, surrogate recovery problems, matrix biases, and holding time violations. The majority of the data associated with these anomalies have been flagged as estimated or not detected. Generally, such flags do not render the data unusable for their intended purpose.

There were few qualifications identified in the quality control data. Approximately 98% of the data were valid, satisfying the DQOs established for this program (see table below). The data collected during the 1995 rounds of groundwater, surface water, and storm water runoff sampling are considered valid as qualified and representative of actual conditions.

Summary of Data Validation of Scheduled Analyses

	Number of Field Samples Collected	Number of Constituents Requested	Number of Constituents Qualified	Number of Constituents Rejected	Percent of Valid Results
Volatile Organic Compounds	87	3,472	291	232	93
Semivolatile Organic Compounds	62	3,968	200	0	100
Pesticides/ Polychlorinated Biphenyl	82	2,296	495	0	100
Metals	94	1,441	43	0	100
Radionuclides	87	1,762	115	0	100
General Chemicals	188	1,389	62	45	97

The following sections present a summary of data validation results and their impact on the established DQOs in relation to the PARCC parameters. Analytical results for groundwater, surface water, and storm water samples collected during the 1995 water monitoring program are tabulated in Appendixes A and B. Data validation flags have been applied to those sample results that fell outside specified tolerance limits and therefore did not meet the program's DQOs. An explanation of the data flags is provided as a key to Appendixes A and B.

3.4 Data Validation Results by Chemical Group

3.4.1 Volatile Organic Compounds

The following sections discuss the results of the VOC analyses (CLP SOW OLC2.0) and provide an evaluation of the PARCC goals.

Completeness of Scheduled Analyses

Eighty-seven field samples were collected and submitted to the laboratory for VOC analyses, and data results were received for all samples scheduled for analyses. More than 93% of the results reported for VOC analyses are valid. There were few qualifications identified in the quality control data for VOC analyses. Out of approximately 3,472 individual analytical results (both detected and nondetected), 291 results were qualified; of those, only 232 results were qualified as rejected. The results for VOC analyses for this program (93%) were thus slightly below the data quality objective for completeness (95%).

Precision

Blind duplicate samples were collected from 13 locations during the annual water monitoring program. All of the blind duplicates were analyzed for VOCs and yielded six duplicate pairs containing at least one positive analyte detection. These sample locations include STPO, UCD1-18, and UCD2-7, collected in the winter quarter; PCU, UCD1-1, and UCD1-19 collected in the spring quarter; UCD1-12, UCD2-14, and PCD collected in the summer quarter; UCD1-13, UCD1-12, and STPO collected in the fall quarter; and storm water runoff location SWL-1 collected in spring 1995. For the 16 analyte pairs reported with positive detections, all had RPDs of less than 100% (with the exception of UCD1-1 and UCD1-12), satisfying the DQOs. As indicated in the quarterly report for winter and spring 1995, it was concluded that the duplicate VOC sample from UCD1-1 was likely collected from UCD1-12. Again, results from the duplicate samples collected from UCD1-12 in the summer were variable. The repeated analyses yielded results which were more consistent with the historical trend and duplicate sample results even though the sample was outside the holding time. The results of the blind duplicate analyses are shown in Tables 3.2 through 3.10.

Accuracy

Laboratory control spikes were performed at the required frequency using the concentrations and conditions specified for the analytical method for VOCs. Method EPA CLP SOW OLC2.0 also specifies the recovery criteria for each spiked compound.

Table 3.12 presents a summary of laboratory control spike samples. The percent recovery of each spiking compound was calculated and compared with the laboratory QC limits. The results for laboratory control spikes show the laboratory analytical system to be in control.

Surrogate spikes were performed for compounds analyzed for VOCs in accordance with the method. All recoveries were within the QC acceptance criteria. This evaluation indicates acceptable laboratory performance.

Representativeness

Thirty-two trip blank samples were collected and analyzed during the annual water monitoring program. Twenty-five of these 32 blanks were found to be free of analyte contamination. Xylene was reported at a concentration of 1.3 μg/L in a single trip blank sample (TBGW0016) collected during the winter quarter. Xylene was not reported in samples directly associated with this trip blank. Reported detections of acetone in TBGW0023, TBGW0051, TBGW0113, TBGW0114, TBGW0125, and TBGW0290 collected in the spring, summer, and fall quarters of 1995 were qualified with a "J" because of instrument calibration responses and method blank contamination. This occurrence impacted all samples in the given analytical sequence reported below the detection limit. The analytical results for the travel blank samples are presented in Table 3.13.

Laboratory method blanks were analyzed at the required frequency for VOCs. Acetone, 1,2 dibromo-3 chloropropane, and 2 butanone are solvents commonly used in laboratory environments during extraction of water, soil, or solid waste from organic compounds. As

such, these compounds can be detected in the VOC analyses. No corrective action is taken if these contaminants are detected in reagent blanks at less than five times the detection limit.

Low levels of acetone were reported in some method blanks and identified as a laboratory contaminant. Data associated with these blanks have been appropriately qualified as not detected (U) to indicate bias introduced by the analytical process (see Tables A.1 and B.1).

Comparability

The analyses for VOCs were conducted in accordance with the procedures outlined in the QAPjP. Laboratory reporting limits met the guidelines established in the workplan for those parameters not detected in the samples.

3.4.2 Semivolatile Organic Compounds

The following sections discuss the results of the semivolatile organic compounds (SVOC) analyses (CLP SOW OLM1.8) and provide an evaluation of the PARCC goals.

Completeness of Scheduled Analyses

Sixty-two field samples were collected and submitted to the laboratory for SVOC analyses, and data results were received for all samples scheduled for analyses. One-hundred percent of the results reported for SVOC analyses are valid. There were few qualifications identified in the quality control data. Out of a total of approximately 3,968 individual analytical results (both detected and nondetected), 200 results were qualified; of those, none was qualified as rejected. The completeness objectives for SVOC analyses for this program were achieved.

Precision

Detectable levels of SVOCs were reported in the seven duplicate samples collected and analyzed by method EPA CLP OLM1.8. The remainder of the duplicate samples that were collected were not analyzed for SVOCs. RPDs were calculated for compounds that were detected in the duplicate samples; these results are shown in Tables 3.2, 3.6, and 3.7. Of the seven analyte pairs, only four met the DQO requirement of 100%. All other SVOCs detected were also present in the method blank.

Accuracy

Sample matrix spikes were performed for the fall quarter sampling using concentrations and conditions specified for the analytical method for SVOCs. Method EPA CLP SOW OLM1.8 also specifies the recovery criteria for each spiked compound.

Table 3.11 presents a summary of matrix spike samples. The percent recovery of each spiking compound was calculated and compared with the acceptance limits outlined in the QAPjP. In addition, the RPD between recoveries was calculated. Evaluation of the results for sample matrix spikes show the laboratory analytical system to be in control.

Laboratory control spikes were performed at the required frequency using the concentrations and conditions specified for the analytical method for SVOCs. Method EPA CLP SOW OLM1.8 also specifies the recovery criteria for each spiked compound.

Table 3.12 presents a summary of laboratory control spike samples. The percent recovery of each spiking compound was calculated and compared with the laboratory QC limits. Evaluation of the results for laboratory control spikes show the laboratory analytical system to be in control, with the exception of 1,4 dichlorobenzene, which is slightly below the acceptable range.

Surrogate spikes were performed for compounds analyzed for SVOCs in accordance with the analytical method. All recoveries were within the QC acceptance criteria. This evaluation indicates acceptable laboratory performance.

Representativeness

Laboratory method blanks were analyzed at the required frequency for the analytical method for SVOCs. Common laboratory SVOCs include bis(2-ethylhexyl)phthalate and di-n-butylphthalate. No corrective action is taken if these contaminants are detected in reagent blanks at less than five times the detection limit.

Random occurrences of contamination associated with these blanks were identified; however, concentrations reported were below the contract required quantitation limit (CRQL). These detections could result from a number of factors including laboratory glassware, sample preparation procedures, or carryover during analyses. Sample results associated with these blank contaminants have been flagged "not detected" (U) to indicate bias introduced by the analytical process (see Tables A.2 and B.2).

Comparability

The analyses for SVOCs were conducted in accordance with the procedures outlined in the QAPjP. Laboratory reporting limits met the guidelines established in the workplan for those parameters not detected in the samples.

3.4.3 Pesticides/Polychlorinated Biphenyl

The following sections discuss the results of the pesticides and polychlorinated biphenyl (PCBs) analyses (CLP SOW OLM1.8) and provide an evaluation of the PARCC goals.

Completeness of Scheduled Analyses

Eighty-two field samples were collected and submitted to the laboratory for pesticide and PCB analyses. Data results were received from the laboratory for all samples scheduled for analyses. One-hundred percent of the results reported for pesticide and PCB analyses are valid. Out of approximately 2,296 individual analytical results (both detected and nondetected), 495 were qualified (see "Accuracy," below, for further explanation). Of those data qualified, none were qualified as rejected. The completeness objectives for pesticides and PCBs for this program were achieved.

Precision

No detectable levels of pesticides or PCBs were reported in 10 of the 11 field duplicate samples analyzed by method EPA CLP OLM1.8. RPDs were calculated for UCD1-13. Only duplicate samples from UCD1-13, collected in fall 1995, showed detectable levels but are qualified with either a J, P, or JP, indicating that the values were either estimated or the RPD between columns was greater than 25%. The results of this blind duplicate are shown in Table 3.5.

Accuracy

Sample matrix spikes were performed using concentrations and conditions specified for the analytical method for pesticides and PCBs. Method EPA CLP SOW OLM1.8 also specifies the recovery criteria for each spiked compound.

Table 3.11 presents a summary of matrix spike samples. The percent recovery of each spiking compound was calculated and compared with the acceptance limits outlined in the QAPjP. The results of the percent recovery for each compound are expressed as a range. Evaluation of the results for sample matrix spikes show the laboratory analytical system to be in control, with the exception of aldrin and endrin, which were biased low. Results associated with these batches have been flagged appropriately.

Laboratory control spikes were performed at the required frequency using the concentrations and conditions specified for the analytical method for pesticides and PCBs. Method EPA CLP SOW OLM1.8 also specifies the recovery criteria for each spiked compound.

Table 3.12 presents a summary of laboratory control spike samples. The percent recovery of each spiking compound was calculated and compared with the laboratory QC limits. Evaluation of the results for laboratory control spikes shows the laboratory analytical system to be in control.

Surrogate spikes were performed for compounds analyzed for pesticides and PCBs in accordance with the appropriate method. Some pesticide and PCB data were qualified as estimated because of low surrogate recovery in some samples. However, acceptance crieria for pesticide surrogates are advisory only and resulted in no impact on the technical quality of the data. Surrogate failures were limited to only one of two surrogates applicable to this method. These results are consistent with historical data. This evaluation indicates acceptable laboratory performance.

Representativeness

Laboratory method blanks were prepared and analyzed using reagents, technique, and instrumentation identical to those used in field samples. Laboratory method blanks were reviewed as part of the validation process. No target analytes were reported above the CRQL for the laboratory method blanks.

Comparability

The analyses for pesticides and PCBs were conducted in accordance with the procedures outlined in the QAPjP. Laboratory reporting limits met the guidelines established in the workplan for those parameters not detected in the samples.

3.4.4 Metals (EPA CLP ILC2.0 and SW846 6010)

The following sections discuss the results of the metals analyses (CLP SOW ILC2.0 and SW846 6010) and provide an evaluation of the PARCC goals.

Completeness of Scheduled Analyses

Ninety-four field samples were collected and submitted to the laboratory for metal analyses. Data results were received from the laboratory for all samples scheduled for analyses. One-hundred percent of the results reported for metal analyses are valid. Out of approximately 1,441 individual analytical results (both detected and nondetected), 43 were qualified; of those, none was qualified as rejected. The completeness objectives for metal analyses for this program were achieved.

Precision

For metal analyses by methods EPA CLP ILC2.0, all 11 duplicate pairs were reported with positive detections of metal analytes, yielding 82 analyte pairs with at least one detection above the reporting limit. All pairs except hexavalent chromium for UCD1-19, collected in the spring quarter, had RPDs of less than the DQO of 100%. A summary of blind duplicates is presented in Tables 3.2 through 3.10.

Accuracy

Sample matrix spikes were performed at the required frequency for all sampling events using the concentrations and conditions specified in the analytical method for metals. The recovery criteria for each spiked compound are specified in the QAPjP.

Table 3.11 presents a summary of matrix spike samples. The percent recovery of each spiking compound was calculated and compared with the acceptance limits outlined in the QAPjP. An evaluation of the results for sample matrix spikes shows the laboratory analytical system to be in control.

Laboratory control spikes were performed at the required frequency using the concentrations and conditions specified in the analytical method for metals. Method EPA CLP SOW ILC2.0 also specifies the recovery criteria for each spiked compound.

Table 3.12 presents a summary of laboratory control spike samples. The percent recovery of each spiking compound was calculated and compared with the laboratory QC limits. In addition, the RPD between recoveries was calculated. An evaluation of the results for laboratory control spikes shows the laboratory analytical system to be in control.

Representativeness

Laboratory method blanks were analyzed at the required frequency in the analytical methods for metals. No corrective action is taken if these constituents are detected in reagent blanks at less than five times the detection limit.

Random occurrences of contamination were identified associated with these blanks; however, concentrations reported were below the CRQL. These detections, which were associated frequently with nickel, chromium, iron, and zinc, could result from a number of factors including laboratory glassware, sample preparation procedures, or carryover during analyses. Sample results associated with these blank contaminants have been flagged not detected (U) to indicate bias introduced by the analytical process (see Tables A.4 and B.4).

Comparability

The analyses for metals were conducted in accordance with the procedures outlined in the QAPjP. Laboratory reporting limits met the guidelines established in the workplan for those parameters not detected in the samples.

3.4.5 Radionuclides

The following sections discuss the results of the radionuclides analyses and provide an evaluation of the PARCC goals. Various methodologies are used to perform these analyses. These methods are summarized in Table 2.6.

Completeness of Scheduled Analyses

Eighty-seven field samples were collected and submitted to the laboratory for radionuclide analyses, and data results were received for all samples scheduled for analyses. One-hundred percent of the results reported for radionuclides analyses are valid. Out of approximately 1,762 individual analytical results (both detected and nondetected), 115 were qualified; of those, no results were qualified as rejected. The completeness objectives for this program were achieved.

Precision

For radionuclide analyses, all 10 duplicate pairs were reported with positive detections of various radionuclides, yielding 18 analyte pairs with at least one detection above the associated uncertainty. The RPDs associated with radionuclides analyses have been calculated for samples with detected values greater than the minimum detectable activity (MDA) and the uncertainty (error). The results of the blind duplicate analyses are shown in Tables 3.2 through 3.10; all RPDs met the DQO requirement.

Accuracy

Sample matrix spikes were performed at the required frequency for all sampling events using the concentrations and conditions specified for the analytical method for radionuclides. The recovery criteria for each spiked compound are specified in the QAPjP.

Table 3.11 presents a summary of matrix spike samples. The percent recovery of each spiking compound was calculated and compared with the acceptance limits outlined in the QAPjP. An evaluation of the results for sample matrix spikes shows the laboratory analytical system to be in control for most radionuclides. Results of matrix spikes for selected radionuclides, carbon-14, americium-241, and tritium, are below the acceptance limits, and positive results have been flagged with "J."

Laboratory control spikes were performed at the required frequency using the concentrations and conditions specified for the analytical methods for radionuclides. Analytical methods also specify the recovery criteria for each spiked compound.

Table 3.12 presents a summary of laboratory control spike samples. The percent recovery of each spiking compound was calculated and compared with the laboratory QC limits. An evaluation of the results for laboratory control spikes shows the laboratory analytical system to be in control.

Representativeness

Laboratory method blanks were analyzed at the required frequency for the analytical method for radionuclides. No corrective action is taken if these contaminants are detected in reagent blanks at less than five times the detection limit.

Comparability

The analyses for radionuclides were conducted in accordance with the procedures outlined in the QAPjP. Laboratory reporting limits met the guidelines established in the workplan for those parameters not detected in the samples.

3.4.6 General Chemicals

The following sections discuss the results of the analyses for general chemicals and provide an evaluation of the PARCC goals. The various methodologies used to perform these analyses are outlined in Table 2.6.

Completeness of Scheduled Analyses

One-hundred-eighty-eight field samples were collected and submitted to the laboratory for general chemical analyses. Data results were received from the laboratory for all samples scheduled for analyses. Ninety-seven percent of the results reported for general chemical analyses are valid. Sample results that were qualified as estimated (J) are described below.

There were few qualifications identified in the quality control data. Out of approximately 1,389 individual analytical results (both detected and nondetected), 55 were qualified; of those, none of the analytical laboratory results was qualified as rejected. Also included under general are the results for the field parameters. Forthy five results for specific conductivity for summer and fall have been rejected due to lack of QA

documentation for calibration of the instruments and incorrect recording of the results (i.e., multiplier was not used). The completeness objectives for general chemical analyses for this program were achieved.

Precision

For general chemical analyses, 11 out of 12 duplicate pairs were reported with positive detections of various constituents, yielding 87 analyte pairs with at least one detection above the reporting limit. Four duplicate analyte pairs had calculated RPDs outside the acceptance criteria.

Accuracy

Sample matrix spikes were performed at the required frequency for all sampling events using the concentrations and conditions specified in the analytical method for general chemicals. The recovery criteria for each spiked compound are specified in the QAPjP.

Table 3.11 presents a summary of matrix spike samples. The percent recovery of each spiking compound was calculated and compared with the acceptance limits outlined in the QAPjP. Evaluation of the results for sample matrix spikes shows the laboratory analytical system to be in control.

Laboratory control spikes were performed at the required frequency using the concentrations and conditions specified for the analytical method for general chemicals. These methods also specify the recovery criteria for each spiked compound.

Table 3.12 presents a summary of laboratory control spike samples. The percent recovery of each spiking compound was calculated and compared with the laboratory QC limits. In addition, the RPD between recoveries was calculated. An evaluation of the results for laboratory control spikes shows the laboratory analytical system to be in control.

Representativeness

Laboratory method blanks were prepared and analyzed using reagents, techniques, and instruments identical to those used for the field samples. Laboratory method blanks were reviewed as part of the validation process. No target analytes were reported above the contract detection limits for the laboratory method blanks.

Comparability

The analyses for general chemicals were conducted in accordance with the procedures outlined in the QAPjP. Laboratory reporting limits met the guidelines established in the workplan for those parameters not detected in the samples.

TABLE 3.2
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, GROUNDWATER
WINTER QUARTER 1995
LEHR ENVIRONMENTAL RESTORATION

Location	Parameter	Unit	Result		Duplicate		RPD% (1)
UCD1-18	Arsenic	ug/L	4.9	Up |	3.8	Up |	25.29
	Barium	ug/L	152		152		0.00
	Bismuth-214	pCi/L	30		9		107.69
	Calcium	mg/L	39.5		40.2		1.76
	Chloride	mg/L	43		44		2.30
	Chromium	ug/L	14.6		14.7		0.68
	Cobalt	ug/L	1.5	|B	1.5	|B	0.00
	Copper	ug/L	1.4	|B	1.5	|B	6.90
	Di-n-Butylphthalate	ug/L	< 12	|U	2	|J	142.86
	Magnesium	mg/L	96.9		97.7		0.82
	Nickel	ug/L	65.1		66		1.37
	Nitrogen, Nitrate (as N)	mg/L	14		14		0.00
	Radium-226	pCi/L	0.33		0.4		19.18
	Sodium	mg/L	39.7		39.9		0.50
	Sulfate	mg/L	39		39		0.00
	Total Dissolved Solids	mg/L	610		620		1.63
	Turbidity	NTU	1.7		1.7		0.00
	Vanadium	ug/L	10.6		10.6		0.00
	Zinc	ug/L	1.8	|B	2.6	|B	36.36
UCD2-7	Ammonia-Nitrogen	mg/L	< 0.05		0.26		135.48
	Arsenic	ug/L	3.1	Jk |	3.1	Jk |	0.00
	Barium	ug/L	167		160		4.28
	Bis(2-Ethylhexyl)phthalate	ug/L	6	Jc |J	2	|J	100.00
	Calcium	mg/L	36.4		36.2		0.55
	Chloride	mg/L	21		21		0.00
	Chromium	ug/L	45.6		44.6		2.22
	Chromium, Hexavalent (+6)	ug/L	43		42		2.35
	Copper	ug/L	1.1	|B	1	|B	9.52
	Magnesium	mg/L	78.7		77.8		1.15
	Mercury	ug/L	0.68		< 0.2	|U	109.09
	Molybdenum	ug/L	1.3	|B	1.1	|B	16.67
	Nitrogen, Nitrate (as N)	mg/L	12		10		18.18
	Potassium	mg/L	0.698	|B	0.867	|B	21.60
	Radium-226	pCi/L	< 0.24		0.24		0.00
	Selenium	ug/L	< 3	|U	3.8	JQ |B	23.53
	Sodium	mg/L	47.1		46.1		2.15
	Sulfate	mg/L	41		40		2.47
	Total Dissolved Solids	mg/L	550		530		3.70
	Tritium	pCi/L	< 310		360		14.93
	Vanadium	ug/L	7.7	|B	7.5	|B	2.63
	Zinc	ug/L	5.3	|B	5.2	|B	1.90

See tables in Appendix A for data qualifier explanations
(1)Relative Percent Difference (RPD) = ABS(100*(Result-Duplicate)/((Result+Duplicate)/2))
Analytes included with at least one detection above reporting limit.
< = Not reported above the reporting limit.
(If results were below the reporting limit, then the reporting limit was used for RPD calculations.)

TABLE 3.3
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, GROUNDWATER
SPRING QUARTER 1995
LEHR ENVIRONMENTAL RESTORATION

Location	Parameter	Unit	Result		Duplicate		RPD% (1)
UCD1-1	1,1-Dichloroethane	ug/L	< 1	|U	6.8a		148.72
	1,1-Dichloroethene	ug/L	< 1	Jf |U	13a	Jf |	171.43
	1,2-Dichloroethane	ug/L	< 1	Jf |U	3.3a	Jf |	106.98
	1,2-Dichloropropane	ug/L	< 1	|U	0.51a	|J	64.90
	Acetone	ug/L	< 5	Rc |U	4.7	UJc |BJ	6.19
	Barium	ug/L	237		248		4.54
	Bismuth-214	pCi/L	12.8		9		34.86
	Bromodichloromethane	ug/L	< 1	|U	0.7a	|J	35.29
	Calcium	mg/L	62.5		62.7		0.32
	Chloride	mg/L	7.8		7.7		1.29
	Chloroform	ug/L	< 1	Jf |U	5800a	Jf |	199.93
	Chromium	ug/L	29.2		30.1		3.04
	Chromium, Hexavalent (+6)	ug/L	18		19		5.41
	Iron	mg/L	0.018	|B	0.015	|B	17.97
	Lead-214	pCi/L	12.2		16		26.95
	Magnesium	mg/L	153		154		0.65
	Molybdenum	ug/L	2.2	|B	1.9	|B	14.63
	Nickel	ug/L	1.7	|B	1.8	|B	5.71
	Nitrogen, Nitrate (as N)	mg/L	16		16		0.00
	Radium-226	pCi/L	0.3		0.15		66.67
	Sodium	mg/L	33.5		33.7		0.60
	Strontium-90	pCi/L	0.66		0.7		5.88
	Sulfate	mg/L	27		27		0.00
	Total Dissolved Solids	mg/L	830		810		2.44
	Turbidity	NTU	0.62		0.59		4.96
	Vanadium	ug/L	4.9	|B	4.6	|B	6.32
UCD1-19	Barium	ug/L	88.6		81.5		8.35
	Bismuth-214	pCi/L	21.9		19		14.18
	Calcium	mg/L	60.1		60		0.17
	Chloride	mg/L	19		19		0.00
	Chromium	ug/L	170		171		0.59
	Chromium, Hexavalent (+6)	ug/L	< 10		54		137.50
	Gross Alpha	pCi/L	7.9		11		32.80
	Iron	ug/L	22	|B	< 100	|U	125.73
	Lead-214	pCi/L	24		19.5		20.69
	Magnesium	mg/L	170		166		2.38
	Molybdenum	ug/L	1.3	|B	1.2	|B	8.00
	Nickel	ug/L	1.4	|B	1.4	|B	0.00
	Nitrogen, Nitrate (as N)	mg/L	19		19		0.00
	Plutonium-241	pCi/L	< 1.8		2.7		40.00
	Potassium	mg/L	0.73	|B	1.13	|B	43.01
	Radium-226	pCi/L	0.069		0.112		47.51
	Selenium	ug/L	9.3		8.4		10.17
	Sodium	mg/L	74.1		74		0.14
	Sulfate	mg/L	59		59		0.00
	Total Dissolved Solids	mg/L	950		940		1.06
	Turbidity	NTU	< 0.1		0.69		149.37
	Vanadium	ug/L	6.4	|B	5	|B	24.56

See tables in Appendix A for data qualifier explanations
(1)Relative Percent Difference (RPD) = ABS(100*(Result-Duplicate)/((Result+Duplicate)/2))
Analytes included with at least one detection above reporting limit.
< = Not reported above the reporting limit.
(If results were below the reporting limit, then the reporting limit was used for RPD calculations.)
a = The duplicate VOC sample from UCD1-1 was determined to be likely collected from UCD1-12.

TABLE 3.4
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, GROUNDWATER
SUMMER QUARTER 1995
LEHR ENVIRONMENTAL RESTORATION

Location	Parameter	Units	Result		Duplicate		RPD%(1)
UCD1-12	1,1,2-Trichloroethane	ug/L	2.8	|H	3.5	Jf |	22.22
	1,1-Dichloroethane	ug/L	4.1	|H	9.2	Jf |	76.69
	1,1-Dichloroethene	ug/L	1.2	|H	18	Jf |	175.00
	1,2-Dichloroethane	ug/L	4.7	|H	5.9	Jf |	22.64
	1,2-Dichloropropane	ug/L	< 1	|U	0.72	|J	32.56
	Acetone	ug/L	2.4	|JH	< 2.5		4.08
	Bromodichloromethane	ug/L	0.82	|JH	2.1	Jf |	87.67
	Chloroform	ug/L	5700	|DH	9100	Jz |	45.95
	Methylene Chloride	ug/L	1	|JH	< 1		0.00
UCD2-14	Arsenic	ug/L	2.1		< 2	|U	4.88
	Barium	ug/L	244		252		3.23
	Calcium	mg/L	58.5		60.1		2.70
	Chromium	ug/L	43.1		44.9		4.09
	Chromium, Hexavalent (+6)	ug/L	37		37		0.00
	Cobalt	ug/L	6.5	|B	6.9	|B	5.97
	Copper	ug/L	2.2	|B	2.5	|B	12.77
	Iron	ug/L	103		85.8	|B	18.22
	Magnesium	mg/L	137		142		3.58
	Molybdenum	ug/L	1.7	|B	1.4	|B	19.35
	Nickel	ug/L	11.2	|B	9.5	|B	16.43
	Nitrogen, Nitrate (as N)	mg/L	11		11		0.00
	Potassium	mg/L	0.918	|B	< 2	|U	74.16
	Sodium	ug/L	45000		47100		4.56
	Total Dissolved Solids	mg/L	860		850		1.17
	Vanadium	ug/L	9.2	|B	9.5	|B	3.21
	Zinc	ug/L	5.5	|B	4.6	|B	17.82

See tables in Appendix A for data qualifier explanations
(1)Relative Percent Difference (RPD) = ABS(100*(Result-Duplicate)/((Result+Duplicate)/2))
Analytes included with at least one detection above reporting limit.
< = Not reported above the reporting limit.
(If results were below the reporting limit, then the reporting limit was used for RPD calculations.)

TABLE 3.5
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, GROUNDWATER
FALL QUARTER 1995
LEHR ENVIRONMENTAL RESTORATION

Location	Parameter	Units	Result		Duplicate		RPD%(1)
UCD1-12	1,1,2-Trichloroethane	ug/L	1.1		2		58.06
	1,1-Dichloroethane	ug/L	5.8		6.8		15.87
	1,1-Dichloroethene	ug/L	11		13		16.67
	1,2-Dichloroethane	ug/L	3.2		3.8		17.14
	Bromodichloromethane	ug/L	0.63	IJ	0.74	IJ	16.06
	Chloroform	ug/L	5800		6400		9.84
UCD1-13	Alpha-Chlordane	ug/L	0.0057	IJ	0.0059	IJ	3.45
	Bismuth-214	pCi/L	2.1		8.2		118.45
	Carbon-14	pCi/L	1900		1770		7.08
	Chloroform	ug/L	1.7	Jz I	1.8	Jz I	5.71
	Chromium, Hexavalent (+6)	ug/L	76		75		1.32
	Dieldrin	ug/L	0.028	IP	0.024		15.38
	Endrin	ug/L	0.0085	IJP	< 0.02	IU	80.70
	Gamma-Chlordane	ug/L	0.0049	IJP	0.0071	IJP	36.67
	Radium-226	pCi/L	0.25		0.012		181.68
	Total Dissolved Solids	mg/L	1100		1000		9.52
	Tritium	pCi/L	16480		15190		8.15

See tables in Appendix A for data qualifier explanations
(1)Relative Percent Difference (RPD) = ABS(100*(Result-Duplicate)/((Result+Duplicate)/2))
Analytes included with at least one detection above reporting limit.
< = Not reported above the reporting limit.
(If results were below the reporting limit, then the reporting limit was used for RPD calculations.)

TABLE 3.6
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, SURFACE WATER
WINTER QUARTER 1995
LEHR ENVIRONMENTAL RESTORATION

Location	Parameter	Unit	Result		Duplicate		RPD% (1)
STPO	Acetone	ug/L	2.2	Jc IJ	< 5	U	77.78
	Ammonia-Nitrogen	mg/L	3.2		3.2		0.00
	Arsenic	ug/L	5.6	Up I	5.6	Up I	0.00
	Barium	ug/L	21.5		20.9		2.83
	Bis(2-Ethylhexyl)phthalate	ug/L	3	IJ	3	IJ	0.00
	Bromodichloromethane	ug/L	1		1.1		9.52
	Calcium	mg/L	18.4		18		2.20
	Chloride	mg/L	120		120		0.00
	Chloroform	ug/L	3.7		3.4		8.45
	Chromium	ug/L	2.2	IB	2	IB	9.52
	Cobalt	ug/L	2	IB	1.7	IB	16.22
	Copper	ug/L	5	IB	4.8	IB	4.08
	Di-n-Butylphthalate	ug/L	3	IJ	2	IJ	40.00
	Gross Beta	pCi/L	17.2		29.5		52.68
	Iron	ug/L	56	IB	49	IB	12.58
	Magnesium	mg/L	18.4		18.1		1.64
	Methylene Chloride	ug/L	7.4		7.1		4.14
	Molybdenum	ug/L	7.5	IB	7.2	IB	4.08
	Nickel	ug/L	2.3	IB	2.1	IB	9.09
	Nitrogen, Nitrate (as N)	mg/L	7.5		7.4		1.34
	Potassium	mg/L	10		98.7		1.31
	Sodium	mg/L	141		140		0.71
	Sulfate	mg/L	63		63		0.00
	Total Dissolved Solids	mg/L	530		540		1.87
	Total Kjeldahl Nitrogen	mg/L	3.1		3.1		0.00
	Turbidity	NTU	6.2	IN	9.1	IN	37.91
	Vanadium	ug/L	9.8	IB	9.3	IB	5.24
	Zinc	ug/L	28.3		28		1.07

See tables in Appendix A for data qualifier explanations
(1)Relative Percent Difference (RPD) = ABS(100*(Result-Duplicate)/((Result+Duplicate)/2))
Analytes included with at least one detection above reporting limit.
< = Not reported above the reporting limit.
(If results were below the reporting limit, then the reporting limit was used for RPD calculations.)

TABLE 3.7
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, SURFACE WATER
SPRING QUARTER 1995
LEHR ENVIRONMENTAL RESTORATION

Location	Parameter	Unit	Result		Duplicate		RPD% (1)
PCU	Acetone	ug/L	2.1	Uz IBJ	2.2	Uz IBJ	4.65
	Barium	ug/L	113	IB	114	IB	0.88
	Bis(2-Ethylhexyl)phthalate	ug/L	2	Uz IBJ	10	IBJ	133.33
	Bismuth-214	pCi/L	21		< 8.8		81.88
	Calcium	mg/L	41.3		41		0.73
	Chloride	mg/L	26		26		0.00
	Chromium	ug/L	4.3	IB	4	IB	7.23
	Di-n-Butylphthalate	ug/L	130	Jf IB	38	Jf IB	109.52
	DiethylPhthalate	ug/L	2	IJ	1	IJ	66.67
	Iron	ug/L	39	IB	39	IB	0.00
	Magnesium	mg/L	46.5		46		1.08
	Nickel	ug/L	1.2	IB	1.1	IB	8.70
	Nitrogen, Nitrate (as N)	mg/L	2.6		2.6		0.00
	Potassium	mg/L	1.52	IB	1.71	IB	11.76
	Sodium	mg/L	29.5		28.9		2.05
	Sulfate	mg/L	34		34		0.00
	Total Dissolved Solids	mg/L	370	IC	370	IC	0.00
	Turbidity	NTU	62		55		11.97
	Zinc	ug/L	3.7	IB	3.2	IB	14.49

See tables in Appendix A for data qualifier explanations
(1)Relative Percent Difference (RPD) = ABS(100*(Result-Duplicate)/((Result+Duplicate)/2))
Analytes included with at least one detection above reporting limit.
< = Not reported above the reporting limit.
(If results were below the reporting limit, then the reporting limit was used for RPD calculations.)

TABLE 3.8
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, SURFACE WATER
SUMMER QUARTER 1995
LEHR ENVIRONMENTAL RESTORATION

Location	Parameter	Units	Result		Duplicate		RPD%(1)
PCU	Arsenic	ug/L	2.5		2.6		3.92
	Barium	ug/L	113		112		0.89
	Calcium	mg/L	35.2		33.1		6.15
	Chromium	ug/L	3.3	IB	4.3	IB	26.32
	Iron	ug/L	58.6	IB	67.8	IB	14.56
	Magnesium	mg/L	41.3		38.5		7.02
	Molybdenum	ug/L	1.1	IB	1.1	IB	0.00
	Nickel	ug/L	4.6	IB	4.5	IB	2.20
	Nitrogen, Nitrate (as N)	mg/L	1.5		1.5		0.00
	Potassium	mg/L	1.67	IB	1.92	IB	13.93
	Sodium	mg/L	30.5		28.1		8.19
	Total Dissolved Solids	mg/L	290		300		3.39
	Vanadium	ug/L	7.6	IB	4.9	IB	43.20
	Zinc	ug/L	6	IB	9.2	IB	42.11

See tables in Appendix A for data qualifier explanations
(1)Relative Percent Difference (RPD) = ABS(100*(Result-Duplicate)/((Result+Duplicate)/2))
Analytes included with at least one detection above reporting limit.
< = Not reported above the reporting limit.
(If results were below the reporting limit, then the reporting limit was used for RPD calculations.)

TABLE 3.9
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, SURFACE WATER
FALL QUARTER 1995
LEHR ENVIRONMENTAL RESTORATION

Location	Parameter	Units	Result		Duplicate		RPD%(1)
PCD	Acetone	ug/L	3.1	Jz |JB	2.8	Jz |JB	10.17
	Americium-241	pCi/L	0.035		0.056		46.15
	Antimony	ug/L	< 5	|U	4.7	|B	6.19
	Arsenic	ug/L	2.7		2		29.79
	Barium	ug/L	73.6		73		0.82
	Bismuth-214	pCi/L	6.2		9.8		45.00
	Calcium	mg/L	23.2		22.9		1.30
	Chloroform	ug/L	1.9	Jy |	< 1	|U	62.07
	Chromium	ug/L	4.5	|B	4.7	|B	4.35
	Copper	ug/L	< 10	|U	10	|B	0.00
	Gross Beta	pCi/L	2.8		3.4		19.35
	Iron	ug/L	244		269		9.75
	Magnesium	mgL	29.2		29		0.69
	Nickel	ug/L	4.4	|B	5.2	|B	16.67
	Nitrogen, Nitrate (as N)	mg/L	1.8		1.9		5.41
	Potassium	mg/L	2.87	|B	3.3	|B	13.94
	Radium-226	pCi/L	0.12		0.86		151.02
	Sodium	mg/L	19.1		19.1		0.00
	Strontium-90	pCi/L	1.17		1.39		17.19
	Total Dissolved Solids	mg/L	300		260		14.29
	Zinc	ug/L	8.2	Jm |ENB	9	Jm |ENB	9.30

See tables in Appendix A for data qualifier explanations
(1)Relative Percent Difference (RPD) = ABS(100*(Result-Duplicate)/((Result+Duplicate)/2))
Analytes included with at least one detection above reporting limit.
< = Not reported above the reporting limit.
(If results were below the reporting limit, then the reporting limit was used for RPD calculations.)

TABLE 3.10
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, STORM WATER RUNOFF
WINTER QUARTER 1995
LEHR ENVIRONMENTAL RESTORATION

LOCATION	PARAMETER	UNITS	RESULTS		DUPLICATE		RPD (1)
SWL00002	Calcium	mg/L	0.57	|B	0.598	|B	2.9
	Magnesium	mg/L	0.13	|B	0.128	|B	1.1
	Nitrogen, Nitrate (as N)	mg/L	0.13		< 0.1		16.7
	Potassium	mg/L	0.89	|B	< 2	|U	58.9
	Sodium	mg/L	0.29	|B	0.266	|B	4.8
	Alkalinity Total(as CaCO3)	mg/L	14		14		0.0
	Total Organic Carbon	mg/L	2.5		2.5		0.0
	Turbidity	NTU	3.1		3.1		0.0
	Antimony	ug/L	156		137		8.5
	Barium	ug/L	3.3	|B	3	|B	6.3
	Copper	ug/L	2.2	|B	1.9	|B	9.5
	Lead	ug/L	38.4		35.9		4.4
	Zinc	ug/L	94.1		112		11.9
	Bis(2-Ethylhexyl)phthalate	ug/L	< 10	|U	0.5	|J	92.7
	Di-n-Butylphthalate	ug/L	8	Uz |BJ	5	Uz |BJ	28.6
	Acetone	ug/L	4.6	UJc |BJ	8.8	Jc |	46.7

See tables in Appendix A for data qualifier explanations
(1)Relative Percent Difference (RPD)=ABS(100*(Result - Duplicate)/((Result + Duplicate)/2))
Analytes included with at least one detection above reporting limit.
< = Not reported above the detection limit .
If results were below reporting limit then the limit was used for RPD calculations.

Table 3.11. Sample Matrix Spike and Duplicate Results Ranges of Accuracy and Precision

Parameter	Percent Recovery Reported Range			RPD[b]	
	Matrix Spike	Duplicate Matrix Spike	Control Range[a]	Range of Results[c]	Limit
Semivolatile Organic Compounds					
Phenol	56 - 74	56 - 70	12 - 89	2 - 9	42
2-Chlorophenol	64 - 73	58 - 71	27 - 123	3 - 11	40
1,4-Dichlorobenzene	44 - 53	43 - 48	36 - 97	2 - 11	28
N-Nitroso-di-n-propylamine	65 - 85	60 - 74	41 - 116	8 - 25	38
1,2,4-Trichlorobenzene	54 - 63	51 - 53	39 - 98	6 - 12	28
4-Chloro-3-methylphenol	86 - 92	74 - 85	23 - 97	7 - 17	42
Acenaphthene	72 - 77	63 - 66	46 - 118	12 - 15	31
4-Nitrophenol	66 - 83	63 - 69	10 - 80	5 - 23	50
2,4-Dinitrotoluene	80 - 90	70 - 81	24 - 96	11 - 13	38
Pentachlorophenol	63 - 124	52 - 110	9 - 103	4 - 19	50
Pyrene	73 - 94	70 - 91	26 - 127	3 - 18	31
Pesticides/PCBs					
gamma-BHC (Lindane)	60 - 100	95 - 95	56 - 123	0 - 45	15
Heptachlor	48 - 100	48 - 95	40 - 131	0 - 34	20
Aldrin	45 - 115	39 - 100	40 - 120	12 - 52	18
Dieldrin	58 - 100	92 - 96	52 - 126	0 - 47	18
Endrin	54 - 90	87 - 90	56 - 121	3 - 48	21
4,4'-DDT	56 - 85	82 - 87	38 - 127	2 - 42	27
Metals					
Antimony	92 - 101	-	80 - 120	0 - 2	25
Arsenic	86 - 105	-	80 - 120	0 - 7	25
Barium	90 - 109	-	80 - 120	0 - 4	25
Beryllium	88 - 110	-	80 - 120	0	25
Cadmium	92 - 103	-	80 - 120	0	25
Chromium	93 - 104	-	80 - 120	0 - 3	25
Hexavalent Chromium	90 - 110	-	80 - 120	0 - 5	25

Table 3.11. (contd)

Parameter	Percent Recovery Reported Range			RPD[b]	
	Matrix Spike	Duplicate Matrix Spike	Control Range[a]	Range of Results[c]	Limit
Cobalt	92 - 108	-	80 - 120	0	25
Copper	91 - 99	-	80 - 120	0	25
Iron	80 - 101	-	80 - 120	1 - 5	25
Lead	95 - 102	-	80 - 120	0 - 3	25
Mercury	90 - 119	-	80 - 120	0	25
Molybdenum	94 - 99	-	80 - 120	0	25
Nickel	89 - 101	-	80 - 120	0 - 1	25
Selenium	88 - 105	-	80 - 120	2 - 7	25
Silver	89 - 98	-	80 - 120	0	25
Thallium	92 - 100	-	80 - 120	0	25
Vanadium	91 - 104	-	80 - 120	0 - 6	25
Zinc	80 - 132	-	80 - 120	1 - 2	25
General Water Quality Parameters					
Alkalinity	-	-	-	0 - 2	25
Chemical Oxygen Demand	91 - 118	-	80 - 120	0	25
Formaldehyde	95 - 118	-	80 - 120	0	25
Total Kjeldahl Nitrogen	43 - 88	-	80 - 120	0	25
Total Dissolved Solids	-	-	-	0 - 36	25
Total Organic Carbon	91 - 105	-	80 - 120	0 - 9	25
Turbidity	96 - 128	-	80 - 120	0 - 4	25

Table 3.11. (contd)

Parameter	Percent Recovery Reported Range			RPD[b]	
	Matrix Spike	Duplicate Matrix Spike	Control Range[a]	Range of Results[c]	Limit
Radionuclides					
Radium-226	75-105	-	80 - 120	-	-
Strontium-90	83-126	-	75 - 125	-	-
Carbon-14	51-100	-	75 - 125	-	-
Gross Alpha	65-146	-	70 - 130	-	-
Gross Beta	86-130	-	70 - 130	-	-
Americium-241	61-92	-	80 - 120	-	-
Plutonium-241	81-111	-	80 - 120	-	-
Tritium	60-117	-	80 - 120	-	-
Anions & Cations					
Ammonia-Nitrogen	106 - 115	-	80 - 120	0	25
Calcium	98 - 104	-	80 - 120	0 - 2	25
Chloride	94 - 111	-	80 - 120	0 - 12	25
Magnesium	93 - 104	-	80 - 120	0 - 3	25
Nitrate as Nitrogen	83 - 118	-	80 - 120	0 - 7	25
Potassium	99 - 102	-	80 - 120	0	25
Sodium	101 - 101	-	80 - 120	0 - 3	25
Sulfate	96 - 114	-	80 - 120	0	25
Total Phosphorus	95 - 100	-	80 - 120	0	25

(a) Control range for spike recovery and RPD duplicate precision as defined in the QAPjP.
(b) Relative percent difference.
(c) For semivolatiles and pesticides/PCBs, A RPD range was calculated and is presented for each set of matrix spike and matrix spike duplicates. For metals, anions and cations, and general water quality parameters, RPDs have been calculated for laboratory-prepared sample duplicates in lieu of spike duplicates.
\- Analysis not performed in accordance with methodology.

Table 3.12. Analytical Laboratory Control Sample Spike Results Range of Accuracy

Method	Chemical	Accuracy[a]	
		Laboratory LCS Percent Recovery Reported Range[b]	Acceptable Range[c]
Volatile Organic Compounds	Vinyl chloride	78 - 140	60 - 140
	1,2-Dichloroethane	82 - 139	60 - 140
	Carbon tetrachloride	78 - 118	60 - 140
	1,2-Dichloropropane	80 - 120	60 - 140
	cis-1,3-Dichloropropene	76 - 124	60 - 140
	Trichloroethene	80 - 120	60 - 140
	1,1,2-Trichloroethane	78 - 132	60 - 140
	Benzene	82 - 120	60 - 140
	Bromoform	72 - 118	60 - 140
	Tetrachloroethene	82 - 122	60 - 140
	1,2-Dibromomethane	76 - 132	60 - 140
	1,4-Dichlorobenzene	76 - 118	60 - 140
Semivolatile Organic Compounds	4-Nitrophenol	57 - 95	10 - 80
	2,4-Dinitrotoluene	59 - 92	24 - 96
	Pentachlorophenol	41 - 133	9 - 103
	Pyrene	44 - 100	26 - 127
	Phenol	52 - 84	12 - 89
	2-Chlorophenol	61 - 93	27 - 123
	1,4-Dichlorobenzene	32 - 65	36 - 97
	N-Nitroso-di-n-propylamine	58 - 84	41 - 116
	1,2,4-Trichlorobenzene	40 - 72	39 - 98
	4-Chloro-3-methylphenol	56 - 95	23 - 97
	Acenaphthene	53 - 88	46 - 118

Table 3.12. (contd)

Method	Chemical	Accuracy[a]	
		Laboratory LCS Percent Recovery Reported Range[b]	Acceptable Range[c]
Pesticides/PCBs	gamma-BHC	65 - 110	56 - 123
	Heptachlor	47 - 95	40 - 131
	Dieldrin	75 - 105	40 - 120
	Endrin	57 - 100	52 - 126
	4,4'-DDT	70 - 97	56 - 121
	Aldrin	38 - 95	38 - 127
Radionuclides	Gross Alpha	85 - 135	70 - 130
	Gross Beta	94 - 122	70 - 130
	Carbon-14	86 - 106	75 - 125
	Radium-226	77 - 94	80 - 120
	Strontium-90	76 - 121	75 - 127
	Tritium	89 - 103	80 - 120
	Americium-241	75 - 95	80 - 120
	Plutonium-241	83 - 104	80 - 120
	Gamma Analysis		
	Cesium-137	90 - 108	80 - 120
	Cobalt-60	92 - 105	80 - 120
Metals	Antimony	93 - 111	75 - 125
	Arsenic	87 - 111	75 - 125
	Barium	89 - 112	75 - 125
	Beryllium	93 - 113	75 - 125
	Cadmium	97 - 120	75 - 125
	Chromium	93 - 110	75 - 125
	Hexavalent Chromium	90 - 104	75 - 125

Table 3.12. (contd)

Method	Chemical	Accuracy[a]	
		Laboratory LCS Percent Recovery Reported Range[b]	Acceptable Range[c]
Metals	Cobalt	94 - 110	75 - 125
	Copper	95 - 113	75 - 125
	Iron	84 - 111	75 - 125
	Lead	91 - 112	75 - 125
	Mercury	86 - 116	75 - 125
	Molybdenum	89 - 109	75 - 125
	Nickel	95 - 113	75 - 125
	Selenium	97 - 120	75 - 125
	Silver	94 - 111	75 - 125
	Thallium	89 - 109	75 - 125
	Vanadium	92 - 107	75 - 125
	Zinc	97 - 120	75 - 125
Anions and Cations	Ammonia as Nitrogen	104 - 109	75 - 125
	Calcium	100 - 105	75 - 125
	Chloride	97 - 107	75 - 125
	Magnesium	99 - 106	75 - 125
	Nitrate	95 - 110	75 - 125
	Potassium	97 - 104	75 - 125
	Sodium	98 - 104	75 - 125
	Sulfate	95 - 109	75 - 125
	Total Phosphorous	99 - 99	75 - 125

Table 3.12. (contd)

Method	Chemical	Accuracy[a]	
		Laboratory LCS Percent Recovery Reported Range[b]	Acceptable Range[c]
Groundwater Quality Parameters	Alkalinity	99 - 100	75 - 125
	Chemical Oxygen Demand	90 - 114	75 - 125
	Formaldehyde	111 - 119	75 - 125
	Total Kjeldahl Nitrogen	97 - 102	75 - 125
	Total Dissolved Solids	97 - 107	75 - 125
	Total Organic Carbon	95 - 104	75 - 125
	Turbidity	94 - 109	75 - 125

(a) Accuracy expressed as percent recovery.
(b) Range of Laboratory Control Sample (LCS) spike recoveries from all laboratory reports associated with this annual monitoring.
(c) Acceptable range for percent recovery as defined by the QAPjP.

TABLE 3.13
SUMMARY OF DETECTIONS IN TRIP BLANKS
LEHR ENVIRONMENTAL RESTORATION

Quarter	Blank	Method	Parameter	Results		Units
WINTER	TBGW0016	CLPVOA	Xylenes (Total)	1.3		ug/L
WINTER	TBGW0017	CLPVOA	All Analytes	ND		
WINTER	TBGW0018	CLPVOA	All Analytes	ND		
WINTER	TBGW0020	CLPVOA	All Analytes	ND		
WINTER	TBSW0002	CLPVOA	All Analytes	ND		
WINTER	TBSW0003	CLPVOA	All Analytes	ND		
SPRING	TBGW0023	CLPVOA	Acetone	2.3	Jc|BJ	ug/L
SPRING	TBGW0024	CLPVOA	All Analytes	ND		
SPRING	TBGW0025	CLPVOA	All Analytes	ND		
SPRING	TBGW0026	CLPVOA	All Analytes	ND		
SPRING	TBGW0027	CLPVOA	All Analytes	ND		
SPRING	TBSW0004	CLPVOA	All Analytes	ND		
SUMMER	TBGW0100	CLPVOA	All Analytes	ND		
SUMMER	TBGW0101	CLPVOA	All Analytes	ND		
SUMMER	TBGW0102	CLPVOA	All Analytes	ND		
SUMMER	TBGW0103	CLPVOA	All Analytes	ND		
SUMMER	TBGW0104	CLPVOA	All Analytes	ND		
SUMMER	TBGW0105	CLPVOA	All Analytes	ND		
SUMMER	TBSW0051	CLPVOA	Acetone	2.3	Jc|J	ug/L
FALL	TBGW0113	CLPVOA	Acetone	2.3	Jc|J	ug/L
FALL	TBGW0114	CLPVOA	Acetone	2.5	Jc|J	ug/L
FALL	TBGW0115	CLPVOA	All Analytes	ND		
FALL	TBGW0122	CLPVOA	All Analytes	ND		
FALL	TBGW0123	CLPVOA	All Analytes	ND		
FALL	TBGW0124	CLPVOA	All Analytes	ND		
FALL	TBGW0125	CLPVOA	Acetone	2.1	Jc|JB	ug/L
FALL	TBGW0126	CLPVOA	All Analytes	ND		
FALL	TBGW0127	CLPVOA	All Analytes	ND		
FALL	TBGW0128	CLPVOA	All Analytes	ND		
FALL	TBGW0129	CLPVOA	All Analytes	ND		
FALL	TBGW0130	CLPVOA	All Analytes	ND		
FALL	TBGW0290	CLPVOA	Acetone	2.2	Jz|JB	ug/L

ND = Not Detected
See Appendix A for data explanations

4.0 Hydrogeology

The hydrogeology in the vicinity of the LEHR site was initially characterized during the Phase II Site Characterization (DOE 1993). In 1995, five new monitoring wells were installed and five additional cone penetrometer tests (CPT) were performed as part of the RI/FS program. This section summarizes the regional setting and the hydrogeology of the LEHR site. A refined site hydrogeologic conceptual model is presented, based primarily on interpretation of logs from the recently completed wells and, to a lesser extent, on the CPT logs. In addition, a discussion is provided on groundwater elevations and flow directions and horizontal and vertical hydraulic gradients observed during 1995.

4.1 Regional Setting

The LEHR site is located in the southern portion of the Sacramento Valley on the relatively flat-lying Putah Plain (DWR 1978). Average elevation at the site is approximately 50 feet above mean sea level (msl). Relief across the site is approximately two feet, with the lowest point near the cobalt-60 field. The land surface slopes gently east/northeast toward the Sacramento River at approximately five feet per mile.

The Sacramento Valley is a large, asymmetrical physiographic basin bordered by the Coast Ranges to the west, the Klamath Mountains and Cascade Range to the north, and the Sierra Nevada Mountains to the east. Marine and continental sedimentary deposits occur within the basin, ranging in age from Jurassic to Recent. Norris and Webb (1976) suggest the sediments are over 30,000 feet thick near the valley axis. Deformation of these deposits during uplift of the surrounding mountains resulted in a regional dip of the sediments from the sides of the valley toward its axis.

The LEHR site is located east of the valley axis on the geomorphic unit termed "low alluvial plains and fans" or Putah Plain (DWR 1978). This surface represents distal portions of alluvial fan deposits associated with Putah Creek, referred to as the Putah Creek Fan (Mann 1992). Sediments from within alluvial fan deposits consist primarily of silts and clays, with coarse-grained sediments occurring locally. During geologic time, Putah Creek changed course many times throughout this area, resulting in ribbon-like strips of coarse, main-channel deposits flanked by overbank silts and clays. The ages of these deposits range from late Pleistocene to Recent. 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 age Tehama Formation. The Tehama Formation consists of fine-grained sands and silts with discontinuous lenses of coarse sand and gravel. It is the principal water-bearing formation on the west side of the Sacramento Valley. This unit is thought to be coeval with the Laguna Formation on the east side of the Sacramento Valley (DWR 1978; Olmsted and Davis 1961).

Locally, both unconfined and confined aquifers occur in the upper 3,000 feet of sediments in the Sacramento Valley. No regionally continuous confining units exist (DWR 1978). Groundwater generally flows toward the Sacramento River from the west and east sides. At various depths beneath the valley floor, saline water is found, trapped there during deposition of the marine sediments. The depth to the base of the fresh water varies from as little as 400 feet to over 3,000 feet.

The major groundwater sources for public and private water supplies in the Sacramento Valley are the unconsolidated sediments of Pliocene and Pliestocene ages and the older alluvium. The younger alluvium and stream channel deposits are less frequently tapped. Groundwater is recharged through leakage from streams and rivers and direct infiltration from precipitation and irrigation.

4.2 LEHR Site Hydrogeology

This section focuses on the principal hydrogeologic units beneath the LEHR site. For the purposes of this report, a hydrogeologic unit is defined as a laterally continuous geologic unit with hydrologic significance. Hydrologic significance is indicated by hydraulic conductivity or hydrochemistry contrasts between units. Hydrogeologic units depicted in this report correspond to hydrostratigraphic units referenced in previous reports (DOE 1993, 1994, 1995). In a strict sense, a hydrostratigraphic unit as proposed by Maxey (1964) is defined as a body of rock having considerable lateral extent and composing a geologic framework for a reasonably distinct hydrologic system.

Hydrogeologic unit interpretation was based primarily on physical sample descriptions from two of the five new monitoring wells, hydraulic characterization results, and geophysical logging (DOE 1993). Physical sample descriptions included texture, grading, color, consolidation, and gross mineralogy. Natural gamma, porosity, and bulk density logs were used to corroborate the sample descriptions and identify permeable zones for screening in one well. Daily borehole logs for the new wells and CPT logs from 1995 will be presented in a subsequent report (Liikala et al. 1996). Boring logs for existing monitoring wells and CPT logs completed during previous investigations are presented in DOE (1993).

The five new monitoring wells were installed in August and September 1995 using the air rotary drilling method. The wells are located in two clusters (Figure 2.1). The first cluster is located east of the LEHR site, approximately 60 feet south of Building U-1, and contains three wells, UCD1-25, UCD2-26, and UCD1/2-27. Well UCD1-25 is completed near the bottom of HSU-1; well UCD2-26 is completed near the top of HSU-2. Well UCD2-27 monitors seven intervals, three within HSU-1 and four within HSU-2. These wells were installed to determine the nature and extent of contamination downgradient of all source areas with the exception of Landfill 3. They were also designed to provide information on groundwater flow direction, groundwater velocity, vertical anisotropy, effective porosity, and horizontal hydraulic conductivity.

The second cluster is located south of the LEHR site and north of Putah Creek. This cluster contains two wells, UCD1-34 and UCD2-35. Well UCD1-34 is completed near the

bottom of HSU-1, and well UCD2-35 is completed near the bottom of HSU-2. These wells were installed upgradient of all suspected onsite source areas to determine background concentrations for contaminants of concern, and downgradient of Putah Creek, which receives flow from the UC Davis outfall. They were also designed to provide information on groundwater flow direction and vertical variation in near well horizontal hydraulic conductivity.

Four hydrogeologic units were encountered during drilling operations in 1995 at the LEHR site. They are, in descending order, the vadose zone, HSU-1, HSU-2, and the unnamed aquitard beneath HSU-2. Figure 4.1 is a generalized hydrogeologic column showing the order and average elevations of these units and their relationships to the regional stratigraphy and hydrostratigraphy. Table 4.1 lists the unit depths and thicknesses in the LEHR site wells. Figure 4.2 shows the location of two cross-sections, one west to east and one north to south. The cross-sections are presented in Figures 4.3 and 4.4 and incorporate portions of previously presented cross-sections in DOE (1993). Detailed descriptions for each of the hydrogeologic units follow.

The vadose zone comprises primarily unsaturated clays and silts with sands and gravels intermixed, indicative of a relatively low-energy depositional environment. Immature caliche and organic matter were also noted. The fine-grained materials varied with depth, having been described as dark grey to brown and dry to very moist. The clays were further described as mottled and having low to high plasticity and slight to high toughness. Poorly to well-graded sands and angular to subrounded gravels were observed.

Recent measurements indicate the vadose zone is approximately 42 feet thick near well UCD1-25 and 47 feet thick near well UCD1-34. However, thicknesses across the site vary with seasonal water table fluctuations. It is also important to note that wells UCD1-34 and UCD2-35 are located on an artificially constructed levy that places the ground surface at these wells approximately 7 feet higher than wells UCD1-25, UCD2-26, and UCD1/2-27.

HSU-1 is lithologically similar to the vadose zone in texture, grading, toughness, and plasticity. Calcareous cement and caliche nodules were noted at several locations within this unit. Colors included olive brown, dark yellowish brown, and greenish to dark grey. Well-defined laminations were observed in well UCD1/2-27. The contact between HSU-1 and HSU-2 ranges from approximately 76 to 88 feet bgs across the LEHR site. Thickness of HSU-1 was approximately 40 and 29 feet in wells UCD1/2-27 and UCD2-35, respectively.

HSU-2 extends to a depth of 126 feet bgs in well UCD1/2-27 for a thickness of 44 feet, and a depth of 130 feet bgs in well UCD2-35 for a thickness of 54 feet. A minimum thickness of 31 feet was measured in well UCD2-16. This unit is composed primarily of sands in the upper portion of the unit and gravels in the middle to lower portions of the unit, suggesting a relatively higher-energy depositional environment. Samples were described as well-graded, unconsolidated, and wet, consisting of approximately 70 to 90% quartz and 10 to 30% mafic minerals. The sands ranged from very fine

to very coarse; the gravels were very fine to medium pebble-sized, and angular to rounded. Flowing sand conditions were encountered in the upper portion of HSU-2.

Collectively, sediments from the vadose zone, HSU-1, and HSU-2 make up the Putah Creek Fan beneath the LEHR site. Thicknesses range from 118 feet (UCD2-15) to 138 feet (UCD2-17). DOE (1993) further subdivided the Putah Creek Fan into two lithofacies: an upper lithofacies consisting of the interbedded clays and silts, with some sand and gravel deposits (i.e., the vadose zone and HSU-1); and a lower lithofacies consisting primarily of the sands and gravels (i.e., HSU-2).

The unnamed aquitard beneath HSU-2 was encountered in wells UCD1/2-27 and UCD2-35 at 126 and 130 feet bgs, respectively. Depth of penetration into this aquitard in all wells ranged from 2.5 feet (UCD2-15) to 10 feet (UCD1/2-27). Cuttings were described as light brown silty clay to clay with some caliche. These materials displayed high plasticity and toughness. At no location did the drill depth advance through the unnamed aquitard; the maximum depth penetrated in all of the investigations was 143 feet bgs in well UCD2-17. The unnamed aquitard is thought to be approximately 90 feet thick in the vicinity of the LEHR site (DOE 1994) and corresponds to the Tehama Formation (DOE 1993).

Regionally, HSU-2 is referred to as the first aquifer. Wells completed in HSU-2 are reported to have high specific capacities. At greater depths, Mann (1992) indicates that there are sand and gravel aquifers within the Tehama Formation jointly referred to as the second aquifer. Regional data from drillers' logs show the presence of a gravel unit below the unnamed aquitard. This gravel unit is identified as HSU-3 in DOE (1994). These sediments are reported to be less permeable than HSU-2 (DOE 1995). In addition, wells completed in these sediments have lower specific capacities than wells completed in HSU-2.

Slug testing was conducted during October and November 1995 at existing and new well installations to provide information on the range and possible spatial variation of hydraulic properties for HSU-1 and HSU-2 at the LEHR site. In total, 11 existing HSU-1 wells (UCD1-10, -11, -12, -13, -18, -19, -20, -21, -22, -23, -24) and five existing HSU-2 wells (UCD2-7, -14, -15, -16, -17) were characterized using the slug test method. Slug testing was also conducted at the five new wells.

Analytical methods used in the analysis of the slug tests exhibiting overdamped responses (i.e., exponential decay pattern) include the type-curve matching method for unconfined and confined aquifers, as presented in Hyder et al. (1994), Hyder and Butler (1995), Spane and Wurstner (1993), and Spane (1994). Because these analytical methods can use all or any part of the slug test response in the analysis procedure, they are particularly useful in the analysis of unconfined aquifer tests (e.g., HSU-1 wells). They also do not have any of the inherent analytical weaknesses of the commonly used Bouwer and Rice method (described in Bouwer and Rice [1976] and Bouwer [1989]) for unconfined aquifer slug tests, which are discussed in Hyder and Butler (1995) and Brown et al.

(1985). For HSU-2 slug tests exhibiting underdamped oscillatory test responses, the analytical method described in Van der Kamp (1976, 1984) was used.

Final analysis of all slug tests conducted during October and November 1995 have not been completed. Preliminary results from the analysis of selected slug tests indicate the following ranges for hydraulic conductivity for HSU-1 and HSU-2.

Hydrogeologic Unit	Hydraulic Conductivity	
	feet/day	feet/second
HSU-1	1.9 - 11	2.2×10^{-5} - 1.3×10^{-4}
HSU-2[a]	120 - 620	1.4×10^{-3} - 7.2×10^{-3}

(a) Preliminary estimates listed for HSU-2 are based only on analysis of oscillatory slug test responses.

These preliminary values are comparable to the hydraulic conductivity range reported for HSU-1 of 7.1×10^{-6} to 8.3×10^{-5} feet/second and generally higher than the range cited for HSU-2 of 3.1×10^{-4} to 9.4×10^{-4} feet/second in DOE (1993). Final analytical results of the slug tests conducted during October and November 1995 will be presented in a subsequent report.

4.3 Groundwater Elevations and Gradients

This section provides a discussion of groundwater elevations and flow directions observed during 1995. Groundwater elevations measured during 1995 are discussed in terms of seasonal/annual fluctuations and horizontal and vertical gradients. Data sources include monthly electrical water-level indicator (E-tape) measurements collected by both International Technology Corporation (IT Corp.) and UC Davis, and limited continuous pressure transducer readings collected by PNNL. Additional water-level data, not presented in this report, were collected by the State of California Water Resources Control Board.

4.3.1 Seasonal/Annual Groundwater Elevations

Figure 4.5 illustrates the seasonal/annual variations in groundwater elevations during the period November 1990 through December 1995. This figure contains hydrographs for wells UCD1-20 (screened in HSU-1) and UCD2-7 (screened in HSU-2). These hydrographs are typical of seasonal/annual fluctuations observed across the LEHR site.

Cumulative groundwater elevation data through 1995 are presented in tabular form by well in Appendix E. Hydrographs of these data are shown as Figures E.1 through E.13. Monitoring well screen intervals are shown in Table 2.2. Based on a review of the hydrographs, these observations can be made:

- The pattern of groundwater elevation fluctuation in both HSU-1 and HSU-2 is similar in shape and magnitude of change.

- The lowest groundwater elevations typically occur in July or August and the maximums in March.

- Seasonal/annual fluctuations since 1990 range from a maximum of approximately 40 feet between August 1994 and March 1995 to a minimum of 15 feet between August 1993 and March 1994.

- There appears to be an overall increase of approximately 13-14 feet in average groundwater elevations between November 1990 and December 1995.

The observed pattern of water-level fluctuations indicates that groundwater withdrawal during the irrigation season is the dominant factor influencing the seasonal pattern. The amount by which water levels recover during the winter rainy season probably depends on the amount of annual precipitation. Figure 4.6 shows the monthly precipitation data for the Davis area. This graph was constructed using monthly data from January 1993 through December 1995 from a station at UC Davis. The maximum rate of water-level recovery (i.e., steepest slope) is observed during September and is most likely due to the cessation of major groundwater withdrawals following the irrigation season.

4.3.2 Groundwater Elevations During 1995

Figures 4.7 and 4.8 show composite hydrographs for selected monitoring wells screened in HSU-1 and HSU-2, respectively. These two hydrographs illustrate the fluctuations in the potentiometric surfaces for HSU-1 and HSU-2 during 1995 compared with the cumulative precipitation. The timing of each quarterly sampling period is also noted. Based on a review of these hydrographs, the following observations can be made:

- Seasonal/annual fluctuations in 1995 groundwater levels ranged from nearly 21 feet in HSU-1 to just over 17 feet in HSU-2.

- The lowest levels during 1995 were observed in both January and August and the highest levels in March.

- The most rapid decline of water levels during 1995 was observed during May and June, and the maximum rate of water level recovery was observed during January and March.

A review of continuously monitored water levels from two well clusters and the precipitation data (Figure 4.9) reveals a strong correlation between the increased precipitation and a rise in the water levels at both well clusters. The rapid response of water levels (within a day after the precipitation event) is believed to be in response to increased recharge from Putah Creek resulting from an increase in river stage caused by surface runoff from the heavy local precipitation event. Figure 4.9 illustrates that the water level in HSU-1 near Putah Creek (UCD1-34) dramatically rises in response to the precipitation event. HSU-2 (UCD2-35) responds in concert with HSU-1 but shows a dampened increase in water level. Note that the downward vertical gradient between HSU-1 and HSU-2 is strongest soon after the HSU-1 water level rises, then dissipates with time as HSU-2 responds.

Away from Putah Creek (near UCD1-25 and UCD2-26) the water levels also respond to the precipitation event; here, however, it is HSU-2 which responds first, creating a stronger upward vertical gradient that slowly dissipates with time. These observations are consistent with low horizontal hydraulic conductivities in HSU-1 and high hydraulic conductivities in HSU-2. That is, water is transported vertically through HSU-1 to HSU-2 near its source of recharge (i.e., Putah Creek), then transported quickly through HSU-2, and finally back to HSU-1, as the vertical gradient becomes upward.

4.3.3 Horizontal Groundwater Gradients During 1995

DOE (1993, 1994a) indicates that, on average, the hydraulic gradients of both HSU-1 and HSU-2 are on the order of 10^{-3} feet/foot, with a general northeast groundwater flow direction. However, the hydraulic gradient is highly variable and depends on the time of year. This variability is associated with both the natural and anthropogenic (man-induced) stresses affecting the aquifer, as discussed in the previous sections.

Changes in hydraulic gradient and groundwater flow direction throughout 1995 can be observed in Figures 4.10 and 4.11. These figures illustrate quarterly equipotential maps for HSU-1 and HSU-2, respectively. The four quarterly maps for each HSU represent times during the year that range from natural, non-stressed conditions (February), to seasonal periods representative of anthropogenically stressed conditions (August).

HSU-1 is present at depths ranging from 30 to 70 feet bgs and consists of fine-grained sediments, primarily silts and clays, with infrequent, discontinuous sand and gravel lenses. During February 1995, the horizontal groundwater gradient appears to be fairly steep near the southwest corner of the site, and radiating outward towards the north and northeast. In May and August (Figure 4.10), the gradient in HSU-1 is toward the northeast. In November, the gradient appears to swing even further eastward, except locally around wells UCD1-5 and UCD1-20. Rapid water level recovery during this period produces a more irregular potentiometric surface that may be attributed to local variations in hydraulic conductivity.

HSU-2 ranges from approximately 80 to 135 feet bgs and consists of coarse grained material. The horizontal groundwater gradient in HSU-2 during 1995 is more consistently toward the east, with a very slight northerly component.

To quantitatively assess lateral hydraulic gradients and groundwater flow directions, the commercially available WATER-VEL (In-Situ 1991) software program was used. WATER-VEL calculates hydraulic gradients and groundwater flow direction by fitting a linear, two-dimensional trend surface (least squares) to the hydraulic head data. The technique is accurate as long as the 2-D, linear approximation is applicable (i.e., no significant vertical groundwater gradient exists within the aquifer). Tables 4.2 and 4.3 list the analytical results of the four quarterly measurement surveys for HSU-1 and HSU-2, respectively. The average groundwater flow directions calculated using WATER-VEL are consistent with those discussed above, indicating a more northerly groundwater flow component for HSU-1 with a wider variation in groundwater flow direction than exhibited by HSU-2.

A comparison of these results indicates an overall similarity in lateral gradients for both HSUs during 1995. Average horizontal groundwater gradients in HSU-1 during 1995 ranged from approximately 4×10^{-4} feet/foot (February 1995) to 1.6×10^{-3} feet/foot (August 1995). Average horizontal groundwater gradients in HSU-2 during 1995 ranged from approximately 3.9×10^{-4} feet/foot (February 1995) to 1.5×10^{-3} feet/foot (May 1995). Tables 4.2 and 4.3 indicate that lower hydraulic gradients occurred during the winter and fall, while higher hydraulic gradients occurred during the spring and summer (during periods of significant offsite groundwater withdrawals).

4.3.4 Vertical Groundwater Gradients During 1995

Seven well pairs, consisting of a monitoring well completed in HSU-1 adjacent to a monitoring well completed in HSU-2, exist at the LEHR site. These well pairs are listed in Table 4.4. This table includes the screened intervals, mid-screen elevation, and the elevation differential between mid-screen elevations for each well pair. In addition, a Westbay well was installed near one of these well pairs and consists of seven isolated monitoring intervals (Table 4.5). Table 4.5 also lists the water level elevations for each zone (computed from pressure transducer readings collected at 2400 hrs on October 28, 1995) and the differential between adjacent zones. Additional pressure transducer readings were collected continuously over a two-week period but have not yet been fully analyzed. A review of the data in Table 4.5 suggests that there was an upward vertical gradient in both HSU-1 and HSU-2 at the time of these measurements, except between zones 6 and 7 where the vertical gradient appears to be downward. This evaluation, however, does not account for the variable response of different hydrogeologic zones to barometric pressure changes (resulting from their different barometric efficiencies). Thus, the actual vertical gradients may differ from those of the apparent gradients suggested by differences in water level elevation. Similar limitations should be noted when examining the information presented throughout the remainder of this section.

Figures 4.9 and 4.12 - 4.16 illustrate the 1995 hydrographs for each well pair. Based on a review of these hydrographs (see also Appendix E), the water levels appear to match fairly closely during the winter months of January, February, and early March. At the onset of the irrigation season in March, the water level decline in HSU-1 appears to lag behind the steep decline shown on the hydrographs for HSU-2 wells. As water levels in the HSU-2 wells begin to rise in the fall at the cessation of the irrigation season, HSU-1 water levels also begin to rise, and again appear to lag somewhat behind the HSU-2 levels.

Figure 4.17 illustrates the apparent vertical gradient between each well pair. The vertical gradient is expressed here as the difference in water levels between the wells in a pair (HSU-2 water level minus HSU-1 water level), divided by the vertical differential in feet between the mid points of the respective screened intervals. For a downward vertical gradient (i.e., HSU-1 water level is greater than HSU-2 water level) the result will be a negative number, and for an upward vertical gradient the result will be a positive number. Again, it should be noted that these data have not been corrected to account for the barometric responses of the hydrogeologic units, thus the actual vertical gradients may vary. It should also be noted that well UCD2-14 is not solely representative of HSU-2, since it was completed across the contact between HSU-1 and HSU-2.

Figure 4.17 suggests that apparent vertical gradients are highly variable between January and March, while water levels are recovering from the previous irrigation season. Significant negative (downward) vertical gradients occur in all well pairs from April to September (the primary irrigation season) as water is withdrawn from HSU-2. The apparent negative vertical gradients reach a maximum in the May and June, and vary from -0.15 feet/foot in the UCD1-13/UCD2-14 well pair, to -0.01 feet/foot in the UCD1-1/UCD2-16 well pair. The apparent negative vertical gradients then decrease and reverse to apparent positive vertical gradients in nearly all well pairs from September through November, as water levels in HSU-2 wells begin to recover.

This pattern of seasonal changes in apparent vertical gradients between well pairs suggests that groundwater moves downward from HSU-1 into HSU-2 during water level declines in spring and summer. In the fall and early winter, as water levels begin to recover, groundwater moves vertically from HSU-2 into HSU-1. The apparent lag in water level change between the HSU-1 and HSU-2 reflects the low vertical hydraulic diffusivity (K_v/S_s) of HSU-1 relative to HSU-2.

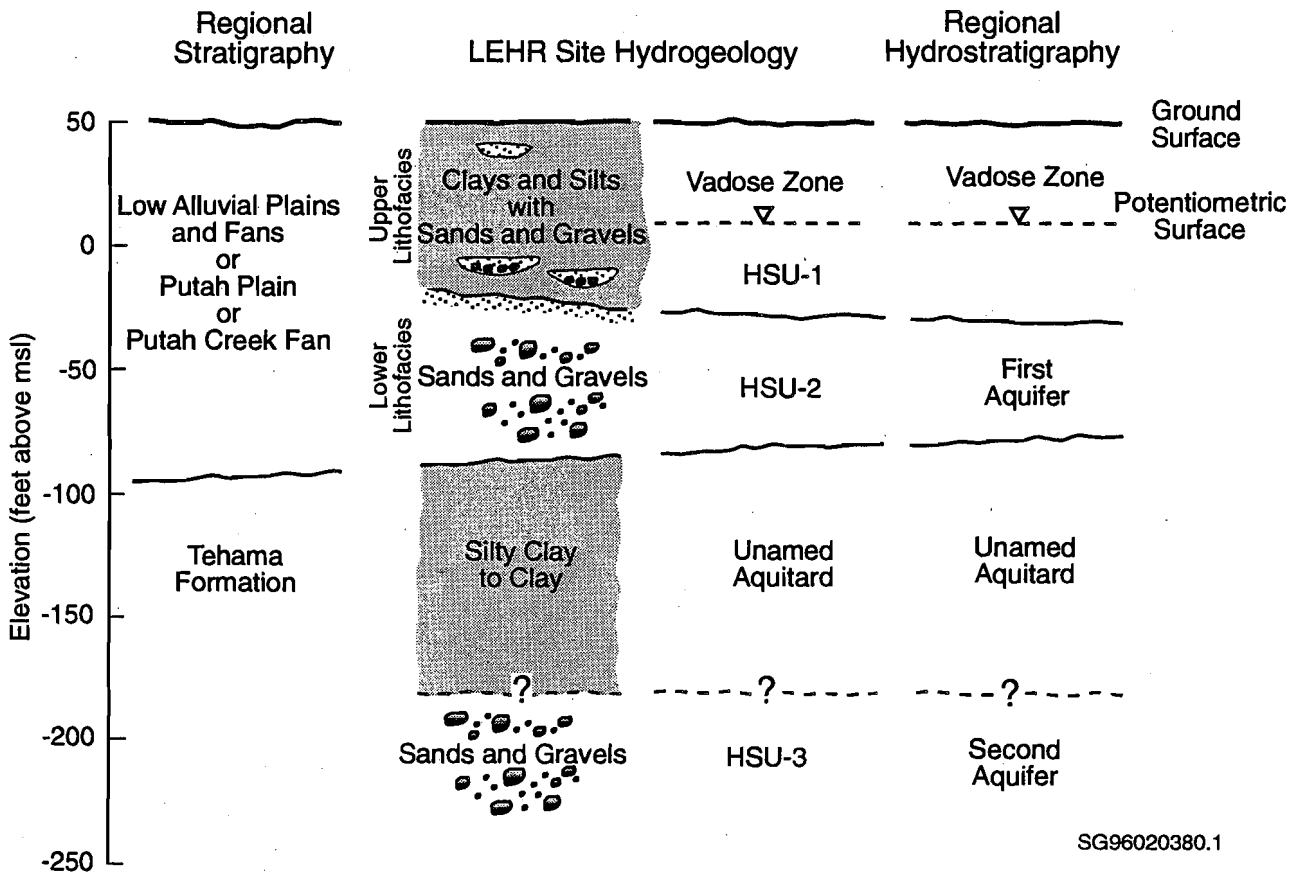
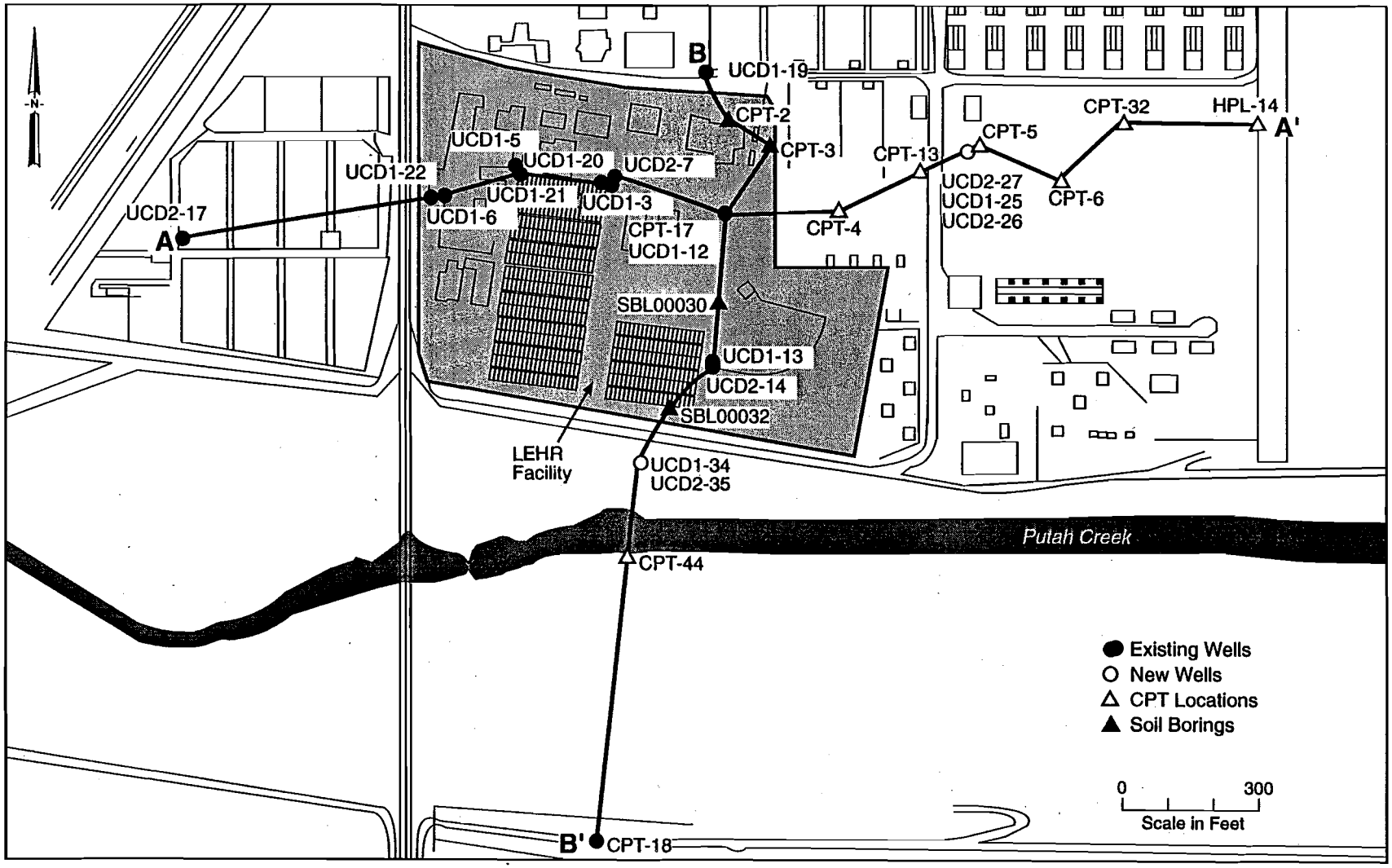
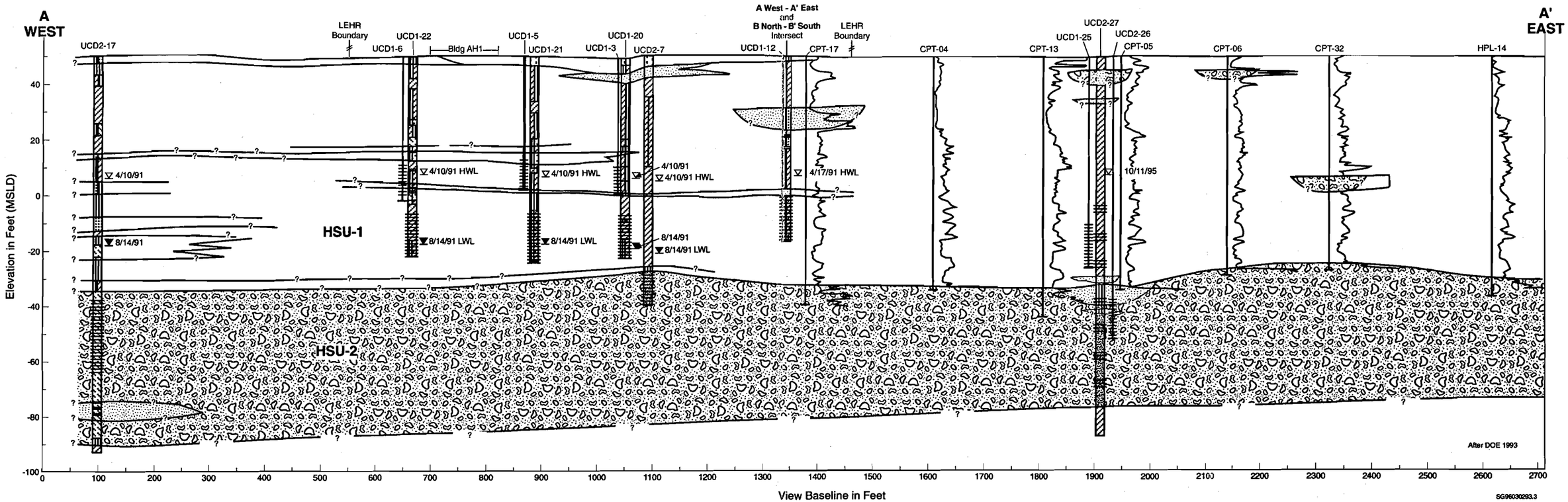


Figure 4.1. Average Elevations of HSU-1 and HSU-2 and Their Relationship to Regional Stratigraphy and Hydrostratigraphy



SG96030293.1

Figure 4.2. Location of West to East and North to South Cross-Sections Across the LEHR Site



Explanation

- 4/10/91 HWL: High Groundwater Level
- 8/14/91 LWL: Low Groundwater Level
- Screened Interval

Stratigraphic Lithology

- Interbedded Clay, Silty Clay and Silt
- Fine-Grained Sand and Silty Sand
- Well-Rounded Cobbles and Gravel with Some Sand

Boring Log Lithology

- Silty Clay, Sandy Clay, Gravelly Clay
- Clayed Silt, Sandy Silt, Gravelly Silt
- Silty Sand, Sand with Silt
- Clayey Sand, Sand with Clay
- Clayey Gravel, Gravel with Clay
- Silty Gravel, Gravel with Silt
- Sandy Gravel, Gravel with Sand
- Gravelly Sand, Sand with Gravel

CPT Tip Resistance

Figure 4.3. West to East Cross-Section Across the LEHR Site

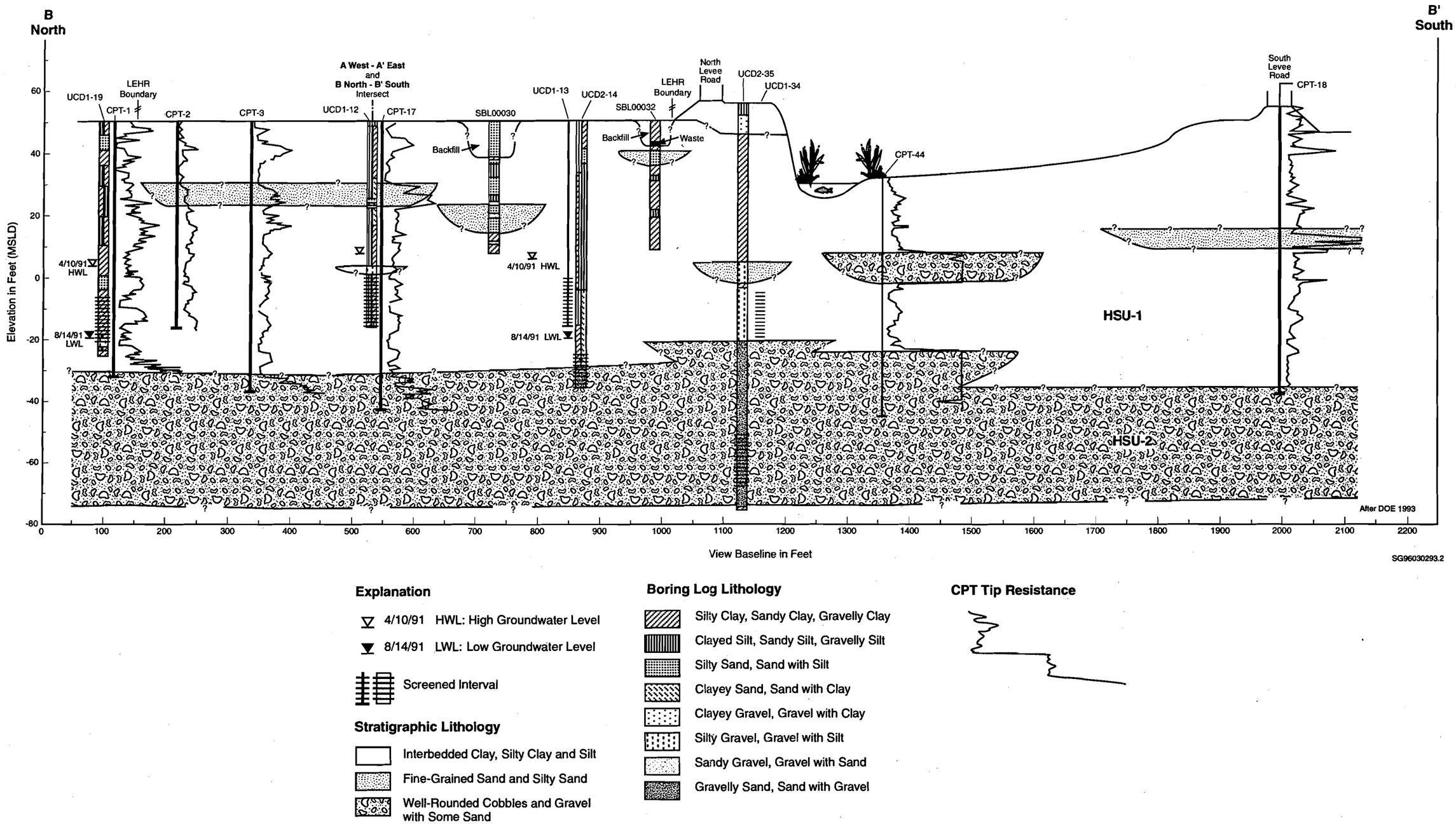


Figure 4.4. North to South Cross-Section Across the LEHR Site

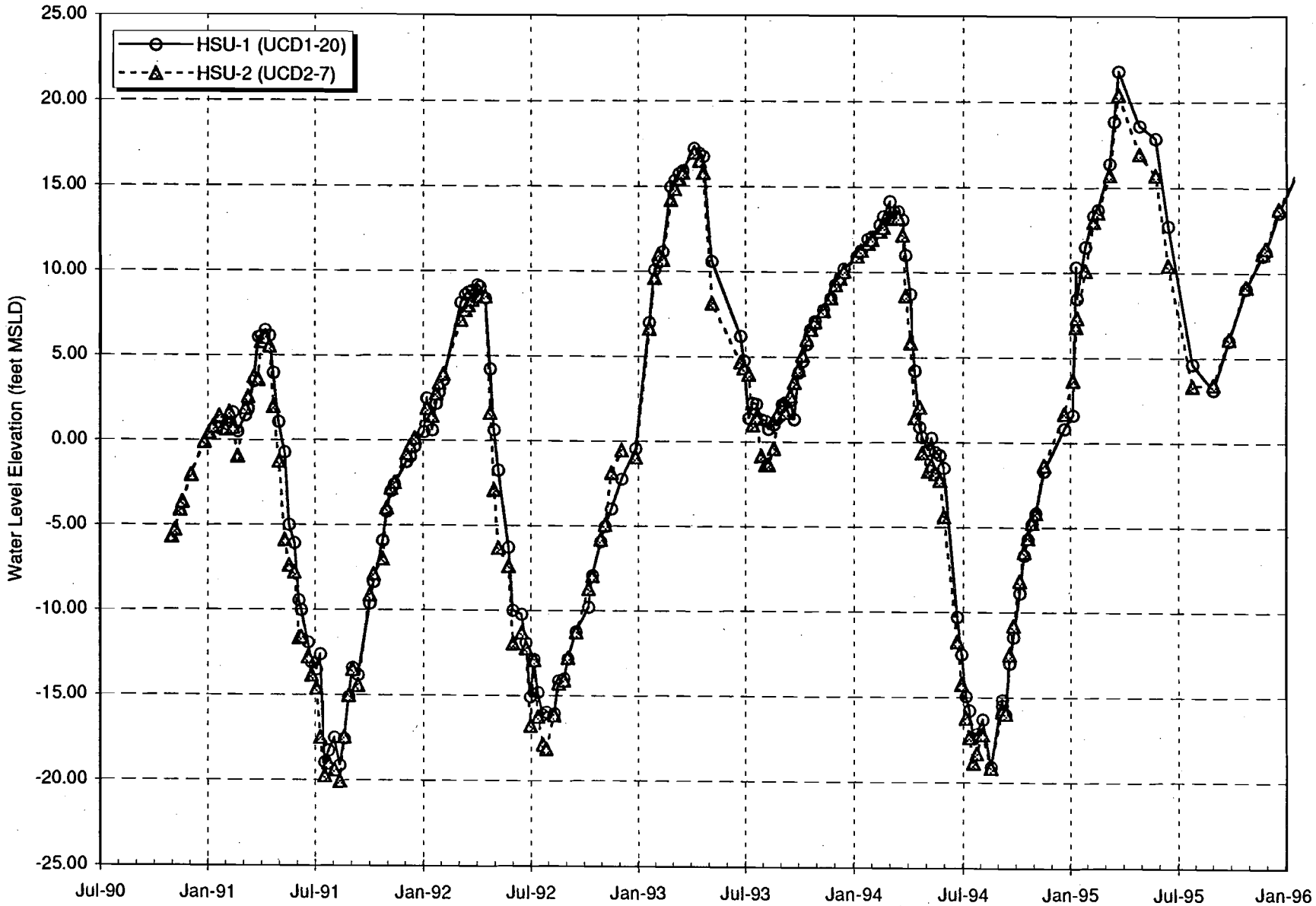


Figure 4.5. Groundwater Elevation Hydrograph, UCD1-20 and UCD2-7 (2/27/96)

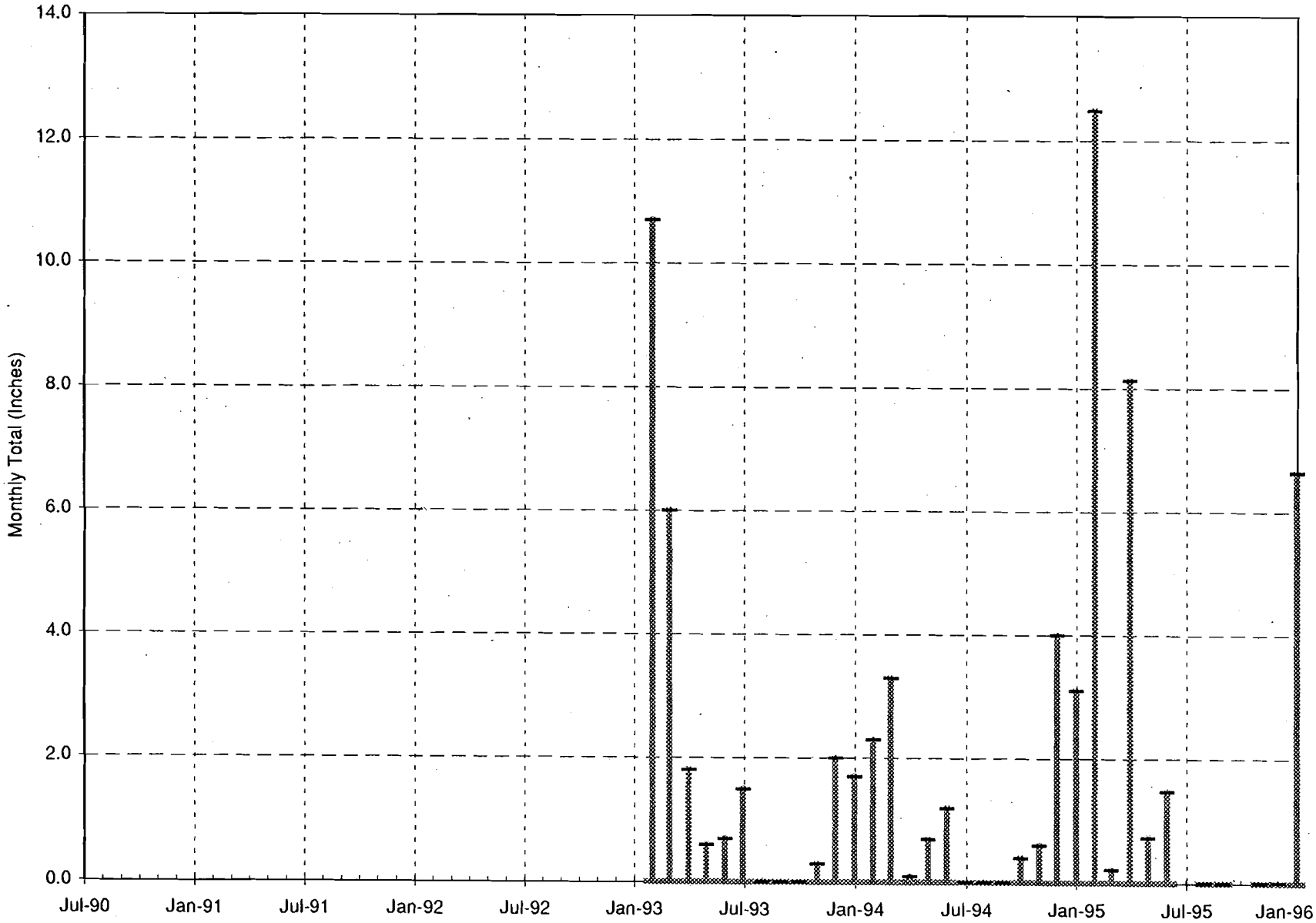


Figure 4.6. Monthly Precipitation Totals (3/15/96)

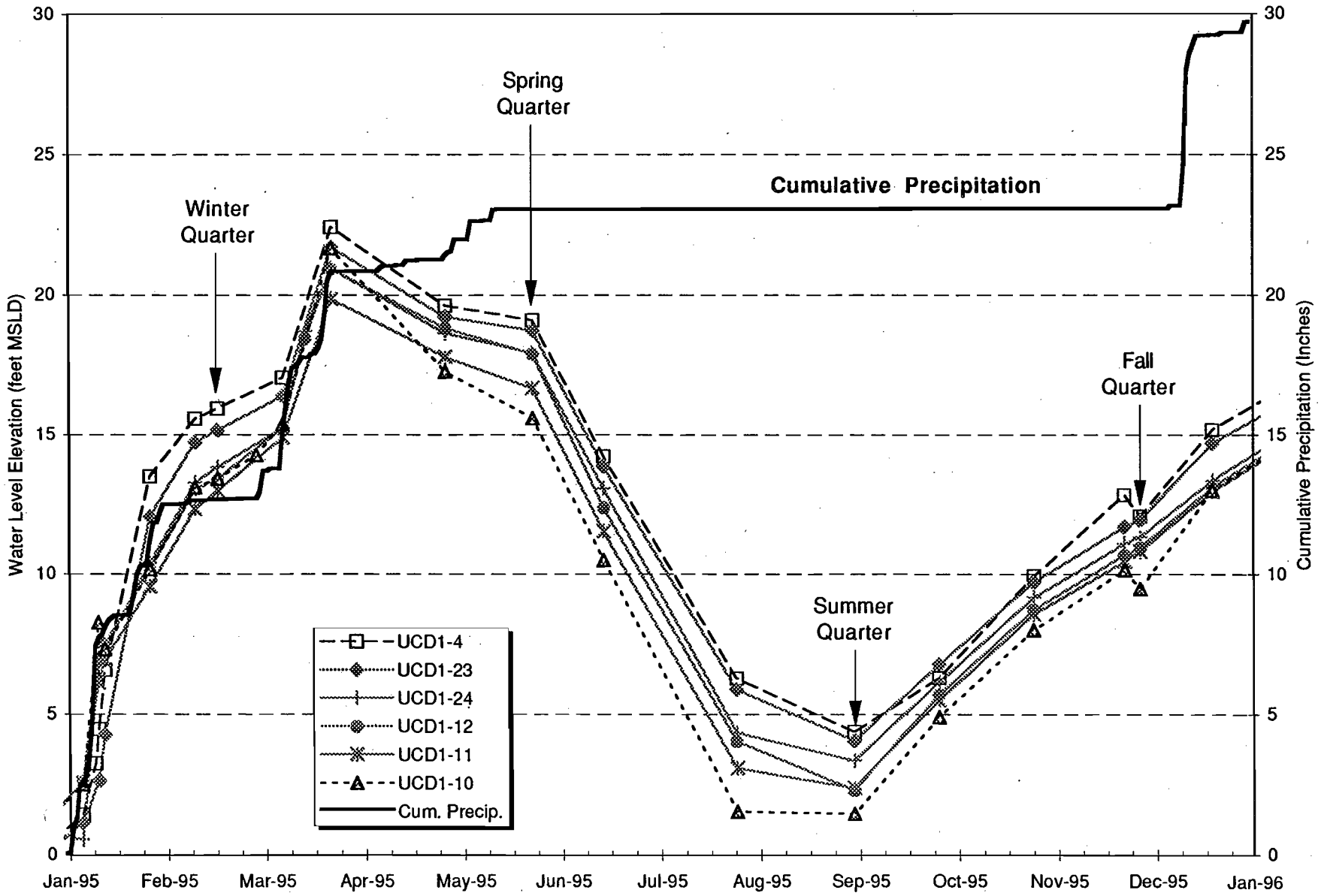


Figure 4.7. Groundwater Elevation Hydrograph, Selected HSU-1 Wells (2/26/96)

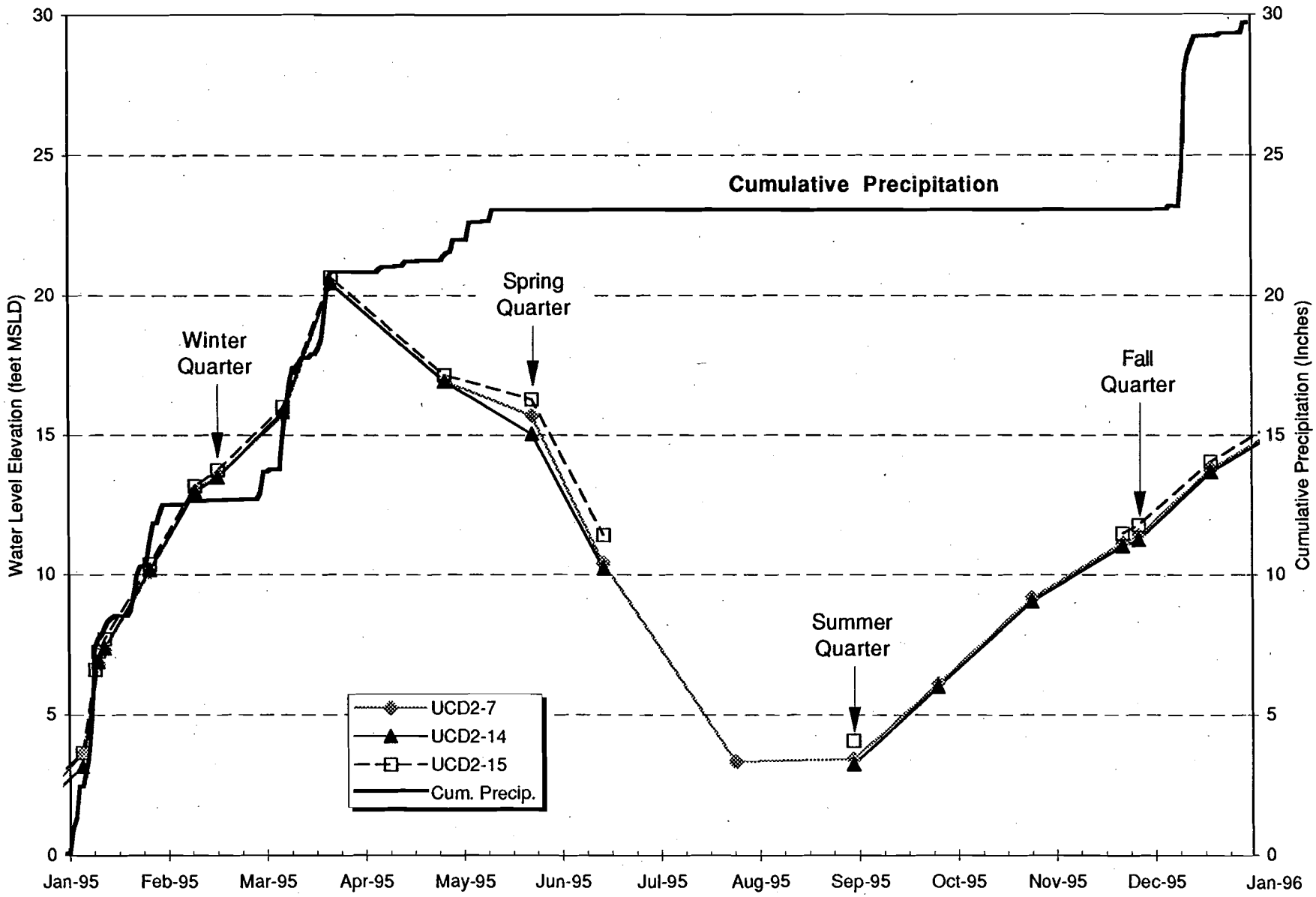


Figure 4.8. Groundwater Elevation Hydrograph, Selected HSU-2 Wells (2/26/96)

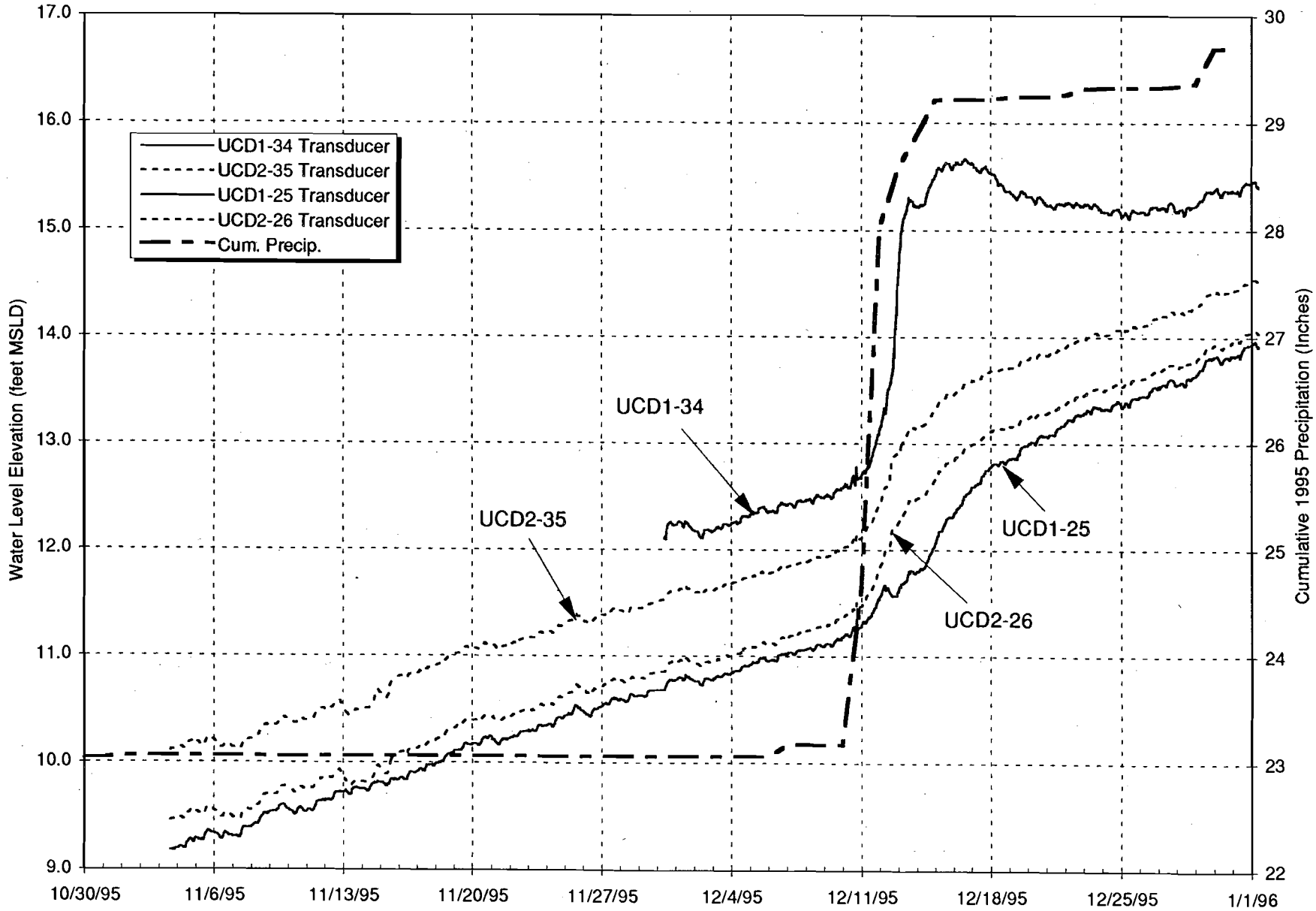


Figure 4.9. Groundwater Elevation Hydrograph, UCD1-25, -34, and UCD2-2, -35 (3/15/96)

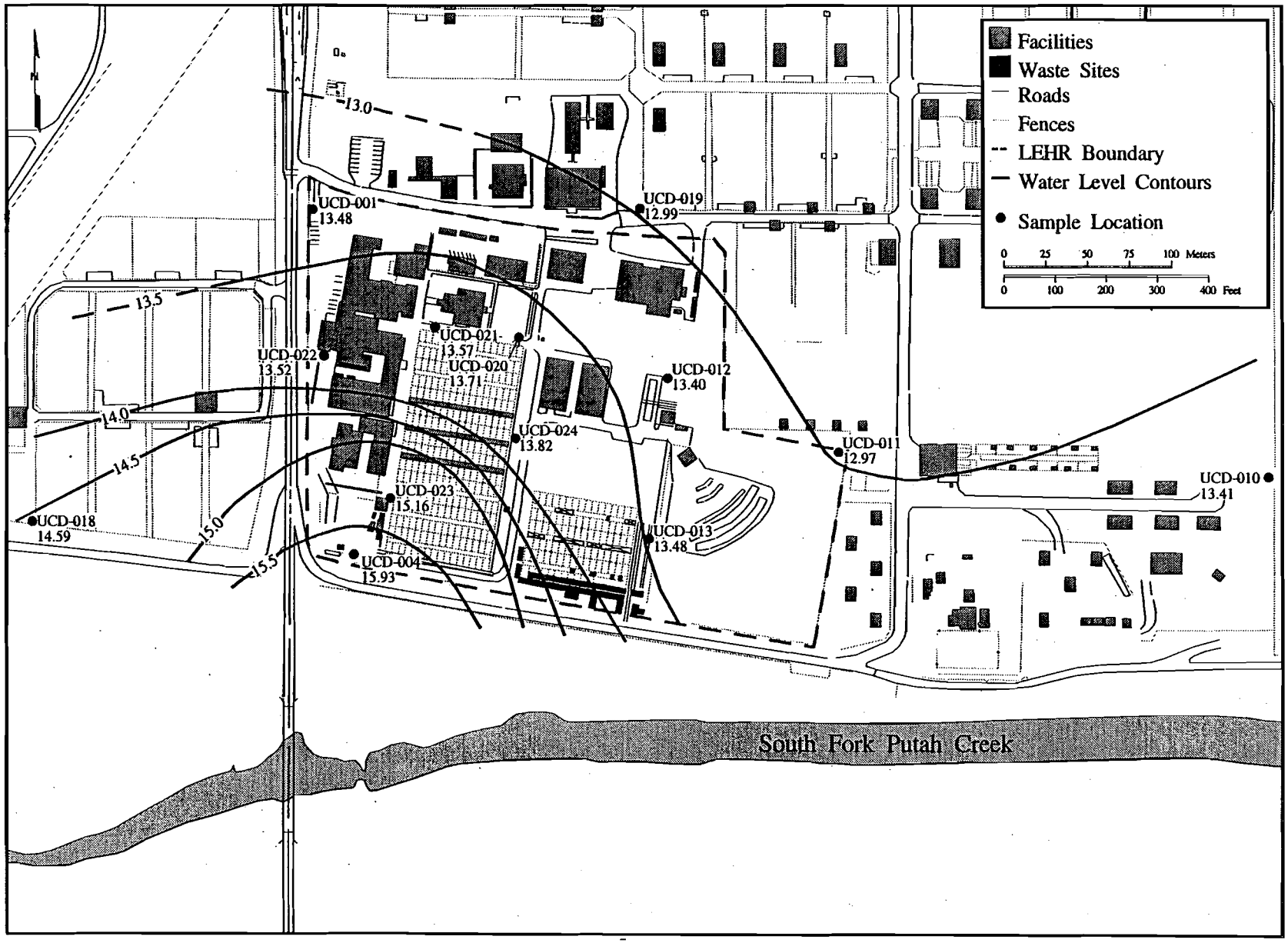


Figure 4.10a. Groundwater Elevations for HSU-1, February 17, 1995

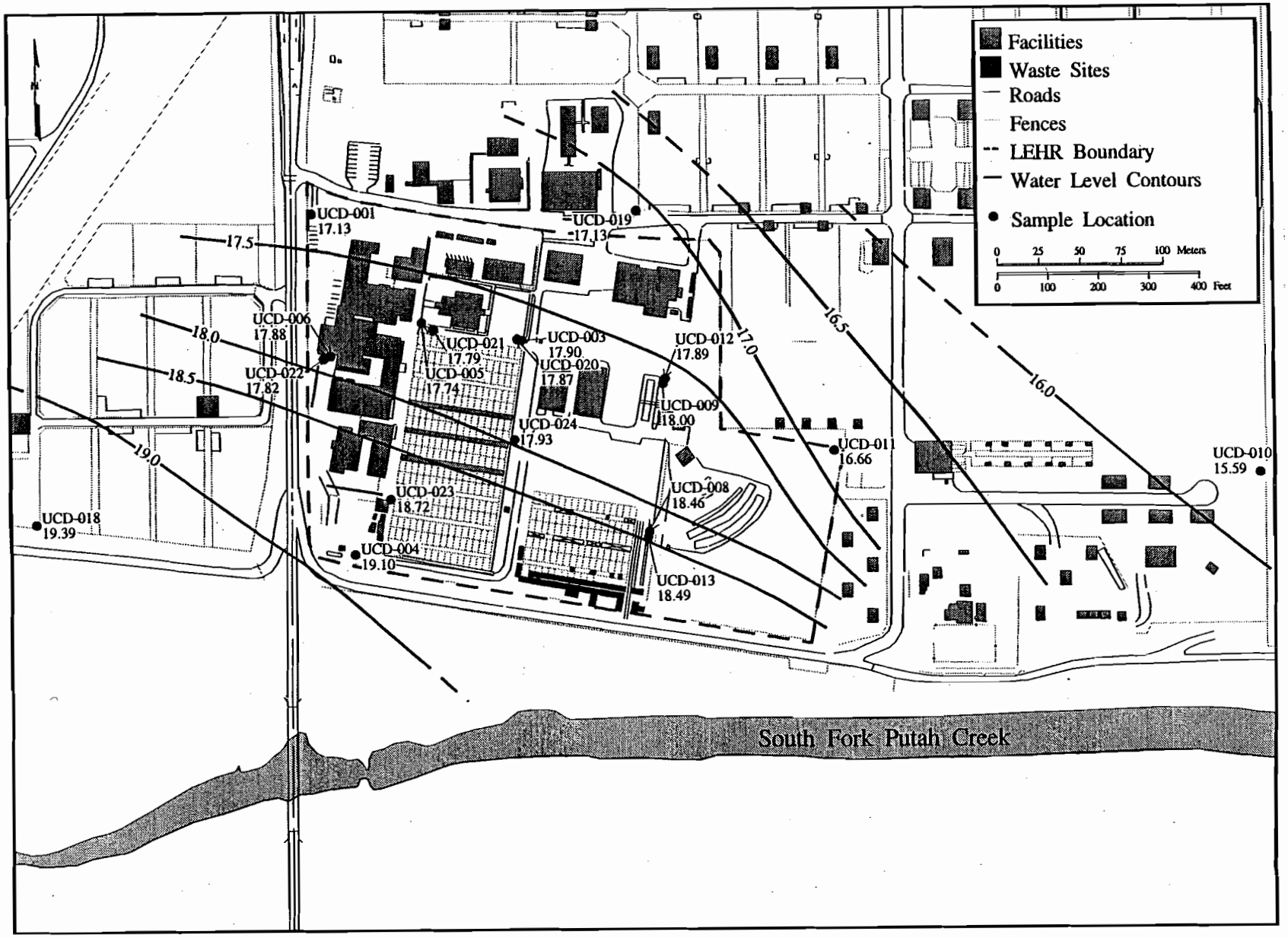


Figure 4.10b. Groundwater Elevations for HSU-1, May 25, 1995

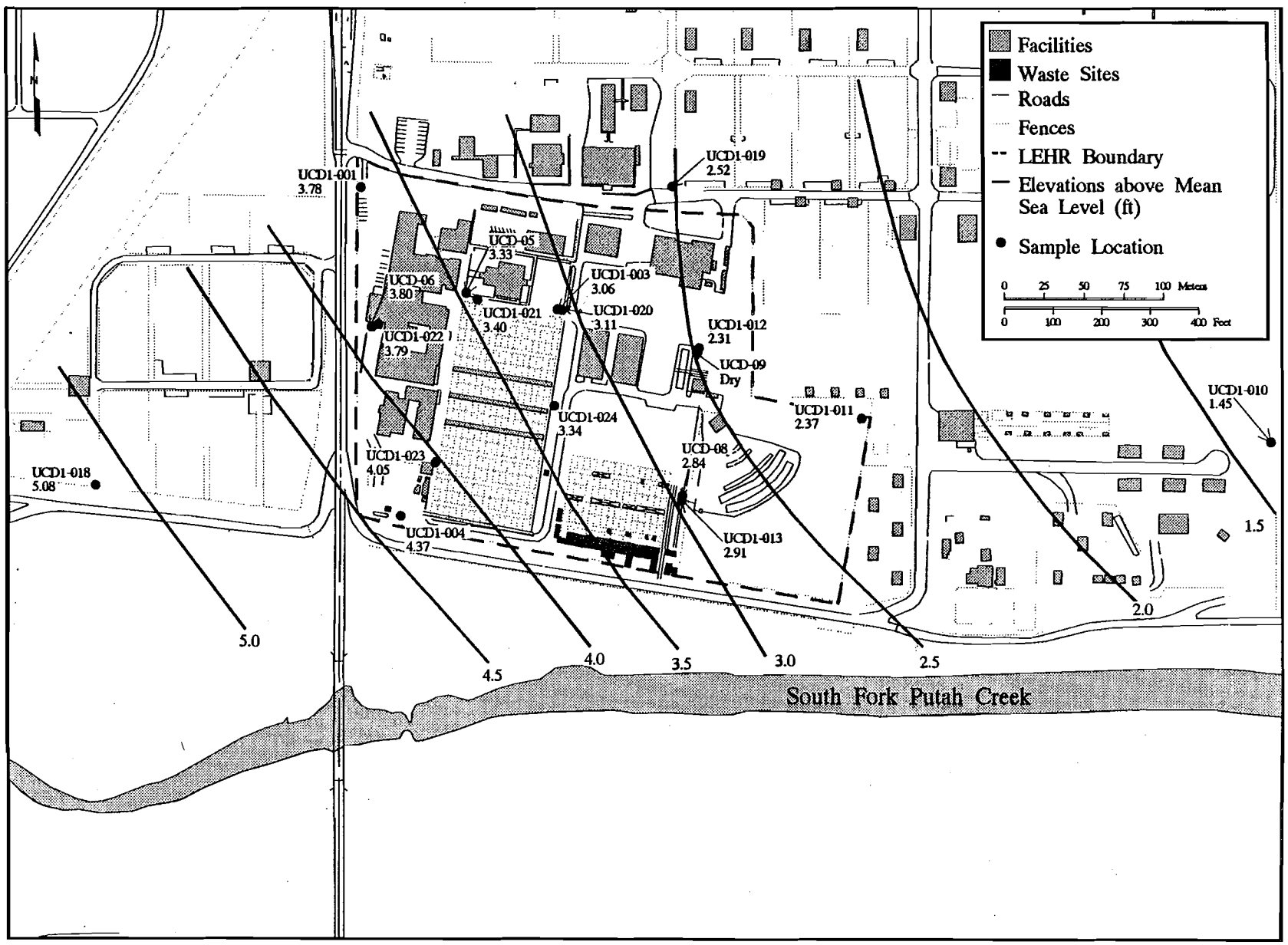


Figure 4.10c. Groundwater Elevations for HSU-1, August 31, 1995

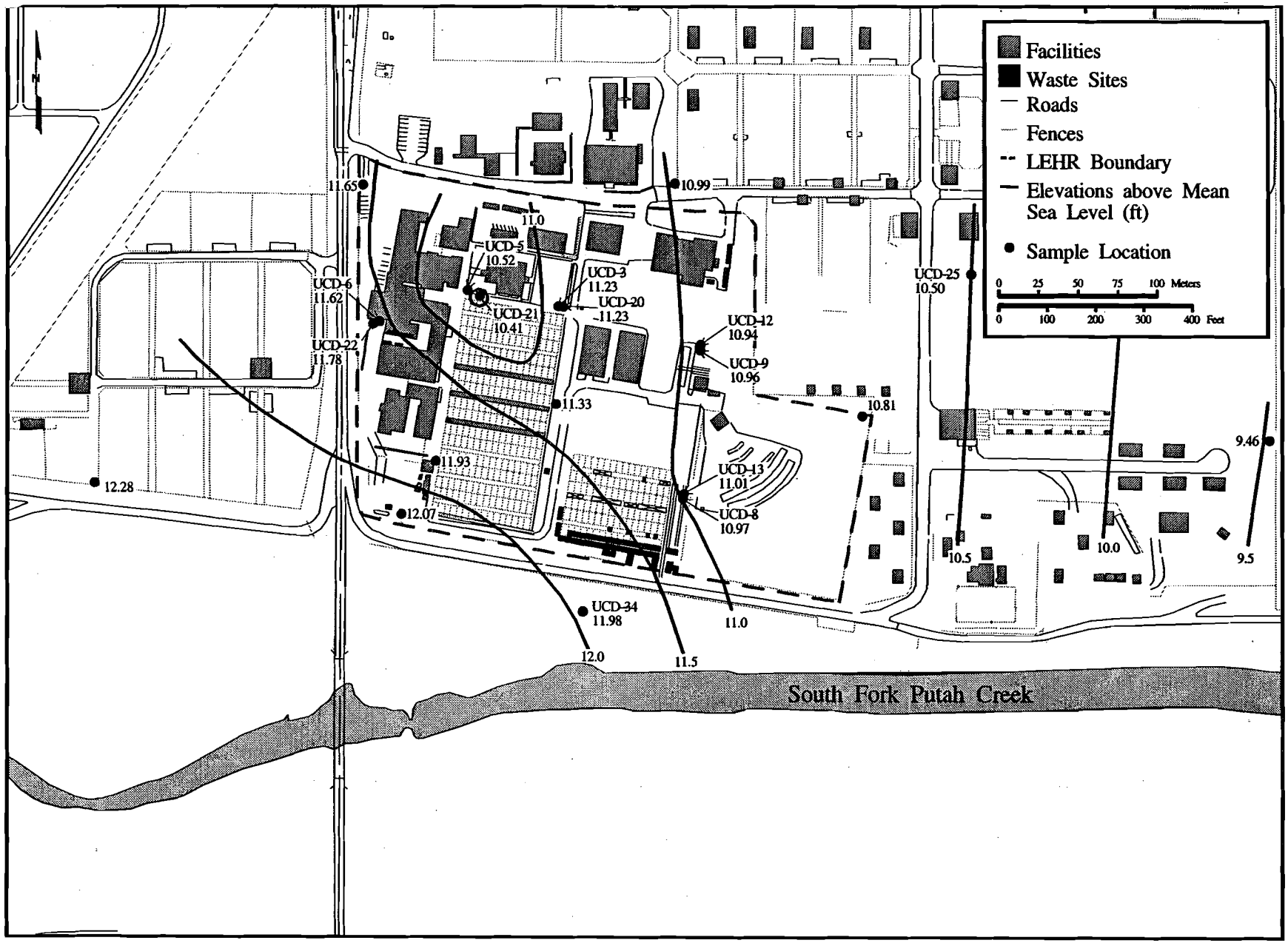


Figure 4.10d. Groundwater Elevations for HSU-1, November 27, 1995

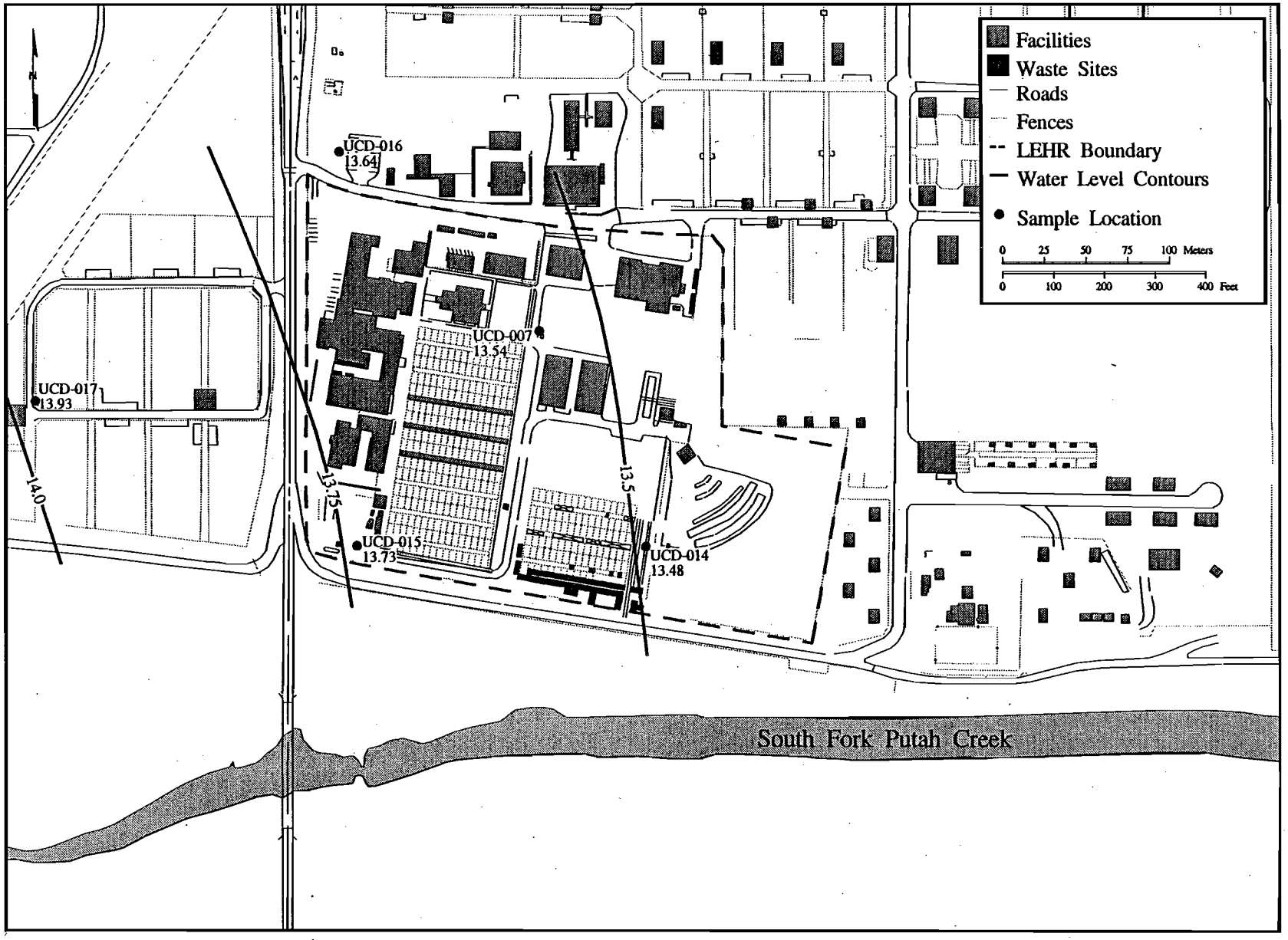


Figure 4.11a. Groundwater Elevations for HSU-2, February 17, 1995

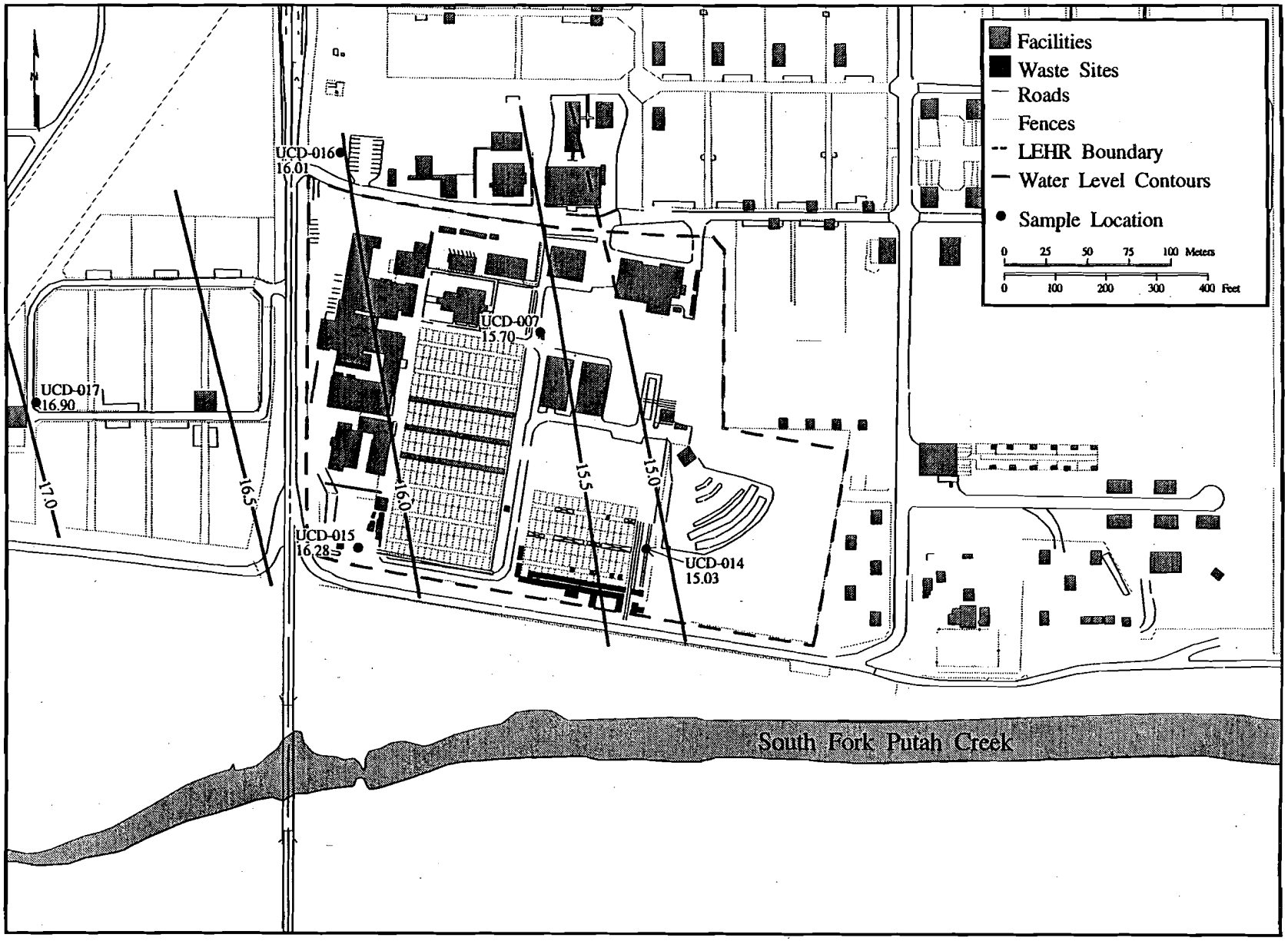


Figure 4.11b. Groundwater Elevations for HSU-2, May 25, 1995

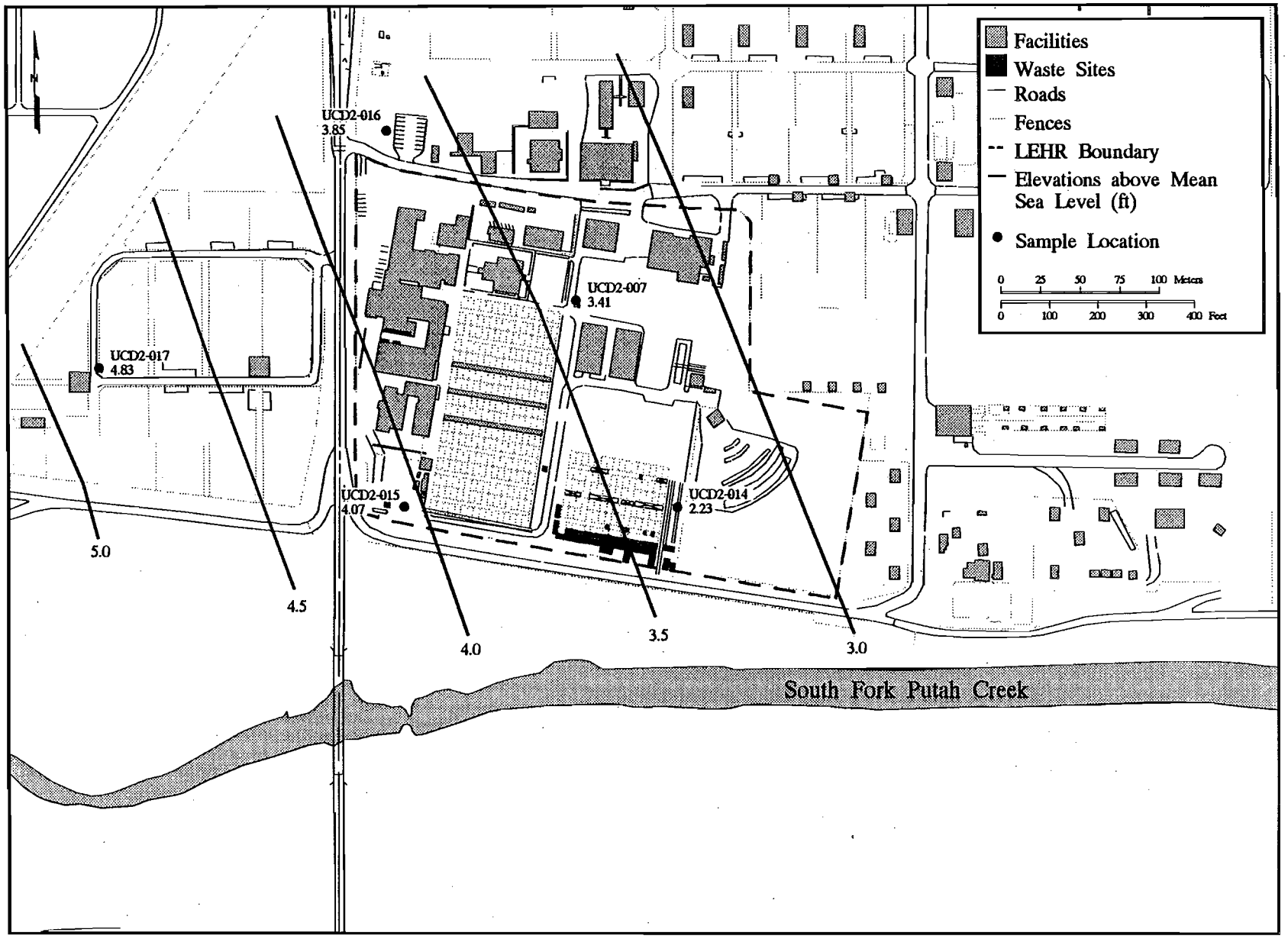


Figure 4.11c. Groundwater Elevations for the HSU-2, August 31, 1995

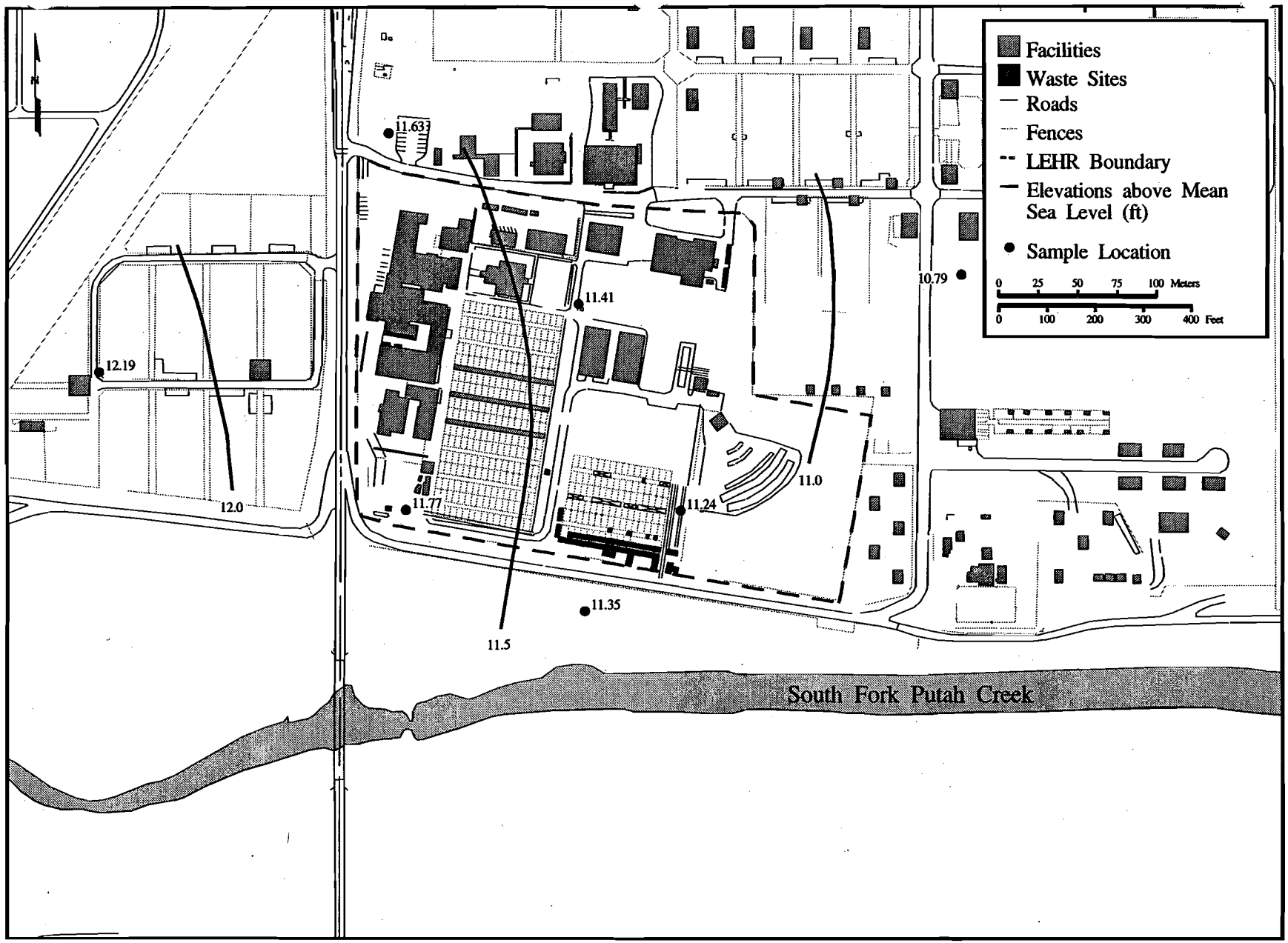


Figure 4.11d. Groundwater Elevations for HSU-2, November 27, 1995

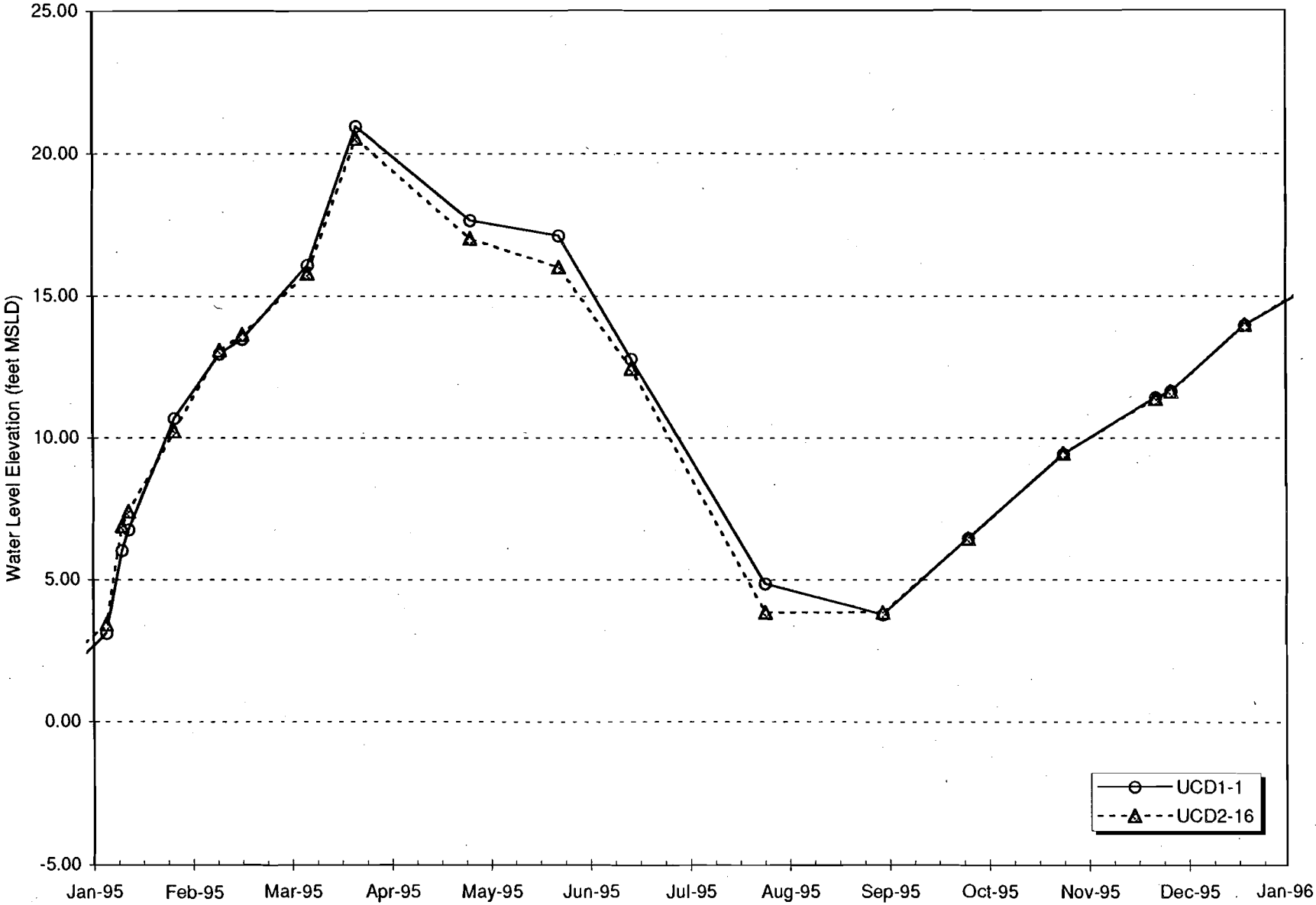


Figure 4.12. Groundwater Elevation Hydrograph, UCD1-1 and UCD2-16 (2/24/96)

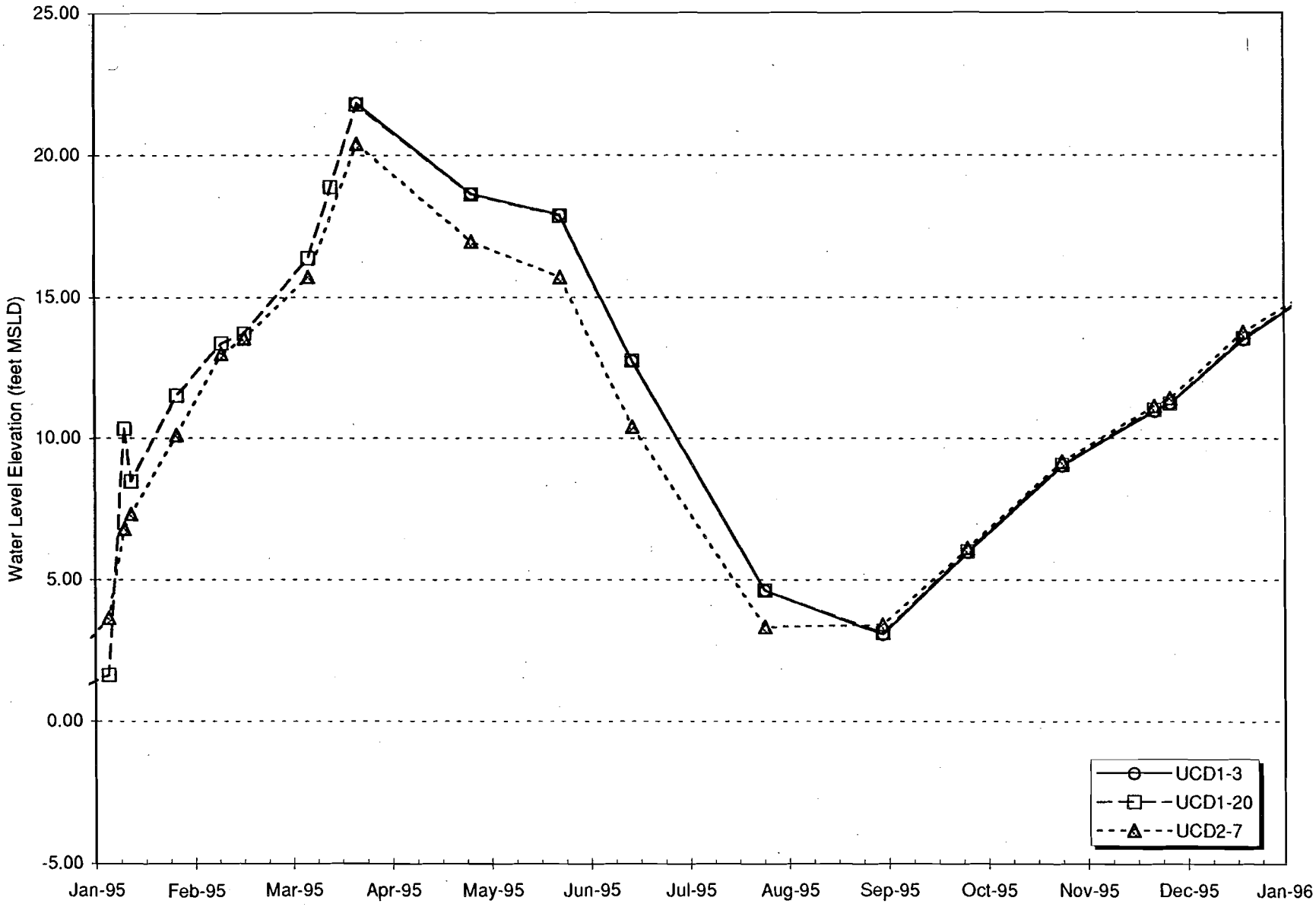


Figure 4.13. Groundwater Elevation Hydrograph, UCD1-3, -20, and UCD2-7 (2/24/96)

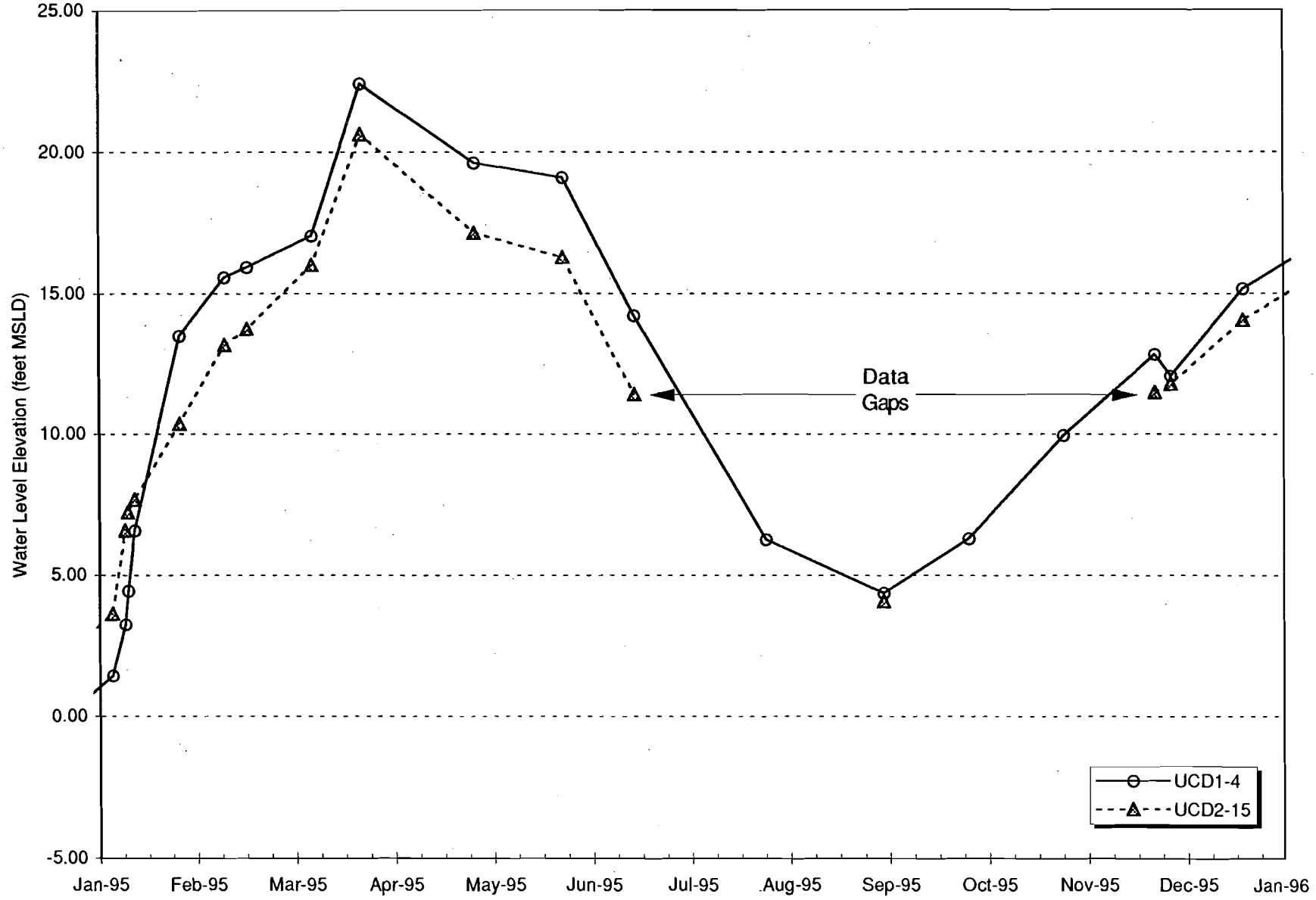


Figure 4.14. Groundwater Elevation Hydrograph, UCD1-4 and UCD2-15 (2/24/96)

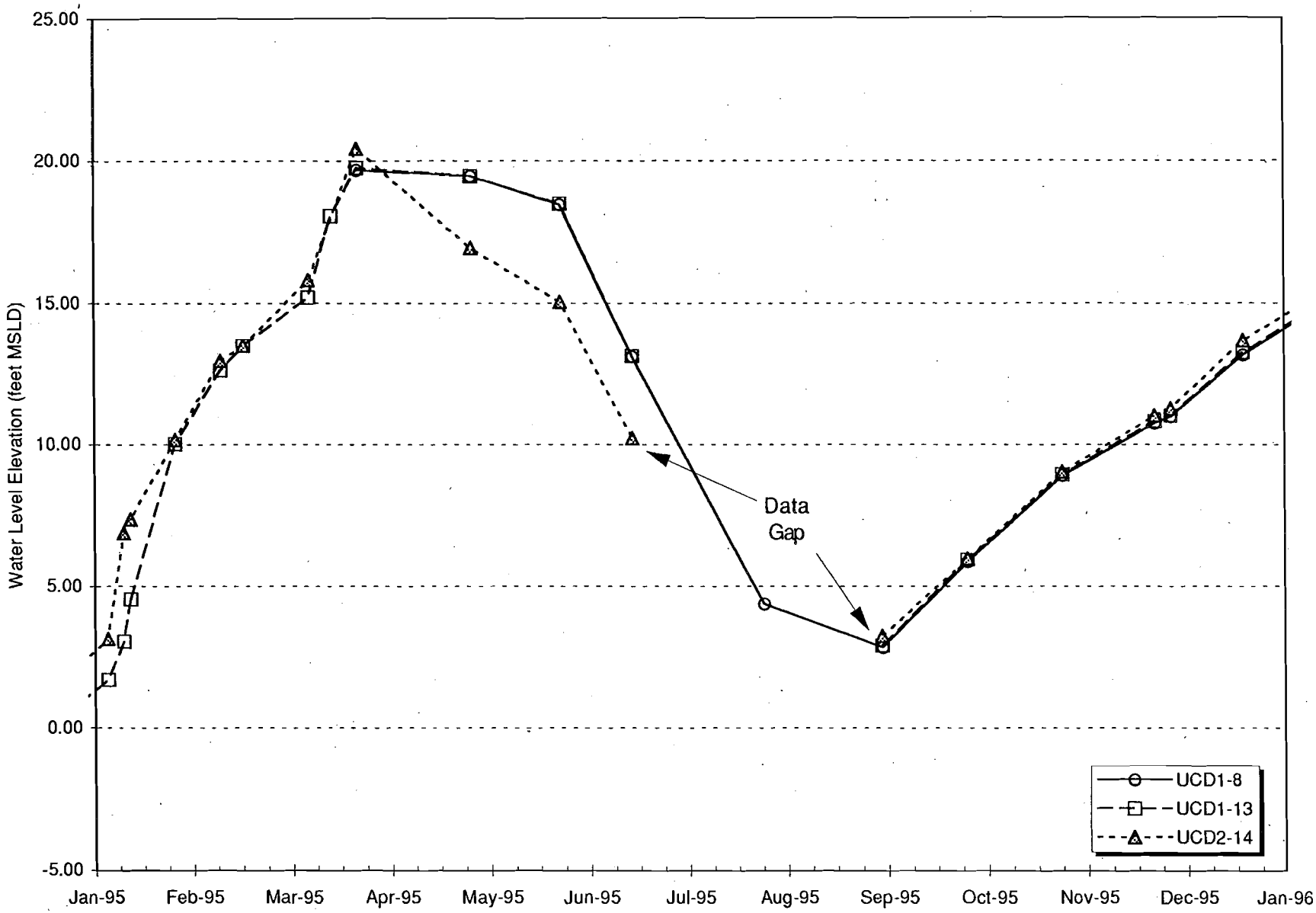


Figure 4.15. Groundwater Elevation Hydrograph, UCD1-8, -13, and UCD2-14 (2/24/96)

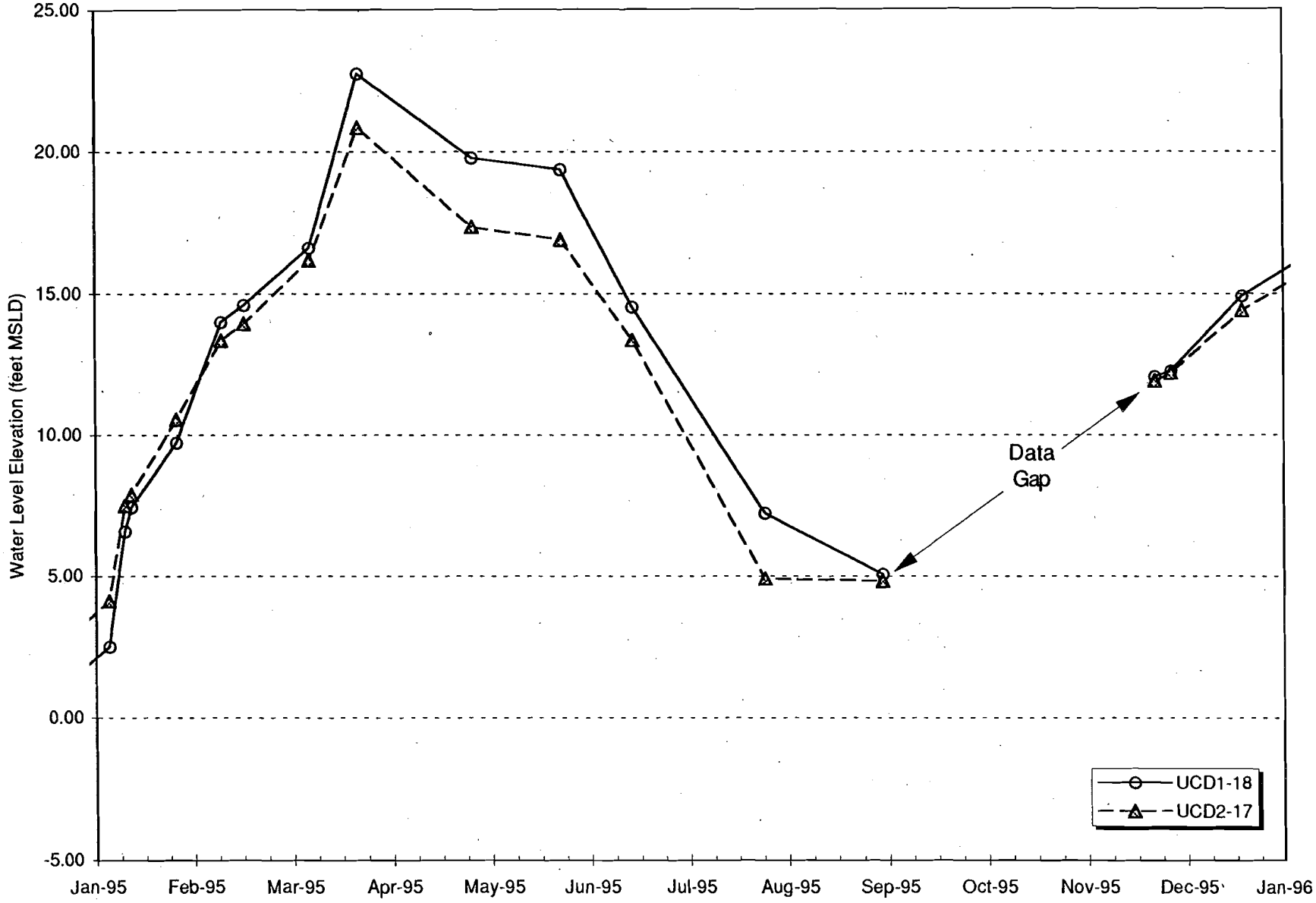


Figure 4.16. Groundwater Elevation Hydrograph, UCD1-18 and UCD2-17 (2/24/96)

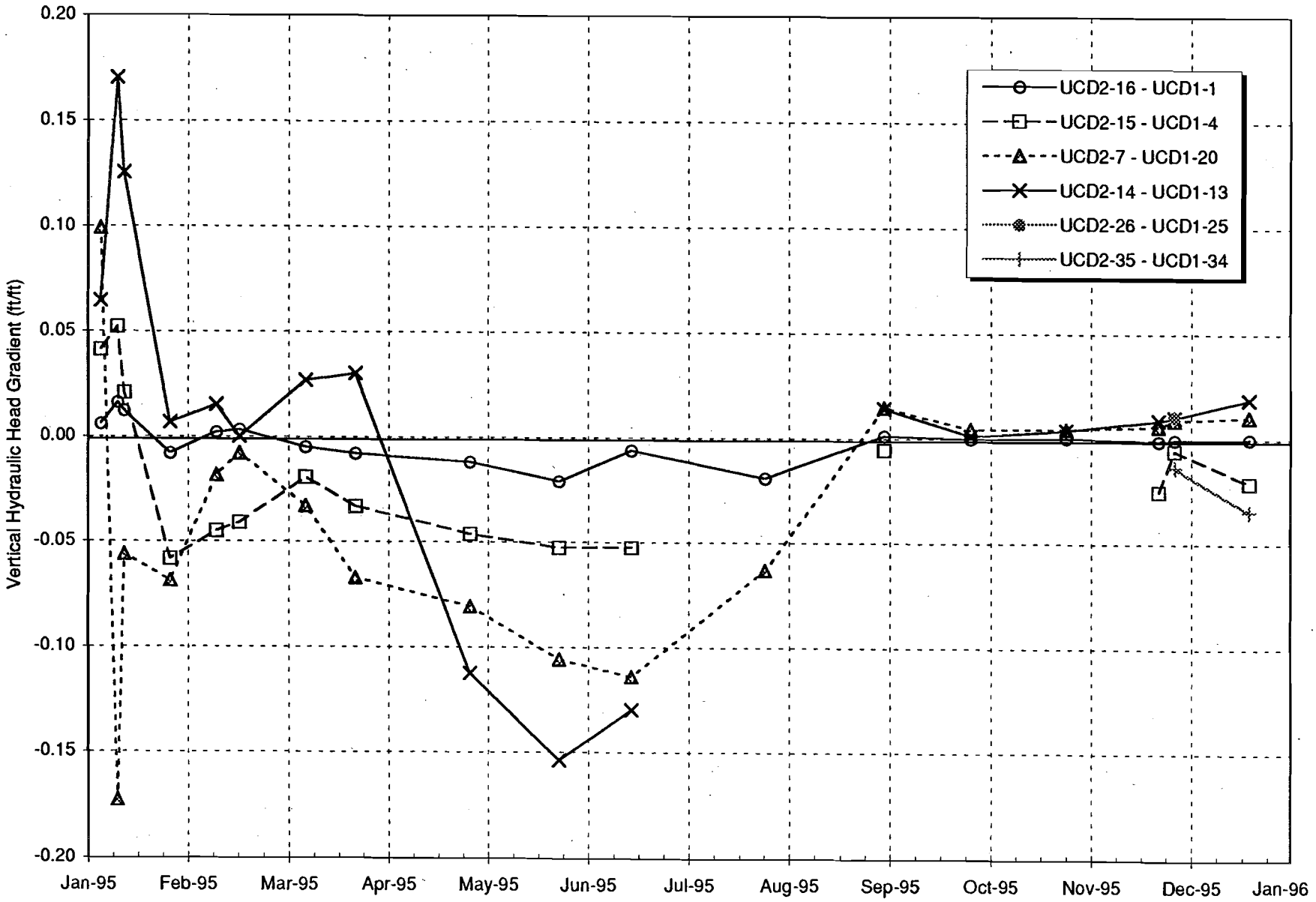


Figure 4.17. Vertical Hydraulic Head Gradients (3/15/96)

Table 4.1. Hydrogeologic Contacts in the LEHR Site Wells

Well Number	Former Well Number	Coordinates		Elevations			Drill		Casing		Screen			Date Completed	Depth to Top of HSU-2 (ft bgs)		Depth to Top of Unnamed Aquitard (ft bgs)		Thickness of HSU-2 (ft)	
		Northing	Easting	Ground Surface	Top of Pro. Casing	Top of Perm. Casing	Method	Depth (ft bgs)	Size (in.)	Type	Interval (ft bgs)	Slot Size	Type		Drill Log	(X-Section)	Drill Log	(X-Section)	Drill Log	(X-Section)
UCD1-001	UCD-01	1951329.71	6631236.04	47.9	50.05	49.53	HSA[1]	56.5	2	PVC[2]	46.5-56.5	20	PVC	10/9/87	ND[4]	(86)	ND	(117)		(31)
UCD1-002	UCD-02	Abandoned		Abandoned			HSA	60.0	Abandoned		Abandoned			10/9/87	ND		ND			
UCD1-003	UCD-03	1951078.26	6631651.85	48.2	50.05	49.43	HSA	51.5	2	PVC	39-49	20	PVC	10/23/87	ND	(77)	ND	(115)		(38)
UCD1-004	UCD-04	1950651.45	6631315.64	49.4	51.69	51.20	HSA	56.5	2	PVC	45-55	20	PVC	10/14/87	ND	(83)	ND	(117)		(34)
UCD1-005	UCD-05	1951113.02	6631453.57	48.4	48.44	47.92	HSA	48.5	2	PVC	38-48	20	PVC	10/22/87	ND	(80)	ND	(117)		(37)
UCD1-006	UCD-06	1951048.00	6631270.45	49.0	50.94	50.50	HSA	52.5	2	PVC	40-50	20	PVC	10/21/87	ND	(82)	ND	(118)		(36)
UCD2-007	UCD-07	1951086.35	6631684.02	49.3	51.65	51.25	HSA	90.0	2	PVC	80-90	20	PVC	11/5/87	78	(77)	>90	(116)	>12	(39)
UCD1-008	UCD-08	1950694.34	6631902.08	49.2	51.51	51.05	HSA	56.0	2	PVC	43.5-53.5	20	PVC	11/3/87	ND		ND			
UCD1-009	UCD-09	1950989.69	6631932.52	49.0	51.39	51.00	HSA	51.5	2	PVC	40-50	20	PVC	11/4/87	ND		ND			
UCD1-010	UCD-10	1950805.37	6633117.83	47.4	49.87	49.34	HSA	70.0	4	PVC	54-69	10	PVC	10/11/89	ND	(71)	ND			
UCD1-011	UCD-11	1950855.20	6632272.51	47.6	50.67	50.19	HSA	66.5	4	PVC	50-65	10	PVC	10/17/89	ND	(78)	ND			
UCD1-012	UCD-12	1951000.90	6631936.63	48.8	51.76	51.42	HSA	65.0	4	PVC	49.5-64.5	10	PVC	10/19/89	ND	(81)	ND	(117)		(36)
UCD1-013	UCD-13	1950684.47	6631899.88	49.2	52.19	51.65	HSA	65.0	4	PVC	50-65	10	PVC	10/26/89	ND	(80)	ND			
UCD2-014	UCD-14	1950661.72	6631894.94	49.0	51.72	51.29	HSA	86.0	4	PVC	75-85		PVC	11/15/89	80	(80)	>86		>6	
UCD2-015	UCD-15	1950663.47	6631326.11	49.4	51.49	50.94	Air Rotary	120.5	4	PVC	91-116	20	SS	3/30/90	85	(83)	118	(117)	33	(34)
UCD2-016	UCD-16	1951437.57	6631291.46	48.2	49.95	49.18	Air Rotary	122.0	4	PVC	92-117	20	SS	4/4/90	88	(87)	119	(118)	31	(31)
UCD2-017	UCD-17	1950946.59	6630689.15	49.6	51.83	51.48	Air Rotary	143.0	4	PVC	88-113	20	SS	4/10/90	85	(84)	138	(139)	53	(55)
UCD1-018	UCD-18	1950715.24	6630679.76	46.7	48.56	47.75	HSA	70.0	4	PVC	54-69	10	SS	10/4/90	ND	(81)	ND			
UCD1-019	UCD-19	1951333.01	6631882.93	49.3	51.33	50.49	HSA	74.5	4	PVC	56.6-71.5	10	SS	10/1/90	ND	(78)	ND			
UCD1-020	UCD-20	1951079.65	6631641.81	48.0	49.78	48.94	HSA	71.5	4	PVC	57-72	10	SS	10/9/90	ND	(77)	ND	(115)		(38)
UCD1-021	UCD-21	1951099.81	6631478.44	48.7	48.73	48.00	HSA	73.5	4	PVC	57-72	10	SS	10/11/90	ND	(80)	ND	(117)		(37)
UCD1-022	UCD-22	1951043.57	6631257.33	49.0	49.06	48.40	HSA	71.5	4	PVC	57-72	10	SS	10/25/90	ND	(82)	ND	(118)		(36)
UCD1-023	UCD-23	1950761.52	6631387.22	49.2	49.39	48.60	HSA	76.5	4	PVC	56.5-71.5	10	SS	10/17/90	ND	(83)	ND	(117)		(34)
UCD1-024	UCD-24	1950879.02	6631636.90	48.8	48.91	48.22	HSA	71.5	4	PVC	57-72	10	SS	10/22/90	ND	(81)	ND			
UCD1-025		1951145.77	6632484.43		48.80	47.92	Air Rotary	75.0	4	SS[3]	60-75	10	SS	10/6/95	ND	(82)	ND	(126)		(44)
UCD2-026		1951146.05	6632479.37		48.79	48.23	Air Rotary	102.0	4	SS	87-102	20	SS	10/6/95		(82)	ND	(126)		(44)
UCD2-027		1951146.73	6632499.66		48.78	47.79	Air Rotary	136.0	5	SS	Westbay	10/20	SS	10/6/95	82		126		44	
UCD1-034		1950452.03	6631692.18		55.70	54.94	Air Rotary	80.0	4	SS	61-76	10	SS	10/6/95		(76)	ND	(130)		(54)
UCD2-035		1950454.48	6631696.24		55.71	55.03	Air Rotary	130.0	4	SS	107-122	20	SS	10/6/95	76		130		54	

Notes:

1. HSA = Hollow Stem Auger
2. PVC = Polyvinyl Chloride
3. SS = Stainless Steel
4. ND = Not Determined

= Value Not Used for Cross Sections

5. (86) = Extrapolated Value

Table 4.2. Comparison of HSU-1 Lateral Hydraulic Head Gradient and Groundwater Flow Direction Determinations at the LEHR Site for Four 1995 Water-Level Measurement Surveys

Water-Level Measurement Date	Number of HSU-1 Monitoring Wells Used in Survey	Lateral Hydraulic Head Gradient ft/ft	Ground-Water Flow Direction degrees of East
2/17/95	13	4.03×10^{-4}	48.7 North
5/25/95	17	1.38×10^{-3}	57.9 North
8/31/95	17	1.58×10^{-3}	32.2 North
11/27/95	19	1.07×10^{-3}	39.3 North
1995 Average	**16.5**	**1.11×10^{-3}**	**44.5 North**

Table 4.3. Comparison of HSU-2 Lateral Hydraulic Head Gradient and Groundwater Flow Direction Determinations at the LEHR Site for Four 1995 Water-Level Measurement Surveys

Water-Level Measurement Date	Number of HSU-2 Monitoring Wells Used in Survey	Lateral Hydraulic Head Gradient ft/ft	Ground-Water Flow Direction degrees of East
2/17/95	5	3.93×10^{-4}	16.0 North
5/25/95	5	1.47×10^{-3}	3.1 North
8/31/95	5	1.40×10^{-3}	12.8 North
11/27/95	7	7.84×10^{-4}	4.3 North
1995 Average	**5.5**	**1.01×10^{-3}**	**9.1 North**

Table 4.4. Screened Intervals for Well Pairs

Monitoring Well Pairs	Screened Interval (ft bgs)	Midscreen Depth (ft bgs)	Differential (ft bgs)
UCD1-4	45-55	50	-
UCD2-15	91-116	103.5	53.5
UCD1-1	46.5-56.5	51.5	-
UCD2-16	92-117	104.5	53
UCD1-20	57-72	64.5	-
UCD2-7	80-90	85	20.5
UCD1-13	50-65	57.5	-
UCD2-14	75-85	80	22.5
UCD1-18	54-69	61.5	-
UCD2-17	88-113	100.5	39
UCD1-25	60-75	67.5	-
UCD2-26	87-102	94.5	27
UCD1-34	61-76	68.5	-
UCD2-35	107-122	114.5	46

Table 4.5. Screened Intervals for the Westbay Well (UCD2-27)

Monitoring Interval	Screened Interval (ft bgs)	Midscreen Depth (ft bgs)	Differential (ft bgs)	Water Level Elevation (ft msl) 2400 hrs 10/28/95	Water Level Differential (feet)
Zone 1	53-55	54	-	8.73	-
Zone 2	63-65	64	10	8.76	0.03
Zone 3	73-75	74	10	8.89	0.13
Zone 4	86-88	87	13	8.89	0.00
Zone 5	96-98	97	10	8.93	0.04
Zone 6	106-108	107	10	9.00	0.07
Zone 7	116-118	117	10	8.89	-0.11

5.0 Groundwater Analytical Results

This section summarizes the analytical results from the 1995 groundwater monitoring program. Groundwater data are presented in a series of tables and figures and discussed in detail. Groundwater data are organized into summary tables of detected site constituents and complete data tables containing all analyses. Tables 5.1 through 5.8 present constituents that were detected in groundwater during the four quarters of the 1995 monitoring program, with results presented by well and by quarter. The entire groundwater monitoring results for 1995, with both detections and nondetections for each of the analytical groups, are presented in Appendix A.

Groundwater analytical results for selected parameters are also presented in a series of figures that illustrate the distribution of various parameters across the site and over time. Figures 5.1 through 5.10 are bar graphs showing the concentrations of the five major constituents detected.

Figures 5.11 through 5.22 are concentration contour plots of chloroform, hexavalent chromium, nitrate, and tritium. These plots use mean data from the 1995 monitoring program where possible; hydropunch data collected in 1995 and 1994 are also used to fill gaps where no 1995 monitoring data are available. The concentration contour plots are drawn for those depth intervals corresponding to HSU-1, upper HSU-2, and middle HSU-2.

Appendix C presents summary tables of constituent concentrations for key parameters measured at LEHR. These tables include data collected from fall quarter 1990 through fall quarter 1995 and illustrate the variation of results over time.

The analytical results of major cations and anions for groundwater samples are presented in Tables 5.9 and 5.10 and in Figures 5.23 - 5.25 (Stiff diagrams). These diagrams are plotted on a map of the site to show areal changes in general water chemistry. Stiff diagrams plot the concentrations of major cations and anions in milliequivalents (meq) per liter. Cations (positively charged ions) are plotted on the left side of the diagram, and anions (negatively charged ions) are plotted on the right side. Data compiled in Table 5.9 consist of mean values using all measurements for each sampling point and constituent since 1990. The concentrations presented in Table 5.9 were converted to equivalent concentrations and reported in Table 5.10 with a presentation of charge balance information. These data will be discussed further in Section 5.6.

The following sections discuss the 1995 groundwater monitoring results using these tables and figures. A discussion is presented for each analytical group that includes the location and magnitude of detections, a comparison with regulatory MCLs, and a review of overall trends.

5.1 Volatile Organic Compounds

A summary of volatile organic compounds (VOCs) detected in 1995 groundwater samples is presented in Table 5.2. Each 1995 quarterly groundwater sample was analyzed for the target compound list identified in the table. Fourteen VOCs were reported in groundwater samples collected during 1995: chloroform, 1,1,2-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, 1,2-dichloropropane, 2-butanone, acetone, bromodichloromethane, bromoform, carbon disulfide, methylene chloride, tetrachloroethene, and toluene.

Chloroform was the most frequently reported compound found in several wells that included the following: UCD1-11 (two of two quarters), UCD1-12 (four of four quarters), UCD1-13 (four of four quarters), UCD1-21 (one of two quarters), UCD1-23 (two of two quarters), UCD1-24 (two of two quarters), and UCD2-14 (four of four quarters). Of the remaining VOCs reported during 1995 1,1,2-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, and bromodichloromethane were found only in well UCD1-12.

2-butanone, also known as methylethyl ketone (MEK), a common solvent, was found only in UCD1-27Z1 at 27 μ/L. This level was confirmed on reanalysis of the sample. The EPA Region 9 preliminary remediation goal (PRG) for MEK in tap water is 1,900 μg/L.

Acetone was reported in one of four quarters in UCD1-12 and in six of seven sample zones in UCD1/2-27. All detected acetone concentrations were estimated below the contract required quantification limit (CRQL) of 5 μg/L, and all were qualified with a "c" during data validation, indicating poor calibration. The EPA Region 9 PRG for acetone in tap water is 610 μg/L. Bromoform was reported only in UCD2-27Z6 at just below the CRQL of 1 μg/L.

Carbon disulfide was detected in four of seven sampling zones in UCD1/2-27, when the well was sampled as part of the monitoring network in the fall quarter of 1995. The highest reported concentration was 2.4 μg/L in UCD1-27Z3. Carbon disulfide was detected in three of the seven sample zones in October 1995, when the well was informally sampled to determine how well it had been developed. Carbon disulfide had never been detected in water samples from LEHR before. The source for this constituent is unknown, but its presence in the well will be monitored in the future. The EPA Region 9 PRG for carbon disulfide in tap water is 21 μg/L.

Methylene chloride was detected in one of four quarters in UCD1-12 and UCD2-27Z4. Both analyses were 1 μg/L, and a duplicate analysis of UCD1-12 was reported as less than the CRQL of 2 μg/L. The National Primary Drinking Water Standard for methylene chloride is 5 μg/L.

Tetrachlorethane, also known as perchloroethene (PCE) was detected in one of two quarters in UCD1-24. PCE has been detected only in UCD1-24 and on only two occasions in 1994. The maximum concentration detected has been 0.84 μg/L, well below the MCL of 5 μg/L.

The highest concentrations of VOCs were consistently reported in samples analyzed from well UCD1-12. Detections of chloroform (ranging from 1,000 μg/L to 5,800 μg/L), 1,1-dichloroethane (ranging from 0.51 μg/L to 9.2 μg/L), 1,1-dichloroethene (ranging from 1.1 μg/L to 18 μg/L), and 1,2-dichloroethane (ranging from <1 μg/L to 5.9 μg/L), exceeded their respective MCLs in samples from well UCD1-12. The MCLs for each of these parameters are 100 μg/L for total trihalomethanes (chloroform is the major component); 5 μg/L for 1,1-dichloroethane; 6 μg/L for 1,1-dichloroethene; and 0.5 μg/L for 1,2-dichloroethane. These data are consistent with those reported for 1994.

Chloroform concentrations in groundwater are depicted in Figures 5.1, 5.2, 5.11, 5.12, and 5.13. Figure 5.1 is a bar graph of reported chloroform values in HSU-1 groundwater samples. As shown in this figure, the highest reported chloroform values for 1995 are consistently reported in samples from UCD1-12 (up to 5,800 μg/L). The elevated levels of chloroform in UCD1-12 require sample dilution prior to analysis. Due to analytical limitations, sample dilutions were not always adequate; the chloroform values reported for UCD1-12 in these cases are estimated concentrations. Figure 5.2 is a bar graph of reported chloroform values in HSU-2 groundwater samples. As shown in this figure, chloroform was reported only in samples collected from UCD2-14 (up to 4.1 μg/L).

The chloroform distribution beneath LEHR is presented in Figures 5.11, 5.12 and 5.13. Four major observations can be made from these figures.

1. At all three depths in the aquifer, the highest chloroform concentrations are in an area located on the eastern side of LEHR in the vicinity of Landfill 2. In general, the highest concentrations in this likely source area are in HSU-1 and decrease with depth in the aquifer.

2. Chloroform has migrated downgradient to the east from the source area identified in the first observation.

3. Chloroform plumes in the upper and middle layers of HSU-2 extend farther to the east and have dispersed in a wider pattern than the plume in HSU-1.

4. Chloroform concentrations are higher in the middle and upper portions of HSU-2 than in HSU-1 in areas more than 100 feet downgradient (east) of the source area. This is opposite to the trend noted in the first observation.

Based on these observations, it is apparent that the source of chloroform at LEHR is in the vicinity of Landfill 2 and that the chloroform was disposed at or near the ground surface such that HSU-1 is contaminated with the highest concentrations of chloroform. The

downward transport of chloroform from HSU-1 to HSU-2 is accompanied by a significant groundwater velocity contrast. As discussed in Section 4.0, horizontal groundwater gradients for HSU-1 and HSU-2 are about the same, approximately 0.001. Hydraulic conductivities range from 10 to 1,000 times higher in HSU-2 than HSU-1. Therefore, horizontal groundwater flow velocities are 10 to 1,000 times faster in HSU-2 than in HSU-1, which explains why plumes in HSU-2 have spread farther. The velocity contrast would also result in considerable dilution and dispersion of chloroform as it moves from HSU-1 into HSU-2 as evidenced by lower chloroform concentrations near the source in HSU-2. Because of large seasonal fluctuations in groundwater withdrawals and recharge, fluctuating vertical hydraulic gradients result in groundwater flow reversals between HSU-1 and HSU-2. During the fall, winter, and spring, when the water table is rising, HSU-1 receives much of its recharging water from below, in HSU-2. In areas where chloroform has been transported downgradient in HSU-2, HSU-1 is recharged with chloroform-contaminated water from HSU-2. This appears to be the primary reason why chloroform has spread so far downgradient in HSU-1 despite its much lower groundwater velocity.

A summary table for chloroform is presented in Appendix C. These data show that chloroform has been reported in several wells across the site and confirm that the highest concentrations and most consistent detections are in samples from well UCD1-12. Chloroform has also been consistently reported in wells UCD1-13 and UCD1-24.

5.2 Semivolatile Organic Compounds

A summary of semivolatile organic compounds (SVOCs) detected in 1995 groundwater samples is presented in Table 5.3. Each 1995 quarterly groundwater sample was analyzed for the target compound list identified in Table 2.5. Six SVOCs were reported in 1995 groundwater samples; these compounds and their maximum concentrations are bis(2-ethylhexyl)phthalate (29 μg/L), di-n-butylphthalate (180 μg/L), diethyl phthalate (2.0 μg/L), dimethyl phthalate (6.3 μg/L), N-nitrosodiphenylamine (0.64 μg/L), and phenol (230 μg/L). Of these, only bis(2-ethylhexyl) phthalate exceeded its EPA Region 9 PRG for tap water of 4.8 μg/L. Bis(2-ethylhexyl)phthalate is commonly the result of sample contamination during the analytical process and has been attributed to laboratory contamination in previous LEHR samples. Bis(2-ethylhexyl)phthalate has been reported sporadically in groundwater samples throughout the water monitoring program. These reported detections were not confirmed upon subsequent sampling and are, therefore, the likely result of laboratory contamination. In addition, method blanks contained bis(2-ethylhexyl)phthalate at concentrations up to 6.0 μg/L. These findings are similar to those reported for 1994.

5.3 Pesticides and PCBs

A summary of pesticides and polychloride biphenyls (PCBs) detected in 1995 groundwater samples is presented in Table 5.4. 1995 quarterly groundwater samples were analyzed for the target compound list identified in Table 2.3. Four pesticide compounds were reported above detection limits in 1995 groundwater samples (Table 5.4); alpha

chlordane, gamma chlordane, dieldrin, and endrin and were reported only in well UCD1-13. These results are the same as reported for 1994. Alpha and gamma chlordane were detected twice at levels below the CRQL of 0.01 μg/L, and endrin was detected two times below its CRQL of 0.02 μg/L. Dieldrin was detected twice slightly above its CRQL at 0.029 μg/L and 0.028 μg/L. No reported pesticide value exceeded an MCL, but dieldrin exceeded the EPA Region 9 PRG of 0.0042 μg/L for tap water. No PCB compounds were reported in 1995 groundwater samples.

5.4 Metals

A summary of metals detected in 1995 groundwater samples is presented in Table 5.5. Each 1995 quarterly groundwater sample was analyzed for 17 metals (see Table 2.3) and hexavalent chromium. The metals beryllium, cadmium, lead, silver, and thallium were not detected in any 1995 groundwater samples. The remaining metals analyzed were detected above detection limits in several wells during the year as discussed in the following:

- Antimony was reported above the method detection limit (MDL) but below the CRQL in six wells in 1995. Based on data presented in the summary table in Appendix C, antimony appears and disappears in random fashion throughout the monitoring network in both background and downgradient wells. Antimony concentrations ranged from 1.0 μg/L in UCD2-15 to 2.3 μg/L in UCD2-16 and UCD2-27Z4. The MCL for antimony is 6 μg/L.

- Arsenic was reported at least one time above the detection limit in all 18 original wells during 1995 (Table 5.5). Arsenic was also reported above the detection limit for all seven zones of UCD1/2-27 and UCD1-34 but was not detected in new wells UCD1-25, UCD2-26, and UCD2-35. Reported concentrations range from an estimated 2.0 μg/L to 8.6 μg/L. These findings are similar to those reported for 1994. No arsenic values were reported above the MCL of 50 μg/L.

  Arsenic has only been reported above detection limits since the summer quarter 1993, when the analytical method was changed and the detection limit was lowered to 2.0 μg/L. Based on an interpretation of reported results, arsenic values are consistent among wells and occur at concentrations near the detection limit (Appendix C).

- Barium was reported above the detection limit in every 1995 LEHR groundwater sample except the sample from UCD2-26 (Table 5.5). Reported concentrations range from 25.7 μg/L to 355 μg/L. In general, the highest concentrations of barium are reported in wells UCD1-4, UCD1-11, UCD1-12, and UCD1-13 in HSU-1; and in UCD2-14 in HSU-2 (barium summary table, Appendix C). The lowest values for barium are consistently reported for well UCD1-10. No barium concentrations were reported above the MCL of 1,000 μg/L.

- Total chromium was reported above the detection limit in every 1995 LEHR groundwater sample, including all new wells (see Table 5.5). Reported concentrations range

from 3.0 to 290 μg/L. The highest total chromium values are consistently reported for UCD1-11, UCD1-12, and UCD1-19. The lowest values are generally reported for upgradient wells UCD1-18 and UCD2-17 and downgradient wells UCD1-22 and UCD2-15. Values that exceed the chromium MCL of 50 μg/L were reported for six wells: UCD1-10, UCD1-11, UCD1-12, UCD1-13, UCD1-19, and UCD1-21. These trends are the same as identified in 1994. No samples from HSU-2 had a reported concentration of chromium that exceeded the MCL. Section 7.0 provides a statistical evaluation and analysis of the significance of the chromium results.

- Hexavalent chromium was reported above the detection limit at least once in 16 of 18 original monitoring wells during 1995 (Table 5.5). Reported concentrations range from 6 to 310 μg/L. In general, hexavalent chromium results are similar to total chromium results because 80% or more of the chromium detected in the groundwater is in hexavalent form. This is consistent with the chemistry of chromium, in which the two common valence states of chromium (+3 and +6) have distinctly different aqueous speciation. The +3 form is immobile, and the +6 (hexavalent) form is mobile. Hexavalent chromium concentrations for 1995 are shown in Figures 5.5 and 5.6. Distributions of hexavalent chromium are shown in Figures 5.17, 5.18, and 5.19. The highest concentrations of hexavalent chromium are typically reported for wells UCD1-11, UCD1-12, and UCD1-19, as reported for 1994 and as shown in Figure 5.5. There is no specific MCL for hexavalent chromium; however, values from seven wells exceeded the MCL of 50 μg/L for total chromium during 1995. The data presented in the summary tables in Appendix C indicate that, of the seven wells in which chromium exceeded the MCL, three wells, UCD1-11, UCD1-12, and UCD1-19, exceeded the MCL by greater than a factor of 3.

  Bar graphs for hexavalent chromium (Figures 5.5 and 5.6) show that 1995 results are consistent within each well throughout the year and that the highest values were typically reported for downgradient wells. Values for chromium and hexavalent chromium show similar trends across the site, with values generally consistent over time (see time series tables in Appendix C). The correlation between chromium and hexavalent chromium is consistent with past conclusions from this monitoring program that most chromium in solution in groundwater is in the hexavalent form (Dames & Moore 1993; DOE 1994a). Section 7 provides a statistical evaluation and analysis of the significance of the hexavalent chromium results.

The hexavalent chromium distribution beneath LEHR is presented in Figures 5.17, 5.18, and 5.19. As with chloroform and nitrate, chromium concentrations decrease with depth in the aquifer. Two lobes of hexavalent chromium-contaminated groundwater are present; one is centered north of Landfill 2, and the other is located northeast of Landfill 1. Both lobes contain hexavalent chromium above the total chromium MCL of 50 μg/L. The pattern can be seen in HSU-1, but only a few detections of these lobes can be seen in the upper portion of HSU-2. Only two locations near the center of the western lobe are above the MCL. Hexavalent chromium was not detected above the MCL in the middle portion of HSU-2.

The chromium distribution is distinctly different from the chloroform and nitrate distributions. The narrow zone of water with low chromium concentration between the two lobes is located in the same area where the highest chloroform and nitrate concentrations are located (see Figures 5.14 and 5.17). It is unclear why chromium is distributed in this manner, but two explanations are most probable. The two lobes could represent two distinct sources of hexavalent chromium that are different from the chloroform and nitrate sources; or the sources of chloroform and nitrate could contain no hexavalent chromium and might displace groundwater that contains high levels of chromium.

- Cobalt was reported above the detection limit in four original HSU-1 wells and one original HSU-2 well. In addition, cobalt was detected in all new HSU-1 wells and new well UCD2-35 in HSU-2. All reported detections were less than the CRQL of 10 μg/L and at levels similar to that found in background well UCD1-18. There is no regulatory limit for cobalt in water.

- Copper was reported above the detection limit in six original HSU-1 wells and two original HSU-2 wells. In addition, it was detected in new wells UCD1-25 and UCD2-26. All reported detections were less than the CRQL of 10 μg/L and at levels similar to those in background well UCD1-18. The national secondary drinking water standard for copper is 1,000 μg/L.

- Mercury was reported above the detection limit in five original wells, three in HSU-1 and two in HSU-2 in 1995. Reported concentrations ranged from 0.23 to 0.68 μg/L. No mercury concentrations were reported above the MCL of 2 μg/L.

- Molybdenum was reported above the detection limit in 12 original wells, eight in HSU-1 and four in HSU-2. In addition, molybdenum was detected in most of the new monitoring wells except UCD1-25, UCD2-26, and UCD2-27Z6. Reported concentrations ranged from 1.1 to 5.5 μg/L. No molybdenum concentrations were reported above the EPA Region 9 PRG of 180 μg/L for tap water.

- Nickel was reported above the detection limit in 15 original wells and all new wells except UCD2-26 during 1995. Reported concentrations range from 1.0 to 65.1 μg/L. No nickel concentrations exceeded the MCL of 100 μg/L.

  Nickel detections in wells have been sporadic and at concentrations near the detection limit throughout the monitoring program, except for wells UCD1-18 and UCD1-23. Nickel has been reported frequently in these two wells but at variable concentrations. These are the same as results presented in 1994. Section 7 provides a statistical evaluation and analysis of the significance of the nickel results.

- Selenium was reported above the detection limit at least one time in 10 wells during 1995. Selenium has historically been detected at the highest concentrations in wells UCD1-10, UCD1-11, UCD1-12, and UCD1-19. Reported concentrations range from

3.2 to 23.0 μg/L. At least one reported value from each of the wells UCD1-10, UCD1-11, and UCD1-12, exceeded the MCL of 10 μg/L at least one time during 1995.

The time series table (Appendix C) for selenium shows that frequent detections in wells UCD1-10, UCD1-11, UCD1-12, and UCD1-19 are consistent with monitoring results from previous years. Section 7 provides a statistical evaluation and analysis of the significance of the selenium results.

- Vanadium was reported above the detection limit in all 18 original wells during 1995. In addition, it was detected in six of 11 new sample locations. Reported concentrations during 1995 ranged from 4.0 to 13.4 μg/L. There is no MCL for vanadium, but the EPA Region 9 PRG for tap water is 260 μg/L.

- Zinc was reported above the detection limit in every well sampled, both original and new, during 1995. Zinc concentrations ranged from 1.2 to 559 μg/L. All zinc levels were greater than the CRQL of 20 μg/L except in samples collected in wells UCD1-25, UCD1-27 (two of three zones), UCD1-34, and UCD2-27Z5. The highest concentrations are from UCD1/2-27 and may be associated with the Westbay system. This situation will continue to be monitored. The EPA secondary drinking water standard for zinc is 5,000 μg/L.

5.5 Radionuclides

This section presents the unique format required for presentation of radionuclide data and the summary of analytical results. A summary of radionuclides detected in 1995 groundwater samples is presented in Table 5.6. The analyses identified in Table 2.3 were performed for the 1995 groundwater monitoring program.

Radionuclide analyses are reported with the calculated activity of the sample, the minimum detectable activity (MDA), and the counting error. The MDA describes quantitatively the sensitivity of the analytical procedures used and represents a minimum detectable radionuclide activity in a sample medium at the time of analysis. Variables include decay rate, sample counting time, sample volume and density, chemical recovery, background counts, and detector efficiency, all affect the resulting MDA for a given sample. The counting error represents the total statistical uncertainty resulting from measuring all random processes involved in the analytical procedures used. Individual errors associated with these processes are propagated to estimate the total uncertainty.

The uncertainty value is reported as a two-sigma (two standard deviations) error for each sample analysis result. This uncertainty, therefore, approximates a 95% confidence interval about the reported value. Non-random systematic errors will not be reported since they cannot be accurately quantified. Good laboratory practices, QA/QC programs/procedures, and frequent instrument calibrations minimize any incurred systematic errors.

Radionuclide results are reported as the calculated value (V) followed by the total uncertainty (T). The format follows the convention (V ± T). The significance of the radionuclide results can be evaluated by comparing the reported value with the reported uncertainty that is calculated for each sample. Although gross alpha and gross beta analyses are not performed for specific radionuclides (i.e., they measure total alpha or beta energy released in a sample), they are included in the radionuclide analytical results tables for consistency in reporting radionuclide characteristics.

Radionuclide concentrations reported in groundwater that exceed the corresponding uncertainty or MDA are highlighted in Table 5.6. These values represent a 95% level of confidence that measurable radioactivity above zero is present for a given radionuclide, and the result is referred to as a "positive value." It should be emphasized, however, that despite being statistically detectable on the basis of total uncertainty, a given sample result may not be significant in terms of health risk, presence of site contamination, or regional background concentrations. A more detailed discussion of radiation measurement at or near the detection limit is presented by Currie (1968).

The 1995 radionuclide results indicate that, for groundwater sampling locations, the major observable impact due to radionuclides was located in wells UCD1-13 and UCD2-14 for tritium and carbon-14. Carbon-14 was also detected at just above the MDA in wells UCD1-12 and UCD1-23. Americium-241 was reported in UCD1-10 at just above the MDA. No other spatial or temporal trends were noted for radionuclides.

A summary of reported analytical results for detected radionuclide constituents in groundwater samples is presented in Table 5.6. Complete analytical results for groundwater samples, including data validation flags and reason codes, are presented in Appendix A, Table A.5.

Uranium-238 and thorium-232 are naturally occurring radionuclides found in most soils, including soils at the LEHR site. Uranium-238 decays into daughter products (progeny) such as thorium-234, radium-226, radon-222, bismuth-214, and lead-210. Thorium-232 progeny include radium-228, radon-220, lead-212, bismuth-212, and lead-208. Because these parent radionuclides are found in soils and groundwater, their progeny are also expected to be found in soil and groundwater analyses results.

Significant radionuclide concentrations were reported in groundwater during 1995 for tritium (UCD1-13 and UCD2-14) and carbon-14 (UCD1-12, UCD1-13, UCD1-23, and UCD2-14). All other radionuclide concentrations were below background well results (UCD2-17 and UCD1-18) or below detection limits as determined by associated counting uncertainties with the exception of miscellaneous "positive values" for plutonium-241, americium-241, and strontium-90.

Plutonium-241 was reported at levels greater than the MDA or counting error in two wells, UCD1-19 and UCD1-22. The two reported positive values were the first since the summer of 1994, when plutonium analyses were first performed. In the case of UCD1-19,

the plutonium activity of 2.7 (±1.9) pCi/L was reported for a duplicate sample for which the primary sample contained no detectable plutonium-241. In the case of well UCD1-22, the plutonium-241 activity of 3.2 (±2.3) pCi/L was slightly greater than the MDA of 3.0 pCi/L. In both cases, plutonium is considered not to be present because of past trends (Appendix C) and the fact that the values are just above the error or MDA.

Americium-241 was reported at levels greater than the MDA or counting error in five wells during 1995, UCD1-10, UCD1-24, UCD1-27Z2, UCD2-14, and UCD2-27Z7. Reported activities range from 0.029 to 0.106 pCi/L. The reported activities were slightly greater than the counting errors or MDA and are not considered positive detections, but these wells will be monitored to determine whether these are random occurrences, as expected. Another factor that indicates that these results are not positive detections is that americium-241 would be present because of the later decay of plutonium-241. Plutonium has not been reported as a detection in the same wells that americium-241 has been reported in. Only well UCD1-10 has had a similar activity reported, in one sample prior to 1995.

Strontium-90 was reported at a level greater than the MDA or counting error only in well UCD2-14 during 1995. The reported activity was 1.06 pCi/L, slightly greater than the MDA or counting error and not considered a positive detection. Strontium-90 was reported above the MDA in UCD2-14 in the summer, but was not detected in the fall. Strontium-90 has been detected randomly throughout the monitoring network over time, in 14 of 18 wells, including background well UCD1-18 (Appendix C). Because of variations in counting errors and the fact that the reported value is close to these limits, the detection of strontium-90 is probably not real. The reported value did not exceed the MCL of 8 pCi/L.

Both gross alpha and gross beta results at all sampling locations and times were low enough to meet federal and state drinking water standards except for background well UCD2-17, in which the gross alpha activity in the winter quarter was 46.8 pCi/L, exceeding the MCL of 15 pCi/L. No spatial or temporal trends were observed for any radionuclides reported in groundwater during 1995. All gross beta detections reported were less than the MCL (50 pCi/L), with a maximum detection of 16.2 ± 3.4 pCi/L (well UCD2-17, winter quarter). The anomalously high gross alpha and beta values for background well UCD2-17 in the winter quarter indicate that the analyses were likely in error.

The tritium (Figures 5.7 and 5.8) and carbon-14 (Figures 5.9 and 5.10) detections reported are predominantly localized in wells UCD1-13 and UCD2-14. Low levels (less than 300 pCi/L) of carbon-14 were also reported in wells UCD1-12 and UCD1-23. The maximum reported detections occurred in well UCD1-13 for both tritium (19,600 ± 1,200 pCi/L) and carbon-14 (1,900 ± 180 pCi/L). The MCL for tritium is 20,000 pCi/L, and carbon-14 has no MCL. Tritium distributions at LEHR are presented in Figures 5.20, 5.21 and 5.22. These figures show that tritium is located at and slightly downgradient of its source in the disposal pits south of Landfill 2. In addition, tritium concentrations decreased with depth in the aquifer just like the other major contaminants. One isolated

value from a 1994 hydropunch located in the extreme northeast of Figure 5.20 is believed to be suspect and unrelated to the tritium plume. No parts of the tritium plumes exceeded the MCL of 20,000 pCi/L.

5.6 Anions and Cations

This section presents a summary of analytical results for anions and cations in groundwater in both HSU-1 and HSU-2. Analytical results for anion and cation analyses for groundwater are summarized in Table 5.7. Complete analytical results for anions and cations reported in groundwater are presented in Appendix A, Table A.6. Groundwater data for anions and cations are also presented in several figures and graphs that have been used to compare general water quality trends over time, by well or by location. As discussed in the introduction to this section, nitrate has been consistently reported within monitoring wells at the LEHR site at levels above background. Therefore, additional figures and graphs depicting nitrate (as nitrogen) have also been included to illustrate relationships between upgradient and downgradient wells for this parameter.

5.6.1 Stiff Diagrams

Stiff diagrams (Figures 5.23, 5.24, and 5.25) were prepared for all and HSU-1 and HSU-2 wells to evaluate and compare the general water types present at the LEHR site. Stiff diagrams were prepared from well analyses averaged over the entire sampling history of the wells. Mean values were used for two reasons: 1) changes in the monitoring program eliminated the required anion data in the second half of the year; and 2) major ion chemistry has remained stable within each well over the lifetime of the monitoring system. The summary data are presented in Tables 5.9 and 5.10.

In general, most downgradient HSU-1 wells consistently show similar patterns of major cation and anion concentrations compared with samples from background well UCD1-18, but the solute concentrations are higher beneath LEHR than in the background. Apparent differences consistently occur in wells UCD1-10, with greater sodium and sulfate, and UCD1-12, with higher magnesium and chloride concentrations.

Stiff diagrams for HSU-2 wells show that HSU-2 waters are similar in composition to HSU-1 except that solute concentrations are lower. Stiff diagrams exhibit less variability for HSU-2 wells than for HSU-1 wells. HSU-2 wells consistently show similar patterns of major cation and anion concentrations compared with upgradient well UCD2-17.

In general, groundwater samples from both HSU-1 and HSU-2 are predominantly of the magnesium-bicarbonate type, which is typical for this area. Groundwater samples from HSU-1 wells generally exhibit higher concentrations of magnesium and bicarbonate than HSU-2 wells. The magnesium bicarbonate water type in the vicinity of the LEHR site has been documented in several studies. A report by the USGS (Evenson 1985) identified magnesium bicarbonate groundwater in the area and suggested that recharge of Putah Creek surface water, which is a magnesium bicarbonate type, influences water quality

adjacent to Putah Creek and south of Davis. Work by Davisson (Davisson and Criss 1993) also identifies magnesium bicarbonate groundwater in the Davis vicinity and provides data based on naturally occurring stable isotopes of oxygen, which further suggests the influence of Putah Creek recharge on groundwater quality in an area adjacent to Putah Creek and south of Davis that includes the LEHR site (Davisson et al. 1993).

5.6.2 Nitrate

Reported nitrate concentrations show a great deal of variability across the site. Bar graphs showing nitrate concentrations in each well in 1995 are presented in Figures 5.3 and 5.4, and nitrate distributions are presented in Figures 5.14, 5.15, and 5.16. Reported concentrations in HSU-1 samples from several wells are consistently above those reported for background well UCD1-18. The highest nitrate concentrations are consistently reported in HSU-1 wells UCD1-10, UCD1-11, UCD1-12, UCD1-21, and UCD1-24, and HSU-2 well UCD2-7. Reported nitrate concentrations in several of the onsite monitoring wells and in background well UCD1-18 exceed the MCL for nitrate (as nitrogen) of 10 mg/L during one or more quarters during 1995. Nitrate concentrations ranged from 0.16 mg/L in new well UCD1-34 to 72 mg/L in UCD1-12.

Reported nitrate concentrations in HSU-2 were consistently higher in downgradient wells UCD2-7 and UCD2-14 than in upgradient well UCD2-17 throughout 1995. Although nitrate concentrations appear to be elevated in several HSU-2 wells with respect to the upgradient well, nitrate was consistently detected at concentrations above the MCL of 10 mg/L in only one, UCD2-7. Nitrate concentrations greater than the MCL were reported in every quarter for UCD2-7 and during the summer quarter for UCD2-14. Higher nitrate concentrations in UCD2-14 may be due to the fact that the well has been completed partially in HSU-1, where nitrate concentrations are higher. Nitrate concentrations reported in each HSU-2 well have been consistent through time.

The nitrate distribution beneath LEHR is presented in Figures 5.14, 5.15, and 5.16. Two major observations can be made from those figures:

1. Much of the groundwater within HSU-1 beneath LEHR and surrounding property contains nitrate at concentrations above the MCL of 10 mg/L. The upper portion of HSU-2 also contains nitrate in excess of the MCL.

2. The nitrate plume located just north of Landfill 2 appears to follow a pattern similar to the chloroform plume. The highest concentrations are centered near the eastern boundary of LEHR and decrease with depth in the aquifer. The plume has migrated downgradient to the east.

Based on the distribution of nitrate, it appears that a nitrate source exists at LEHR in an area just northeast of Landfill 2 in the same area as the source of chloroform. The plume migrating eastward from this area has merged with the regionally high nitrate levels that are above the MCL. The very low concentrations along the southern boundary of LEHR are the result of recharge from Putah Creek.

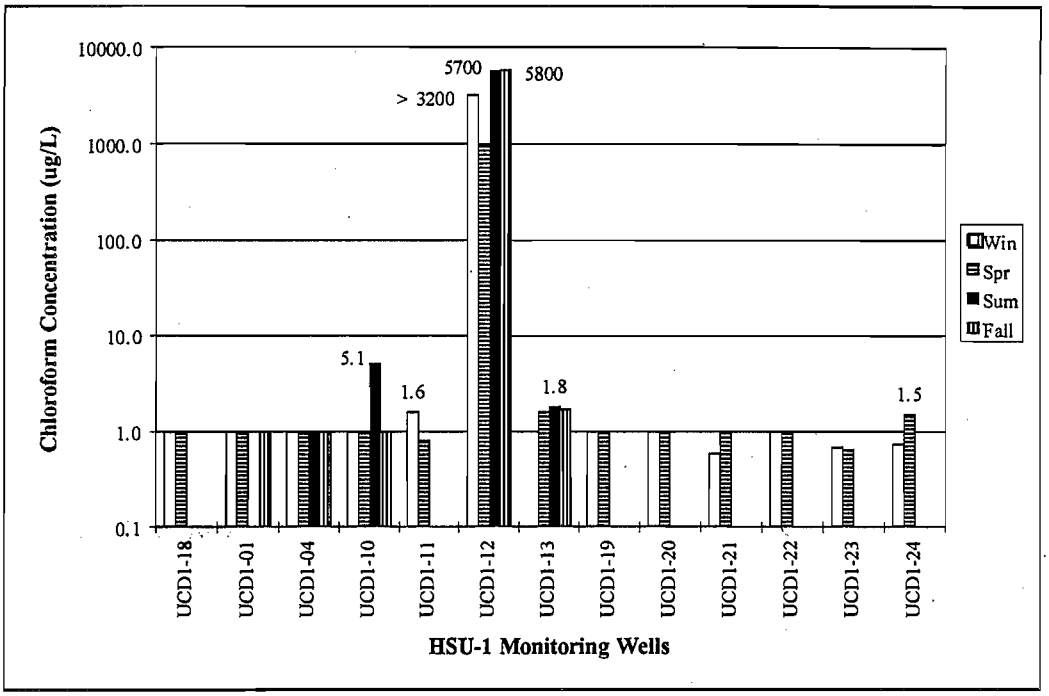


Figure 5.1 Chloroform Concentrations Detected in HSU-1 Monitoring Wells, 1995

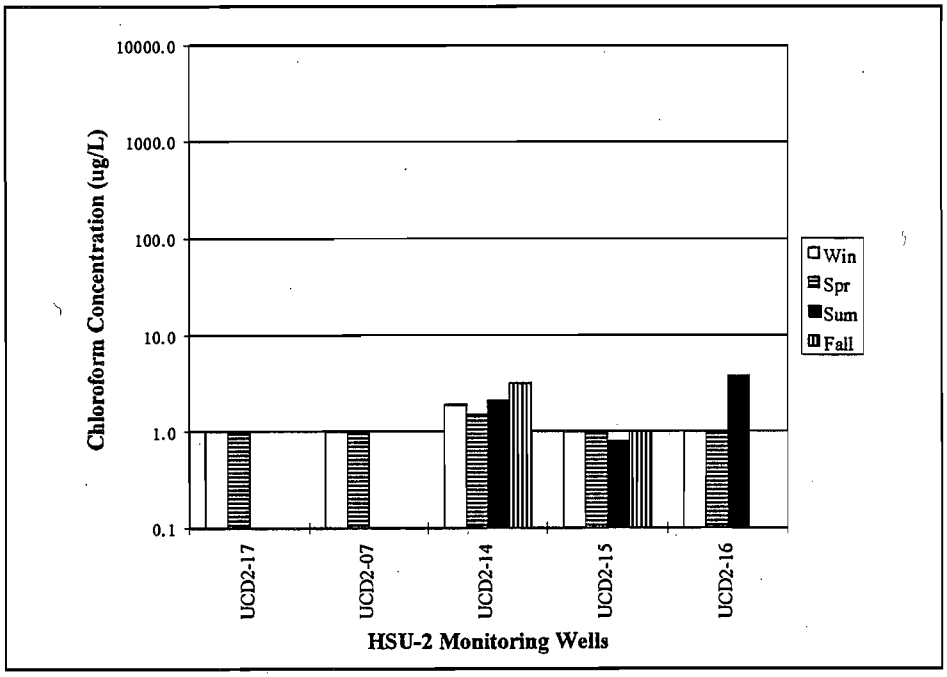


Figure 5.2. Chloroform Concentrations Detected in HSU-2 Monitoring Wells, 1995

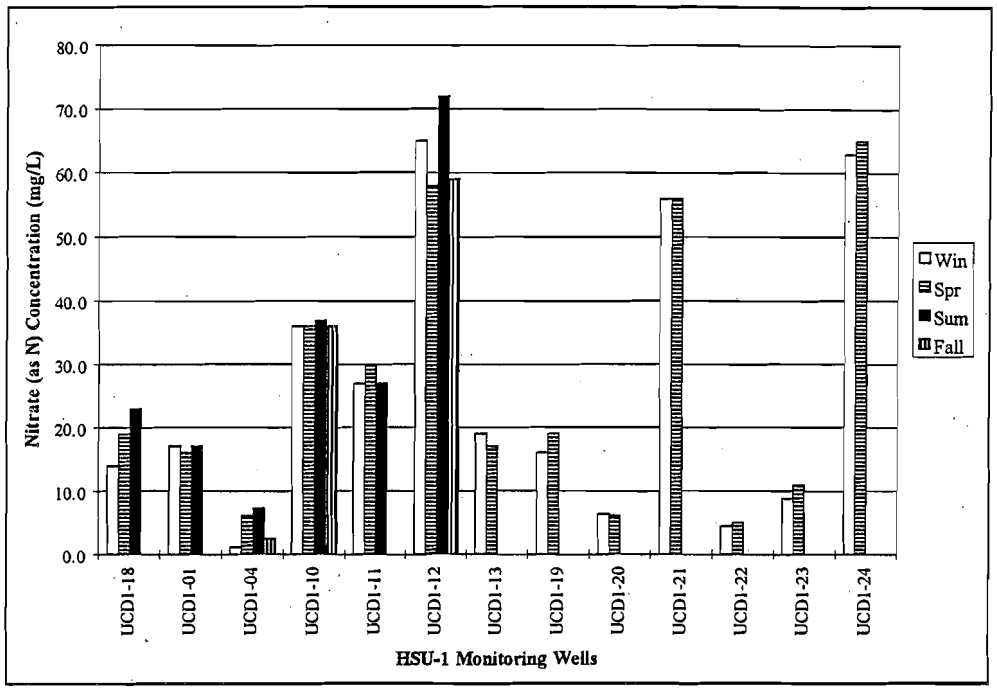


Figure 5.3. Nitrate Concentrations Detected HSU-1 Monitoring Wells, 1995

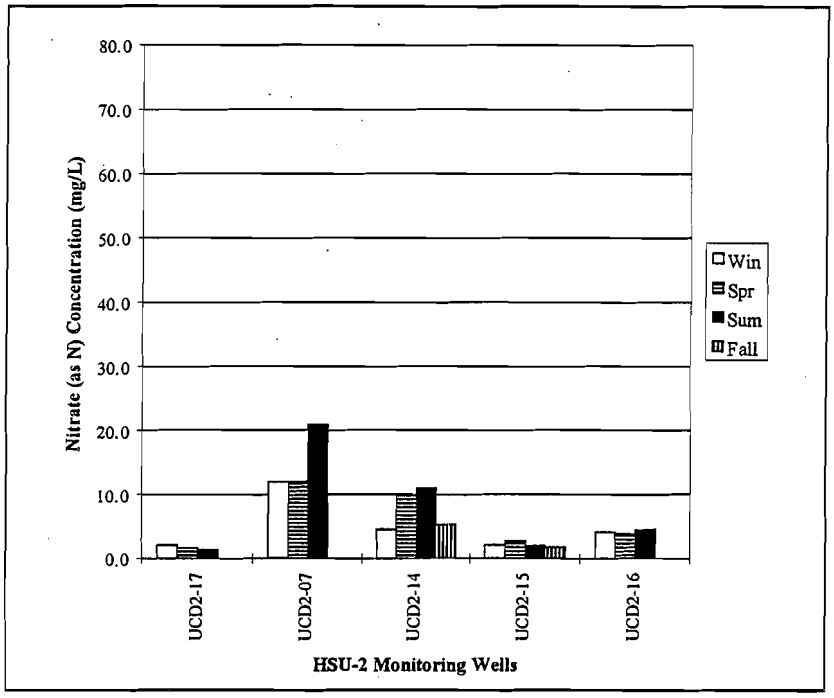


Figure 5.4. Nitrate Concentrations Detected in HSU-2 Monitoring Wells, 1995

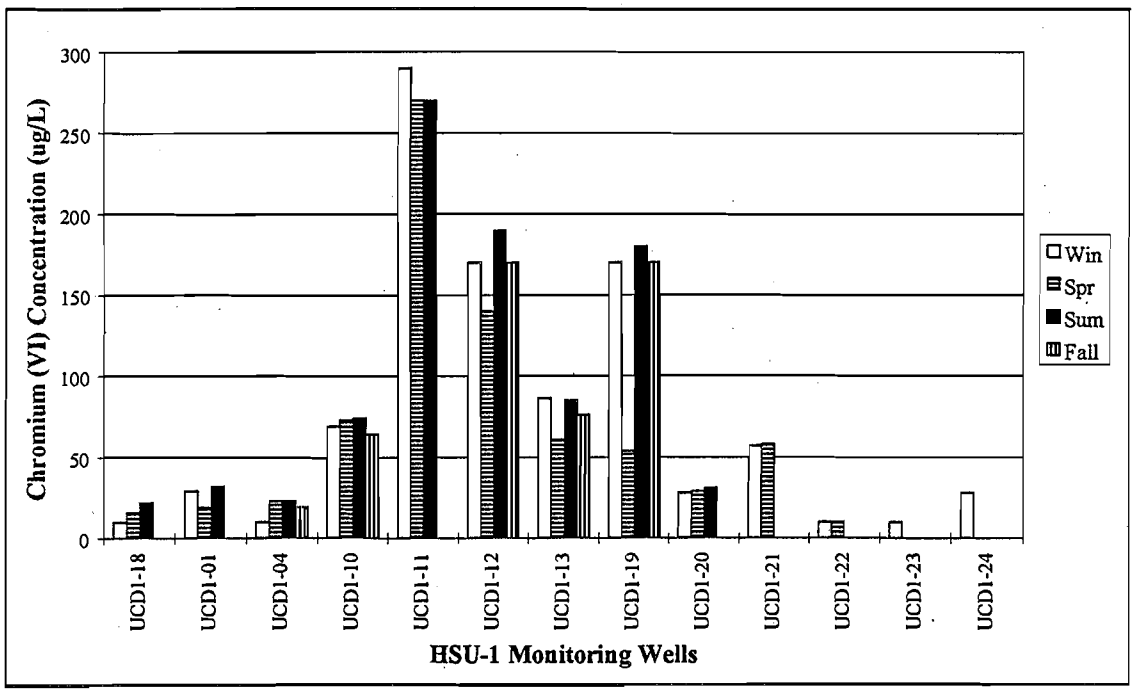


Figure 5.5. Chromium Concentrations Detected in HSU-1 Monitoring Wells, 1995

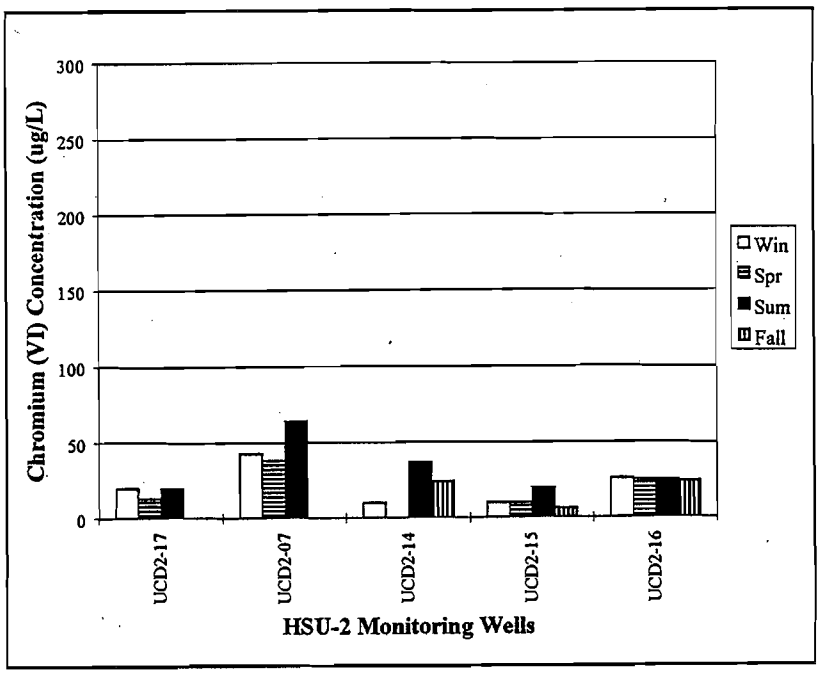


Figure 5.6. Chromium Concentrations Detected in HSU-2 Monitoring Wells, 1995

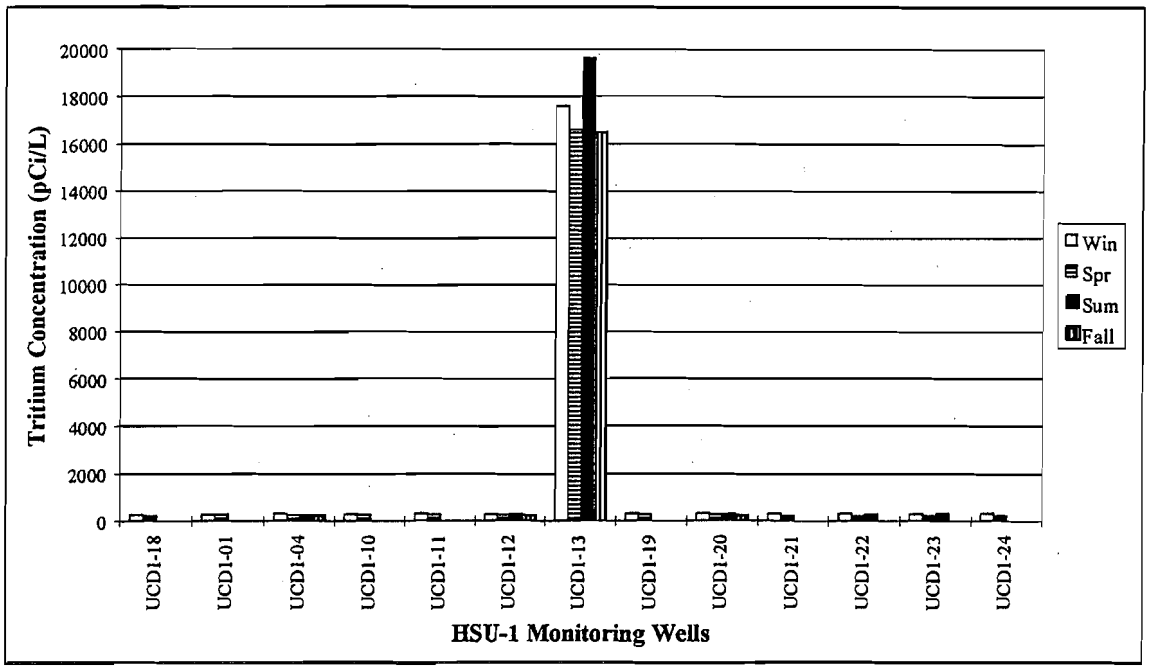


Figure 5.7. Tritium Concentrations Detected in HSU-1 Monitoring Wells, 1995

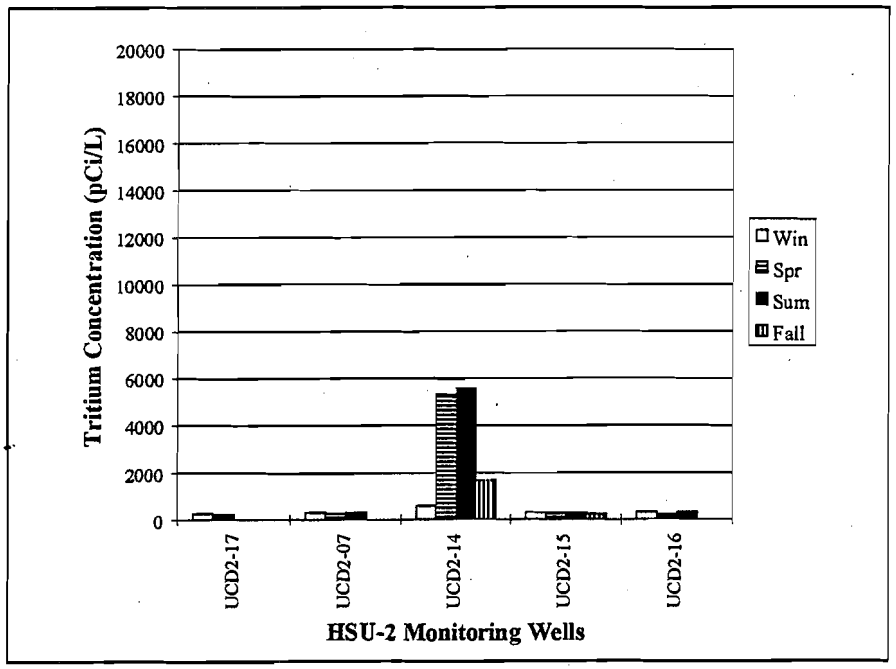


Figure 5.8. Tritium Concentrations Detected in HSU-2 Monitoring Wells, 1995

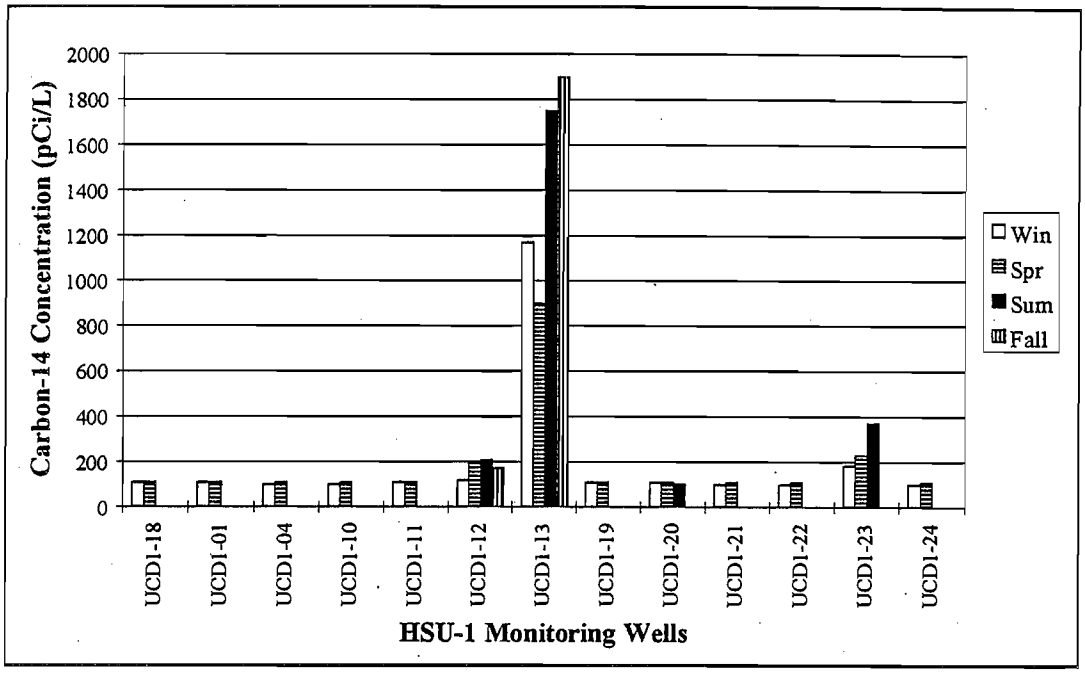


Figure 5.9. Carbon-14 Concentrations Detected in HSU-1 Monitoring Wells, 1995

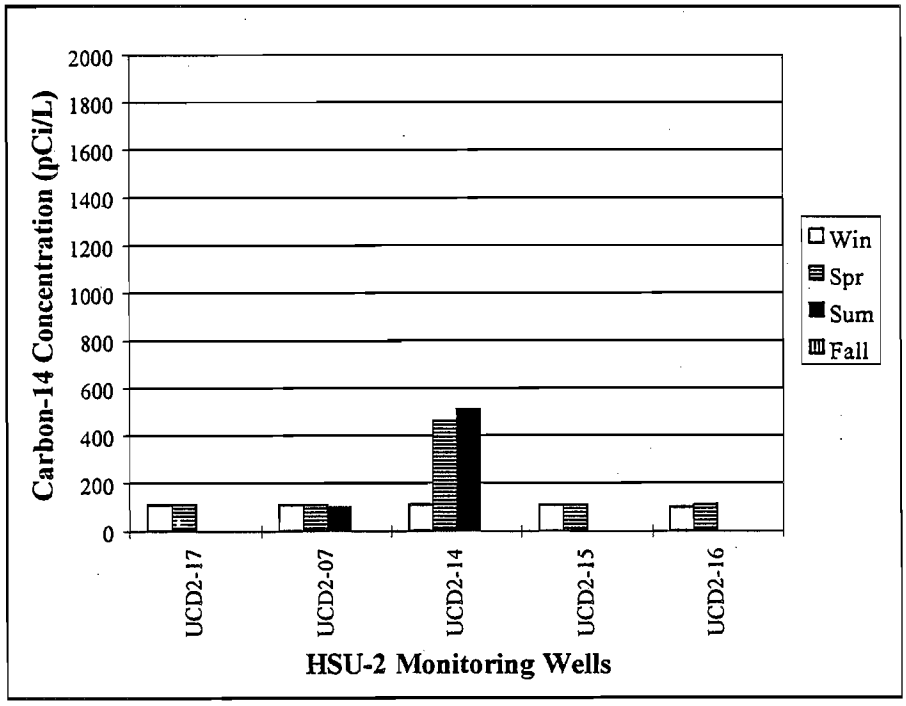
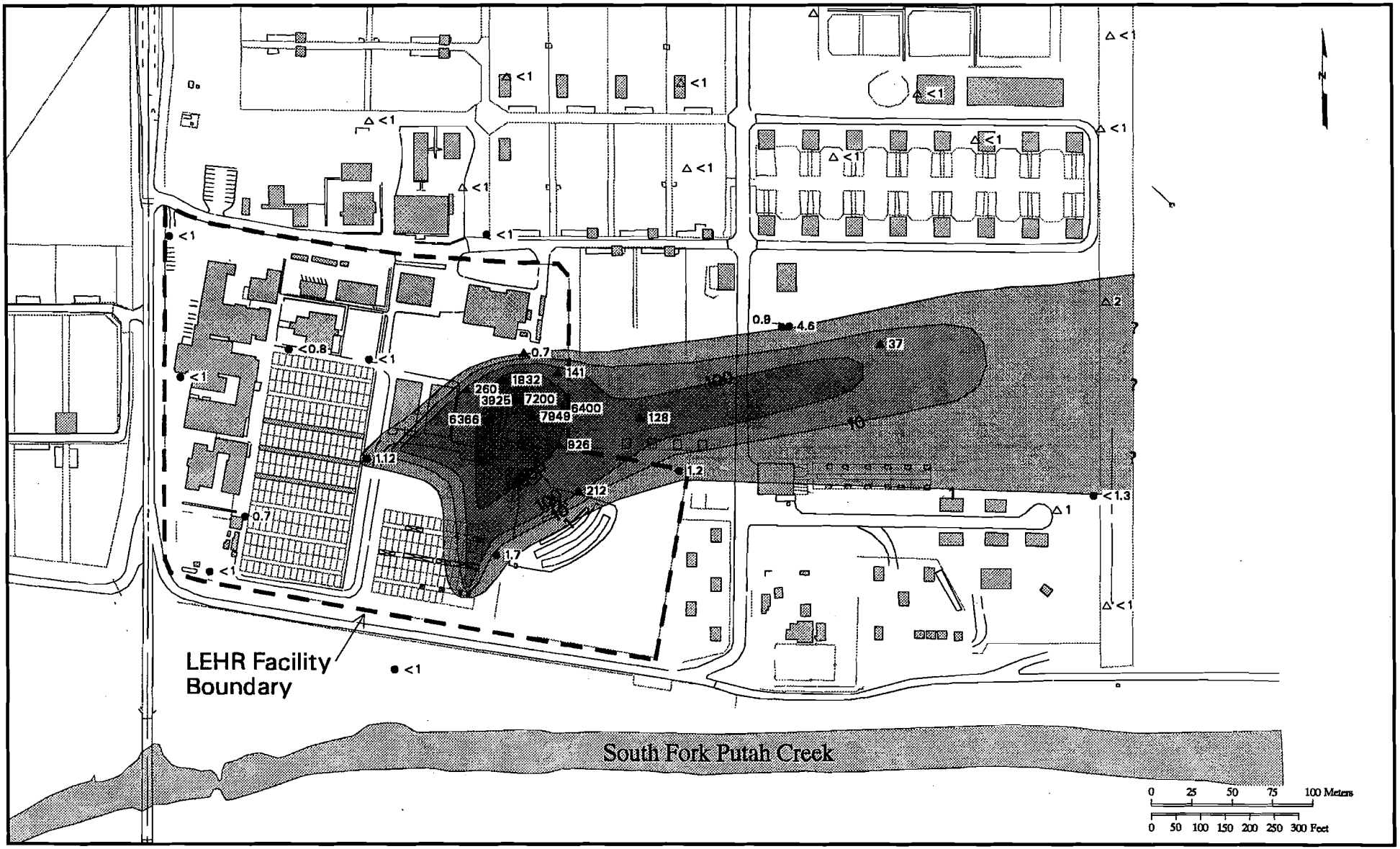


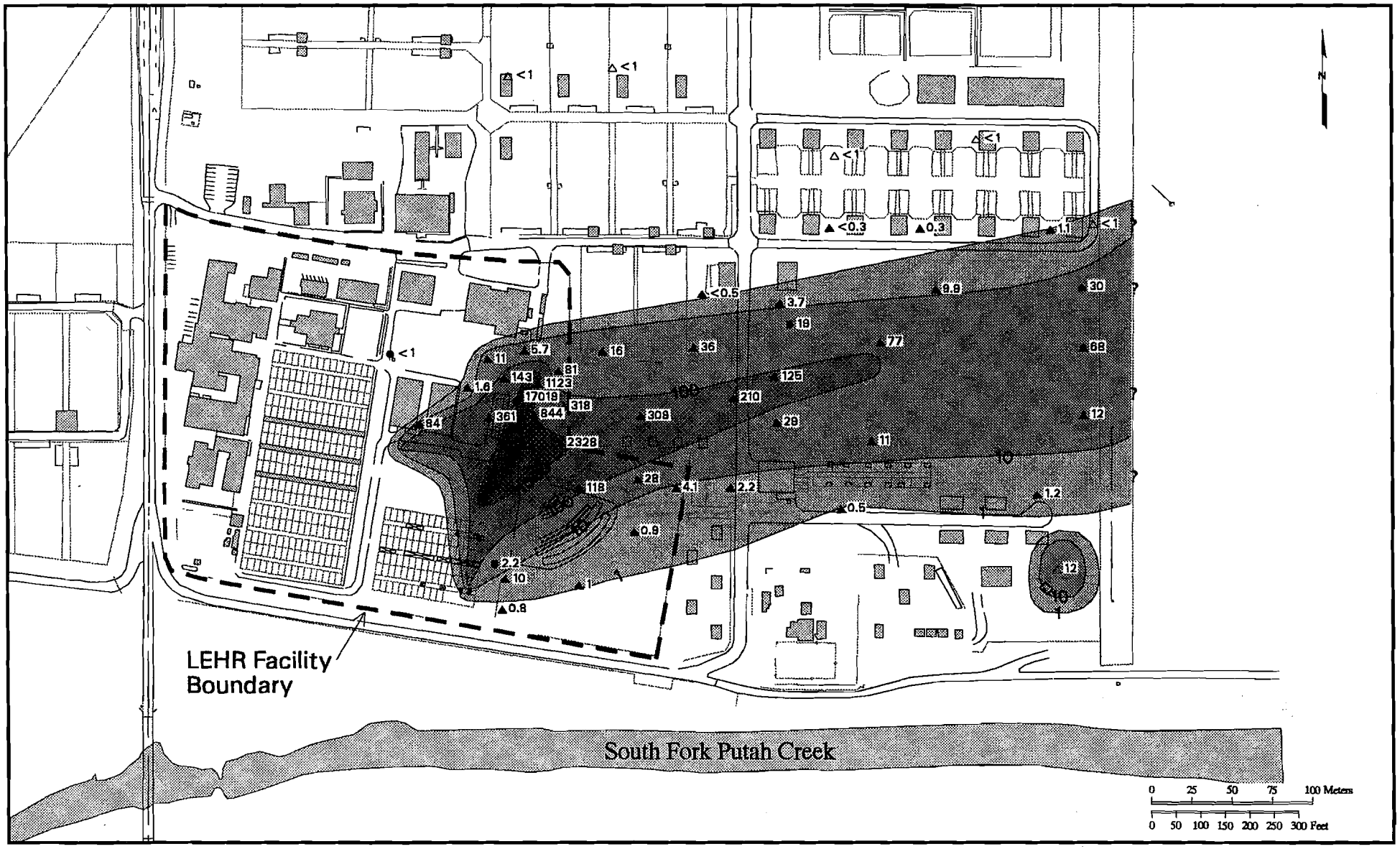
Figure 5.10. Carbon-14 Concentrations Detected in HSU-2 Monitoring Wells, 1995



EXPLANATION

- △ 1994 Hydropunch Location
- ▲ 1995 Hydropunch Location
- ● 1995 Well Location

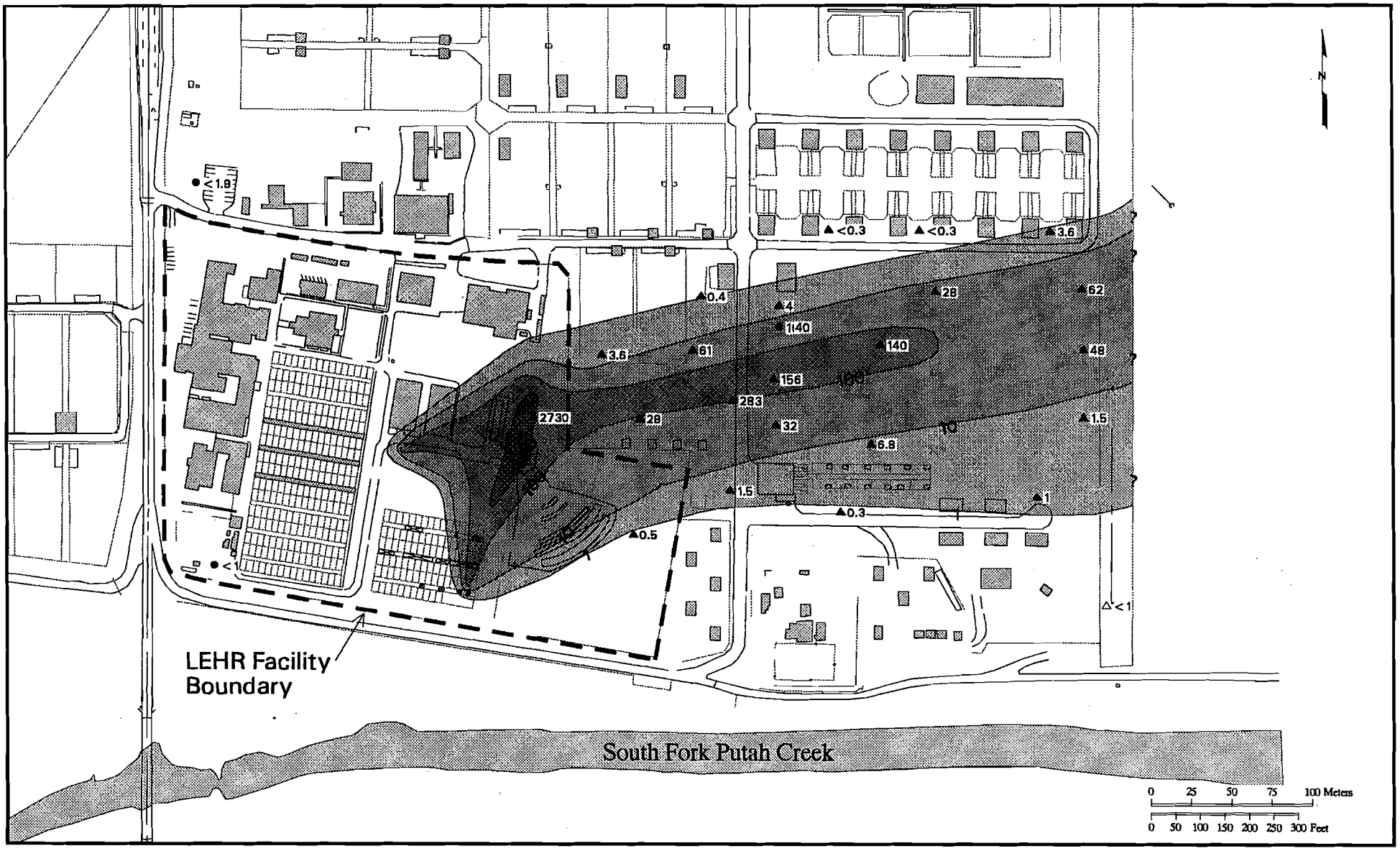
Figure 5.11. Concentration Contour Plot - Chloroform in HSU-1, 1995 (mg/L)



EXPLANATION

△ 1994 Hydropunch Location
▲ 1995 Hydropunch Location
● 1995 Well Location

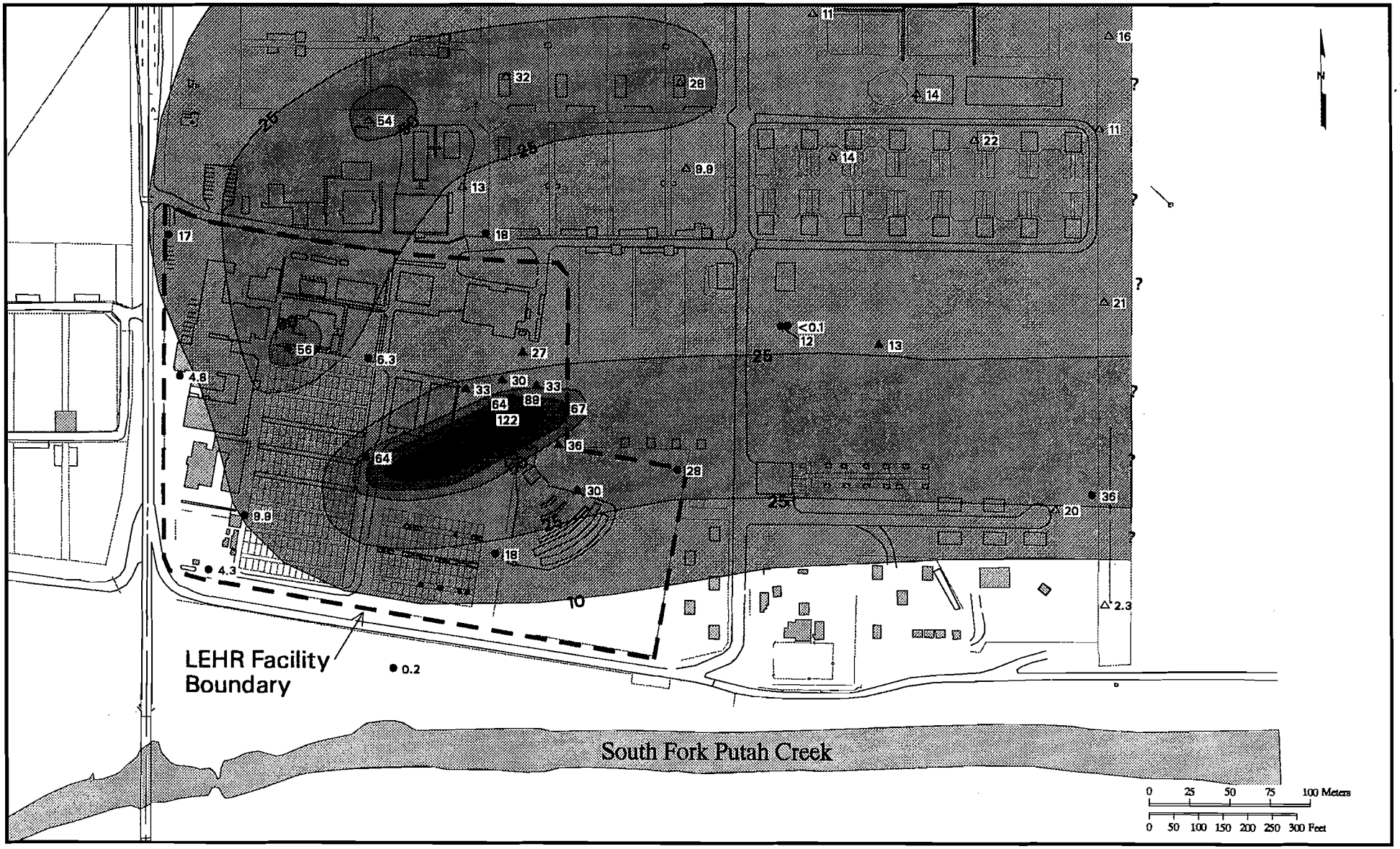
Figure 5.12. Concentration Contour Plot - Chloroform in Upper Portion of HSU-2, 1995 (mg/L)



EXPLANATION

△ 1994 Hydropunch Location
▲ 1995 Hydropunch Location
● 1995 Well Location

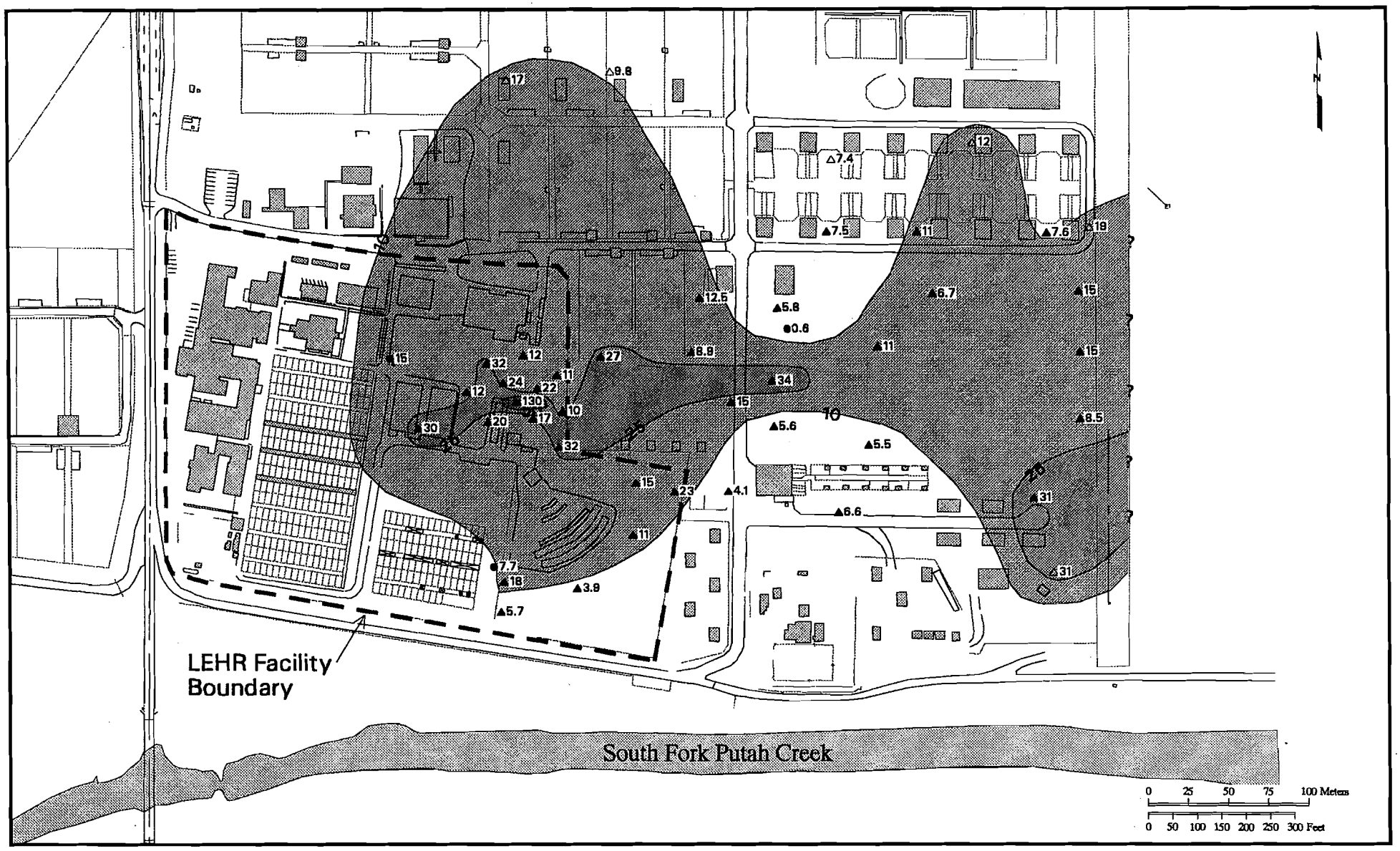
Figure 5.13. Concentration Contour Plot - Chloroform in Middle Portion of HSU-2, 1995 ~~(mg/L)~~ µg/L



EXPLANATION

- △ 1994 Hydropunch Location
- ▲ 1995 Hydropunch Location
- ● 1995 Well Location

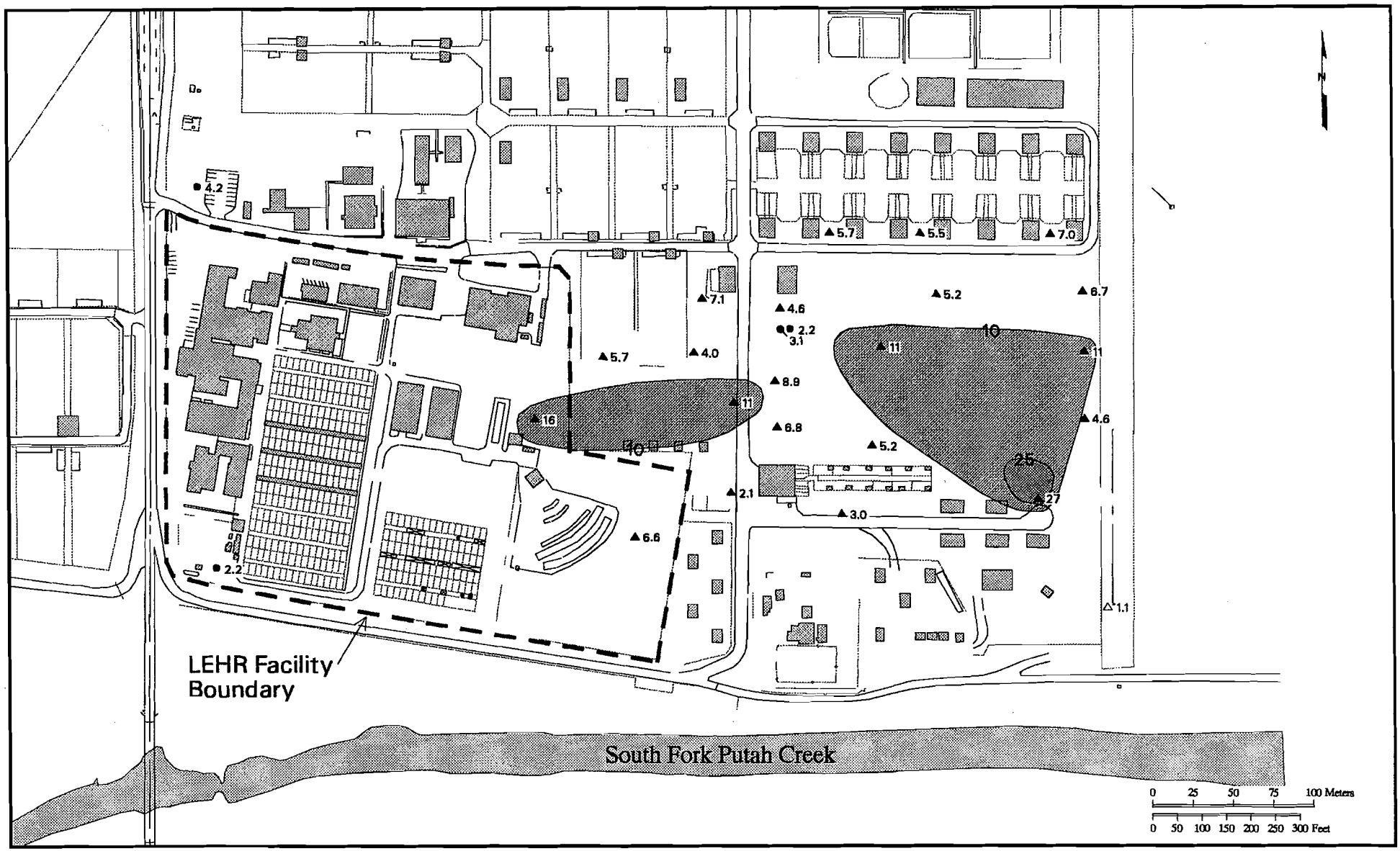
Figure 5.14. Concentration Contour Plot - Nitrate in HSU-1, 1995 (mg/L)



EXPLANATION

△ 1994 Hydropunch Location
▲ 1995 Hydropunch Location
● 1995 Well Location

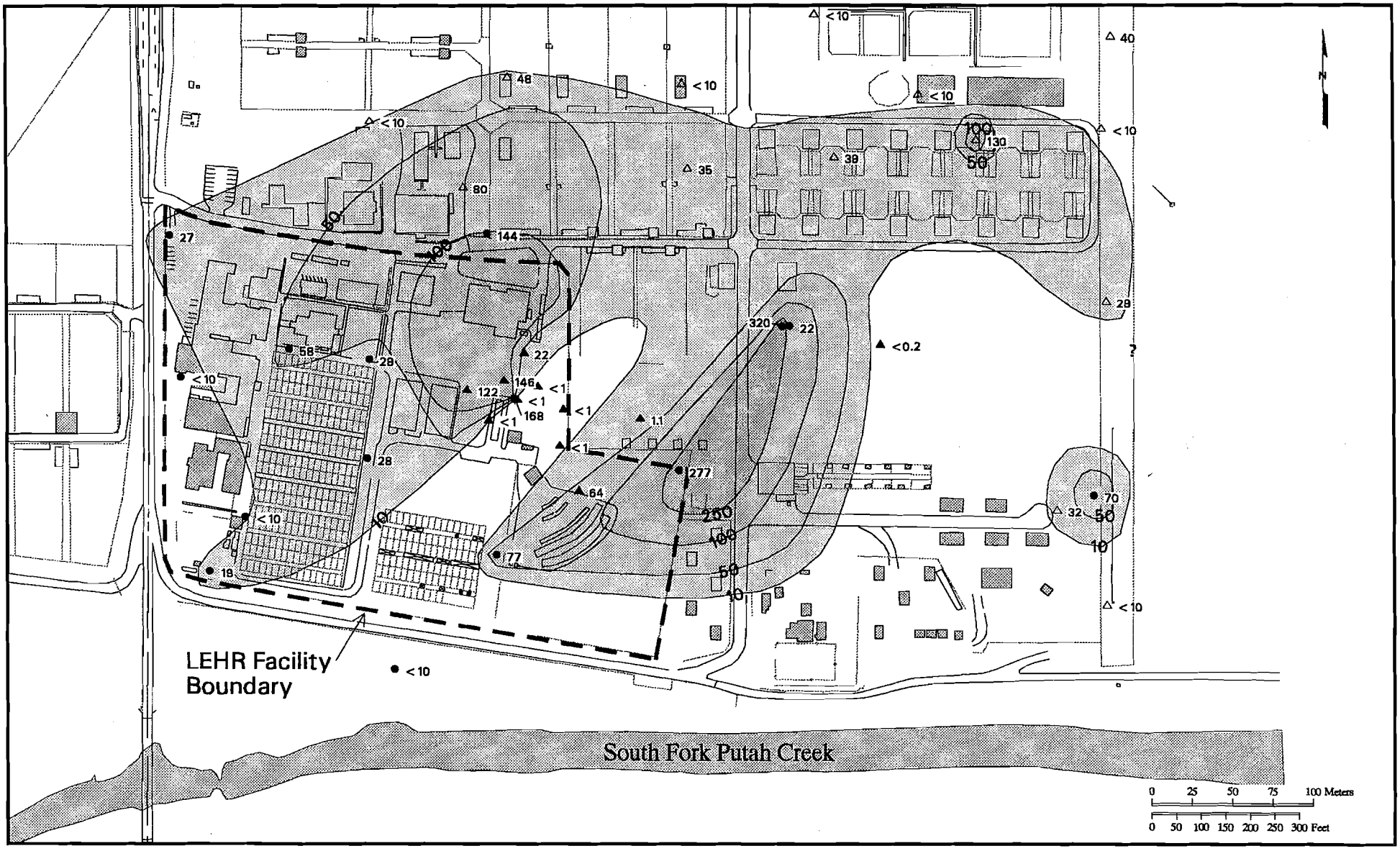
Figure 5.15. Concentration Contour Plot - Nitrate in Upper Portion of HSU-2, 1995 (mg/L)



EXPLANATION

△ 1994 Hydropunch Location
▲ 1995 Hydropunch Location
● 1995 Well Location

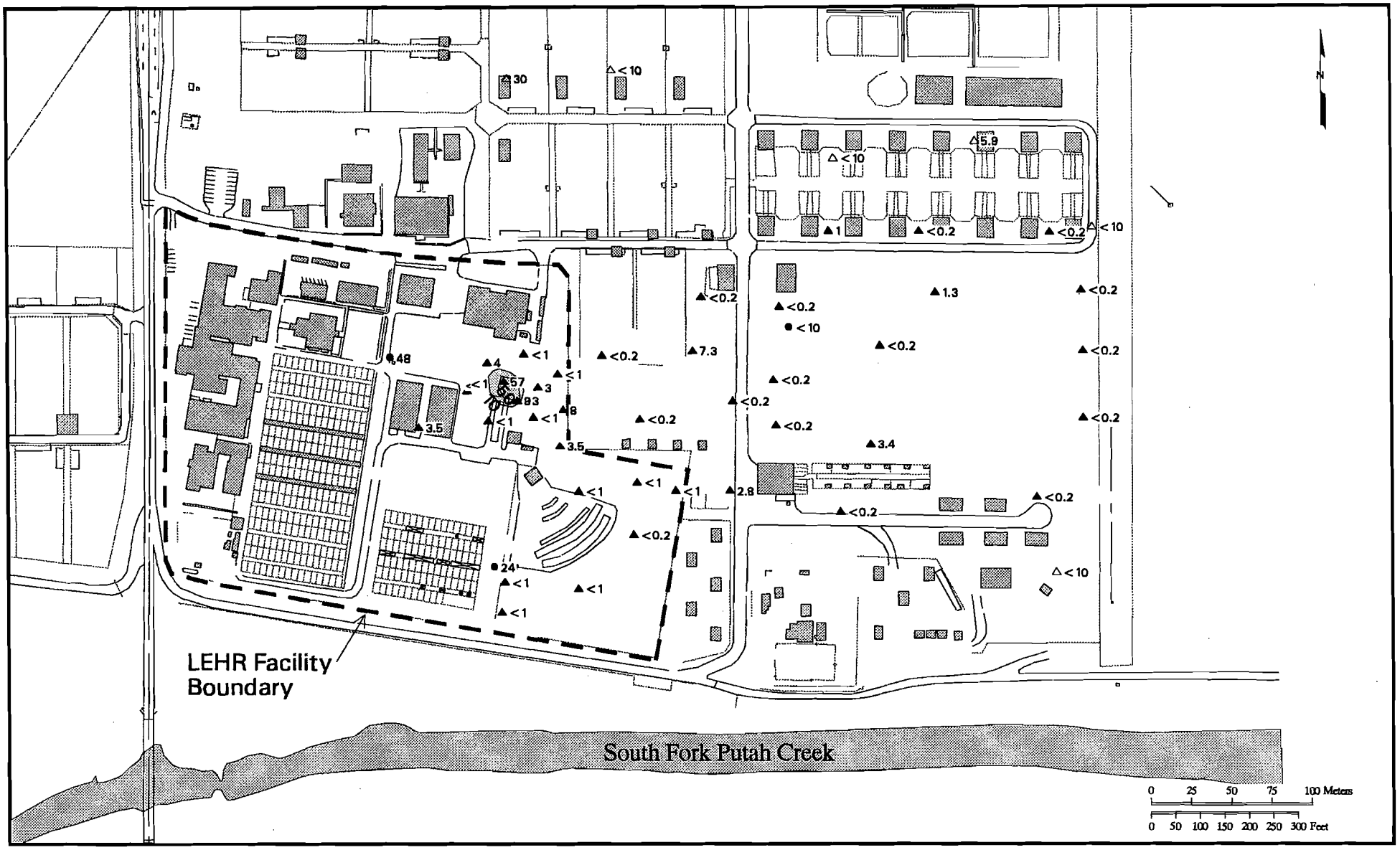
Figure 5.16. Concentration Contour Plot - Nitrate in Middle Portion of HSU-2, 1995 (mg/L)



EXPLANATION

- △ 1994 Hydropunch Location
- ▲ 1995 Hydropunch Location
- ● 1995 Well Location

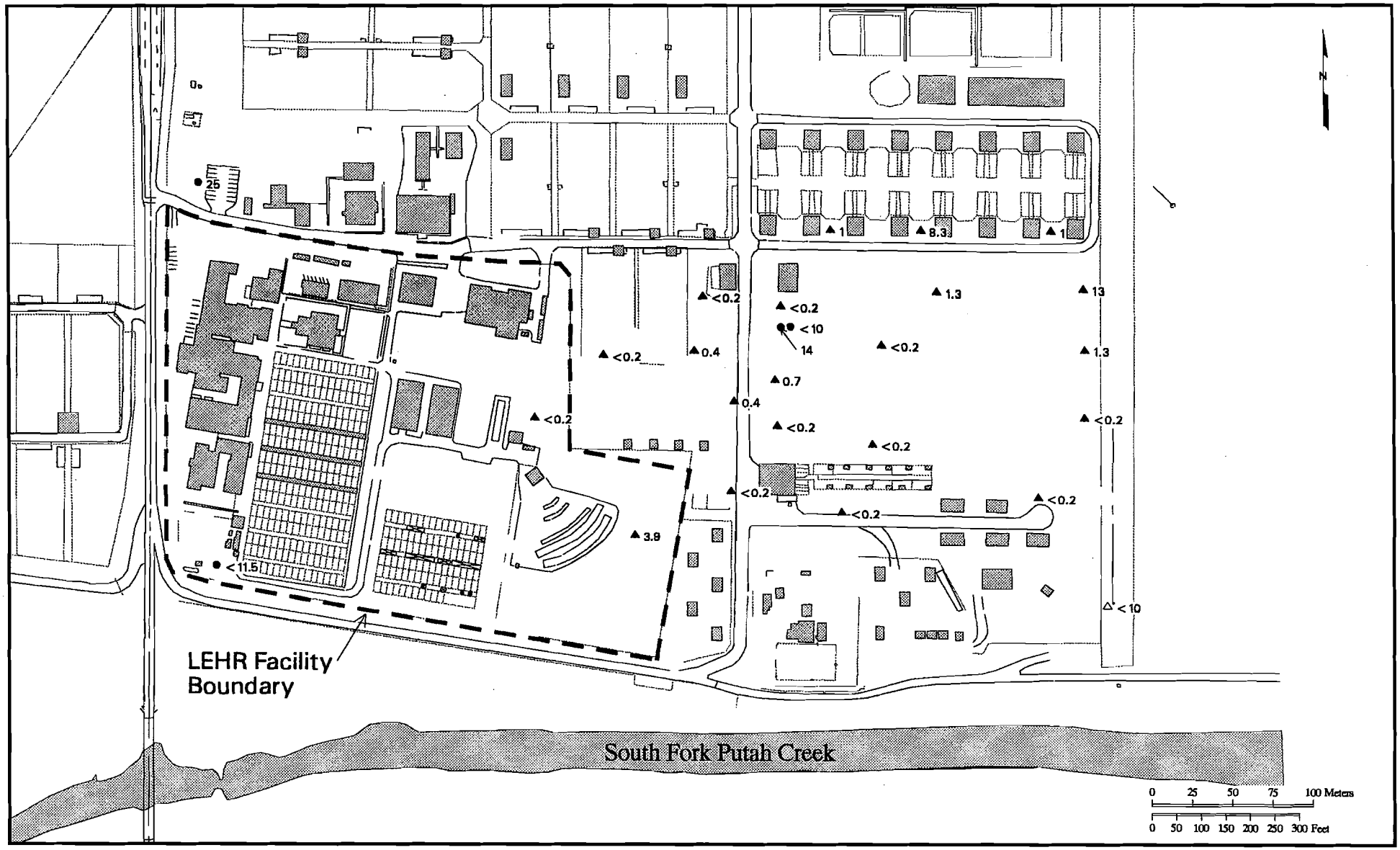
Figure 5.17. Concentration Contour Plot - Hexavalent Chromium in HSU-1, 1995 (μg/L)



EXPLANATION

△ 1994 Hydropunch Location
▲ 1995 Hydropunch Location
● 1995 Well Location

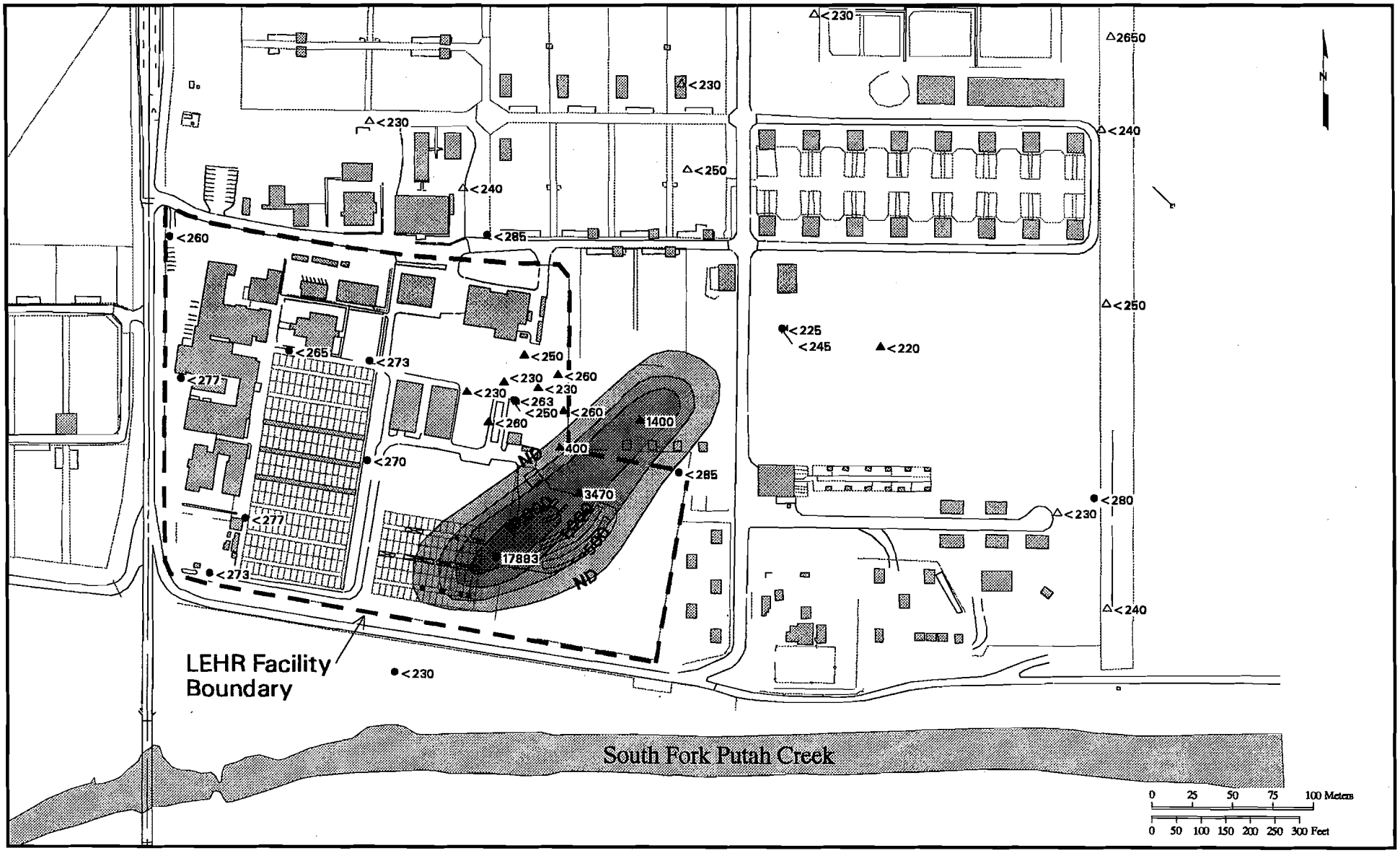
Figure 5.18. Concentration Contour Plot - Hexavalent Chromium in Upper Portion of HSU-2, 1995 (μg/l)



EXPLANATION

△ 1994 Hydropunch Location
▲ 1995 Hydropunch Location
● 1995 Well Location

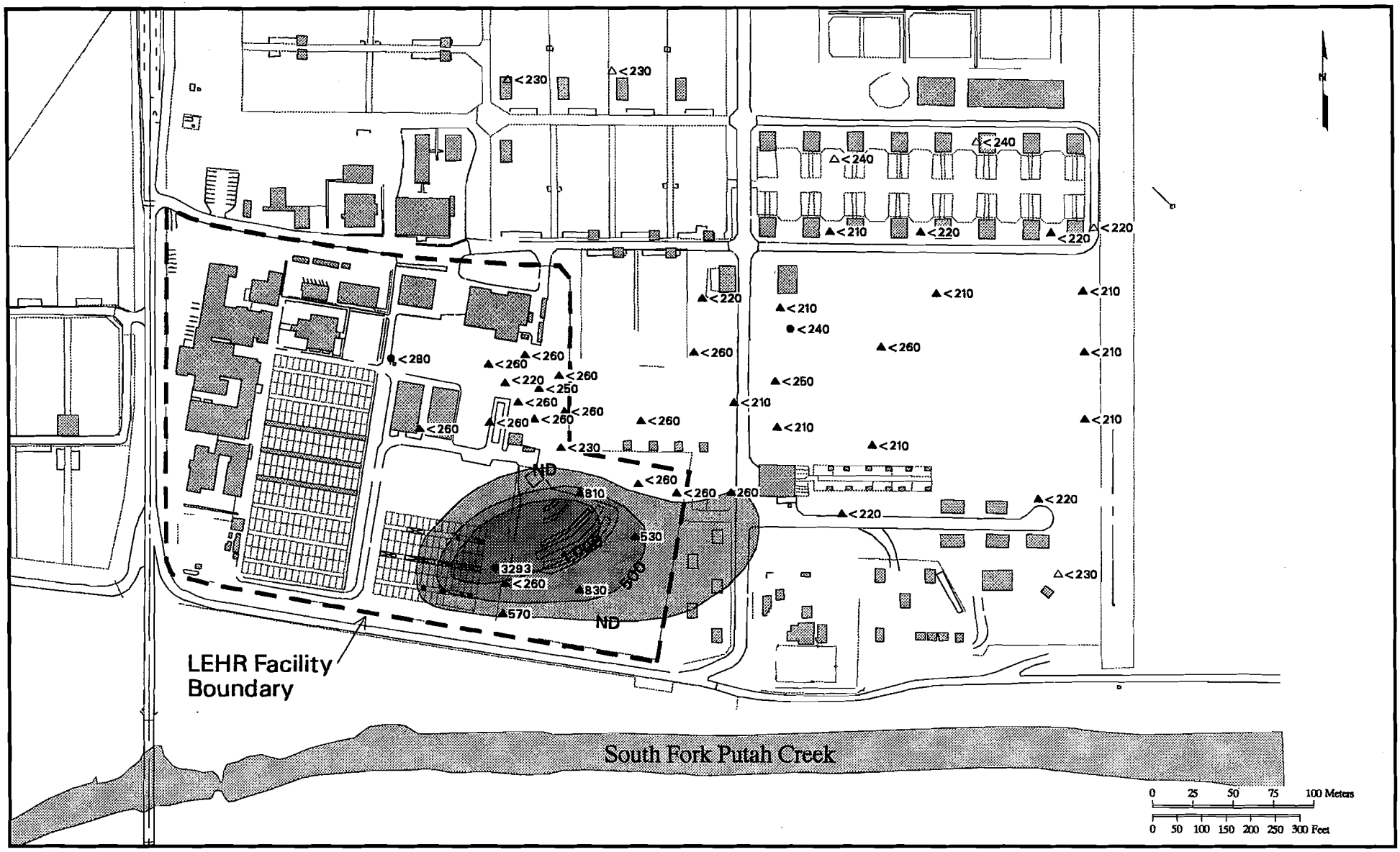
Figure 5.19. Concentration Contour Plot - Hexavalent Chromium in Middle Portion of HSU-2, 1995 (μg/L)



EXPLANATION

- △ 1994 Hydropunch Location
- ▲ 1995 Hydropunch Location
- ● 1995 Well Location

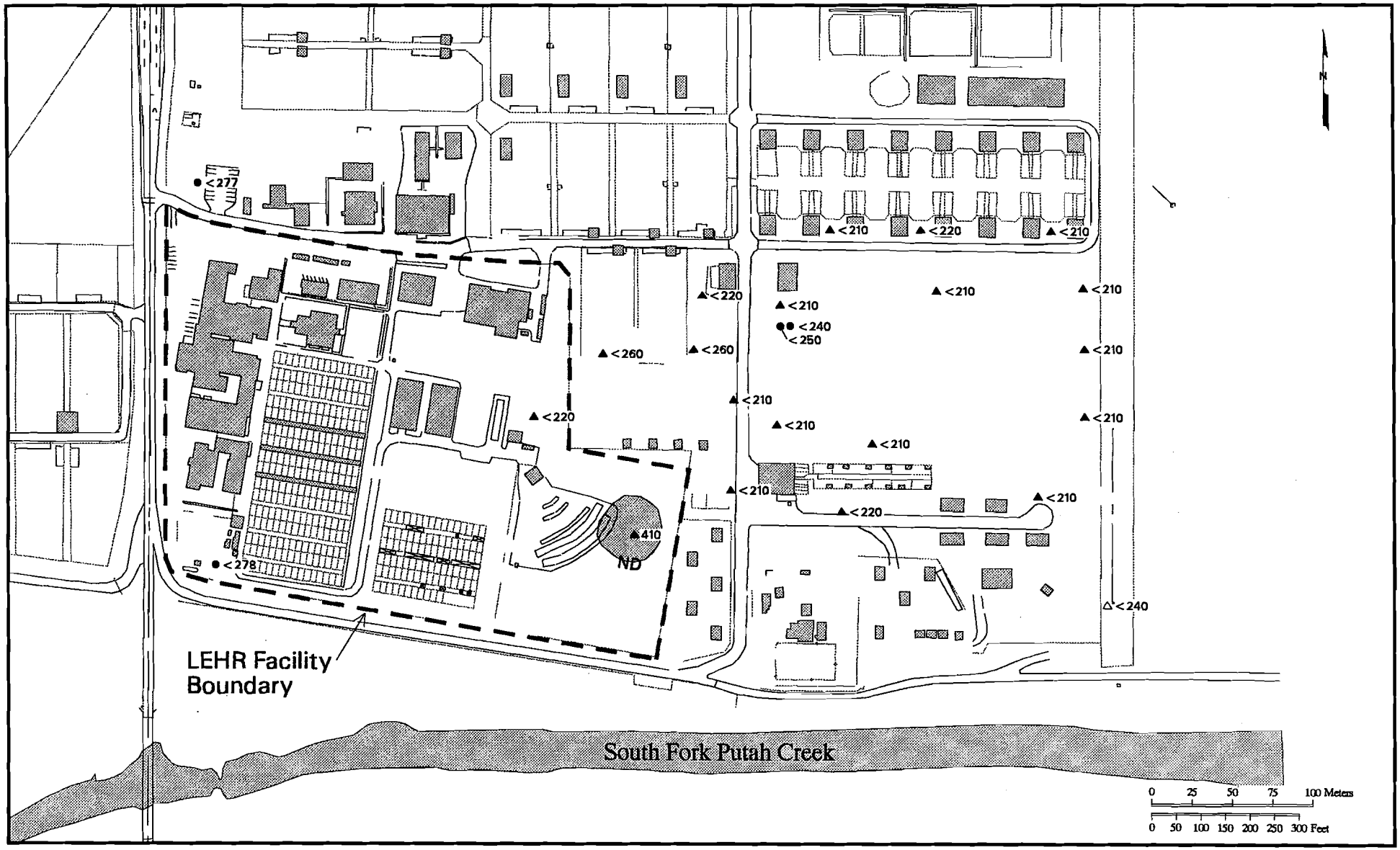
Figure 5.20. Concentration Contour Plot - Tritium in HSU-1, 1995 (mg/L)



EXPLANATION

△ 1994 Hydropunch Location
▲ 1995 Hydropunch Location
● 1995 Well Location

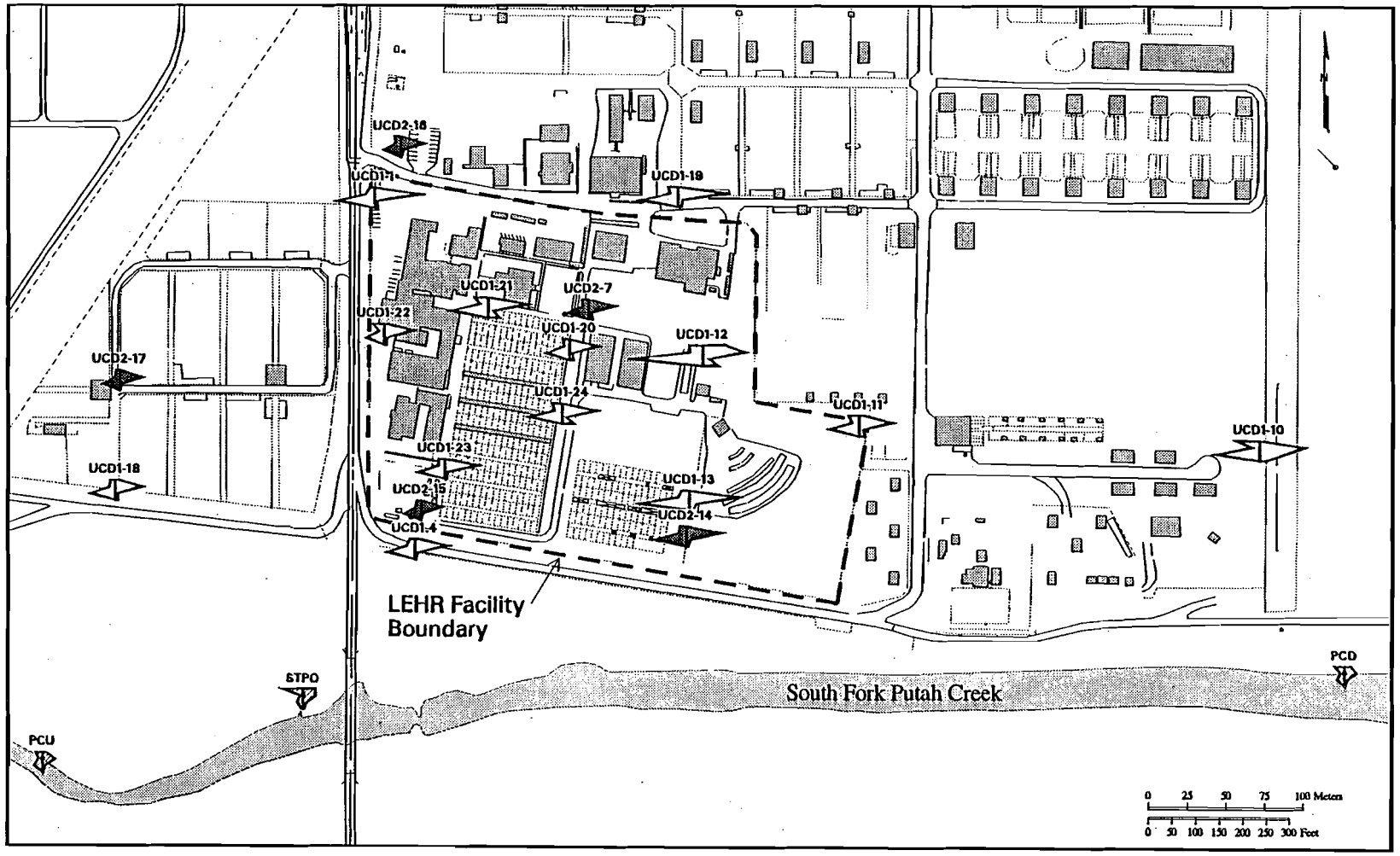
Figure 5.21. Concentration Contour Plot - Tritium in Upper Portion of HSU-2, 1995 (mg/L)



EXPLANATION

△ 1994 Hydropunch Location
▲ 1995 Hydropunch Location
● 1995 Well Location

Figure 5.22. Concentration Contour Plot - Tritium in Middle Portion of HSU-2, 1995 (mg/L)



EXPLANATION

- Surface Water Location
- HSU–1 Monitoring Well
- HSU–2 Monitoring Well

Stiff Scale meq/L

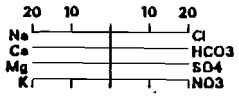


Figure 5.23. Stiff Diagram Map - Groundwater Chemistry at Monitoring Wells

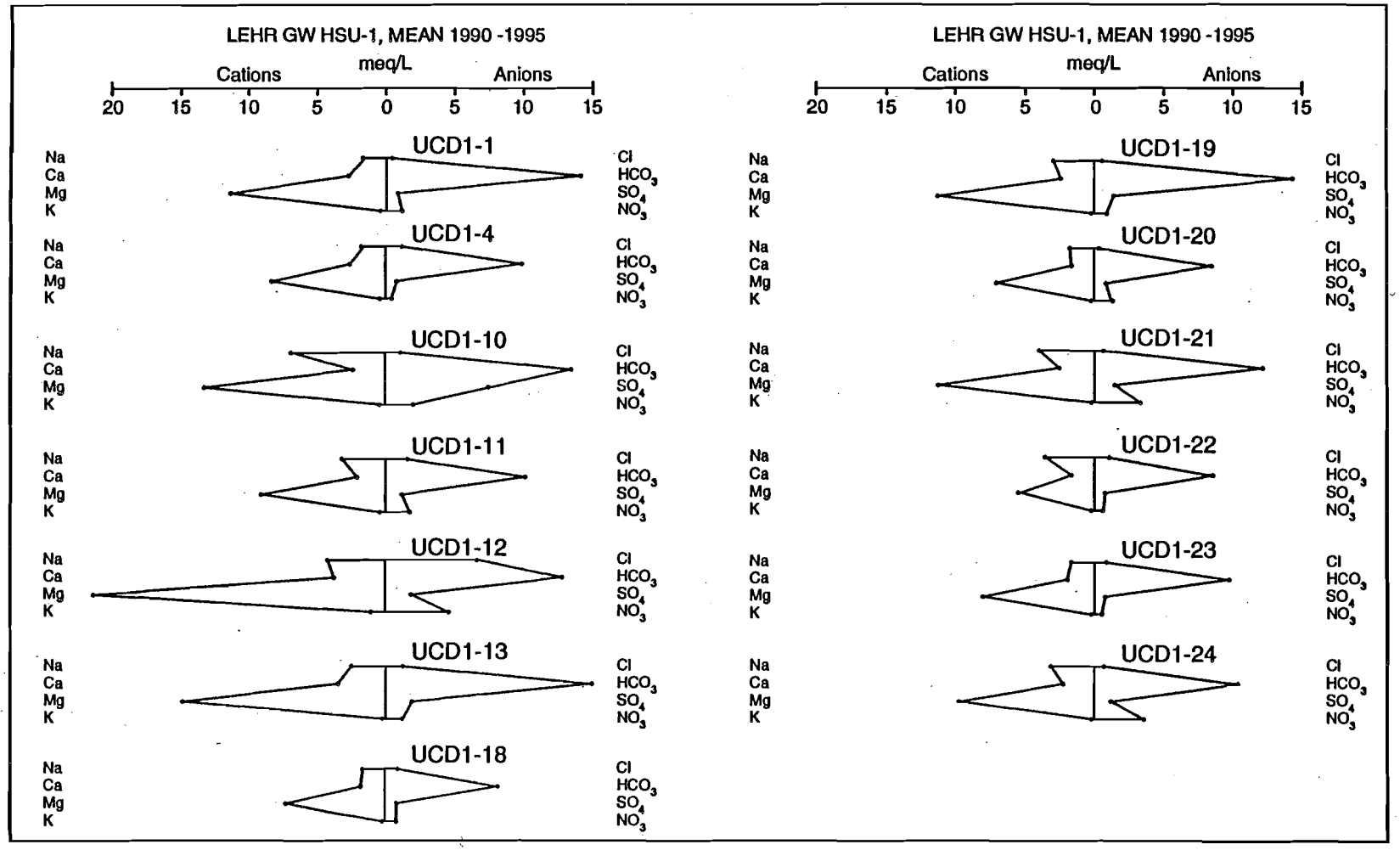


Figure 5.24. Stiff Diagrams - HSU-1 Wells, Mean 1990-1995

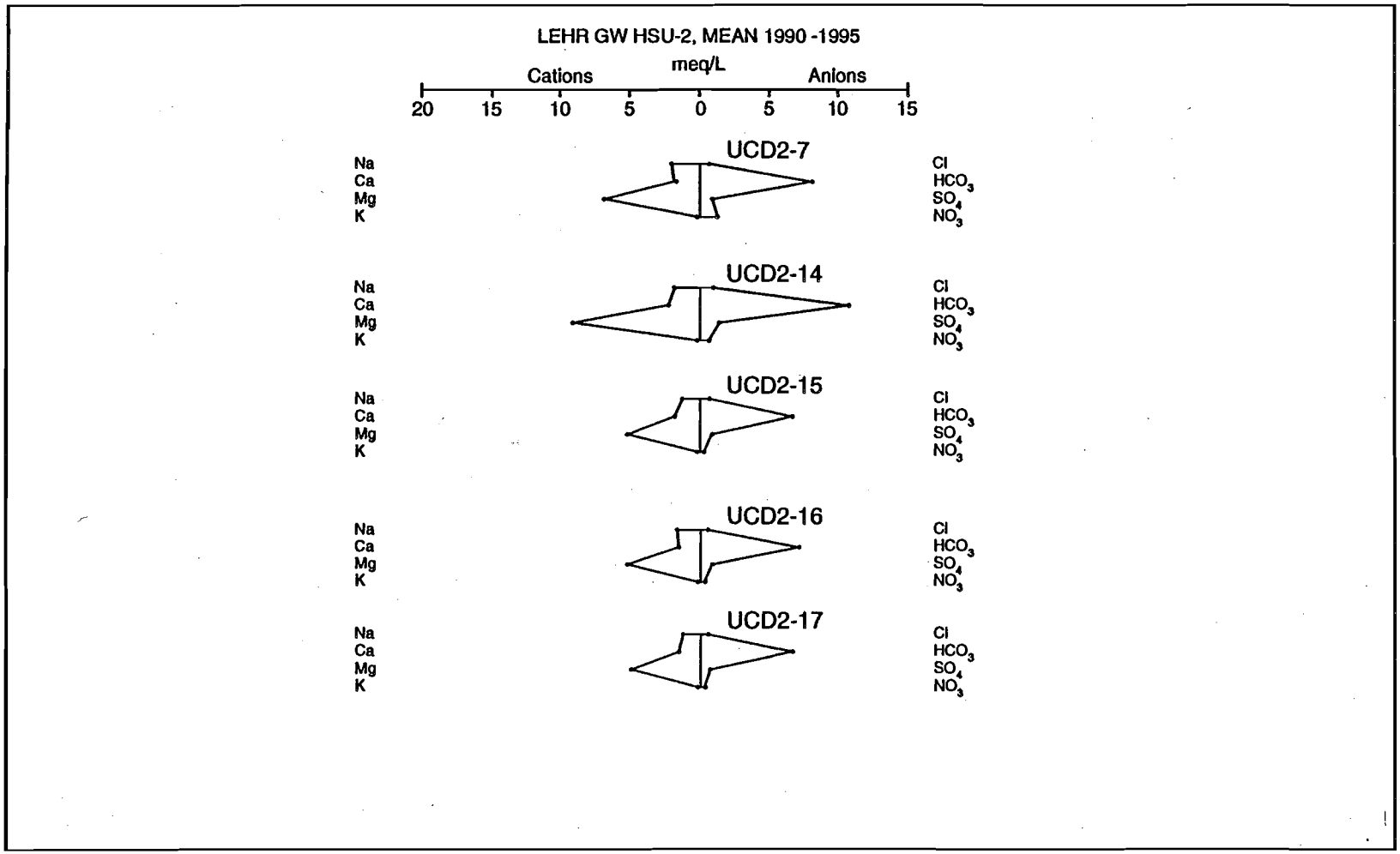


Figure 5.25. Stiff Diagrams - HSU-2 Wells, Mean 1990-1995

TABLE 5.1
NUMBER OF DETECTIONS, POSITIVE RESULTS AND MAXIMUM VALUES IN GROUNDWATER, 1995
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

				UPGRADIENT WELLS						DOWNGRADIENT WELLS					
	PARAMETER	MCL		Number of Results	Number of Detections	Number >MCL	Maximum Value	Date of Maximum	Location of Maximum	Number of Results	Number of Detections	Number >MCL	Maximum Value	Date of Maximum	Location of Maximum
Cations & Anions mg/L	Ammonia-Nitrogen	-		5	0	0	-	-	-	35	4	0	4.4	23-Feb-95	UCD1-13
	Calcium	-		5	5	0	46.1	23-May-95	UCD1-18	51	51	0	75.4	17-May-95	UCD1-13
	Chloride	250	S	5	5	0	44	22-Feb-95	UCD1-18	35	35	0	220	23-Feb-95	UCD1-12
	Magnesium	-		5	5	0	112	23-May-95	UCD1-18	51	51	0	227	23-Feb-95	UCD1-12
	Nitrogen, Nitrate (as N)	10	#	7	7	4	23	30-Aug-95	UCD1-18	61	58	31	72	28-Aug-95	UCD1-12
	Potassium	-		5	1	0	0.942	23-May-95	UCD1-18	51	35	0	2.25	05-Dec-95	UCD1-27Z1
	Sodium	-		5	5	0	42.3	23-May-95	UCD1-18	51	51	0	191	05-Dec-95	UCD1-27Z1
	Sulfate	250	S	5	5	0	39	22-Feb-95	UCD1-18	35	35	2	290	16-Feb-95	UCD1-10
	Alkalinity Total(as CaCO3) (mg/L)	-		5	5	0	460	23-May-95	UCD1-18	35	35	0	870	18-May-95	UCD1-19
General Chemical Parameters	Total Dissolved Solids (mg/L)	500	S	5	5	3	660	23-May-95	UCD1-18	63	63	43	1700	28-Aug-95	UCD1-12
	Total Organic Carbon (mg/L)	-		5	2	0	1	22-Feb-95	UCD1-18	35	18	0	2.8	23-Feb-95	UCD1-12
	Turbidity (NTU)	-		5	3	0	1.7	22-Feb-95	UCD1-18	35	23	0	7.9	16-Feb-95	UCD1-4
Metals ug/L	Antimony	6		5	1	0	1.8	23-May-95	UCD2-17	51	6	0	2.3	07-Dec-95	UCD2-27Z4
	Arsenic	50		5	4	0	4.9	22-Feb-95	UCD1-18	51	30	0	8.6	05-Dec-95	UCD1-27Z1
	Barium	1000		5	5	0	188	23-May-95	UCD1-18	51	50	0	355	17-May-95	UCD1-12
	Chromium	50		5	5	0	21.3	23-May-95	UCD1-18	51	50	14	290	29-Nov-95	UCD1-25
	Chromium, Hexavalent (+6)	0.05		7	3	3	22	30-Aug-95	UCD1-18	65	49	49	310	29-Nov-95	UCD1-25
	Cobalt	-		5	2	0	1.5	22-Feb-95	UCD1-18	51	12	0	6.9	30-Aug-95	UCD2-14
	Copper	1000	S	5	2	0	1.5	22-Feb-95	UCD1-18	51	12	0	10.2	04-Dec-95	UCD2-26
	Iron	300	S	5	2	0	17.3	23-May-95	UCD2-17	51	31	7	3970	05-Dec-95	UCD1-27Z1
	Mercury	2		5	0	0	-	-	-	51	5	0	0.68	16-Feb-95	UCD2-7
	Molybdenum	-		5	0	0	-	-	-	51	27	0	5.5	05-Dec-95	UCD1-27Z1
	Nickel	100		5	4	0	66	22-Feb-95	UCD1-18	51	38	0	39	15-Feb-95	UCD1-23
	Selenium	5	#	5	0	0	-	-	-	51	19	10	23	16-Feb-95	UCD1-10
	Vanadium	-		5	5	0	10.6	22-Feb-95	UCD1-18	51	44	0	13.4	29-Nov-95	UCD2-14
	Zinc	5000	S	5	5	0	4.9	23-May-95	UCD2-17	51	38	0	559	05-Dec-95	UCD1-27Z1
Pesticides & PCB's ug/L	Alpha-Chlordane	-		5	0	0	-	-	-	58	3	0	0.0059	30-Nov-95	UCD1-13
	Dieldrin	-		5	0	0	-	-	-	58	3	0	0.029	23-Feb-95	UCD1-13
	Endrin	0.2		5	0	0	-	-	-	58	2	0	0.012	23-Feb-95	UCD1-13
	Gamma-Chlordane	-		5	0	0	-	-	-	58	3	0	0.0071	30-Nov-95	UCD1-13
Radionuclides pCi/L	Actinium-228	-		5	0	0	-	-	-	62	1	0	29	24-May-95	UCD2-14
	Americium-241	-		5	0	0	-	-	-	49	5	0	0.106	16-May-95	UCD1-10
	Bismuth-214	-		5	2	0	30	22-Feb-95	UCD1-18	62	28	0	48	22-Feb-95	UCD1-1
	Carbon-14	-		5	0	0	-	-	-	56	16	0	1900	30-Nov-95	UCD1-13
	Gross Alpha	15		5	1	1	46.8	22-Feb-95	UCD2-17	62	2	0	8.1	30-Nov-95	UCD1-34
	Gross Beta	50		5	1	0	16.2	22-Feb-95	UCD2-17	62	5	0	15	23-Feb-95	UCD1-13
	Lead-212	-		5	0	0	-	-	-	62	2	0	9	14-Feb-95	UCD1-19
	Lead-214	-		5	1	0	9.1	23-May-95	UCD2-17	62	26	0	35	16-May-95	UCD2-7
	Plutonium-241	-		5	0	0	-	-	-	49	2	0	3.2	23-May-95	UCD1-22
	Radium-226	5		5	3	0	0.4	22-Feb-95	UCD1-18	62	23	0	1.05	11-Dec-95	UCD2-27Z7
	Strontium-90	8		5	0	0	-	-	-	62	1	0	1.06	30-Aug-95	UCD2-14
	Tritium	20000	*	5	0	0	-	-	-	61	9	0	19600	30-Aug-95	UCD1-13
	Uranium-235	-		5	1	0	22	23-May-95	UCD2-17	62	0	0	-	-	-

TABLE 5.1
NUMBER OF DETECTIONS, POSITIVE RESULTS AND MAXIMUM VALUES IN GROUNDWATER, 1995
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

	PARAMETER	MCL		UPGRADIENT WELLS						DOWNGRADIENT WELLS					
				Number of Results	Number of Detections	Number >MCL	Maximum Value	Date of Maximum	Location of Maximum	Number of Results	Number of Detections	Number >MCL	Maximum Value	Date of Maximum	Location of Maximum
Semivolatile Organic ug/L	4-Methylphenol	-		5	0	0	-	-	-	46	4	0	96	05-Dec-95	UCD1-27Z1
	Bis(2-Ethylhexyl)phthalate	4		5	2	1	7	23-May-95	UCD1-18	46	17	6	29	07-Dec-95	UCD2-27Z4
	Di-n-Butylphthalate	-		5	4	0	50	23-May-95	UCD1-18	46	7	0	180	16-May-95	UCD1-10
	Diethyl Phthalate	-		5	2	0	1	23-May-95	UCD1-18	46	3	0	2	23-May-95	UCD1-22
	Dimethyl Phthalate	-		5	0	0	-	-	-	46	1	0	6.3	05-Dec-95	UCD1-27Z1
	N-Nitrosodiphenylamine	-		5	0	0	-	-	-	46	1	0	0.64	06-Dec-95	UCD1-27Z2
	Phenol	-		5	0	0	-	-	-	46	6	0	230	05-Dec-95	UCD1-27Z1
Volatile Organics ug/L	1,1,2-Trichloroethane	5	#	5	0	0	-	-	-	63	5	0	3.5	28-Aug-95	UCD1-12
	1,1-Dichloroethane	5		5	0	0	-	-	-	62	6	4	9.2	28-Aug-95	UCD1-12
	1,1-Dichloroethene	6		5	0	0	-	-	-	62	6	4	18	28-Aug-95	UCD1-12
	1,2-Dichloroethane	0.5		5	0	0	-	-	-	62	5	5	5.9	28-Aug-95	UCD1-12
	1,2-Dichloropropane	5		5	0	0	-	-	-	62	1	0	0.72	28-Aug-95	UCD1-12
	2-Butanone	-		5	0	0	-	-	-	63	1	0	27	05-Dec-95	UCD1-27Z1
	4-Methyl-2-Pentanone	-		5	0	0	-	-	-	63	1	0	5	05-Dec-95	UCD1-27Z1
	Acetone	-		5	0	0	-	-	-	62	7	0	4.7	05-Dec-95	UCD1-27Z1
	Bromodichloromethane	-	a	5	0	0	-	-	-	62	5	0	2.1	28-Aug-95	UCD1-12
	Bromoform	-	a	5	0	0	-	-	-	63	1	0	0.95	08-Dec-95	UCD2-27Z6
	Carbon Disulfide	-		5	0	0	-	-	-	63	4	0	2.4	07-Dec-95	UCD1-27Z3
	Chloroform	-	a	5	0	0	-	-	-	61	32	6	9100	28-Aug-95	UCD1-12
	Methylene Chloride	5		5	0	0	-	-	-	63	2	0	1	07-Dec-95	UCD2-27Z4
	Tetrachloroethene	5		5	0	0	-	-	-	63	1	0	0.84	24-May-95	UCD1-24
	Toluene	1000	#	5	0	0	-	-	-	63	2	0	1.3	05-Dec-95	UCD1-27Z1

- = Not Applicable
MCL = Maximum Contamination Level (primary), Title 22, Division 4, Chapter 15.
a = MCL for total tribalomethanes is 100 ug/L. Chloroform is the predominant tribalomethane detected at LEHR.
# = USEPA MCL.
s = Secondary Drinking Water Standard
* = Proposed MCL for Tritium is 60,000 pCi/L.

TABLE 5.2
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-1	UCD1-1 D1	UCD1-4	UCD1-10	UCD1-11
1,1,2-Trichloroethane	WINTER	ug/L	1	5 #	< 1 IU	-	< 1 IU	< 1 IU	< 1 IU
	SPRING	ug/L	1	5 #	< 1 IU	< 1 IU	< 1 IU	< 1 IU	< 1 IU
	SUMMER	ug/L	1	5 #	-	-	< 1 IU	< 1 IU	-
	FALL	ug/L	1	5 #	< 1 IU	-	< 1 IU	< 1 IU	-
1,1-Dichloroethane	WINTER	ug/L	1	5	< 1 IU	-	< 1 IU	< 1 IU	< 1 IU
	SPRING	ug/L	1	5	< 1 IU	b	< 1 IU	< 1 IU	< 1 IU
	SUMMER	ug/L	1	5	-	-	< 1 IU	< 1 IU	-
	FALL	ug/L	1	5	< 1 IU	-	< 1 IU	< 1 IU	-
1,1-Dichloroethene	WINTER	ug/L	1	6	< 1 IU	-	< 1 IU	< 1 IU	< 1 IU
	SPRING	ug/L	1	6	< 1 Jf IU	b	< 1 IU	< 1 IU	< 1 IU
	SUMMER	ug/L	1	6	-	-	< 1 IU	< 1 IU	-
	FALL	ug/L	1	6	< 1 IU	-	< 1 IU	< 1 IU	-
1,2-Dichloroethane	WINTER	ug/L	1	0.5	< 1 IU	-	< 1 IU	< 1 IU	< 1 IU
	SPRING	ug/L	1	0.5	< 1 Jf IU	b	< 1 IU	< 1 IU	< 1 IU
	SUMMER	ug/L	1	0.5	-	-	< 1 IU	< 1 IU	-
	FALL	ug/L	1	0.5	< 1 IU	-	< 1 IU	< 1 IU	-
1,2-Dichloropropane	WINTER	ug/L	1	5	< 1 IU	-	< 1 IU	< 1 IU	< 1 IU
	SPRING	ug/L	1	5	< 1 IU	b	< 1 IU	< 1 IU	< 1 IU
	SUMMER	ug/L	1	5	-	-	< 1 IU	< 1 IU	-
	FALL	ug/L	1	5	< 1 IU	-	< 1 IU	< 1 IU	-
2-Butanone	WINTER	ug/L	5	-	< 5 Rc IU	-	< 5 Rc IU	< 5 Rc IU	< 5 Rc IU
	SPRING	ug/L	5	-	< 5 IU	< 5 IU	< 5 IU	< 5 IU	< 5 IU
	SUMMER	ug/L	5	-	-	-	< 5 Rc IU	< 5 Rc IU	-
	FALL	ug/L	5	-	< 5 Rc IU	-	< 5 Rc IU	< 5 Rc IU	-
4-Methyl-2-Pentanone	WINTER	ug/L	5	-	< 5 IU	-	< 5 IU	< 5 IU	< 5 IU
	SPRING	ug/L	5	-	< 5 IU	< 5 IU	< 5 IU	< 5 IU	< 5 IU
	SUMMER	ug/L	5	-	-	-	< 5 IU	< 5 IU	-
	FALL	ug/L	5	-	< 5 IU	-	< 5 IU	< 5 IU	-
Acetone	WINTER	ug/L	5	-	< 5 Rc IU	-	< 5 Rc IU	< 5 Rc IU	< 5 Rc IU
	SPRING	ug/L	5	-	< 5 Rc IU	b	< 5 Rc IU	< 5 Rc IU	< 5 Rc IU
	SUMMER	ug/L	5	-	-	-	< 5 Rc IU	< 5 Rc IU	-
	FALL	ug/L	5	-	< 5 Rc IU	-	< 5 Rc IU	< 5 Rc IU	-

TABLE 5.2
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-1		UCD1-1 D1		UCD1-4		UCD1-10		UCD1-11	
Bromodichloromethane	WINTER	ug/L	1	a	< 1	IU	-		< 1	IU	< 1	IU	< 1	IU
	SPRING	ug/L	1	a	< 1	IU	b		< 1	IU	< 1	IU	< 1	IU
	SUMMER	ug/L	1	a	-		-		< 1	IU	< 1	IU	-	
	FALL	ug/L	1	a	< 1	IU	-		< 1	IU	< 1	IU	-	
Bromoform	WINTER	ug/L	1	a	< 1	IU	-		< 1	IU	< 1	IU	< 1	IU
	SPRING	ug/L	1	a	< 1	IU	< 1	IU	< 1	IU	< 1	IU	< 1	IU
	SUMMER	ug/L	1	a	-		-		< 1	IU	< 1	IU	-	
	FALL	ug/L	1	a	< 1	IU	-		< 1	IU	< 1	IU	-	
Carbon Disulfide	WINTER	ug/L	1	-	< 1	IU	-		< 1	IU	< 1	IU	< 1	IU
	SPRING	ug/L	1	-	< 1	IU	< 1	IU	< 1	IU	< 1	IU	< 1	IU
	SUMMER	ug/L	1	-	-		-		< 1	IU	< 1	IU	-	
	FALL	ug/L	1	-	< 1	IU	-		< 1	IU	< 1	IU	-	
Chloroform	WINTER	ug/L	1	a	< 1	IU	-		< 1	IU	< 1	IU	1.6	
	SPRING	ug/L	1	a	< 1	Jf IU	b		< 1	IU	< 1	IU	0.8	IJ
	SUMMER	ug/L	1	a	-		-		< 1	IU	5.1	Jz	-	
	FALL	ug/L	1	a	< 1	IU	-		< 1	IU	< 1	IU	-	
Dibromochloromethane	WINTER	ug/L	1	a	< 1	IU	-		< 1	IU	< 1	IU	< 1	IU
	SPRING	ug/L	1	a	< 1	IU	< 1	IU	< 1	IU	< 1	IU	< 1	IU
	SUMMER	ug/L	1	a	-		-		< 1	IU	< 1	IU	-	
	FALL	ug/L	1	a	< 1	IU	-		< 1	IU	< 1	IU	-	
Methylene Chloride	WINTER	ug/L	2	5	< 2	IU	-		< 2	IU	< 2	IU	< 2	IU
	SPRING	ug/L	2	5	< 2	IU	< 2	IU	< 2	IU	< 2	IU	< 2	IU
	SUMMER	ug/L	2	5	-		-		< 2	IU	< 2	IU	-	
	FALL	ug/L	2	5	< 2	IU	-		< 2	IU	< 2	IU	-	
Tetrachloroethene	WINTER	ug/L	1	5	< 1	IU	-		< 1	IU	< 1	IU	< 1	IU
	SPRING	ug/L	1	5	< 1	IU	< 1	IU	< 1	IU	< 1	IU	< 1	IU
	SUMMER	ug/L	1	5	-		-		< 1	IU	< 1	IU	-	
	FALL	ug/L	1	5	< 1	IU	-		< 1	IU	< 1	IU	-	
Toluene	WINTER	ug/L	1	1000 #	< 1	IU	-		< 1	IU	< 1	IU	< 1	IU
	SPRING	ug/L	1	1000 #	< 1	IU	< 1	IU	< 1	IU	< 1	IU	< 1	IU
	SUMMER	ug/L	1	1000 #	-		-		< 1	IU	< 1	IU	-	
	FALL	ug/L	1	1000 #	< 1	IU	-		< 1	IU	< 1	IU	-	

TABLE 5.2
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-12	UCD1-12 D1	UCD1-13	UCD1-13 D1
1,1,2-Trichloroethane	WINTER	ug/L	1	5 #	0.9 IJ	-	< 1 IU	-
	SPRING	ug/L	1	5 #	< 1 IU	-	< 1 IU	-
	SUMMER	ug/L	1	5 #	2.8 Jh IH	3.5 Jf I	< 1 IU	-
	FALL	ug/L	1	5 #	1.1	2	< 1 IU	< 1 IU
1,1-Dichloroethane	WINTER	ug/L	1	5	6	-	< 1 IU	-
	SPRING	ug/L	1	5	0.51 IJ	-	< 1 IU	-
	SUMMER	ug/L	1	5	4.1 Jh IH	9.2 Jf I	< 1 IU	-
	FALL	ug/L	1	5	5.8	6.8	< 1 IU	< 1 IU
1,1-Dichloroethene	WINTER	ug/L	1	6	9.3	-	< 1 IU	-
	SPRING	ug/L	1	6	1.1	-	< 1 IU	-
	SUMMER	ug/L	1	6	1.2 Jh IH	18 Jf I	< 1 IU	-
	FALL	ug/L	1	6	11	13	< 1 IU	< 1 IU
1,2-Dichloroethane	WINTER	ug/L	1	0.5	4	-	< 1 IU	-
	SPRING	ug/L	1	0.5	< 1 IU	-	< 1 IU	-
	SUMMER	ug/L	1	0.5	4.7 Jh IH	5.9 Jf I	< 1 IU	-
	FALL	ug/L	1	0.5	3.2	3.8	< 1 IU	< 1 IU
1,2-Dichloropropane	WINTER	ug/L	1	5	< 1 IU	-	< 1 IU	-
	SPRING	ug/L	1	5	< 1 IU	-	< 1 IU	-
	SUMMER	ug/L	1	5	< 1 Rh IU	0.72 IJ	< 1 IU	-
	FALL	ug/L	1	5	< 1 IU	< 1 IU	< 1 IU	< 1 IU
2-Butanone	WINTER	ug/L	5	-	< 5 Rc IU	-	< 5 Rc IU	-
	SPRING	ug/L	5	-	< 5 IU	-	< 5 IU	-
	SUMMER	ug/L	5	-	< 5 Rc IU	< 5 Rc IU	< 5 Rc IU	-
	FALL	ug/L	5	-	< 5 Rc IU	< 5 Rc IU	< 5 Rc IU	< 5 Rc IU
4-Methyl-2-Pentanone	WINTER	ug/L	5	-	< 5 IU	-	< 5 IU	-
	SPRING	ug/L	5	-	< 5 IU	-	< 5 IU	-
	SUMMER	ug/L	5	-	< 5 Rh IU	< 5 IU	< 5 IU	-
	FALL	ug/L	5	-	< 5 IU	< 5 IU	< 5 IU	< 5 IU
Acetone	WINTER	ug/L	5	-	< 5 Rc IU	-	< 5 Rc IU	-
	SPRING	ug/L	5	-	< 5 Rc IU	-	< 5 Rc IU	-
	SUMMER	ug/L	5	-	2.4 Je IJH	< 5 Rc IU	< 5 Rc IU	-
	FALL	ug/L	5	-	< 5 Rc IU	< 5 Rc IU	< 5 Rc IU	< 5 Rc IU

TABLE 5.2
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-12	UCD1-12 D1	UCD1-13	UCD1-13 D1
Bromodichloromethane	WINTER	ug/L	1	a	1.2	-	< 1 |U	-
	SPRING	ug/L	1	a	< 1 |U	-	< 1 |U	-
	SUMMER	ug/L	1	a	0.82 Jh |JH	2.1 Jf |	< 1 |U	-
	FALL	ug/L	1	a	0.63 |J	0.74 |J	< 1 |U	< 1 |U
Bromoform	WINTER	ug/L	1	a	< 1 |U	-	< 1 |U	-
	SPRING	ug/L	1	a	< 1 |U	-	< 1 |U	-
	SUMMER	ug/L	1	a	< 1 Rh |U	< 1 |U	< 1 |U	-
	FALL	ug/L	1	a	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Carbon Disulfide	WINTER	ug/L	1	-	< 1 |U	-	< 1 |U	-
	SPRING	ug/L	1	-	< 1 |U	-	< 1 |U	-
	SUMMER	ug/L	1	-	< 1 Rh |U	< 1 |U	< 1 |U	-
	FALL	ug/L	1	-	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Chloroform	WINTER	ug/L	1	a	3200 |DE	-	c	-
	SPRING	ug/L	1	a	1000 |D	-	1.6	-
	SUMMER	ug/L	1	a	5700 Jh |H	9100 Jz |	1.8	-
	FALL	ug/L	1	a	5800	6400	1.7 Jz |	1.8 Jz |
Dibromochloromethane	WINTER	ug/L	1	a	< 1 |U	-	< 1 |U	-
	SPRING	ug/L	1	a	< 1 |U	-	< 1 |U	-
	SUMMER	ug/L	1	a	< 1 Rh |U	< 1 |U	< 1 |U	-
	FALL	ug/L	1	a	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Methylene Chloride	WINTER	ug/L	2	5	< 2 |U	-	< 2 |U	-
	SPRING	ug/L	2	5	< 2 |U	-	< 2 |U	-
	SUMMER	ug/L	2	5	1 Jh |JH	< 2 |U	< 2 |U	-
	FALL	ug/L	2	5	< 2 |U	< 2 |U	< 2 |U	< 2 |U
Tetrachloroethene	WINTER	ug/L	1	5	< 1 |U	-	< 1 |U	-
	SPRING	ug/L	1	5	< 1 |U	-	< 1 |U	-
	SUMMER	ug/L	1	5	< 1 Rh |U	< 1 |U	< 1 |U	-
	FALL	ug/L	1	5	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Toluene	WINTER	ug/L	1	1000 #	< 1 |U	-	< 1 |U	-
	SPRING	ug/L	1	1000 #	< 1 |U	-	< 1 |U	-
	SUMMER	ug/L	1	1000 #	< 1 Rh |U	< 1 |U	< 1 |U	-
	FALL	ug/L	1	1000 #	< 1 |U	< 1 |U	< 1 |U	< 1 |U

TABLE 5.2
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-18	UCD1-18 D1	UCD1-19	UCD1-19 D1	UCD1-20
1,1,2-Trichloroethane	WINTER	ug/L	1	5 #	< 1 IU	< 1 IU	< 1 IU		< 1 IU
	SPRING	ug/L	1	5 #	< 1 IU	-	< 1 IU	< 1 IU	< 1 IU
	SUMMER	ug/L	1	5 #	-	-	-	-	-
	FALL	ug/L	1	5 #	-	-	-	-	-
1,1-Dichloroethane	WINTER	ug/L	1	5	< 1 IU	< 1 IU	< 1 IU		< 1 IU
	SPRING	ug/L	1	5	< 1 IU	-	< 1 IU	< 1 IU	< 1 IU
	SUMMER	ug/L	1	5	-	-	-	-	-
	FALL	ug/L	1	5	-	-	-	-	-
1,1-Dichloroethene	WINTER	ug/L	1	6	< 1 IU	< 1 IU	< 1 IU		< 1 IU
	SPRING	ug/L	1	6	< 1 IU	-	< 1 IU	< 1 IU	< 1 IU
	SUMMER	ug/L	1	6	-	-	-	-	-
	FALL	ug/L	1	6	-	-	-	-	-
1,2-Dichloroethane	WINTER	ug/L	1	0.5	< 1 IU	< 1 IU	< 1 IU		< 1 IU
	SPRING	ug/L	1	0.5	< 1 IU	-	< 1 IU	< 1 IU	< 1 IU
	SUMMER	ug/L	1	0.5	-	-	-	-	-
	FALL	ug/L	1	0.5	-	-	-	-	-
1,2-Dichloropropane	WINTER	ug/L	1	5	< 1 IU	< 1 IU	< 1 IU		< 1 IU
	SPRING	ug/L	1	5	< 1 IU	-	< 1 IU	< 1 IU	< 1 IU
	SUMMER	ug/L	1	5	-	-	-	-	-
	FALL	ug/L	1	5	-	-	-	-	-
2-Butanone	WINTER	ug/L	5	-	< 5 Rc IU	< 5 Rc IU	< 5 Rc IU		< 5 Rc IU
	SPRING	ug/L	5	-	< 5 Rc IU	-	< 5 IU	< 5 IU	< 5 IU
	SUMMER	ug/L	5	-	-	-	-	-	-
	FALL	ug/L	5	-	-	-	-	-	-
4-Methyl-2-Pentanone	WINTER	ug/L	5	-	< 5 IU	< 5 IU	< 5 IU		< 5 IU
	SPRING	ug/L	5	-	< 5 IU	-	< 5 IU	< 5 IU	< 5 IU
	SUMMER	ug/L	5	-	-	-	-	-	-
	FALL	ug/L	5	-	-	-	-	-	-
Acetone	WINTER	ug/L	5	-	< 5 Rc IU	< 5 Rc IU	< 5 Rc IU		< 5 Rc IU
	SPRING	ug/L	5	-	< 5 Rc IU	-	< 5 Rc IU	< 5 Rc IU	< 5 Rc IU
	SUMMER	ug/L	5	-	-	-	-	-	-
	FALL	ug/L	5	-	-	-	-	-	-

TABLE 5.2
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-18		UCD1-18 D1		UCD1-19		UCD1-19 D1		UCD1-20	
Bromodichloromethane	WINTER	ug/L	1	a	< 1	IU	< 1	IU	< 1	IU			< 1	IU
	SPRING	ug/L	1	a	< 1	IU	-		< 1	IU	< 1	IU	< 1	IU
	SUMMER	ug/L	1	a	-		-		-		-		-	
	FALL	ug/L	1	a	-		-		-		-		-	
Bromoform	WINTER	ug/L	1	a	< 1	IU	< 1	IU	< 1	IU			< 1	IU
	SPRING	ug/L	1	a	< 1	IU	-		< 1	IU	< 1	IU	< 1	IU
	SUMMER	ug/L	1	a	-		-		-		-		-	
	FALL	ug/L	1	a	-		-		-		-		-	
Carbon Disulfide	WINTER	ug/L	1	-	< 1	IU	< 1	IU	< 1	IU			< 1	IU
	SPRING	ug/L	1	-	< 1	IU	-		< 1	IU	< 1	IU	< 1	IU
	SUMMER	ug/L	1	-	-		-		-		-		-	
	FALL	ug/L	1	-	-		-		-		-		-	
Chloroform	WINTER	ug/L	1	a	< 1	IU	< 1	IU	< 1	IU			< 1	IU
	SPRING	ug/L	1	a	< 1	IU	-		< 1	IU	< 1	IU	< 1	IU
	SUMMER	ug/L	1	a	-		-		-		-		-	
	FALL	ug/L	1	a	-		-		-		-		-	
Dibromochloromethane	WINTER	ug/L	1	a	< 1	IU	< 1	IU	< 1	IU			< 1	IU
	SPRING	ug/L	1	a	< 1	IU	-		< 1	IU	< 1	IU	< 1	IU
	SUMMER	ug/L	1	a	-		-		-		-		-	
	FALL	ug/L	1	a	-		-		-		-		-	
Methylene Chloride	WINTER	ug/L	2	5	< 2	IU	< 2	IU	< 2	IU			< 2	IU
	SPRING	ug/L	2	5	< 2	IU	-		< 2	IU	< 2	IU	< 2	IU
	SUMMER	ug/L	2	5	-		-		-		-		-	
	FALL	ug/L	2	5	-		-		-		-		-	
Tetrachloroethene	WINTER	ug/L	1	5	< 1	IU	< 1	IU	< 1	IU			< 1	IU
	SPRING	ug/L	1	5	< 1	IU	-		< 1	IU	< 1	IU	< 1	IU
	SUMMER	ug/L	1	5	-		-		-		-		-	
	FALL	ug/L	1	5	-		-		-		-		-	
Toluene	WINTER	ug/L	1	1000 #	< 1	IU	< 1	IU	< 1	IU			< 1	IU
	SPRING	ug/L	1	1000 #	< 1	IU	-		< 1	IU	< 1	IU	< 1	IU
	SUMMER	ug/L	1	1000 #	-		-		-		-		-	
	FALL	ug/L	1	1000 #	-		-		-		-		-	

TABLE 5.2
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-21		UCD1-22		UCD1-23		UCD1-24		UCD1-25	
1,1,2-Trichloroethane	WINTER	ug/L	1	5 #	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SPRING	ug/L	1	5 #	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SUMMER	ug/L	1	5 #	-		-		-		-		-	
	FALL	ug/L	1	5 #	-		-		-		-		< 1	IU
1,1-Dichloroethane	WINTER	ug/L	1	5	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SPRING	ug/L	1	5	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SUMMER	ug/L	1	5	-		-		-		-		-	
	FALL	ug/L	1	5	-		-		-		-		< 1	IU
1,1-Dichloroethene	WINTER	ug/L	1	6	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SPRING	ug/L	1	6	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SUMMER	ug/L	1	6	-		-		-		-		-	
	FALL	ug/L	1	6	-		-		-		-		< 1	IU
1,2-Dichloroethane	WINTER	ug/L	1	0.5	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SPRING	ug/L	1	0.5	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SUMMER	ug/L	1	0.5	-		-		-		-		-	
	FALL	ug/L	1	0.5	-		-		-		-		< 1	IU
1,2-Dichloropropane	WINTER	ug/L	1	5	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SPRING	ug/L	1	5	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SUMMER	ug/L	1	5	-		-		-		-		-	
	FALL	ug/L	1	5	-		-		-		-		< 1	IU
2-Butanone	WINTER	ug/L	5	-	< 5	Rc IU	< 5	Rc IU	< 5	Rc IU	< 5	Rc IU	-	
	SPRING	ug/L	5	-	< 5	Rc IU	< 5	Rc IU	< 5	Rc IU	< 5	Rc IU	-	
	SUMMER	ug/L	5	-	-		-		-		-		-	
	FALL	ug/L	5	-	-		-		-		-		< 5	Rc IU
4-Methyl-2-Pentanone	WINTER	ug/L	5	-	< 5	IU	< 5	IU	< 5	IU	< 5	IU	-	
	SPRING	ug/L	5	-	< 5	IU	< 5	IU	< 5	IU	< 5	IU	-	
	SUMMER	ug/L	5	-	-		-		-		-		-	
	FALL	ug/L	5	-	-		-		-		-		< 5	IU
Acetone	WINTER	ug/L	5	-	< 5	IU	< 5	Rc IU	< 5	Rc IU	< 5	Rc IU	-	
	SPRING	ug/L	5	-	< 5	Rc IU	< 5	Rc IU	< 5	Rc IU	< 5	Rc IU	-	
	SUMMER	ug/L	5	-	-		-		-		-		-	
	FALL	ug/L	5	-	-		-		-		-		< 5	Rc IU

TABLE 5.2
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-21		UCD1-22		UCD1-23		UCD1-24		UCD1-25	
Bromodichloromethane	WINTER	ug/L	1	a	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SPRING	ug/L	1	a	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SUMMER	ug/L	1	a	-		-		-		-		-	
	FALL	ug/L	1	a	-		-		-		-		< 1	IU
Bromoform	WINTER	ug/L	1	a	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SPRING	ug/L	1	a	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SUMMER	ug/L	1	a	-		-		-		-		-	
	FALL	ug/L	1	a	-		-		-		-		< 1	IU
Carbon Disulfide	WINTER	ug/L	1	-	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SPRING	ug/L	1	-	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SUMMER	ug/L	1	-	-		-		-		-		-	
	FALL	ug/L	1	-	-		-		-		-		< 1	IU
Chloroform	WINTER	ug/L	1	a	0.59	IJ	< 1	IU	0.68	IJ	0.74	IJ	-	
	SPRING	ug/L	1	a	< 1	IU	< 1	IU	0.64	Jy IJ	1.5	Jy I	-	
	SUMMER	ug/L	1	a	-		-		-		-		-	
	FALL	ug/L	1	a	-		-		-		-		0.86	IJ
Dibromochloromethane	WINTER	ug/L	1	a	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SPRING	ug/L	1	a	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SUMMER	ug/L	1	a	-		-		-		-		-	
	FALL	ug/L	1	a	-		-		-		-		< 1	IU
Methylene Chloride	WINTER	ug/L	2	5	< 2	Rc IU	< 2	IU	< 2	IU	< 2	IU	-	
	SPRING	ug/L	2	5	< 2	IU	< 2	IU	< 2	IU	< 2	IU	-	
	SUMMER	ug/L	2	5	-		-		-		-		-	
	FALL	ug/L	2	5	-		-		-		-		< 2	IU
Tetrachloroethene	WINTER	ug/L	1	5	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SPRING	ug/L	1	5	< 1	IU	< 1	IU	< 1	IU	0.84	IJ	-	
	SUMMER	ug/L	1	5	-		-		-		-		-	
	FALL	ug/L	1	5	-		-		-		-		< 1	IU
Toluene	WINTER	ug/L	1	1000 #	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SPRING	ug/L	1	1000 #	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
	SUMMER	ug/L	1	1000 #	-		-		-		-		-	
	FALL	ug/L	1	1000 #	-		-		-		-		< 1	IU

TABLE 5.2
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-27Z1	UCD1-27Z2	UCD1-27Z3	UCD1-34	UCD2-7
1,1,2-Trichloroethane	WINTER	ug/L	1	5 #	-	-	-	-	< 1 IU
	SPRING	ug/L	1	5 #	-	-	-	-	< 1 IU
	SUMMER	ug/L	1	5 #	-	-	-	-	-
	FALL	ug/L	1	5 #	< 1 IU	< 1 IU	< 1 IU	< 1 IU	-
1,1-Dichloroethane	WINTER	ug/L	1	5	-	-	-	-	< 1 IU
	SPRING	ug/L	1	5	-	-	-	-	< 1 IU
	SUMMER	ug/L	1	5	-	-	-	-	-
	FALL	ug/L	1	5	< 1 IU	< 1 IU	< 1 IU	< 1 IU	-
1,1-Dichloroethene	WINTER	ug/L	1	6	-	-	-	-	< 1 IU
	SPRING	ug/L	1	6	-	-	-	-	< 1 IU
	SUMMER	ug/L	1	6	-	-	-	-	-
	FALL	ug/L	1	6	< 1 IU	< 1 IU	< 1 IU	< 1 IU	-
1,2-Dichloroethane	WINTER	ug/L	1	0.5	-	-	-	-	< 1 IU
	SPRING	ug/L	1	0.5	-	-	-	-	< 1 IU
	SUMMER	ug/L	1	0.5	-	-	-	-	-
	FALL	ug/L	1	0.5	< 1 IU	< 1 IU	< 1 IU	< 1 IU	-
1,2-Dichloropropane	WINTER	ug/L	1	5	-	-	-	-	< 1 IU
	SPRING	ug/L	1	5	-	-	-	-	< 1 IU
	SUMMER	ug/L	1	5	-	-	-	-	-
	FALL	ug/L	1	5	< 1 IU	< 1 IU	< 1 IU	< 1 IU	-
2-Butanone	WINTER	ug/L	5	-	-	-	-	-	< 5 Rc IU
	SPRING	ug/L	5	-	-	-	-	-	< 5 IU
	SUMMER	ug/L	5	-	-	-	-	-	-
	FALL	ug/L	5	-	27 Jc I	< 5 Rc IU	< 5 Rc IU	< 5 Rc IU	-
4-Methyl-2-Pentanone	WINTER	ug/L	5	-	-	-	-	-	< 5 IU
	SPRING	ug/L	5	-	-	-	-	-	< 5 IU
	SUMMER	ug/L	5	-	-	-	-	-	-
	FALL	ug/L	5	-	< 5 IU	< 5 IU	< 5 IU	< 5 IU	-
Acetone	WINTER	ug/L	5	-	-	-	-	-	< 5 Rc IU
	SPRING	ug/L	5	-	-	-	-	-	< 5 Rc IU
	SUMMER	ug/L	5	-	-	-	-	-	-
	FALL	ug/L	5	-	4.7 Jc IJ	2.2 Jc IJ	< 5 Rc IU	< 5 Rc IU	-

TABLE 5.2
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-27Z1		UCD1-27Z2		UCD1-27Z3		UCD1-34		UCD2-7	
Bromodichloromethane	WINTER	ug/L	1	a	-		-		-		-		< 1	IU
	SPRING	ug/L	1	a	-		-		-		-		< 1	IU
	SUMMER	ug/L	1	a	-		-		-		-		-	
	FALL	ug/L	1	a	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
Bromoform	WINTER	ug/L	1	a	-		-		-		-		< 1	IU
	SPRING	ug/L	1	a	-		-		-		-		< 1	IU
	SUMMER	ug/L	1	a	-		-		-		-		-	
	FALL	ug/L	1	a	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
Carbon Disulfide	WINTER	ug/L	1	-	-		-		-		-		< 1	IU
	SPRING	ug/L	1	-	-		-		-		-		< 1	IU
	SUMMER	ug/L	1	-	-		-		-		-		-	
	FALL	ug/L	1	-	< 1	IU	0.82	IJ	2.4	IJ	< 1	IU	-	
Chloroform	WINTER	ug/L	1	a	-		-		-		-		< 1	IU
	SPRING	ug/L	1	a	-		-		-		-		< 1	IU
	SUMMER	ug/L	1	a	-		-		-		-		-	
	FALL	ug/L	1	a	1.6	Jz I	5.6	Jz I	4.6	Jz I	< 1	IU	-	
Dibromochloromethane	WINTER	ug/L	1	a	-		-		-		-		< 1	IU
	SPRING	ug/L	1	a	-		-		-		-		< 1	IU
	SUMMER	ug/L	1	a	-		-		-		-		-	
	FALL	ug/L	1	a	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
Methylene Chloride	WINTER	ug/L	2	5	-		-		-		-		< 2	IU
	SPRING	ug/L	2	5	-		-		-		-		< 2	IU
	SUMMER	ug/L	2	5	-		-		-		-		-	
	FALL	ug/L	2	5	< 2	IU	< 2	IU	< 2	IU	< 2	IU	-	
Tetrachloroethene	WINTER	ug/L	1	5	-		-		-		-		< 1	IU
	SPRING	ug/L	1	5	-		-		-		-		< 1	IU
	SUMMER	ug/L	1	5	-		-		-		-		-	
	FALL	ug/L	1	5	< 1	IU	< 1	IU	< 1	IU	< 1	IU	-	
Toluene	WINTER	ug/L	1	1000 #	-		-		-		-		< 1	IU
	SPRING	ug/L	1	1000 #	-		-		-		-		< 1	IU
	SUMMER	ug/L	1	1000 #	-		-		-		-		-	
	FALL	ug/L	1	1000 #	1.3		< 1	IU	0.77	IJ	< 1	IU	-	

TABLE 5.2
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-7 D1	UCD2-14	UCD2-14 D1	UCD2-15	UCD2-16
1,1,2-Trichloroethane	WINTER	ug/L	1	5 #	< 1 IU	< 1 IU	-	< 1 IU	< 1 IU
	SPRING	ug/L	1	5 #	-	< 1 IU	-	< 1 IU	< 1 IU
	SUMMER	ug/L	1	5 #	-	< 1 IU	-	< 1 IU	< 1 IU
	FALL	ug/L	1	5 #	-	< 1 IU	-	< 1 IU	-
1,1-Dichloroethane	WINTER	ug/L	1	5	< 1 IU	< 1 IU	-	< 1 IU	< 1 IU
	SPRING	ug/L	1	5	-	< 1 IU	-	< 1 IU	< 1 IU
	SUMMER	ug/L	1	5	-	< 1 IU	-	< 1 IU	< 1 IU
	FALL	ug/L	1	5	-	< 1 IU	-	< 1 IU	-
1,1-Dichloroethene	WINTER	ug/L	1	6	< 1 IU	< 1 IU	-	< 1 IU	< 1 IU
	SPRING	ug/L	1	6	-	< 1 IU	-	< 1 IU	< 1 IU
	SUMMER	ug/L	1	6	-	< 1 IU	-	< 1 IU	< 1 IU
	FALL	ug/L	1	6	-	< 1 IU	-	< 1 IU	-
1,2-Dichloroethane	WINTER	ug/L	1	0.5	< 1 IU	< 1 IU	-	< 1 IU	< 1 IU
	SPRING	ug/L	1	0.5	-	< 1 IU	-	< 1 IU	< 1 IU
	SUMMER	ug/L	1	0.5	-	< 1 IU	-	< 1 IU	< 1 IU
	FALL	ug/L	1	0.5	-	< 1 IU	-	< 1 IU	-
1,2-Dichloropropane	WINTER	ug/L	1	5	< 1 IU	< 1 IU	-	< 1 IU	< 1 IU
	SPRING	ug/L	1	5	-	< 1 IU	-	< 1 IU	< 1 IU
	SUMMER	ug/L	1	5	-	< 1 IU	-	< 1 IU	< 1 IU
	FALL	ug/L	1	5	-	< 1 IU	-	< 1 IU	-
2-Butanone	WINTER	ug/L	5	-	< 5 Rc IU	< 5 Rc IU	-	< 5 Rc IU	< 5 Rc IU
	SPRING	ug/L	5	-	-	< 5 Rc IU	-	< 5 IU	< 5 IU
	SUMMER	ug/L	5	-	-	< 5 Rc IU	-	< 5 Rc IU	< 5 Rc IU
	FALL	ug/L	5	-	-	< 5 Rc IU	-	< 5 Rc IU	-
4-Methyl-2-Pentanone	WINTER	ug/L	5	-	< 5 IU	< 5 IU	-	< 5 IU	< 5 IU
	SPRING	ug/L	5	-	-	< 5 IU	-	< 5 IU	< 5 IU
	SUMMER	ug/L	5	-	-	< 5 IU	-	< 5 IU	< 5 IU
	FALL	ug/L	5	-	-	< 5 IU	-	< 5 IU	-
Acetone	WINTER	ug/L	5	-	< 5 Rc IU	< 5 Rc IU	-	< 5 Rc IU	< 5 Rc IU
	SPRING	ug/L	5	-	-	< 5 Rc IU	-	< 5 Rc IU	< 5 Rc IU
	SUMMER	ug/L	5	-	-	< 5 Rc IU	-	< 5 Rc IU	< 5 Rc IU
	FALL	ug/L	5	-	-	< 5 Rc IU	-	< 5 Rc IU	-

TABLE 5.2
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-7 D1		UCD2-14		UCD2-14 D1	UCD2-15		UCD2-16	
Bromodichloromethane	WINTER	ug/L	1	a	< 1	IU	< 1	IU	-	< 1	IU	< 1	IU
	SPRING	ug/L	1	a	-		< 1	IU	-	< 1	IU	< 1	IU
	SUMMER	ug/L	1	a	-		< 1	IU	-	< 1	IU	< 1	IU
	FALL	ug/L	1	a	-		< 1	IU	-	< 1	IU	-	
Bromoform	WINTER	ug/L	1	a	< 1	IU	< 1	IU	-	< 1	IU	< 1	IU
	SPRING	ug/L	1	a	-		< 1	IU	-	< 1	IU	< 1	IU
	SUMMER	ug/L	1	a	-		< 1	IU	-	< 1	IU	< 1	IU
	FALL	ug/L	1	a	-		< 1	IU	-	< 1	IU	-	
Carbon Disulfide	WINTER	ug/L	1	-	< 1	IU	< 1	IU	-	< 1	IU	< 1	IU
	SPRING	ug/L	1	-	-		< 1	IU	-	< 1	IU	< 1	IU
	SUMMER	ug/L	1	-	-		< 1	IU	-	< 1	IU	< 1	IU
	FALL	ug/L	1	-	-		< 1	IU	-	< 1	IU	-	
Chloroform	WINTER	ug/L	1	a	< 1	IU	1.9		-	< 1	IU	< 1	IU
	SPRING	ug/L	1	a	-		1.5	Jy I	-	< 1	IU	< 1	IU
	SUMMER	ug/L	1	a	-		2.1		-	0.79	Jy IJ	3.8	Jy I
	FALL	ug/L	1	a	-		3.2		-	< 1	IU	-	
Dibromochloromethane	WINTER	ug/L	1	a	< 1	IU	< 1	IU	-	< 1	IU	< 1	IU
	SPRING	ug/L	1	a	-		< 1	IU	-	< 1	IU	< 1	IU
	SUMMER	ug/L	1	a	-		< 1	IU	-	< 1	IU	< 1	IU
	FALL	ug/L	1	a	-		< 1	IU	-	< 1	IU	-	
Methylene Chloride	WINTER	ug/L	2	5	< 2	IU	< 2	IU	-	< 2	IU	< 2	IU
	SPRING	ug/L	2	5	-		< 2	IU	-	< 2	IU	< 2	IU
	SUMMER	ug/L	2	5	-		< 2	IU	-	< 2	IU	< 2	IU
	FALL	ug/L	2	5	-		< 2	IU	-	< 2	IU	-	
Tetrachloroethene	WINTER	ug/L	1	5	< 1	IU	< 1	IU	-	< 1	IU	< 1	IU
	SPRING	ug/L	1	5	-		< 1	IU	-	< 1	IU	< 1	IU
	SUMMER	ug/L	1	5	-		< 1	IU	-	< 1	IU	< 1	IU
	FALL	ug/L	1	5	-		< 1	IU	-	< 1	IU	-	
Toluene	WINTER	ug/L	1	1000 #	< 1	IU	< 1	IU	-	< 1	IU	< 1	IU
	SPRING	ug/L	1	1000 #	-		< 1	IU	-	< 1	IU	< 1	IU
	SUMMER	ug/L	1	1000 #	-		< 1	IU	-	< 1	IU	< 1	IU
	FALL	ug/L	1	1000 #	-		< 1	IU	-	< 1	IU	-	

TABLE 5.2
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-17	UCD2-26	UCD2-27Z4	UCD2-27Z5	UCD2-27Z6
1,1,2-Trichloroethane	WINTER	ug/L	1	5 #	< 1 IU	-	-	-	-
	SPRING	ug/L	1	5 #	< 1 IU	-	-	-	-
	SUMMER	ug/L	1	5 #	-	-	-	-	-
	FALL	ug/L	1	5 #	-	< 1 IU	< 1 IU	< 1 IU	< 1 IU
1,1-Dichloroethane	WINTER	ug/L	1	5	< 1 IU	-	-	-	-
	SPRING	ug/L	1	5	< 1 IU	-	-	-	-
	SUMMER	ug/L	1	5	-	-	-	-	-
	FALL	ug/L	1	5	-	< 1 IU	< 1 IU	< 1 IU	< 1 IU
1,1-Dichloroethene	WINTER	ug/L	1	6	< 1 IU	-	-	-	-
	SPRING	ug/L	1	6	< 1 IU	-	-	-	-
	SUMMER	ug/L	1	6	-	-	-	-	-
	FALL	ug/L	1	6	-	< 1 IU	< 1 IU	< 1 IU	< 1 IU
1,2-Dichloroethane	WINTER	ug/L	1	0.5	< 1 IU	-	-	-	-
	SPRING	ug/L	1	0.5	< 1 IU	-	-	-	-
	SUMMER	ug/L	1	0.5	-	-	-	-	-
	FALL	ug/L	1	0.5	-	< 1 IU	< 1 IU	< 1 IU	< 1 IU
1,2-Dichloropropane	WINTER	ug/L	1	5	< 1 IU	-	-	-	-
	SPRING	ug/L	1	5	< 1 IU	-	-	-	-
	SUMMER	ug/L	1	5	-	-	-	-	-
	FALL	ug/L	1	5	-	< 1 IU	< 1 IU	< 1 IU	< 1 IU
2-Butanone	WINTER	ug/L	5	-	< 5 Rc IU	-	-	-	-
	SPRING	ug/L	5	-	< 5 Rc IU	-	-	-	-
	SUMMER	ug/L	5	-	-	-	-	-	-
	FALL	ug/L	5	-	-	< 5 Rc IU	< 5 Rc IU	< 5 Rc IU	< 5 Jr IU
4-Methyl-2-Pentanone	WINTER	ug/L	5	-	< 5 IU	-	-	-	-
	SPRING	ug/L	5	-	< 5 IU	-	-	-	-
	SUMMER	ug/L	5	-	-	-	-	-	-
	FALL	ug/L	5	-	-	< 5 IU	< 5 IU	< 5 IU	< 5 IU
Acetone	WINTER	ug/L	5	-	< 5 Rc IU	-	-	-	-
	SPRING	ug/L	5	-	< 5 Rc IU	-	-	-	-
	SUMMER	ug/L	5	-	-	-	-	-	-
	FALL	ug/L	5	-	-	< 5 Rc IU	3.4 Jc IJB	2.2 Jc IJ	2.7 Jc IJB

TABLE 5.2
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-17		UCD2-26		UCD2-27Z4		UCD2-27Z5		UCD2-27Z6	
Bromodichloromethane	WINTER	ug/L	1	a	< 1	IU	-		-		-		-	
	SPRING	ug/L	1	a	< 1	IU	-		-		-		-	
	SUMMER	ug/L	1	a	-		-		-		-		-	
	FALL	ug/L	1	a	-		< 1	IU	< 1	IU	< 1	IU	< 1	IU
Bromoform	WINTER	ug/L	1	a	< 1	IU	-		-		-		-	
	SPRING	ug/L	1	a	< 1	IU	-		-		-		-	
	SUMMER	ug/L	1	a	-		-		-		-		-	
	FALL	ug/L	1	a	-		< 1	IU	< 1	IU	< 1	IU	0.95	IJ
Carbon Disulfide	WINTER	ug/L	1	-	< 1	IU	-		-		-		-	
	SPRING	ug/L	1	-	< 1	IU	-		-		-		-	
	SUMMER	ug/L	1	-	-		-		-		-		-	
	FALL	ug/L	1	-	-		< 1	IU	0.91	IJ	< 1	IU	< 1	IU
Chloroform	WINTER	ug/L	1	a	< 1	IU	-		-		-		-	
	SPRING	ug/L	1	a	< 1	IU	-		-		-		-	
	SUMMER	ug/L	1	a	-		-		-		-		-	
	FALL	ug/L	1	a	-		11	Jz I	20	Jz I	43	Jz I	2.2	
Dibromochloromethane	WINTER	ug/L	1	a	< 1	IU	-		-		-		-	
	SPRING	ug/L	1	a	< 1	IU	-		-		-		-	
	SUMMER	ug/L	1	a	-		-		-		-		-	
	FALL	ug/L	1	a	-		< 1	IU	< 1	IU	< 1	IU	< 1	IU
Methylene Chloride	WINTER	ug/L	2	5	< 2	IU	-		-		-		-	
	SPRING	ug/L	2	5	< 2	IU	-		-		-		-	
	SUMMER	ug/L	2	5	-		-		-		-		-	
	FALL	ug/L	2	5	-		< 2	IU	1	IJ	< 2	IU	< 2	IU
Tetrachloroethene	WINTER	ug/L	1	5	< 1	IU	-		-		-		-	
	SPRING	ug/L	1	5	< 1	IU	-		-		-		-	
	SUMMER	ug/L	1	5	-		-		-		-		-	
	FALL	ug/L	1	5	-		< 1	IU	< 1	IU	< 1	IU	< 1	IU
Toluene	WINTER	ug/L	1	1000 #	< 1	IU	-		-		-		-	
	SPRING	ug/L	1	1000 #	< 1	IU	-		-		-		-	
	SUMMER	ug/L	1	1000 #	-		-		-		-		-	
	FALL	ug/L	1	1000 #	-		< 1	IU	< 1	IU	< 1	IU	< 1	IU

TABLE 5.2
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-27Z7		UCD2-35	
1,1,2-Trichloroethane	WINTER	ug/L	1	5 #	-		-	
	SPRING	ug/L	1	5 #	-		-	
	SUMMER	ug/L	1	5 #	-		-	
	FALL	ug/L	1	5 #	< 1	IU	< 1	IU
1,1-Dichloroethane	WINTER	ug/L	1	5	-		-	
	SPRING	ug/L	1	5	-		-	
	SUMMER	ug/L	1	5	-		-	
	FALL	ug/L	1	5	< 1	IU	< 1	IU
1,1-Dichloroethene	WINTER	ug/L	1	6	-		-	
	SPRING	ug/L	1	6	-		-	
	SUMMER	ug/L	1	6	-		-	
	FALL	ug/L	1	6	< 1	IU	< 1	IU
1,2-Dichloroethane	WINTER	ug/L	1	0.5	-		-	
	SPRING	ug/L	1	0.5	-		-	
	SUMMER	ug/L	1	0.5	-		-	
	FALL	ug/L	1	0.5	< 1	IU	< 1	IU
1,2-Dichloropropane	WINTER	ug/L	1	5	-		-	
	SPRING	ug/L	1	5	-		-	
	SUMMER	ug/L	1	5	-		-	
	FALL	ug/L	1	5	< 1	IU	< 1	IU
2-Butanone	WINTER	ug/L	5	-	-		-	
	SPRING	ug/L	5	-	-		-	
	SUMMER	ug/L	5	-	-		-	
	FALL	ug/L	5	-	< 5	Rc IU	< 5	Rc IU
4-Methyl-2-Pentanone	WINTER	ug/L	5	-	-		-	
	SPRING	ug/L	5	-	-		-	
	SUMMER	ug/L	5	-	-		-	
	FALL	ug/L	5	-	< 5	IU	< 5	IU
Acetone	WINTER	ug/L	5	-	-		-	
	SPRING	ug/L	5	-	-		-	
	SUMMER	ug/L	5	-	-		-	
	FALL	ug/L	5	-	3.1	Jz IJB	< 5	Rc IU

TABLE 5.2
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-27Z7		UCD2-35	
Bromodichloromethane	WINTER	ug/L	1	a	-		-	
	SPRING	ug/L	1	a	-		-	
	SUMMER	ug/L	1	a	-		-	
	FALL	ug/L	1	a	< 1	IU	< 1	IU
Bromoform	WINTER	ug/L	1	a	-		-	
	SPRING	ug/L	1	a	-		-	
	SUMMER	ug/L	1	a	-		-	
	FALL	ug/L	1	a	< 1	IU	< 1	IU
Carbon Disulfide	WINTER	ug/L	1	-	-		-	
	SPRING	ug/L	1	-	-		-	
	SUMMER	ug/L	1	-	-		-	
	FALL	ug/L	1	-	0.51	IJ	< 1	IU
Chloroform	WINTER	ug/L	1	a	-		-	
	SPRING	ug/L	1	a	-		-	
	SUMMER	ug/L	1	a	-		-	
	FALL	ug/L	1	a	< 1	IU	< 1	IU
Dibromochloromethane	WINTER	ug/L	1	a	-		-	
	SPRING	ug/L	1	a	-		-	
	SUMMER	ug/L	1	a	-		-	
	FALL	ug/L	1	a	< 1	IU	< 1	IU
Methylene Chloride	WINTER	ug/L	2	5	-		-	
	SPRING	ug/L	2	5	-		-	
	SUMMER	ug/L	2	5	-		-	
	FALL	ug/L	2	5	< 2	IU	< 2	IU
Tetrachloroethene	WINTER	ug/L	1	5	-		-	
	SPRING	ug/L	1	5	-		-	
	SUMMER	ug/L	1	5	-		-	
	FALL	ug/L	1	5	< 1	IU	< 1	IU
Toluene	WINTER	ug/L	1	1000 #	-		-	
	SPRING	ug/L	1	1000 #	-		-	
	SUMMER	ug/L	1	1000 #	-		-	
	FALL	ug/L	1	1000 #	< 1	IU	< 1	IU

TABLE 5.2
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1 = Duplicate sample.
- = Parameter not analyzed or no MCL.
DL = Detection limit.
< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.
MCL = Maximum Contaminant Level (primary), Title 22 Division 4 Chapter 15.
# = USEPA MCL
a = MCL for total trihalomethanes is 100 ug/L. Chloroform is the predominant trihalomethane detected at LEHR.
b = Volatile organic sample likely collected from UCD1-12. Results reported (ug/L) by the laboratory are as follows:
1,1-Dichloroethane = 6.8; 1,1-Dichloroethene = 13; 1,2-Dichloroethane = 3.3; 1,2-Dichloropropane = 0.51;
Acetone = 4.7; Bromodichloromethane = 0.7; Chloroform = 5,800.
c = Laboratory reported chloroform concentration of 140 ug/L was determined to be laboratory error.

Highlighted values indicate positive results.

See Appendix A for explanation of data qualifiers.

TABLE 5.3
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-1		UCD1-1 D1		UCD1-4		UCD1-10		UCD1-11	
4-Methylphenol	WINTER	ug/L	10	-	< 12	IU	-		< 12	IU	< 11	IU	< 11	IU
	SPRING	ug/L	10	-	< 11	IU	< 10	IU	< 10	IU	< 10	IU	< 11	IU
	SUMMER	ug/L	10	-	-		-		-		-		-	
	FALL	ug/L	10	-	-		-		-		-		-	
BenzylButylPhthalate	WINTER	ug/L	10	100 #	< 12	IU	-		< 12	IU	< 11	IU	< 11	UJg IU
	SPRING	ug/L	10	100 #	< 11	IU	< 10	IU	< 10	IU	< 10	IU	< 11	IU
	SUMMER	ug/L	10	100 #	-		-		-		-		-	
	FALL	ug/L	10	100 #	-		-		-		-		-	
Bis(2-Ethylhexyl)phthalate	WINTER	ug/L	10	4	< 12	IU	-		< 12	UJc IU	< 11	UJc IU	< 11	UJg IU
	SPRING	ug/L	10	4	< 11	IU	< 10	IU	< 10	IU	< 10	IU	3	IJ
	SUMMER	ug/L	10	4	-		-		-		-		-	
	FALL	ug/L	10	4	-		-		-		-		-	
Di-n-Butylphthalate	WINTER	ug/L	10	-	0.7	IJ	-		< 12	Uz I	< 11	Uz I	< 11	Uz I
	SPRING	ug/L	10	-	< 11	IU	< 10	IU	< 10	IU	180		< 11	IU
	SUMMER	ug/L	10	-	-		-		-		-		-	
	FALL	ug/L	10	-	-		-		-		-		-	
DiethylPhthalate	WINTER	ug/L	10	-	< 12	IU	-		< 12	IU	< 11	IU	< 11	IU
	SPRING	ug/L	10	-	< 11	IU	< 10	IU	< 10	IU	< 10	IU	< 11	IU
	SUMMER	ug/L	10	-	-		-		-		-		-	
	FALL	ug/L	10	-	-		-		-		-		-	
DimethylPhthalate	WINTER	ug/L	10	-	< 12	IU	-		< 12	IU	< 11	IU	< 11	IU
	SPRING	ug/L	10	-	< 11	IU	< 10	IU	< 10	IU	< 10	IU	< 11	IU
	SUMMER	ug/L	10	-	-		-		-		-		-	
	FALL	ug/L	10	-	-		-		-		-		-	
N-Nitrosodiphenylamine	WINTER	ug/L	10	-	< 12	IU	-		< 12	IU	< 11	IU	< 11	IU
	SPRING	ug/L	10	-	< 11	IU	< 10	IU	< 10	IU	< 10	IU	< 11	IU
	SUMMER	ug/L	10	-	-		-		-		-		-	
	FALL	ug/L	10	-	-		-		-		-		-	
Phenol	WINTER	ug/L	10	-	< 12	IU	-		< 12	IU	< 11	IU	< 11	IU
	SPRING	ug/L	10	-	< 11	IU	< 10	IU	< 10	IU	< 10	IU	< 11	IU
	SUMMER	ug/L	10	-	-		-		-		-		-	
	FALL	ug/L	10	-	-		-		-		-		-	

TABLE 5.3
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-12		UCD1-12 D1	UCD1-12 D2	UCD1-13		UCD1-13 D1
4-Methylphenol	WINTER	ug/L	10	-	< 12	IU	-	-	< 12	IU	-
	SPRING	ug/L	10	-	< 11	IU	-	-	< 11	IU	-
	SUMMER	ug/L	10	-	-		-	-	-		-
	FALL	ug/L	10	-	-		-	-	-		-
BenzylButylPhthalate	WINTER	ug/L	10	100 #	< 12	IU	-	-	< 12	IU	-
	SPRING	ug/L	10	100 #	< 11	IU	-	-	< 11	IU	-
	SUMMER	ug/L	10	100 #	-		-	-	-		-
	FALL	ug/L	10	100 #	-		-	-	-		-
Bis(2-Ethylhexyl)phthalate	WINTER	ug/L	10	4	< 12	IU	-	-	< 12	IU	-
	SPRING	ug/L	10	4	< 11	IU	-	-	< 11	IU	-
	SUMMER	ug/L	10	4	-		-	-	-		-
	FALL	ug/L	10	4	-		-	-	-		-
Di-n-Butylphthalate	WINTER	ug/L	10	-	2	IJ	-	-	2	IJ	-
	SPRING	ug/L	10	-	< 11	IU	-	-	< 11	IU	-
	SUMMER	ug/L	10	-	-		-	-	-		-
	FALL	ug/L	10	-	-		-	-	-		-
DiethylPhthalate	WINTER	ug/L	10	-	< 12	IU	-	-	< 12	IU	-
	SPRING	ug/L	10	-	< 11	IU	-	-	< 11	IU	-
	SUMMER	ug/L	10	-	-		-	-	-		-
	FALL	ug/L	10	-	-		-	-	-		-
DimethylPhthalate	WINTER	ug/L	10	-	< 12	IU	-	-	< 12	IU	-
	SPRING	ug/L	10	-	< 11	IU	-	-	< 11	IU	-
	SUMMER	ug/L	10	-	-		-	-	-		-
	FALL	ug/L	10	-	-		-	-	-		-
N-Nitrosodiphenylamine	WINTER	ug/L	10	-	< 12	IU	-	-	< 12	IU	-
	SPRING	ug/L	10	-	< 11	IU	-	-	< 11	IU	-
	SUMMER	ug/L	10	-	-		-	-	-		-
	FALL	ug/L	10	-	-		-	-	-		-
Phenol	WINTER	ug/L	10	-	< 12	IU	-	-	< 12	IU	-
	SPRING	ug/L	10	-	< 11	IU	-	-	< 11	IU	-
	SUMMER	ug/L	10	-	-		-	-	-		-
	FALL	ug/L	10	-	-		-	-	-		-

TABLE 5.3
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-18	UCD1-18 D1	UCD1-19	UCD1-19 D1	UCD1-20
4-Methylphenol	WINTER	ug/L	10	-	< 12 IU	< 11 IU	< 11 IU	-	< 12 IU
	SPRING	ug/L	10	-	< 11 IU	-	< 11 IU	< 11 IU	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
BenzylButylPhthalate	WINTER	ug/L	10	100 #	< 12 IU	< 11 IU	< 11 IU	-	< 12 IU
	SPRING	ug/L	10	100 #	< 11 IU	-	< 11 IU	< 11 IU	< 11 IU
	SUMMER	ug/L	10	100 #	-	-	-	-	-
	FALL	ug/L	10	100 #	-	-	-	-	-
Bis(2-Ethylhexyl)phthalate	WINTER	ug/L	10	4	< 12 IU	< 11 IU	< 11 UJc IU	-	< 12 UJc IU
	SPRING	ug/L	10	4	7 Uz IBJ	-	< 11 IU	< 11 IU	< 11 IU
	SUMMER	ug/L	10	4	-	-	-	-	-
	FALL	ug/L	10	4	-	-	-	-	-
Di-n-Butylphthalate	WINTER	ug/L	10	-	< 12 IU	2 IJ	< 11 Uz I	-	< 12 Uz I
	SPRING	ug/L	10	-	50 Uz IB	-	< 11 IU	< 11 IU	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
DiethylPhthalate	WINTER	ug/L	10	-	< 12 IU	< 11 IU	< 11 IU	-	< 12 IU
	SPRING	ug/L	10	-	1 IJ	-	< 11 IU	< 11 IU	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
DimethylPhthalate	WINTER	ug/L	10	-	< 12 IU	< 11 IU	< 11 IU	-	< 12 IU
	SPRING	ug/L	10	-	< 11 IU	-	< 11 IU	< 11 IU	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
N-Nitrosodiphenylamine	WINTER	ug/L	10	-	< 12 IU	< 11 IU	< 11 IU	-	< 12 IU
	SPRING	ug/L	10	-	< 11 IU	-	< 11 IU	< 11 IU	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
Phenol	WINTER	ug/L	10	-	< 12 IU	< 11 IU	< 11 IU	-	< 12 IU
	SPRING	ug/L	10	-	< 11 IU	-	< 11 IU	< 11 IU	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-

TABLE 5.3
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD1-25
4-Methylphenol	WINTER	ug/L	10	-	< 12 IU	< 11 IU	< 11 IU	< 11 IU	-
	SPRING	ug/L	10	-	< 11 IU	< 11 IU	< 11 IU	< 10 IU	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	< 10 IU
BenzylButylPhthalate	WINTER	ug/L	10	100 #	< 12 IU	< 11 IU	< 11 UJg IU	< 11 IU	-
	SPRING	ug/L	10	100 #	< 11 IU	< 11 IU	< 11 IU	< 10 IU	-
	SUMMER	ug/L	10	100 #	-	-	-	-	-
	FALL	ug/L	10	100 #	-	-	-	-	< 10 IU
Bis(2-Ethylhexyl)phthalate	WINTER	ug/L	10	4	< 12 UJc IU	< 11 UJc IU	< 11 UJg IU	< 11 UJc IU	-
	SPRING	ug/L	10	4	2 Uz IBJ	2 Uz IBJ	< 11 IU	2 IJ	-
	SUMMER	ug/L	10	4	-	-	-	-	-
	FALL	ug/L	10	4	-	-	-	-	< 10 IU
Di-n-Butylphthalate	WINTER	ug/L	10	-	< 12 Uz I	< 11 Uz I	< 11 Uz I	< 11 Uz I	-
	SPRING	ug/L	10	-	24 Uz IB	130 IB	< 11 IU	< 10 IU	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	< 10 IU
DiethylPhthalate	WINTER	ug/L	10	-	< 12 IU	< 11 IU	< 11 IU	< 11 IU	-
	SPRING	ug/L	10	-	0.6 IJ	2 IJ	< 11 IU	< 10 IU	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	< 10 IU
DimethylPhthalate	WINTER	ug/L	10	-	< 12 IU	< 11 IU	< 11 IU	< 11 IU	-
	SPRING	ug/L	10	-	< 11 IU	< 11 IU	< 11 IU	< 10 IU	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	< 10 IU
N-Nitrosodiphenylamine	WINTER	ug/L	10	-	< 12 IU	< 11 IU	< 11 IU	< 11 IU	-
	SPRING	ug/L	10	-	< 11 IU	< 11 IU	< 11 IU	< 10 IU	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	< 10 IU
Phenol	WINTER	ug/L	10	-	< 12 IU	< 11 IU	< 11 IU	< 11 IU	-
	SPRING	ug/L	10	-	< 11 IU	< 11 IU	< 11 IU	< 10 IU	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	< 10 IU

TABLE 5.3
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-27Z1	UCD1-27Z2	UCD1-27Z3	UCD1-34	UCD2-7
4-Methylphenol	WINTER	ug/L	10	-	-	-	-	-	< 11 IU
	SPRING	ug/L	10	-	-	-	-	-	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	96	25	36	< 10 IU	-
BenzylButylPhthalate	WINTER	ug/L	10	100 #	-	-	-	-	< 11 IU
	SPRING	ug/L	10	100 #	-	-	-	-	< 11 IU
	SUMMER	ug/L	10	100 #	-	-	-	-	-
	FALL	ug/L	10	100 #	< 10 IU	< 10 IU	< 10 IU	< 10 IU	-
Bis(2-Ethylhexyl)phthalate	WINTER	ug/L	10	4	-	-	-	-	6 Jc IJ
	SPRING	ug/L	10	4	-	-	-	-	< 11 IU
	SUMMER	ug/L	10	4	-	-	-	-	-
	FALL	ug/L	10	4	1.2 IJ	2.3 IJ	1.4 IJ	0.51 IJ	-
Di-n-Butylphthalate	WINTER	ug/L	10	-	-	-	-	-	< 11 Uz I
	SPRING	ug/L	10	-	-	-	-	-	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	< 10 UJi IU	< 10 IU	< 10 IU	< 10 IU	-
DiethylPhthalate	WINTER	ug/L	10	-	-	-	-	-	< 11 IU
	SPRING	ug/L	10	-	-	-	-	-	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	0.65 Ji IJ	< 10 IU	< 10 IU	< 10 IU	-
DimethylPhthalate	WINTER	ug/L	10	-	-	-	-	-	< 11 IU
	SPRING	ug/L	10	-	-	-	-	-	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	6.3 Ji IJ	< 10 IU	< 10 IU	< 10 IU	-
N-Nitrosodiphenylamine	WINTER	ug/L	10	-	-	-	-	-	< 11 IU
	SPRING	ug/L	10	-	-	-	-	-	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	< 10 UJi IU	0.64 IJ	< 10 IU	< 10 IU	-
Phenol	WINTER	ug/L	10	-	-	-	-	-	< 11 IU
	SPRING	ug/L	10	-	-	-	-	-	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	230	28	25	< 10 IU	-

TABLE 5.3
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-7 D1	UCD2-14	UCD2-14 D1	UCD2-15	UCD2-16
4-Methylphenol	WINTER	ug/L	10	-	< 11 IU	< 12 IU	-	< 12 IU	< 12 IU
	SPRING	ug/L	10	-	-	< 11 IU	-	< 11 IU	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
BenzylButylPhthalate	WINTER	ug/L	10	100 #	< 11 UJg IU	< 12 IU	-	< 12 IU	< 12 IU
	SPRING	ug/L	10	100 #	-	< 11 IU	-	< 11 IU	< 11 IU
	SUMMER	ug/L	10	100 #	-	-	-	-	-
	FALL	ug/L	10	100 #	-	-	-	-	-
Bis(2-Ethylhexyl)phthalate	WINTER	ug/L	10	4	2 UJg IJ	< 12 IU	-	< 12 UJc IU	< 12 UJc IU
	SPRING	ug/L	10	4	-	< 11 IU	-	6 IJ	< 11 IU
	SUMMER	ug/L	10	4	-	-	-	-	-
	FALL	ug/L	10	4	-	-	-	-	-
Di-n-Butylphthalate	WINTER	ug/L	10	-	< 11 Uz I	3 IJ	-	< 12 Uz I	< 12 Uz I
	SPRING	ug/L	10	-	-	< 11 IU	-	< 11 IU	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
DiethylPhthalate	WINTER	ug/L	10	-	< 11 IU	< 12 IU	-	< 12 IU	< 12 IU
	SPRING	ug/L	10	-	-	< 11 IU	-	< 11 IU	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
DimethylPhthalate	WINTER	ug/L	10	-	< 11 IU	< 12 IU	-	< 12 IU	< 12 IU
	SPRING	ug/L	10	-	-	< 11 IU	-	< 11 IU	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
N-Nitrosodiphenylamine	WINTER	ug/L	10	-	< 11 IU	< 12 IU	-	< 12 IU	< 12 IU
	SPRING	ug/L	10	-	-	< 11 IU	-	< 11 IU	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
Phenol	WINTER	ug/L	10	-	< 11 IU	< 12 IU	-	< 12 IU	< 12 IU
	SPRING	ug/L	10	-	-	< 11 IU	-	< 11 IU	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-

TABLE 5.3
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-17	UCD2-26	UCD2-27Z4	UCD2-27Z5	UCD2-27Z6
4-Methylphenol	WINTER	ug/L	10	-	< 12 IU	-	-	-	-
	SPRING	ug/L	10	-	< 10 IU	-	-	-	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	< 10 IU	1.1 IJ	< 10 IU	< 10 IU
BenzylButylPhthalate	WINTER	ug/L	10	100 #	< 12 IU	-	-	-	-
	SPRING	ug/L	10	100 #	< 10 IU	-	-	-	-
	SUMMER	ug/L	10	100 #	-	-	-	-	-
	FALL	ug/L	10	100 #	-	< 10 IU	< 10 IU	< 10 IU	< 10 IU
Bis(2-Ethylhexyl)phthalate	WINTER	ug/L	10	4	< 12 IU	-	-	-	-
	SPRING	ug/L	10	4	3 Uz IBJ	-	-	-	-
	SUMMER	ug/L	10	4	-	-	-	-	-
	FALL	ug/L	10	4	-	2 IJ	29	0.68 IJ	11
Di-n-Butylphthalate	WINTER	ug/L	10	-	0.8 IJ	-	-	-	-
	SPRING	ug/L	10	-	27 Uz IB	-	-	-	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	< 10 IU	< 10 IU	< 10 IU	< 10 IU
DiethylPhthalate	WINTER	ug/L	10	-	< 12 IU	-	-	-	-
	SPRING	ug/L	10	-	0.6 IJ	-	-	-	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	< 10 IU	< 10 IU	< 10 IU	< 10 IU
DimethylPhthalate	WINTER	ug/L	10	-	< 12 IU	-	-	-	-
	SPRING	ug/L	10	-	< 10 IU	-	-	-	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	< 10 IU	< 10 IU	< 10 IU	< 10 IU
N-Nitrosodiphenylamine	WINTER	ug/L	10	-	< 12 IU	-	-	-	-
	SPRING	ug/L	10	-	< 10 IU	-	-	-	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	< 10 IU	< 10 IU	< 10 IU	< 10 IU
Phenol	WINTER	ug/L	10	-	< 12 IU	-	-	-	-
	SPRING	ug/L	10	-	< 10 IU	-	-	-	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	< 10 IU	5.6 IJ	< 10 IU	2

TABLE 5.3
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-27Z7		UCD2-35	
4-Methylphenol	WINTER	ug/L	10	-	-		-	
	SPRING	ug/L	10	-	-		-	
	SUMMER	ug/L	10	-	-		-	
	FALL	ug/L	10	-	< 10	IU	< 10	IU
BenzylButylPhthalate	WINTER	ug/L	10	100 #	-		-	
	SPRING	ug/L	10	100 #	-		-	
	SUMMER	ug/L	10	100 #	-		-	
	FALL	ug/L	10	100 #	< 10	IU	< 10	IU
Bis(2-Ethylhexyl)phthalate	WINTER	ug/L	10	4	-		-	
	SPRING	ug/L	10	4	-		-	
	SUMMER	ug/L	10	4	-		-	
	FALL	ug/L	10	4	7.5		12	
Di-n-Butylphthalate	WINTER	ug/L	10	-	-		-	
	SPRING	ug/L	10	-	-		-	
	SUMMER	ug/L	10	-	-		-	
	FALL	ug/L	10	-	< 10	IU	< 10	IU
DiethylPhthalate	WINTER	ug/L	10	-	-		-	
	SPRING	ug/L	10	-	-		-	
	SUMMER	ug/L	10	-	-		-	
	FALL	ug/L	10	-	< 10	IU	< 10	IU
DimethylPhthalate	WINTER	ug/L	10	-	-		-	
	SPRING	ug/L	10	-	-		-	
	SUMMER	ug/L	10	-	-		-	
	FALL	ug/L	10	-	< 10	IU	< 10	IU
N-Nitrosodiphenylamine	WINTER	ug/L	10	-	-		-	
	SPRING	ug/L	10	-	-		-	
	SUMMER	ug/L	10	-	-		-	
	FALL	ug/L	10	-	< 10	IU	< 10	IU
Phenol	WINTER	ug/L	10	-	-		-	
	SPRING	ug/L	10	-	-		-	
	SUMMER	ug/L	10	-	-		-	
	FALL	ug/L	10	-	13		< 10	IU

TABLE 5.3
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1 = Duplicate sample.
- = Parameter not analyzed or no MCL.
DL = Detection limit.
< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.
MCL = Maximum Contaminant Level (primary), Title 22 Division 4 Chapter 15.
 # = USEPA MCL

Highlighted values indicate positive results.

See Appendix A for explanation of data qualifiers.

TABLE 5.4
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
PESTICIDES AND PCBS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-1	UCD1-1 D1	UCD1-4	UCD1-10	UCD1-11	UCD1-12
Alpha-Chlordane	WINTER	ug/L	0.01	-	< 0.012 IU		< 0.012 IU	< 0.011 IU	< 0.011 IU	< 0.011 IU
	SPRING	ug/L	0.01	-	< 0.01 IU	< 0.01 IU	< 0.011 IU	< 0.011 IU	< 0.011 IU	< 0.01 IU
	SUMMER	ug/L	0.01	-	-	-	< 0.01 IU	-	-	< 0.01 IU
	FALL	ug/L	0.01	-	-	-	< 0.01 IU	-	-	< 0.01 IU
Dieldrin	WINTER	ug/L	0.02	-	< 0.024 IU		< 0.025 IU	< 0.022 IU	< 0.022 IU	< 0.022 IU
	SPRING	ug/L	0.02	-	< 0.021 IU	< 0.021 IU	< 0.021 IU	< 0.022 IU	< 0.021 IU	< 0.021 IU
	SUMMER	ug/L	0.02	-	-	-	< 0.02 IU	-	-	< 0.02 IU
	FALL	ug/L	0.02	-	-	-	< 0.02 IU	-	-	< 0.02 IU
Endrin	WINTER	ug/L	0.02	0.2	< 0.024 IU		< 0.025 IU	< 0.022 IU	< 0.022 IU	< 0.022 IU
	SPRING	ug/L	0.02	0.2	< 0.021 IU	< 0.021 IU	< 0.021 IU	< 0.022 IU	< 0.021 IU	< 0.021 IU
	SUMMER	ug/L	0.02	0.2	-	-	< 0.02 IU	-	-	< 0.02 IU
	FALL	ug/L	0.02	0.2	-	-	< 0.02 IU	-	-	< 0.02 IU
Gamma-Chlordane	WINTER	ug/L	0.01	-	< 0.012 IU		< 0.012 IU	< 0.011 IU	< 0.011 IU	< 0.011 IU
	SPRING	ug/L	0.01	-	< 0.01 IU	< 0.01 IU	< 0.011 IU	< 0.011 IU	< 0.011 IU	< 0.01 IU
	SUMMER	ug/L	0.01	-	-	-	< 0.01 IU	-	-	< 0.01 IU
	FALL	ug/L	0.01	-	-	-	< 0.01 IU	-	-	< 0.01 IU

Parameter	Quarter	Units	DL	MCL	UCD1-12 D1	UCD1-12 D2	UCD1-13	UCD1-13 D1	UCD1-18	UCD1-18 D1
Alpha-Chlordane	WINTER	ug/L	0.01	-	-	-	0.0054 IJ	-	< 0.012 IU	< 0.012 IU
	SPRING	ug/L	0.01	-	-	-	< 0.01 IU	-	< 0.011 IU	-
	SUMMER	ug/L	0.01	-	< 0.01 IU	-	< 0.01 IU	-	-	-
	FALL	ug/L	0.01	-		-	0.0057 IJ	0.0059 IJ	-	-
Dieldrin	WINTER	ug/L	0.02	-	-	-	0.029	-	< 0.024 IU	< 0.024 IU
	SPRING	ug/L	0.02	-	-	-	< 0.021 IU	-	< 0.022 IU	
	SUMMER	ug/L	0.02	-	< 0.02 IU	-	< 0.02 IU	-	-	-
	FALL	ug/L	0.02	-		-	0.028 IP	0.024	-	-
Endrin	WINTER	ug/L	0.02	0.2	-	-	0.012 IJ	-	< 0.024 IU	< 0.024 IU
	SPRING	ug/L	0.02	0.2	-	-	< 0.021 IU	-	< 0.022 IU	
	SUMMER	ug/L	0.02	0.2	< 0.02 IU	-	< 0.02 IU	-	-	-
	FALL	ug/L	0.02	0.2		-	0.0085 IJP	< 0.02 IU	-	-
Gamma-Chlordane	WINTER	ug/L	0.01	-	-	-	0.0051 IJ	-	< 0.012 IU	< 0.012 IU
	SPRING	ug/L	0.01	-	-	-	< 0.01 IU	-	< 0.011 IU	
	SUMMER	ug/L	0.01	-	< 0.01 IU	-	< 0.01 IU	-	-	-
	FALL	ug/L	0.01	-	-	-	0.0049 IJP	0.0071 IJP	-	-

TABLE 5.4
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
PESTICIDES AND PCBS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-19	UCD1-19 D1	UCD1-20	UCD1-21	UCD1-22	UCD1-23
Alpha-Chlordane	WINTER	ug/L	0.01	-	< 0.01 IU	-	< 0.012 IU	< 0.014 IU	< 0.011 IU	< 0.01 IU
	SPRING	ug/L	0.01	-	< 0.01 IU	< 0.01 IU	< 0.01 IU	< 0.011 IU	< 0.011 IU	< 0.011 IU
	SUMMER	ug/L	0.01	-	-	-	-	-	-	-
	FALL	ug/L	0.01	-	-	-	-	-	-	-
Dieldrin	WINTER	ug/L	0.02	-	< 0.02 IU		< 0.025 IU	< 0.027 IU	< 0.023 IU	< 0.02 IU
	SPRING	ug/L	0.02	-	< 0.021 IU	< 0.021 IU	< 0.021 IU	< 0.021 IU	< 0.022 IU	< 0.021 IU
	SUMMER	ug/L	0.02	-	-	-	-	-	-	-
	FALL	ug/L	0.02	-	-	-	-	-	-	-
Endrin	WINTER	ug/L	0.02	0.2	< 0.02 IU		< 0.025 IU	< 0.027 IU	< 0.023 IU	< 0.02 IU
	SPRING	ug/L	0.02	0.2	< 0.021 IU	< 0.021 IU	< 0.021 IU	< 0.021 IU	< 0.022 IU	< 0.021 IU
	SUMMER	ug/L	0.02	0.2	-	-	-	-	-	-
	FALL	ug/L	0.02	0.2	-	-	-	-	-	-
Gamma-Chlordane	WINTER	ug/L	0.01	-	< 0.01 IU		< 0.012 IU	< 0.014 IU	< 0.011 IU	< 0.01 IU
	SPRING	ug/L	0.01	-	< 0.01 IU	< 0.01 IU	< 0.01 IU	< 0.011 IU	< 0.011 IU	< 0.011 IU
	SUMMER	ug/L	0.01	-	-	-	-	-	-	-
	FALL	ug/L	0.01	-	-	-	-	-	-	-

Parameter	Quarter	Units	DL	MCL	UCD1-24	UCD1-25	UCD1-27Z1	UCD1-27Z2	UCD1-27Z3	UCD1-34
Alpha-Chlordane	WINTER	ug/L	0.01	-	< 0.011 IU	-	-	-	-	-
	SPRING	ug/L	0.01	-	< 0.01 IU	-	-	-	-	-
	SUMMER	ug/L	0.01	-	-	-	-	-	-	-
	FALL	ug/L	0.01	-	-	< 0.01 IU	< 0.01 UJs IU	< 0.01 UJs IU	< 0.01 UJs IU	< 0.01 IU
Dieldrin	WINTER	ug/L	0.02	-	< 0.021 IU	-	-	-	-	-
	SPRING	ug/L	0.02	-	< 0.021 IU	-	-	-	-	-
	SUMMER	ug/L	0.02	-	-	-	-	-	-	-
	FALL	ug/L	0.02	-	-	< 0.02 IU	< 0.02 UJs IU	< 0.02 UJs IU	< 0.02 UJs IU	< 0.02 IU
Endrin	WINTER	ug/L	0.02	0.2	< 0.021 IU	-	-	-	-	-
	SPRING	ug/L	0.02	0.2	< 0.021 IU	-	-	-	-	-
	SUMMER	ug/L	0.02	0.2	-	-	-	-	-	-
	FALL	ug/L	0.02	0.2	-	< 0.02 IU	< 0.02 UJs IU	< 0.02 UJs IU	< 0.02 UJs IU	< 0.02 IU
Gamma-Chlordane	WINTER	ug/L	0.01	-	< 0.011 IU	-	-	-	-	-
	SPRING	ug/L	0.01	-	< 0.01 IU	-	-	-	-	-
	SUMMER	ug/L	0.01	-	-	-	-	-	-	-
	FALL	ug/L	0.01	-	-	< 0.01 IU	< 0.01 UJs IU	< 0.01 UJs IU	< 0.01 UJs IU	< 0.01 IU

TABLE 5.4
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
PESTICIDES AND PCBS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-7	UCD2-7 D1	UCD2-14	UCD2-14 D1	UCD2-15	UCD2-16
Alpha-Chlordane	WINTER	ug/L	0.01	-	< 0.011 IU	< 0.011 IU	< 0.012 IU	-	< 0.013 IU	< 0.014 IU
	SPRING	ug/L	0.01	-	< 0.01 IU	-	< 0.011 IU	-	< 0.01 IU	< 0.01 IU
	SUMMER	ug/L	0.01	-	-	-	< 0.01 IU	-	< 0.01 IU	-
	FALL	ug/L	0.01	-	-	-	< 0.01 IU	-	< 0.01 IU	-
Dieldrin	WINTER	ug/L	0.02	-	< 0.022 IU	< 0.022 IU	< 0.024 IU	-	< 0.025 IU	< 0.027 IU
	SPRING	ug/L	0.02	-	< 0.021 IU	-	< 0.021 IU	-	< 0.021 IU	< 0.021 IU
	SUMMER	ug/L	0.02	-	-	-	< 0.02 IU	-	< 0.02 IU	-
	FALL	ug/L	0.02	-	-	-	< 0.02 IU	-	< 0.02 IU	-
Endrin	WINTER	ug/L	0.02	0.2	< 0.022 IU	< 0.022 IU	< 0.024 IU	-	< 0.025 IU	< 0.027 IU
	SPRING	ug/L	0.02	0.2	< 0.021 IU	-	< 0.021 IU	-	< 0.021 IU	< 0.021 IU
	SUMMER	ug/L	0.02	0.2	-	-	< 0.02 IU	-	< 0.02 IU	-
	FALL	ug/L	0.02	0.2	-	-	< 0.02 IU	-	< 0.02 IU	-
Gamma-Chlordane	WINTER	ug/L	0.01	-	< 0.011 IU	< 0.011 IU	< 0.012 IU	-	< 0.013 IU	< 0.014 IU
	SPRING	ug/L	0.01	-	< 0.01 IU	-	< 0.011 IU	-	< 0.01 IU	< 0.01 IU
	SUMMER	ug/L	0.01	-	-	-	< 0.01 IU	-	< 0.01 IU	-
	FALL	ug/L	0.01	-	-	-	< 0.01 IU	-	< 0.01 IU	-

Parameter	Quarter	Units	DL	MCL	UCD2-17	UCD2-26	UCD2-27Z4	UCD2-27Z5	UCD2-27Z6	UCD2-27Z7
Alpha-Chlordane	WINTER	ug/L	0.01	-	< 0.012 IU	-	-	-	-	-
	SPRING	ug/L	0.01	-	< 0.011 IU	-	-	-	-	-
	SUMMER	ug/L	0.01	-	-	-	-	-	-	-
	FALL	ug/L	0.01	-	-	< 0.01 IU	< 0.01 UJs IU	< 0.01 IU	< 0.01 IU	< 0.01 IU
Dieldrin	WINTER	ug/L	0.02	-	< 0.023 IU	-	-	-	-	-
	SPRING	ug/L	0.02	-	< 0.022 IU	-	-	-	-	-
	SUMMER	ug/L	0.02	-	-	-	-	-	-	-
	FALL	ug/L	0.02	-	-	< 0.02 IU	< 0.02 UJs IU	< 0.02 IU	< 0.02 IU	< 0.021 IU
Endrin	WINTER	ug/L	0.02	0.2	< 0.023 IU	-	-	-	-	-
	SPRING	ug/L	0.02	0.2	< 0.022 IU	-	-	-	-	-
	SUMMER	ug/L	0.02	0.2	-	-	-	-	-	-
	FALL	ug/L	0.02	0.2	-	< 0.02 IU	< 0.02 UJs IU	< 0.02 IU	< 0.02 IU	< 0.021 IU
Gamma-Chlordane	WINTER	ug/L	0.01	-	< 0.012 IU	-	-	-	-	-
	SPRING	ug/L	0.01	-	< 0.011 IU	-	-	-	-	-
	SUMMER	ug/L	0.01	-	-	-	-	-	-	-
	FALL	ug/L	0.01	-	-	< 0.01 IU	< 0.01 UJs IU	< 0.01 IU	< 0.01 IU	< 0.01 IU

TABLE 5.4
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
PESTICIDES AND PCBS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-35	
Alpha-Chlordane	WINTER	ug/L	0.01	-	-	
	SPRING	ug/L	0.01	-	-	
	SUMMER	ug/L	0.01	-	-	
	FALL	ug/L	0.01	-	< 0.01	IU
Dieldrin	WINTER	ug/L	0.02	-	-	
	SPRING	ug/L	0.02	-	-	
	SUMMER	ug/L	0.02	-	-	
	FALL	ug/L	0.02	-	< 0.02	IU
Endrin	WINTER	ug/L	0.02	0.2	-	
	SPRING	ug/L	0.02	0.2	-	
	SUMMER	ug/L	0.02	0.2	-	
	FALL	ug/L	0.02	0.2	< 0.02	IU
Gamma-Chlordane	WINTER	ug/L	0.01	-	-	
	SPRING	ug/L	0.01	-	-	
	SUMMER	ug/L	0.01	-	-	
	FALL	ug/L	0.01	-	< 0.01	IU

D1 = Duplicate sample.
- = Parameter not analyzed or no MCL.
DL = Detection limit.
< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.
MCL = Maximum Contaminant Level (primary), Title 22 Division 4 Chapter 15.

Highlighted values indicate positive results.

See Appendix A for explanation of data qualifiers.

TABLE 5.5
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-1	UCD1-1 D1	UCD1-4	UCD1-10	UCD1-11
Antimony	WINTER	ug/L	5	6	< 5 IU	-	< 5 IU	< 5 IU	< 5 IU
	SPRING	ug/L	5	6	< 5 IU	< 5 IU	< 5 IU	< 5 IU	< 5 IU
	SUMMER	ug/L	5	6	-	-	-	-	-
	FALL	ug/L	5	6	-	-	-	-	-
Arsenic	WINTER	ug/L	2	50	4 Up I		2.8 Jk I	3.7 Jk I	3.9 Jk I
	SPRING	ug/L	2	50	< 2 IU	< 2 IU	< 2 IU	2.5	2.8
	SUMMER	ug/L	2	50	-	-	-	-	-
	FALL	ug/L	2	50	-	-	-	-	-
Barium	WINTER	ug/L	20	1000	219	-	202	25.7	262
	SPRING	ug/L	20	1000	237	248	310	30.1	325
	SUMMER	ug/L	20	1000	-	-	-	-	-
	FALL	ug/L	20	1000	-	-	-	-	-
Chromium	WINTER	ug/L	10	50	32.8		9.5 IB	67.2	266
	SPRING	ug/L	10	50	29.2	30.1	26.9	74.9	279
	SUMMER	ug/L	10	50	-	-	-	-	-
	FALL	ug/L	10	50	-	-	-	-	-
Chromium, Hexavalent (+6)	WINTER	ug/L	10	50	29	-	< 10	69	290
	SPRING	ug/L	10	50	18	19	23	73	270
	SUMMER	ug/L	10	50	32	-	23	74	270
	FALL	ug/L	10	50	-	-	19	64	-
Cobalt	WINTER	ug/L	10	-	1.4 IB	-	< 10 IU	< 10 IU	< 10 IU
	SPRING	ug/L	10	-	< 10 IU	< 10 IU	< 10 IU	< 10 IU	< 10 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
Copper	WINTER	ug/L	10	1000 S	1.9 IB	-	< 10 IU	2.6 IB	1 IB
	SPRING	ug/L	10	1000 S	< 10 IU	< 10 IU	< 10 IU	< 10 IU	< 10 IU
	SUMMER	ug/L	10	1000 S	-	-	-	-	-
	FALL	ug/L	10	1000 S	-	-	-	-	-
Iron	WINTER	ug/L	100	300 S	< 100 IU		19.3 IB	24.9 IB	20 IB
	SPRING	ug/L	100	300 S	18.8 IB	15.7 IB	93.9 IB	67.3 IB	34.8 IB
	SUMMER	ug/L	100	300 S	-	-	-	-	-
	FALL	ug/L	100	300 S	-	-	-	-	-

TABLE 5.5
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-1		UCD1-1 D1		UCD1-4		UCD1-10		UCD1-11	
Lead	WINTER	ug/L	2	15	< 2	IU	-		< 2	IU	< 2	IU	< 2	IU
	SPRING	ug/L	2	15	< 2	IU	< 2	IU	< 2	IU	< 2	IU	< 2	IU
	SUMMER	ug/L	2	15	-		-		-		-		-	
	FALL	ug/L	2	15	-		-		-		-		-	
Mercury	WINTER	ug/L	0.2	2	< 0.2	IU	-		0.26		< 0.2	IU	0.23	
	SPRING	ug/L	0.2	2	< 0.2	IU	< 0.2	IU	< 0.2	IU	< 0.2	IU	< 0.2	IU
	SUMMER	ug/L	0.2	2	-		-		-		-		-	
	FALL	ug/L	0.2	2	-		-		-		-		-	
Molybdenum	WINTER	ug/L	10	-	< 10	IU	-		< 10	IU	< 10	IU	< 10	IU
	SPRING	ug/L	10	-	2.2	IB	1.9	IB	4.2	IB	2.4	IB	2.3	IB
	SUMMER	ug/L	10	-	-		-		-		-		-	
	FALL	ug/L	10	-	-		-		-		-		-	
Nickel	WINTER	ug/L	20	100	1	IB	-		3.8	IB	1.1	IB	< 20	IU
	SPRING	ug/L	20	100	1.7	IB	1.8	IB	3.3	IB	1.8	IB	1.3	IB
	SUMMER	ug/L	20	100	-		-		-		-		-	
	FALL	ug/L	20	100	-		-		-		-		-	
Selenium	WINTER	ug/L	3	5 #	< 3	IU	-		< 3	IU	23		11.7	
	SPRING	ug/L	3	5 #	< 3	IU	< 3	IU	< 3	IU	21.2		9.9	
	SUMMER	ug/L	3	5 #	-		-		-		-		-	
	FALL	ug/L	3	5 #	-		-		-		-		-	
Vanadium	WINTER	ug/L	10	-	9.5	IB	-		7.7	IB	10.3		4	IB
	SPRING	ug/L	10	-	4.9	IB	4.6	IB	5	IB	5.1	IB	< 10	IU
	SUMMER	ug/L	10	-	-		-		-		-		-	
	FALL	ug/L	10	-	-		-		-		-		-	
Zinc	WINTER	ug/L	20	5000 S	2.7	IB	-		13.4	IB	6.5	IB	6.1	IB
	SPRING	ug/L	20	5000 S	< 20	IU	< 20	IU	< 20	IU	< 20	IU	< 20	IU
	SUMMER	ug/L	20	5000 S	-		-		-		-		-	
	FALL	ug/L	20	5000 S	-		-		-		-		-	

TABLE 5.5
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-12	UCD1-12 D1	UCD1-12 D2	UCD1-13	UCD1-13 D1
Antimony	WINTER	ug/L	5	6	< 5 IU	-	-	< 5 IU	-
	SPRING	ug/L	5	6	< 5 IU	-	-	< 5 IU	-
	SUMMER	ug/L	5	6	-	-	-	-	-
	FALL	ug/L	5	6	-	-	-	-	-
Arsenic	WINTER	ug/L	2	50	4.9 Up I	-	-	3.3 Up I	-
	SPRING	ug/L	2	50	< 2 IU	-	-	< 2 IU	-
	SUMMER	ug/L	2	50	-	-	-	-	-
	FALL	ug/L	2	50	-	-	-	-	-
Barium	WINTER	ug/L	20	1000	340	-	-	327	-
	SPRING	ug/L	20	1000	355	-	-	352	-
	SUMMER	ug/L	20	1000	-	-	-	-	-
	FALL	ug/L	20	1000	-	-	-	-	-
Chromium	WINTER	ug/L	10	50	191	-	-	94.6	-
	SPRING	ug/L	10	50	187	-	-	90.6	-
	SUMMER	ug/L	10	50	-	-	-	-	-
	FALL	ug/L	10	50	-	-	-	-	-
Chromium, Hexavalent (+6)	WINTER	ug/L	10	50	170	-	-	86	-
	SPRING	ug/L	10	50	140	-	-	61	-
	SUMMER	ug/L	10	50	190	-	-	85	-
	FALL	ug/L	10	50	170	-	-	76	75
Cobalt	WINTER	ug/L	10	-	1.9 IB	-	-	1.5 IB	-
	SPRING	ug/L	10	-	< 10 IU	-	-	< 10 IU	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
Copper	WINTER	ug/L	10	1000 S	2 IB	-	-	1.1 IB	-
	SPRING	ug/L	10	1000 S	< 10 IU	-	-	< 10 IU	-
	SUMMER	ug/L	10	1000 S	-	-	-	-	-
	FALL	ug/L	10	1000 S	-	-	-	-	-
Iron	WINTER	ug/L	100	300 S	< 100 IU	-	-	< 100 IU	-
	SPRING	ug/L	100	300 S	< 100 IU	-	-	< 100 IU	-
	SUMMER	ug/L	100	300 S	-	-	-	-	-
	FALL	ug/L	100	300 S	-	-	-	-	-

TABLE 5.5
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-12	UCD1-12 D1	UCD1-12 D2	UCD1-13	UCD1-13 D1
Lead	WINTER	ug/L	2	15	< 2 |U	-	-	< 2 |U	-
	SPRING	ug/L	2	15	< 2 |U	-	-	< 2 |U	-
	SUMMER	ug/L	2	15	-	-	-	-	-
	FALL	ug/L	2	15	-	-	-	-	-
Mercury	WINTER	ug/L	0.2	2	< 0.2 |U	-	-	< 0.2 |U	-
	SPRING	ug/L	0.2	2	< 0.2 |U	-	-	< 0.2 |U	-
	SUMMER	ug/L	0.2	2	-	-	-	-	-
	FALL	ug/L	0.2	2	-	-	-	-	-
Molybdenum	WINTER	ug/L	10	-	< 10 |U	-	-	< 10 |U	-
	SPRING	ug/L	10	-	< 10 |U	-	-	< 10 |U	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
Nickel	WINTER	ug/L	20	100	5.7 |B	-	-	1.5 |B	-
	SPRING	ug/L	20	100	4.2 |B	-	-	1.5 |B	-
	SUMMER	ug/L	20	100	-	-	-	-	-
	FALL	ug/L	20	100	-	-	-	-	-
Selenium	WINTER	ug/L	3	5 #	11.6	-	-	4.1 JQ |	-
	SPRING	ug/L	3	5 #	11.6	-	-	< 3 |U	-
	SUMMER	ug/L	3	5 #	-	-	-	-	-
	FALL	ug/L	3	5 #	-	-	-	-	-
Vanadium	WINTER	ug/L	10	-	8.7 |B	-	-	11.7	-
	SPRING	ug/L	10	-	4.9 |B	-	-	7.7 |B	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
Zinc	WINTER	ug/L	20	5000 S	2.6 |B	-	-	2.4 |B	-
	SPRING	ug/L	20	5000 S	< 20 |U	-	-	< 20 |U	-
	SUMMER	ug/L	20	5000 S	-	-	-	-	-
	FALL	ug/L	20	5000 S	-	-	-	-	-

TABLE 5.5
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-18	UCD1-18 D1	UCD1-19	UCD1-19 D1	UCD1-20
Antimony	WINTER	ug/L	5	6	< 5 IU	< 5 IU	1.4 IB	-	< 5 IU
	SPRING	ug/L	5	6	< 5 IU	-	< 5 IU	< 5 IU	< 5 IU
	SUMMER	ug/L	5	6	-	-	-	-	-
	FALL	ug/L	5	6	-	-	-	-	-
Arsenic	WINTER	ug/L	2	50	4.9 Up I	3.8 Up I	3.7 Jk I	-	4 Jk I
	SPRING	ug/L	2	50	2 IB	-	< 2 IU	< 2 IU	2.1
	SUMMER	ug/L	2	50	-	-	-	-	-
	FALL	ug/L	2	50	-	-	-	-	-
Barium	WINTER	ug/L	20	1000	152	152	84.6	-	81.3
	SPRING	ug/L	20	1000	188 IB	-	88.6	81.5	97.8
	SUMMER	ug/L	20	1000	-	-	-	-	-
	FALL	ug/L	20	1000	-	-	-	-	-
Chromium	WINTER	ug/L	10	50	14.6	14.7	155	-	27.7
	SPRING	ug/L	10	50	21.3	-	170	171	28.6
	SUMMER	ug/L	10	50	-	-	-	-	-
	FALL	ug/L	10	50	-	-	-	-	-
Chromium, Hexavalent (+6)	WINTER	ug/L	10	50	< 10	< 10	170	-	28
	SPRING	ug/L	10	50	16	-	< 10	54	29
	SUMMER	ug/L	10	50	22	-	180	-	31
	FALL	ug/L	10	50		-	170	-	-
Cobalt	WINTER	ug/L	10	-	1.5 IB	1.5 IB	< 10 IU		< 10 IU
	SPRING	ug/L	10	-	< 10 IU	-	< 10 IU	< 10 IU	< 10 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
Copper	WINTER	ug/L	10	1000 S	1.4 IB	1.5 IB	< 10 IU		< 10 IU
	SPRING	ug/L	10	1000 S	< 10 IU	-	< 10 IU	< 10 IU	< 10 IU
	SUMMER	ug/L	10	1000 S	-	-	-	-	-
	FALL	ug/L	10	1000 S	-	-	-	-	-
Iron	WINTER	ug/L	100	300 S	< 100 IU	< 100 IU	26.4 IB	-	< 100 IU
	SPRING	ug/L	100	300 S	15.3 IB	-	22.8 IB	< 100 IU	< 100 IU
	SUMMER	ug/L	100	300 S	-	-	-	-	-
	FALL	ug/L	100	300 S	-	-	-	-	-

TABLE 5.5
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-18	UCD1-18 D1	UCD1-19	UCD1-19 D1	UCD1-20
Lead	WINTER	ug/L	2	15	< 2 IU	< 2 IU	< 2 IU	-	< 2 IU
	SPRING	ug/L	2	15	< 2 IU	-	< 2 IU	< 2 IU	< 2 IU
	SUMMER	ug/L	2	15	-	-	-	-	-
	FALL	ug/L	2	15	-	-	-	-	-
Mercury	WINTER	ug/L	0.2	2	< 0.2 IU	< 0.2 IU	< 0.2 IU	-	< 0.2 IU
	SPRING	ug/L	0.2	2	< 0.2 IU	-	< 0.2 IU	< 0.2 IU	< 0.2 IU
	SUMMER	ug/L	0.2	2	-	-	-	-	-
	FALL	ug/L	0.2	2	-	-	-	-	-
Molybdenum	WINTER	ug/L	10	-	< 10 IU	< 10 IU	1.2 IB	-	< 10 IU
	SPRING	ug/L	10	-	< 10 IU	-	1.3 IB	1.2 IB	< 10 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
Nickel	WINTER	ug/L	20	100	65.1	66	< 20 IU	-	< 20 IU
	SPRING	ug/L	20	100	31.8 IB	-	1.4 IB	1.4 IB	< 20 IU
	SUMMER	ug/L	20	100	-	-	-	-	-
	FALL	ug/L	20	100	-	-	-	-	-
Selenium	WINTER	ug/L	3	5 #	< 3 IU	< 3 IU	8.7 JQ I	-	< 3 IU
	SPRING	ug/L	3	5 #	< 3 IU	-	9.3	8.4	< 3 IU
	SUMMER	ug/L	3	5 #	-	-	-	-	-
	FALL	ug/L	3	5 #	-	-	-	-	-
Vanadium	WINTER	ug/L	10	-	10.6	10.6	9.1 IB	-	11.5
	SPRING	ug/L	10	-	5.4	-	6.4 IB	5 IB	10.1
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
Zinc	WINTER	ug/L	20	5000 S	1.8 IB	2.6 IB	2.8 IB	-	2.3 IB
	SPRING	ug/L	20	5000 S	4 IB	-	< 20 IU	< 20 IU	< 20 IU
	SUMMER	ug/L	20	5000 S	-	-	-	-	-
	FALL	ug/L	20	5000 S	-	-	-	-	-

TABLE 5.5
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD1-25
Antimony	WINTER	ug/L	5	6	1.1 IB	< 5 IU	< 5 IU	< 5 IU	-
	SPRING	ug/L	5	6	< 5 IU	< 5 IU	< 5 IU	< 5 IU	-
	SUMMER	ug/L	5	6	-	-	-	-	-
	FALL	ug/L	5	6	-	-	-	-	< 5 IU
Arsenic	WINTER	ug/L	2	50	2.6 Jk I	3 Jk I	3.5 Jk I	3.2 Jk I	-
	SPRING	ug/L	2	50	< 2 IU	< 2 IU	< 2 Uz IU	< 2 IU	-
	SUMMER	ug/L	2	50	-	-	-	-	-
	FALL	ug/L	2	50	-	-	-	-	< 2 IU
Barium	WINTER	ug/L	20	1000	140	78.8	127	198	-
	SPRING	ug/L	20	1000	140 IB	85.6 IB	152 IB	238	-
	SUMMER	ug/L	20	1000	-	-	-	-	-
	FALL	ug/L	20	1000	-	-	-	-	124
Chromium	WINTER	ug/L	10	50	54.2	4.9 IB	20.1	28.2	-
	SPRING	ug/L	10	50	58.2	6.9 IB	26.4	29.5	-
	SUMMER	ug/L	10	50	-	-	-	-	-
	FALL	ug/L	10	50	-	-	-	-	290
Chromium, Hexavalent (+6)	WINTER	ug/L	10	50	57	< 10	< 10	28	-
	SPRING	ug/L	10	50	58	< 10	-	-	-
	SUMMER	ug/L	10	50	-	-	-	-	-
	FALL	ug/L	10	50	-	-	-	-	310
Cobalt	WINTER	ug/L	10	-	< 10 IU	< 10 IU	< 10 IU	< 10 IU	-
	SPRING	ug/L	10	-	< 10 IU	< 10 IU	< 10 IU	< 10 IU	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	1.2 IB
Copper	WINTER	ug/L	10	1000 S	< 10 IU	< 10 IU	< 10 IU	1.2 IB	-
	SPRING	ug/L	10	1000 S	< 10 IU	< 10 IU	< 10 IU	< 10 IU	-
	SUMMER	ug/L	10	1000 S	-	-	-	-	-
	FALL	ug/L	10	1000 S	-	-	-	-	4.7 IB
Iron	WINTER	ug/L	100	300 S	25.4 IB	< 100 IU	28.7 IB	23.9 IB	-
	SPRING	ug/L	100	300 S	28.3 IB	< 100 IU	< 100 IU	< 100 IU	-
	SUMMER	ug/L	100	300 S	-	-	-	-	-
	FALL	ug/L	100	300 S	-	-	-	-	0.0232 IB

TABLE 5.5
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD1-25
Lead	WINTER	ug/L	2	15	< 2 |U	< 2 |U	< 2 |U	< 2 |U	-
	SPRING	ug/L	2	15	< 2 |U	< 2 |U	< 2 |U	< 2 |U	-
	SUMMER	ug/L	2	15	-	-	-	-	-
	FALL	ug/L	2	15	-	-	-	-	< 2 |U
Mercury	WINTER	ug/L	0.2	2	< 0.2 |U	< 0.2 |U	0.61	< 0.2 |U	-
	SPRING	ug/L	0.2	2	< 0.2 |U	< 0.2 |U	< 0.2 |U	< 0.2 |U	-
	SUMMER	ug/L	0.2	2	-	-	-	-	-
	FALL	ug/L	0.2	2	-	-	-	-	< 0.2 |U
Molybdenum	WINTER	ug/L	10	-	1.5 |B	1.7 |B	1.1 |B	< 10 |U	-
	SPRING	ug/L	10	-	< 10 |U	< 10 |U	< 10 |U	< 10 |U	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	< 10 |U
Nickel	WINTER	ug/L	20	100	< 20 |U	8.3 |B	39	< 20 |U	-
	SPRING	ug/L	20	100	< 20 |U	10.2 |B	27.8 |B	< 20 |U	-
	SUMMER	ug/L	20	100	-	-	-	-	-
	FALL	ug/L	20	100	-	-	-	-	7.1 |B
Selenium	WINTER	ug/L	3	5 #	3.7 JQ |	< 3 |U	3.3 JQ |	4.8 JQ |	-
	SPRING	ug/L	3	5 #	< 3 |U	< 3 |U	< 3 |U	< 3 |U	-
	SUMMER	ug/L	3	5 #	-	-	-	-	-
	FALL	ug/L	3	5 #	-	-	-	-	5.9
Vanadium	WINTER	ug/L	10	-	8.6 |B	8.3 |B	9.5 |B	11.1	-
	SPRING	ug/L	10	-	8.1	9.8	12.1	6.9	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	10.8
Zinc	WINTER	ug/L	20	5000 S	3.9 |B	2.7 |B	3 |B	7.3 |B	-
	SPRING	ug/L	20	5000 S	2.7 |B	4.4 |B	5.2 |B	3.7 |B	-
	SUMMER	ug/L	20	5000 S	-	-	-	-	-
	FALL	ug/L	20	5000 S	-	-	-	-	65.7

TABLE 5.5
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-27Z1	UCD1-27Z2	UCD1-27Z3	UCD1-34	UCD2-7
Antimony	WINTER	ug/L	5	6	-	-	-	-	< 5 IU
	SPRING	ug/L	5	6	-	-	-	-	< 5 IU
	SUMMER	ug/L	5	6	-	-	-	-	-
	FALL	ug/L	5	6	< 5 IU	< 5 IU	< 5 IU	< 5 IU	-
Arsenic	WINTER	ug/L	2	50	-	-	-	-	3.1 Jk I
	SPRING	ug/L	2	50	-	-	-	-	< 2 IU
	SUMMER	ug/L	2	50	-	-	-	-	-
	FALL	ug/L	2	50	8.6	8.4	3.1	2	-
Barium	WINTER	ug/L	20	1000	-	-	-	-	167
	SPRING	ug/L	20	1000	-	-	-	-	182
	SUMMER	ug/L	20	1000	-	-	-	-	-
	FALL	ug/L	20	1000	240	194	189	89.6	-
Chromium	WINTER	ug/L	10	50	-	-	-	-	45.6
	SPRING	ug/L	10	50	-	-	-	-	47.7
	SUMMER	ug/L	10	50	-	-	-	-	-
	FALL	ug/L	10	50	3.8 IB	4.7 IB	3.1 IB	< 10 IU	-
Chromium, Hexavalent (+6)	WINTER	ug/L	10	50	-	-	-	-	43
	SPRING	ug/L	10	50	-	-	-	-	38
	SUMMER	ug/L	10	50	-	-	-	-	64
	FALL	ug/L	10	50	10 Jh IH	< 10	28	< 10	-
Cobalt	WINTER	ug/L	10	-	-	-	-	-	< 10 IU
	SPRING	ug/L	10	-	-	-	-	-	< 10 IU
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	3 IB	2.7 IB	2.8 IB	1.8 IB	-
Copper	WINTER	ug/L	10	1000 S	-	-	-	-	1.1 IB
	SPRING	ug/L	10	1000 S	-	-	-	-	< 10 IU
	SUMMER	ug/L	10	1000 S	-	-	-	-	-
	FALL	ug/L	10	1000 S	< 10 IU	< 10 IU	< 10 IU	< 10 IU	-
Iron	WINTER	ug/L	100	300 S	-	-	-	-	< 100 IU
	SPRING	ug/L	100	300 S	-	-	-	-	32.8 IB
	SUMMER	ug/L	100	300 S	-	-	-	-	-
	FALL	ug/L	100	300 S	3.97	3.02	2.52	0.0123 IB	-

TABLE 5.5
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-27Z1		UCD1-27Z2		UCD1-27Z3		UCD1-34		UCD2-7	
Lead	WINTER	ug/L	2	15	-		-		-		-		< 2	IU
	SPRING	ug/L	2	15	-		-		-		-		< 2	IU
	SUMMER	ug/L	2	15	-		-		-		-		-	
	FALL	ug/L	2	15	< 2	IU	< 2	IU	< 2	IU	< 2	IU	-	
Mercury	WINTER	ug/L	0.2	2	-		-		-		-		0.68	
	SPRING	ug/L	0.2	2	-		-		-		-		< 0.2	IU
	SUMMER	ug/L	0.2	2	-		-		-		-		-	
	FALL	ug/L	0.2	2	< 0.2	IU	< 0.2	IU	< 0.2	IU	< 0.2	IU	-	
Molybdenum	WINTER	ug/L	10	-	-		-		-		-		1.3	IB
	SPRING	ug/L	10	-	-		-		-		-		3.1	IB
	SUMMER	ug/L	10	-	-		-		-		-		-	
	FALL	ug/L	10	-	5.5	IB	5.2	IB	2.1	IB	1.2	IB	-	
Nickel	WINTER	ug/L	20	100	-		-		-		-		< 20	IU
	SPRING	ug/L	20	100	-		-		-		-		1.5	IB
	SUMMER	ug/L	20	100	-		-		-		-		-	
	FALL	ug/L	20	100	32.5		11.6	IB	6.9	IB	13.1	IB	-	
Selenium	WINTER	ug/L	3	5 #	-		-		-		-		< 3	IU
	SPRING	ug/L	3	5 #	-		-		-		-		3.4	
	SUMMER	ug/L	3	5 #	-		-		-		-		-	
	FALL	ug/L	3	5 #	< 3	IU	< 3	IU	< 3	IU	< 3	IU	-	
Vanadium	WINTER	ug/L	10	-	-		-		-		-		7.7	IB
	SPRING	ug/L	10	-	-		-		-		-		5	IB
	SUMMER	ug/L	10	-	-		-		-		-		-	
	FALL	ug/L	10	-	< 10	IU	< 10	IU	< 10	IU	8.2	IB	-	
Zinc	WINTER	ug/L	20	5000 S	-		-		-		-		5.3	IB
	SPRING	ug/L	20	5000 S	-		-		-		-		< 20	IU
	SUMMER	ug/L	20	5000 S	-		-		-		-		-	
	FALL	ug/L	20	5000 S	559		218		8.4	Jm IENB	36.3		-	

TABLE 5.5
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-7 D1	UCD2-14	UCD2-14 D1	UCD2-15	UCD2-16
Antimony	WINTER	ug/L	5	6	< 5 IU	< 5 IU	-	1 IB	< 5 IU
	SPRING	ug/L	5	6	-	< 5 IU	-	1.7 IB	2.3 IB
	SUMMER	ug/L	5	6	-	< 5 IU	< 5 IU	-	< 5 IU
	FALL	ug/L	5	6	-	< 5 IU	-	-	< 5 IU
Arsenic	WINTER	ug/L	2	50	3.1 Jk I	4.2 Up I	-	3.1 Jk I	3.4 Jk I
	SPRING	ug/L	2	50	-	< 2 IU	-	< 2 IU	< 2 IU
	SUMMER	ug/L	2	50	-	2.1	< 2 IU	-	2.4
	FALL	ug/L	2	50	-	< 2 IU	-	-	< 2 IU
Barium	WINTER	ug/L	20	1000	160	155	-	125	133
	SPRING	ug/L	20	1000	-	266	-	144	139
	SUMMER	ug/L	20	1000	-	244	252	-	141
	FALL	ug/L	20	1000	-	192	-	-	146
Chromium	WINTER	ug/L	10	50	44.6	19.5	-	7.7 IB	24
	SPRING	ug/L	10	50	-	46.2	-	10	26.1
	SUMMER	ug/L	10	50	-	43.1	44.9	-	31.1
	FALL	ug/L	10	50	-	26.5	-	-	26.5
Chromium, Hexavalent (+6)	WINTER	ug/L	10	50	42	< 10	-	< 10	26
	SPRING	ug/L	10	50	-	-	-	< 10	25
	SUMMER	ug/L	10	50	-	37	37	< 20	25
	FALL	ug/L	10	50	-	24	-	6 IB	24
Cobalt	WINTER	ug/L	10	-	< 10 IU	1.5 IB	-	< 10 IU	< 10 IU
	SPRING	ug/L	10	-	-	< 10 IU	-	< 10 IU	< 10 IU
	SUMMER	ug/L	10	-	-	6.5 IB	6.9 IB	-	< 10 IU
	FALL	ug/L	10	-	-	< 10 IU	-	-	< 10 IU
Copper	WINTER	ug/L	10	1000 S	1 IB	< 10 IU	-	< 10 IU	< 10 IU
	SPRING	ug/L	10	1000 S	-	< 10 IU	-	< 10 IU	< 10 IU
	SUMMER	ug/L	10	1000 S	-	2.2 IB	2.5 IB	-	< 10 IU
	FALL	ug/L	10	1000 S	-	< 10 IU	-	-	< 10 IU
Iron	WINTER	ug/L	100	300 S	< 100 IU	< 100 IU	-	< 100 IU	< 100 IU
	SPRING	ug/L	100	300 S	-	< 100 IU	-	< 100 IU	< 100 IU
	SUMMER	ug/L	100	300 S	-	103	85.8 IB	-	154
	FALL	ug/L	100	300 S	-	10.6 IB	-	-	37.2 IB

TABLE 5.5
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-7 D1	UCD2-14	UCD2-14 D1	UCD2-15	UCD2-16
Lead	WINTER	ug/L	2	15	< 2 IU	< 2 IU	-	< 2 IU	< 2 IU
	SPRING	ug/L	2	15	-	< 2 IU	-	< 2 IU	< 2 IU
	SUMMER	ug/L	2	15	-	< 2 IU	< 2 IU	-	< 2 IU
	FALL	ug/L	2	15	-	< 2 IU	-	-	< 2 IU
Mercury	WINTER	ug/L	0.2	2	< 0.2 IU	< 0.2 IU	-	< 0.2 IU	< 0.2 IU
	SPRING	ug/L	0.2	2	-	0.32	-	< 0.2 IU	< 0.2 IU
	SUMMER	ug/L	0.2	2	-	< 0.2 IU	< 0.2 IU	-	< 0.2 IU
	FALL	ug/L	0.2	2	-	< 0.2 IU	-	-	< 0.2 IU
Molybdenum	WINTER	ug/L	10	-	1.1 IB	< 10 IU	-	1.7 IB	< 10 IU
	SPRING	ug/L	10	-	-	< 10 IU	-	< 10 IU	< 10 IU
	SUMMER	ug/L	10	-	-	1.7 IB	1.4 IB	-	1.4 IB
	FALL	ug/L	10	-	-	< 10 IU	-	-	1.3 IB
Nickel	WINTER	ug/L	20	100	< 20 IU	1.3 IB	-	6.6 IB	< 20 IU
	SPRING	ug/L	20	100	-	1.5 IB	-	1.9 IB	< 20 IU
	SUMMER	ug/L	20	100	-	11.2 IB	9.5 IB	-	5.2 IB
	FALL	ug/L	20	100	-	6.2 IB	-	-	4 IB
Selenium	WINTER	ug/L	3	5 #	3.8 JQ I	< 3 IU	-	< 3 IU	3.2 JQ I
	SPRING	ug/L	3	5 #	-	< 3 IU	-	< 3 IU	< 3 IU
	SUMMER	ug/L	3	5 #	-	< 3 IU	< 3 IU	-	4.7
	FALL	ug/L	3	5 #	-	< 3 IU	-	-	3.6
Vanadium	WINTER	ug/L	10	-	7.5 IB	9.6 IB	-	8.1 IB	7.3 IB
	SPRING	ug/L	10	-	-	9.4	-	5.4 IB	< 10 IU
	SUMMER	ug/L	10	-	-	9.2 IB	9.5 IB	-	7.5 IB
	FALL	ug/L	10	-	-	13.4	-	-	13.1
Zinc	WINTER	ug/L	20	5000 S	5.2 IB	1.3 IB	-	2.6 IB	1.8 IB
	SPRING	ug/L	20	5000 S	-	2.3 IB	-	< 20 IU	< 20 IU
	SUMMER	ug/L	20	5000 S	-	5.5 IB	4.6 IB	-	8.5 IB
	FALL	ug/L	20	5000 S	-	8 IB	-	-	7.8 IB

TABLE 5.5
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-17	UCD2-26	UCD2-27Z4	UCD2-27Z5	UCD2-27Z6
Antimony	WINTER	ug/L	5	6	< 5 |U	-	-	-	-
	SPRING	ug/L	5	6	1.8 |B	-	-	-	-
	SUMMER	ug/L	5	6	-	-	-	-	-
	FALL	ug/L	5	6	-	< 5 |U	2.3 |B	< 5 |U	< 5 |U
Arsenic	WINTER	ug/L	2	50	4.4 Up |	-	-	-	-
	SPRING	ug/L	2	50	< 2 |U	-	-	-	-
	SUMMER	ug/L	2	50	-	-	-	-	-
	FALL	ug/L	2	50	-	< 2 |U	2	3.2	3.4
Barium	WINTER	ug/L	20	1000	127	-	-	-	-
	SPRING	ug/L	20	1000	129 |B	-	-	-	-
	SUMMER	ug/L	20	1000	-	-	-	-	-
	FALL	ug/L	20	1000	-	< 20 |U	105	154	149
Chromium	WINTER	ug/L	10	50	15	-	-	-	-
	SPRING	ug/L	10	50	13.5	-	-	-	-
	SUMMER	ug/L	10	50	-	-	-	-	-
	FALL	ug/L	10	50	-	7.2 |B	4 |B	8.7 |B	3.2 |B
Chromium, Hexavalent (+6)	WINTER	ug/L	10	50	< 20	-	-	-	-
	SPRING	ug/L	10	50	13	-	-	-	-
	SUMMER	ug/L	10	50	< 20	-	-	-	-
	FALL	ug/L	10	50		11	< 10	< 10	< 10
Cobalt	WINTER	ug/L	10	-	< 10 |U	-	-	-	-
	SPRING	ug/L	10	-	< 10 |U	-	-	-	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	< 10 |U	< 10 |U	< 10 |U	< 10 |U
Copper	WINTER	ug/L	10	1000 S	< 10 |U	-	-	-	-
	SPRING	ug/L	10	1000 S	< 10 |U	-	-	-	-
	SUMMER	ug/L	10	1000 S	-	-	-	-	-
	FALL	ug/L	10	1000 S	-	10.2	< 10 |U	< 10 |U	< 10 |U
Iron	WINTER	ug/L	100	300 S	< 100 |U	-	-	-	-
	SPRING	ug/L	100	300 S	17.3 |B	-	-	-	-
	SUMMER	ug/L	100	300 S	-	-	-	-	-
	FALL	ug/L	100	300 S	-	26.6 |B	654	338	446

TABLE 5.5
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-17	UCD2-26	UCD2-27Z4	UCD2-27Z5	UCD2-27Z6
Lead	WINTER	ug/L	2	15	< 2 |U	-	-	-	-
	SPRING	ug/L	2	15	< 2 |U	-	-	-	-
	SUMMER	ug/L	2	15	-	-	-	-	-
	FALL	ug/L	2	15	-	< 2 |U	< 2 |U	< 2 |U	< 2 |U
Mercury	WINTER	ug/L	0.2	2	< 0.2 |U	-	-	-	-
	SPRING	ug/L	0.2	2	< 0.2 |U	-	-	-	-
	SUMMER	ug/L	0.2	2	-	-	-	-	-
	FALL	ug/L	0.2	2	-	< 0.2 |U	< 0.2 |U	< 0.2 |U	< 0.2 |U
Molybdenum	WINTER	ug/L	10	-	< 10 |U	-	-	-	-
	SPRING	ug/L	10	-	< 10 |U	-	-	-	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	< 10 |U	2.2 |B	1.4 |B	< 10 |U
Nickel	WINTER	ug/L	20	100	1.8 |B	-	-	-	-
	SPRING	ug/L	20	100	< 20 |U	-	-	-	-
	SUMMER	ug/L	20	100	-	-	-	-	-
	FALL	ug/L	20	100	-	< 20 |U	4.7 |B	5.9 |B	4 |B
Selenium	WINTER	ug/L	3	5 #	< 3 |U	-	-	-	-
	SPRING	ug/L	3	5 #	< 3 |U	-	-	-	-
	SUMMER	ug/L	3	5 #	-	-	-	-	-
	FALL	ug/L	3	5 #	-	< 3 |U	< 3 |U	< 3 |U	< 3 |U
Vanadium	WINTER	ug/L	10	-	9.8 |B	-	-	-	-
	SPRING	ug/L	10	-	10.2	-	-	-	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	< 10 |U	< 10 |U	7.2 |B	5.7 |B
Zinc	WINTER	ug/L	20	5000 S	1.2 |B	-	-	-	-
	SPRING	ug/L	20	5000 S	4.9 |B	-	-	-	-
	SUMMER	ug/L	20	5000 S	-	-	-	-	-
	FALL	ug/L	20	5000 S	-	18.7 |B	6.5 Jm |ENB	20.9 Jm |EN	5.8 Jm |ENB

TABLE 5.5
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-27Z7		UCD2-35	
Antimony	WINTER	ug/L	5	6	-		-	
	SPRING	ug/L	5	6	-		-	
	SUMMER	ug/L	5	6	-		-	
	FALL	ug/L	5	6	< 5	IU	< 5	IU
Arsenic	WINTER	ug/L	2	50	-		-	
	SPRING	ug/L	2	50	-		-	
	SUMMER	ug/L	2	50	-		-	
	FALL	ug/L	2	50	3		< 2	IU
Barium	WINTER	ug/L	20	1000	-		-	
	SPRING	ug/L	20	1000	-		-	
	SUMMER	ug/L	20	1000	-		-	
	FALL	ug/L	20	1000	133		99.1	
Chromium	WINTER	ug/L	10	50	-		-	
	SPRING	ug/L	10	50	-		-	
	SUMMER	ug/L	10	50	-		-	
	FALL	ug/L	10	50	3	IB	3.6	IB
Chromium, Hexavalent (+6)	WINTER	ug/L	10	50	-		-	
	SPRING	ug/L	10	50	-		-	
	SUMMER	ug/L	10	50	-		-	
	FALL	ug/L	10	50	< 10		< 10	
Cobalt	WINTER	ug/L	10	-	-		-	
	SPRING	ug/L	10	-	-		-	
	SUMMER	ug/L	10	-	-		-	
	FALL	ug/L	10	-	< 10	IU	1.4	IB
Copper	WINTER	ug/L	10	1000 S	-		-	
	SPRING	ug/L	10	1000 S	-		-	
	SUMMER	ug/L	10	1000 S	-		-	
	FALL	ug/L	10	1000 S	< 10	IU	< 10	IU
Iron	WINTER	ug/L	100	300 S	-		-	
	SPRING	ug/L	100	300 S	-		-	
	SUMMER	ug/L	100	300 S	-		-	
	FALL	ug/L	100	300 S	762		14.5	IB

TABLE 5.5
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-27Z7	UCD2-35
Lead	WINTER	ug/L	2	15	-	-
	SPRING	ug/L	2	15	-	-
	SUMMER	ug/L	2	15	-	-
	FALL	ug/L	2	15	< 2 IU	< 2 IU
Mercury	WINTER	ug/L	0.2	2	-	-
	SPRING	ug/L	0.2	2	-	-
	SUMMER	ug/L	0.2	2	-	-
	FALL	ug/L	0.2	2	< 0.2 IU	< 0.2 IU
Molybdenum	WINTER	ug/L	10	-	-	-
	SPRING	ug/L	10	-	-	-
	SUMMER	ug/L	10	-	-	-
	FALL	ug/L	10	-	1.4 IB	2 IB
Nickel	WINTER	ug/L	20	100	-	-
	SPRING	ug/L	20	100	-	-
	SUMMER	ug/L	20	100	-	-
	FALL	ug/L	20	100	4.7 IB	9.2 IB
Selenium	WINTER	ug/L	3	5 #	-	-
	SPRING	ug/L	3	5 #	-	-
	SUMMER	ug/L	3	5 #	-	-
	FALL	ug/L	3	5 #	< 3 IU	< 3 IU
Vanadium	WINTER	ug/L	10	-	-	-
	SPRING	ug/L	10	-	-	-
	SUMMER	ug/L	10	-	-	-
	FALL	ug/L	10	-	5 IB	9.6 IB
Zinc	WINTER	ug/L	20	5000 S	-	-
	SPRING	ug/L	20	5000 S	-	-
	SUMMER	ug/L	20	5000 S	-	-
	FALL	ug/L	20	5000 S	7.4 Jm IENB	14 IB

TABLE 5.5
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1 = Duplicate sample.
\- = Parameter not analyzed or no MCL.
DL = Detection limit.
< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.
MCL = Maximum Contaminant Level (primary), Title 22 Division 4 Chapter 15.
\# = USEPA MCL
S = Secondary Drinking Water Standard

Highlighted values indicate positive results.

See Appendix A for explanation of data qualifiers.

TABLE 5.6
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
RADIOCHEMICALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	MCL	Method	UCD1-1	UCD1-1 D1	UCD1-4	UCD1-10	UCD1-11
Gross Alpha	WINTER	pCi/L	15	9310	1.1±2.5 |C	-	-1.2±2.1 |C	1.9±5.8 |C	2.7±5.2 |C
	SPRING	pCi/L	15	9310	0.1±3.8 |C	0.4±3.8 |C	6.5±4.9 |C	0±6 |C	0.8±3.7 |C
	SUMMER	pCi/L	15	9310	-	-	1.9±4.3 |C	-	-
	FALL	pCi/L	15	9310	-	-	1±3 |C	-	-
Gross Beta	WINTER	pCi/L	50	9310	7±3.7 Jd |C	-	0.7±3.1 |C	-2.8±6.9 |C	1.4±4.6 |C
	SPRING	pCi/L	50	9310	2.2±5.4 |C	-3.1±5.1 |C	2.9±4.7 |C	1.1±6.8 |C	4.6±5.3 |C
	SUMMER	pCi/L	50	9310	-	-	2±4 |C	-	-
	FALL	pCi/L	50	9310	-	-	1.7±2 |C	-	-
Actinium-228	WINTER	pCi/L	-	901.1	18±22	-	0.4±7.7	1±21	6±21
	SPRING	pCi/L	-	901.1	-6.1±6.3	20±22	-1.7±7.6	2±21	-9±12
	SUMMER	pCi/L	-	901.1	-	-	0.9±7.4	-	-
	FALL	pCi/L	-	901.1	-	-	-0.1±7.2	-	-
Americium-241	WINTER	pCi/L	-	LAS108	-0.001±0.029 Jm |	-	-0.033±0.04 Jm |	-0.002±0.03 Jm |	0.006±0.058 Jm |
	SPRING	pCi/L	-	LAS108	-0.006±0.044	-0.049±0.066	-0.005±0.04	0.106±0.062	-0.004±0.053
	SUMMER	pCi/L	-	LAS108	-	-	-	-	-
	FALL	pCi/L	-	LAS108	-	-	-	-	-
Bismuth-214	WINTER	pCi/L	-	901.1	48±18	-	3.7±4.9	8±13	-2±13
	SPRING	pCi/L	-	901.1	12.8±6.1	9±14	9.5±6.1	19±14	25±16
	SUMMER	pCi/L	-	901.1	-	-	12.9±6.2 Jz |	-	-
	FALL	pCi/L	-	901.1	-	-	10.6±6.1	-	-
Carbon-14	WINTER	pCi/L	-	LSC	-9±82	-	-34±77	-14±78	2±80
	SPRING	pCi/L	-	LSC	3±83	-19±81	43±86	-5±82	14±84
	SUMMER	pCi/L	-	LSC	-	-	-	-	-
	FALL	pCi/L	-	LSC	-	-	-	-	-
Lead-212	WINTER	pCi/L	-	901.1	11±10	-	2.1±4.9	0.7±9.5	7±9.3
	SPRING	pCi/L	-	901.1	-4.5±5	4.4±9.8	0.6±5.1	6.2±9.7	3.7±9.8
	SUMMER	pCi/L	-	901.1	-	-	0.8±5.4	-	-
	FALL	pCi/L	-	901.1	-	-	1.2±4.9	-	-
Lead-214	WINTER	pCi/L	-	901.1	23±14	-	2.2±4.8	1±10	-11.4±8.2
	SPRING	pCi/L	-	901.1	12.2±5.7	16±12	10.3±5.5	21±12	33±13
	SUMMER	pCi/L	-	901.1	-	-	16.6±6 Jz |	-	-
	FALL	pCi/L	-	901.1	-	-	7.5±5.3	-	-

TABLE 5.6
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
RADIOCHEMICALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	MCL	Method	UCD1-1	UCD1-1 D1	UCD1-4	UCD1-10	UCD1-11
Plutonium-241	WINTER	pCi/L	-	LAS178	-0.1±1.3	-	-0.2±1.5	-0.2±1.5	-0.9±1.6
	SPRING	pCi/L	-	LAS178	-0.5±1.8 Jz |	0.3±1.8 Jz |	-0.5±1.8 Jz |	1±1.8 Jz |	0±1.8 Jz |
	SUMMER	pCi/L	-	LAS178	-	-	-	-	-
	FALL	pCi/L	-	LAS178	-	-	-	-	-
Radium-226	WINTER	pCi/L	5	901.1	-490±130	-	-40±56	-110±110	-280±120
	SPRING	pCi/L	5	901.1	43±60	-70±120	-38±55	40±120	80±120
	SUMMER	-	-	901.1	-	-	-	-	-
	FALL	pCi/L	5	901.1	-	-	-4±54	-	-
	WINTER	pCi/L	5	903.1M	0.17±0.18	-	0.04±0.15	0.019±0.083	0.19±0.18
	SPRING	pCi/L	5	903.1M	0.3±0.13	0.15±0.11	0.1±0.12	0.24±0.15	0.093±0.086
	SUMMER	pCi/L	5	903.1M	-	-	0.18±0.14	-	-
	FALL	pCi/L	5	903.1M	-	-	0.133±0.1	-	-
Strontium-90	WINTER	pCi/L	8	905	-0.3±1.1	-	-0.2±3	-0.7±3	-0.9±3.3
	SPRING	pCi/L	8	905	0.66±0.51	0.7±0.47	0.67±0.46	0.7±0.47	0.12±0.46
	SUMMER	pCi/L	8	905	-	-	-0.16±0.25	-	-
	FALL	pCi/L	8	905	-	-	0.06±0.66	-	-
Tritium	WINTER	pCi/L	20000 *	906	-220±150	-	20±220	0±220	-140±200
	SPRING	pCi/L	20000 *	906	-10±220	-50±210	-80±210	30±220	-40±220
	SUMMER	pCi/L	20000 *	906	-	-	-110±220	-	-
	FALL	pCi/L	20000 *	906	-	-	-30±160	-	-
Uranium-235	WINTER	pCi/L	-	901.1	-13±15	-	2±15	-2±27	26±26
	SPRING	pCi/L	-	901.1	-5±13	-4±27	2±15	-8±27	-4±26
	SUMMER	pCi/L	-	901.1	-	-	7±15	-	-
	FALL	pCi/L	-	901.1	-	-	-3±15	-	-

TABLE 5.6
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
RADIOCHEMICALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	MCL	Method	UCD1-12	UCD1-13	UCD1-13 D1	UCD1-18	UCD1-18 D1
Gross Alpha	WINTER	pCi/L	15	9310	2.4±8.4 |C	2.7±5.7 |C	-	0.1±3.3 |C	-1±2.7 |C
	SPRING	pCi/L	15	9310	-2.8±4.9 |C	3.4±5.4 |C	-	2.1±3.1 Jm |C	-
	SUMMER	pCi/L	15	9310	11±11 |C	4.4±7.6 |C	-	-	-
	FALL	pCi/L	15	9310	6±10 |C	0.8±5.3 |C	3.6±6.6 |C	-	-
Gross Beta	WINTER	pCi/L	50	9310	6.4±9.5 Jd |C	15±8 Jd |C	-	3±3.5 Jd |C	0.9±3.5 Jd |C
	SPRING	pCi/L	50	9310	4.6±7.4 |C	4±6.6 |C	-	1.3±3.3 |C	-
	SUMMER	pCi/L	50	9310	0±10 |C	-3.8±6.5 |C	-	-	-
	FALL	pCi/L	50	9310	1.9±6.6 |C	1.3±4.1 |C	3.8±5 |C	-	-
Actinium-228	WINTER	pCi/L	-	901.1	4.9±8	0.1±7.8	-	-19±10	-9.2±6.7
	SPRING	pCi/L	-	901.1	7.2±7.6	0.1±7.7	-	6±21	-
	SUMMER	pCi/L	-	901.1	-15±12	-4±21	-	-	-
	FALL	pCi/L	-	901.1	7.9±7.6	-1.1±7.2	4.7±7.4	-	-
Americium-241	WINTER	pCi/L	-	LAS108	0.007±0.039 Jm |	-0.026±0.03 Jm |	-	0.015±0.084 Jm |	0.002±0.052 Jm |
	SPRING	pCi/L	-	LAS108	-0.014±0.049	0.032±0.058	-	0.004±0.014	-
	SUMMER	pCi/L	-	LAS108	-	-	-	-	-
	FALL	pCi/L	-	LAS108	-	-	-	-	-
Bismuth-214	WINTER	pCi/L	-	901.1	17.5±6.5	20.2±6.9	-	30±16	9±14
	SPRING	pCi/L	-	901.1	12.3±5.7	14.2±6.2	-	11±13	-
	SUMMER	pCi/L	-	901.1	5±12	4±13	-	-	-
	FALL	pCi/L	-	901.1	14.4±6.4	2.1±5.2	8.2±5.5	-	-
Carbon-14	WINTER	pCi/L	-	LSC	119±93	1169±92 Jd |	-	42±87	-1±83
	SPRING	pCi/L	-	LSC	199±98	900±150	-	-1±84	-
	SUMMER	pCi/L	-	LSC	208±95	1750±180	-	-	-
	FALL	pCi/L	-	LSC	171±96	1900±180	1770±170	-	-
Lead-212	WINTER	pCi/L	-	901.1	8.5±6	0.6±5.1	-	2±10	9±10
	SPRING	pCi/L	-	901.1	-1.2±5.1	5.5±5.4	-	1.8±9.6	-
	SUMMER	pCi/L	-	901.1	3±9.7	3±10	-	-	-
	FALL	pCi/L	-	901.1	6.2±5.4	1.4±4.8	0.2±5.2	-	-
Lead-214	WINTER	pCi/L	-	901.1	12.3±5.7	23.1±6.4	-	18±13	12±12
	SPRING	pCi/L	-	901.1	9.2±5.4	11.5±5.4	-	5±12	-
	SUMMER	pCi/L	-	901.1	-2±10 Je |	-1±11 Je |	-	-	-
	FALL	pCi/L	-	901.1	7.2±5.1	1.7±4.7	5.8±5.3	-	-

TABLE 5.6
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
RADIOCHEMICALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	MCL	Method	UCD1-12	UCD1-13	UCD1-13 D1	UCD1-18	UCD1-18 D1
Plutonium-241	WINTER	pCi/L	-	LAS178	-0.2±1.4	0.2±1.8	-	-0.7±1.6	0±1.3
	SPRING	pCi/L	-	LAS178	-0.4±1.8 Jz |	0.1±1.9 Jz |	-	-0.1±2.3 Jc |	-
	SUMMER	pCi/L	-	LAS178	-	-	-	-	-
	FALL	pCi/L	-	LAS178	-	-	-	-	-
Radium-226	WINTER	pCi/L	5	901.1	-27±57	7±58	-	-140±120	-350±120
	SPRING	pCi/L	5	901.1	-154±58	19±54	-	30±120	-
	SUMMER	-	-	901.1	-	-	-	-	-
	FALL	pCi/L	5	901.1	24±56	-173±58	6±56	-	-
	WINTER	pCi/L	5	903.1M	0.26±0.19	0.22±0.2	-	0.33±0.23	0.4±0.25
	SPRING	pCi/L	5	903.1M	0.19±0.12	0.23±0.14	-	0.27±0.15	-
	SUMMER	pCi/L	5	903.1M	0.12±0.13	0.1±0.15	-	-	-
	FALL	pCi/L	5	903.1M	0.55±0.29	0.25±0.13	0.012±0.068	-	-
Strontium-90	WINTER	pCi/L	8	905	-0.9±2.9	-0.6±1.5	-	-0.6±2.7	-0.4±2.1
	SPRING	pCi/L	8	905	0.32±0.5	0.26±0.47	-	0.52±0.52 Jm |	-
	SUMMER	pCi/L	8	905	0.09±0.47	-0.17±0.53	-	-	-
	FALL	pCi/L	8	905	0.84±0.65	-0.19±0.57	0.4±0.64	-	-
Tritium	WINTER	pCi/L	20000 *	906	-100±170	17600±1100	-	90±190	-270±140
	SPRING	pCi/L	20000 *	906	-100±210	a	-	-130±160	-
	SUMMER	pCi/L	20000 *	906	-30±220	19600±1200	-	-	-
	FALL	pCi/L	20000 *	906	-40±170	16480±960	15190±910	-	-
Uranium-235	WINTER	pCi/L	-	901.1	-16±9.2	-10±13	-	7±27	10±27
	SPRING	pCi/L	-	901.1	8±15	-2±15	-	-16±15	-
	SUMMER	pCi/L	-	901.1	-11±26	-21±13	-	-	-
	FALL	pCi/L	-	901.1	-9±12	7±15	-2±12	-	-

TABLE 5.6
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
RADIOCHEMICALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	MCL	Method	UCD1-19	UCD1-19 D1	UCD1-20	UCD1-21	UCD1-22
Gross Alpha	WINTER	pCi/L	15	9310	5.7±6.9 |C	-	1.5±2.3 |C	-0.5±4.6 |C	0.9±2.9 |C
	SPRING	pCi/L	15	9310	7.9±6 |C	0±5 |C	1±2.3 |C	0.3±4 Jm |C	1.2±3.3 Jm |C
	SUMMER	pCi/L	15	9310	-	-	0.6±2.1 |C	-	3.5±4.5 |C
	FALL	pCi/L	15	9310	-	-	-	-	-
Gross Beta	WINTER	pCi/L	50	9310	4.3±6.8 |C	-	0.8±2.3	3.9±6 |C	0.4±3.6 |C
	SPRING	pCi/L	50	9310	3±5.9 |C	0±6.1 |C	1.8±2.6 |C	-1.5±4.9 |C	2.2±3.2 |C
	SUMMER	pCi/L	50	9310	-	-	0.7±2.2	-	-0.7±3.8 |C
	FALL	pCi/L	50	9310	-	-	-	-	-
Actinium-228	WINTER	pCi/L	-	901.1	-2.2±7.6	-	-20±130	-45±46	-88±84
	SPRING	pCi/L	-	901.1	5.9±7.7	-3.2±7.5	7±22	0±17	5±20
	SUMMER	pCi/L	-	901.1	-	-	2±21	-	-10.6±5.3
	FALL	pCi/L	-	901.1	-	-	-	-	-
Americium-241	WINTER	pCi/L	-	LAS108	-0.019±0.05 Jm |	-	0.018±0.082 Jm |	-0.09±0.23 Jm |	-0.013±0.07 Jm |
	SPRING	pCi/L	-	LAS108	0.01±0.051	0.019±0.053	-0.027±0.041	0.013±0.029	0.015±0.02
	SUMMER	pCi/L	-	LAS108	-	-	-	-	0.016±0.021
	FALL	pCi/L	-	LAS108	-	-	-	-	-
Bismuth-214	WINTER	pCi/L	-	901.1	0.2±5.2	-	-59±54	3±78	11±80
	SPRING	pCi/L	-	901.1	21.9±6.8	19±6.7	26±16	33±15	8±13
	SUMMER	pCi/L	-	901.1	-	-	3±14 Jz |	-	20.4±6.9 Jz |
	FALL	pCi/L	-	901.1	-	-	-	-	-
Carbon-14	WINTER	pCi/L	-	LSC	-41±77	-	2±80	-34±77	-4±79
	SPRING	pCi/L	-	LSC	-8±82	-12±81	-12±81	35±87	-26±82
	SUMMER	pCi/L	-	LSC	-	-	102±92	-	-
	FALL	pCi/L	-	LSC	-	-	-	-	-
Lead-212	WINTER	pCi/L	-	901.1	9±5.3	-	-14±54	-5±56	15±54
	SPRING	pCi/L	-	901.1	1.2±5.1	-4.4±5.2	-12±9.5	5±10	-3.4±9.4
	SUMMER	pCi/L	-	901.1	-	-	2±10	-	0.2±5.4
	FALL	pCi/L	-	901.1	-	-	-	-	-
Lead-214	WINTER	pCi/L	-	901.1	2.3±4.7	-	-67±46	-14±63	-27±62
	SPRING	pCi/L	-	901.1	24±6.4	19.5±6.2	31±13	7±12	3±11
	SUMMER	pCi/L	-	901.1	-	-	2±11 Jz |	-	19.8±6.2 Jz |
	FALL	pCi/L	-	901.1	-	-	-	-	-

TABLE 5.6
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
RADIOCHEMICALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	MCL	Method	UCD1-19	UCD1-19 D1	UCD1-20	UCD1-21	UCD1-22
Plutonium-241	WINTER	pCi/L	-	LAS178	0.1±1.6	-	-0.1±1.6	0.2±1.8	-1.1±1.5
	SPRING	pCi/L	-	LAS178	0±1.8 Jz |	2.7±1.9 Jz |	-0.3±1.9 Jz |	1.7±1.9 Jc |	3.2±2.3 Jc |
	SUMMER	pCi/L	-	LAS178	-	-	-	-	1.5±2.9 Jc |
	FALL	pCi/L	-	LAS178	-	-	-	-	-
Radium-226	WINTER	pCi/L	5	901.1	-133±57	-	-580±630	-100±650	-1770±680
	SPRING	pCi/L	5	901.1	0±57	54±57	-270±120	-290±120	0±110
	SUMMER	-	-	901.1	-	-	-	-	-
	FALL	pCi/L	5	901.1	-	-	-	-	-
	WINTER	pCi/L	5	903.1M	0.18±0.13	-	0.17±0.11	0.14±0.15	0.3±0.16
	SPRING	pCi/L	5	903.1M	0.069±0.1	0.112±0.1	0.103±0.087	0.063±0.092	-0.1±0.11
	SUMMER	pCi/L	5	903.1M	-	-	0.093±0.086	-	0.048±0.082
	FALL	pCi/L	5	903.1M	-	-	-	-	-
Strontium-90	WINTER	pCi/L	8	905	-0.8±3.5	-	-0.6±3	-1±3.3	-0.6±3.8
	SPRING	pCi/L	8	905	0.75±0.5	0.27±0.46	0.5±0.48	0.37±0.5 Jm |	0.31±0.59 Jm |
	SUMMER	pCi/L	8	905	-	-	-0.15±0.26	-	0.25±0.37
	FALL	pCi/L	8	905	-	-	-	-	-
Tritium	WINTER	pCi/L	20000 *	906	-110±200	-	-30±220	-100±210	-190±190
	SPRING	pCi/L	20000 *	906	-30±220	20±220	b	50±180	80±180
	SUMMER	pCi/L	20000 *	906	-	-	-50±220	-	100±240
	FALL	pCi/L	20000 *	906	-	-	70±170	-	-
Uranium-235	WINTER	pCi/L	-	901.1	11±15	-	40±150	-60±150	40±150
	SPRING	pCi/L	-	901.1	0±16	-3±15	14±26	15±27	13±26
	SUMMER	pCi/L	-	901.1	-	-	9±27	-	-5±13
	FALL	pCi/L	-	901.1	-	-	-	-	-

TABLE 5.6
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
RADIOCHEMICALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	MCL	Method	UCD1-23	UCD1-24	UCD1-25	UCD1-27Z1	UCD1-27Z2
Gross Alpha	WINTER	pCi/L	15	9310	3.2±5 |C	-2±3.5 |C	-	-	-
	SPRING	pCi/L	15	9310	0.1±2.7 Jm |C	2.8±4.8 Jm |C	-	-	-
	SUMMER	pCi/L	15	9310	1.2±4 |C	-	-	-	-
	FALL	pCi/L	15	9310	-	-	-4.1±6.3 |C	-2.3±3.3 |C	-0.5±2.5 |C
Gross Beta	WINTER	pCi/L	50	9310	-0.5±4.8 |C	2.2±5.4 |C	-	-	-
	SPRING	pCi/L	50	9310	0.3±3.2 |C	0±4.6 |C	-	-	-
	SUMMER	pCi/L	50	9310	1.1±4 |C	-	-	-	-
	FALL	pCi/L	50	9310	-	-	0.4±10 |C	0±2.9 |C	2±2 |C
Actinium-228	WINTER	pCi/L	-	901.1	-13±10	-5±22	-	-	-
	SPRING	pCi/L	-	901.1	0.6±7.7	-11±5	-	-	-
	SUMMER	pCi/L	-	901.1	-3±24	-	-	-	-
	FALL	pCi/L	-	901.1	-	-	0.7±7.6	-6±13	3±13
Americium-241	WINTER	pCi/L	-	LAS108	0.008±0.05 Jm |	0±0.048 Jm |	-	-	-
	SPRING	pCi/L	-	LAS108	0.006±0.016	0.036±0.028	-	-	-
	SUMMER	pCi/L	-	LAS108	-	-	-	-	-
	FALL	pCi/L	-	LAS108	-	-	0.035±0.037	0.01±0.022	0.029±0.028
Bismuth-214	WINTER	pCi/L	-	901.1	15±15	-1±13	-	-	-
	SPRING	pCi/L	-	901.1	0.7±5.1	8.5±5.6	-	-	-
	SUMMER	pCi/L	-	901.1	11±14 Jz |	-	-	-	-
	FALL	pCi/L	-	901.1	-	-	19.2±6.8	13.4±8.2	2±7.5
Carbon-14	WINTER	pCi/L	-	LSC	184±93	45±83	-	-	-
	SPRING	pCi/L	-	LSC	230±100	18±86	-	-	-
	SUMMER	pCi/L	-	LSC	370±110	-	-	-	-
	FALL	pCi/L	-	LSC	-	-	19±74	30±85	19±84
Lead-212	WINTER	pCi/L	-	901.1	2±11	0±10	-	-	-
	SPRING	pCi/L	-	901.1	-2±5.1	-2.8±5	-	-	-
	SUMMER	pCi/L	-	901.1	-1.1±9.4	-	-	-	-
	FALL	pCi/L	-	901.1	-	-	4.8±5.3	2.8±5.6	-10.7±5.1
Lead-214	WINTER	pCi/L	-	901.1	3±13	-4.8±8.7	-	-	-
	SPRING	pCi/L	-	901.1	-0.2±4.8	2.9±4.9	-	-	-
	SUMMER	pCi/L	-	901.1	20±12 Jz |	-	-	-	-
	FALL	pCi/L	-	901.1	-	-	12.5±5.6	6.7±6.6	5.6±6.5

TABLE 5.6
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
RADIOCHEMICALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	MCL	Method	UCD1-23	UCD1-24	UCD1-25	UCD1-27Z1	UCD1-27Z2
Plutonium-241	WINTER	pCi/L	-	LAS178	-0.4±1.5	0±1.5	-	-	-
	SPRING	pCi/L	-	LAS178	-0.5±1.5 Jc |	-1.1±1.5 Jc |	-	-	-
	SUMMER	pCi/L	-	LAS178	-	-	-	-	-
	FALL	pCi/L	-	LAS178	-	-	0.5±3.5 Jl |	0.2±2.2	-0.6±2.2
Radium-226	WINTER	pCi/L	5	901.1	-10±130	-110±110	-	-	-
	SPRING	pCi/L	5	901.1	-188±59	-55±56	-	-	-
	SUMMER	-	-	901.1	-	-	-	-	-
	FALL	pCi/L	5	901.1	-	-	-4±56	-14±67	-173±68
	WINTER	pCi/L	5	903.1M	0.21±0.14	0.09±0.12	-	-	-
	SPRING	pCi/L	5	903.1M	0.15±0.14	0.18±0.13	-	-	-
	SUMMER	pCi/L	5	903.1M	0.016±0.1	-	-	-	-
	FALL	pCi/L	5	903.1M	-	-	0.14±0.11	0.085±0.091	0.45±0.16
Strontium-90	WINTER	pCi/L	8	905	-0.6±3.2	-0.6±3.1	-	-	-
	SPRING	pCi/L	8	905	-0.15±0.51 Jm |	0.36±0.49 Jm |	-	-	-
	SUMMER	pCi/L	8	905	-0.04±0.25	-	-	-	-
	FALL	pCi/L	8	905	-	-	0.38±0.66	0.15±0.68	0.32±0.6
Tritium	WINTER	pCi/L	20000 *	906	-250±180	30±220	-	-	-
	SPRING	pCi/L	20000 *	906	100±180	20±170	-	-	-
	SUMMER	pCi/L	20000 *	906	120±250	-	-	-	-
	FALL	pCi/L	20000 *	906	-	-	-80±150	-10±170	-90±160
Uranium-235	WINTER	pCi/L	-	901.1	-23±22	-2±27	-	-	-
	SPRING	pCi/L	-	901.1	3±14	1±12	-	-	-
	SUMMER	pCi/L	-	901.1	4±27	-	-	-	-
	FALL	pCi/L	-	901.1	-	-	-10.8±7.8	1±15	5±15

TABLE 5.6
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
RADIOCHEMICALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	MCL	Method	UCD1-27Z3	UCD1-34	UCD2-7	UCD2-7 D1	UCD2-14
Gross Alpha	WINTER	pCi/L	15	9310	-	-	0.9±2.5 |C	0.8±3 |C	2±3.7 |C
	SPRING	pCi/L	15	9310	-	-	4.5±3.8 |C	-	1.2±3.5 Jm |C
	SUMMER	pCi/L	15	9310	-	-	4.6±3.3 |C	-	3.1±4.9 |C
	FALL	pCi/L	15	9310	1.3±2.5 |C	8.1±4.1 |C	-	-	3.5±4.2 |C
Gross Beta	WINTER	pCi/L	50	9310	-	-	1.9±2.9 |C	2±3.2 |C	2.7±3.5 Jd |C
	SPRING	pCi/L	50	9310	-	-	1.8±3.2 |C	-	1.9±4.7 |C
	SUMMER	pCi/L	50	9310	-	-	9.6±3.7 |C	-	6.1±4.6 |C
	FALL	pCi/L	50	9310	1.9±1.9 |C	1±2.4 |C	-	-	8.8±2.8 |C
Actinium-228	WINTER	pCi/L	-	901.1	-	-	-70±120	8±12	-14±11
	SPRING	pCi/L	-	901.1	-	-	-14±15	-	29±17
	SUMMER	pCi/L	-	901.1	-	-	-3.4±5.1	-	3±18
	FALL	pCi/L	-	901.1	-2.2±7.4	4±7.8	-	-	-1.1±7.8
Americium-241	WINTER	pCi/L	-	LAS108	-	-	0.036±0.09 Jm |	0.025±0.052 Jm |	0.002±0.031 Jm |
	SPRING	pCi/L	-	LAS108	-	-	-0.024±0.042	-	0.014±0.018
	SUMMER	pCi/L	-	LAS108	-	-	-	-	0.029±0.035
	FALL	pCi/L	-	LAS108	0.012±0.021	0.018±0.02	-	-	0.037±0.03
Bismuth-214	WINTER	pCi/L	-	901.1	-	-	-42±73	-0.6±7.5	14±13
	SPRING	pCi/L	-	901.1	-	-	42±17	-	2±13
	SUMMER	pCi/L	-	901.1	-	-	25.2±7.3 Jz |	-	9±14
	FALL	pCi/L	-	901.1	9±6	13.7±6	-	-	16.1±6.5
Carbon-14	WINTER	pCi/L	-	LSC	-	-	-1±80	19±81	64±88
	SPRING	pCi/L	-	LSC	-	-	-1±82	-	460±130
	SUMMER	pCi/L	-	LSC	-	-	85±91	-	510±120
	FALL	pCi/L	-	LSC	-6±82	33±75	-	-	236±89
Lead-212	WINTER	pCi/L	-	901.1	-	-	-27±66	2.7±7.8	-4.7±9.6
	SPRING	pCi/L	-	901.1	-	-	13±10	-	3±10
	SUMMER	pCi/L	-	901.1	-	-	2.3±5.4	-	-2.9±9.8
	FALL	pCi/L	-	901.1	2.5±5	0.8±5.1	-	-	0.2±4.9
Lead-214	WINTER	pCi/L	-	901.1	-	-	-24±57	2.9±6.7	7±12
	SPRING	pCi/L	-	901.1	-	-	35±13	-	-3±11
	SUMMER	pCi/L	-	901.1	-	-	26.1±6.7 Jz |	-	23±12 Je |
	FALL	pCi/L	-	901.1	7.9±5.4	11.6±5.6	-	-	9.8±5.6

TABLE 5.6
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
RADIOCHEMICALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	MCL	Method	UCD1-27Z3	UCD1-34	UCD2-7	UCD2-35 D1	UCD2-14
Plutonium-241	WINTER	pCi/L	-	LAS178	-	-	0.8±1.6	-0.3±1.6	-0.8±1.4
	SPRING	pCi/L	-	LAS178	-	-	0.2±1.8 Jz |	-	0.6±1.5 Jc |
	SUMMER	pCi/L	-	LAS178	-	-	-	-	0.7±2.8 Jc |
	FALL	pCi/L	-	LAS178	1.5±2.2	-1.2±2.6 Jl |	-	-	-0.1±2.8 Jl |
Radium-226	WINTER	pCi/L	5	901.1	-	-	-400±750	-20±83	-350±120
	SPRING	pCi/L	5	901.1	-	-	-80±110	-	-280±120
	SUMMER	-	-	901.1	-	-	-	-	-
	FALL	pCi/L	5	901.1	-52±56	-45±55	-	-	-28±57
	WINTER	pCi/L	5	903.1M	-	-	0.07±0.13	0.24±0.14	0.46±0.26
	SPRING	pCi/L	5	903.1M	-	-	0.21±0.14	-	0.11±0.16
	SUMMER	pCi/L	5	903.1M	-	-	0.111±0.1	-	0.04±0.13
	FALL	pCi/L	5	903.1M	0.29±0.18	0.025±0.078	-	-	0.22±0.12
Strontium-90	WINTER	pCi/L	8	905	-	-	-0.8±3.8	-0.7±3.2	-0.6±1.7
	SPRING	pCi/L	8	905	-	-	0.78±0.51	-	-0.37±0.49 Jm |
	SUMMER	pCi/L	8	905	-	-	0.17±0.28	-	1.06±0.56
	FALL	pCi/L	8	905	0.07±0.46	0.38±0.65	-	-	0.5±0.62
Tritium	WINTER	pCi/L	20000 *	906	-	-	220±250	360±260	590±240
	SPRING	pCi/L	20000 *	906	-	-	40±220	-	5320±500
	SUMMER	pCi/L	20000 *	906	-	-	0±230	-	5590±600
	FALL	pCi/L	20000 *	906	-70±170	90±170	-	-	1670±320
Uranium-235	WINTER	pCi/L	-	901.1	-	-	10±170	-3±18	11±27
	SPRING	pCi/L	-	901.1	-	-	-27±17	-	15±26
	SUMMER	pCi/L	-	901.1	-	-	-3±15	-	7±28
	FALL	pCi/L	-	901.1	-2±15	-9±12	-	-	-2±15

TABLE 5.6
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
RADIOCHEMICALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	MCL	Method	UCD2-15	UCD2-16	UCD2-17	UCD2-26	UCD2-27Z4
Gross Alpha	WINTER	pCi/L	15	9310	1.2±2.8 |C	2.1±3.1 |C	46.8±9.1 |C	-	-
	SPRING	pCi/L	15	9310	1.9±2.8 |C	2.4±2.6 |C	1.2±2.2 Jm |C	-	-
	SUMMER	pCi/L	15	9310	0.6±1.8 |C	2.5±2.9 |C	-	-	-
	FALL	pCi/L	15	9310	0.5±2.7 |C	-	-	1.2±2.7 |C	-0.5±2.2 |C
Gross Beta	WINTER	pCi/L	50	9310	1±2.5 |C	0.9±2.9 |C	16.2±3.4 Jd |	-	-
	SPRING	pCi/L	50	9310	0.3±2.5 |C	1.4±2.7 |C	2.7±2	-	-
	SUMMER	pCi/L	50	9310	4.1±2.4	0.5±2.5 |C	-	-	-
	FALL	pCi/L	50	9310	0.6±2 |C	-	-	3.2±2.4 |C	0.3±1.7
Actinium-228	WINTER	pCi/L	-	901.1	100±130	5±21	-92±56	-	-
	SPRING	pCi/L	-	901.1	12±22	-5.1±7.8	-3.1±7.8	-	-
	SUMMER	pCi/L	-	901.1	-31±17	4±20	-	-	-
	FALL	pCi/L	-	901.1	-6±12	-	-	19±28	5.4±6.5
Americium-241	WINTER	pCi/L	-	LAS108	0.009±0.058 Jm |	-0.029±0.07 Jm |	-0.062±0.06 Jm |	-	-
	SPRING	pCi/L	-	LAS108	0.005±0.049	0.036±0.057	0.023±0.026	-	-
	SUMMER	pCi/L	-	LAS108	-	-	-	-	-
	FALL	pCi/L	-	LAS108	-	-	-	0.014±0.02	0.017±0.025
Bismuth-214	WINTER	pCi/L	-	901.1	-17±77	-11±11	-108±30	-	-
	SPRING	pCi/L	-	901.1	18±15	7.5±5.7	14.2±6.5	-	-
	SUMMER	pCi/L	-	901.1	6±14 Jz |	-2±12 Jz |	-	-	-
	FALL	pCi/L	-	901.1	5.4±7.1	-	-	-7±20	5.7±5
Carbon-14	WINTER	pCi/L	-	LSC	2±80	-4±79	-19±81	-	-
	SPRING	pCi/L	-	LSC	7±83	35±85	3±84	-	-
	SUMMER	pCi/L	-	LSC	-	-	-	-	-
	FALL	pCi/L	-	LSC	-	-	-	4±83	-3±82
Lead-212	WINTER	pCi/L	-	901.1	42±53	3.2±9.9	31±56	-	-
	SPRING	pCi/L	-	901.1	-6.1±9.8	-2.9±4.7	3.7±5.2	-	-
	SUMMER	pCi/L	-	901.1	1±9.5	-1±8.9	-	-	-
	FALL	pCi/L	-	901.1	0.7±5.3	-	-	-7±18	0.5±4.4
Lead-214	WINTER	pCi/L	-	901.1	-23±64	3±11	-22±62	-	-
	SPRING	pCi/L	-	901.1	28±13	8.3±5.3	9.1±5.4	-	-
	SUMMER	pCi/L	-	901.1	3±11 Jz |	8±11 Jz |	-	-	-
	FALL	pCi/L	-	901.1	2.5±6.1	-	-	-6±18	8.2±4.5

TABLE 5.6
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
RADIOCHEMICALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	MCL	Method	UCD2-15	UCD2-16	UCD2-17	UCD2-26	UCD2-27Z4
Plutonium-241	WINTER	pCi/L	-	LAS178	-0.3±1.5	-1.5±1.8	-0.3±1.2	-	-
	SPRING	pCi/L	-	LAS178	-0.2±1.8 Jz |	-0.1±1.8 Jz |	1.8±1.9 Jc |	-	-
	SUMMER	pCi/L	-	LAS178	-	-	-	-	-
	FALL	pCi/L	-	LAS178	-	-	-	0.2±2.2	0.6±2.2
Radium-226	WINTER	pCi/L	5	901.1	150±650	-50±110	-2560±730	-	-
	SPRING	pCi/L	5	901.1	10±120	-52±57	-337±67	-	-
	SUMMER	-	-	901.1	-	-	-	-	-
	FALL	pCi/L	5	901.1	-80±64	-	-	-290±210	27±49
	WINTER	pCi/L	5	903.1M	0.22±0.2	0.32±0.18	0.22±0.2	-	-
	SPRING	pCi/L	5	903.1M	0.098±0.098	0±0.08	0.16±0.13	-	-
	SUMMER	pCi/L	5	903.1M	0.082±0.096	0.065±0.1	-	-	-
	FALL	pCi/L	5	903.1M	0.122±0.1	-	-	0.66±0.34	0.18±0.13
Strontium-90	WINTER	pCi/L	8	905	-0.5±3.9	-0.7±3.7	-0.2±1.5	-	-
	SPRING	pCi/L	8	905	0.27±0.46	0.75±0.49	0.14±0.55 Jm |	-	-
	SUMMER	pCi/L	8	905	-0.02±0.28	0.13±0.26	-	-	-
	FALL	pCi/L	8	905	-0.1±0.81	-	-	0.59±0.59	0.13±0.27
Tritium	WINTER	pCi/L	20000 *	906	140±240	250±250	40±180	-	-
	SPRING	pCi/L	20000 *	906	-40±210	-40±220	40±170	-	-
	SUMMER	pCi/L	20000 *	906	10±230	20±230	-	-	-
	FALL	pCi/L	20000 *	906	10±170	-	-	-60±170	10±170
Uranium-235	WINTER	pCi/L	-	901.1	-120±100	-4±22	180±150	-	-
	SPRING	pCi/L	-	901.1	-13±27	-4±15	22±15	-	-
	SUMMER	pCi/L	-	901.1	-29±15	-20.6±7.4	-	-	-
	FALL	pCi/L	-	901.1	4±14	-	-	26±51	-15±10

TABLE 5.6
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
RADIOCHEMICALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	MCL	Method	UCD2-27Z5	UCD2-27Z6	UCD2-27Z7	UCD2-35
Gross Alpha	WINTER	pCi/L	15	9310	-	-	-	-
	SPRING	pCi/L	15	9310	-	-	-	-
	SUMMER	pCi/L	15	9310	-	-	-	-
	FALL	pCi/L	15	9310	1.1±2.2 |C	0.2±2.4 |C	2.1±2.9 |C	1.3±2.4 |C
Gross Beta	WINTER	pCi/L	50	9310	-	-	-	-
	SPRING	pCi/L	50	9310	-	-	-	-
	SUMMER	pCi/L	50	9310	-	-	-	-
	FALL	pCi/L	50	9310	0.4±1.4	0.7±1.7	1.1±1.8 |C	2.2±2 |C
Actinium-228	WINTER	pCi/L	-	901.1	-	-	-	-
	SPRING	pCi/L	-	901.1	-	-	-	-
	SUMMER	pCi/L	-	901.1	-	-	-	-
	FALL	pCi/L	-	901.1	3.7±7.6	0.1±7.3	-0.6±7.3	7.2±7.4
Americium-241	WINTER	pCi/L	-	LAS108	-	-	-	-
	SPRING	pCi/L	-	LAS108	-	-	-	-
	SUMMER	pCi/L	-	LAS108	-	-	-	-
	FALL	pCi/L	-	LAS108	0.024±0.029	0.014±0.02	0.039±0.032	0.023±0.026
Bismuth-214	WINTER	pCi/L	-	901.1	-	-	-	-
	SPRING	pCi/L	-	901.1	-	-	-	-
	SUMMER	pCi/L	-	901.1	-	-	-	-
	FALL	pCi/L	-	901.1	8.3±6	24.2±7.2	9.3±5.8	5.1±5.6
Carbon-14	WINTER	pCi/L	-	LSC	-	-	-	-
	SPRING	pCi/L	-	LSC	-	-	-	-
	SUMMER	pCi/L	-	LSC	-	-	-	-
	FALL	pCi/L	-	LSC	-3±82	23±84	12±84	19±74
Lead-212	WINTER	pCi/L	-	901.1	-	-	-	-
	SPRING	pCi/L	-	901.1	-	-	-	-
	SUMMER	pCi/L	-	901.1	-	-	-	-
	FALL	pCi/L	-	901.1	2.6±5.1	-0.7±5.1	1±5	-1±5
Lead-214	WINTER	pCi/L	-	901.1	-	-	-	-
	SPRING	pCi/L	-	901.1	-	-	-	-
	SUMMER	pCi/L	-	901.1	-	-	-	-
	FALL	pCi/L	-	901.1	9.5±5.4	26.8±6.6	6.9±5.3	2.3±5.1

TABLE 5.6
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
RADIOCHEMICALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	MCL	Method	UCD2-27Z5	UCD2-27Z6	UCD2-27Z7	UCD2-35
Plutonium-241	WINTER	pCi/L	-	LAS178	-	-	-	-
	SPRING	pCi/L	-	LAS178	-	-	-	-
	SUMMER	pCi/L	-	LAS178	-	-	-	-
	FALL	pCi/L	-	LAS178	-0.1±1.9	0.6±1.9	0.8±2.2	3.3±3.7 J1 |
Radium-226	WINTER	pCi/L	5	901.1	-	-	-	-
	SPRING	pCi/L	5	901.1	-	-	-	-
	SUMMER	-	-	901.1	-	-	-	-
	FALL	pCi/L	5	901.1	32±58	-7±55	18±57	-5±55
	WINTER	pCi/L	5	903.1M	-	-	-	-
	SPRING	pCi/L	5	903.1M	-	-	-	-
	SUMMER	pCi/L	5	903.1M	-	-	-	-
	FALL	pCi/L	5	903.1M	0.05±0.11	0.1±0.12	1.05±0.3	0.69±0.19
Strontium-90	WINTER	pCi/L	8	905	-	-	-	-
	SPRING	pCi/L	8	905	-	-	-	-
	SUMMER	pCi/L	8	905	-	-	-	-
	FALL	pCi/L	8	905	-0.05±0.28	0.03±0.26	-0.06±0.26	-0.12±0.65
Tritium	WINTER	pCi/L	20000 *	906	-	-	-	-
	SPRING	pCi/L	20000 *	906	-	-	-	-
	SUMMER	pCi/L	20000 *	906	-	-	-	-
	FALL	pCi/L	20000 *	906	-90±160	-140±160	110±190	20±160
Uranium-235	WINTER	pCi/L	-	901.1	-	-	-	-
	SPRING	pCi/L	-	901.1	-	-	-	-
	SUMMER	pCi/L	-	901.1	-	-	-	-
	FALL	pCi/L	-	901.1	-11±12	-8.4±4.1	-12.1±8.8	-4±15

TABLE 5.6
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
RADIOCHEMICALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1 = Duplicate sample.
- = Not analyzed.
MCL = Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
* = Proposed MCL for Tritium is 60000 pCi/L.
a = Reported tritium activity of 50 pCi/L is suspected to belong to UCD1-20. The tritium activity for UCD1-20 was reported as 16,600 pCi/L, whicl more consistent with the historical trend for UCD1-13.
b = Reported tritium activity of 16,600 pCi/L is suspected to belong to UCD1-13. The tritium activity for UCD1-13 was reported as 50 pCi/L, whicl more consistent with the hlstorical trend for UCD1-20.

Highlighted values indicate results where the value is greater than the calculated uncertainty.

Note: Radionuclide results are reported as calculated value, V, followed by the total uncertainty, T, in the format V±T. A calculated value that equal: the uncertainty ("positive value") represents 95% level of confidence that measurable radioactivity above zero is present for a given radionucli

See Appendix A for explanation of data qualifiers.

TABLE 5.7
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-1	UCD1-1 D1	UCD1-4	UCD1-10	UCD1-11	UCD1-12
Ammonia-Nitrogen	WINTER	mg/L	0.05	-	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.5
	SPRING	mg/L	0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	SUMMER	mg/L	0.05	-	-	-	-	-	-	-
	FALL	mg/L	0.05	-	-	-	-	-	-	-
Calcium	WINTER	mg/L	2	-	62	-	44	45.6	44.6	74
	SPRING	mg/L	2	-	62.5	62.7	58.2	47	48.4	71.7
	SUMMER	mg/L	2	-	-	-	-	-	-	-
	FALL	mg/L	2	-	-	-	-	-	-	-
Chloride	WINTER	mg/L	1	250 S	6.2	-	42	39	70	220
	SPRING	mg/L	1	250 S	7.8	7.7	35	38	92	180
	SUMMER	mg/L	1	250 S	-	-	-	-	-	-
	FALL	mg/L	1	250 S	-	-	-	-	-	-
Magnesium	WINTER	mg/L	2	-	154	-	75.5	170	116	227
	SPRING	mg/L	2	-	153	154	111	177	127	218
	SUMMER	mg/L	2	-	-	-	-	-	-	-
	FALL	mg/L	2	-	-	-	-	-	-	-
Nitrogen, Nitrate (as N)	WINTER	mg/L	0.1	10 #	17	-	1.2	36	27	65
	SPRING	mg/L	0.1	10 #	16	16	6.1	36	30	58
	SUMMER	mg/L	0.1	10 #	17	-	7.3	37	27	72
	FALL	mg/L	0.1	10 #	-	-	2.4	36	-	59
Potassium	WINTER	mg/L	2	-	< 2 IU	-	0.791 IB	1.51 IB	< 2 IU	2.01
	SPRING	mg/L	2	-	< 2 IU	< 2 IU	< 2 IU	0.862 IB	< 2 IU	1.48 IB
	SUMMER	mg/L	2	-	-	-	-	-	-	-
	FALL	mg/L	2	-	-	-	-	-	-	-
Sodium	WINTER	mg/L	2	-	35.4	-	33.7	160	71.8	103
	SPRING	mg/L	2	-	33.5	33.7	40.5	168	78.5	96.3
	SUMMER	mg/L	2	-	-	-	-	-	-	-
	FALL	mg/L	2	-	-	-	-	-	-	-
Sulfate	WINTER	mg/L	1	250 S	27	-	34	290	43	91
	SPRING	mg/L	1	250 S	27	27	40	270	43	78
	SUMMER	mg/L	1	250 S	-	-	-	-	-	-
	FALL	mg/L	1	250 S	-	-	-	-	-	-

TABLE 5.7
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-12 D1	UCD1-12 D2	UCD1-13	UCD1-13 D1	UCD1-18	UCD1-18 D1
Ammonia-Nitrogen	WINTER	mg/L	0.05	-	-	-	4.4	-	< 0.05	< 0.05
	SPRING	mg/L	0.05	-	-	-	< 0.05	-	< 0.05	-
	SUMMER	mg/L	0.05	-	-	-	-	-	-	-
	FALL	mg/L	0.05	-	-	-	-	-	-	-
Calcium	WINTER	mg/L	2	-	-	-	73.2	-	39.5	40.2
	SPRING	mg/L	2	-	-	-	75.4	-	46.1	-
	SUMMER	mg/L	2	-	-	-	-	-	-	-
	FALL	mg/L	2	-	-	-	-	-	-	-
Chloride	WINTER	mg/L	1	250 S	-	-	39	-	43	44
	SPRING	mg/L	1	250 S	-	-	36	-	39	-
	SUMMER	mg/L	1	250 S	-	-	-	-	-	-
	FALL	mg/L	1	250 S	-	-	-	-	-	-
Magnesium	WINTER	mg/L	2	-	-	-	187	-	96.9	97.7
	SPRING	mg/L	2	-	-	-	191	-	112	-
	SUMMER	mg/L	2	-	-	-	-	-	-	-
	FALL	mg/L	2	-	-	-	-	-	-	-
Nitrogen, Nitrate (as N)	WINTER	mg/L	0.1	10 #	-	-	19	-	14	14
	SPRING	mg/L	0.1	10 #	-	-	17	-	19	-
	SUMMER	mg/L	0.1	10 #	-	-	-	-	23	-
	FALL	mg/L	0.1	10 #	-	-	-	-	-	-
Potassium	WINTER	mg/L	2	-	-	-	1.01 |B	-	< 2 |U	< 2 |U
	SPRING	mg/L	2	-	-	-	1.4 |B	-	0.942 |B	-
	SUMMER	mg/L	2	-	-	-	-	-	-	-
	FALL	mg/L	2	-	-	-	-	-	-	-
Sodium	WINTER	mg/L	2	-	-	-	58.4	-	39.7	39.9
	SPRING	mg/L	2	-	-	-	58.9	-	42.3	-
	SUMMER	mg/L	2	-	-	-	-	-	-	-
	FALL	mg/L	2	-	-	-	-	-	-	-
Sulfate	WINTER	mg/L	1	250 S	-	-	81	-	39	39
	SPRING	mg/L	1	250 S	-	-	73	-	38	-
	SUMMER	mg/L	1	250 S	-	-	-	-	-	-
	FALL	mg/L	1	250 S	-	-	-	-	-	-

TABLE 5.7
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-19	UCD1-19 D1	UCD1-20	UCD1-21	UCD1-22	UCD1-23
Ammonia-Nitrogen	WINTER	mg/L	0.05	-	0.1	-	< 0.05	< 0.05	< 0.05	< 0.05
	SPRING	mg/L	0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	SUMMER	mg/L	0.05	-	-	-	-	-	-	-
	FALL	mg/L	0.05	-	-	-	-	-	-	-
Calcium	WINTER	mg/L	2	-	57.9	-	25.2	54.9	36.5	46.3
	SPRING	mg/L	2	-	60.1	60	25.4	56.6	38.8	51.7
	SUMMER	mg/L	2	-	-	-	-	-	-	-
	FALL	mg/L	2	-	-	-	-	-	-	-
Chloride	WINTER	mg/L	1	250 S	16	-	2.6	18	37	24
	SPRING	mg/L	1	250 S	19	19	2.5	18	39	24
	SUMMER	mg/L	1	250 S	-	-	-	-	-	-
	FALL	mg/L	1	250 S	-	-	-	-	-	-
Magnesium	WINTER	mg/L	2	-	164	-	62.2	136	72.3	110
	SPRING	mg/L	2	-	170	166	62.3	140	77.1	122
	SUMMER	mg/L	2	-	-	-	-	-	-	-
	FALL	mg/L	2	-	-	-	-	-	-	-
Nitrogen, Nitrate (as N)	WINTER	mg/L	0.1	10 #	16	-	6.4	56	4.5	8.8
	SPRING	mg/L	0.1	10 #	19	19	6.1	56	5	11
	SUMMER	mg/L	0.1	10 #	-	-	-	-	-	-
	FALL	mg/L	0.1	10 #	-	-	-	-	-	-
Potassium	WINTER	mg/L	2	-	< 2 |U	-	< 2 |U	1.07 |B	0.995 |B	0.779 |B
	SPRING	mg/L	2	-	0.73 |B	1.13 |B	< 2 |U	0.879 |B	1.46 |B	0.793 |B
	SUMMER	mg/L	2	-	-	-	-	-	-	-
	FALL	mg/L	2	-	-	-	-	-	-	-
Sodium	WINTER	mg/L	2	-	67.5	-	36.8	92.9	88.7	42.7
	SPRING	mg/L	2	-	74.1	74	36.7	96.5	97.6	45.2
	SUMMER	mg/L	2	-	-	-	-	-	-	-
	FALL	mg/L	2	-	-	-	-	-	-	-
Sulfate	WINTER	mg/L	1	250 S	57	-	24	58	33	30
	SPRING	mg/L	1	250 S	59	59	27	61	32	30
	SUMMER	mg/L	1	250 S	-	-	-	-	-	-
	FALL	mg/L	1	250 S	-	-	-	-	-	-

TABLE 5.7
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-24	UCD1-25	UCD1-27Z1	UCD1-27Z2	UCD1-27Z3	UCD1-34
Ammonia-Nitrogen	WINTER	mg/L	0.05	-	< 0.05	-	-	-	-	-
	SPRING	mg/L	0.05	-	< 0.05	-	-	-	-	-
	SUMMER	mg/L	0.05	-	-	-	-	-	-	-
	FALL	mg/L	0.05	-	-	-	-	-	-	-
Calcium	WINTER	mg/L	2	-	51.9	-	-	-	-	-
	SPRING	mg/L	2	-	58.7	-	-	-	-	-
	SUMMER	mg/L	2	-	-	-	-	-	-	-
	FALL	mg/L	2	-	-	49.4	34.5	39	39.6	35.5
Chloride	WINTER	mg/L	1	250 S	28	-	-	-	-	-
	SPRING	mg/L	1	250 S	31	-	-	-	-	-
	SUMMER	mg/L	1	250 S	-	-	-	-	-	-
	FALL	mg/L	1	250 S	-	-	-	-	-	-
Magnesium	WINTER	mg/L	2	-	131	-	-	-	-	-
	SPRING	mg/L	2	-	147	-	-	-	-	-
	SUMMER	mg/L	2	-	-	-	-	-	-	-
	FALL	mg/L	2	-	-	145 Jk |E	49.3	64.9	62.9	65 Jk |E
Nitrogen, Nitrate (as N)	WINTER	mg/L	0.1	10 #	63	-	-	-	-	-
	SPRING	mg/L	0.1	10 #	65	-	-	-	-	-
	SUMMER	mg/L	0.1	10 #	-	-	-	-	-	-
	FALL	mg/L	0.1	10 #	-	13	< 0.1	< 0.1	< 0.1	0.16
Potassium	WINTER	mg/L	2	-	0.954 |B	-	-	-	-	-
	SPRING	mg/L	2	-	0.799 |B	-	-	-	-	-
	SUMMER	mg/L	2	-	-	-	-	-	-	-
	FALL	mg/L	2	-	-	1.52 |B	2.25 |B	1.26 |B	1.48 |B	1.79 |B
Sodium	WINTER	mg/L	2	-	74.2	-	-	-	-	-
	SPRING	mg/L	2	-	82.3	-	-	-	-	-
	SUMMER	mg/L	2	-	-	-	-	-	-	-
	FALL	mg/L	2	-	-	80.1	191	81.7	72.7	54.5
Sulfate	WINTER	mg/L	1	250 S	45	-	-	-	-	-
	SPRING	mg/L	1	250 S	40	-	-	-	-	-
	SUMMER	mg/L	1	250 S	-	-	-	-	-	-
	FALL	mg/L	1	250 S	-	-	-	-	-	-

TABLE 5.7
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-7	UCD2-7 D1	UCD2-14	UCD2-14 D1	UCD2-15	UCD2-16
Ammonia-Nitrogen	WINTER	mg/L	0.05	-	< 0.05	0.26	< 0.05	-	0.064	< 0.05
	SPRING	mg/L	0.05	-	< 0.05	-	< 0.05	-	< 0.05	< 0.05
	SUMMER	mg/L	0.05	-	-	-	-	-	-	-
	FALL	mg/L	0.05	-	-	-	-	-	-	-
Calcium	WINTER	mg/L	2	-	36.4	36.2	39	-	35.2	37.6
	SPRING	mg/L	2	-	38.5	-	60.2	-	38.5	37.6
	SUMMER	mg/L	2	-	-	-	58.5	60.1	-	38.8
	FALL	mg/L	2	-	-	-	43.3	-	-	36.9
Chloride	WINTER	mg/L	1	250 S	21	21	34	-	19	18
	SPRING	mg/L	1	250 S	23	-	32	-	23	18
	SUMMER	mg/L	1	250 S	-	-	-	-	-	-
	FALL	mg/L	1	250 S	-	-	-	-	-	-
Magnesium	WINTER	mg/L	2	-	78.7	77.8	85.4	-	60.8	63.9
	SPRING	mg/L	2	-	86.4	-	146	-	66.8	66.3
	SUMMER	mg/L	2	-	-	-	137	142	-	66.4
	FALL	mg/L	2	-	-	-	101 Jk IE	-	-	65.1 Jk IE
Nitrogen, Nitrate (as N)	WINTER	mg/L	0.1	10 #	12	10	4.5	-	2.1	4.1
	SPRING	mg/L	0.1	10 #	12	-	9.9	-	2.7	3.9
	SUMMER	mg/L	0.1	10 #	21	-	11	11	2	4.5
	FALL	mg/L	0.1	10 #	-	-	5.3	-	1.8	-
Potassium	WINTER	mg/L	2	-	0.698 IB	0.867 IB	0.722 IB	-	0.931 IB	0.907 IB
	SPRING	mg/L	2	-	< 2 IU	-	0.718 IB	-	< 2 IU	< 2 IU
	SUMMER	mg/L	2	-	-	-	0.918 IB	< 2 IU	-	< 2 IU
	FALL	mg/L	2	-	-	-	0.535 IB	-	-	< 2 IU
Sodium	WINTER	mg/L	2	-	47.1	46.1	41.4	-	28.4	41.5
	SPRING	mg/L	2	-	51.5	-	48.4	-	30.9	43.6
	SUMMER	mg/L	2	-	-	-	45	47.1	-	43.3
	FALL	mg/L	2	-	-	-	42.6	-	-	41.2
Sulfate	WINTER	mg/L	1	250 S	41	40	51	-	38	42
	SPRING	mg/L	1	250 S	43	-	64	-	42	42
	SUMMER	mg/L	1	250 S	-	-	-	-	-	-
	FALL	mg/L	1	250 S	-	-	-	-	-	-

TABLE 5.7
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-17	UCD2-26	UCD2-27Z4	UCD2-27Z5	UCD2-27Z6	UCD2-27Z7
Ammonia-Nitrogen	WINTER	mg/L	0.05	-	< 0.05	-	-	-	-	-
	SPRING	mg/L	0.05	-	< 0.05	-	-	-	-	-
	SUMMER	mg/L	0.05	-	-	-	-	-	-	-
	FALL	mg/L	0.05	-	-	-	-	-	-	-
Calcium	WINTER	mg/L	2	-	36.4	-	-	-	-	-
	SPRING	mg/L	2	-	37.3	-	-	-	-	-
	SUMMER	mg/L	2	-	-	-	-	-	-	-
	FALL	mg/L	2	-	-	36.5	30.2	35.3	35.9	33.8
Chloride	WINTER	mg/L	1	250 S	20	-	-	-	-	-
	SPRING	mg/L	1	250 S	16	-	-	-	-	-
	SUMMER	mg/L	1	250 S	-	-	-	-	-	-
	FALL	mg/L	1	250 S	-	-	-	-	-	-
Magnesium	WINTER	mg/L	2	-	61.1	-	-	-	-	-
	SPRING	mg/L	2	-	62.3	-	-	-	-	-
	SUMMER	mg/L	2	-	-	-	-	-	-	-
	FALL	mg/L	2	-	-	66.5 Jk |E	64.2	67	61	58.1
Nitrogen, Nitrate (as N)	WINTER	mg/L	0.1	10 #	2.1	-	-	-	-	-
	SPRING	mg/L	0.1	10 #	1.6	-	-	-	-	-
	SUMMER	mg/L	0.1	10 #	1.4	-	-	-	-	-
	FALL	mg/L	0.1	10 #	-	3.1	0.6	2.4	1.4	1.2
Potassium	WINTER	mg/L	2	-	< 2 |U	-	-	-	-	-
	SPRING	mg/L	2	-	< 2 |U	-	-	-	-	-
	SUMMER	mg/L	2	-	-	-	-	-	-	-
	FALL	mg/L	2	-	-	1.56 |B	1.12 |B	1.01 |B	< 2 |U	0.888 |B
Sodium	WINTER	mg/L	2	-	30.7	-	-	-	-	-
	SPRING	mg/L	2	-	30.3	-	-	-	-	-
	SUMMER	mg/L	2	-	-	-	-	-	-	-
	FALL	mg/L	2	-	-	36.7	39.4	34.6	41.8	51.9
Sulfate	WINTER	mg/L	1	250 S	39	-	-	-	-	-
	SPRING	mg/L	1	250 S	34	-	-	-	-	-
	SUMMER	mg/L	1	250 S	-	-	-	-	-	-
	FALL	mg/L	1	250 S	-	-	-	-	-	-

TABLE 5.7
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-35
Ammonia-Nitrogen	WINTER	mg/L	0.05	-	-
	SPRING	mg/L	0.05	-	-
	SUMMER	mg/L	0.05	-	-
	FALL	mg/L	0.05	-	-
Calcium	WINTER	mg/L	2	-	-
	SPRING	mg/L	2	-	-
	SUMMER	mg/L	2	-	-
	FALL	mg/L	2	-	37.2
Chloride	WINTER	mg/L	1	250 S	-
	SPRING	mg/L	1	250 S	-
	SUMMER	mg/L	1	250 S	-
	FALL	mg/L	1	250 S	-
Magnesium	WINTER	mg/L	2	-	-
	SPRING	mg/L	2	-	-
	SUMMER	mg/L	2	-	-
	FALL	mg/L	2	-	63.8 Jk |E
Nitrogen, Nitrate (as N)	WINTER	mg/L	0.1	10 #	-
	SPRING	mg/L	0.1	10 #	-
	SUMMER	mg/L	0.1	10 #	-
	FALL	mg/L	0.1	10 #	1.2
Potassium	WINTER	mg/L	2	-	-
	SPRING	mg/L	2	-	-
	SUMMER	mg/L	2	-	-
	FALL	mg/L	2	-	0.982 |B
Sodium	WINTER	mg/L	2	-	-
	SPRING	mg/L	2	-	-
	SUMMER	mg/L	2	-	-
	FALL	mg/L	2	-	33.3
Sulfate	WINTER	mg/L	1	250 S	-
	SPRING	mg/L	1	250 S	-
	SUMMER	mg/L	1	250 S	-
	FALL	mg/L	1	250 S	-

TABLE 5.7
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1, D2 = Duplicate sample.
- = Parameter not analyzed or no MCL.
DL = Detection limit.
< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.
MCL = Maximum Contaminant Level (primary), Title 22 Division 4 Chapter 15.
 # = USEPA MCL
S = Secondary drinking water standard.

Highlighted values indicate positive results.

See Appendix A for explanation of data qualifiers.

TABLE 5.8
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-1	UCD1-1 D1	UCD1-4	UCD1-10	UCD1-11	UCD1-12
Alkalinity Total (as CaCO3)	WINTER	mg/L	-	-	730		410	650	550	690
	SPRING	mg/L	-	-	770	750	530	740	500	750
	SUMMER	mg/L	-	-	-	-	-	-	-	-
	FALL	mg/L	-	-	-	-	-	-	-	-
Total Dissolved Solids	WINTER	mg/L	20	500 S	860		500	1300	810	1500
	SPRING	mg/L	20	500 S	830	810	640	1300	830	1300
	SUMMER	mg/L	20	500 S	-		670	1300		1700
	FALL	mg/L	20	500 S	-		550	1300		1400
Total Organic Carbon	WINTER	mg/L	-	-	< 1		1.7	2.5	1.9	2.8
	SPRING	mg/L	-	-	< 1	< 1	< 1	1.7	< 1	1.6
	SUMMER	mg/L	-	-	-	-	-	-	-	-
	FALL	mg/L	-	-	-	-	-	-	-	-
Turbidity	WINTER	NTU	0.1	-	1.4	-	7.9	2.3	0.16	4.7
	SPRING	NTU	0.1	-	0.62	0.59	2.8	0.79	0.34	1.1
	SUMMER	NTU	0.1	-	21.2	-	19.2	1.7	2	8.9
	FALL	NTU	0.1	-	0.72	-	1.09	0.61	-	0.4

Parameter	Quarter	Units	DL	MCL	UCD1-12 D1	UCD1-12 D2	UCD1-13	UCD1-13 D1	UCD1-18	UCD1-18 D1
Alkalinity Total (as CaCO3)	WINTER	mg/L	-	-	-	-	460	-	400	380
	SPRING	mg/L	-	-	-	-	860	-	460	-
	SUMMER	mg/L	-	-	-	-	-	-	-	-
	FALL	mg/L	-	-	-	-	-	-	-	-
Total Dissolved Solids	WINTER	mg/L	20	500 S	-	-	1100	-	610	620
	SPRING	mg/L	20	500 S	-	-	1000	-	660 |C	-
	SUMMER	mg/L	20	500 S	-	-	1200	-	-	-
	FALL	mg/L	20	500 S	-	-	1100	1000	-	-
Total Organic Carbon	WINTER	mg/L	-	-	-	-	1.1	-	1	1
	SPRING	mg/L	-	-	-	-	-	-	-	-
	SUMMER	mg/L	-	-	-	-	-	-	-	-
	FALL	mg/L	-	-	-	-	-	-	-	-
Turbidity	WINTER	NTU	0.1	-	-	-	0.52	-	1.7	1.7
	SPRING	NTU	0.1	-	-	-	0.24	-	0.89	-
	SUMMER	NTU	0.1	-	8.9	-	0.43	-	9.47	-
	FALL	NTU	0.1	-	-	-	0.7	-	-	-

TABLE 5.8
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD1-19	UCD1-19 D1	UCD1-20	UCD1-21	UCD1-22	UCD1-23
Alkalinity Total (as CaCO3)	WINTER	mg/L	-	-	820	-	330	590	470	550
	SPRING	mg/L	-	-	820	870	330	620	530	600
	SUMMER	mg/L	-	-	-	-	-	-	-	-
	FALL	mg/L	-	-	-	-	-	-	-	-
Total Dissolved Solids	WINTER	mg/L	20	500 S	1000 H	-	420	1000	610	670
	SPRING	mg/L	20	500 S	950	940	380	1000 C	600 C	690
	SUMMER	mg/L	20	500 S	-	-	-		580	-
	FALL	mg/L	20	500 S	-	-	-		-	-
Total Organic Carbon	WINTER	mg/L	-	-	1.8	-	1.2	1.6	1.9	1.6
	SPRING	mg/L	-	-	< 1	< 1	< 1	< 1	< 1	< 1
	SUMMER	mg/L	-	-	-	-	-	-	-	-
	FALL	mg/L	-	-	-	-	-	-	-	-
Turbidity	WINTER	NTU	0.1	-	0.42	-	< 0.1	0.18	0.55	< 0.1
	SPRING	NTU	0.1	-	< 0.1	0.69	0.17	0.12	0.24	< 0.1
	SUMMER	NTU	0.1	-	0.55	-	3.07	-	4.08	9.26
	FALL	NTU	0.1	-	0.73	-	1.58	-	-	-

Parameter	Quarter	Units	DL	MCL	UCD1-24	UCD1-25	UCD1-27Z1	UCD1-27Z2	UCD1-27Z3	UCD1-34
Alkalinity Total (as CaCO3)	WINTER	mg/L	-	-	510					
	SPRING	mg/L	-	-	560					
	SUMMER	mg/L	-	-	-	-	-	-	-	-
	FALL	mg/L	-	-	-	-	-	-	-	-
Total Dissolved Solids	WINTER	mg/L	20	500 S	970					
	SPRING	mg/L	20	500 S	1100					
	SUMMER	mg/L	20	500 S						
	FALL	mg/L	20	500 S		860	940	460	490	470
Total Organic Carbon	WINTER	mg/L	-	-	1.5					
	SPRING	mg/L	-	-	< 1					
	SUMMER	mg/L	-	-	-	-	-	-	-	-
	FALL	mg/L	-	-	-	-	-	-	-	-
Turbidity	WINTER	NTU	0.1	-	< 0.1					
	SPRING	NTU	0.1	-	< 0.1					
	SUMMER	NTU	0.1	-						
	FALL	NTU	0.1	-		10.85	11.23	1.6	9.81	20.1

TABLE 5.8
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-7	UCD2-7 D1	UCD2-14	UCD2-14 D1	UCD2-15	UCD2-16
Alkalinity Total (as CaCO3)	WINTER	mg/L	-	-	380	400	420	-	310	350
	SPRING	mg/L	-	-	520		700	-	340	380
	SUMMER	mg/L	-	-	-	-	-	-	-	-
	FALL	mg/L	-	-	-	-	-	-	-	-
Total Dissolved Solids	WINTER	mg/L	20	500 S	550	530	530	-	420 |H	480 |H
	SPRING	mg/L	20	500 S	550	-	840	-	410	440
	SUMMER	mg/L	20	500 S	-	-	860	850	410	470
	FALL	mg/L	20	500 S	-	-	600	-	420	430
Total Organic Carbon	WINTER	mg/L	-	-	2.1	1.4	< 1	-	1.6	1.5
	SPRING	mg/L	-	-	< 1	-	< 1	-	< 1	< 1
	SUMMER	mg/L	-	-	-	-	-	-	-	-
	FALL	mg/L	-	-	-	-	-	-	-	-
Turbidity	WINTER	NTU	0.1	-	< 0.1	< 0.1	0.24	-	< 0.1	0.12
	SPRING	NTU	0.1	-	0.14	-	< 0.1	-	< 0.1	< 0.1
	SUMMER	NTU	0.1	-	0.68	-	1.98	1.98	0.75	0.12
	FALL	NTU	0.1	-	-	-	0.33	-	0.2	3.35

Parameter	Quarter	Units	DL	MCL	UCD2-17	UCD2-26	UCD2-27Z4	UCD2-27Z5	UCD2-27Z6	UCD2-27Z7
Alkalinity Total (as CaCO3)	WINTER	mg/L	-	-	320					
	SPRING	mg/L	-	-	330					
	SUMMER	mg/L	-	-	-	-	-	-	-	-
	FALL	mg/L	-	-	-	-	-	-	-	-
Total Dissolved Solids	WINTER	mg/L	20	500 S	420					
	SPRING	mg/L	20	500 S	410 |C					
	SUMMER	mg/L	20	500 S						
	FALL	mg/L	20	500 S		420	410	450	440	440
Total Organic Carbon	WINTER	mg/L	-	-	< 1					
	SPRING	mg/L	-	-	< 1					
	SUMMER	mg/L	-	-	-	-	-	-	-	-
	FALL	mg/L	-	-	-	-	-	-	-	-
Turbidity	WINTER	NTU	0.1	-	< 0.1					
	SPRING	NTU	0.1	-	< 0.1					
	SUMMER	NTU	0.1	-	2.83					
	FALL	NTU	0.1	-	-	5.1	1.5	0.28	0.56	0.62

TABLE 5.8
SUMMARY OF DETECTED CONSTITUENTS IN GROUNDWATER, 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	UCD2-35
Alkalinity Total (as CaCO3)	WINTER	mg/L	-	-	-
	SPRING	mg/L	-	-	-
	SUMMER	mg/L	-	-	-
	FALL	mg/L	-	-	-
Total Dissolved Solids	WINTER	mg/L	20	500 S	-
	SPRING	mg/L	20	500 S	-
	SUMMER	mg/L	20	500 S	-
	FALL	mg/L	20	500 S	460
Total Organic Carbon	WINTER	mg/L	-	-	-
	SPRING	mg/L	-	-	-
	SUMMER	mg/L	-	-	-
	FALL	mg/L	-	-	-
Turbidity	WINTER	NTU	0.1	-	-
	SPRING	NTU	0.1	-	-
	SUMMER	NTU	0.1	-	-
	FALL	NTU	0.1	-	19.9

D1 = Duplicate sample.
- = Parameter not analyzed or no MCL.
DL = Detection limit.
< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.
MCL = Maximum Contaminant Level (primary), Title 22 Division 4 Chapter 15.
S = Secondary drinking water standard.

Highlighted values indicate positive results.

See Appendix A for explanation of data qualifiers.

Table 5.9. Major Ion Groundwater Chemistry (weight basis) - LEHR Facility

Site ID		Calcium mg/L	Magnesium mg/L	Sodium mg/L	Potassium mg/L	Alkalinity as $CaCO_3$ mg/L	Sulfate mg/L	Chloride mg/L	Nitrate as N mg/L	Phosphate as P mg/L
Upper HSU (HSU-1)	UCD1-18	35.9	89.1	38.0	1.26	413	37.8	33.4	11.6	0.56
	UCD1-01	56.5	139	35.2	1.15	707	36.6	10.8	14.8	0.65
	UCD1-04	51.3	101	36.3	1.10	497	40.7	40.4	4.5	0.68
	UCD1-10	45.5	161	159.7	1.37	680	369	38.0	29.0	0.63
	UCD1-11	41.6	110	72.7	1.27	507	56.5	59.7	24.5	0.67
	UCD1-12	78.0	258	94.9	3.88	644	89.7	240	64.3	0.62
	UCD1-13	69.1	181	56.5	2.95	745	94.1	37.7	16.5	0.66
	UCD1-19	48.9	136	66.6	1.49	721	64.8	16.9	13.1	0.61
	UCD1-20	33.1	85.5	43.2	1.58	433	40.7	8.1	18.1	0.61
	UCD1-21	50.3	136	92.5	1.50	613	67.3	20.5	46.4	0.60
	UCD1-22	31.9	66.4	83.0	1.60	433	35.4	35.5	9.4	0.55
	UCD1-23	40.0	97.2	41.1	1.08	492	30.9	30.4	7.0	0.60
	UCD1-24	46.2	119	72.2	1.36	520	52.8	25.8	49.4	0.61
Lower HSU (HSU-2)	UCD2-17	32.8	60.3	26.8	0.80	336	35.3	17.6	2.0	0.51
	UCD2-07	36.5	83.0	48.0	1.00	404	40.3	23.4	18.7	0.54
	UCD2-14	47.1	112	43.6	0.90	535	64.5	34.8	7.6	0.62
	UCD2-15	35.9	62.8	28.6	0.93	332	34.7	20.2	2.6	0.52
	UCD2-16	33.8	62.9	41.5	1.24	358	43.2	18.5	3.5	0.51

Notes:
1. Each concentration represents the mean of as many as 21 sampling events beginning in the Fall of 1990.

Table 5.10. Major Ion Groundwater Chemistry (equivalent basis) - LEHR Facility

Site ID		Calcium meq/L	Magnesium meq/L	Sodium meq/L	Potassium meq/L	Carbonate meq/L	Sulfate meq/L	Chloride meq/L	Nitrate meq/L	Phosphate meq/L	Sum Cations	Sum Anions	Relative % Difference
Upper HSU (HSU-1)	UCD1-18	1.79	7.33	1.65	0.03	8.25	0.79	0.94	0.83	0.05	10.80	10.86	-0.5
	UCD1-01	2.82	11.40	1.53	0.03	14.12	0.76	0.31	1.05	0.06	15.78	16.31	-3.3
	UCD1-04	2.56	8.34	1.58	0.03	9.92	0.85	1.14	0.32	0.07	12.51	12.29	1.7
	UCD1-10	2.27	13.21	6.95	0.04	13.58	7.69	1.07	2.07	0.06	22.46	24.47	-8.6
	UCD1-11	2.07	9.01	3.16	0.03	10.12	1.18	1.69	1.75	0.07	14.28	14.80	-3.6
	UCD1-12	3.89	21.25	4.13	0.10	12.87	1.87	6.76	4.59	0.06	29.37	26.14	11.6
	UCD1-13	3.45	14.86	2.46	0.08	14.89	1.96	1.06	1.18	0.06	20.84	19.16	8.4
	UCD1-19	2.44	11.19	2.90	0.04	14.41	1.35	0.48	0.93	0.06	16.56	17.23	-4.0
	UCD1-20	1.65	7.04	1.88	0.04	8.66	0.85	0.23	1.29	0.06	10.61	11.08	-4.4
	UCD1-21	2.51	11.18	4.02	0.04	12.25	1.40	0.58	3.31	0.06	17.75	17.60	0.8
	UCD1-22	1.59	5.46	3.61	0.04	8.66	0.74	1.00	0.67	0.05	10.70	11.12	-3.8
	UCD1-23	2.00	8.00	1.79	0.03	9.82	0.64	0.86	0.50	0.06	11.81	11.88	-0.6
	UCD1-24	2.30	9.81	3.14	0.03	10.40	1.10	0.73	3.53	0.06	15.30	15.81	-3.3
Lower HSU (HSU-2)	UCD2-17	1.64	4.96	1.17	0.02	6.71	0.74	0.50	0.15	0.05	7.79	8.14	-4.5
	UCD2-07	1.82	6.83	2.09	0.03	8.08	0.84	0.66	1.34	0.05	10.76	10.96	-1.9
	UCD2-14	2.35	9.22	1.89	0.02	10.70	1.34	0.98	0.54	0.06	13.49	13.63	-1.0
	UCD2-15	1.79	5.16	1.25	0.02	6.64	0.72	0.57	0.19	0.05	8.22	8.17	0.7
	UCD2-16	1.69	5.18	1.81	0.03	7.15	0.90	0.52	0.25	0.05	8.70	8.87	-1.9

Notes:

1. Each entry consists of the equivalent concentration of values presented in Table 6.x according to:
   Ca^{2+} (mg/L)/20.04 = Ca (meq/L).
   Mg^{2+} (mg/L)/12.156 = Mg (meq/L).
   Na^{+} (mg/L)/22.99 = Na (meq/L).
   K^{+} (mg/L)/39.102 = K (meq/L).
   Alkalinity (mg $CaCO_3$/L)/50.044 = CO_3^{-2} (meq/L).
   SO_4^{-2} (mg/L)/48.0308 = SO_4^{-2} (meq/L).
   Cl^{-} (mg/L)/35.453 = Cl^{-} (meq/L).
   NO_3^{-} (mg N/L)/14.007 = NO_3^{-} (meq/L).
   PO_4^{-3} (mg P/L)/10.325 = PO_4^{-3} (meq/L).

6.0 Surface Water and Storm Water Analytical Results

This section summarizes the analytical results from the 1995 surface water and storm water monitoring programs. Surface water samples were collected quarterly from three locations along Putah Creek: upstream of the site (PCU), downstream of the site (PCD), and from the UC Davis wastewater treatment plant outfall (STPO) (Figure 2.4). During the 1995 water monitoring program, grab samples of storm water were collected once from two onsite locations (SWL-1 and SWL-2) during March (Figure 2.5).

Surface water and storm water data are presented in a series of tables and figures similar to those for groundwater analytical results in Section 5. Tables 6.2 through 6.8 present constituents that were detected in surface water and storm water during the 1995 monitoring program, with results presented by location and quarter. Appendix B presents data tables that include the entire 1995 surface water and storm water results, including detections and nondetections.

Surface water data have also been presented in a series of figures that include bar graphs of selected parameters in Figures 6.1 through 6.5. Stiff diagrams are shown in Figure 6.6. Appendix C presents time series tables for parameters detected in surface water. These tables include data from fall 1990 through fall 1995. No figures are presented for storm water results, because samples were only collected during one storm event in 1995.

Sections 6.2 through 6.6 discuss the 1995 surface water and storm water results according to analytical group. Each discussion presents the location and magnitude of detections for the analytical group, a comparison with regulatory maximum contamination levels (MCLs), and a review of overall trends.

6.1 Volatile Organic Compounds

A summary of VOCs detected in 1995 surface water and storm water samples is presented in Table 6.2. The 1995 quarterly surface water and storm water samples were analyzed for the target compounds identified in Tables 2.4 and 2.5. Seven VOCs were reported in surface water samples collected during 1995: acetone, bromodichloromethane, bromoform, chloroform, dibromochloromethane, methylene chloride, and toluene. Acetone was the most frequently reported compound in samples from PCU (two of four quarters), PCD (two of four quarters), STPO (three of four quarters), and storm water (two of two samples). While acetone was detected at low concentrations at all of the surface water locations (maximum value of 8.8 μg/L), most of the analyses received data qualifiers to indicate that blank sample analyses were also reported to contain acetone (maximum value of 5.0 μg/L). Therefore, the acetone appears to be laboratory contamination. Acetone is a commonly reported laboratory contaminant, as is methylene chloride. One or more of the trihalomethanes, chloroform, bromodichloromethane, dibromochloromethane, and

bromoform were detected mainly in STPO (all four quarters) and in PCD (three of four quarters). The use of chlorine disinfectants in the UC Davis wastewater treatment plant is the apparent source of these constituents. According to UC Davis, effluent from the waste water goes through a dechlorination process such that the effluent meets the 100 μg/L of residual chlorine requirement. The trihalomethane concentrations detected are well below the 100 μg/L MCL. Reported detections of methylene chloride at STPO exceed the MCL of 5 μg/L for two of four quarters. While methylene chloride is a common laboratory contaminant and has been found in blank samples, it is generally detected in STPO samples and never in PCU samples. Therefore, the methylene chloride appears to be an actual constituent of STPO. No other VOCs exceed an MCL in 1995 for surface water or storm water samples.

6.2 Semivolatile Organic Compounds

A summary of SVOCs detected in 1995 surface water and storm water samples is presented in Table 6.3. The 1995 quarterly surface water and storm water samples were analyzed for the target compound list identified in Tables 2.4 and 2.5. The only SVOCs detected during the 1995 sampling were four phthalate compounds that were detected equally in all samples. The random detection in all sample locations and the facts that many of the sample analyses were qualified with blank contamination and that phthalates are common laboratory contaminants indicate that these constituents are not naturally present in the surface water and storm water samples.

6.3 Pesticides and PCBs

A summary of pesticides and PCBs detected in 1995 surface water and storm water samples is presented in Table 6.4. Each 1995 quarterly surface water and storm water sample was analyzed for the target compound list identified in Tables 2.4 and 2.5. Two pesticide compounds, alpha- and gamma-chlordane, were the only reported compounds above detection limits in 1995 surface water and storm water samples. The compounds were detected only in a sample from SWL-1 at 0.013 and 0.015 μg/L. Because these compounds are isomers of chlordane, the MCL for chlordane, 2 μg/L, applies to the sum of the two concentrations. The MCL is not exceeded. No PCB compounds were detected in 1995 surface water and storm water samples.

6.4 Metals

A summary of metals reported in 1995 surface water samples is presented in Table 6.5. Each quarterly surface water sample was analyzed for 16 metals (Tables 2.4 and 2.5) and hexavalent chromium. Beryllium, cadmium, hexavalent chromium, mercury, silver, and thallium were not reported in any 1995 surface water samples. Of the metals detected in 1995, three, antimony, lead, and selenium, exceeded their respective MCLs. Antimony was detected in both storm water sample locations at concentrations above its MCL of 6 μg/L. Lead was reported only in storm water samples SWL-1 and SWL-2 and

was reported above its MCL of 15 μg/L at SWL-2, as was the case in 1994. Selenium was detected only in STPO, and the fall sample exceeded the MCL of 5 μg/L. The metals group is discussed in more detail below.

- Antimony was reported twice below the detection limit and twice above the detection limit. Reported detections were 4.7 μg/L in PCD, 1.2 μg/L in STPO, 74.8 μg/L in SWL-1, and 156 μg/L in SWL-2. The storm water detections were reported above the MCL of 6 μg/L, and their concentrations are consistent with levels reported in 1994.

- Arsenic was reported above detection limits in samples from PCD, PCU, and STPO during 1995 but was not detected in the storm water sampling. Reported detections ranged in concentration from 2.5 μg/L (PCU) to 5.6 μg/L (STPO). No arsenic values were reported above the MCL of 50 μg/L.

  Arsenic has only been reported above detection limits since the summer quarter of 1993, when the analytical method was changed and the detection limit lowered to 2.0 μg/L. In general, reported arsenic values occur at concentrations near the detection limit.

- Barium was detected in every 1995 surface water and storm water sample collected. Reported concentrations range from 3.3 μg/L (SWL-2) to 113 μg/L (PCU and PCD). No barium concentrations were reported above the MCL of 1000 μg/L.

  Barium concentrations are typically highest in samples from PCU and lowest in STPO. Concentrations in samples from all three locations tend to be consistent over time.

- Lead was detected only in storm water samples during 1995. The sample collected at SWL-2 contained lead at 38.4 μg/L, above the MCL of 15 μg/L.

- Selenium was detected only twice in STPO samples. The highest value, 7.4 μg/L, exceeded the MCL of 5 μg/L. This is the only time the selenium MCL has been exceeded since the detection limit was lowered to 3 μg/L in the summer quarter of 1993.

- Vanadium was reported above the detection limit nine times in 1995 surface water samples from all locations except SWL-2. Surface water detections ranged in concentration from 1.0 μg/L (SWL-1) to 10.5 μg/L (STPO). There is no MCL for vanadium.

- Zinc was detected in every 1995 surface water and storm water sample collected. Reported zinc concentrations ranged from a low of 2.1 μg/L at PCD to a high of 94.1 at SWL-2. No samples exceeded the national secondary drinking water standard of 5,000 μg/L.

6.5 Radionuclides

A summary of analytical results for reported radionuclide constituents in surface water and storm water runoff samples is presented in Table 6.6. Complete analytical results for surface water and storm water runoff samples are presented in Appendix B. The presentation of radionuclide data for these analyses continues with the format used in Section 5.5.

There were no radionuclides reported in downstream surface water samples at concentrations exceeding upstream levels. There was no detectable concentration of radionuclides in storm water samples. Tritium was reported at both STPO and the downgradient PCD sample locations at less than the detection limit for all surface water and storm water samples in 1995. Americium-241 was detected at PCU and PCD at slightly above the MDA. These data reflect the variations in background counts and are not considered detectable concentrations.

All gross beta detections were reported less than the MCL (50 pCi/L) with a maximum detection of 29.5 ± 4.1 pCi/L (STPO, winter quarter 1995, duplicate sample). These data are at concentrations similar to those found in 1994. Gross alpha analyses were less than the detection limit for all samples collected in 1995.

6.6 Anions and Cations

This section presents a summary of analytical results reported for anions and cations in surface water and storm water. Analytical results for anions and cations are summarized in Table 6.7. Complete analytical results for anions and cations in surface water and storm water samples are presented in Appendix B, Table B.6. Results reported for the major anions and cations are described using summary tables and Stiff diagrams.

6.6.1 Summary of Major Ion Chemistry

The major ion chemistry for Putah Creek is presented in Table 6.9. For direct comparison purposes, data from Table 6.9 have been "normalized" to an equivalents basis in Table 6.10. In addition, this calculation must be performed to draw the Stiff diagrams that will be discussed in the next section.

The sums of cations and anions and their RPDs are shown in Table 6.10. Normally, this comparison is done on individual sample analyses, not on mean values, but it is done here to summarize the data. A negative charge balance (relative percent difference) indicates an excess of negatively charged anions, and a positive charge balance indicates an excess of positively charged cations.

A number of observations can be made from the data presented in Tables 6.9 and 6.10:

- Putah Creek waters are classified as magnesium/sodium-carbonate-dominated waters.
- The outfall from the UC Davis wastewater treatment plant contains significantly more sodium and chloride than Putah Creek.
- The increased sodium and chloride content of STPO results in an overall higher total dissolved solids content in STPO than in Putah Creek.

6.6.2 Stiff Diagrams

Stiff diagrams were prepared for surface water sampling locations using the data in Table 6.9 to evaluate and compare the general water types present at these sampling locations. These stiff diagrams are presented in Figures 6.6 and 5.23.

As presented in the 1994 annual report and in Section 6.6.1, samples from STPO have greater reported concentrations of sodium and chloride than samples from PCU and PCD. The STPO input is reflected in higher concentrations of sodium and chloride in downstream (PCD) samples than upstream (PCU) samples.

6.6.3 Nitrate

Nitrate concentrations reported for surface water samples during 1995 are presented in Table 6.7 and Figure 6.4. Nitrate concentrations in surface water samples did not exceed the MCL of 10 mg/L (for nitrate as nitrogen) in any of the 1995 samples. Reported concentrations of nitrate in STPO were higher than in the upstream and downstream samples with the exception of the summer quarter 1995, when they were similar to concentrations in PCU and PCD (Figure 6.4). This is the same trend noted in 1994. As shown in the time series data presented in Appendix C, concentrations of nitrate in surface water samples are variable over time but appear to stay within the same general ranges.

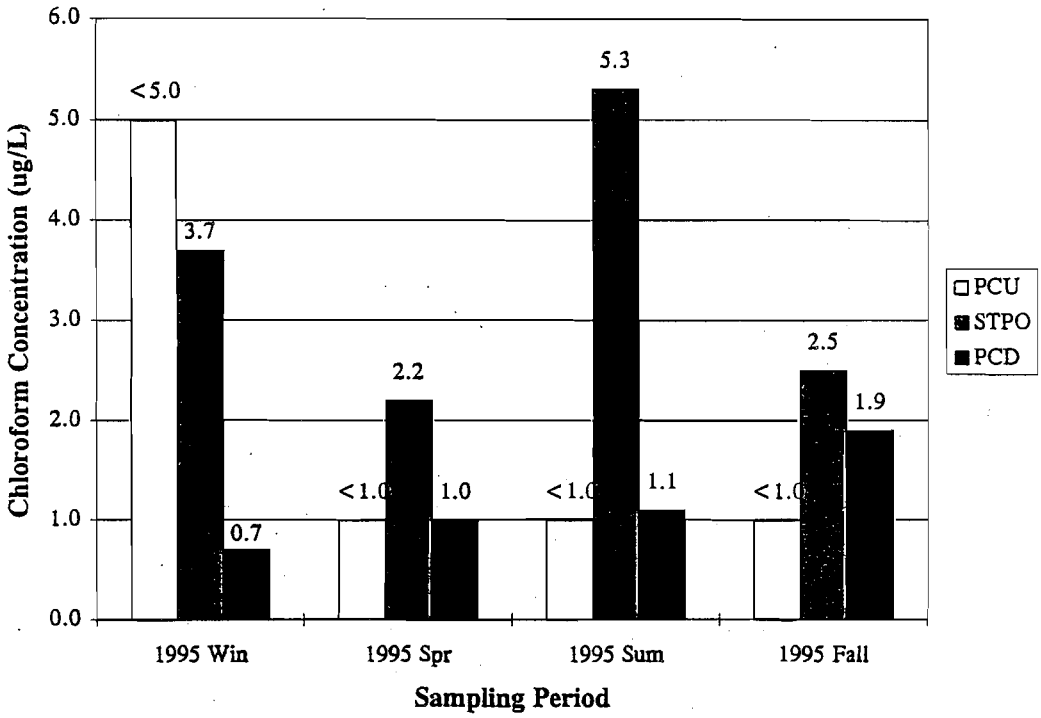


Figure 6.1. Chloroform Concentrations in Surface Water Samples, 1995

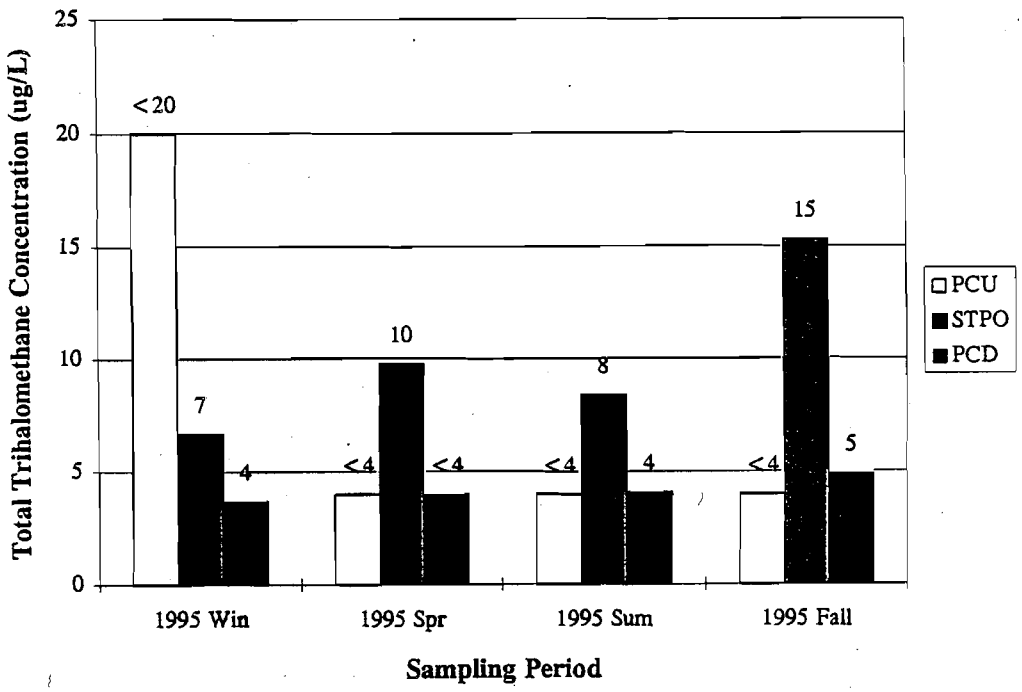


Figure 6.2. Total Trihalomethane Concentrations in Surface Water Samples, 1995

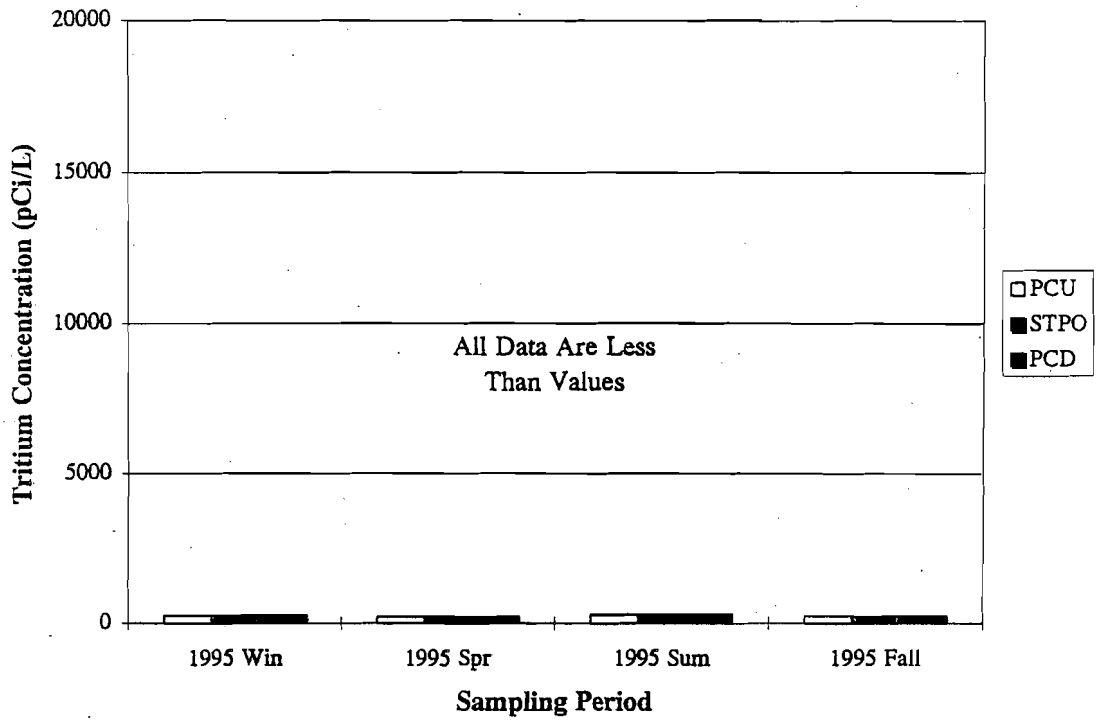


Figure 6.3. Tritium Concentrations in Surface Water Samples, 1995

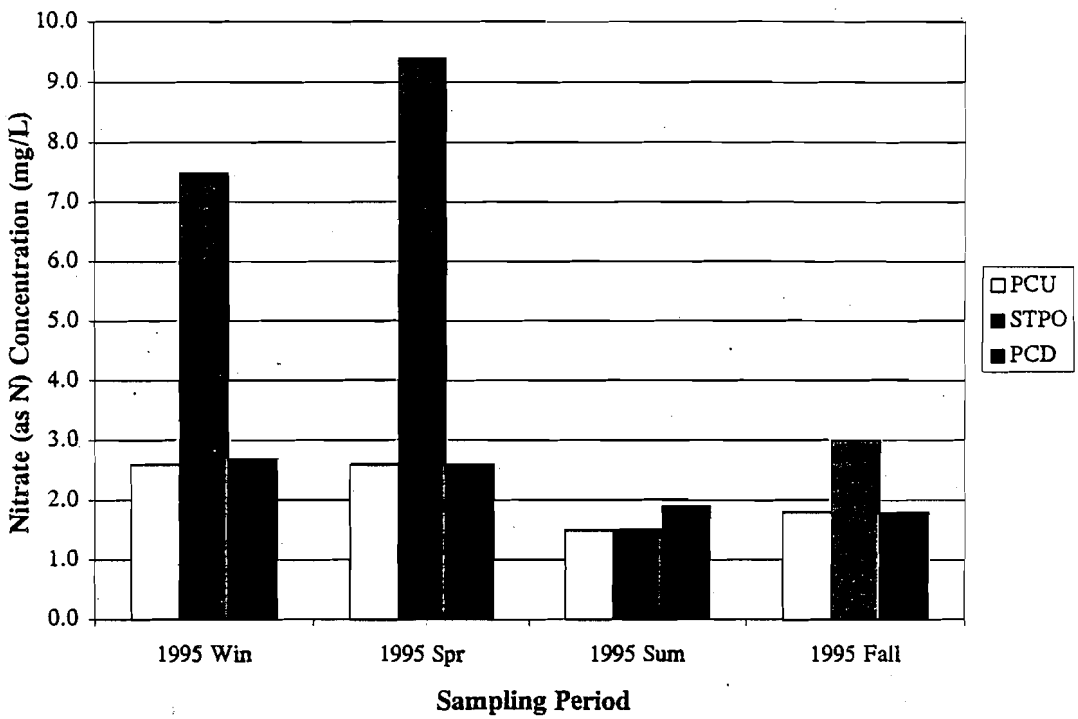


Figure 6.4. Nitrate Concentrations in Surface Water Samples, 1995

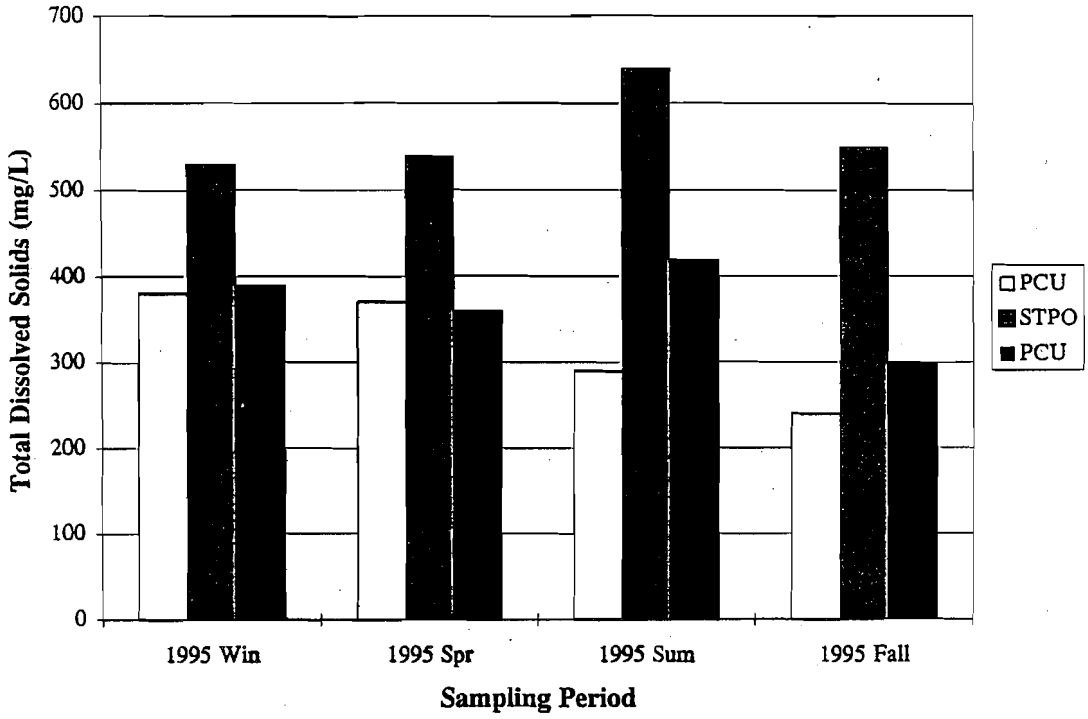


Figure 6.5. Total Dissolved Solids in Surface Water Samples, 1995

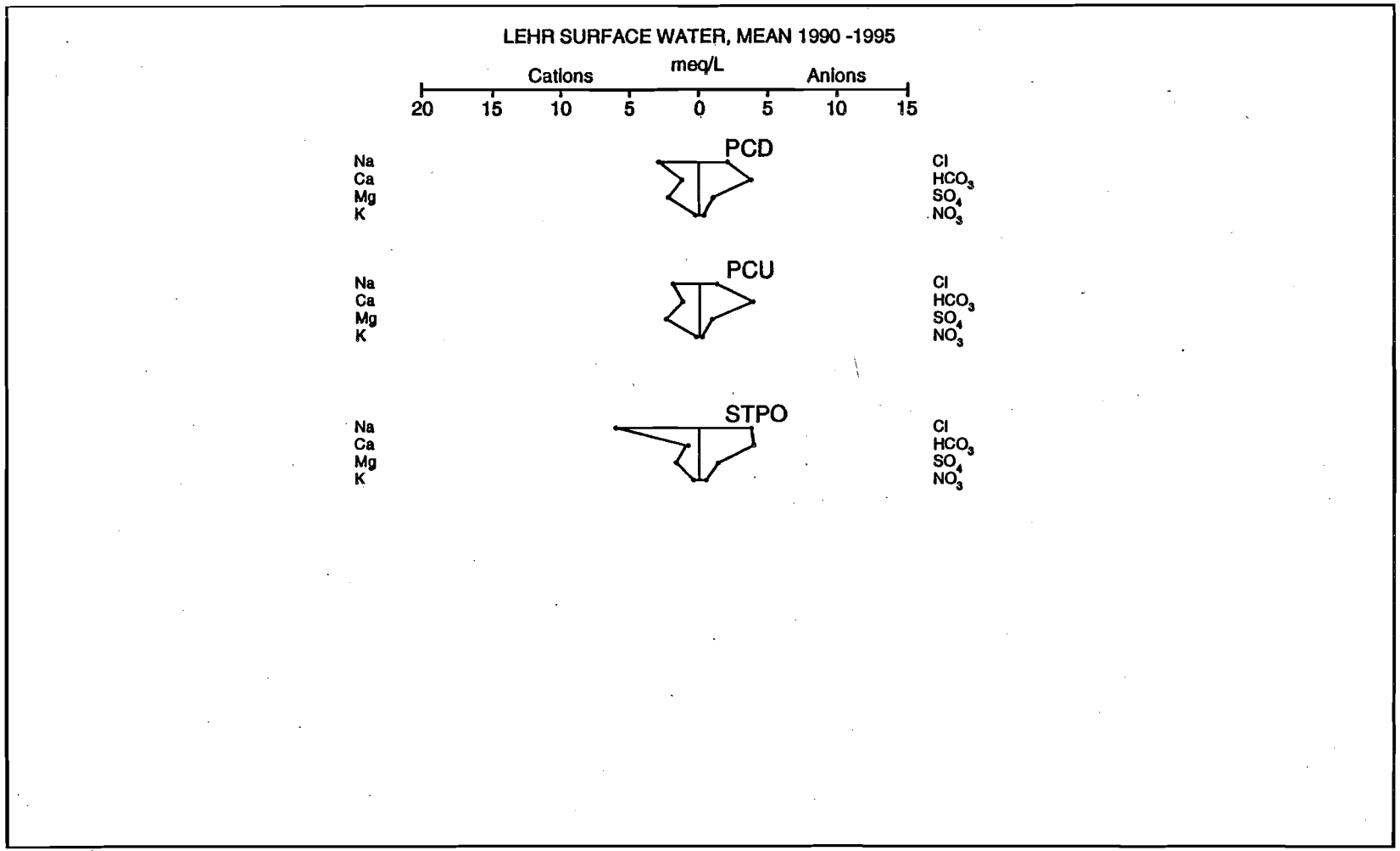


Figure 6.6. Surface Water Monitoring Locations, Mean 1990-1995

TABLE 6.1
NUMBER OF DETECTIONS, POSITIVE RESULTS AND MAXIMUM VALUES IN SURFACE WATER, 1995
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

	PARAMETER	MCL		Number of Results	Number of Detections	Number >MCL	Maximum Value	Date of Maximum	Location of Maximum
Cations & Anions mg/L	Ammonia-Nitrogen	-		8	3	0	3.2	21-Feb-95	STPO
	Calcium	-		16	16	0	42.2	21-Feb-95	PCU
	Chloride	250	S	8	8	0	120	21-Feb-95	STPO
	Magnesium	-		16	16	0	46.5	22-May-95	PCU
	Nitrogen, Nitrate (as N)	10	#	16	16	0	9.4	22-May-95	STPO
	Potassium	-		16	16	0	14.6	12-Dec-95	STPO
	Sodium	-		16	16	0	153	31-Aug-95	STPO
	Sulfate	250	S	8	8	0	63	21-Feb-95	STPO
	Total Kjeldahl Nitrogen	-		8	3	0	3.1	21-Feb-95	STPO
	Alkalinity Total(as CaCO3) (mg/L)	-		8	8	0	270	22-May-95	PCU
General Chemical Parameters	Total Dissolved Solids (mg/L)	500	S	16	16	5	640	31-Aug-95	STPO
	Total Organic Carbon (mg/L)	-		8	8	0	8	22-May-95	STPO
	Turbidity (NTU)	-		8	8	0	62	22-May-95	PCU
Metals ug/L	Antimony	6		16	2	0	4.7	12-Dec-95	PCD
	Arsenic	50		16	12	0	5.6	21-Feb-95	STPO
	Barium	1000		16	16	0	114	22-May-95	PCU
	Chromium	50		16	15	0	5.1	12-Dec-95	STPO
	Cobalt	-		16	2	0	2	21-Feb-95	STPO
	Copper	1000	S	16	9	0	10	12-Dec-95	PCD
	Iron	0.3	S	16	13	0	0.269	12-Dec-95	PCD
	Molybdenum	-		16	8	0	10.7	12-Dec-95	STPO
	Nickel	100		16	15	0	5.2	12-Dec-95	PCD
	Selenium	5	#	16	2	1	7.4	12-Dec-95	STPO
	Vanadium	-		16	10	0	10.5	22-May-95	STPO
	Zinc	5000	S	16	16	0	39.2	12-Dec-95	STPO
Radionuclides pCi/L	Americium-241	-		15	5	0	0.056	12-Dec-95	PCD
	Bismuth-214	-		15	3	0	21	22-May-95	PCU
	Carbon-14	-		16	1	0	15	31-Aug-95	PCD
	Gross Beta	50		15	11	0	29.5	21-Feb-95	STPO
	Radium-226	5		27	5	0	0.86	12-Dec-95	PCD
	Strontium-90	8		15	3	0	1.39	12-Dec-95	PCD
Semivolatile Organic ug/L	Bis(2-Ethylhexyl)phthalate	4		8	7	2	37	22-May-95	PCD
	Di-n-Butylphthalate	-		8	7	0	130	22-May-95	PCU
	Diethyl Phthalate	-		8	4	0	2	22-May-95	PCU
Volatile Organics ug/L	Acetone	-		16	9	0	7.1	12-Dec-95	STPO
	Bromodichloromethane	-	a	16	5	0	4.5	12-Dec-95	STPO
	Bromoform	-	a	16	2	0	2.9	12-Dec-95	STPO
	Chloroform	-	a	16	8	0	5.3	31-Aug-95	STPO
	Dibromochloromethane	-	a	16	2	0	5.4	12-Dec-95	STPO
	Methylene Chloride	5		16	4	3	40	31-Aug-95	STPO

- = Not Applicable
MCL = Maximum Contamination Level (primary), Title 22, Division 4, Chapter 15.
a = MCL for total trihalomethanes is 100 ug/L. Chloroform is the predominant trihalomethane detected at LEHR.
# = USEPA MCL.
s = Secondary Drinking Water Standard
* = Proposed MCL for Tritium is 60,000 pCi/L.

TABLE 6.2
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	PCD	PCD D1	PCU	PCU D1
1,1,2-Trichloroethane	WINTER	ug/L	1	5 #	< 1 IU	-	< 1 IU	-
	SPRING	ug/L	1	5 #	< 1 IU	-	< 1 IU	< 1 IU
	SUMMER	ug/L	1	5 #	< 1 IU	-	< 1 IU	< 1 IU
	FALL	ug/L	1	5 #	< 1 IU	< 1 IU	< 1 IU	-
1,1-Dichloroethane	WINTER	ug/L	1	5	< 1 IU	-	< 1 IU	-
	SPRING	ug/L	1	5	< 1 IU	-	< 1 IU	< 1 IU
	SUMMER	ug/L	1	5	< 1 IU	-	< 1 IU	< 1 IU
	FALL	ug/L	1	5	< 1 IU	< 1 IU	< 1 IU	-
1,1-Dichloroethene	WINTER	ug/L	1	6	< 1 IU	-	< 1 IU	-
	SPRING	ug/L	1	6	< 1 IU	-	< 1 IU	< 1 IU
	SUMMER	ug/L	1	6	< 1 IU	-	< 1 IU	< 1 IU
	FALL	ug/L	1	6	< 1 IU	< 1 IU	< 1 IU	-
1,2-Dichloroethane	WINTER	ug/L	1	0.5	< 1 IU	-	< 1 IU	-
	SPRING	ug/L	1	0.5	< 1 IU	-	< 1 IU	< 1 IU
	SUMMER	ug/L	1	0.5	< 1 IU	-	< 1 IU	< 1 IU
	FALL	ug/L	1	0.5	< 1 IU	< 1 IU	< 1 IU	-
1,2-Dichloropropane	WINTER	ug/L	1	5	< 1 IU	-	< 1 IU	-
	SPRING	ug/L	1	5	< 1 IU	-	< 1 IU	< 1 IU
	SUMMER	ug/L	1	5	< 1 IU	-	< 1 IU	< 1 IU
	FALL	ug/L	1	5	< 1 IU	< 1 IU	< 1 IU	-
2-Butanone	WINTER	ug/L	5	-	< 5 Rc IU	-	< 5 Rc IU	-
	SPRING	ug/L	5	-	< 5 Rc IU	-	< 5 Rc IU	< 5 Rc IU
	SUMMER	ug/L	5	-	< 5 Rc IU	-	< 5 Rc IU	< 5 Rc IU
	FALL	ug/L	5	-	< 5 Rc IU	< 5 Rc IU	< 5 Rc IU	-
4-Methyl-2-Pentanone	WINTER	ug/L	5	-	< 5 IU	-	< 5 IU	-
	SPRING	ug/L	5	-	< 5 IU	-	< 5 IU	< 5 IU
	SUMMER	ug/L	5	-	< 5 IU	-	< 5 IU	< 5 IU
	FALL	ug/L	5	-	< 5 IU	< 5 IU	< 5 IU	-
Acetone	WINTER	ug/L	5	-	< 5 Rc IU	-	< 5 Rc IU	-
	SPRING	ug/L	5	-	2.2 Uz IBJ	-	2.1 Uz IBJ	2.2 Uz IBJ
	SUMMER	ug/L	5	-	< 5 Rc IU	-	< 5 Rc IU	< 5 Rc IU
	FALL	ug/L	5	-	3.1 Jz IJB	2.8 Jz IJB	2.8 Jz IJB	-

TABLE 6.2
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	PCD		PCD D1		PCU		PCU D1	
Bromodichloromethane	WINTER	ug/L	1	a	< 1	IU	-		< 1	IU	-	
	SPRING	ug/L	1	a	< 1	IU	-		< 1	IU	< 1	IU
	SUMMER	ug/L	1	a	< 1	IU	-		< 1	IU	< 1	IU
	FALL	ug/L	1	a	< 1	IU	< 1	IU	< 1	IU	-	
Bromoform	WINTER	ug/L	1	a	< 1	IU	-		< 1	IU	-	
	SPRING	ug/L	1	a	< 1	IU	-		< 1	IU	< 1	IU
	SUMMER	ug/L	1	a	< 1	IU	-		< 1	IU	< 1	IU
	FALL	ug/L	1	a	< 1	IU	< 1	IU	< 1	IU	-	
Carbon Disulfide	WINTER	ug/L	1	-	< 1	IU	-		< 1	IU	-	
	SPRING	ug/L	1	-	< 1	IU	-		< 1	IU	< 1	IU
	SUMMER	ug/L	1	-	< 1	IU	-		< 1	IU	< 1	IU
	FALL	ug/L	1	-	< 1	IU	< 1	IU	< 1	IU	-	
Chloroform	WINTER	ug/L	1	a	0.7	IJ	-		< 1	IU	-	
	SPRING	ug/L	1	a	< 1	IU	-		< 1	IU	< 1	IU
	SUMMER	ug/L	1	a	1.1		-		< 1	IU	< 1	IU
	FALL	ug/L	1	a	1.9	Jy I	< 1	IU	< 1	IU	-	
Dibromochloromethane	WINTER	ug/L	1	a	< 1	IU	-		< 1	IU	-	
	SPRING	ug/L	1	a	< 1	IU	-		< 1	IU	< 1	IU
	SUMMER	ug/L	1	a	< 1	IU	-		< 1	IU	< 1	IU
	FALL	ug/L	1	a	< 1	IU	< 1	IU	< 1	IU	-	
Methylene Chloride	WINTER	ug/L	2	5	< 2	IU	-		< 2	IU	-	
	SPRING	ug/L	2	5	< 2	IU	-		< 2	IU	< 2	IU
	SUMMER	ug/L	2	5	< 2	IU	-		< 2	IU	< 2	IU
	FALL	ug/L	2	5	< 2	IU	< 2	IU	< 2	IU	-	
Tetrachloroethene	WINTER	ug/L	1	5	< 1	IU	-		< 1	IU	-	
	SPRING	ug/L	1	5	< 1	IU	-		< 1	IU	< 1	IU
	SUMMER	ug/L	1	5	< 1	IU	-		< 1	IU	< 1	IU
	FALL	ug/L	1	5	< 1	IU	< 1	IU	< 1	IU	-	
Toluene	WINTER	ug/L	1	1000 #	< 1	IU	-		< 1	IU	-	
	SPRING	ug/L	1	1000 #	< 1	IU	-		< 1	IU	< 1	IU
	SUMMER	ug/L	1	1000 #	< 1	IU	-		< 1	IU	< 1	IU
	FALL	ug/L	1	1000 #	< 1	IU	< 1	IU	< 1	IU	-	

TABLE 6.2
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	STPO	STPO D1	SWL-1	SWL-2	SWL-2 D1
1,1,2-Trichloroethane	WINTER	ug/L	1	5 #	< 1 IU	< 1 IU	< 1 IU	< 1 IU	< 1 IU
	SPRING	ug/L	1	5 #	< 1 IU	-	-	-	-
	SUMMER	ug/L	1	5 #	< 1 IU	-	-	-	-
	FALL	ug/L	1	5 #	< 1 IU	-	-	-	-
1,1-Dichloroethane	WINTER	ug/L	1	5	< 1 IU	< 1 IU	< 1 IU	< 1 IU	< 1 IU
	SPRING	ug/L	1	5	< 1 IU	-	-	-	-
	SUMMER	ug/L	1	5	< 1 IU	-	-	-	-
	FALL	ug/L	1	5	< 1 IU	-	-	-	-
1,1-Dichloroethene	WINTER	ug/L	1	6	< 1 IU	< 1 IU	< 1 IU	< 1 IU	< 1 IU
	SPRING	ug/L	1	6	< 1 IU	-	-	-	-
	SUMMER	ug/L	1	6	< 1 IU	-	-	-	-
	FALL	ug/L	1	6	< 1 IU	-	-	-	-
1,2-Dichloroethane	WINTER	ug/L	1	0.5	< 1 IU	< 1 IU	< 1 IU	< 1 IU	< 1 IU
	SPRING	ug/L	1	0.5	< 1 IU	-	-	-	-
	SUMMER	ug/L	1	0.5	< 1 IU	-	-	-	-
	FALL	ug/L	1	0.5	< 1 IU	-	-	-	-
1,2-Dichloropropane	WINTER	ug/L	1	5	< 1 IU	< 1 IU	< 1 IU	< 1 IU	< 1 IU
	SPRING	ug/L	1	5	< 1 IU	-	-	-	-
	SUMMER	ug/L	1	5	< 1 IU	-	-	-	-
	FALL	ug/L	1	5	< 1 IU	-	-	-	-
2-Butanone	WINTER	ug/L	5	-	< 5 Rc IU	< 5 Rc IU	< 5 Rc IU	< 5 Rc IU	< 5 Rc IU
	SPRING	ug/L	5	-	< 5 Rc IU	-	-	-	-
	SUMMER	ug/L	5	-	< 5 Rc IU	-	-	-	-
	FALL	ug/L	5	-	< 5 Rc IU	-	-	-	-
4-Methyl-2-Pentanone	WINTER	ug/L	5	-	< 5 IU	< 5 IU	< 5 IU	< 5 IU	< 5 IU
	SPRING	ug/L	5	-	< 5 IU	-	-	-	-
	SUMMER	ug/L	5	-	< 5 IU	-	-	-	-
	FALL	ug/L	5	-	< 5 IU	-	-	-	-
Acetone	WINTER	ug/L	5	-	2.2 Jc IJ	< 5 Rc IU	6 Jc I	4.6 UJc IBJ	8.8 Jc I
	SPRING	ug/L	5	-	3.1 Uz IBJ	-	-	-	-
	SUMMER	ug/L	5	-	< 5 Rc IU	-	-	-	-
	FALL	ug/L	5	-	7.1 Jz IB	-	-	-	-

TABLE 6.2
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	STPO	STPO D1	SWL-1	SWL-2	SWL-2 D1
Bromodichloromethane	WINTER	ug/L	1	a	1	1.1	< 1 IU	< 1 IU	< 1 IU
	SPRING	ug/L	1	a	2.6 Jy I	-	-	-	-
	SUMMER	ug/L	1	a	1.1	-	-	-	-
	FALL	ug/L	1	a	4.5	-	-	-	-
Bromoform	WINTER	ug/L	1	a	< 1 IU	< 1 IU	< 1 IU	< 1 IU	< 1 IU
	SPRING	ug/L	1	a	1.8	-	-	-	-
	SUMMER	ug/L	1	a	< 1 IU	-	-	-	-
	FALL	ug/L	1	100 a	2.9	-	-	-	-
Carbon Disulfide	WINTER	ug/L	1	-	< 1 IU	< 1 IU	< 1 IU	< 1 IU	< 1 IU
	SPRING	ug/L	1	-	< 1 IU	-	-	-	-
	SUMMER	ug/L	1	-	< 1 IU	-	-	-	-
	FALL	ug/L	1	-	< 1 IU	-	-	-	-
Chloroform	WINTER	ug/L	1	a	3.7	3.4	< 1 IU	< 1 IU	< 1 IU
	SPRING	ug/L	1	a	2.2 Jy I	-	-	-	-
	SUMMER	ug/L	1	a	5.3	-	-	-	-
	FALL	ug/L	1	a	2.5 Jy I	-	-	-	-
Dibromochloromethane	WINTER	ug/L	1	a	< 1 IU	< 1 IU	< 1 IU	< 1 IU	< 1 IU
	SPRING	ug/L	1	a	3.2	-	-	-	-
	SUMMER	ug/L	1	a	< 1 IU	-	-	-	-
	FALL	ug/L	1	a	5.4	-	-	-	-
Methylene Chloride	WINTER	ug/L	2	5	7.4	7.1	< 2 IU	< 2 IU	< 2 IU
	SPRING	ug/L	2	5	< 2 IU	-	-	-	-
	SUMMER	ug/L	2	5	40 Jz I	-	-	-	-
	FALL	ug/L	2	5	1.6 IJ	-	-	-	-
Tetrachloroethene	WINTER	ug/L	1	5	< 1 IU	< 1 IU	< 1 IU	< 1 IU	< 1 IU
	SPRING	ug/L	1	5	< 1 IU	-	-	-	-
	SUMMER	ug/L	1	5	< 1 IU	-	-	-	-
	FALL	ug/L	1	5	< 1 IU	-	-	-	-
Toluene	WINTER	ug/L	1	1000 #	< 1 IU	< 1 IU	0.99 IJ	< 1 IU	< 1 IU
	SPRING	ug/L	1	1000 #	< 1 IU	-	-	-	-
	SUMMER	ug/L	1	1000 #	< 1 IU	-	-	-	-
	FALL	ug/L	1	1000 #	< 1 IU	-	-	-	-

TABLE 6.2
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
VOLATILE ORGANICS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1 = Duplicate sample.
- = Parameter not analyzed or no MCL.
DL = Detection limit.
< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.
MCL = Maximum Contaminant Level (primary), Title 22 Division 4 Chapter 15.
 # = USEPA MCL
a = MCL for total trihalomethanes is 100 ug/L. Chloroform is the predominant trihalomethane detected at LEHR.

Highlighted values indicate positive results.

See Appendix A for explanation of data qualifiers.

TABLE 6.3
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	PCD	PCD D1	PCU	PCU D1
4-Methylphenol	WINTER	ug/L	10	-	< 11 IU	-	< 12 IU	-
	SPRING	ug/L	10	-	< 10 IU	-	< 11 IU	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-
BenzylButylPhthalate	WINTER	ug/L	10	100 #	< 11 IU	-	< 12 IU	-
	SPRING	ug/L	10	100 #	< 10 IU	-	< 11 IU	< 11 IU
	SUMMER	ug/L	10	100 #	-	-	-	-
	FALL	ug/L	10	100 #	-	-	-	-
Bis(2-Ethylhexyl)phthalate	WINTER	ug/L	10	4	< 11 IU	-	0.7 IJ	-
	SPRING	ug/L	10	4	37 Uz IB	-	2 Uz IBJ	10 Uz IBJ
	SUMMER	ug/L	10	4	-	-	-	-
	FALL	ug/L	10	4	-	-	-	-
Di-n-Butylphthalate	WINTER	ug/L	10	-	3 IJ	-	< 12 IU	-
	SPRING	ug/L	10	-	59 IB	-	130 Jf IB	38 Jf IB
	SUMMER	ug/L	10	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-
DiethylPhthalate	WINTER	ug/L	10	-	< 11 IU	-	< 12 IU	-
	SPRING	ug/L	10	-	1 IJ	-	2 IJ	1 IJ
	SUMMER	ug/L	10	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-
DimethylPhthalate	WINTER	ug/L	10	-	< 11 IU	-	< 12 IU	-
	SPRING	ug/L	10	-	< 10 IU	-	< 11 IU	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-
N-Nitrosodiphenylamine	WINTER	ug/L	10	-	< 11 IU	-	< 12 IU	-
	SPRING	ug/L	10	-	< 10 IU	-	< 11 IU	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-
Phenol	WINTER	ug/L	10	-	< 11 IU	-	< 12 IU	-
	SPRING	ug/L	10	-	< 10 IU	-	< 11 IU	< 11 IU
	SUMMER	ug/L	10	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-

TABLE 6.3
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	STPO	STPO D1	SWL-1	SWL-2	SWL-2 D1
4-Methylphenol	WINTER	ug/L	10	-	< 12 IU	< 12 IU	< 10 IU	< 10 IU	< 10 IU
	SPRING	ug/L	10	-	< 10 IU	-	-	-	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
BenzylButylPhthalate	WINTER	ug/L	10	100 #	< 12 IU	< 12 IU	0.8 IJ	< 10 IU	< 10 IU
	SPRING	ug/L	10	100 #	< 10 IU	-	-	-	-
	SUMMER	ug/L	10	100 #	-	-	-	-	-
	FALL	ug/L	10	100 #	-	-	-	-	-
Bis(2-Ethylhexyl)phthalate	WINTER	ug/L	10	4	3 IJ	3 IJ	1 IJ	< 10 IU	0.5 IJ
	SPRING	ug/L	10	4	2 Uz IBJ	-	-	-	-
	SUMMER	ug/L	10	4	-	-	-	-	-
	FALL	ug/L	10	4	-	-	-	-	-
Di-n-Butylphthalate	WINTER	ug/L	10	-	3 IJ	2 IJ	6 Uz IBJ	8 Uz IBJ	5 Uz IBJ
	SPRING	ug/L	10	-	23 Uz IB	-	-	-	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
DiethylPhthalate	WINTER	ug/L	10	-	< 12 IU	< 12 IU	< 10 IU	< 10 IU	< 10 IU
	SPRING	ug/L	10	-	1 IJ	-	-	-	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
DimethylPhthalate	WINTER	ug/L	10	-	< 12 IU	< 12 IU	< 10 IU	< 10 IU	< 10 IU
	SPRING	ug/L	10	-	< 10 IU	-	-	-	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
N-Nitrosodiphenylamine	WINTER	ug/L	10	-	< 12 IU	< 12 IU	< 10 IU	< 10 IU	< 10 IU
	SPRING	ug/L	10	-	< 10 IU	-	-	-	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-
Phenol	WINTER	ug/L	10	-	< 12 IU	< 12 IU	< 10 IU	< 10 IU	< 10 IU
	SPRING	ug/L	10	-	< 10 IU	-	-	-	-
	SUMMER	ug/L	10	-	-	-	-	-	-
	FALL	ug/L	10	-	-	-	-	-	-

TABLE 6.3
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1 = Duplicate sample.
- = Parameter not analyzed or no MCL.
DL = Detection limit.
< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.
MCL = Maximum Contaminant Level (primary), Title 22 Division 4 Chapter 15.
 # = USEPA MCL

Highlighted values indicate positive results.

See Appendix A for explanation of data qualifiers.

TABLE 6.4
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
PESTICIDES AND PCBS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	PCD		PCD D1		PCU		PCU D1	
Alpha-Chlordane	WINTER	ug/L	0.01	-	< 0.011	IU	-		< 0.012	IU	-	
	SPRING	ug/L	0.01	-	< 0.011	UJs IU	-		< 0.011	UJs IU	< 0.01	IU
	SUMMER	ug/L	0.01	-	< 0.01	UJs IU	-		< 0.01	IU	< 0.01	IU
	FALL	ug/L	0.01	-	< 0.01	UJs IU	< 0.01	UJs IU	< 0.01	UJs IU	-	
Dieldrin	WINTER	ug/L	0.02	-	< 0.022	IU	-		< 0.024	IU	-	
	SPRING	ug/L	0.02	-	< 0.022	UJs IU	-		< 0.022	UJs IU	< 0.021	IU
	SUMMER	ug/L	0.02	-	< 0.02	UJs IU	-		< 0.02	IU	< 0.02	IU
	FALL	ug/L	0.02	-	< 0.02	UJs IU	< 0.02	UJs IU	< 0.02	UJs IU	-	
Endrin	WINTER	ug/L	0.02	0.2	< 0.022	IU	-		< 0.024	IU	-	
	SPRING	ug/L	0.02	0.2	< 0.022	UJs IU	-		< 0.022	UJs IU	< 0.021	IU
	SUMMER	ug/L	0.02	0.2	< 0.02	UJs IU	-		< 0.02	IU	< 0.02	IU
	FALL	ug/L	0.02	0.2	< 0.02	UJs IU	< 0.02	UJs IU	< 0.02	UJs IU	-	
Gamma-Chlordane	WINTER	ug/L	0.01	-	< 0.011	IU	-		< 0.012	IU	-	
	SPRING	ug/L	0.01	-	< 0.011	UJs IU	-		< 0.011	UJs IU	< 0.01	IU
	SUMMER	ug/L	0.01	-	< 0.01	UJs IU	-		< 0.01	IU	< 0.01	IU
	FALL	ug/L	0.01	-	< 0.01	UJs IU	< 0.01	UJs IU	< 0.01	UJs IU	-	

Parameter	Quarter	Units	DL	MCL	STPO		STPO D1		SWL-1		SWL-2		SWL-2 D1	
Alpha-Chlordane	WINTER	ug/L	0.01	-	< 0.012	UJs IU	< 0.011	UJs IU	0.015	Js IP	< 0.01	UJs IU	< 0.01	UJs IU
	SPRING	ug/L	0.01	-	< 0.01	UJs IU	-		-		-		-	
	SUMMER	ug/L	0.01	-	< 0.01	IU	-		-		-		-	
	FALL	ug/L	0.01	-	< 0.01	UJs IU	-		-		-		-	
Dieldrin	WINTER	ug/L	0.02	-	< 0.024	UJs IU	< 0.022	UJs IU	< 0.02	UJs IU	< 0.021	UJs IU	< 0.021	UJs IU
	SPRING	ug/L	0.02	-	< 0.021	UJs IU	-		-		-		-	
	SUMMER	ug/L	0.02	-	< 0.02	IU	-		-		-		-	
	FALL	ug/L	0.02	-	< 0.02	UJs IU	-		-		-		-	
Endrin	WINTER	ug/L	0.02	0.2	< 0.024	UJs IU	< 0.022	UJs IU	< 0.02	UJs IU	< 0.021	UJs IU	< 0.021	UJs IU
	SPRING	ug/L	0.02	0.2	< 0.021	UJs IU	-		-		-		-	
	SUMMER	ug/L	0.02	0.2	< 0.02	IU	-		-		-		-	
	FALL	ug/L	0.02	0.2	< 0.02	UJs IU	-		-		-		-	
Gamma-Chlordane	WINTER	ug/L	0.01	-	< 0.012	UJs IU	< 0.011	UJs IU	0.013	Js IP	< 0.01	UJs IU	< 0.01	UJs IU
	SPRING	ug/L	0.01	-	< 0.01	UJs IU	-		-		-		-	
	SUMMER	ug/L	0.01	-	< 0.01	IU	-		-		-		-	
	FALL	ug/L	0.01	-	< 0.01	UJs IU	-		-		-		-	

TABLE 6.4
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
PESTICIDES AND PCBS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1 = Duplicate sample.
- = Parameter not analyzed or no MCL.
DL = Detection limit.
< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.
MCL = Maximum Contaminant Level (primary), Title 22 Division 4 Chapter 15.

Highlighted values indicate positive results.

See Appendix A for explanation of data qualifiers.

TABLE 6.5
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	PCD		PCD D1		PCU		PCU D1	
Antimony	WINTER	ug/L	5	6	< 5	IU	-		< 5	IU	-	
	SPRING	ug/L	5	6	< 5	IU	-		< 5	IU	< 5	IU
	SUMMER	ug/L	5	6	< 5	IU	-		< 5	IU	< 5	IU
	FALL	ug/L	5	6	< 5	IU	4.7	IB	< 5	IU	-	
Arsenic	WINTER	ug/L	2	50	3.5	Up I	-		3	Up I	-	
	SPRING	ug/L	2	50	< 2	IU	-		< 2	IU	< 2	IU
	SUMMER	ug/L	2	50	< 2	IU	-		2.5		2.6	
	FALL	ug/L	2	50	2.7		2		2.5		-	
Barium	WINTER	ug/L	20	1000	100		-		105		-	
	SPRING	ug/L	20	1000	113	IB	-		113	IB	114	IB
	SUMMER	ug/L	20	1000	92.8		-		113		112	
	FALL	ug/L	20	1000	73.6		73		82.1		-	
Chromium	WINTER	ug/L	10	50	3.6	IB	-		4.3	IB	-	
	SPRING	ug/L	10	50	4.6	IB	-		4.3	IB	4	IB
	SUMMER	ug/L	10	50	2.3	IB	-		3.3	IB	4.3	IB
	FALL	ug/L	10	50	4.5	IB	4.7	IB	4.4	IB	-	
Chromium, Hexavalent (+6)	WINTER	ug/L	10	50	< 10		-		< 10		-	
	SPRING	ug/L	10	50	< 10		-		< 10		< 10	
	SUMMER	ug/L	10	50	< 10		-		< 10		< 10	
	FALL	ug/L	10	50	< 10		< 10		< 10		-	
Cobalt	WINTER	ug/L	10	-	< 10	IU	-		< 10	IU	-	
	SPRING	ug/L	10	-	< 10	IU	-		< 10	IU	< 10	IU
	SUMMER	ug/L	10	-	< 10	IU	-		< 10	IU	< 10	IU
	FALL	ug/L	10	-	< 10	IU	< 10	IU	< 10	IU	-	
Copper	WINTER	ug/L	10	1000 S	1.4	IB	-		3.5	IB	-	
	SPRING	ug/L	10	1000 S	< 10	IU	-		< 10	IU	< 10	IU
	SUMMER	ug/L	10	1000 S	3.9	IB	-		< 10	IU	< 10	IU
	FALL	ug/L	10	1000 S	< 10	IU	10	IB	< 10	IU	-	
Iron	WINTER	ug/L	100	300 S	< 100	IU	-		< 100	IU	-	
	SPRING	ug/L	100	300 S	47.6	IB	-		39.1	IB	39.1	IB
	SUMMER	ug/L	100	300 S	63.9	IB	-		58.6	IB	67.8	IB
	FALL	ug/L	100	300 S	244		269		256		-	

TABLE 6.5
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	PCD		PCD D1		PCU		PCU D1	
Lead	WINTER	ug/L	2	15	< 2	IU	-		< 2	IU	-	
	SPRING	ug/L	2	15	< 2	IU	-		< 2	IU	< 2	IU
	SUMMER	ug/L	2	15	< 2	IU	-		< 2	IU	< 2	IU
	FALL	ug/L	2	15	< 2	IU	< 2	IU	< 2	IU	-	
Mercury	WINTER	ug/L	0.2	2	< 0.2	IU	-		< 0.2	IU	-	
	SPRING	ug/L	0.2	2	< 0.2	IU	-		< 0.2	IU	< 0.2	IU
	SUMMER	ug/L	0.2	2	< 0.2	IU	-		< 0.2	IU	< 0.2	IU
	FALL	ug/L	0.2	2	< 0.2	IU	< 0.2	IU	< 0.2	IU	-	
Molybdenum	WINTER	ug/L	10	-	< 10	IU	-		< 10	IU	-	
	SPRING	ug/L	10	-	< 10	IU	-		< 10	IU	< 10	IU
	SUMMER	ug/L	10	-	2.2	IB	-		1.1	IB	1.1	IB
	FALL	ug/L	10	-	< 10	IU	< 10	IU	< 10	IU	-	
Nickel	WINTER	ug/L	20	100	1.6	IB	-		1.9	IB	-	
	SPRING	ug/L	20	100	2	IB	-		1.2	IB	1.1	IB
	SUMMER	ug/L	20	100	4.3	IB	-		4.6	IB	4.5	IB
	FALL	ug/L	20	100	4.4	IB	5.2	IB	4.2	IB	-	
Selenium	WINTER	ug/L	3	5 #	< 3	IU	-		< 3	IU	-	
	SPRING	ug/L	3	5 #	< 3	IU	-		< 3	IU	< 3	IU
	SUMMER	ug/L	3	5 #	< 3	IU	-		< 3	IU	< 3	IU
	FALL	ug/L	3	5 #	< 3	IU	< 3	IU	< 3	IU	-	
Vanadium	WINTER	ug/L	10	-	4.6	IB	-		4.4	IB	-	
	SPRING	ug/L	10	-	< 10	IU	-		< 10	IU	< 10	IU
	SUMMER	ug/L	10	-	8.5	IB	-		7.6	IB	4.9	IB
	FALL	ug/L	10	-	< 10	IU	< 10	IU	< 10	IU	-	
Zinc	WINTER	ug/L	20	5000 S	2.1	IB	-		3.3	IB	-	
	SPRING	ug/L	20	5000 S	5	IB	-		3.7	IB	3.2	IB
	SUMMER	ug/L	20	5000 S	10.7	IB	-		6	IB	9.2	IB
	FALL	ug/L	20	5000 S	8.2	Jm IENB	9	Jm IENB	5.2	Jm IENB	-	

TABLE 6.5
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	STPO	STPO D1	SWL-1	SWL-2	SWL-2 D1
Antimony	WINTER	ug/L	5	6	< 5 IU	< 5 IU	74.8	156	137
	SPRING	ug/L	5	6	1.2 IB	-	-	-	-
	SUMMER	ug/L	5	6	< 5 IU	-	-	-	-
	FALL	ug/L	5	6	< 5 IU	-	-	-	-
Arsenic	WINTER	ug/L	2	50	5.6 Up I	5.6 Up I	< 2 IU	< 2 IU	< 2 IU
	SPRING	ug/L	2	50	3.3 Uz IB	-	-	-	-
	SUMMER	ug/L	2	50	3.3	-	-	-	-
	FALL	ug/L	2	50	4.5	-	-	-	-
Barium	WINTER	ug/L	20	1000	21.5	20.9	3.5 IB	3.3 IB	3 IB
	SPRING	ug/L	20	1000	22.9 IB	-	-	-	-
	SUMMER	ug/L	20	1000	35.3	-	-	-	-
	FALL	ug/L	20	1000	30.7	-	-	-	-
Chromium	WINTER	ug/L	10	50	2.2 IB	2 IB	< 10 IU	< 10 IU	< 10 IU
	SPRING	ug/L	10	50	< 10 IU	-	-	-	-
	SUMMER	ug/L	10	50	3 IB	-	-	-	-
	FALL	ug/L	10	50	5.1 IB	-	-	-	-
Chromium, Hexavalent (+6)	WINTER	ug/L	10	50	< 10	< 10	< 20	< 20	< 20
	SPRING	ug/L	10	50	< 10	-	-	-	-
	SUMMER	ug/L	10	50	< 10	-	-	-	-
	FALL	ug/L	10	50	< 10	-	-	-	-
Cobalt	WINTER	ug/L	10	-	2 IB	1.7 IB	< 10 IU	< 10 IU	< 10 IU
	SPRING	ug/L	10	-	< 10 IU	-	-	-	-
	SUMMER	ug/L	10	-	< 10 IU	-	-	-	-
	FALL	ug/L	10	-	< 10 IU	-	-	-	-
Copper	WINTER	ug/L	10	1000 S	5 IB	4.8 IB	3.5 IB	2.2 IB	1.9 IB
	SPRING	ug/L	10	1000 S	5.5 IB	-	-	-	-
	SUMMER	ug/L	10	1000 S	3.1 IB	-	-	-	-
	FALL	ug/L	10	1000 S	6.5 IB	-	-	-	-
Iron	WINTER	ug/L	100	300 S	56.6 IB	49.9 IB	54.9 IB	< 100 IU	< 100 IU
	SPRING	ug/L	100	300 S	< 100 IU	-	-	-	-
	SUMMER	ug/L	100	300 S	88.3 IB	-	-	-	-
	FALL	ug/L	100	300 S	228	-	-	-	-

TABLE 6.5
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	STPO	STPO D1	SWL-1	SWL-2	SWL-2 D1
Lead	WINTER	ug/L	2	15	< 2 IU	< 2 IU	10.4	38.4	35.9
	SPRING	ug/L	2	15	< 2 IU	-	-	-	-
	SUMMER	ug/L	2	15	< 2 IU	-	-	-	-
	FALL	ug/L	2	15	< 2 IU	-	-	-	-
Mercury	WINTER	ug/L	0.2	2	< 0.2 IU	< 0.2 IU	< 0.2 IU	< 0.2 IU	< 0.2 IU
	SPRING	ug/L	0.2	2	< 0.2 IU	-	-	-	-
	SUMMER	ug/L	0.2	2	< 0.2 IU	-	-	-	-
	FALL	ug/L	0.2	2	< 0.2 IU	-	-	-	-
Molybdenum	WINTER	ug/L	10	-	7.5 IB	7.2 IB	< 10 IU	< 10 IU	< 10 IU
	SPRING	ug/L	10	-	6 IB	-	-	-	-
	SUMMER	ug/L	10	-	7.3 IB	-	-	-	-
	FALL	ug/L	10	-	10.7	-	-	-	-
Nickel	WINTER	ug/L	20	100	2.3 IB	2.1 IB	1.6 IB	< 20 IU	< 20 IU
	SPRING	ug/L	20	100	< 20 IU	-	-	-	-
	SUMMER	ug/L	20	100	3 IB	-	-	-	-
	FALL	ug/L	20	100	5.1 IB	-	-	-	-
Selenium	WINTER	ug/L	3	5 #	< 3 IU	< 3 IU	< 3 IU	< 3 IU	< 3 IU
	SPRING	ug/L	3	5 #	< 3 IU	-	-	-	-
	SUMMER	ug/L	3	5 #	3.6	-	-	-	-
	FALL	ug/L	3	5 #	7.4	-	-	-	-
Vanadium	WINTER	ug/L	10	-	9.8 IB	9.3 IB	1 IB	< 10 IU	< 10 IU
	SPRING	ug/L	10	-	10.5	-	-	-	-
	SUMMER	ug/L	10	-	10.3	-	-	-	-
	FALL	ug/L	10	-	8.7 IB	-	-	-	-
Zinc	WINTER	ug/L	20	5000 S	28.3	28	60.8	94.1	112
	SPRING	ug/L	20	5000 S	33.6	-	-	-	-
	SUMMER	ug/L	20	5000 S	39.2	-	-	-	-
	FALL	ug/L	20	5000 S	39.2 Jm IEN	-	-	-	-

TABLE 6.5
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1 = Duplicate sample.
- = Parameter not analyzed or no MCL.
DL = Detection limit.
< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.
MCL = Maximum Contaminant Level (primary), Title 22 Division 4 Chapter 15.
# = USEPA MCL.
S = Secondary Drinking Water Standard.

Highlighted values indicate positive results.

See Appendix A for explanation of data qualifiers.

TABLE 6.6
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
RADIOCHEMICALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter					PCD	PCD D1	PCU	PCU D1	STPO
Gross Alpha	WINTER	pCi/L	15	9310	1.7±2.7 IC	-	1.5±1.8 IC	-	-0.4±2.1 IC
	SPRING	pCi/L	15	9310	1.1±1.8 Jm IC	-	0.5±1.8 Jm IC	-0.1±1.5 Jm IC	0±1.8 Jm IC
	SUMMER	pCi/L	15	9310	2.3±2.4 IC	-	-	0.6±1.7	1±2.8 IC
	FALL	pCi/L	15	9310	1.3±1.5 IC	1.1±1.8 IC	0.4±1.7 IC	-	1.7±3.3 IC
Gross Beta	WINTER	pCi/L	50	9310	3.9±2.3 Jd I	-	8.2±2 Jd I	-	17.2±3.6 Jd IC
	SPRING	pCi/L	50	9310	2±1.8	-	1.6±2.1	0.6±1.7	11.4±3.3 IC
	SUMMER	pCi/L	50	9310	7.3±2.2	-	-	1.4±1.9	19.3±3.8 IC
	FALL	pCi/L	50	9310	2.8±1.4	3.4±1.5	4.6±1.7	-	16.1±3.5 IC
Actinium-228	WINTER	pCi/L	-	901.1	-14.5±9.7	-	0±84	-	2.8±7.5
	SPRING	pCi/L	-	901.1	-34±17	-	6±21	-1.3±8	6±14
	SUMMER	pCi/L	-	901.1	8±72	-	-	12±22	-1±20
	FALL	pCi/L	-	901.1	-1±6.7	2.8±8.2	-17.1±3	-	-0.4±6.9
Americium-241	WINTER	pCi/L	-	LAS108	-0.014±0.04 Jm I	-	0.004±0.031 Jm I	-	0.027±0.039 Jm I
	SPRING	pCi/L	-	LAS108	0.024±0.026	-	0±0	0.009±0.019	0.02±0.02
	SUMMER	pCi/L	-	LAS108	0.034±0.027	-	-	0.032±0.028	0.026±0.032
	FALL	pCi/L	-	LAS108	-0.0021±0.0042	0.035±0.034	0.02±0.022	-	0.012±0.022
Bismuth-214	WINTER	pCi/L	-	901.1	8±13	-	5±58	-	0.5±4.9
	SPRING	pCi/L	-	901.1	17±13	-	21±14	-1.9±5.3	-4±10
	SUMMER	pCi/L	-	901.1	33±47	-	-	0±13	4±13
	FALL	pCi/L	-	901.1	6.2±6	9.8±6.2	9.3±7.2	-	6.5±5.5
Carbon-14	WINTER	pCi/L	-	LSC	-19±81	-	6±84	-	28±85
	SPRING	pCi/L	-	LSC	-23±82	-	18±86	25±86	14±85
	SUMMER	pCi/L	-	LSC	15±11 Jm I	-	-14±76	4±78	6±10 Jm I
	FALL	pCi/L	-	LSC	1±83	52±87	34±85	-	37±86
Lead-212	WINTER	pCi/L	-	901.1	0±9.1	-	16±47	-	-3.3±4.9
	SPRING	pCi/L	-	901.1	12±10	-	3±10	2.6±5.3	2.3±9.5
	SUMMER	pCi/L	-	901.1	33±40	-	-	-3.6±9.6	-2±10
	FALL	pCi/L	-	901.1	0.9±5	0.3±5	4.1±5.9	-	1.9±5
Lead-214	WINTER	pCi/L	-	901.1	-4±11	-	2±47	-	-4.3±4.6
	SPRING	pCi/L	-	901.1	8±11	-	1±11	0.1±4.7	-6±11
	SUMMER	pCi/L	-	901.1	2±41 Je I	-	-	-1±11 Je I	3±11 Je I
	FALL	pCi/L	-	901.1	4.3±5.2	8.3±5.7	2.7±6.7	-	4.4±5.1

TABLE 6.6
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
RADIOCHEMICALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter					PCD	PCD D1	PCU	PCU D1	STPO
Plutonium-241	WINTER	pCi/L	-	LAS178	0±1.3	-	0.5±1.4	-	-0.8±1.4
	SPRING	pCi/L	-	LAS178	0.3±1.5 Jc I	-	-0.3±1.7 Jc I	-1.3±1.7 Jc I	0.6±1.7 Jc I
	SUMMER	pCi/L	-	LAS178	0.4±2.8 Jc I	-	-	2.4±2.4	-1±2.9 Jc I
	FALL	pCi/L	-	LAS178	-0.3±1.9	-0.4±1.9	0.6±2.1	-	0.3±2
Radium-226	WINTER	pCi/L	5	901.1	0±120	-	-1110±510	-	31±56
	SPRING	pCi/L	5	901.1	-160±110	-	10±120	-18±59	-480±120
	SUMMER	-	-	901.1	-	-	-	-	-
	FALL	pCi/L	5	901.1	-54±57	-3±57	-81±68	-	5±55
	WINTER	pCi/L	5	903.1M	0.22±0.23	-	0.07±0.14	-	0±0.15
	SPRING	pCi/L	5	903.1M	0.18±0.18	-	0.2±0.15	0.05±0.14	0.46±0.24
	SUMMER	pCi/L	5	903.1M	0.15±0.17	-	-	0.089±0.086	0.12±0.16
	FALL	pCi/L	5	903.1M	0.12±0.13	0.86±0.24	0.26±0.13	-	0.8±0.29
Strontium-90	WINTER	pCi/L	8	905	-0.3±1.5	-	-0.3±1.1	-	-0.2±1.4
	SPRING	pCi/L	8	905	0.06±0.5 Jm I	-	0.21±0.53 Jm I	-0.05±0.52 Jm I	-0.06±0.56 Jm I
	SUMMER	pCi/L	8	905	0.7±0.56	-	-	0.21±0.42	0.53±0.49
	FALL	pCi/L	8	905	0.20±0.29	0.25±0.28	-0.06±0.37	-	0.04±0.26
Tritium	WINTER	pCi/L	20000 *	906	0±180	-	0±180	-	60±190
	SPRING	pCi/L	20000 *	906	10±170	-	30±170	-50±170	0±170
	SUMMER	pCi/L	20000 *	906	-70±220	-	-70±220	60±230	0±190
	FALL	pCi/L	20000 *	906	-70±180	-50±180	20±190	-	0±180
Uranium-235	WINTER	pCi/L	-	901.1	-11±26	-	10±130	-	-1.9±7.4
	SPRING	pCi/L	-	901.1	10±27	-	12±27	-6±15	17±25
	SUMMER	pCi/L	-	901.1	40±110	-	-	-8±28	4±27
	FALL	pCi/L	-	901.1	0±16	0±16	-9±16	-	-16±13

TABLE 6.6
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
RADIOCHEMICALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter					STPO D1	SWL00001	SWL00002	SWL00002 D1
Gross Alpha	WINTER	pCi/L	15	9310	3.2±3 |C	0.14±0.56	0.29±0.54	-0.06±0.46
	SPRING	pCi/L	15	9310	-	-	-	-
	SUMMER	pCi/L	15	9310	-	-	-	-
	FALL	pCi/L	15	9310	-	-	-	-
Gross Beta	WINTER	pCi/L	50	9310	29.5±4.1 Jd |C	1.7±1.3	0.5±1.2	0.7±1.2
	SPRING	pCi/L	50	9310	-	-	-	-
	SUMMER	pCi/L	50	9310	-	-	-	-
	FALL	pCi/L	50	9310	-	-	-	-
Actinium-228	WINTER	pCi/L	-	901.1	3.8±7.4	-1.2±7.4	2±21	0.7±7.7
	SPRING	pCi/L	-	901.1	-	-	-	-
	SUMMER	pCi/L	-	901.1	-	-	-	-
	FALL	pCi/L	-	901.1	-	-	-	-
Americium-241	WINTER	pCi/L	-	LAS108	0.097±0.075 Jm |Y	0.022±0.024	0.012±0.031	0.011±0.021
	SPRING	pCi/L	-	LAS108	-	-	-	-
	SUMMER	pCi/L	-	LAS108	-	-	-	-
	FALL	pCi/L	-	LAS108	-	-	-	-
Bismuth-214	WINTER	pCi/L	-	901.1	6.4±5.3	0.5±5.3	-6±10	-1.4±5.3
	SPRING	pCi/L	-	901.1	-	-	-	-
	SUMMER	pCi/L	-	901.1	-	-	-	-
	FALL	pCi/L	-	901.1	-	-	-	-
Carbon-14	WINTER	pCi/L	-	LSC	-16±82	16±83	-3±81	-57±76
	SPRING	pCi/L	-	LSC	-	-	-	-
	SUMMER	pCi/L	-	LSC	-	-	-	-
	FALL	pCi/L	-	LSC	-	-	-	-
Lead-212	WINTER	pCi/L	-	901.1	2.7±5.1	2.3±5.1	2±10	-3.1±5.1
	SPRING	pCi/L	-	901.1	-	-	-	-
	SUMMER	pCi/L	-	901.1	-	-	-	-
	FALL	pCi/L	-	901.1	-	-	-	-
Lead-214	WINTER	pCi/L	-	901.1	4.3±5	-1.9±4.9	0±11	-3.8±3.9
	SPRING	pCi/L	-	901.1	-	-	-	-
	SUMMER	pCi/L	-	901.1	-	-	-	-
	FALL	pCi/L	-	901.1	-	-	-	-

TABLE 6.6
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
RADIOCHEMICALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter					STPO D1	SWL00001	SWL00002	SWL00002 D1
Plutonium-241	WINTER	pCi/L	-	LAS178	-0.4±1.2	-0.5±1.4	0.3±1.6	-1.1±2.4
	SPRING	pCi/L	-	LAS178	-	-	-	-
	SUMMER	pCi/L	-	LAS178	-	-	-	-
	FALL	pCi/L	-	LAS178	-	-	-	-
Radium-226	WINTER	pCi/L	5	901.1	-34±54	-55±55	-80±110	-68±57
	SPRING	pCi/L	5	901.1	-	-	-	-
	SUMMER	-	-	901.1	-	-	-	-
	FALL	pCi/L	5	901.1	-	-	-	-
	WINTER	pCi/L	5	903.1M	0.17±0.17	0±0.13	-0.039±0.093	0.2±0.17
	SPRING	pCi/L	5	903.1M	-	-	-	-
	SUMMER	pCi/L	5	903.1M	-	-	-	-
	FALL	pCi/L	5	903.1M	-	-	-	-
Strontium-90	WINTER	pCi/L	8	905	-0.5±8.7	-0.03±0.77	0.06±0.77	-0.17±0.81
	SPRING	pCi/L	8	905	-	-	-	-
	SUMMER	pCi/L	8	905	-	-	-	-
	FALL	pCi/L	8	905	-	-	-	-
Tritium	WINTER	pCi/L	20000 *	906	50±190	-40±200 Jm I	-60±200 Jm I	150±220 Jm I
	SPRING	pCi/L	20000 *	906	-	-	-	-
	SUMMER	pCi/L	20000 *	906	-	-	-	-
	FALL	pCi/L	20000 *	906	-	-	-	-
Uranium-235	WINTER	pCi/L	-	901.1	-3±14	6±14	-6±28	0±14
	SPRING	pCi/L	-	901.1	-	-	-	-
	SUMMER	pCi/L	-	901.1	-	-	-	-
	FALL	pCi/L	-	901.1	-	-	-	-

TABLE 6.6
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
RADIOCHEMICALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1 = Duplicate sample.
\- = Not analyzed.
MCL = Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
* = Proposed MCL for Tritium is 60000 pCi/L.
a = Reported tritium activity of 50 pCi/L is suspected to belong to UCD1-20. The tritium activity for UCD1-20 was reported as 16,600 pCi/L, which is more consistent with the historical trend for UCD1-13.
b = Reported tritium activity of 16,600 pCi/L is suspected to belong to UCD1-13. The tritium activity for UCD1-13 was reported as 50 pCi/L, which is more consistent with the historical trend for UCD1-20.

Highlighted values indicate results where the value is greater than the calculated uncertainty.

Note: Radionuclide results are reported as calculated value, V, followed by the total uncertainty, T, in the format V±T. A calculated value that equals or exceeds the uncertainty ("positive value") represents 95% level of confidence that measurable radioactivity above zero is present for a given radionuclide.

See Appendix A for explanation of data qualifiers.

TABLE 6.7
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	PCD	PCD D1	PCU	PCU D1	STPO	STPO D1
Ammonia-Nitrogen	WINTER	mg/L	0.05	-	< 0.05	-	< 0.05	-	3.2	3.2
	SPRING	mg/L	0.05	-	< 0.05	-	< 0.05	< 0.05	1.4	-
	SUMMER	mg/L	0.05	-	-	-	-	-	-	-
	FALL	mg/L	0.05	-	-	-	-	-	-	-
Calcium	WINTER	mg/L	2	-	41.2	-	42.2	-	18.4	18
	SPRING	mg/L	2	-	40.5	-	41.3	-	19.1	-
	SUMMER	mg/L	2	-	32.6	-	35.2	33.1	22.1	-
	FALL	mg/L	2	-	23.2	22.9	22.9	-	19.2	-
Chloride	WINTER	mg/L	1	250 S	37	-	27	-	120	120
	SPRING	mg/L	1	250 S	27	-	26	26	110	-
	SUMMER	mg/L	1	250 S	-	-	-	-	-	-
	FALL	mg/L	1	250 S	-	-	-	-	-	-
Magnesium	WINTER	mg/L	2	-	41.9	-	44	-	18.4	18.1
	SPRING	mg/L	2	-	45.7	-	46.5	46	18.2	-
	SUMMER	mg/L	2	-	38.1	-	41.3	38.5	23.1	-
	FALL	mg/L	2	-	29.2	29	29.5	-	22	-
Nitrogen, Nitrate (as N)	WINTER	mg/L	0.1	10 #	2.7	-	2.6	-	7.5	7.4
	SPRING	mg/L	0.1	10 #	2.6	-	2.6	2.6	9.4	-
	SUMMER	mg/L	0.1	10 #	1.9	-	1.5	1.5	1.5	-
	FALL	mg/L	0.1	10 #	1.8	1.9	1.8	-	3	-
Potassium	WINTER	mg/L	2	-	1.96 IB	-	1.49 IB	-	10	9.87
	SPRING	mg/L	2	-	1.67 IB	-	1.52 IB	1.71 IB	9.09	-
	SUMMER	mg/L	2	-	2.95	-	1.67 IB	1.92 IB	8.69	-
	FALL	mg/L	2	-	2.87 IB	3.3 IB	2.5 IB	-	14.6	-
Sodium	WINTER	mg/L	2	-	38.9	-	31.4	-	141	140
	SPRING	mg/L	2	-	32.7	-	29.5	28.9	137	-
	SUMMER	mg/L	2	-	44.8	-	30.5	28.1	153	-
	FALL	mg/L	2	-	19.1	19.1	17.2	-	122	-
Sulfate	WINTER	mg/L	1	250 S	54	-	52	-	63	63
	SPRING	mg/L	1	250 S	34	-	34	34	54	-
	SUMMER	mg/L	1	250 S	-	-	-	-	-	-
	FALL	mg/L	1	250 S	-	-	-	-	-	-
Total Kjeldahl Nitrogen	WINTER	mg/L	0.5	-	< 0.5	-	< 0.5	-	3.1	3.1
	SPRING	mg/L	0.5	-	< 0.5	-	< 0.5	< 0.5	2.5	-
	SUMMER	mg/L	0.5	-	-	-	-	-	-	-
	FALL	mg/L	0.5	-	-	-	-	-	-	-

TABLE 6.7
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	SWL-1	SWL-2	SWL-2 D1
Ammonia-Nitrogen	WINTER	mg/L	0.05	-	-	-	-
	SPRING	mg/L	0.05	-	-	-	-
	SUMMER	mg/L	0.05	-	-	-	-
	FALL	mg/L	0.05	-	-	-	-
Calcium	WINTER	mg/L	2	-	1.35 IB	0.573 IB	0.598 IB
	SPRING	mg/L	2	-	-	-	-
	SUMMER	mg/L	2	-	-	-	-
	FALL	mg/L	2	-	-	-	-
Chloride	WINTER	mg/L	1	250 S	2	< 1	< 1
	SPRING	mg/L	1	250 S	-	-	-
	SUMMER	mg/L	1	250 S	-	-	-
	FALL	mg/L	1	250 S	-	-	-
Magnesium	WINTER	mg/L	2	-	0.455 IB	0.126 IB	0.128 IB
	SPRING	mg/L	2	-	-	-	-
	SUMMER	mg/L	2	-	-	-	-
	FALL	mg/L	2	-	-	-	-
Nitrogen, Nitrate (as N)	WINTER	mg/L	0.1	10 #	0.24	0.13	< 0.1
	SPRING	mg/L	0.1	10 #	-	-	-
	SUMMER	mg/L	0.1	10 #	-	-	-
	FALL	mg/L	0.1	10 #	-	-	-
Potassium	WINTER	mg/L	2	-	1.3 IB	0.888 IB	< 2 IU
	SPRING	mg/L	2	-	-	-	-
	SUMMER	mg/L	2	-	-	-	-
	FALL	mg/L	2	-	-	-	-
Sodium	WINTER	mg/L	2	-	3.66	0.286 IB	0.266 IB
	SPRING	mg/L	2	-	-	-	-
	SUMMER	mg/L	2	-	-	-	-
	FALL	mg/L	2	-	-	-	-
Sulfate	WINTER	mg/L	1	250 S	1.2	< 1	< 1
	SPRING	mg/L	1	250 S	-	-	-
	SUMMER	mg/L	1	250 S	-	-	-
	FALL	mg/L	1	250 S	-	-	-
Total Kjeldahl Nitrogen	WINTER	mg/L	0.5	-	-	-	-
	SPRING	mg/L	0.5	-	-	-	-
	SUMMER	mg/L	0.5	-	-	-	-
	FALL	mg/L	0.5	-	-	-	-

TABLE 6.7
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1 = Duplicate sample.
\- = Parameter not analyzed or no MCL.
DL = Detection limit.
< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.
MCL = Maximum Contaminant Level (primary), Title 22 Division 4 Chapter 15.
\# = USEPA MCL.
S = Secondary drinking water standard.

Highlighted values indicate positive results.

See Appendix A for explanation of data qualifiers.

TABLE 6.8
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Quarter	Units	DL	MCL	PCD	PCD D1	PCU	PCU D1	STPO	STPO D1
Alkalinity Total (as CaCO3)	WINTER	mg/L	-	-	250	-	250	-	180	180
	SPRING	mg/L	-	-	260	-	260	-	180	-
	SUMMER	mg/L	-	-	-	-	-	-	-	-
	FALL	mg/L	-	-	-	-	-	-	-	-
Total Dissolved Solids	WINTER	mg/L	20	500 S	390	-	380	-	530	540
	SPRING	mg/L	20	500 S	360 IC	-	370 IC	370 IC	540 IC	-
	SUMMER	mg/L	20	500 S	420	-	290	300	640	-
	FALL	mg/L	20	500 S	300	260	240	-	550	-
Total Organic Carbon	WINTER	mg/L	-	-	2.9	-	2.6	-	7.4	7.1
	SPRING	mg/L	-	-	2.6	-	2.5	2.4	8	-
	SUMMER	mg/L	-	-	-	-	-	-	-	-
	FALL	mg/L	-	-	-	-	-	-	-	-
Turbidity	WINTER	NTU	0.1	-	31 IN	-	37 IN	-	6.2 IN	9.1 IN
	SPRING	NTU	0.1	-	32	-	62	55	9.3	-
	SUMMER	NTU	0.1	-	25.4	-	16.2	16.2	1.93	-
	FALL	NTU	0.1	-	-	-	-	-	-	-

Parameter	Quarter	Units	DL	MCL	SWL-1	SWL-2	SWL-2 D1
Alkalinity Total (as CaCO3)	WINTER	mg/L	-	-	15	14	14
	SPRING	mg/L	-	-	-	-	-
	SUMMER	mg/L	-	-	-	-	-
	FALL	mg/L	-	-	-	-	-
Total Dissolved Solids	WINTER	mg/L	20	500 S	25	< 20	< 20
	SPRING	mg/L	20	500 S	-	-	-
	SUMMER	mg/L	20	500 S	-	-	-
	FALL	mg/L	20	500 S	-	-	-
Total Organic Carbon	WINTER	mg/L	-	-	6.8	2.5	2.5
	SPRING	mg/L	-	-	-	-	-
	SUMMER	mg/L	-	-	-	-	-
	FALL	mg/L	-	-	-	-	-
Turbidity	WINTER	NTU	0.1	-	17	3.1	3.1
	SPRING	NTU	0.1	-	-	-	-
	SUMMER	NTU	0.1	-	-	-	-
	FALL	NTU	0.1	-	-	-	-

TABLE 6.8
SUMMARY OF DETECTED CONSTITUENTS IN SURFACE WATER AND STORM WATER, 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1 = Duplicate sample.
- = Parameter not analyzed or no MCL.
DL = Detection limit.
< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.
MCL = Maximum Contaminant Level (primary), Title 22 Division 4 Chapter 15.
S = Secondary drinking water standard.

Highlighted values indicate positive results.

See Appendix A for explanation of data qualifiers.

Table 6.9. Surface Water Major Ion Chemistry

Constituent	PCU	STPO	PCD
Calcium (mg/L)	24.1	18.4	23.7
Magnesium (mg/L)	30.3	21.0	27.9
Sodium (mg/L)	44.8	140	66.5
Potassium (mg/L)	3.7	14.0	5.2
Ammonium (mg/L)	0.2	4.5	0.3
Alkalinity (mg $CaCO_3$/L)	192	197	187
Sulfate (mg/L)	43.7	62.9	47.6
Chloride (mg/L)	43.9	133	72.5
Nitrate (mg N/L)	1.7	6.1	2.8
Phosphate (mg P/L)	1.1	4.5	1.5

Notes: Each concentration represents the mean of all sampling events since the fall quarter of 1990.

Table 6.10. Surface Water Change Balance[a,b]

Constituent	PCU	STPO	PCD
Calcium (meq/L)	1.20	0.92	1.18
Magnesium (meq/L)	2.49	1.73	2.29
Sodium (meq/L)	1.95	6.09	2.89
Potassium (meq/L)	0.10	0.36	0.13
Ammonium (meq/L)	0.01	0.25	0.02
Carbonate (meq/L)	3.84	3.93	3.73
Sulfate (meq/L)	0.91	1.31	0.99
Chloride (meq/L)	1.24	3.74	2.05
Nitrate (meq/L)	0.12	0.43	0.20
Phosphate (meq/L)	0.11	0.44	0.15
Sum cations	5.75	9.35	6.52
Sum anions	6.21	9.85	7.11
Relative % difference	-7.7	-5.2	-8.6

(a) Each entry consists of the equivalent concentration of values presented in Table 6.9.

(b) Relative % Difference = $\frac{(\text{Sum Cations} - \text{Sum Anions})}{\left[\frac{(\text{Sum Cations} + \text{Sum Anions})}{2}\right]} \times 100$

7.0 Statistical Analysis

Comparisons were made between parameter results from downgradient wells and results from a background well to identify possible impacts of the LEHR site on groundwater quality. These impacts may be a direct result of adding a parameter to the groundwater, especially those that do not naturally occur, such as pesticides, volatiles, and semivolatiles. The impacts may also be indirect due to ensuing changes in geochemistry or hydrochemistry caused by adding other parameters. Parameters likely to be impacted in this manner are anions, some metals, and other parameters. For this report comparisons were conducted on analytical results from downgradient wells for the 1995 groundwater samples.

Similar analyses were not conducted for surface water results because the source of water for the upstream sample, PCU, varies during the year. As discussed in Section 6, the source for PCU during periods of high flow in Putah Creek is upstream Putah Creek, but during the dry summer months, when there is low flow in Putah Creek, discharge water from STPO backs up into the reach where the PCU station is located. When this happens, the PCU analysis is not representative of background (upstream) conditions. Because of this, it would not be appropriate to conduct analyses of these data. A qualitative discussion of surface water analytical results is presented in Section 6.

Data from both groundwater HSUs were included in the analysis. However, the two HSUs were evaluated separately because of their different physical and hydraulic properties (see Section 4). Analytical results from background well UCD1-18 were used for background characterization of HSU-1, and results for background well UCD2-17 were used for background characterization of HSU-2. These are the western-most wells in the LEHR site monitoring network and are background to the LEHR site and all other monitoring wells. The HSU-1 downgradient wells included in this analysis are UCD1-1, UCD1-4, UCD1-10, UCD1-11, UCD1-12, UCD1-13, UCD1-19, UCD1-20, UCD1-21, UCD1-22, UCD1-23, and UCD1-24. Also analyzed were the following HSU-1 wells sampled for the first time in the fourth quarter of 1995: UCD1-25,UCD1-34, UCD1-27Z1, UCD1-27Z2, and UCD1-27Z3. Downgradient wells from HSU-2 included in this analysis are UCD2-7, UCD2-14, UCD2-15, UCD2-16, and the following wells sampled for the first time in the fourth quarter of 1995: UCD2-26, UCD2-35, UCD2-27Z4, UCD2-27Z5, UCD2-27Z6, and UCD2-27Z7. Although wells UCD1-34 and UCD2-35 are also candidates for upgradient wells, they have only been sampled once and were treated as possibly downgradient for this year's comparisons.

For this report, data from the third quarter of 1993 through the second quarter of 1995 were used to characterize background groundwater conditions. This two-year background characterization data set includes results from the most recent eight quarters of full sampling and analysis and was chosen for the following reasons:

- The EPA (1989b) recommends using the most recent six to eight data points from background monitoring wells to evaluate background groundwater quality. This results in a reduction of potential historical bias when comparing the most recent sample events of 1995.

- Using two years of data for the background evaluation is consistent with the evaluation presented in the 1994 Annual Water Monitoring Report (PNL 1995).

7.1 Comparison Strategy

In general, a numerical result is not reported if the analysis is below the detection limit. Occasionally, a numerical result will be reported even when the value is less than the detection limit. The comparisons to background were divided into two general classes:

I <u>Parameters with no results reported greater than the detection limit in any 1995 downgradient well sampling</u>. Parameters falling into this category are considered to demonstrate no LEHR site impact on the groundwater and warrant no further comparison in this section.

II <u>Parameters with results reported greater than the detection limit in one or more 1995 downgradient well samples</u>. These parameters are considered to show a possible LEHR site impact on groundwater. This class was evaluated by statistical methods to determine whether the downgradient results were similar to background or were statistically different than background, indicating a possible effect of the LEHR site on groundwater quality.

Table 7.1 (at the end of Section 7) summarizes the number of samples taken and the number of results above the detection limit for the two-year background characterization data and the 1995 downgradient samples for HSU-1 and HSU-2. It also designates which class a parameter fell into for each HSU. Radionuclides, which are not arbitrarily censored at a detection limit, were labeled "detected" if their reported value exceeded their reported detection limit.

7.2 Parameters with No Results Above Detection Limit in 1995 Downgradient Samples (Class I)

Table 7.1 shows that the following parameters had no results reported above the detection limit in downgradient samples during 1995 (Class I) and do not need to be compared with background:

Volatiles	Most volatiles, except 10 in HSU-1 and one in HSU-2.
Semivolatiles	All semivolatiles in both HSUs with the exception of a few sporadic phthalate and phenol compounds.
Pesticides	Pesticides in both HSUs with the exception of dieldrin in HSU-1.
Metals	Antimony, beryllium, cadmium, cobalt, lead, molybdenum, silver, and thallium in both HSUs; copper in HSU-1, and nickel and potassium in HSU-2.
Radionuclides	Bismuth-212, cesium-134, cesium-137, cobalt-57, cobalt-60, lead-210, potassium-40, radium-223, thallium-208, thorium-234, and uranium-235 in both HSUs; actinium-228 in HSU-1 and lead-212 and plutonium-241 in HSU-2.
Anions	Phosphate in both HSUs
Other Parameters	Chemical oxygen demand, formaldehyde, and total kjeldahl nitrogen in both HSUs.

7.3 Parameters with Results Above Detection Limit in 1995 Downgradient Samples (Class II)

Table 7.1 also presents a summary of those parameters with results above the detection limit in one or more 1995 downgradient samples (Class II). These parameters will be further evaluated by statistical methods to determine whether the downgradient results could have come from the background or were statistically different than background, indicating a possible effect of the LEHR site on groundwater quality. Guidance for the statistical approach for the Class II parameters is based on *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities* (EPA 1989b) as described in the 1994 Annual Water Monitoring Report (PNL 1995). Figure 7.1, redrawn and modified from that document, presents the types of analyses conducted based on the characteristics of the data. The process shown in Figure 7.1 was used to select the appropriate statistical method to evaluate each parameter. This process differs slightly from that used in the 1994 Annual Report due to replacement of the approximate test of proportions with Fisher's Exact test. The selection of statistical method is similar to last year but was based solely on how well the background could be characterized. If fewer than 50% of the background values for a parameter were above the detection limit, a Fisher's Exact test was used to compare the background with each downgradient well that had values above the detection limit. If 50% or more of the background values for a parameter were above

the detection limit, an upper 95% tolerance limit (UTL) with 95% confidence was calculated and used to compare with downgradient results.

The Fisher's Exact test replaces the approximate test of proportions previously used because the Fisher's Exact test can be used regardless of the percentage of nondetects. The Fisher's Exact test is similar to the test of proportions and compares the number of detects and nondetects in a well with the number of detects and nondetects in the background and determines if the downgradient well results are likely to have been from the background.

When greater than 50% detections are present for an analytical parameter in the background well, more detailed statistics are possible. For this report, parameters that satisfied this criterion were evaluated by calculating a 95% UTL. The UTL calculation provides an upper limit concentration for the parameter in the background well. If the percentage of detections in the background well is less than 85% but greater than 50%, the mean and standard deviations must first be adjusted using Cohen's method (Cohen 1959) before calculating the UTL. If the percentage of detections is greater than 85%, the UTL can be calculated using values of one-half the detection limit for nondetections. Once this UTL concentration is established for the sample results of the background well, each downgradient well result is compared with the UTL value.

A list of all Class II parameters in both HSUs is given in Table 7.2 along with the selected statistical method for each (note, no parameters fell into the percentage of detections for using one-half the detection limit for UTL calculations). In general, anions, field, and radionuclides are analyzed using the UTL method; pesticides, volatiles, and semivolatiles are generally analyzed using the Fisher's Exact test. Other parameters and metals show a mixture of the two methods. Radionuclides were analyzed using the UTL method because their results are not arbitrarily censored at a detection limit, and a reported result is always available for statistical analysis.

7.4 Results of Statistical Comparisons of Downgradient to Background

This section presents the results of the statistical comparison of background and downgradient groundwater data. Tables 7.3a and 7.3b present a summary of the results of the statistical analysis using UTL comparisons for HSU-1 and HSU-2, respectively. Tables 7.4a and 7.4b present a summary of the results of the statistical analysis using Fisher's Exact test for HSU-1 and HSU-2, respectively. A discussion of the results of the statistical analysis is presented below.

7.4.1 Upper Tolerance Limit Comparison Results

Tables 7.3a and 7.3b present a summary of the statistical analysis for parameters that were evaluated by a background UTL calculation for HSU-1 and HSU-2, respectively. There were parameters from each of the analytical groups except pesticides, volatiles, and semivolatiles.

After calculating the background UTL, analytical results from the downgradient wells were compared with the UTL value. A downgradient result that exceeds the UTL is considered to be elevated with respect to background at a 95% confidence level and may indicate an effect of the LEHR site on groundwater quality. Results that are below the UTL value are considered to be within likely background levels and indicate no LEHR site impact. Tables 7.3a and 7.3b list the percentage of 1995 samples in each well that exceeded a UTL. These percentages must be interpreted with some caution since many parameters were only sampled once or twice in many wells during 1995. A dash (–) in the tables indicates none of the results exceeded the UTL in a well; a period (.) indicates that no samples were taken in a well.

7.4.2 Fisher's Exact Test Comparison Results

Tables 7.4a and 7.4b present a summary of the results for parameters evaluated by the Fisher's Exact test. There were parameters from each of the analytical groups except anions and field.

The Fisher's Exact test reports the probability that the number of detects and nondetects in a well could have resulted from a well with the number of detects and nondetects observed in the background data. Tables 7.4a and 7.4b list the probabilities calculated for downgradient wells that had at least one reported result above the detection limit. Small probability values (<0.05) indicate that it is unlikely the results represent background but are a likely LEHR site impact. Larger probability values indicate that it is possible the results could have come from background and may not represent LEHR site impact.

7.5 Significance of Statistical Analysis Results

The 1995 water monitoring program included the analysis of 196 parameters. Sixty-five of the 196 parameters were reported as detected in at least one sample (Table 5.1). Statistical analyses of the 65 detected parameters indicated that 29 parameters were reported at concentrations significantly different from concentrations found in background wells UCD1-18 or UCD2-17. These results are summarized in Table 7.5. The purpose of this section is to discuss the significance of the findings reported in Table 7.5.

Table 7.5 presents the parameters that were detected above background levels, the HSU in which the parameter was detected, and the type of parameter effect. A direct parameter effect results from constituents that were disposed of at LEHR and indirect effects are secondary effects resulting from direct actions. An example of a direct effect is the disposal of chloroform in an area on the north side of Landfill 2. An indirect effect would be the appearance of elevated magnesium concentrations in groundwaters; magnesium was not discharged to the ground at LEHR, but natural magnesium in the soil may be mobilized because of actions taken on the site. The number of wells in which each parameter was detected above background is also reported to indicated the significance of the finding.

While the results presented in Table 7.5 represent significant differences between onsite and background data, not all of the differences are significant from a hazard standpoint. A parameter is considered significant from a hazard or use standpoint if the maximum concentration exceeded a regulatory limit such as an MCL. Table 7.6 provides the maximum concentrations reported for each of the parameters in 1995 and regulatory limits for reference. A parameter is judged to be significant if its maximum concentration was greater than the regulatory limit. Such parameters can be identified in Table 7.6 by a number entry in the "Significant" column. A number entry corresponds to the number of sample locations in which the parameter exceeded the stated regulatory limit for at least one quarter during 1995. Of the 29 parameters that were significantly different from background, 13 have exceeded a regulatory limit. The remainder of this section will focus on these 13 parameters.

Sulfate, total dissolved solids (TDS), and pH were identified as significant because they exceeded a secondary drinking water limit. While not hazardous parameters, their elevated concentrations indicate a secondary effect of actions on LEHR. Sulfate was detected above the regulatory limit only in well UCD1-10 which is consistent with historical trends (Table C.5). The regulatory limit for TDS was exceeded in all but one HSU-1 wells, including the background, but eight sampling locations in HSU-1 and two in HSU-2 were significantly greater than background. The regulatory limit for pH was exceeded in UCD2-15 for one quarter and is not considered significant because the mean pH for the well is less than 8.

Nitrate concentrations at five HSU-1 and two HSU-2 sampling locations exceeded the regulatory limit and background levels. Ten wells in HSU-1 exceeded the nitrate regulatory limit, but only five wells exceeded background because the nitrate concentration in background well UCD1-18 also exceeded the limit. While groundwater nitrate concentrations in the region surrounding LEHR are elevated above the drinking water limit, five HSU-1 wells exceeded the background level, indicating an effect from LEHR. The nitrate plumes were discussed in Section 5.0. The highest nitrate levels are located at the north end of Landfill 2.

Total and hexavalent chromium exceeded regulatory limits and background concentrations in seven HSU-1 wells scattered across the site. Most of the total chromium measured is in hexavalent form and their concentrations are closely related, therefore, they will be discussed without distinguishing either form. The MCL for chromium was exceeded only in UCD2-7 in HSU-2. This well has historically contained chromium at 50 to 60 μg/L. These chromium data are consistent with the long-term monitoring trends and what was reported in 1994. These data indicate that elevated chromium levels in groundwaters beneath LEHR are the result of direct disposal of chromium containing solutions at LEHR.

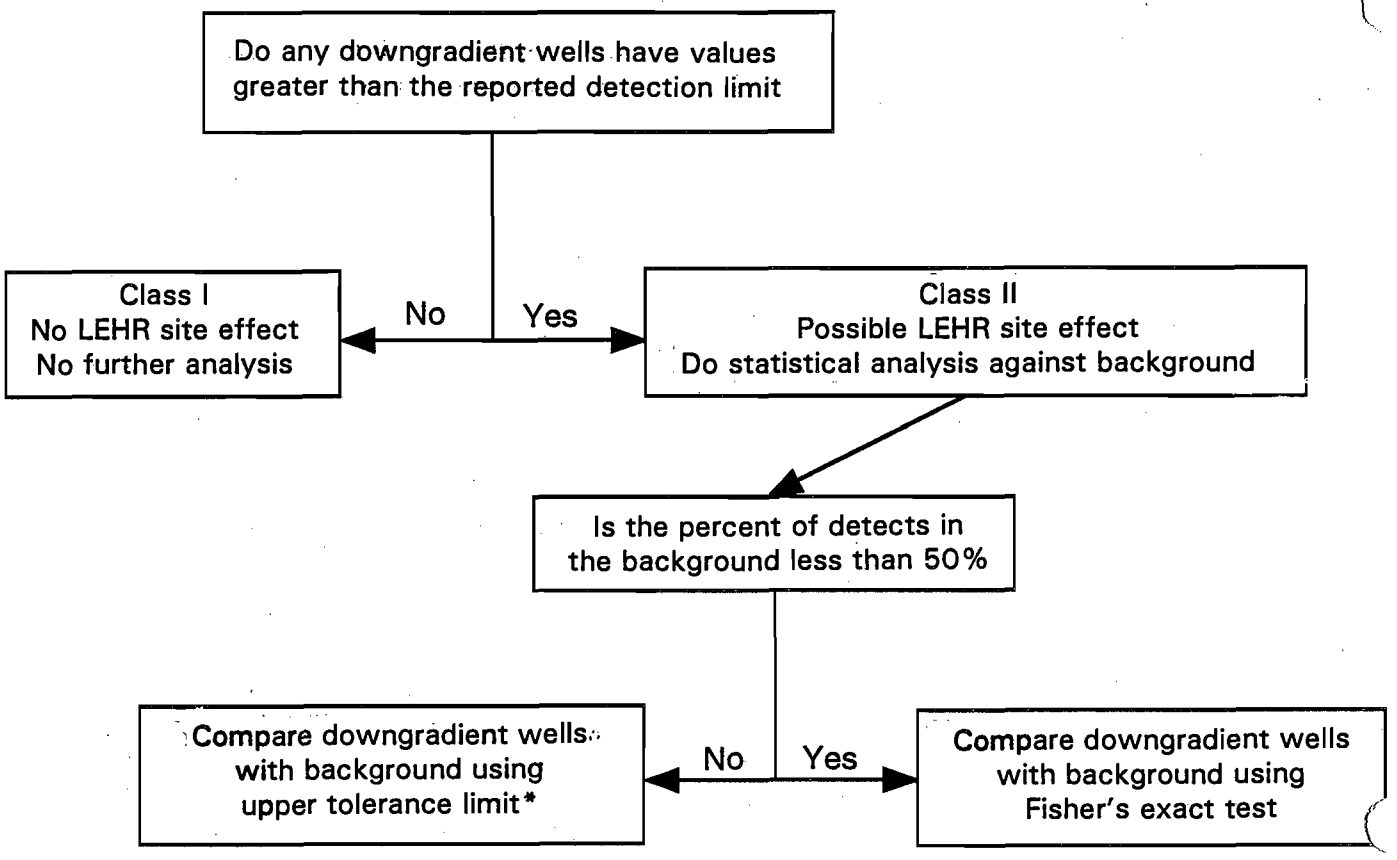
Selenium exceeded the MCL of 5 μg/L in four wells, UCD1-10, UCD1-11, UCD1-12, and UCD1-19, during 1995. These results are consistent with historical trends (Table C.3). There is no know direct release of selenium from LEHR, therefore, these elevated levels appear to be the indirect result of some unknown activity at LEHR.

Americium-241 was reported above background in one well, UCD1-10, for one quarter in 1995. The value exceeded the background level, but just slightly above the MDA. It is likely that this "detection" is due to a random fluctuation in background counting, but will continue to be monitored to establish a trend. Americium-241 was detected one other time in UCD1-10 in 1994.

Carbon-14 was detected at levels exceeding background in four HSU-1 (UCD1-12, UCD1-13, UCD1-20, and UCD1-23) and 1 HSU-2 (UCD2-14) wells in 1995. These findings are consistent with historical trends (Table C.4) except for the detection in UCD1-20. The one reported detection was just above the MDA and attributed to fluctuations in background counting. These data indicate that carbon-14 contamination is likely from three isolated sources, near UCD1-12 north of Landfill 2, in the vicinity of the southwest trenches (UCD1-23), and in the vicinity of the southern half of Landfill 2 (UCD1-13 and UCD2-14). Carbon-14 is not detected in other wells, indicating that a continuous plume is not present at the site.

Of the volatile constituents that exceeded background, only those detected in well UCD1-12 exceeded MCLs. Chloroform concentrations in UCD1-12 were 3 to 4 orders of magnitude higher than in any other well in the monitoring system and 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethane were only detected in UCD1-12. Clearly, the source of these constituents is in the vicinity of the north end of Landfill 2. At this time, the source is unknown, but as presented in Section 5.0, the extent of the chloroform plume and its distribution on LEHR is well delineated.

Based on the results in this section the list of parameters that indicate a potential effect of the LEHR site on groundwater can be reduced to those shown in Table 7.6. Of these, nitrate, chromium, carbon–14, tritium, and the volatiles could be directly attributable to LEHR site activities. Most of the remaining parameters are likely an indirect effect caused by one of the direct groundwater contaminants.



*If percent detects in background is
100%
between 85 and 100%
between 50 and 85%

Calculate mean and standard deviation using
raw data
DL values replaced with 1/2 DL
Cohen's method

Figure 7.1. Statistical Test Selection Flow Chart

Table 7.1. Summary of Samples and Detects for Two-Year Background and 1995 Downgradient Samples

Analytical Group	Parameter Name	HSU-1					HSU-2				
		Background		Downgradient			Background		Downgradient		
		Samples	Detects	Samples	Detects	Class	Samples	Detects	Samples	Detects	Class
Anions	Chloride	9	9	26	26	II	10	10	9	9	II
	Nitrogen, Nitrate (as N)	9	9	39	36	II	10	10	22	22	II
	Phosphate, Total (as P)	9	-	26	-	I	10	-	9	-	I
	Sulfate	9	9	26	26	II	10	10	9	9	II
Field	EH-F	8	8	26	26	II	7	7	9	9	II
	Specific Conductance (EC)	9	9	37	37	II	10	10	14	14	II
	Temperature	9	9	37	37	II	10	10	14	14	II
	Turbidity	8	8	37	37	II	10	10	13	13	II
	pH	9	9	37	37	II	10	10	14	14	II
General	Alkalinity, Total(as CaCO3)	9	9	26	26	II	10	10	9	9	II
	Ammonia-Nitrogen	9	-	26	2	II	10	2	9	2	II
	Chemical Oxygen Demand	4	-	26	-	I	4	1	9	-	I
	Formaldehyde	8	1	12	-	I	9	-	5	-	I
	Total Dissolved Solids	9	9	41	41	II	10	10	22	22	II
	Total Kjeldahl Nitrogen	10	-	26	-	I	10	1	9	-	I
	Total Organic Carbon	9	7	26	14	II	10	3	9	4	II
	Turbidity	9	9	26	20	II	10	8	9	3	II
Metals	Antimony	9	-	31	-	I	10	-	20	-	I
	Arsenic	9	7	31	19	II	10	6	20	11	II
	Barium	9	9	31	31	II	10	10	20	19	II
	Beryllium	9	1	31	-	I	10	-	20	-	I
	Cadmium	9	-	31	-	I	10	-	20	-	I
	Calcium	9	9	31	31	II	10	10	20	20	II
	Chromium	9	9	31	24	II	10	8	20	13	II
	Chromium, Hexavalent (+6)	9	5	43	36	II	10	4	22	12	II
	Cobalt	9	-	31	-	I	10	-	20	-	I

Table 7.1. (contd)

Analytical Group	Parameter Name	HSU-1					HSU-2				
		Background		Downgradient			Background		Downgradient		
		Samples	Detects	Samples	Detects	Class	Samples	Detects	Samples	Detects	Class
Metals (contd)	Copper	9	-	31	-	I	10	-	20	1	II
	Iron	9	3	31	3	II	10	3	20	6	II
	Lead	9	-	31	-	I	10	1	20	-	I
	Magnesium	9	9	31	31	II	10	10	20	20	II
	Mercury	9	1	31	3	II	10	-	20	2	II
	Molybdenum	9	-	31	-	I	10	-	20	-	I
	Nickel	9	7	31	3	II	10	-	20	-	I
	Potassium	9	3	31	1	II	10	3	20	-	I
	Selenium	9	1	31	14	II	10	2	20	5	II
	Silver	9	-	31	-	I	10	-	20	-	I
	Sodium	9	9	31	31	II	10	10	20	20	II
	Thallium	9	-	31	-	I	10	-	20	-	I
	Vanadium	9	5	31	7	II	10	1	20	2	II
	Zinc	9	1	31	4	II	10	1	20	1	II
Pesticides	4,4'-DDD	9	-	39	-	I	10	-	19	-	I
	4,4'-DDE	9	-	39	-	I	10	-	19	-	I
	4,4'-DDT	9	-	39	-	I	10	-	19	-	I
	Aldrin	9	-	39	-	I	10	-	19	-	I
	Alpha-BHC	9	-	39	-	I	10	-	19	-	I
	Alpha-Chlordane	9	-	39	-	I	10	-	19	-	I
	Aroclor-1016	9	-	39	-	I	10	-	19	-	I
	Aroclor-1221	9	-	39	-	I	10	-	19	-	I
	Aroclor-1232	9	-	39	-	I	10	-	19	-	I
	Aroclor-1242	9	-	39	-	I	10	-	19	-	I
	Aroclor-1248	9	-	39	-	I	10	-	19	-	I
	Aroclor-1254	9	-	39	-	I	10	-	19	-	I

Table 7.1. (contd)

Analytical Group	Parameter Name	HSU-1					HSU-2				
		Background		Downgradient			Background		Downgradient		
		Samples	Detects	Samples	Detects	Class	Samples	Detects	Samples	Detects	Class
Pesticides (contd)	Aroclor-1260	9	-	39	-	I	10	-	19	-	I
	Beta-BHC	9	-	39	-	I	10	-	19	-	I
	Delta-BHC	9	-	39	-	I	10	-	19	-	I
	Dieldrin	9	-	39	3	II	10	-	19	-	I
	Endosulfan I	9	-	39	-	I	10	-	19	-	I
	Endosulfan II	9	-	39	-	I	10	-	19	-	I
	Endosulfan Sulfate	9	-	39	-	I	10	-	19	-	I
	Endrin	9	-	39	-	I	10	-	19	-	I
	Endrin Aldehyde	9	-	39	-	I	10	-	19	-	I
	Endrin Ketone	9	-	39	-	I	10	-	19	-	I
	Gamma-BHC	9	-	39	-	I	10	-	19	-	I
	Gamma-Chlordane	9	-	39	-	I	10	-	19	-	I
	Heptachlor	9	-	39	-	I	10	-	19	-	I
	Heptachlor Epoxide	9	-	39	-	I	10	-	19	-	I
	Methoxychlor	9	-	39	-	I	10	-	19	-	I
	Toxaphene	9	-	39	-	I	10	-	19	-	I
Radionuclides	Actinium-228	7	-	41	-	I	7	-	21	1	II
	Americium-241	4	-	32	4	II	5	1	17	2	II
	Bismuth-212	5	-	35	-	I	4	-	17	-	I
	Bismuth-214	7	3	41	23	II	7	2	21	5	II
	Carbon-14	9	-	38	13	II	10	2	18	3	II
	Cesium-134	.	.	6	-	I	.	.	4	-	I
	Cesium-137	7	1	41	-	I	7	-	21	-	I
	Cobalt-57	.	.	6	-	I	.	.	4	-	I
	Cobalt-60	7	-	41	-	I	7	-	21	-	I
	Gross Alpha	9	-	41	1	II	10	1	21	1	II

Table 7.1. (contd)

Analytical Group	Parameter Name	HSU-1					HSU-2				
		Background		Downgradient			Background		Downgradient		
		Samples	Detects	Samples	Detects	Class	Samples	Detects	Samples	Detects	Class
Radionuclides (contd)	Gross Beta	9	-	41	3	II	10	1	21	3	II
	Lead-210	5	-	35	-	I	4	-	17	-	I
	Lead-212	7	-	41	2	II	7	-	21	-	I
	Lead-214	7	2	41	18	II	7	1	21	9	II
	Plutonium-241	5	-	32	2	II	5	-	17	-	I
	Potassium-40	7	-	41	-	I	7	-	21	-	I
	Ra-223	.	.	9	-	I	.	.	8	-	I
	Radium-226	11	3	76	15	II	10	1	38	9	II
	Strontium-90	9	-	41	1	II	10	-	21	5	II
	Thallium-208	7	-	41	-	I	7	-	21	-	I
	Thorium-234	6	-	41	-	I	5	-	21	-	I
	Tritium	9	-	40	4	II	10	-	21	5	II
	Uranium-235	7	-	41	-	I	7	1	21	-	I
Semi-volatiles	1,2,4-Trichlorobenzene	9	-	31	-	I	10	-	15	-	I
	1,2-Dichlorobenzene	9	-	31	-	I	10	-	15	-	I
	1,3-Dichlorobenzene	9	-	31	-	I	10	-	15	-	I
	1,4-Dichlorobenzene	9	-	31	-	I	10	-	15	-	I
	2,2'-oxybis(1-Chloropropane)	9	-	31	-	I	10	-	15	-	I
	2,4,5-Trichlorophenol	9	-	31	-	I	10	-	15	-	I
	2,4,6-Trichlorophenol	9	-	31	-	I	10	-	15	-	I
	2,4-Dichlorophenol	9	-	31	-	I	10	-	15	-	I
	2,4-Dimethylphenol	9	-	31	-	I	10	-	15	-	I
	2,4-Dinitrophenol	9	-	31	-	I	10	-	15	-	I
	2,4-Dinitrotoluene	9	-	31	-	I	10	-	15	-	I
	2,6-Dinitrotoluene	9	-	31	-	I	10	-	15	-	I
	2-Chloronaphthalene	9	-	31	-	I	10	-	15	-	I

Table 7.1. (contd)

Analytical Group	Parameter Name	HSU-1					HSU-2				
		Background		Downgradient			Background		Downgradient		
		Samples	Detects	Samples	Detects	Class	Samples	Detects	Samples	Detects	Class
Semi-volatiles (contd)	2-Chlorophenol	9	-	31	-	I	10	-	15	-	I
	2-Methyl-4,6-dinitrophenol	9	-	31	-	I	10	-	15	-	I
	2-Methylnaphthalene	9	-	31	-	I	10	-	15	-	I
	2-Methylphenol	9	-	31	-	I	10	-	15	-	I
	2-Nitroaniline	9	-	31	-	I	10	-	15	-	I
	2-Nitrophenol	9	-	31	-	I	10	-	15	-	I
	3,3'-Dichlorobenzidine	9	-	31	-	I	10	-	15	-	I
	3-Nitroaniline	9	-	31	-	I	10	-	15	-	I
	4-Bromophenyl Phenyl Ether	9	-	31	-	I	10	-	15	-	I
	4-Chloro-3-Methylphenol	9	-	31	-	I	10	-	15	-	I
	4-Chloroaniline	9	-	31	-	I	10	-	15	-	I
	4-Chlorophenyl Phenyl Ether	9	-	31	-	I	10	-	15	-	I
	4-Methylphenol	9	-	31	3	II	10	-	15	-	I
	4-Nitroaniline	9	-	31	-	I	10	-	15	-	I
	4-Nitrophenol	9	-	31	-	I	10	-	15	-	I
	Acenaphthene	9	-	31	-	I	10	-	15	-	I
	Acenaphthylene	9	-	31	-	I	10	-	15	-	I
	Anthracene	9	-	31	-	I	10	-	15	-	I
	Benzo(a)anthracene	9	-	31	-	I	10	-	15	-	I
	Benzo(a)pyrene	9	-	31	-	I	10	-	15	-	I
	Benzo(b)fluoranthene	9	-	31	-	I	10	-	15	-	I
	Benzo(g,h,i)perylene	9	-	31	-	I	10	-	15	-	I
	Benzo(k)fluoranthene	9	-	31	-	I	10	-	15	-	I
	Benzyl Butyl Phthalate	9	-	31	-	I	10	-	15	-	I
	Bis(2-Chloroethoxy)methane	9	-	31	-	I	10	-	15	-	I
	Bis(2-Chloroethyl)ether	9	-	31	-	I	10	-	15	-	I

Table 7.1. (contd)

Analytical Group	Parameter Name	HSU-1					HSU-2				
		Background		Downgradient			Background		Downgradient		
		Samples	Detects	Samples	Detects	Class	Samples	Detects	Samples	Detects	Class
Semi-volatiles (contd)	Bis(2-Ethylhexyl)phthalate	9	-	31	-	I	10	-	15	3	II
	Carbazole	9	-	31	-	I	10	-	15	-	I
	Chrysene	9	-	31	-	I	10	-	15	-	I
	Di-n-Butylphthalate	9	1	31	3	II	10	1	15	-	I
	Di-n-Octylphthalate	9	-	31	-	I	10	-	15	-	I
	Dibenzo(a,h)anthracene	9	-	31	-	I	10	-	15	-	I
	Dibenzofuran	9	-	31	-	I	10	-	15	-	I
	Diethyl Phthalate	9	-	31	-	I	10	-	15	-	I
	Dimethyl Phthalate	9	-	31	-	I	10	-	15	-	I
	Fluoranthene	9	-	31	-	I	10	-	15	-	I
	Fluorene	9	-	31	-	I	10	-	15	-	I
	Hexachlorobenzene	9	-	31	-	I	10	-	15	-	I
	Hexachlorobutadiene	9	-	31	-	I	10	-	15	-	I
	Hexachlorocyclopentadiene	9	-	31	-	I	10	-	15	-	I
	Hexachloroethane	9	-	31	-	I	10	-	15	-	I
	Indeno(1,2,3-cd)pyrene	9	-	31	-	I	10	-	15	-	I
	Isophorone	9	-	31	-	I	10	-	15	-	I
	N-Nitrosodi-n-propylamine	9	-	31	-	I	10	-	15	-	I
	N-Nitrosodiphenylamine	9	-	31	-	I	10	-	15	-	I
	Naphthalene	9	-	31	-	I	10	-	15	-	I
	Nitrobenzene	9	-	31	-	I	10	-	15	-	I
	Pentachlorophenol	9	-	31	-	I	10	-	15	-	I
	Phenanthrene	9	-	31	-	I	10	-	15	-	I
	Phenol	9	-	31	3	II	10	-	15	1	II
	Pyrene	9	-	31	-	I	10	-	15	-	I

Table 7.1. (contd)

Analytical Group	Parameter Name	HSU-1					HSU-2				
		Background		Downgradient			Background		Downgradient		
		Samples	Detects	Samples	Detects	Class	Samples	Detects	Samples	Detects	Class
Volatiles	1,1,1-Trichloroethane	9	-	43	-	I	10	-	20	-	I
	1,1,2,2-Tetrachloroethane	9	-	43	-	I	10	-	20	-	I
	1,1,2-Trichloroethane	9	-	43	5	II	10	-	20	-	I
	1,1-Dichloroethane	9	-	42	5	II	10	-	20	-	I
	1,1-Dichloroethene	9	-	42	6	II	10	-	20	-	I
	1,2-Dibromo-3-chloropropane	9	-	43	-	I	10	-	20	-	I
	1,2-Dibromoethane	9	-	43	-	I	10	-	20	-	I
	1,2-Dichlorobenzene	9	-	43	-	I	10	-	20	-	I
	1,2-Dichloroethane	9	-	42	5	II	10	-	20	-	I
	1,2-Dichloropropane	9	-	42	-	I	10	-	20	-	I
	1,3-Dichlorobenzene	9	-	43	-	I	10	-	20	-	I
	1,4-Dichlorobenzene	9	-	43	-	I	10	-	20	-	I
	2-Butanone	9	-	43	1	II	10	-	20	-	I
	2-Hexanone	9	-	43	-	I	10	-	20	-	I
	4-Methyl-2-Pentanone	9	-	43	-	I	10	-	20	-	I
	Acetone	9	-	42	-	I	10	-	20	-	I
	Benzene	9	-	43	-	I	10	-	20	-	I
	Bromochloromethane	9	-	43	-	I	10	-	20	-	I
	Bromodichloromethane	9	-	44	4	II	10	-	20	-	I
	Bromoform	9	-	43	-	I	10	-	20	-	I
	Bromomethane	9	-	43	-	I	10	-	20	-	I
	Carbon Disulfide	9	-	43	1	II	10	-	20	-	I
	Carbon Tetrachloride	9	-	43	-	I	10	-	20	-	I
	Chlorobenzene	9	-	43	-	I	10	-	20	-	I
	Chloroethane	9	-	43	-	I	10	-	20	-	I
	Chloroform	9	-	44	18	II	10	-	20	9	II

Table 7.1. (contd)

Analytical Group	Parameter Name	HSU-1					HSU-2				
		Background		Downgradient			Background		Downgradient		
		Samples	Detects	Samples	Detects	Class	Samples	Detects	Samples	Detects	Class
Volatiles (contd)	Chloromethane	9	-	43	-	I	10	-	20	-	I
	Dibromochloromethane	9	-	43	-	I	10	-	20	-	I
	Ethyl Benzene	9	-	43	-	I	10	-	20	-	I
	Methylene Chloride	9	-	43	-	I	10	-	20	-	I
	Styrene	9	-	43	-	I	10	-	20	-	I
	Tetrachloroethene	9	-	43	-	I	10	-	20	-	I
	Toluene	9	-	44	2	II	10	-	20	-	I
	Trichloroethene	9	-	43	-	I	10	-	20	-	I
	Vinyl Chloride	9	-	43	-	I	10	-	20	-	I
	Xylenes (Total)	9	-	44	1	II	10	-	20	-	I
	cis-1,2-Dichloroethene	9	-	43	-	I	10	-	20	-	I
	cis-1,3-Dichloropropene	9	-	43	-	I	10	-	20	-	I
	trans-1,2-Dichloroethene	9	-	43	-	I	10	-	20	-	I
	trans-1,3-Dichloropropene	9	-	43	-	I	10	-	20	-	I

Dash (-) indicates no reported values above detection limit.
Period (.) indicates no data.
Class I - No results reported above detection limit in any 1995 downgradient wells.
Class II - Results reported above detection limit in one or more 1995 downgradient wells.

Table 7.2. Parameters With at Least One Downgradient Result Above the Detection Limit

Analytical Group	Parameter Name	HSU-1 Background				HSU-2 Background			
		Samples	Detects	% Detects	Method	Samples	Detects	% Detects	Method
Anions	Chloride	9	9	100	UTL	10	10	100	UTL
	Nitrogen, Nitrate (as N)	9	9	100	UTL	10	10	100	UTL
	Sulfate	9	9	100	UTL	10	10	100	UTL
Field	EH-F	8	8	100	UTL	7	7	100	UTL
	Specific Conductance (EC)	9	9	100	UTL	10	10	100	UTL
	Temperature	9	9	100	UTL	10	10	100	UTL
	Turbidity	8	8	100	UTL	10	10	100	UTL
	pH	9	9	100	UTL	10	10	100	UTL
General	Alkalinity, Total(as CaCO3)	9	9	100	UTL	10	10	100	UTL
	Ammonia-Nitrogen	9	-	0	Fisher	10	2	20	Fisher
	Total Dissolved Solids	9	9	100	UTL	10	10	100	UTL
	Total Organic Carbon	9	7	78	UTL-Cohen	10	3	30	Fisher
	Turbidity	9	9	100	UTL	10	8	80	UTL-Cohen
Metals	Arsenic	9	7	78	UTL-Cohen	10	6	60	UTL-Cohen
	Barium	9	9	100	UTL	10	10	100	UTL
	Calcium	9	9	100	UTL	10	10	100	UTL
	Chromium	9	9	100	UTL	10	8	80	UTL
	Chromium, Hexavalent (+6)	9	5	56	UTL-Cohen	10	4	40	Fisher
	Copper	.	.	.		10	-	0	Fisher
	Iron	9	3	33	Fisher	10	3	30	Fisher
	Magnesium	9	9	100	UTL	10	10	100	UTL
	Mercury	9	1	11	Fisher	10	-	0	Fisher
	Nickel	9	7	78	UTL	.	.	.	
	Potassium	9	3	33	Fisher	.	.	.	
	Selenium	9	1	11	Fisher	10	2	20	Fisher
	Sodium	9	9	100	UTL	10	10	100	UTL
	Vanadium	9	5	56	UTL	10	1	10	Fisher
	Zinc	9	1	11	Fisher	10	1	10	Fisher
Pesticides	Dieldrin	9	-	0	Fisher	.	.	.	

Table 7.2. (contd)

Analytical Group	Parameter Name	HSU-1 Background				HSU-2 Background			
		Samples	Detects	% Detects	Method	Samples	Detects	% Detects	Method
Radionuclides	Actinium-228	.	.	.		7	-	0	UTL
	Americium-241	4	-	0	UTL	5	1	20	UTL
	Bismuth-214	7	3	43	UTL	7	2	29	UTL
	Carbon-14	9	-	0	UTL	10	2	20	UTL
	Gross Alpha	9	-	0	UTL	10	1	10	UTL
	Gross Beta	9	-	0	UTL	10	1	10	UTL
	Lead-212	7	-	0	UTL	.	.	.	
	Lead-214	7	2	29	UTL	7	1	14	UTL
	Plutonium-241	5	-	0	UTL	.	.	.	
	Radium-226	11	3	27	UTL	10	1	10	UTL
	Strontium-90	9	-	0	UTL	10	-	0	UTL
	Tritium	9	-	0	UTL	10	-	0	UTL
Semi-volatiles	4-Methylphenol	9	-	0	Fisher	.	.	.	
	Bis(2-Ethylhexyl)phthalate	.	.	.		10	-	0	Fisher
	Di-n-Butylphthalate	9	1	11	Fisher	.	.	.	
	Phenol	9	-	0	Fisher	10	-	0	Fisher
Volatiles	1,1,2-Trichloroethane	9	-	0	Fisher	.	.	.	
	1,1-Dichloroethane	9	-	0	Fisher	.	.	.	
	1,1-Dichloroethene	9	-	0	Fisher	.	.	.	
	1,2-Dichloroethane	9	-	0	Fisher	.	.	.	
	2-Butanone	9	-	0	Fisher	.	.	.	
	Bromodichloromethane	9	-	0	Fisher	.	.	.	
	Carbon Disulfide	9	-	0	Fisher	.	.	.	
	Chloroform	9	-	0	Fisher	10	-	0	Fisher
	Toluene	9	-	0	Fisher	.	.	.	
	Xylenes (Total)	9	-	0	Fisher	.	.	.	

Dash (-) indicates no reported values above detection limit.
Period (.) indicates no reported values above detection limit in any 1995 Downgradient Well

Table 7.3a. Percent of Results Exceeding UTL in Downgradient HSU-1 Wells During 1995

			HSU-1 Wells (UCD1-)																
Analytical Group	Parameter Name	95, 95 UTL	1	4	10	11	12	13	19	20	21	22	23	24	25	27Z1	27Z2	27Z3	34
Anions	Chloride	51.5	-	-	-	100	100	-	-	-	-	-	-	-	.	.	.	.	.
	Nitrogen, Nitrate (as N)	25.2	-	-	100	100	100	-	-	-	100	-	-	100	-	-	-	-	-
	Sulfate	42.4	-	-	100	100	100	100	100	-	100	-	-	50	.	.	.	.	.
Field	EH-F	415	-	-	-	-	-	-	-	-	-	-	-	-	.	.	.	.	.
	Specific Conductance (EC)	2,030	-	-	-	-	25	-	-	-	50	-	33	50	.	.	.	.	.
	Temperature	19.6	25	33	33	33	75	-	75	67	100	67	67	100	.	.	.	.	.
	Turbidity	18.3	25	33	-	-	-	-	-	-	-	-	-	-	.	.	.	.	.
	pH	7.95	-	-	-	-	-	-	-	-	-	-	-	-	.	.	.	.	.
General	Alkalinity, Total (as CaCO3)	510	100	50	100	50	100	50	100	-	100	50	100	50	.	.	.	.	.
	Total Dissolved Solids	741	100	-	100	100	100	100	100	-	100	-	-	100	100	100	-	-	-
	Total Organic Carbon	1.53	-	50	100	50	100	-	33	-	50	50	50	-	.	.	.	.	.
	Turbidity	33.9	-	-	-	-	-	-	-	-	-	-	-	-	.	.	.	.	.
Metals	Arsenic	7.99	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100	-	-
	Barium	205	100	50	-	100	100	100	-	-	-	-	-	50	-	100	-	-	-
	Calcium	48,800	100	50	-	-	100	100	100	-	100	-	50	100	100	-	-	-	-
	Chromium	24.1	100	50	100	100	100	100	100	100	100	-	50	100	100	-	-	-	-
	Chromium, Hexavalent (+6)	0.0229	50	50	100	100	100	100	80	100	100	-	-	100	100	-	-	100	-
	Magnesium	119,000	100	-	100	50	100	100	100	-	100	-	50	100	100	-	-	-	-
	Nickel	127	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sodium	45,300	-	-	100	100	100	100	100	-	100	100	-	100	100	100	100	100	100
	Vanadium	14.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Radionuclides	Americium-241	0.0483	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bismuth-214	68.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbon-14	95.4	-	-	-	-	100	100	-	33	-	-	100	-	-	-	-	-	-
	Gross Alpha	5.19	-	25	-	-	50	-	67	-	-	-	-	-	100	-	-	-	100
	Gross Beta	4.01	33	-	-	50	50	20	33	-	-	-	-	-	100	-	-	-	-
	Lead-212	16.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Lead-214	50.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Plutonium-241	3.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Radium-226	272	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Strontium-90	1.63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	-
	Tritium	315	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-

Dash (-) indicates no results exceeded UTL.
Period (.) indicates no samples for well

Table 7.3b. Percent of Results Exceeding UTL in Downgradient HSU-2 Wells During 1995

Analytical Group	Parameter Name	95, 95 UTL	HSU-2 Wells (UCD2-)									
			7	14	15	16	26	27Z4	27Z5	27Z6	27Z7	35
Anions	Chloride	20.6	100	100	50	-	.	.	.	.	.	.
	Nitrogen, Nitrate (as N)	3.79	100	100	-	100	-	-	-	-	-	-
	Sulfate	41.0	67	100	50	100	.	.	.	.	.	.
Field	EH-F	362	-	-	-	-	.	.	.	.	.	.
	Specific Conductance (EC)	1,330	-	25	33	67	.	.	.	.	.	.
	Temperature	19.3	25	25	33	33	.	.	.	.	.	.
	Turbidity	0.740	-	50	50	-	.	.	.	.	.	.
	pH	8.07	-	-	33	-	.	.	.	.	.	.
General	Alkalinity, Total (as CaCO3)	361	100	100	-	50	.	.	.	.	.	.
	Total Dissolved Solids	438	100	100	-	75	-	-	100	100	100	100
	Turbidity	2.37	-	-	-	-	.	.	.	.	.	.
Metals	Arsenic	5.63	-	-	-	-	-	-	-	-	-	-
	Barium	145	100	100	-	25	-	-	100	100	-	-
	Calcium	39,500	-	80	-	-	-	-	-	-	-	-
	Chromium	24.8	100	80	-	75	-	-	-	-	-	-
	Magnesium	65,000	100	100	50	75	100	-	100	-	-	-
	Sodium	32,200	100	100	-	100	100	100	100	100	100	100
Radionuclides	Actinium-228	112	-	-	-	-	-	-	-	-	-	-
	Americium-241	0.125	-	-	-	-	-	-	-	-	-	-
	Bismuth-214	161	-	-	-	-	-	-	-	-	-	-
	Carbon-14	190	-	75	-	-	-	-	-	-	-	-
	Gross Alpha	47.8	-	-	-	-	-	-	-	-	-	-
	Gross Beta	16.9	-	-	-	-	-	-	-	-	-	-
	Lead-214	39.3	-	-	-	-	-	-	-	-	-	-
	Radium-226	2,050	-	-	-	-	-	-	-	-	-	-
	Strontium-90	1.26	-	-	-	-	-	-	100	-	100	-
	Tritium	292	25	75	25	-	-	-	-	-	-	-

Dash (-) indicates no results exceeded UTL.
Period (.) indicates no samples for well.

Table 7.4a. Probability that Results in Downgradient HSU-1 Wells During 1995 Could Be from Background

Analytical Group	Parameter Name	HSU-1 Wells (UCD1-)																
		1	4	10	11	12	13	19	20	21	22	23	24	25	27Z1	27Z2	27Z3	34
General	Ammonia-Nitrogen	-	-	-	-	-	0.18	0.25	-	-	-	-	-	.	.	.	.	.
Metals	Iron	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	0.4	0.4	-
	Mercury	-	0.35	-	0.35	-	-	-	-	-	-	0.35	-	-	-	-	-	-
	Potassium	-	-	-	-	0.62	-	-	-	-	-	-	-	-	-	-	-	-
	Selenium	-	-	0.05	0.05	0.05	0.35	0.02	-	0.35	-	0.35	0.35	0.2	-	-	-	-
	Zinc	-	-	-	-	-	-	-	-	-	-	-	-	0.2	0.2	0.2	-	0.2
Pesticides	Dieldrin	-	-	-	-	-	0.03	-	-	-	-	-	-	-	-	-	-	-
Semi-volatiles	4-Methylphenol	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1	-
	Di-n-Butylphthalate	-	-	0.35	-	-	-	-	-	0.35	0.35	-	-	-	-	-	-	-
	Phenol	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1	0.1	-
Volatiles	1,1,2-Trichloroethane	-	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-
	1,1-Dichloroethane	-	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-
	1,1-Dichloroethene	-	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-
	1,2-Dichloroethane	-	-	-	-	<0.01	-	-	-	-	-	-	-	-	-	-	-	-
	2-Butanone	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-
	Bromodichloromethane	-	-	-	-	0.14	-	-	-	-	-	-	-	-	0.18	0.18	-	-
	Carbon Disulfide	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-
	Chloroform	-	-	0.31	0.18	<0.01	<0.01	-	-	-	-	-	0.18	-	0.02	0.02	0.1	-
	Toluene	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.18	-	-
	Xylenes (Total)	0.36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Dash (-) indicates no results exceeded detection limit.
Period (.) indicates no samples for well.

Shaded areas represent a significant difference between background and downgradient wells at alpha = .05.

Table 7.4b. Probability that Results in Downgradient HSU-2 Wells During 1995 Could Be from Background

Analytical Group	Parameter Name	HSU-2 Wells (UCD2-)									
		7	14	15	16	26	27Z4	27Z5	27Z6	27Z7	35
General	Ammonia-Nitrogen	0.58	-	0.45	-	.	.	.	.	.	.
	Total Organic Carbon	0.31	-	0.58	0.58	.	.	.	.	.	.
Metals	Chromium, Hexavalent (+6)	0.07	0.28	-	0.07	0.45	-	-	-	-	-
	Copper	-	-	-	-	0.09	-	-	-	-	-
	Iron	-	0.85	-	0.79	-	0.36	0.36	0.36	0.36	-
	Mercury	0.23	0.33	-	-	-	-	-	-	-	-
	Selenium	0.2	-	-	0.09	-	-	-	-	-	-
	Vanadium	-	0.57	-	0.51	-	-	-	-	-	-
	Zinc	-	-	-	-	-	-	0.18	-	-	-
Semi-volatiles	Bis(2-Ethylhexyl)phthalate	-	-	-	-	-	0.09	-	0.09	-	0.09
	Phenol	-	-	-	-	-	-	-	-	0.09	-
Volatiles	Chloroform	-	<0.001	-	0.23	0.09	0.09	0.09	0.09	-	-

Dash (-) indicates no results exceeded detection limit.
Period (.) indicates no samples for well.

Shaded areas represent a significant difference between background and downgradient wells at alpha = .05.

Table 7.5. Parameters Above Detection Limit and Significantly Different from Background

Analytical Group	Parameter Name	Effect	HSU-1[a]	HSU-2[a]
Anions	Chloride	Indirect	2	3
	Nitrogen, Nitrate (as N)	Direct	5	3
	Sulfate	Indirect	7	4
Field	Specific Conductance (EC)	Indirect	4	3
	Temperature	Indirect	11	4
	Turbidity	Indirect	2	2
	pH	Indirect	0	1
General	Alkalinity Total (as CaCO3)	Indirect	11	3
	Total Dissolved Solids	Indirect	10	7
	Total Organic Carbon	Indirect	8	0
Metals	Arsenic	Indirect	2	0
	Barium	Indirect	7	5
	Calcium	Indirect	9	1
	Chromium	Direct	12	3
	Chromium, Hexavalent (+6)	Direct	12	0
	Magnesium	Indirect	10	6
	Selenium	Indirect	4	0
	Sodium	Indirect	13	9
Pesticides	Dieldrin	Direct	1	0
Radionuclides	Americium-241	Indirect	1	0
	Carbon-14	Direct	4	1
	Gross Alpha	Indirect	5	0
	Gross Beta	Indirect	6	0
	Tritium	Direct	1	3
Volatiles	1,1,2-Trichloroethane	Direct	1	0
	1,1-Dichloroethane	Direct	1	0
	1,1-Dichloroethene	Direct	1	0
	1,2-Dichloroethane	Direct	1	0
	Chloroform	Direct	4	1

(a) Entries indicate the number of wells in which the constituent was reported significantly above background. Maximum number of wells is 17 for HSU-1 and 10 for HSU-2.

Table 7.6. Regulatory Significance of Parameters That Exceeded Background

Analytical Group	Parameter Name	Maximum Concentration	Regulatory Limit	Significant	
				HSU-1	HSU-2
Anions	Chloride	220 mg/L	250[a]	No	No
	Nitrogen, Nitrate (as N)	72 mg/L	10	5[b]	2
	Sulfate	290 mg/L	250[a]	1	No
Field	Specific Conductance (EC)	2120 umhos/cm	None	No	No
	Temperature	23.9°F	None	No	No
	Turbidity	19.2 NTU	None	No	No
General	Alkalinity Total(as CaCO3)	870 mg/L	None	No	No
	Total Dissolved Solids	1700 mg/L	500[a]	8[b]	2
	Total Organic Carbon	2.8 mg/L	None	No	No
	pH	8.7 mg/L	6.5-8.5	No	1
Metals	Arsenic	8.6 μg/L	50	No	No
	Barium	355 μg/L	1,000	No	No
	Calcium	75.4 mg/L	None	No	No
	Chromium	290 μg/L	50	7	No
	Chromium, Hexavalent (+6)	310 μg/L	50	7	1
	Magnesium	227 mg/L	None	No	No
	Selenium	23 μg/L	5	4	No
	Sodium	191 mg/L	None	No	No
Pesticides	Dieldrin	0.029 μg/L	None	No	No
Radionuclides	Americium-241	0.106	None	1	No
	Carbon-14	1,900	None	4	1
	Gross Alpha	8.1 pCi/L	15	No	No
	Gross Beta	15 pCi/L	50	No	No
	Tritium	19,600 pCi/L	20,000	No	No
Volatiles	1,1,2-Trichloroethane	3.5 μg/L	5	No	No
	1,1-Dichloroethane	9.2 μg/L	5	1	No
	1,1-Dichloroethene	18 μg/L	6	1	No
	1,2-Dichloroethane	5.9 μg/L	0.5	1	No
	Chloroform	9,100 μg/L	[c]	1	No

(a) Indicates that the regulatory limit reported is a secondary drinking water regulation and based on the aesthetic quality of the water not a health hazard.
(b) Indicates that the background concentration exceeded the regulatory limit. A number indicates how many sampling locations exceeded the regulatory limit for at least one quarter during 1995.
(c) MCL for total trihalomethanes is 100 μg/L. Chloroform is the predominant trihalomethane detected at LEHR.

8.0 Evaluation of Water Monitoring Program

Guidance for Long-Term Groundwater Monitoring (California Base Closure Environmental Committee 1994) recommends that data gaps and potential deficiencies in the monitoring network be identified based on data presented in the annual report. This section presents an assessment of the groundwater monitoring network using analytical results from the 1995 monitoring program and historical trends from previous monitoring and from three hydropunch groundwater sampling campaigns. This evaluation of the monitoring program focused on four major questions:

- Is the analyte list sufficient?
- Are the monitoring locations adequate?
- Is the sampling frequency appropriate for site conditions?
- Are the appropriate analytical techniques used?

The analyte list is evaluated from the standpoint of 1) the constituents of concern as they relate to direct hazard and 2) other analytes that further our understanding of how those constituents of concern behave in the environment. The adequacy of monitoring well locations is judged by how well the monitoring data can be used to identify configuration changes in contaminant plumes that were delineated in greater detail by one-time sampling at many locations, e.g., hydropunch. Sampling frequency is judged by how well temporal variations are detected and judged to be significant. We determine how appropriate an analytical technique is by comparing the detection limit with either the background concentration or some regulatory limit, such as an MCL or a PRG.

During the summer of 1995, DOE, UC Davis, and California and federal regulators agreed to revise the groundwater monitoring program. Program revisions included changes in the analyte list and sampling frequency. The group also agreed to the installation of five new monitoring wells and groundwater sampling using the hydropunch technique. The following sections present discussions of each of these topics and the four questions identified above.

8.1 Analyte List

The analyte list is composed of hazardous constituents that are known or suspected to have been disposed at LEHR, parameters that are used as gross indicators of the presence of contamination, and general parameters that are used to characterize the general chemistry of the water.

Three analyte lists were presented in Tables 2.3, 2.4, and 2.5 for groundwater, surface water, and storm water runoff samples, respectively. The analyte lists for groundwater and surface water were modified starting in the summer quarter of 1995. The analyte list for storm water runoff was not modified in 1995. Changes to the groundwater and surface water analyte lists eliminated the following analytes:

- Field - Eh

- Laboratory - ammonia, TKN, alkalinity, anions, turbidity, total organic carbon, chemical oxygen demand, and formaldehyde

Eh had been measured for the previous seven quarters and was well established within each well (Table C.6). In general, all of the groundwaters were found to be oxidizing with average Eh values in the range of +112 to +177 mV. The same results were determined for surface waters.

Ammonia was eliminated from the groundwater monitoring program because over the previous eight quarters it was generally found to be less than the detection limit of 50 μg/L. Ammonia was detected sporadically across the monitoring network and sampling periods but never more than twice in any single well. It was always detected in the UC Davis wastewater treatment plant outfall (STPO) at concentrations in excess of 1,000 μg/L, which caused an increase in the downstream monitoring station (PCD) over the normal Putah Creek background of slightly above the detection limit. These trends can be seen in Figure 8.1. It is clear from Figure 8.1 that the UC Davis wastewater treatment

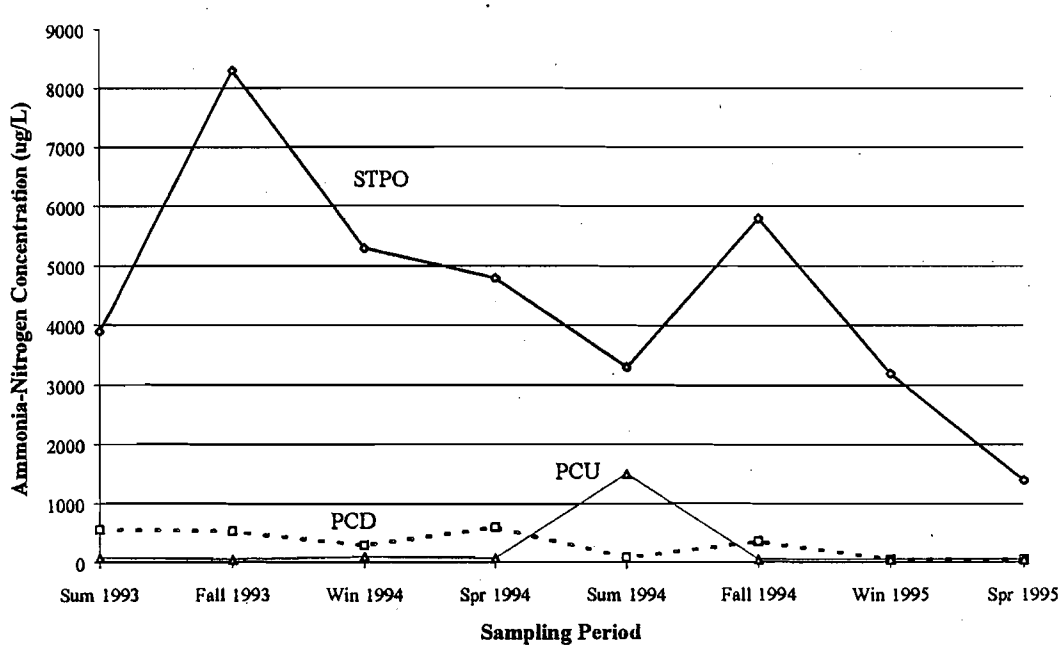


Figure 8.1. Putah Creek Ammonia-Nitrogen

plant has routinely discharged ammonia at levels in excess of those found upstream of the outfall. The elevated levels have affected the concentrations of ammonia in Putah Creek, as indicated by the fact that PCD is generally higher than PCU. This, while interesting, has no bearing on LEHR. Clearly the ammonia source is the UC Davis wastewater plant outfall, which is controlled by an NPDES permit.

TKN was eliminated from the groundwater monitoring system because it had been analyzed for the previous eight quarters and reported above the detection limit of 500 mg/L nitrogen only twice. In surface water, TKN was reported above the detection limit for all samples collected at STPO, all but two samples at PCD, and only one sample at PCU. TKN, ammonia, and ammonia plus nitrate results for STPO are shown in Figure 8.2. These data show that TKN and ammonia nitrogen results are closely correlated, indicating that most of the TKN detected is from ammonia. Organic compounds may provide some additional TKN that has been detected. As indicated in Figure 8.2, TOC is generally at concentrations greater than TKN. Nitrate is not a significant part of the TKN, as indicated by the fact that the nitrate plus ammonia trend does not follow the TKN trend. These data indicate that TKN is generally sensing ammonia, which is from the UC Davis wastewater treatment plant and not significant to LEHR. Therefore, TKN was eliminated from the analyte list.

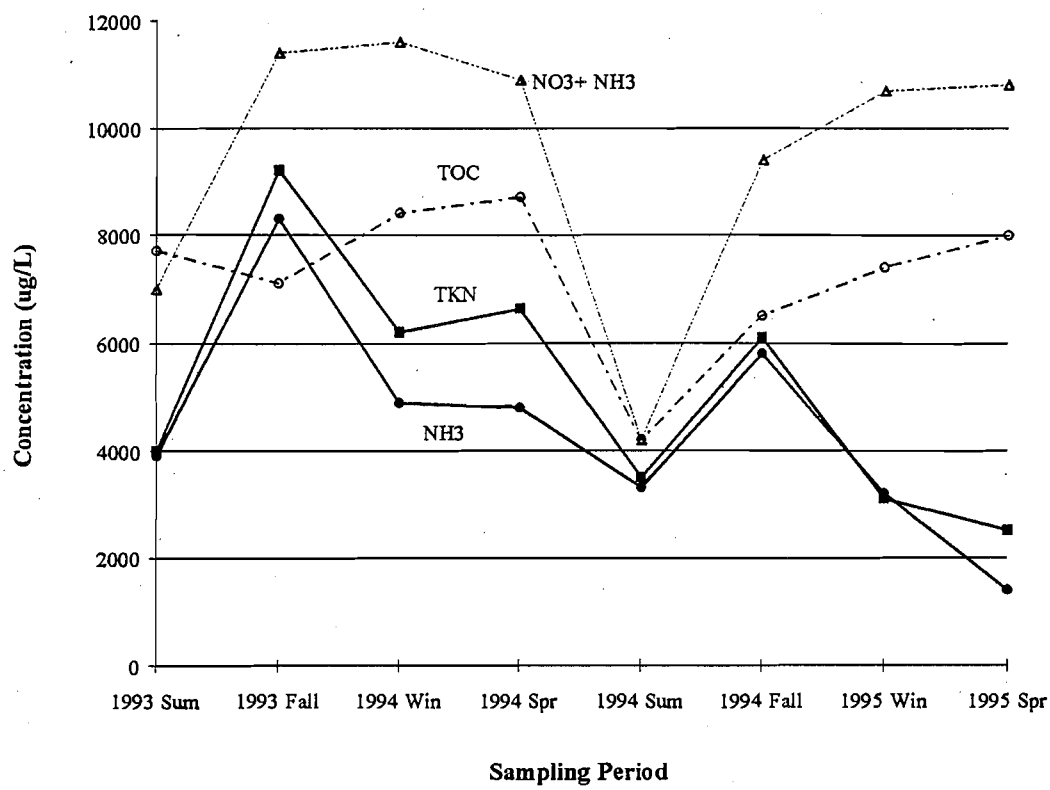


Figure 8.2. Concentrations of Nitrogen-Containing Compounds in UC Davis Wastewater Treatment Plant Outfall (STPO)

Alkalinity and anions, except nitrate, were eliminated because they are important chiefly to determine the general chemistry of the groundwater and surface water and not because they are constituents of concern that were disposed of in hazardous quantities. Because the database contains considerable general chemistry data, and those data indicate fairly stable conditions over time, the anion group was eliminated from the program.

Laboratory turbidity was eliminated from the program because field turbidity is measured at the time of sampling. There is no reason to duplicate this measurement, especially after the laboratory sample has been stored for a period of time.

Total organic carbon (TOC) and chemical oxygen demand (COD) are parameters that provide an indication of the chemical conditions at the site and are not hazardous constituents. Once a baseline concentration has been established for each parameter, there is little need to continue monitoring their levels. TOC has been analyzed for eight quarters and COD has been analyzed for 14 quarters, and baseline concentrations have been established for each. Therefore, TOC and COD were eliminated from further analysis.

The last analyte eliminated from the monitoring program is formaldehyde, which has been analyzed in every sampling event since the program began in the fall of 1990. Formaldehyde has been detected sporadically in 16 of the 18 original monitoring wells, including both background wells, ranging from 0.26 to 3.5 mg/L in UCD1-21. There is no drinking water standard for formaldehyde, but the EPA Region 9 PRG for formaldehyde in tap water (concentration that produces a hazard index of 1) is 5.5 mg/L. Formaldehyde has been detected four times in surface water samples at a maximum concentration of 2.1 mg/L. Therefore, formaldehyde has never been detected above a regulatory limit, and it has generally been reported as less than the detection limit. For these reasons, formaldehyde was eliminated from the monitoring program.

8.2 Monitoring Locations

The adequacy of the monitoring network is judged on the basis of whether contaminant plumes can be mapped using the data collected. Figures 5.11 through 5.21 show the distributions of the major contaminants in LEHR groundwater. Based on these figures, it appears that the plumes can be mapped. The figures were drawn from composite database consisting of the following in order of priority:

- 1995 monitoring data
- 1995 hydropunch data
- 1994 hydropunch data

Complete plume diagrams could be drawn only by combining these data. If a plume is to be monitored every year to determine how it is changing in size and concentration, permanent monitoring wells need to be constructed in critical areas or hydropunch samples must be collected every year. Data collected from the new monitoring well, UCD1/2-27,

showed that contamination in HSU-2 was concentrated in the top half of the unit and did not extend to the bottom of the aquifer. Based on these results, it is important to monitor the upper half of HSU-2 only.

Five new wells were drilled in 1995; three (UCD1-25, UCD2-26, and UCD1/2-27) were located directly east of LEHR, on the northern edge of the chloroform plume. Two wells, UCD1-34 and UCD2-35, were located south of Landfill 2 between the southern boundary of LEHR and Putah Creek. While these wells have only been sampled once as part of the monitoring program, they are already providing valuable information in those areas.

While drawing the plume diagrams for Section 5, we identified the following areas that need additional monitoring wells:

- south and east of new well UCD1-25, wells need to be completed along the centerline of the chloroform plume in both HSU-1 and HSU-2.

- in the vicinity of the Nishi well, east of UC Davis property.

Chloroform-contaminated groundwater has been detected in these areas, but its extent and distribution are unknown. Additional monitoring wells will allow these plumes to be monitored.

Three surface water monitoring stations are located along the reach of Putah Creek that flows past LEHR. One station is upgradient of LEHR (PCU), one in at the discharge of the UC Davis wastewater treatment plant (STPO), and one is downgradient of all UC Davis and LEHR property (PCD). In previous reports, the location of PCD has been reported to be at a location just upstream of the storm runoff ditch on the eastern boundary of UC Davis property. This reported location was incorrect; the actual sampling location has always been 150 feet downgradient of the ditch discharge point. The true location of PCD is shown on all figures in which it is noted in this report.

8.3 Sampling Frequency

The sampling frequency was changed from quarterly sampling for every well and analyte in the monitoring program to a mix of schedules for each well and each analyte in a well. This change was predicated on an understanding of groundwater characteristics that had been developed over the five years of quarterly monitoring. Three sampling frequencies, quarterly, semiannual, and annual, were implemented in the summer quarter of 1995. All wells except UCD1-21 and UCD1-24 are sampled at least semiannually; UCD1-21 and UCD1-24 are sampled annually. Eight wells, UCD1-1, UCD1-11, UCD1-18, UCD1-20, UCD1-22, UCD1-23, UCD2-7, and UCD2-17, are sampled semiannually; the remaining eight wells are sampled quarterly. All new wells are sampled quarterly for the first year, after which the specific monitoring program for each well will be reviewed and modified as appropriate.

While a specific well may be monitored in accordance with one of the three sampling frequencies, specific analytes may not be analyzed as frequently. For example, as shown in Table 2.1, UCD1-18 is sampled semiannually but only for nitrate and chromium; all other constituents included are analyzed on an annual basis. Some constituents, such as strontium-90, radium-226, plutonium-241, and americium-241, have been eliminated from the sampling program for UCD1-18. The reduced sampling and analysis frequencies were based on the concept that a stable baseline has been established for a specific constituent in a specific well.

For the two sampling periods in 1995 when the revised monitoring schedule was implemented, only one issue has been identified. In several wells, chloroform results did not correspond to historical trends. Normally, the lab would be asked to re-analyze the sample, but in the case of VOC analyses, all three sample vials are used if the sample contained a sufficient amount of chloroform to require dilution. Therefore, no sample remains to perform a re-analysis. This issue existed before the program revision, but the data could be checked in the following quarterly sampling period. In the current plan, the monitoring program must be modified to collect a sample from the well in the next quarterly sampling event, if it is not already scheduled. No other issues have been identified, and the program revision appears to be adequate.

8.4 Analytical Techniques

The analytical techniques used in the program are generally the specified techniques for EPA's Certified Laboratory Program (CLP). The detection limits for each technique are lower in most cases than a regulatory or human health risk limit. The major limitation of the analytical program is that there are no analytical techniques to detect the bio-accumulating constituents of concern (e.g., chlordane) in water at the concentrations at which they are hazardous via the food chain. For example, the MCL for chlordane is 2 μg/L; the concentration in water that would yield a 1E-6 excess cancer risk in humans based on direct exposure is 0.052 μg/L; and the detection limit is 0.01 μg/L. The detection limit is sufficiently low for these two criteria.

8.5 Conclusions

The water monitoring program at LEHR was reviewed and revised in the second half of 1995. The revision included a reduction in the numbers of analytes as well as their sampling frequency. In addition, five new monitoring wells were constructed at two locations. Based on these changes, the following conclusions can be made:

- The reduced sampling list is sufficient to monitor environmental hazards from LEHR

- The sampling frequency, while more complex than the previous monitoring program, is sufficient to monitor environmental hazards. Modifications to the program need to be made manually to ensure that followup sampling is conducted where analytical problems arise.

- The analytical techniques used are EPA approved and the laboratory is certified by the State of California.

- Current monitoring locations provide good coverage for evaluating groundwater contamination on the LEHR facility but are insufficient to monitor contaminant plumes that extend downgradient to the east of LEHR and UC Davis property. Monitoring locations on Putah Creek are sufficient for monitoring impacts of LEHR on that water body. Although not plotted correctly on maps in the previous reports, the downgradient sampling station has always been located downstream of all UC Davis and LEHR property and possible water discharges associated with that property.

9.0 References

Bouwer, H. 1989. "The Bouwer and Rice Slug Test - An Update." *Ground Water*, 27(3):304-309.

Bouwer, H, and RC Rice. 1976. "A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers With Completely or Partially Penetrating Wells." *Water Resources Research*, 12:423-428.

Brown, DL, TN Narasimhan, and Z Demir. 1985. "An Evaluation of the Bouwer and Rice Method of Slug Test Analysis." *Water Resources Research*, 31(5):1239-1246.

California Base Closure Environmental Committee. 1994. *Long-Term Ground Water Monitoring Program Guidance*. Site Characterization Process Action Team for the California Base Closure Environmental Committee.

California Department of Water Resources (DWR). 1978. *Evaluation of Groundwater Resources: Sacramento Valley*. Bulletin 118-6.

Cohen, AC Jr. 1959. "Simplified Estimators for the Normal Distribution When Samples Are Singly Censored or Truncated." *Biometrics* 1(3):217-237.

Currie, LA. "Limits for Qualitative Detection and Quantitative Determination." *Analytical Chemistry*, 40(3):586-593.

Dames & Moore. 1990a. *Final SWAT Report, Old UC Davis Landfill, UC Davis*.

Dames & Moore. 1990b. *Contaminant Pathway Analysis for the UC Davis Campus from the LEHR Study Site, UC Davis*.

Dames & Moore. 1990c. *Evaluation of Potential Nitrate and Hexavalent Chromium Sources in the Vicinity of the UC Davis LEHR Facility for the UC Davis*.

Dames & Moore. 1990d. *Putah Creek Sediment and Water Sampling for the UC Davis*.

Dames & Moore. 1991a. *Old UCD Landfill Additional Characterization - CPT and Hydropunch Investigation - UC Davis South Campus Inactive Disposal Sites*.

Dames & Moore. 1991b. *Waste Burial Trench Investigation LEHR Facility, UC Davis*.

Dames & Moore. 1991c. *CEQA Preliminary Environmental Study for Site Characterization Work at the Inactive UC Davis Landfill*.

Dames & Moore. 1993. *Phase II Characterization Report for the LEHR Environmental Restoration, UC Davis*.

Davisson, ML, and RE Criss. 1993. "Stable Isotope Imaging of a Dynamic Groundwater System in the Southwestern Sacramento Valley, California, USA." *J. Hydrol.*, 144:213-246.

Davisson, ML, RE Criss, and KR Campbell. November 1993. *Preliminary Report on the Stable Isotope Imaging and Characterization of Surface and Ground Water Resources in the Southern Sacramento Valley*. UCRL-ID-115393, Lawrence Livermore National Laboratory, Berkley, California.

Evenson, KD. January 1985. *Chemical Quality of Ground Water in Yolo and Solano Counties, California*. USGS Water Resources Investigations Report 84-4244.

Hyder, Z, JJ Butler Jr, CD McElwee, and W Liu. 1994. "Slug Tests in Partially Penetrating Wells." *Water Resources Research*, 31(5):1239-1246.

Hyder, Z, and JJ Butler Jr. 1995. "Slug Tests in Unconfined Formations: An Assessment of the Bouwer and Rice Technique." *Ground Water*, 33(1):16-22.

In-Situ, Inc. 1991. *WATER-VELTM Groundwater Velocity*. ISI-GWV-2.21-1, In-Situ, Inc., Laramie, Wyoming.

Liikala, TL, DC Lanigan, GV Last, RE Lewis, DR Newcomer, FA Spane, DL Stewart, SS Teel, VR Vermeul, and WC Schaal. 1996. "Groundwater Characterization Field Activities for 1995-96." PNNL-11092, Pacific Northwest National Laboratory, Richland, Washington.

Mann, JT. January 17, 1992. "Hydrogeology of Lower Putah Creek - Preliminary Discussion." Solano County Water Agency.

Maxey, GB. 1964. "Hydrostratigraphic Units." *Journal of Hydrology*, vol. 2, pp.124-129.

Norris, RM, and RW Webb. 1976. *Geology of California*. John Wiley & Sons, New York.

Olmsted, FH, and GH Davis. 1961. *Geologic Features and Groundwater Storage Capacity of the Sacramento Valley, California*. USGS Water Supply Paper 1497.

Pacific Northwest Laboratory. January 1994. *Water Monitoring Plan, LEHR Environmental Restoration, Davis California*.

Pacific Northwest National Laboratory. 1995a. *Quarterly Groundwater and Surface Water Monitoring Results, Winter and Spring Quarters 1995*. DOE Phase II Characterization, LEHR Facility, Davis California. PNNL-11083, PNNL, Richland, Washington.

Pacific Northwest National Laboratory. 1995b. *Quarterly Groundwater and Surface Water Monitoring Results, Summer Quarter 1995*. DOE Phase II Characterization, LEHR Facility, Davis, California. PNNL-11084, PNNL, Richland, Washington.

Rockwell International Corporation. 1984. *Initial Assessment Survey of the DOE LEHR Site of UC Davis*.

Spane, FA Jr. 1994. "Applicability of Slug Interference Tests for Hydraulic Characterization of Unconfined Aquifers: (1) Analytical Assessment." PNL-SA-24283, Pacific Northwest Laboratory, Richland, Washington (accepted for publication in *Ground Water* in the January-February 1996 Issue)

Spane, FA Jr., and SK Wurstner. 1993. "DERIV: A Program for Calculating Pressure Derivatives for Use in Hydraulic Test Analysis." *Ground Water*, 31(5):814-822.

U.S. Department of Energy (DOE). 1988. *Environmental Survey Preliminary Report Laboratory for Energy-Related Health Research, Davis, California*.

U.S. Department of Energy (DOE). 1993. *Phase II Characterization Report for the LEHR Environmental Restoration, UC Davis*. DOE San Francisco Field Office.

U.S. Department of Energy (DOE). 1994a. *Final Draft RI/FS Work Plan, LEHR Environmental Restoration, UC Davis*. Oakland Operations Office.

U.S. Department of Energy (DOE). 1994b. *1993 Annual Water Monitoring Report for the LEHR Environmental Restoration*, Davis, California. Oakland Operations Office.

U.S. Department of Energy (DOE). 1995. *1994 Annual Water Monitoring Report, LEHR Environmental Restoration, UC Davis*. Oakland Operations Office.

U.S. Environmental Protection Agency (EPA). 1989a. *USEPA National Functional Guidelines for Laboratory Data Review, Inorganics*. EPA, Washington, D.C.

U.S. Environmental Protection Agency (EPA). 1989b. *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities*. EPA, Washington, D.C.

U.S. Environmental Protection Agency (EPA). 1991. *USEPA National Functional Guidelines for Laboratory Data Review, Organics*. EPA, Washington, D.C.

U.S. Geological Survey (USGS). 1995. WATSTOR Groundwater Database Search for Analytical and Well Completion Data in Davis, California Area.

Van der Kamp, G. 1976. "Determining Aquifer Transmissivity by Means of Well Response Tests: The Underdamped Case." *Water Resources Research*, 12(1):71-77.

Van der Kamp, G. 1984. "Underdamped Well Response Considering Friction in the Well Tubing." Saskatchewan Research Council, SRC Pub. No. R0844-2-c-84. Prepared for Rockwell Hanford Operations.

Wahler Associates. 1988. *Groundwater and Soils Investigation, U.C. Davis LEHR Facility*. Davis, California.

Wahler Associates. 1989. *Groundwater and Soils Investigation, U.C. Davis LEHR Facility*. Davis, California.

Appendix A

Groundwater and Trip Blank Analytical Results

Appendix A

Groundwater and Trip Blank Analytical Results

How to Read Appendix A Data Qualifiers

The key below defines the relationship between a given result and the associated data qualifiers, as presented in the tables of analytical results in Appendix A.

Key →	A	B	C	D
Example Data →	<	5.200	Uz	JB

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

In the example above, the chemical was analyzed for, but was qualified as not detected due to the bias introduced by contamination in the method blank associated with this analysis. Presence of the analyte in the method blank is noted by the laboratory qualifier, "B." The Consultants qualifier, "Uz," indicates that the analyte concentration is considered to be below the adjusted detection limit (quantitation limit) due to the level of contamination in the method blank.

Data Validation Qualifiers
Assigned by Consultants Data Review Team

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

Flag	Data Qualifier Definition
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
c	Calibration failure; poor or unstable response.
d	Laboratory duplicate imprecision.
e	Laboratory duplicate control sample imprecision.
f	Field duplicate imprecision.
h	Holding time violation.
k	Serial dilution imprecision.
l	Laboratory control sample recovery failure.
m	Matrix spike/matrix spike duplicate recovery failure.
o	Calibration blank contamination (metals/inorganics only).
p	Preparation blank contamination (metals/inorganics only).
r	Linearity failure in initial calibration.
s	Surrogate spike recovery failure (GC organics and GC/MS organics only).
z	Method blank contamination.

Lockheed Analytical Services
Data Qualifiers for Organic Analyses
(Revised 01/19/1994)

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

Lockheed Analytical Services
Data Qualifiers for Organic Analyses (contd)

a[1]	The spike recovery and/or RPD for matrix spike and matrix spike duplicates cannot be evaluated due to insufficient spiking level compared to the elevated sample analyte concentration.
b[1]	The RPD cannot be computed because the sample and/or duplicate concentration was below the RDL.

Lockheed Analytical Services
Data Qualifiers for Inorganic Analyses

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

Lockheed Analytical Services
Data Qualifiers for Radiochemical Analyses

For Use On the Analytical Data Reporting Forms	
B	Any constituent that was also detected in the associated blank whose concentration was greater than the reporting detection limit (RDL) and/or minimum detectable activity (MDA).
C	Presence of high TDS in sample required reduction of sample size which increased the MDA.
D	Constituent detected in the diluted sample.
E	Constituent concentration exceeded the calibration or attenuation curve range.
F	***For Alpha Spectrometry Only*** — FWHM exceed acceptance limits.
H	Sample analysis performed outside of method-specified maximum holding time requirement.
Y	Chemical yield exceeded acceptance limits.
For Use on the QC Data Reporting Forms	
*	QC data (i.e., percent recovery data for laboratory control standard and matrix spike; and RPD for replicate analyses) exceeded acceptance limits.
a[1]	The spike recovery and/or RPD for matrix spike and duplicates cannot be evaluated due to insufficient spiking level compared to the elevated sample analyte concentration.
b[1]	The RPD cannot be computed because the sample and/or duplicate concentration was below the MDA.

TABLE A.1
ANALYTICAL RESULTS FOR GROUNDWATER 1995
VOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-1 WINTER		UCD1-1 SPRING		UCD1-1 SPRING D1		UCD1-1 FALL		UCD1-10 WINTER		UCD1-10 SPRING		UCD1-10 SUMMER		UCD1-10 FALL	
1,1,1-Trichloroethane	ug/L	1	200		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,1,2,2-Tetrachloroethane	ug/L	1	1		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,1,2-Trichloroethane	ug/L	1	5	#	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,1-Dichloroethane	ug/L	1	5		< 1	U	< 1	U	b		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,1-Dichloroethene	ug/L	1	6		< 1	U	< 1	Jf U	b		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,2-Dibromo-3-chloropropane	ug/L	1	-		< 1	Rc U	< 1	Rc U	< 1	Rc U	< 1	U	< 1	Rc U	< 1	Rc U	< 1	Rc U	< 1	U
1,2-Dibromoethane	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,2-Dichlorobenzene	ug/L	10	600	#	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,2-Dichloroethane	ug/L	1	0.5		< 1	U	< 1	Jf U	b		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,2-Dichloropropane	ug/L	1	5		< 1	U	< 1	U	b		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,3-Dichlorobenzene	ug/L	10	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,4-Dichlorobenzene	ug/L	10	5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
2-Butanone	ug/L	5	-		< 5	Rc U	< 5	U	< 5	U	< 5	Rc U	< 5	Rc U	< 5	U	< 5	Rc U	< 5	Rc U
2-Hexanone	ug/L	5	-		< 5	U	< 5	U	< 5	U	< 5	U	< 5	U	< 5	U	< 5	U	< 5	U
4-Methyl-2-Pentanone	ug/L	5	-		< 5	U	< 5	U	< 5	U	< 5	U	< 5	U	< 5	U	< 5	U	< 5	U
Acetone	ug/L	5	-		< 5	Rc U	< 5	Rc U	b		< 5	Rc U	< 5	Rc U	< 5	Rc U	< 5	Rc U	< 5	Rc U
Benzene	ug/L	1	1		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Bromochloromethane	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Bromodichloromethane	ug/L	1	-	a	< 1	U	< 1	U	b		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Bromoform	ug/L	1	-	a	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Bromomethane	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Carbon Disulfide	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Carbon Tetrachloride	ug/L	1	0.5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Chlorobenzene	ug/L	1	30		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Chloroethane	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Chloroform	ug/L	1	-	a	< 1	U	< 1	Jf U	b		< 1	U	< 1	U	< 1	U	5.1	Jz	< 1	U
Chloromethane	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Dibromochloromethane	ug/L	1	-	a	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Ethyl Benzene	ug/L	1	680		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Methylene Chloride	ug/L	2	5		< 2	U	< 2	U	< 2	U	< 2	U	< 2	U	< 2	U	< 2	U	< 2	U
Styrene	ug/L	1	100	#	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Tetrachloroethene	ug/L	1	5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Toluene	ug/L	1	1000	#	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Trichloroethene	ug/L	1	5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Vinyl Chloride	ug/L	1	0.5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Xylenes (Total)	ug/L	1	1750		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
cis-1,2-Dichloroethene	ug/L	1	6		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
cis-1,3-Dichloropropene	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
trans-1,2-Dichloroethene	ug/L	1	10		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
trans-1,3-Dichloropropene	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U

TABLE A.1
ANALYTICAL RESULTS FOR GROUNDWATER 1995
VOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-11 WINTER		UCD1-11 SPRING		UCD1-12 WINTER		UCD1-12 SPRING		UCD1-12 SUMMER		UCD1-12 SUMMER D1		UCD1-12 FALL		UCD1-12 FALL D1	
1,1,1-Trichloroethane	ug/L	1	200		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
1,1,2,2-Tetrachloroethane	ug/L	1	1		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
1,1,2-Trichloroethane	ug/L	1	5	#	< 1	U	< 1	U	0.9	J	< 1	U	2.8	Jh H	3.5	Jf	1.1		2	
1,1-Dichloroethane	ug/L	1	5		< 1	U	< 1	U	6		0.51	J	4.1	Jh H	9.2	Jf	5.8		6.8	
1,1-Dichloroethene	ug/L	1	6		< 1	U	< 1	U	9.3		1.1		1.2	Jh H	18	Jf	11		13	
1,2-Dibromo-3-chloropropane	ug/L	1	-		< 1	Rc U	< 1	Rc U	< 1	Rc U	< 1	Rc U	< 1	Rh U	< 1	Rc U	< 1	U	< 1	U
1,2-Dibromoethane	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
1,2-Dichlorobenzene	ug/L	10	600	#	< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
1,2-Dichloroethane	ug/L	1	0.5		< 1	U	< 1	U	4		< 1	U	4.7	Jh H	5.9	Jf	3.2		3.8	
1,2-Dichloropropane	ug/L	1	5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	0.72	J	< 1	U	< 1	U
1,3-Dichlorobenzene	ug/L	10	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
1,4-Dichlorobenzene	ug/L	10	5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
2-Butanone	ug/L	5	-		< 5	Rc U	< 5	U	< 5	Rc U	< 5	U	< 5	Rc U	< 5	Rc U	< 5	Rc U	< 5	Rc U
2-Hexanone	ug/L	5	-		< 5	U	< 5	U	< 5	U	< 5	U	< 5	Rh U	< 5	U	< 5	U	< 5	U
4-Methyl-2-Pentanone	ug/L	5	-		< 5	U	< 5	U	< 5	U	< 5	U	< 5	Rh U	< 5	U	< 5	U	< 5	U
Acetone	ug/L	5	-		< 5	Rc U	< 5	Rc U	< 5	Rc U	< 5	Rc U	2.4	Jc JH	< 5	Rc U	< 5	Rc U	< 5	Rc U
Benzene	ug/L	1	1		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
Bromochloromethane	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
Bromodichloromethane	ug/L	1	-	a	< 1	U	< 1	U	1.2		< 1	U	0.82	Jh JH	2.1	Jf	0.63	J	0.74	J
Bromoform	ug/L	1	-	a	< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
Bromomethane	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
Carbon Disulfide	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
Carbon Tetrachloride	ug/L	1	0.5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
Chlorobenzene	ug/L	1	30		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
Chloroethane	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
Chloroform	ug/L	1	-	a	1.6		0.8	J	3200	DE	1000	D	5700	Jh H	9100	Jz	5800		6400	
Chloromethane	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
Dibromochloromethane	ug/L	1	-	a	< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
Ethyl Benzene	ug/L	1	680		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
Methylene Chloride	ug/L	2	5		< 2	U	< 2	U	< 2	U	< 2	U	1	Jh JH	< 2	U	< 2	U	< 2	U
Styrene	ug/L	1	100	#	< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
Tetrachloroethene	ug/L	1	5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
Toluene	ug/L	1	1000	#	< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
Trichloroethene	ug/L	1	5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
Vinyl Chloride	ug/L	1	0.5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
Xylenes (Total)	ug/L	1	1750		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
cis-1,2-Dichloroethene	ug/L	1	6		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
cis-1,3-Dichloropropene	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
trans-1,2-Dichloroethene	ug/L	1	10		< 1	U	< 1	U	< 1		< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U
trans-1,3-Dichloropropene	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	Rh U	< 1	U	< 1	U	< 1	U

TABLE A.1
ANALYTICAL RESULTS FOR GROUNDWATER 1995
VOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-13 WINTER		UCD1-13 SPRING		UCD1-13 SUMMER		UCD1-13 FALL		UCD1-13 FALL D1		UCD1-18 WINTER		UCD1-18 WINTER D1		UCD1-18 SPRING	
1,1,1-Trichloroethane	ug/L	1	200		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,1,2,2-Tetrachloroethane	ug/L	1	1		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,1,2-Trichloroethane	ug/L	1	5	#	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,1-Dichloroethane	ug/L	1	5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,1-Dichloroethene	ug/L	1	6		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,2-Dibromo-3-chloropropane	ug/L	1	-		< 1	Rc U	< 1	Rc U	< 1	Rc U	< 1	U	< 1	U	< 1	Rc U	< 1	Rc U	< 1	Rc U
1,2-Dibromoethane	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,2-Dichlorobenzene	ug/L	10	600	#	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,2-Dichloroethane	ug/L	1	0.5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,2-Dichloropropane	ug/L	1	5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,3-Dichlorobenzene	ug/L	10	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,4-Dichlorobenzene	ug/L	10	5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
2-Butanone	ug/L	5	-		< 5	Rc U	< 5	U	< 5	Rc U	< 5	Rc U	< 5	Rc U	< 5	Rc U	< 5	Rc U	< 5	Rc U
2-Hexanone	ug/L	5	-		< 5	U	< 5	U	< 5	U	< 5	U	< 5	U	< 5	U	< 5	U	< 5	U
4-Methyl-2-Pentanone	ug/L	5	-		< 5	U	< 5	U	< 5	U	< 5	U	< 5	U	< 5	U	< 5	U	< 5	U
Acetone	ug/L	5	-		< 5	Rc U	< 5	Rc U	< 5	Rc U	< 5	Rc U	< 5	Rc U	< 5	Rc U	< 5	Rc U	< 5	Rc U
Benzene	ug/L	1	1		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Bromochloromethane	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Bromodichloromethane	ug/L	1	-	a	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Bromoform	ug/L	1	-	a	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Bromomethane	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Carbon Disulfide	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Carbon Tetrachloride	ug/L	1	0.5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Chlorobenzene	ug/L	1	30		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Chloroethane	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Chloroform	ug/L	1	-	a	c		1.6		1.8		1.7	Jz	1.8	Jz	< 1	U	< 1	U	< 1	U
Chloromethane	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Dibromochloromethane	ug/L	1	-	a	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Ethyl Benzene	ug/L	1	680		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Methylene Chloride	ug/L	2	5		< 2	U	< 2	U	< 2	U	< 2	U	< 2	U	< 2	U	< 2	U	< 2	U
Styrene	ug/L	1	100	#	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Tetrachloroethene	ug/L	1	5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Toluene	ug/L	1	1000	#	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Trichloroethene	ug/L	1	5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Vinyl Chloride	ug/L	1	0.5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Xylenes (Total)	ug/L	1	1750		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
cis-1,2-Dichloroethene	ug/L	1	6		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
cis-1,3-Dichloropropene	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
trans-1,2-Dichloroethene	ug/L	1	10		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
trans-1,3-Dichloropropene	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U

TABLE A.1
ANALYTICAL RESULTS FOR GROUNDWATER 1995
VOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL	UCD1-19 WINTER	UCD1-19 SPRING	UCD1-19 SPRING D1	UCD1-20 WINTER	UCD1-20 SPRING	UCD1-21 WINTER	UCD1-21 SPRING	UCD1-22 WINTER
1,1,1-Trichloroethane	ug/L	1	200	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,1,2,2-Tetrachloroethane	ug/L	1	1	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,1,2-Trichloroethane	ug/L	1	5 #	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,1-Dichloroethane	ug/L	1	5	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,1-Dichloroethene	ug/L	1	6	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,2-Dibromo-3-chloropropane	ug/L	1	-	< 1 Rc |U	< 1 Rc |U	< 1 Rc |U	< 1 Rc |U	< 1 Rc |U	< 1 Rc |U	< 1 Rc |U	< 1 Rc |U
1,2-Dibromoethane	ug/L	1	-	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,2-Dichlorobenzene	ug/L	10	600 #	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,2-Dichloroethane	ug/L	1	0.5	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,2-Dichloropropane	ug/L	1	5	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,3-Dichlorobenzene	ug/L	10	-	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,4-Dichlorobenzene	ug/L	10	5	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
2-Butanone	ug/L	5	-	< 5 Rc |U	< 5 |U	< 5 |U	< 5 Rc |U	< 5 |U	< 5 Rc |U	< 5 Rc |U	< 5 Rc |U
2-Hexanone	ug/L	5	-	< 5 |U	< 5 |U	< 5 |U	< 5 |U	< 5 |U	< 5 |U	< 5 |U	< 5 |U
4-Methyl-2-Pentanone	ug/L	5	-	< 5 |U	< 5 |U	< 5 |U	< 5 |U	< 5 |U	< 5 |U	< 5 |U	< 5 |U
Acetone	ug/L	5	-	< 5 Rc |U	< 5 Rc |U	< 5 Rc |U	< 5 Rc |U	< 5 Rc |U	< 5 |U	< 5 Rc |U	< 5 Rc |U
Benzene	ug/L	1	1	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Bromochloromethane	ug/L	1	-	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Bromodichloromethane	ug/L	1	- a	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Bromoform	ug/L	1	- a	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Bromomethane	ug/L	1	-	< 1 Uz |	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Carbon Disulfide	ug/L	1	-	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Carbon Tetrachloride	ug/L	1	0.5	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Chlorobenzene	ug/L	1	30	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Chloroethane	ug/L	1	-	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Chloroform	ug/L	1	- a	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	0.59 |J	< 1 |U	< 1 |U
Chloromethane	ug/L	1	-	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Dibromochloromethane	ug/L	1	- a	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Ethyl Benzene	ug/L	1	680	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Methylene Chloride	ug/L	2	5	< 2 |U	< 2 |U	< 2 |U	< 2 |U	< 2 |U	< 2 Rc |U	< 2 |U	< 2 |U
Styrene	ug/L	1	100 #	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Tetrachloroethene	ug/L	1	5	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Toluene	ug/L	1	1000 #	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Trichloroethene	ug/L	1	5	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Vinyl Chloride	ug/L	1	0.5	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Xylenes (Total)	ug/L	1	1750	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
cis-1,2-Dichloroethene	ug/L	1	6	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
cis-1,3-Dichloropropene	ug/L	1	-	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
trans-1,2-Dichloroethene	ug/L	1	10	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
trans-1,3-Dichloropropene	ug/L	1	-	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U

TABLE A.1
ANALYTICAL RESULTS FOR GROUNDWATER 1995
VOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-22 SPRING			UCD1-23 WINTER			UCD1-23 SPRING			UCD1-24 WINTER			UCD1-24 SPRING			UCD1-25 FALL			UCD1-27Z1 FALL			UCD1-27Z2 FALL		
1,1,1-Trichloroethane	ug/L	1	200		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1,2,2-Tetrachloroethane	ug/L	1	1		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1,2-Trichloroethane	ug/L	1	5	#	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1-Dichloroethane	ug/L	1	5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1-Dichloroethene	ug/L	1	6		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dibromo-3-chloropropane	ug/L	1	-		< 1	Rc	U	< 1	Rc	U	< 1	Rc	U	< 1	Rc	U	< 1	Rc	U	< 1		U	< 1		U	< 1		U
1,2-Dibromoethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichlorobenzene	ug/L	10	600	#	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichloroethane	ug/L	1	0.5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichloropropane	ug/L	1	5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,3-Dichlorobenzene	ug/L	10	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,4-Dichlorobenzene	ug/L	10	5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
2-Butanone	ug/L	5	-		< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	27	Jc		< 5	Rc	U
2-Hexanone	ug/L	5	-		< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U
4-Methyl-2-Pentanone	ug/L	5	-		< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U
Acetone	ug/L	5	-		< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	4.7	Jc	J	2.2	Jc	J
Benzene	ug/L	1	1		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromochloromethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromodichloromethane	ug/L	1	-	a	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromoform	ug/L	1	-	a	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromomethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Carbon Disulfide	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	0.82		J
Carbon Tetrachloride	ug/L	1	0.5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Chlorobenzene	ug/L	1	30		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Chloroethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Chloroform	ug/L	1	-	a	< 1		U	0.68		J	0.64	Jy	J	0.74		J	1.5	Jy		0.86		J	1.6	Jz		5.6	Jz	
Chloromethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Dibromochloromethane	ug/L	1	-	a	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Ethyl Benzene	ug/L	1	680		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Methylene Chloride	ug/L	2	5		< 2		U	< 2		U	< 2		U	< 2		U	< 2		U	< 2		U	< 2		U	< 2		U
Styrene	ug/L	1	100	#	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Tetrachloroethene	ug/L	1	5		< 1		U	< 1		U	< 1		U	< 1		U	0.84		J	< 1		U	< 1		U	< 1		U
Toluene	ug/L	1	1000	#	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	1.3			< 1		U
Trichloroethene	ug/L	1	5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Vinyl Chloride	ug/L	1	0.5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Xylenes (Total)	ug/L	1	1750		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
cis-1,2-Dichloroethene	ug/L	1	6		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
cis-1,3-Dichloropropene	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
trans-1,2-Dichloroethene	ug/L	1	10		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
trans-1,3-Dichloropropene	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U

TABLE A.1
ANALYTICAL RESULTS FOR GROUNDWATER 1995
VOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-27Z3 FALL			UCD1-34 FALL			UCD1-4 WINTER			UCD1-4 SPRING			UCD1-4 SUMMER			UCD1-4 FALL			UCD2-14 WINTER			UCD2-14 SPRING		
1,1,1-Trichloroethane	ug/L	1	200		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1,2,2-Tetrachloroethane	ug/L	1	1		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1,2-Trichloroethane	ug/L	1	5	#	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1-Dichloroethane	ug/L	1	5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1-Dichloroethene	ug/L	1	6		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dibromo-3-chloropropane	ug/L	1	-		< 1		U	< 1		U	< 1	Rc	U	< 1	Rc	U	< 1	Rc	U	< 1		U	< 1	Rc	U	< 1	Rc	U
1,2-Dibromoethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichlorobenzene	ug/L	10	600	#	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichloroethane	ug/L	1	0.5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichloropropane	ug/L	1	5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,3-Dichlorobenzene	ug/L	10	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,4-Dichlorobenzene	ug/L	10	5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
2-Butanone	ug/L	5	-		< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5		U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U
2-Hexanone	ug/L	5	-		< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U
4-Methyl-2-Pentanone	ug/L	5	-		< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U
Acetone	ug/L	5	-		< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U
Benzene	ug/L	1	1		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromochloromethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromodichloromethane	ug/L	1	-	a	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromoform	ug/L	1	-	a	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromomethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Carbon Disulfide	ug/L	1	-		2.4		J	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Carbon Tetrachloride	ug/L	1	0.5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Chlorobenzene	ug/L	1	30		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Chloroethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Chloroform	ug/L	1	-	a	4.6	Jz		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	1.9			1.5	Jy	
Chloromethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Dibromochloromethane	ug/L	1	-	a	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Ethyl Benzene	ug/L	1	680		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Methylene Chloride	ug/L	2	5		< 2		U	< 2		U	< 2		U	< 2		U	< 2		U	< 2		U	< 2		U	< 2		U
Styrene	ug/L	1	100	#	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Tetrachloroethene	ug/L	1	5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Toluene	ug/L	1	1000	#	0.77		J	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Trichloroethene	ug/L	1	5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Vinyl Chloride	ug/L	1	0.5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Xylenes (Total)	ug/L	1	1750		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
cis-1,2-Dichloroethene	ug/L	1	6		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
cis-1,3-Dichloropropene	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
trans-1,2-Dichloroethene	ug/L	1	10		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
trans-1,3-Dichloropropene	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U

TABLE A.1
ANALYTICAL RESULTS FOR GROUNDWATER 1995
VOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD2-14 SUMMER		UCD2-14 FALL		UCD2-15 WINTER		UCD2-15 SPRING		UCD2-15 SUMMER		UCD2-15 FALL		UCD2-16 WINTER		UCD2-16 SPRING	
1,1,1-Trichloroethane	ug/L	1	200		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,1,2,2-Tetrachloroethane	ug/L	1	1		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,1,2-Trichloroethane	ug/L	1	5	#	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,1-Dichloroethane	ug/L	1	5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,1-Dichloroethene	ug/L	1	6		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,2-Dibromo-3-chloropropane	ug/L	1	-		< 1	Rc U	< 1	U	< 1	Rc U	< 1	Rc U	< 1	Rc U	< 1	U	< 1	Rc U	< 1	Rc U
1,2-Dibromoethane	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,2-Dichlorobenzene	ug/L	10	600	#	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,2-Dichloroethane	ug/L	1	0.5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,2-Dichloropropane	ug/L	1	5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,3-Dichlorobenzene	ug/L	10	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
1,4-Dichlorobenzene	ug/L	10	5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
2-Butanone	ug/L	5	-		< 5	Rc U	< 5	Rc U	< 5	Rc U	< 5	U	< 5	Rc U	< 5	Rc U	< 5	Rc U	< 5	U
2-Hexanone	ug/L	5	-		< 5	U	< 5	U	< 5	U	< 5	U	< 5	U	< 5	U	< 5	U	< 5	U
4-Methyl-2-Pentanone	ug/L	5	-		< 5	U	< 5	U	< 5	U	< 5	U	< 5	U	< 5	U	< 5	U	< 5	U
Acetone	ug/L	5	-		< 5	Rc U	< 5	Rc U	< 5	Rc U	< 5	Rc U	< 5	Rc U	< 5	Rc U	< 5	Rc U	< 5	Rc U
Benzene	ug/L	1	1		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Bromochloromethane	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Bromodichloromethane	ug/L	1	-	a	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Bromoform	ug/L	1	-	a	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Bromomethane	ug/L	1	-		< 1	U	< 1	U	< 1	Uz	< 1	U	< 1	U	< 1	U	< 1	Uz	< 1	U
Carbon Disulfide	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Carbon Tetrachloride	ug/L	1	0.5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Chlorobenzene	ug/L	1	30		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Chloroethane	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Chloroform	ug/L	1	-	a	2.1		3.2		< 1	U	< 1	U	0.79	Jy J	< 1	U	< 1	U	< 1	U
Chloromethane	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Dibromochloromethane	ug/L	1	-	a	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Ethyl Benzene	ug/L	1	680		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Methylene Chloride	ug/L	2	5		< 2	U	< 2	U	< 2	U	< 2	U	< 2	U	< 2	U	< 2	U	< 2	U
Styrene	ug/L	1	100	#	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Tetrachloroethene	ug/L	1	5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Toluene	ug/L	1	1000	#	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Trichloroethene	ug/L	1	5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Vinyl Chloride	ug/L	1	0.5		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
Xylenes (Total)	ug/L	1	1750		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
cis-1,2-Dichloroethene	ug/L	1	6		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
cis-1,3-Dichloropropene	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
trans-1,2-Dichloroethene	ug/L	1	10		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U
trans-1,3-Dichloropropene	ug/L	1	-		< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U	< 1	U

TABLE A.1
ANALYTICAL RESULTS FOR GROUNDWATER 1995
VOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL	UCD2-16 SUMMER	UCD2-17 WINTER	UCD2-17 SPRING	UCD2-26 FALL	UCD2-27Z4 FALL	UCD2-27Z5 FALL	UCD2-27Z6 FALL	UCD2-27Z7 FALL
1,1,1-Trichloroethane	ug/L	1	200	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,1,2,2-Tetrachloroethane	ug/L	1	1	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,1,2-Trichloroethane	ug/L	1	5 #	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,1-Dichloroethane	ug/L	1	5	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,1-Dichloroethene	ug/L	1	6	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,2-Dibromo-3-chloropropane	ug/L	1	-	< 1 Rc |U	< 1 Rc |U	< 1 Rc |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,2-Dibromoethane	ug/L	1	-	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,2-Dichlorobenzene	ug/L	10	600 #	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,2-Dichloroethane	ug/L	1	0.5	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,2-Dichloropropane	ug/L	1	5	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,3-Dichlorobenzene	ug/L	10	-	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
1,4-Dichlorobenzene	ug/L	10	5	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
2-Butanone	ug/L	5	-	< 5 Rc |U	< 5 Rc |U	< 5 Rc |U	< 5 Rc |U	< 5 Rc |U	< 5 Rc |U	< 5 Jr |U	< 5 Rc |U
2-Hexanone	ug/L	5	-	< 5 |U	< 5 |U	< 5 |U	< 5 |U	< 5 |U	< 5 |U	< 5 |U	< 5 |U
4-Methyl-2-Pentanone	ug/L	5	-	< 5 |U	< 5 |U	< 5 |U	< 5 |U	< 5 |U	< 5 |U	< 5 |U	< 5 |U
Acetone	ug/L	5	-	< 5 Rc |U	< 5 Rc |U	< 5 Rc |U	< 5 Rc |U	3.4 Jc |JB	2.2 Jc |J	2.7 Jc |JB	3.1 Jz |JB
Benzene	ug/L	1	1	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Bromochloromethane	ug/L	1	-	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Bromodichloromethane	ug/L	1	- a	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Bromoform	ug/L	1	- a	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	0.95 |J	< 1 |U
Bromomethane	ug/L	1	-	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Carbon Disulfide	ug/L	1	-	< 1 |U	< 1 |U	< 1 |U	< 1 |U	0.91 |J	< 1 |U	< 1 |U	0.51 |J
Carbon Tetrachloride	ug/L	1	0.5	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Chlorobenzene	ug/L	1	30	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Chloroethane	ug/L	1	-	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Chloroform	ug/L	1	- a	3.8 Jy |	< 1 |U	< 1 |U	11 Jz |	20 Jz |	43 Jz |	2.2	< 1 |U
Chloromethane	ug/L	1	-	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Dibromochloromethane	ug/L	1	- a	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Ethyl Benzene	ug/L	1	680	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Methylene Chloride	ug/L	2	5	< 2 |U	< 2 |U	< 2 |U	< 2 |U	1 |J	< 2 |U	< 2 |U	< 2 |U
Styrene	ug/L	1	100 #	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Tetrachloroethene	ug/L	1	5	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Toluene	ug/L	1	1000 #	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Trichloroethene	ug/L	1	5	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Vinyl Chloride	ug/L	1	0.5	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Xylenes (Total)	ug/L	1	1750	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
cis-1,2-Dichloroethene	ug/L	1	6	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
cis-1,3-Dichloropropene	ug/L	1	-	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
trans-1,2-Dichloroethene	ug/L	1	10	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
trans-1,3-Dichloropropene	ug/L	1	-	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U

TABLE A.1
ANALYTICAL RESULTS FOR GROUNDWATER 1995
VOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD2-35 FALL			UCD2-7 WINTER			UCD2-7 WINTER D1			UCD2-7 SPRING		
1,1,1-Trichloroethane	ug/L	1	200		< 1		U	< 1		U	< 1		U	< 1		U
1,1,2,2-Tetrachloroethane	ug/L	1	1		< 1		U	< 1		U	< 1		U	< 1		U
1,1,2-Trichloroethane	ug/L	1	5	#	< 1		U	< 1		U	< 1		U	< 1		U
1,1-Dichloroethane	ug/L	1	5		< 1		U	< 1		U	< 1		U	< 1		U
1,1-Dichloroethene	ug/L	1	6		< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dibromo-3-chloropropane	ug/L	1	-		< 1		U	< 1	Rc	U	< 1	Rc	U	< 1	Rc	U
1,2-Dibromoethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichlorobenzene	ug/L	10	600	#	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichloroethane	ug/L	1	0.5		< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichloropropane	ug/L	1	5		< 1		U	< 1		U	< 1		U	< 1		U
1,3-Dichlorobenzene	ug/L	10	-		< 1		U	< 1		U	< 1		U	< 1		U
1,4-Dichlorobenzene	ug/L	10	5		< 1		U	< 1		U	< 1		U	< 1		U
2-Butanone	ug/L	5	-		< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5		U
2-Hexanone	ug/L	5	-		< 5		U	< 5		U	< 5		U	< 5		U
4-Methyl-2-Pentanone	ug/L	5	-		< 5		U	< 5		U	< 5		U	< 5		U
Acetone	ug/L	5	-		< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U
Benzene	ug/L	1	1		< 1		U	< 1		U	< 1		U	< 1		U
Bromochloromethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U
Bromodichloromethane	ug/L	1	-	a	< 1		U	< 1		U	< 1		U	< 1		U
Bromoform	ug/L	1	-	a	< 1		U	< 1		U	< 1		U	< 1		U
Bromomethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U
Carbon Disulfide	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U
Carbon Tetrachloride	ug/L	1	0.5		< 1		U	< 1		U	< 1		U	< 1		U
Chlorobenzene	ug/L	1	30		< 1		U	< 1		U	< 1		U	< 1		U
Chloroethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U
Chloroform	ug/L	1	-	a	< 1		U	< 1		U	< 1		U	< 1		U
Chloromethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U
Dibromochloromethane	ug/L	1	-	a	< 1		U	< 1		U	< 1		U	< 1		U
Ethyl Benzene	ug/L	1	680		< 1		U	< 1		U	< 1		U	< 1		U
Methylene Chloride	ug/L	2	5		< 2		U	< 2		U	< 2		U	< 2		U
Styrene	ug/L	1	100	#	< 1		U	< 1		U	< 1		U	< 1		U
Tetrachloroethene	ug/L	1	5		< 1		U	< 1		U	< 1		U	< 1		U
Toluene	ug/L	1	1000	#	< 1		U	< 1		U	< 1		U	< 1		U
Trichloroethene	ug/L	1	5		< 1		U	< 1		U	< 1		U	< 1		U
Vinyl Chloride	ug/L	1	0.5		< 1		U	< 1		U	< 1		U	< 1		U
Xylenes (Total)	ug/L	1	1750		< 1		U	< 1		U	< 1		U	< 1		U
cis-1,2-Dichloroethene	ug/L	1	6		< 1		U	< 1		U	< 1		U	< 1		U
cis-1,3-Dichloropropene	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U
trans-1,2-Dichloroethene	ug/L	1	10		< 1		U	< 1		U	< 1		U	< 1		U
trans-1,3-Dichloropropene	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U

TABLE A.1
ANALYTICAL RESULTS FOR GROUNDWATER 1995
VOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1 = Duplicate Sample
- = Parameter not analyzed or no MCL
DL = Detection Limit
< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.
MCL = Maximum Contaminant Level (primary), Title 22 Division 4 Chapter 15.
 # = USEPA MCL
a = MCL for total trihalomethanes is 100 ug/L. Chloroform is the predominant trihalomethane detected at LEHR.
b = Volatile Organic Sample likely collected from UCD1-12. Results reported (ug/L) by the laboratory are as follows 1,1-Dichlorethane=6.8, 1,1-Dichloroethene=13, 1,2-Dichloroethane=3.3, 1,2-Dichloropropane=0.51, Acetone=4.7, Bromodichloromethane=0.7, Chloroform= 5,800.
c = Laboratory reported chloroform concentration of 140 ug/L was determined to be laboratory error.

See Appendix A for explanation of data qualifiers.

TABLE A.2
ANALYTICAL RESULTS FOR GROUNDWATER 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-1 WINTER		UCD1-1 SPRING		UCD1-1 SPRING D1		UCD1-10 WINTER		UCD1-10 SPRING		UCD1-11 WINTER		UCD1-11 SPRING	
1,2,4-Trichlorobenzene	ug/L	10	70		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
1,2-Dichlorobenzene	ug/L	10	600	#	< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
1,3-Dichlorobenzene	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
1,4-Dichlorobenzene	ug/L	10	5		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
2,2'-oxybis(1-Chloropropane)	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	UJc U	< 10	U	< 11	UJc U	< 11	U
2,4,5-Trichlorophenol	ug/L	25	-		< 30	U	< 27	U	< 26	U	< 27	U	< 26	U	< 27	U	< 27	U
2,4,6-Trichlorophenol	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
2,4-Dichlorophenol	ug/L	10	70	#	< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	UJc U	< 11	U
2,4-Dimethylphenol	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
2,4-Dinitrophenol	ug/L	25	-		< 30	U	< 27	U	< 26	U	< 27	U	< 26	U	< 27	U	< 27	U
2,4-Dinitrotoluene	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
2,6-Dinitrotoluene	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
2-Chloronaphthalene	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
2-Chlorophenol	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
2-Methyl-4,6-dinitrophenol	ug/L	25	-		< 30	U	< 27	U	< 26	U	< 27	U	< 26	U	< 27	U	< 27	U
2-Methylnaphthalene	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
2-Methylphenol	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
2-Nitroaniline	ug/L	25	-		< 30	U	< 27	U	< 26	U	< 27	U	< 26	U	< 27	U	< 27	U
2-Nitrophenol	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
3,3'-Dichlorobenzidine	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	UJc U	< 10	U	< 11	UJg U	< 11	U
3-Nitroaniline	ug/L	25	-		< 30	U	< 27	U	< 26	U	< 27	U	< 26	U	< 27	U	< 27	U
4-Bromophenyl Phenyl Ether	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
4-Chloro-3-Methylphenol	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
4-Chloroaniline	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
4-Chlorophenyl Phenyl Ether	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
4-Methylphenol	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
4-Nitroaniline	ug/L	25	-		< 30	U	< 27	U	< 26	U	< 27	U	< 26	U	< 27	U	< 27	U
4-Nitrophenol	ug/L	25	-		< 30	U	< 27	U	< 26	U	< 27	U	< 26	U	< 27	U	< 27	U
Acenaphthene	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
Acenaphthylene	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
Anthracene	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
Benzo(a)anthracene	ug/L	10	0.1	*	< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	UJg U	< 11	U
Benzo(a)pyrene	ug/L	10	0.2		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	UJg U	< 11	U
Benzo(b)fluoranthene	ug/L	10	0.2	*	< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	UJg U	< 11	U
Benzo(g,h,i)perylene	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	UJg U	< 11	U
Benzo(k)fluoranthene	ug/L	10	0.2	*	< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	UJg U	< 11	U

TABLE A.2
ANALYTICAL RESULTS FOR GROUNDWATER 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-1 WINTER		UCD1-1 SPRING		UCD1-1 SPRING D1		UCD1-10 WINTER		UCD1-10 SPRING		UCD1-11 WINTER		UCD1-11 SPRING	
Benzyl Butyl Phthalate	ug/L	10	100	#	< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	UJg U	< 11	U
Bis(2-Chloroethoxy)methane	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
Bis(2-Chloroethyl)ether	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
Bis(2-Ethylhexyl)phthalate	ug/L	10	4		< 12	U	< 11	U	< 10	U	< 11	UJc U	< 10	U	< 11	UJg U	3	J
Carbazole	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
Chrysene	ug/L	10	0.2	*	< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	UJg U	< 11	U
Di-n-Butylphthalate	ug/L	10	-		0.7	J	< 11	U	< 10	U	< 11	Uz	180		< 11	Uz	< 11	U
Di-n-Octylphthalate	ug/L	10	-		< 12	U	< 11	Jc U	< 10	Jc U	< 11	UJc U	< 10	Jc U	< 11	UJg U	< 11	Jc U
Dibenzo(a,h)anthracene	ug/L	10	0.3	*	< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	UJg U	< 11	U
Dibenzofuran	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
Diethyl Phthalate	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
Dimethyl Phthalate	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
Fluoranthene	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	UJg U	< 11	U
Fluorene	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
Hexachlorobenzene	ug/L	10	1		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
Hexachlorobutadiene	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
Hexachlorocyclopentadiene	ug/L	10	50		< 12	UJr U	< 11	U	< 10	U	< 11	UJc U	< 10	U	< 11	UJc U	< 11	U
Hexachloroethane	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
Indeno(1,2,3-cd)pyrene	ug/L	10	0.4	*	< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	UJg U	< 11	U
Isophorone	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
N-Nitrosodi-n-propylamine	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
N-Nitrosodiphenylamine	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
Naphthalene	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
Nitrobenzene	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
Pentachlorophenol	ug/L	25	1	#	< 30	U	< 27	U	< 26	U	< 27	UJc U	< 26	U	< 27	UJc U	< 27	U
Phenanthrene	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
Phenol	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	U	< 11	U
Pyrene	ug/L	10	-		< 12	U	< 11	U	< 10	U	< 11	U	< 10	U	< 11	UJg U	< 11	U

TABLE A.2
ANALYTICAL RESULTS FOR GROUNDWATER 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-12 WINTER		UCD1-12 SPRING		UCD1-13 WINTER		UCD1-13 SPRING		UCD1-18 WINTER		UCD1-18 WINTER D1		UCD1-18 SPRING	
1,2,4-Trichlorobenzene	ug/L	10	70		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
1,2-Dichlorobenzene	ug/L	10	600	#	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
1,3-Dichlorobenzene	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
1,4-Dichlorobenzene	ug/L	10	5		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
2,2'-oxybis(1-Chloropropane)	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
2,4,5-Trichlorophenol	ug/L	25	-		< 29	U	< 27	U	< 30	U	< 27	U	< 29	U	< 29	U	< 27	U
2,4,6-Trichlorophenol	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
2,4-Dichlorophenol	ug/L	10	70	#	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
2,4-Dimethylphenol	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
2,4-Dinitrophenol	ug/L	25	-		< 29	U	< 27	U	< 30	U	< 27	U	< 29	U	< 29	U	< 27	U
2,4-Dinitrotoluene	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
2,6-Dinitrotoluene	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
2-Chloronaphthalene	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
2-Chlorophenol	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
2-Methyl-4,6-dinitrophenol	ug/L	25	-		< 29	U	< 27	U	< 30	U	< 27	U	< 29	U	< 29	U	< 27	U
2-Methylnaphthalene	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
2-Methylphenol	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
2-Nitroaniline	ug/L	25	-		< 29	U	< 27	U	< 30	U	< 27	U	< 29	U	< 29	U	< 27	U
2-Nitrophenol	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
3,3'-Dichlorobenzidine	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
3-Nitroaniline	ug/L	25	-		< 29	U	< 27	U	< 30	U	< 27	U	< 29	U	< 29	U	< 27	U
4-Bromophenyl Phenyl Ether	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
4-Chloro-3-Methylphenol	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
4-Chloroaniline	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
4-Chlorophenyl Phenyl Ether	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
4-Methylphenol	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
4-Nitroaniline	ug/L	25	-		< 29	U	< 27	U	< 30	U	< 27	U	< 29	U	< 29	U	< 27	U
4-Nitrophenol	ug/L	25	-		< 29	U	< 27	U	< 30	U	< 27	U	< 29	U	< 29	U	< 27	U
Acenaphthene	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Acenaphthylene	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Anthracene	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Benzo(a)anthracene	ug/L	10	0.1	*	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Benzo(a)pyrene	ug/L	10	0.2		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Benzo(b)fluoranthene	ug/L	10	0.2	*	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Benzo(g,h,i)perylene	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Benzo(k)fluoranthene	ug/L	10	0.2	*	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U

TABLE A.2
ANALYTICAL RESULTS FOR GROUNDWATER 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-12 WINTER		UCD1-12 SPRING		UCD1-13 WINTER		UCD1-13 SPRING		UCD1-18 WINTER		UCD1-18 WINTER D1		UCD1-18 SPRING	
Benzyl Butyl Phthalate	ug/L	10	100	#	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Bis(2-Chloroethoxy)methane	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Bis(2-Chloroethyl)ether	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Bis(2-Ethylhexyl)phthalate	ug/L	10	4		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	7	Uz BJ
Carbazole	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Chrysene	ug/L	10	0.2	*	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Di-n-Butylphthalate	ug/L	10	-		2	J	< 11	U	2	J	< 11	U	< 12	U	2	J	50	Uz B
Di-n-Octylphthalate	ug/L	10	-		< 12	U	< 11	Jc U	< 12	U	< 11	Jc U	< 12	U	< 11	U	< 11	U
Dibenzo(a,h)anthracene	ug/L	10	0.3	*	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Dibenzofuran	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Diethyl Phthalate	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	1	J
Dimethyl Phthalate	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Fluoranthene	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Fluorene	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Hexachlorobenzene	ug/L	10	1		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Hexachlorobutadiene	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Hexachlorocyclopentadiene	ug/L	10	50		< 12	UJr U	< 11	U	< 12	UJr U	< 11	U	< 12	UJr U	< 11	UJr U	< 11	U
Hexachloroethane	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Indeno(1,2,3-cd)pyrene	ug/L	10	0.4	*	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Isophorone	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
N-Nitrosodi-n-propylamine	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
N-Nitrosodiphenylamine	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Naphthalene	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Nitrobenzene	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Pentachlorophenol	ug/L	25	1	#	< 29	U	< 27	U	< 30	U	< 27	U	< 29	U	< 29	U	< 27	U
Phenanthrene	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Phenol	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U
Pyrene	ug/L	10	-		< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 11	U

TABLE A.2
ANALYTICAL RESULTS FOR GROUNDWATER 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-19 WINTER		UCD1-19 SPRING		UCD1-19 SPRING D1		UCD1-20 WINTER		UCD1-20 SPRING		UCD1-21 WINTER		UCD1-21 SPRING	
1,2,4-Trichlorobenzene	ug/L	10	70		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
1,2-Dichlorobenzene	ug/L	10	600	#	< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
1,3-Dichlorobenzene	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
1,4-Dichlorobenzene	ug/L	10	5		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
2,2'-oxybis(1-Chloropropane)	ug/L	10	-		< 11	UJc U	< 11	U	< 11	U	< 12	UJc U	< 11	U	< 12	UJc U	< 11	U
2,4,5-Trichlorophenol	ug/L	25	-		< 27	U	< 27	U	< 27	U	< 29	U	< 26	U	< 30	U	< 27	U
2,4,6-Trichlorophenol	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
2,4-Dichlorophenol	ug/L	10	70	#	< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
2,4-Dimethylphenol	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
2,4-Dinitrophenol	ug/L	25	-		< 27	U	< 27	U	< 27	U	< 29	U	< 26	U	< 30	U	< 27	U
2,4-Dinitrotoluene	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
2,6-Dinitrotoluene	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
2-Chloronaphthalene	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
2-Chlorophenol	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
2-Methyl-4,6-dinitrophenol	ug/L	25	-		< 27	U	< 27	U	< 27	U	< 29	U	< 26	U	< 30	U	< 27	U
2-Methylnaphthalene	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
2-Methylphenol	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
2-Nitroaniline	ug/L	25	-		< 27	U	< 27	U	< 27	U	< 29	U	< 26	U	< 30	U	< 27	U
2-Nitrophenol	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
3,3'-Dichlorobenzidine	ug/L	10	-		< 11	UJc U	< 11	U	< 11	U	< 12	UJc U	< 11	U	< 12	UJc U	< 11	U
3-Nitroaniline	ug/L	25	-		< 27	U	< 27	U	< 27	U	< 29	U	< 26	U	< 30	U	< 27	U
4-Bromophenyl Phenyl Ether	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
4-Chloro-3-Methylphenol	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
4-Chloroaniline	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
4-Chlorophenyl Phenyl Ether	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
4-Methylphenol	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
4-Nitroaniline	ug/L	25	-		< 27	U	< 27	U	< 27	U	< 29	U	< 26	U	< 30	U	< 27	U
4-Nitrophenol	ug/L	25	-		< 27	U	< 27	U	< 27	U	< 29	U	< 26	U	< 30	U	< 27	U
Acenaphthene	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
Acenaphthylene	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
Anthracene	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
Benzo(a)anthracene	ug/L	10	0.1	*	< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
Benzo(a)pyrene	ug/L	10	0.2		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
Benzo(b)fluoranthene	ug/L	10	0.2	*	< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
Benzo(g,h,i)perylene	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U
Benzo(k)fluoranthene	ug/L	10	0.2	*	< 11	U	< 11	U	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U

TABLE A.2
ANALYTICAL RESULTS FOR GROUNDWATER 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-19 WINTER		UCD1-19 SPRING		UCD1-19 SPRING D1		UCD1-20 WINTER		UCD1-20 SPRING		UCD1-21 WINTER		UCD1-21 SPRING	
Benzyl Butyl Phthalate	ug/L	10	100	#	< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
Bis(2-Chloroethoxy)methane	ug/L	10	-		< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
Bis(2-Chloroethyl)ether	ug/L	10	-		< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
Bis(2-Ethylhexyl)phthalate	ug/L	10	4		< 11	UJc |U	< 11	|U	< 11	|U	< 12	UJc |U	< 11	|U	< 12	UJc |U	2	Uz |BJ
Carbazole	ug/L	10	-		< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
Chrysene	ug/L	10	0.2	*	< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
Di-n-Butylphthalate	ug/L	10	-		< 11	Uz |	< 11	|U	< 11	|U	< 12	Uz |	< 11	|U	< 12	Uz |	24	Uz |B
Di-n-Octylphthalate	ug/L	10	-		< 11	UJc |U	< 11	Jc |U	< 11	Jc |U	< 12	UJc |U	< 11	Jc |U	< 12	UJc |U	< 11	|U
Dibenzo(a,h)anthracene	ug/L	10	0.3	*	< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
Dibenzofuran	ug/L	10	-		< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
Diethyl Phthalate	ug/L	10	-		< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	0.6	|J
Dimethyl Phthalate	ug/L	10	-		< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
Fluoranthene	ug/L	10	-		< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
Fluorene	ug/L	10	-		< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
Hexachlorobenzene	ug/L	10	1		< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
Hexachlorobutadiene	ug/L	10	-		< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
Hexachlorocyclopentadiene	ug/L	10	50		< 11	UJc |U	< 11	|U	< 11	|U	< 12	UJc |U	< 11	|U	< 12	UJc |U	< 11	|U
Hexachloroethane	ug/L	10	-		< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
Indeno(1,2,3-cd)pyrene	ug/L	10	0.4	*	< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
Isophorone	ug/L	10	-		< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
N-Nitrosodi-n-propylamine	ug/L	10	-		< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
N-Nitrosodiphenylamine	ug/L	10	-		< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
Naphthalene	ug/L	10	-		< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
Nitrobenzene	ug/L	10	-		< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
Pentachlorophenol	ug/L	25	1	#	< 27	UJc |U	< 27	|U	< 27	|U	< 29	UJc |U	< 26	|U	< 30	UJc |U	< 27	|U
Phenanthrene	ug/L	10	-		< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
Phenol	ug/L	10	-		< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U
Pyrene	ug/L	10	-		< 11	|U	< 11	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U

TABLE A.2
ANALYTICAL RESULTS FOR GROUNDWATER 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-22 WINTER		UCD1-22 SPRING		UCD1-23 WINTER		UCD1-23 SPRING		UCD1-24 WINTER		UCD1-24 SPRING		UCD1-25 FALL	
1,2,4-Trichlorobenzene	ug/L	10	70		< 11	U	< 11	U	< 11	U	< 11	U	< 11	U	< 10	U	< 10	U
1,2-Dichlorobenzene	ug/L	10	600	#	< 11	U	< 11	U	< 11	U	< 11	U	< 11	U	< 10	U	< 10	U
1,3-Dichlorobenzene	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 11	U	< 11	U	< 10	U	< 10	U
1,4-Dichlorobenzene	ug/L	10	5		< 11	U	< 11	U	< 11	U	< 11	U	< 11	U	< 10	U	< 10	U
2,2'-oxybis(1-Chloropropane)	ug/L	10	-		< 11	UJc U	< 11	U	< 11	UJc U	< 11	U	< 11	UJc U	< 10	U	< 10	U
2,4,5-Trichlorophenol	ug/L	25	-		< 28	U	< 27	U	< 26	U	< 28	U	< 27	U	< 26	U	< 25	U
2,4,6-Trichlorophenol	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 11	U	< 11	U	< 10	U	< 10	U
2,4-Dichlorophenol	ug/L	10	70	#	< 11	U	< 11	U	< 11	UJc U	< 11	U	< 11	U	< 10	U	< 10	U
2,4-Dimethylphenol	ug/L	10	-		< 11	U	< 11	U	< 11	UJc U	< 11	U	< 11	U	< 10	U	< 10	U
2,4-Dinitrophenol	ug/L	25	-		< 28	U	< 27	U	< 26	U	< 28	U	< 27	U	< 26	U	< 25	U
2,4-Dinitrotoluene	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 11	U	< 11	U	< 10	U	< 10	U
2,6-Dinitrotoluene	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 11	U	< 11	U	< 10	U	< 10	U
2-Chloronaphthalene	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 11	U	< 11	U	< 10	U	< 10	U
2-Chlorophenol	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 11	U	< 11	U	< 10	U	< 10	U
2-Methyl-4,6-dinitrophenol	ug/L	25	-		< 28	U	< 27	U	< 26	U	< 28	U	< 27	U	< 26	U	< 25	U
2-Methylnaphthalene	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 11	U	< 11	U	< 10	U	< 10	U
2-Methylphenol	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 11	U	< 11	U	< 10	U	< 10	U
2-Nitroaniline	ug/L	25	-		< 28	U	< 27	U	< 26	U	< 28	U	< 27	U	< 26	U	< 25	U
2-Nitrophenol	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 11	U	< 11	U	< 10	U	< 10	U
3,3'-Dichlorobenzidine	ug/L	10	-		< 11	UJc U	< 11	U	< 11	UJg U	< 11	U	< 11	UJc U	< 10	U	< 10	U
3-Nitroaniline	ug/L	25	-		< 28	U	< 27	U	< 26	U	< 28	U	< 27	U	< 26	U	< 25	U
4-Bromophenyl Phenyl Ether	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 11	U	< 11	U	< 10	U	< 10	U
4-Chloro-3-Methylphenol	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 11	U	< 11	U	< 10	U	< 10	U
4-Chloroaniline	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 11	U	< 11	U	< 10	U	< 10	U
4-Chlorophenyl Phenyl Ether	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 11	U	< 11	U	< 10	U	< 10	U
4-Methylphenol	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 11	U	< 11	U	< 10	U	< 10	U
4-Nitroaniline	ug/L	25	-		< 28	U	< 27	U	< 26	U	< 28	U	< 27	U	< 26	U	< 25	U
4-Nitrophenol	ug/L	25	-		< 28	U	< 27	U	< 26	U	< 28	U	< 27	U	< 26	U	< 25	U
Acenaphthene	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 11	U	< 11	U	< 10	U	< 10	U
Acenaphthylene	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 11	U	< 11	U	< 10	U	< 10	U
Anthracene	ug/L	10	-		< 11	U	< 11	U	< 11	U	< 11	U	< 11	U	< 10	U	< 10	U
Benzo(a)anthracene	ug/L	10	0.1	*	< 11	U	< 11	U	< 11	UJg U	< 11	U	< 11	U	< 10	U	< 10	U
Benzo(a)pyrene	ug/L	10	0.2		< 11	U	< 11	U	< 11	UJg U	< 11	U	< 11	U	< 10	U	< 10	U
Benzo(b)fluoranthene	ug/L	10	0.2	*	< 11	U	< 11	U	< 11	UJg U	< 11	U	< 11	U	< 10	U	< 10	U
Benzo(g,h,i)perylene	ug/L	10	-		< 11	U	< 11	U	< 11	UJg U	< 11	U	< 11	U	< 10	U	< 10	U
Benzo(k)fluoranthene	ug/L	10	0.2	*	< 11	U	< 11	U	< 11	UJg U	< 11	U	< 11	U	< 10	U	< 10	U

TABLE A.2
ANALYTICAL RESULTS FOR GROUNDWATER 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-22 WINTER			UCD1-22 SPRING			UCD1-23 WINTER			UCD1-23 SPRING			UCD1-24 WINTER			UCD1-24 SPRING			UCD1-25 FALL		
Benzyl Butyl Phthalate	ug/L	10	100	#	< 11		U	< 11		U	< 11	UJg	U	< 11		U	< 11		U	< 10		U	< 10		U
Bis(2-Chloroethoxy)methane	ug/L	10	-		< 11		U	< 11		U	< 11		U	< 11		U	< 11		U	< 10		U	< 10		U
Bis(2-Chloroethyl)ether	ug/L	10	-		< 11		U	< 11		U	< 11		U	< 11		U	< 11		U	< 10		U	< 10		U
Bis(2-Ethylhexyl)phthalate	ug/L	10	4		< 11	UJc	U	2	Uz	BJ	< 11	UJg	U	< 11		U	< 11	UJc	U	2		J	< 10		U
Carbazole	ug/L	10	-		< 11		U	< 11		U	< 11		U	< 11		U	< 11		U	< 10		U	< 10		U
Chrysene	ug/L	10	0.2	*	< 11		U	< 11		U	< 11	UJg	U	< 11		U	< 11		U	< 10		U	< 10		U
Di-n-Butylphthalate	ug/L	10	-		< 11	Uz		130		B	< 11	Uz		< 11		U	< 11	Uz		< 10		U	< 10		U
Di-n-Octylphthalate	ug/L	10	-		< 11	UJc	U	< 11		U	< 11	UJg	U	< 11		U	< 11	UJc	U	< 10		U	< 10		U
Dibenzo(a,h)anthracene	ug/L	10	0.3	*	< 11		U	< 11		U	< 11	UJg	U	< 11		U	< 11		U	< 10		U	< 10		U
Dibenzofuran	ug/L	10	-		< 11		U	< 11		U	< 11		U	< 11		U	< 11		U	< 10		U	< 10		U
Diethyl Phthalate	ug/L	10	-		< 11		U	2		J	< 11		U	< 11		U	< 11		U	< 10		U	< 10		U
Dimethyl Phthalate	ug/L	10	-		< 11		U	< 11		U	< 11		U	< 11		U	< 11		U	< 10		U	< 10		U
Fluoranthene	ug/L	10	-		< 11		U	< 11		U	< 11	UJg	U	< 11		U	< 11		U	< 10		U	< 10		U
Fluorene	ug/L	10	-		< 11		U	< 11		U	< 11		U	< 11		U	< 11		U	< 10		U	< 10		U
Hexachlorobenzene	ug/L	10	1		< 11		U	< 11		U	< 11		U	< 11		U	< 11		U	< 10		U	< 10		U
Hexachlorobutadiene	ug/L	10	-		< 11		U	< 11		U	< 11	UJc	U	< 11		U	< 11		U	< 10		U	< 10		U
Hexachlorocyclopentadiene	ug/L	10	50		< 11	UJc	U	< 11		U	< 11		U	< 11		U	< 11	UJc	U	< 10		U	< 10		U
Hexachloroethane	ug/L	10	-		< 11		U	< 11		U	< 11		U	< 11		U	< 11		U	< 10		U	< 10		U
Indeno(1,2,3-cd)pyrene	ug/L	10	0.4	*	< 11		U	< 11		U	< 11	UJg	U	< 11		U	< 11		U	< 10		U	< 10		U
Isophorone	ug/L	10	-		< 11		U	< 11		U	< 11		U	< 11		U	< 11		U	< 10		U	< 10		U
N-Nitrosodi-n-propylamine	ug/L	10	-		< 11		U	< 11		U	< 11		U	< 11		U	< 11		U	< 10		U	< 10		U
N-Nitrosodiphenylamine	ug/L	10	-		< 11		U	< 11		U	< 11		U	< 11		U	< 11		U	< 10		U	< 10		U
Naphthalene	ug/L	10	-		< 11		U	< 11		U	< 11		U	< 11		U	< 11		U	< 10		U	< 10		U
Nitrobenzene	ug/L	10	-		< 11		U	< 11		U	< 11		U	< 11		U	< 11		U	< 10		U	< 10		U
Pentachlorophenol	ug/L	25	1	#	< 28	UJc	U	< 27		U	< 26	UJc	U	< 28		U	< 27	UJc	U	< 26		U	< 25		U
Phenanthrene	ug/L	10	-		< 11		U	< 11		U	< 11		U	< 11		U	< 11		U	< 10		U	< 10		U
Phenol	ug/L	10	-		< 11		U	< 11		U	< 11		U	< 11		U	< 11		U	< 10		U	< 10		U
Pyrene	ug/L	10	-		< 11		U	< 11		U	< 11	UJg	U	< 11		U	< 11		U	< 10		U	< 10		U

TABLE A.2
ANALYTICAL RESULTS FOR GROUNDWATER 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-27Z1 FALL			UCD1-27Z2 FALL			UCD1-27Z3 FALL			UCD1-34 FALL			UCD1-4 WINTER			UCD1-4 SPRING			UCD2-14 WINTER		
1,2,4-Trichlorobenzene	ug/L	10	70		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
1,2-Dichlorobenzene	ug/L	10	600	#	< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
1,3-Dichlorobenzene	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
1,4-Dichlorobenzene	ug/L	10	5		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
2,2'-oxybis(1-Chloropropane)	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12	UJc	U	< 10		U	< 12		U
2,4,5-Trichlorophenol	ug/L	25	-		< 25	UJi	U	< 26		U	< 25		U	< 25		U	< 31		U	< 26		U	< 30		U
2,4,6-Trichlorophenol	ug/L	10	-		< 10	UJi	U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
2,4-Dichlorophenol	ug/L	10	70	#	< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
2,4-Dimethylphenol	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
2,4-Dinitrophenol	ug/L	25	-		< 25	UJi	U	< 26		U	< 25		U	< 25		U	< 31		U	< 26		U	< 30		U
2,4-Dinitrotoluene	ug/L	10	-		< 10	UJi	U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
2,6-Dinitrotoluene	ug/L	10	-		< 10	UJi	U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
2-Chloronaphthalene	ug/L	10	-		< 10	UJi	U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
2-Chlorophenol	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
2-Methyl-4,6-dinitrophenol	ug/L	25	-		< 25	UJi	U	< 26		U	< 25		U	< 25		U	< 31		U	< 26		U	< 30		U
2-Methylnaphthalene	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
2-Methylphenol	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
2-Nitroaniline	ug/L	25	-		< 25	UJi	U	< 26		U	< 25		U	< 25		U	< 31		U	< 26		U	< 30		U
2-Nitrophenol	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
3,3'-Dichlorobenzidine	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12	UJc	U	< 10		U	< 12		U
3-Nitroaniline	ug/L	25	-		< 25	UJi	U	< 26		U	< 25		U	< 25		U	< 31		U	< 26		U	< 30		U
4-Bromophenyl Phenyl Ether	ug/L	10	-		< 10	UJi	U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
4-Chloro-3-Methylphenol	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
4-Chloroaniline	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
4-Chlorophenyl Phenyl Ether	ug/L	10	-		< 10	UJi	U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
4-Methylphenol	ug/L	10	-		96			25			36			< 10		U	< 12		U	< 10		U	< 12		U
4-Nitroaniline	ug/L	25	-		< 25	UJi	U	< 26		U	< 25		U	< 25		U	< 31		U	< 26		U	< 30		U
4-Nitrophenol	ug/L	25	-		< 25	UJi	U	< 26		U	< 25		U	< 25		U	< 31		U	< 26		U	< 30		U
Acenaphthene	ug/L	10	-		< 10	UJi	U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Acenaphthylene	ug/L	10	-		< 10	UJi	U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Anthracene	ug/L	10	-		< 10	UJi	U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Benzo(a)anthracene	ug/L	10	0.1	*	< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Benzo(a)pyrene	ug/L	10	0.2		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Benzo(b)fluoranthene	ug/L	10	0.2	*	< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Benzo(g,h,i)perylene	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Benzo(k)fluoranthene	ug/L	10	0.2	*	< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U

TABLE A.2
ANALYTICAL RESULTS FOR GROUNDWATER 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-27Z1 FALL			UCD1-27Z2 FALL			UCD1-27Z3 FALL			UCD1-34 FALL			UCD1-4 WINTER			UCD1-4 SPRING			UCD2-14 WINTER		
Benzyl Butyl Phthalate	ug/L	10	100	#	< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Bis(2-Chloroethoxy)methane	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Bis(2-Chloroethyl)ether	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Bis(2-Ethylhexyl)phthalate	ug/L	10	4		1.2		J	2.3		J	1.4		J	0.51		J	< 12	UJc	U	< 10		U	< 12		U
Carbazole	ug/L	10	-		< 10	UJi	U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Chrysene	ug/L	10	0.2	*	< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Di-n-Butylphthalate	ug/L	10	-		< 10	UJi	U	< 10		U	< 10		U	< 10		U	< 12	Uz		< 10		U	3		J
Di-n-Octylphthalate	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12	UJc	U	< 10	Jc	U	< 12		U
Dibenzo(a,h)anthracene	ug/L	10	0.3	*	< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Dibenzofuran	ug/L	10	-		< 10	UJi	U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Diethyl Phthalate	ug/L	10	-		0.65	Ji	J	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Dimethyl Phthalate	ug/L	10	-		6.3	Ji	J	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Fluoranthene	ug/L	10	-		< 10	UJi	U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Fluorene	ug/L	10	-		< 10	UJi	U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Hexachlorobenzene	ug/L	10	1		< 10	UJi	U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Hexachlorobutadiene	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Hexachlorocyclopentadiene	ug/L	10	50		< 10	UJi	U	< 10		U	< 10		U	< 10		U	< 12	UJc	U	< 10		U	< 12		U
Hexachloroethane	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Indeno(1,2,3-cd)pyrene	ug/L	10	0.4	*	< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Isophorone	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
N-Nitrosodi-n-propylamine	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
N-Nitrosodiphenylamine	ug/L	10	-		< 10	UJi	U	0.64		J	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Naphthalene	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Nitrobenzene	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Pentachlorophenol	ug/L	25	1	#	< 25	UJi	U	< 26		U	< 25		U	< 25		U	< 31	UJc	U	< 26		U	< 30		U
Phenanthrene	ug/L	10	-		< 10	UJi	U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U
Phenol	ug/L	10	-		230			28			25			< 10		U	< 12		U	< 10		U	< 12		U
Pyrene	ug/L	10	-		< 10		U	< 10		U	< 10		U	< 10		U	< 12		U	< 10		U	< 12		U

TABLE A.2
ANALYTICAL RESULTS FOR GROUNDWATER 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL	UCD2-14 SPRING		UCD2-15 WINTER		UCD2-15 SPRING		UCD2-16 WINTER		UCD2-16 SPRING		UCD2-17 WINTER		UCD2-17 SPRING	
1,2,4-Trichlorobenzene	ug/L	10	70	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
1,2-Dichlorobenzene	ug/L	10	600 #	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
1,3-Dichlorobenzene	ug/L	10	-	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
1,4-Dichlorobenzene	ug/L	10	5	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
2,2'-oxybis(1-Chloropropane)	ug/L	10	-	< 11	U	< 12	UJc U	< 11	U	< 12	UJc U	< 11	U	< 12	U	< 10	U
2,4,5-Trichlorophenol	ug/L	25	-	< 27	U	< 31	U	< 27	U	< 31	U	< 27	U	< 31	U	< 25	U
2,4,6-Trichlorophenol	ug/L	10	-	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
2,4-Dichlorophenol	ug/L	10	70 #	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
2,4-Dimethylphenol	ug/L	10	-	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
2,4-Dinitrophenol	ug/L	25	-	< 27	U	< 31	U	< 27	U	< 31	U	< 27	U	< 31	U	< 25	U
2,4-Dinitrotoluene	ug/L	10	-	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
2,6-Dinitrotoluene	ug/L	10	-	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
2-Chloronaphthalene	ug/L	10	-	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
2-Chlorophenol	ug/L	10	-	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
2-Methyl-4,6-dinitrophenol	ug/L	25	-	< 27	U	< 31	U	< 27	U	< 31	U	< 27	U	< 31	U	< 25	U
2-Methylnaphthalene	ug/L	10	-	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
2-Methylphenol	ug/L	10	-	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
2-Nitroaniline	ug/L	25	-	< 27	U	< 31	U	< 27	U	< 31	U	< 27	U	< 31	U	< 25	U
2-Nitrophenol	ug/L	10	-	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
3,3'-Dichlorobenzidine	ug/L	10	-	< 11	U	< 12	UJc U	< 11	U	< 12	UJc U	< 11	U	< 12	U	< 10	U
3-Nitroaniline	ug/L	25	-	< 27	U	< 31	U	< 27	U	< 31	U	< 27	U	< 31	U	< 25	U
4-Bromophenyl Phenyl Ether	ug/L	10	-	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
4-Chloro-3-Methylphenol	ug/L	10	-	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
4-Chloroaniline	ug/L	10	-	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
4-Chlorophenyl Phenyl Ether	ug/L	10	-	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
4-Methylphenol	ug/L	10	-	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
4-Nitroaniline	ug/L	25	-	< 27	U	< 31	U	< 27	U	< 31	U	< 27	U	< 31	U	< 25	U
4-Nitrophenol	ug/L	25	-	< 27	U	< 31	U	< 27	U	< 31	U	< 27	U	< 31	U	< 25	U
Acenaphthene	ug/L	10	-	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
Acenaphthylene	ug/L	10	-	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
Anthracene	ug/L	10	-	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
Benzo(a)anthracene	ug/L	10	0.1 *	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
Benzo(a)pyrene	ug/L	10	0.2	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
Benzo(b)fluoranthene	ug/L	10	0.2 *	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
Benzo(g,h,i)perylene	ug/L	10	-	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U
Benzo(k)fluoranthene	ug/L	10	0.2 *	< 11	U	< 12	U	< 11	U	< 12	U	< 11	U	< 12	U	< 10	U

TABLE A.2
ANALYTICAL RESULTS FOR GROUNDWATER 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD2-14 SPRING		UCD2-15 WINTER		UCD2-15 SPRING		UCD2-16 WINTER		UCD2-16 SPRING		UCD2-17 WINTER		UCD2-17 SPRING	
Benzyl Butyl Phthalate	ug/L	10	100	#	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
Bis(2-Chloroethoxy)methane	ug/L	10	-		< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
Bis(2-Chloroethyl)ether	ug/L	10	-		< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
Bis(2-Ethylhexyl)phthalate	ug/L	10	4		< 11	|U	< 12	UJc |U	6	|J	< 12	UJc |U	< 11	|U	< 12	|U	3	Uz |BJ
Carbazole	ug/L	10	-		< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
Chrysene	ug/L	10	0.2	*	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
Di-n-Butylphthalate	ug/L	10	-		< 11	|U	< 12	Uz |	< 11	|U	< 12	Uz |	< 11	|U	0.8	|J	27	Uz |B
Di-n-Octylphthalate	ug/L	10	-		< 11	|U	< 12	UJc |U	< 11	Jc |U	< 12	UJc |U	< 11	Jc |U	< 12	|U	< 10	|U
Dibenzo(a,h)anthracene	ug/L	10	0.3	*	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
Dibenzofuran	ug/L	10	-		< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
Diethyl Phthalate	ug/L	10	-		< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	0.6	|J
Dimethyl Phthalate	ug/L	10	-		< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
Fluoranthene	ug/L	10	-		< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
Fluorene	ug/L	10	-		< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
Hexachlorobenzene	ug/L	10	1		< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
Hexachlorobutadiene	ug/L	10	-		< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
Hexachlorocyclopentadiene	ug/L	10	50		< 11	|U	< 12	UJc |U	< 11	|U	< 12	UJc |U	< 11	|U	< 12	UJr |U	< 10	|U
Hexachloroethane	ug/L	10	-		< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
Indeno(1,2,3-cd)pyrene	ug/L	10	0.4	*	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
Isophorone	ug/L	10	-		< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
N-Nitrosodi-n-propylamine	ug/L	10	-		< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
N-Nitrosodiphenylamine	ug/L	10	-		< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
Naphthalene	ug/L	10	-		< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
Nitrobenzene	ug/L	10	-		< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
Pentachlorophenol	ug/L	25	1	#	< 27	|U	< 31	UJc |U	< 27	|U	< 31	UJc |U	< 27	|U	< 31	|U	< 25	|U
Phenanthrene	ug/L	10	-		< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
Phenol	ug/L	10	-		< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U
Pyrene	ug/L	10	-		< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 11	|U	< 12	|U	< 10	|U

TABLE A.2
ANALYTICAL RESULTS FOR GROUNDWATER 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD2-26 FALL		UCD2-27Z4 FALL		UCD2-27Z5 FALL		UCD2-27Z6 FALL		UCD2-27Z7 FALL		UCD2-35 FALL		UCD2-7 WINTER	
1,2,4-Trichlorobenzene	ug/L	10	70		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
1,2-Dichlorobenzene	ug/L	10	600	#	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
1,3-Dichlorobenzene	ug/L	10	-		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
1,4-Dichlorobenzene	ug/L	10	5		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
2,2'-oxybis(1-Chloropropane)	ug/L	10	-		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	UJc U
2,4,5-Trichlorophenol	ug/L	25	-		< 25	U	< 26	U	< 25	U	< 25	U	< 25	U	< 25	U	< 27	U
2,4,6-Trichlorophenol	ug/L	10	-		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
2,4-Dichlorophenol	ug/L	10	70	#	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
2,4-Dimethylphenol	ug/L	10	-		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
2,4-Dinitrophenol	ug/L	25	-		< 25	U	< 26	U	< 25	U	< 25	U	< 25	U	< 25	U	< 27	U
2,4-Dinitrotoluene	ug/L	10	-		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
2,6-Dinitrotoluene	ug/L	10	-		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
2-Chloronaphthalene	ug/L	10	-		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
2-Chlorophenol	ug/L	10	-		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
2-Methyl-4,6-dinitrophenol	ug/L	25	-		< 25	U	< 26	U	< 25	U	< 25	U	< 25	U	< 25	U	< 27	U
2-Methylnaphthalene	ug/L	10	-		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
2-Methylphenol	ug/L	10	-		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
2-Nitroaniline	ug/L	25	-		< 25	U	< 26	U	< 25	U	< 25	U	< 25	U	< 25	U	< 27	U
2-Nitrophenol	ug/L	10	-		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
3,3'-Dichlorobenzidine	ug/L	10	-		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	UJc U
3-Nitroaniline	ug/L	25	-		< 25	U	< 26	U	< 25	U	< 25	U	< 25	U	< 25	U	< 27	U
4-Bromophenyl Phenyl Ether	ug/L	10	-		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
4-Chloro-3-Methylphenol	ug/L	10	-		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
4-Chloroaniline	ug/L	10	-		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
4-Chlorophenyl Phenyl Ether	ug/L	10	-		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
4-Methylphenol	ug/L	10	-		< 10	U	1.1	J	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
4-Nitroaniline	ug/L	25	-		< 25	U	< 26	U	< 25	U	< 25	U	< 25	U	< 25	U	< 27	U
4-Nitrophenol	ug/L	25	-		< 25	U	< 26	U	< 25	U	< 25	U	< 25	U	< 25	U	< 27	U
Acenaphthene	ug/L	10	-		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
Acenaphthylene	ug/L	10	-		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
Anthracene	ug/L	10	-		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
Benzo(a)anthracene	ug/L	10	0.1	•	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
Benzo(a)pyrene	ug/L	10	0.2		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
Benzo(b)fluoranthene	ug/L	10	0.2	•	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
Benzo(g,h,i)perylene	ug/L	10	-		< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U
Benzo(k)fluoranthene	ug/L	10	0.2	•	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 10	U	< 11	U

TABLE A.2
ANALYTICAL RESULTS FOR GROUNDWATER 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD2-26 FALL		UCD2-27Z4 FALL		UCD2-27Z5 FALL		UCD2-27Z6 FALL		UCD2-27Z7 FALL		UCD2-35 FALL		UCD2-7 WINTER	
Benzyl Butyl Phthalate	ug/L	10	100	#	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
Bis(2-Chloroethoxy)methane	ug/L	10	-		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
Bis(2-Chloroethyl)ether	ug/L	10	-		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
Bis(2-Ethylhexyl)phthalate	ug/L	10	4		2	|J	29		0.68	|J	11		7.5		12		6	Jc |J
Carbazole	ug/L	10	-		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
Chrysene	ug/L	10	0.2	*	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
Di-n-Butylphthalate	ug/L	10	-		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	Uz |
Di-n-Octylphthalate	ug/L	10	-		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	UJc |U
Dibenzo(a,h)anthracene	ug/L	10	0.3	*	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
Dibenzofuran	ug/L	10	-		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
Diethyl Phthalate	ug/L	10	-		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
Dimethyl Phthalate	ug/L	10	-		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
Fluoranthene	ug/L	10	-		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
Fluorene	ug/L	10	-		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
Hexachlorobenzene	ug/L	10	1		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
Hexachlorobutadiene	ug/L	10	-		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
Hexachlorocyclopentadiene	ug/L	10	50		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	UJc |U
Hexachloroethane	ug/L	10	-		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
Indeno(1,2,3-cd)pyrene	ug/L	10	0.4	*	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
Isophorone	ug/L	10	-		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
N-Nitrosodi-n-propylamine	ug/L	10	-		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
N-Nitrosodiphenylamine	ug/L	10	-		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
Naphthalene	ug/L	10	-		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
Nitrobenzene	ug/L	10	-		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
Pentachlorophenol	ug/L	25	1	#	< 25	|U	< 26	|U	< 25	|U	< 25	|U	< 25	|U	< 25	|U	< 27	UJc |U
Phenanthrene	ug/L	10	-		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U
Phenol	ug/L	10	-		< 10	|U	5.6	|J	< 10	|U	2		13		< 10	|U	< 11	|U
Pyrene	ug/L	10	-		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 11	|U

TABLE A.2
ANALYTICAL RESULTS FOR GROUNDWATER 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD2-7 WINTER D1			UCD2-7 SPRING		
1,2,4-Trichlorobenzene	ug/L	10	70		< 11		U	< 11		U
1,2-Dichlorobenzene	ug/L	10	600	#	< 11		U	< 11		U
1,3-Dichlorobenzene	ug/L	10	-		< 11		U	< 11		U
1,4-Dichlorobenzene	ug/L	10	5		< 11		U	< 11		U
2,2'-oxybis(1-Chloropropane)	ug/L	10	-		< 11	UJc	U	< 11		U
2,4,5-Trichlorophenol	ug/L	25	-		< 27		U	< 27		U
2,4,6-Trichlorophenol	ug/L	10	-		< 11		U	< 11		U
2,4-Dichlorophenol	ug/L	10	70	#	< 11	UJc	U	< 11		U
2,4-Dimethylphenol	ug/L	10	-		< 11		U	< 11		U
2,4-Dinitrophenol	ug/L	25	-		< 27		U	< 27		U
2,4-Dinitrotoluene	ug/L	10	-		< 11		U	< 11		U
2,6-Dinitrotoluene	ug/L	10	-		< 11		U	< 11		U
2-Chloronaphthalene	ug/L	10	-		< 11		U	< 11		U
2-Chlorophenol	ug/L	10	-		< 11		U	< 11		U
2-Methyl-4,6-dinitrophenol	ug/L	25	-		< 27		U	< 27		U
2-Methylnaphthalene	ug/L	10	-		< 11		U	< 11		U
2-Methylphenol	ug/L	10	-		< 11		U	< 11		U
2-Nitroaniline	ug/L	25	-		< 27		U	< 27		U
2-Nitrophenol	ug/L	10	-		< 11		U	< 11		U
3,3'-Dichlorohenzidine	ug/L	10	-		< 11	UJg	U	< 11		U
3-Nitroaniline	ug/L	25	-		< 27		U	< 27		U
4-Bromophenyl Phenyl Ether	ug/L	10	-		< 11		U	< 11		U
4-Chloro-3-Methylphenol	ug/L	10	-		< 11		U	< 11		U
4-Chloroaniline	ug/L	10	-		< 11		U	< 11		U
4-Chlorophenyl Phenyl Ether	ug/L	10	-		< 11		U	< 11		U
4-Methylphenol	ug/L	10	-		< 11		U	< 11		U
4-Nitroaniline	ug/L	25	-		< 27		U	< 27		U
4-Nitrophenol	ug/L	25	-		< 27		U	< 27		U
Acenaphthene	ug/L	10	-		< 11		U	< 11		U
Acenaphthylene	ug/L	10	-		< 11		U	< 11		U
Anthracene	ug/L	10	-		< 11		U	< 11		U
Benzo(a)anthracene	ug/L	10	0.1	*	< 11	UJg	U	< 11		U
Benzo(a)pyrene	ug/L	10	0.2		< 11	UJg	U	< 11		U
Benzo(b)fluoranthene	ug/L	10	0.2	*	< 11	UJg	U	< 11		U
Benzo(g,h,i)perylene	ug/L	10	-		< 11	UJg	U	< 11		U
Benzo(k)fluoranthene	ug/L	10	0.2	*	< 11	UJg	U	< 11		U

TABLE A.2
ANALYTICAL RESULTS FOR GROUNDWATER 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD2-7 WINTER D1			UCD2-7 SPRING		
Benzyl Butyl Phthalate	ug/L	10	100	#	< 11	UJg	|U	< 11		|U
Bis(2-Chloroethoxy)methane	ug/L	10	-		< 11		|U	< 11		|U
Bis(2-Chloroethyl)ether	ug/L	10	-		< 11		|U	< 11		|U
Bis(2-Ethylhexyl)phthalate	ug/L	10	4		2	UJg	|J	< 11		|U
Carbazole	ug/L	10	-		< 11		|U	< 11		|U
Chrysene	ug/L	10	0.2	•	< 11	UJg	|U	< 11		|U
Di-n-Butylphthalate	ug/L	10	-		< 11	Uz	|	< 11		|U
Di-n-Octylphthalate	ug/L	10	-		< 11	UJg	|U	< 11	Jc	|U
Dibenzo(a,h)anthracene	ug/L	10	0.3	•	< 11	UJg	|U	< 11		|U
Dibenzofuran	ug/L	10	-		< 11		|U	< 11		|U
Diethyl Phthalate	ug/L	10	-		< 11		|U	< 11		|U
Dimethyl Phthalate	ug/L	10	-		< 11		|U	< 11		|U
Fluoranthene	ug/L	10	-		< 11	UJg	|U	< 11		|U
Fluorene	ug/L	10	-		< 11		|U	< 11		|U
Hexachlorobenzene	ug/L	10	1		< 11		|U	< 11		|U
Hexachlorobutadiene	ug/L	10	-		< 11		|U	< 11		|U
Hexachlorocyclopentadiene	ug/L	10	50		< 11	UJc	|U	< 11		|U
Hexachloroethane	ug/L	10	-		< 11		|U	< 11		|U
Indeno(1,2,3-cd)pyrene	ug/L	10	0.4	•	< 11	UJg	|U	< 11		|U
Isophorone	ug/L	10	-		< 11		|U	< 11		|U
N-Nitrosodi-n-propylamine	ug/L	10	-		< 11		|U	< 11		|U
N-Nitrosodiphenylamine	ug/L	10	-		< 11		|U	< 11		|U
Naphthalene	ug/L	10	-		< 11		|U	< 11		|U
Nitrobenzene	ug/L	10	-		< 11		|U	< 11		|U
Pentachlorophenol	ug/L	25	1	#	< 27	UJc	|U	< 27		|U
Phenanthrene	ug/L	10	-		< 11		|U	< 11		|U
Phenol	ug/L	10	-		< 11		|U	< 11		|U
Pyrene	ug/L	10	-		< 11	UJg	|U	< 11		|U

TABLE A.2
ANALYTICAL RESULTS FOR GROUNDWATER 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1 = Duplicate Sample

- = Parameter not analyzed or no MCL

DL = Detection Limit

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

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

*** = Proposed USEPA MCL**

 # = USEPA MCL

See Appendix A for explanation of data qualifiers.

TABLE A.3
ANALYTICAL RESULTS FOR GROUNDWATER 1995
PESTICIDES AND PCBS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-1 WINTER		UCD1-1 SPRING		UCD1-1 SPRING D1		UCD1-10 WINTER		UCD1-10 SPRING		UCD1-11 WINTER		UCD1-11 SPRING	
4,4'-DDD	ug/L	0.02	-		< 0.024	|U	< 0.021	|U	< 0.021	|U	< 0.022	|U	< 0.022	|U	< 0.022	|U	< 0.021	|U
4,4'-DDE	ug/L	0.02	-		< 0.024	|U	< 0.021	|U	< 0.021	|U	< 0.022	|U	< 0.022	|U	< 0.022	|U	< 0.021	|U
4,4'-DDT	ug/L	0.02	-		< 0.024	|U	< 0.021	|U	< 0.021	|U	< 0.022	|U	< 0.022	|U	< 0.022	|U	< 0.021	|U
Aldrin	ug/L	0.01	0.05	c	< 0.012	|U	< 0.01	|U	< 0.01	|U	< 0.011	|U	< 0.011	|U	< 0.011	|U	< 0.011	|U
Alpha-BHC	ug/L	0.01	0.7	c	< 0.012	|U	< 0.01	|U	< 0.01	|U	< 0.011	|U	< 0.011	|U	< 0.011	|U	< 0.011	|U
Alpha-Chlordane	ug/L	0.01	-		< 0.012	|U	< 0.01	|U	< 0.01	|U	< 0.011	|U	< 0.011	|U	< 0.011	|U	< 0.011	|U
Aroclor-1016	ug/L	0.2	0.5		< 0.24	|U	< 0.21	|U	< 0.21	|U	< 0.22	|U	< 0.22	|U	< 0.22	|U	< 0.21	|U
Aroclor-1221	ug/L	0.4	0.5		< 0.47	|U	< 0.42	|U	< 0.42	|U	< 0.43	|U	< 0.44	|U	< 0.43	|U	< 0.42	|U
Aroclor-1232	ug/L	0.2	0.5		< 0.24	|U	< 0.21	|U	< 0.21	|U	< 0.22	|U	< 0.22	|U	< 0.22	|U	< 0.21	|U
Aroclor-1242	ug/L	0.2	0.5		< 0.24	|U	< 0.21	|U	< 0.21	|U	< 0.22	|U	< 0.22	|U	< 0.22	|U	< 0.21	|U
Aroclor-1248	ug/L	0.2	0.5		< 0.24	|U	< 0.21	|U	< 0.21	|U	< 0.22	|U	< 0.22	|U	< 0.22	|U	< 0.21	|U
Aroclor-1254	ug/L	0.2	0.5		< 0.24	|U	< 0.21	|U	< 0.21	|U	< 0.22	|U	< 0.22	|U	< 0.22	|U	< 0.21	|U
Aroclor-1260	ug/L	0.2	0.5		< 0.24	|U	< 0.21	|U	< 0.21	|U	< 0.22	|U	< 0.22	|U	< 0.22	|U	< 0.21	|U
Beta-BHC	ug/L	0.01	0.3	c	< 0.012	UJt |U	< 0.01	|U	< 0.01	|U	< 0.011	|U	< 0.011	|U	< 0.011	|U	< 0.011	|U
Delta-BHC	ug/L	0.01	-		< 0.012	|U	< 0.01	|U	< 0.01	|U	< 0.011	|U	< 0.011	|U	< 0.011	|U	< 0.011	|U
Dieldrin	ug/L	0.02	-		< 0.024	|U	< 0.021	|U	< 0.021	|U	< 0.022	|U	< 0.022	|U	< 0.022	|U	< 0.021	|U
Endosulfan I	ug/L	0.01	-		< 0.012	|U	< 0.01	|U	< 0.01	|U	< 0.011	|U	< 0.011	|U	< 0.011	|U	< 0.011	|U
Endosulfan II	ug/L	0.02	-		< 0.024	|U	< 0.021	|U	< 0.021	|U	< 0.022	|U	< 0.022	|U	< 0.022	|U	< 0.021	|U
Endosulfan Sulfate	ug/L	0.02	-		< 0.024	|U	< 0.021	|U	< 0.021	|U	< 0.022	|U	< 0.022	|U	< 0.022	|U	< 0.021	|U
Endrin	ug/L	0.02	0.2		< 0.024	|U	< 0.021	|U	< 0.021	|U	< 0.022	|U	< 0.022	|U	< 0.022	|U	< 0.021	|U
Endrin Aldehyde	ug/L	0.02	-		< 0.024	|U	< 0.021	|U	< 0.021	|U	< 0.022	|U	< 0.022	|U	< 0.022	|U	< 0.021	|U
Endrin Ketone	ug/L	0.02	-		< 0.024	|U	< 0.021	|U	< 0.021	|U	< 0.022	|U	< 0.022	|U	< 0.022	|U	< 0.021	|U
Gamma-BHC	ug/L	0.01	0.2		< 0.012	|U	< 0.01	|U	< 0.01	|U	< 0.011	|U	< 0.011	|U	< 0.011	|U	< 0.011	|U
Gamma-Chlordane	ug/L	0.01	-		< 0.012	|U	< 0.01	|U	< 0.01	|U	< 0.011	|U	< 0.011	|U	< 0.011	|U	< 0.011	|U
Heptachlor	ug/L	0.01	0.01		< 0.012	|U	< 0.01	|U	< 0.01	|U	< 0.011	|U	< 0.011	|U	< 0.011	|U	< 0.011	|U
Heptachlor Epoxide	ug/L	0.01	0.01		< 0.012	|U	< 0.01	|U	< 0.01	|U	< 0.011	|U	< 0.011	|U	< 0.011	|U	< 0.011	|U
Methoxychlor	ug/L	0.1	40	#	< 0.12	|U	< 0.1	|U	< 0.1	|U	< 0.11	|U	< 0.11	|U	< 0.11	|U	< 0.11	|U
Toxaphene	ug/L	1	3	#	< 1.2	|U	< 1	|U	< 1	|U	< 1.1	|U	< 1.1	|U	< 1.1	|U	< 1.1	|U

TABLE A.3
ANALYTICAL RESULTS FOR GROUNDWATER 1995
PESTICIDES AND PCBS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-12 WINTER			UCD1-12 SPRING			UCD1-12 SUMMER			UCD1-12 SUMMER D1			UCD1-12 FALL			UCD1-13 WINTER			UCD1-13 SPRING		
4,4'-DDD	ug/L	0.02	-		< 0.022		U	< 0.021		U	< 0.02		U	< 0.02		U	< 0.02		U	< 0.024		U	< 0.021		U
4,4'-DDE	ug/L	0.02	-		< 0.022		U	< 0.021		U	< 0.02		U	< 0.02		U	< 0.02		U	< 0.024		U	< 0.021		U
4,4'-DDT	ug/L	0.02	-		< 0.022		U	< 0.021		U	< 0.02		U	< 0.02		U	< 0.02		U	< 0.024		U	< 0.021		U
Aldrin	ug/L	0.01	0.05	c	< 0.011		U	< 0.01		U	< 0.01		U	< 0.01		U	< 0.01		U	< 0.012		U	< 0.01		U
Alpha-BHC	ug/L	0.01	0.7	c	< 0.011		U	< 0.01		U	< 0.01		U	< 0.01		U	< 0.01		U	< 0.012		U	< 0.01		U
Alpha-Chlordane	ug/L	0.01	-		< 0.011		U	< 0.01		U	< 0.01		U	< 0.01		U	< 0.01		U	0.0054		J	< 0.01		U
Aroclor-1016	ug/L	0.2	0.5		< 0.22		U	< 0.21		U	< 0.2		U	< 0.2		U	< 0.2		U	< 0.24		U	< 0.21		U
Aroclor-1221	ug/L	0.4	0.5		< 0.44		U	< 0.41		U	< 0.4		U	< 0.4		U	< 0.4		U	< 0.48		U	< 0.41		U
Aroclor-1232	ug/L	0.2	0.5		< 0.22		U	< 0.21		U	< 0.2		U	< 0.2		U	< 0.2		U	< 0.24		U	< 0.21		U
Aroclor-1242	ug/L	0.2	0.5		< 0.22		U	< 0.21		U	< 0.2		U	< 0.2		U	< 0.2		U	< 0.24		U	< 0.21		U
Aroclor-1248	ug/L	0.2	0.5		< 0.22		U	< 0.21		U	< 0.2		U	< 0.2		U	< 0.2		U	< 0.24		U	< 0.21		U
Aroclor-1254	ug/L	0.2	0.5		< 0.22		U	< 0.21		U	< 0.2		U	< 0.2		U	< 0.2		U	< 0.24		U	< 0.21		U
Aroclor-1260	ug/L	0.2	0.5		< 0.22		U	< 0.21		U	< 0.2		U	< 0.2		U	< 0.2		U	< 0.24		U	< 0.21		U
Beta-BHC	ug/L	0.01	0.3	c	< 0.011	UJt	U	< 0.01		U	< 0.01		U	< 0.01		U	< 0.01		U	< 0.012	UJt	U	< 0.01		U
Delta-BHC	ug/L	0.01	-		< 0.011		U	< 0.01		U	< 0.01		U	< 0.01		U	< 0.01		U	< 0.012		U	< 0.01		U
Dieldrin	ug/L	0.02	-		< 0.022		U	< 0.021		U	< 0.02		U	< 0.02		U	< 0.02		U	0.029			< 0.021		U
Endosulfan I	ug/L	0.01	-		< 0.011		U	< 0.01		U	< 0.01		U	< 0.01		U	< 0.01		U	< 0.012		U	< 0.01		U
Endosulfan II	ug/L	0.02	-		< 0.022		U	< 0.021		U	< 0.02		U	< 0.02		U	< 0.02		U	< 0.024		U	< 0.021		U
Endosulfan Sulfate	ug/L	0.02	-		< 0.022		U	< 0.021		U	< 0.02		U	< 0.02		U	< 0.02		U	< 0.024		U	< 0.021		U
Endrin	ug/L	0.02	0.2		< 0.022		U	< 0.021		U	< 0.02		U	< 0.02		U	< 0.02		U	0.012		J	< 0.021		U
Endrin Aldehyde	ug/L	0.02	-		< 0.022		U	< 0.021		U	< 0.02		U	< 0.02		U	< 0.02		U	< 0.024		U	< 0.021		U
Endrin Ketone	ug/L	0.02	-		< 0.022		U	< 0.021		U	< 0.02		U	< 0.02		U	< 0.02		U	< 0.024		U	< 0.021		U
Gamma-BHC	ug/L	0.01	0.2		< 0.011		U	< 0.01		U	< 0.01		U	< 0.01		U	< 0.01		U	< 0.012		U	< 0.01		U
Gamma-Chlordane	ug/L	0.01	-		< 0.011		U	< 0.01		U	< 0.01		U	< 0.01		U	< 0.01		U	0.0051		J	< 0.01		U
Heptachlor	ug/L	0.01	0.01		< 0.011		U	< 0.01		U	< 0.01		U	< 0.01		U	< 0.01		U	< 0.012		U	< 0.01		U
Heptachlor Epoxide	ug/L	0.01	0.01		< 0.011		U	< 0.01		U	< 0.01		U	< 0.01		U	< 0.01		U	< 0.012		U	< 0.01		U
Methoxychlor	ug/L	0.1	40	#	< 0.11		U	< 0.1		U	< 0.1		U	< 0.1		U	< 0.1		U	< 0.12		U	< 0.1		U
Toxaphene	ug/L	1	3	#	< 1.1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1.2		U	< 1		U

TABLE A.3
ANALYTICAL RESULTS FOR GROUNDWATER 1995
PESTICIDES AND PCBS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-13 SUMMER		UCD1-13 FALL		UCD1-13 FALL D1		UCD1-18 WINTER		UCD1-18 WINTER D1		UCD1-18 SPRING		UCD1-19 WINTER	
4,4'-DDD	ug/L	0.02	-		< 0.02	U	< 0.02	U	< 0.02	U	< 0.024	U	< 0.024	U	< 0.022	U	< 0.02	U
4,4'-DDE	ug/L	0.02	-		< 0.02	U	< 0.02	U	< 0.02	U	< 0.024	U	< 0.024	U	< 0.022	U	< 0.02	U
4,4'-DDT	ug/L	0.02	-		< 0.02	U	< 0.02	U	< 0.02	U	< 0.024	U	< 0.024	U	< 0.022	U	< 0.02 UJt	U
Aldrin	ug/L	0.01	0.05	c	< 0.01	U	< 0.01	U	< 0.01	U	< 0.012	U	< 0.012	U	< 0.011 UJm	U	< 0.01	U
Alpha-BHC	ug/L	0.01	0.7	c	< 0.01	U	< 0.01	U	< 0.01	U	< 0.012	U	< 0.012	U	< 0.011	U	< 0.01	U
Alpha-Chlordane	ug/L	0.01	-		< 0.01	U	0.0057	J	0.0059	J	< 0.012	U	< 0.012	U	< 0.011	U	< 0.01	U
Aroclor-1016	ug/L	0.2	0.5		< 0.2	U	< 0.2	U	< 0.2	U	< 0.24	U	< 0.24	U	< 0.22	U	< 0.2	U
Aroclor-1221	ug/L	0.4	0.5		< 0.4	U	< 0.4	U	< 0.4	U	< 0.48	U	< 0.47	U	< 0.43	U	< 0.4	U
Aroclor-1232	ug/L	0.2	0.5		< 0.2	U	< 0.2	U	< 0.2	U	< 0.24	U	< 0.24	U	< 0.22	U	< 0.2	U
Aroclor-1242	ug/L	0.2	0.5		< 0.2	U	< 0.2	U	< 0.2	U	< 0.24	U	< 0.24	U	< 0.22	U	< 0.2	U
Aroclor-1248	ug/L	0.2	0.5		< 0.2	U	< 0.2	U	< 0.2	U	< 0.24	U	< 0.24	U	< 0.22	U	< 0.2	U
Aroclor-1254	ug/L	0.2	0.5		< 0.2	U	< 0.2	U	< 0.2	U	< 0.24	U	< 0.24	U	< 0.22	U	< 0.2	U
Aroclor-1260	ug/L	0.2	0.5		< 0.2	U	< 0.2	U	< 0.2	U	< 0.24	U	< 0.24	U	< 0.22	U	< 0.2	U
Beta-BHC	ug/L	0.01	0.3	c	< 0.01	U	< 0.01	U	< 0.01	U	< 0.012 UJt	U	< 0.012 UJt	U	< 0.011	U	< 0.01	U
Delta-BHC	ug/L	0.01	-		< 0.01	U	< 0.01	U	< 0.01	U	< 0.012	U	< 0.012	U	< 0.011	U	< 0.01	U
Dieldrin	ug/L	0.02	-		< 0.02	U	0.028	P	0.024		< 0.024	U	< 0.024	U	< 0.022	U	< 0.02	U
Endosulfan I	ug/L	0.01	-		< 0.01	U	< 0.01	U	< 0.01	U	< 0.012	U	< 0.012	U	< 0.011	U	< 0.01	U
Endosulfan II	ug/L	0.02	-		< 0.02	U	< 0.02	U	< 0.02	U	< 0.024	U	< 0.024	U	< 0.022	U	< 0.02	U
Endosulfan Sulfate	ug/L	0.02	-		< 0.02	U	< 0.02	U	< 0.02	U	< 0.024	U	< 0.024	U	< 0.022	U	< 0.02	U
Endrin	ug/L	0.02	0.2		< 0.02	U	0.0085	JP	< 0.02	U	< 0.024	U	< 0.024	U	< 0.022	U	< 0.02	U
Endrin Aldehyde	ug/L	0.02	-		< 0.02	U	< 0.02	U	< 0.02	U	< 0.024	U	< 0.024	U	< 0.022	U	< 0.02	U
Endrin Ketone	ug/L	0.02	-		< 0.02	U	< 0.02	U	< 0.02	U	< 0.024	U	< 0.024	U	< 0.022	U	< 0.02	U
Gamma-BHC	ug/L	0.01	0.2		< 0.01	U	< 0.01	U	< 0.01	U	< 0.012	U	< 0.012	U	< 0.011	U	< 0.01	U
Gamma-Chlordane	ug/L	0.01	-		< 0.01	U	0.0049	JP	0.0071	JP	< 0.012	U	< 0.012	U	< 0.011	U	< 0.01	U
Heptachlor	ug/L	0.01	0.01		< 0.01	U	< 0.01	U	< 0.01	U	< 0.012	U	< 0.012	U	< 0.011	U	< 0.01	U
Heptachlor Epoxide	ug/L	0.01	0.01		< 0.01	U	< 0.01	U	< 0.01	U	< 0.012	U	< 0.012	U	< 0.011	U	< 0.01	U
Methoxychlor	ug/L	0.1	40	#	< 0.1	U	< 0.1	U	< 0.1	U	< 0.12	U	< 0.12	U	< 0.11	U	< 0.1	U
Toxaphene	ug/L	1	3	#	< 1	U	< 1	U	< 1	U	< 1.2	U	< 1.2	U	< 1.1	U	< 1	U

TABLE A.3
ANALYTICAL RESULTS FOR GROUNDWATER 1995
PESTICIDES AND PCBS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-19 SPRING		UCD1-19 SPRING D1		UCD1-20 WINTER		UCD1-20 SPRING		UCD1-21 WINTER		UCD1-21 SPRING		UCD1-22 WINTER	
4,4'-DDD	ug/L	0.02	-		< 0.021	|U	< 0.021	|U	< 0.025	|U	< 0.021	|U	< 0.027	|U	< 0.021	|U	< 0.023	|U
4,4'-DDE	ug/L	0.02	-		< 0.021	|U	< 0.021	|U	< 0.025	|U	< 0.021	|U	< 0.027	|U	< 0.021	|U	< 0.023	|U
4,4'-DDT	ug/L	0.02	-		< 0.021	|U	< 0.021	|U	< 0.025	UJt |U	< 0.021	|U	< 0.027	UJt |U	< 0.021	|U	< 0.023	|U
Aldrin	ug/L	0.01	0.05	c	< 0.01	|U	< 0.01	|U	< 0.012	|U	< 0.01	|U	< 0.014	|U	< 0.011	UJm |U	< 0.011	|U
Alpha-BHC	ug/L	0.01	0.7	c	< 0.01	|U	< 0.01	|U	< 0.012	|U	< 0.01	|U	< 0.014	|U	< 0.011	|U	< 0.011	|U
Alpha-Chlordane	ug/L	0.01	-		< 0.01	|U	< 0.01	|U	< 0.012	|U	< 0.01	|U	< 0.014	|U	< 0.011	|U	< 0.011	|U
Aroclor-1016	ug/L	0.2	0.5		< 0.21	|U	< 0.21	|U	< 0.25	|U	< 0.21	|U	< 0.27	|U	< 0.21	|U	< 0.23	|U
Aroclor-1221	ug/L	0.4	0.5		< 0.41	|U	< 0.41	|U	< 0.5	|U	< 0.42	|U	< 0.54	|U	< 0.43	|U	< 0.46	|U
Aroclor-1232	ug/L	0.2	0.5		< 0.21	|U	< 0.21	|U	< 0.25	|U	< 0.21	|U	< 0.27	|U	< 0.21	|U	< 0.23	|U
Aroclor-1242	ug/L	0.2	0.5		< 0.21	|U	< 0.21	|U	< 0.25	|U	< 0.21	|U	< 0.27	|U	< 0.21	|U	< 0.23	|U
Aroclor-1248	ug/L	0.2	0.5		< 0.21	|U	< 0.21	|U	< 0.25	|U	< 0.21	|U	< 0.27	|U	< 0.21	|U	< 0.23	|U
Aroclor-1254	ug/L	0.2	0.5		< 0.21	|U	< 0.21	|U	< 0.25	|U	< 0.21	|U	< 0.27	|U	< 0.21	|U	< 0.23	|U
Aroclor-1260	ug/L	0.2	0.5		< 0.21	|U	< 0.21	|U	< 0.25	|U	< 0.21	|U	< 0.27	|U	< 0.21	|U	< 0.23	|U
Beta-BHC	ug/L	0.01	0.3	c	< 0.01	|U	< 0.01	|U	< 0.012	|U	< 0.01	|U	< 0.014	|U	< 0.011	|U	< 0.011	|U
Delta-BHC	ug/L	0.01	-		< 0.01	|U	< 0.01	|U	< 0.012	|U	< 0.01	|U	< 0.014	|U	< 0.011	|U	< 0.011	|U
Dieldrin	ug/L	0.02	-		< 0.021	|U	< 0.021	|U	< 0.025	|U	< 0.021	|U	< 0.027	|U	< 0.021	|U	< 0.023	|U
Endosulfan I	ug/L	0.01	-		< 0.01	|U	< 0.01	|U	< 0.012	|U	< 0.01	|U	< 0.014	|U	< 0.011	|U	< 0.011	|U
Endosulfan II	ug/L	0.02	-		< 0.021	|U	< 0.021	|U	< 0.025	|U	< 0.021	|U	< 0.027	|U	< 0.021	|U	< 0.023	|U
Endosulfan Sulfate	ug/L	0.02	-		< 0.021	|U	< 0.021	|U	< 0.025	|U	< 0.021	|U	< 0.027	|U	< 0.021	|U	< 0.023	|U
Endrin	ug/L	0.02	0.2		< 0.021	|U	< 0.021	|U	< 0.025	|U	< 0.021	|U	< 0.027	|U	< 0.021	|U	< 0.023	|U
Endrin Aldehyde	ug/L	0.02	-		< 0.021	|U	< 0.021	|U	< 0.025	|U	< 0.021	|U	< 0.027	|U	< 0.021	|U	< 0.023	|U
Endrin Ketone	ug/L	0.02	-		< 0.021	|U	< 0.021	|U	< 0.025	|U	< 0.021	|U	< 0.027	|U	< 0.021	|U	< 0.023	|U
Gamma-BHC	ug/L	0.01	0.2		< 0.01	|U	< 0.01	|U	< 0.012	|U	< 0.01	|U	< 0.014	|U	< 0.011	|U	< 0.011	|U
Gamma-Chlordane	ug/L	0.01	-		< 0.01	|U	< 0.01	|U	< 0.012	|U	< 0.01	|U	< 0.014	|U	< 0.011	|U	< 0.011	|U
Heptachlor	ug/L	0.01	0.01		< 0.01	|U	< 0.01	|U	< 0.012	|U	< 0.01	|U	< 0.014	|U	< 0.011	|U	< 0.011	|U
Heptachlor Epoxide	ug/L	0.01	0.01		< 0.01	|U	< 0.01	|U	< 0.012	|U	< 0.01	|U	< 0.014	|U	< 0.011	|U	< 0.011	|U
Methoxychlor	ug/L	0.1	40	#	< 0.1	|U	< 0.1	|U	< 0.12	|U	< 0.1	|U	< 0.14	|U	< 0.11	|U	< 0.11	|U
Toxaphene	ug/L	1	3	#	< 1	|U	< 1	|U	< 1.2	|U	< 1	|U	< 1.4	|U	< 1.1	|U	< 1.1	|U

TABLE A.3
ANALYTICAL RESULTS FOR GROUNDWATER 1995
PESTICIDES AND PCBS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-22 SPRING		UCD1-23 WINTER		UCD1-23 SPRING		UCD1-24 WINTER		UCD1-24 SPRING		UCD1-25 FALL		UCD1-27Z1 FALL	
4,4'-DDD	ug/L	0.02	-		< 0.022	|U	< 0.02	|U	< 0.021	|U	< 0.021	|U	< 0.021	|U	< 0.02	|U	< 0.02 UJs	|U
4,4'-DDE	ug/L	0.02	-		< 0.022	|U	< 0.02	|U	< 0.021	|U	< 0.021	|U	< 0.021	|U	< 0.02	|U	< 0.02 UJs	|U
4,4'-DDT	ug/L	0.02	-		< 0.022	|U	< 0.02	|U	< 0.021	|U	< 0.021	|U	< 0.021	|U	< 0.02	|U	< 0.02 UJs	|U
Aldrin	ug/L	0.01	0.05	c	< 0.011	UJm |U	< 0.01	|U	< 0.011	|U	< 0.011	|U	< 0.01	|U	< 0.01	|U	< 0.01 UJs	|U
Alpha-BHC	ug/L	0.01	0.7	c	< 0.011	|U	< 0.01	|U	< 0.011	|U	< 0.011	|U	< 0.01	|U	< 0.01	|U	< 0.01 UJs	|U
Alpha-Chlordane	ug/L	0.01	-		< 0.011	|U	< 0.01	|U	< 0.011	|U	< 0.011	|U	< 0.01	|U	< 0.01	|U	< 0.01 UJs	|U
Aroclor-1016	ug/L	0.2	0.5		< 0.22	|U	< 0.2	|U	< 0.21	|U	< 0.21	|U	< 0.21	|U	< 0.2	|U	< 0.2 UJs	|U
Aroclor-1221	ug/L	0.4	0.5		< 0.43	|U	< 0.4	|U	< 0.43	|U	< 0.42	|U	< 0.41	|U	< 0.4	|U	< 0.4 UJs	|U
Aroclor-1232	ug/L	0.2	0.5		< 0.22	|U	< 0.2	|U	< 0.21	|U	< 0.21	|U	< 0.21	|U	< 0.2	|U	< 0.2 UJs	|U
Aroclor-1242	ug/L	0.2	0.5		< 0.22	|U	< 0.2	|U	< 0.21	|U	< 0.21	|U	< 0.21	|U	< 0.2	|U	< 0.2 UJs	|U
Aroclor-1248	ug/L	0.2	0.5		< 0.22	|U	< 0.2	|U	< 0.21	|U	< 0.21	|U	< 0.21	|U	< 0.2	|U	< 0.2 UJs	|U
Aroclor-1254	ug/L	0.2	0.5		< 0.22	|U	< 0.2	|U	< 0.21	|U	< 0.21	|U	< 0.21	|U	< 0.2	|U	< 0.2 UJs	|U
Aroclor-1260	ug/L	0.2	0.5		< 0.22	|U	< 0.2	|U	< 0.21	|U	< 0.21	|U	< 0.21	|U	< 0.2	|U	< 0.2 UJs	|U
Beta-BHC	ug/L	0.01	0.3	c	< 0.011	|U	< 0.01	|U	< 0.011	|U	< 0.011	|U	< 0.01	|U	< 0.01	|U	< 0.01 UJs	|U
Delta-BHC	ug/L	0.01	-		< 0.011	|U	< 0.01	|U	< 0.011	|U	< 0.011	|U	< 0.01	|U	< 0.01	|U	< 0.01 UJs	|U
Dieldrin	ug/L	0.02	-		< 0.022	|U	< 0.02	|U	< 0.021	|U	< 0.021	|U	< 0.021	|U	< 0.02	|U	< 0.02 UJs	|U
Endosulfan I	ug/L	0.01	-		< 0.011	|U	< 0.01	|U	< 0.011	|U	< 0.011	|U	< 0.01	|U	< 0.01	|U	< 0.01 UJs	|U
Endosulfan II	ug/L	0.02	-		< 0.022	|U	< 0.02	|U	< 0.021	|U	< 0.021	|U	< 0.021	|U	< 0.02	|U	< 0.02 UJs	|U
Endosulfan Sulfate	ug/L	0.02	-		< 0.022	|U	< 0.02	|U	< 0.021	|U	< 0.021	|U	< 0.021	|U	< 0.02	|U	< 0.02 UJs	|U
Endrin	ug/L	0.02	0.2		< 0.022	|U	< 0.02	|U	< 0.021	|U	< 0.021	|U	< 0.021	|U	< 0.02	|U	< 0.02 UJs	|U
Endrin Aldehyde	ug/L	0.02	-		< 0.022	|U	< 0.02	|U	< 0.021	|U	< 0.021	|U	< 0.021	|U	< 0.02	|U	< 0.02 UJs	|U
Endrin Ketone	ug/L	0.02	-		< 0.022	|U	< 0.02	|U	< 0.021	|U	< 0.021	|U	< 0.021	|U	< 0.02	|U	< 0.02 UJs	|U
Gamma-BHC	ug/L	0.01	0.2		< 0.011	|U	< 0.01	|U	< 0.011	|U	< 0.011	|U	< 0.01	|U	< 0.01	|U	< 0.01 UJs	|U
Gamma-Chlordane	ug/L	0.01	-		< 0.011	|U	< 0.01	|U	< 0.011	|U	< 0.011	|U	< 0.01	|U	< 0.01	|U	< 0.01 UJs	|U
Heptachlor	ug/L	0.01	0.01		< 0.011	|U	< 0.01	|U	< 0.011	|U	< 0.011	|U	< 0.01	|U	< 0.01	|U	< 0.01 UJs	|U
Heptachlor Epoxide	ug/L	0.01	0.01		< 0.011	|U	< 0.01	|U	< 0.011	|U	< 0.011	|U	< 0.01	|U	< 0.01	|U	< 0.01 UJs	|U
Methoxychlor	ug/L	0.1	40	#	< 0.11	|U	< 0.1	|U	< 0.11	|U	< 0.11	|U	< 0.1	|U	< 0.1	|U	< 0.1 UJs	|U
Toxaphene	ug/L	1	3	#	< 1.1	|U	< 1	|U	< 1.1	|U	< 1.1	|U	< 1	|U	< 1	|U	< 1 UJs	|U

TABLE A.3
ANALYTICAL RESULTS FOR GROUNDWATER 1995
PESTICIDES AND PCBS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-27Z2 FALL			UCD1-27Z3 FALL			UCD1-34 FALL		UCD1-4 WINTER		UCD1-4 SPRING		UCD1-4 SUMMER		UCD1-4 FALL	
4,4'-DDD	ug/L	0.02	-		< 0.02	UJs	|U	< 0.02	UJs	|U	< 0.02	|U	< 0.025	|U	< 0.021	|U	< 0.02	|U	< 0.02	|U
4,4'-DDE	ug/L	0.02	-		< 0.02	UJs	|U	< 0.02	UJs	|U	< 0.02	|U	< 0.025	|U	< 0.021	|U	< 0.02	|U	< 0.02	|U
4,4'-DDT	ug/L	0.02	-		< 0.02	UJs	|U	< 0.02	UJs	|U	< 0.02	|U	< 0.025	|U	< 0.021	|U	< 0.02	|U	< 0.02	|U
Aldrin	ug/L	0.01	0.05	c	< 0.01	UJs	|U	< 0.01	UJs	|U	< 0.01	|U	< 0.012	|U	< 0.011	|U	< 0.01	|U	< 0.01	|U
Alpha-BHC	ug/L	0.01	0.7	c	< 0.01	UJs	|U	< 0.01	UJs	|U	< 0.01	|U	< 0.012	|U	< 0.011	|U	< 0.01	|U	< 0.01	|U
Alpha-Chlordane	ug/L	0.01	-		< 0.01	UJs	|U	< 0.01	UJs	|U	< 0.01	|U	< 0.012	|U	< 0.011	|U	< 0.01	|U	< 0.01	|U
Aroclor-1016	ug/L	0.2	0.5		< 0.2	UJs	|U	< 0.2	UJs	|U	< 0.2	|U	< 0.25	|U	< 0.21	|U	< 0.2	|U	< 0.2	|U
Aroclor-1221	ug/L	0.4	0.5		< 0.4	UJs	|U	< 0.4	UJs	|U	< 0.4	|U	< 0.5	|U	< 0.43	|U	< 0.4	|U	< 0.4	|U
Aroclor-1232	ug/L	0.2	0.5		< 0.2	UJs	|U	< 0.2	UJs	|U	< 0.2	|U	< 0.25	|U	< 0.21	|U	< 0.2	|U	< 0.2	|U
Aroclor-1242	ug/L	0.2	0.5		< 0.2	UJs	|U	< 0.2	UJs	|U	< 0.2	|U	< 0.25	|U	< 0.21	|U	< 0.2	|U	< 0.2	|U
Aroclor-1248	ug/L	0.2	0.5		< 0.2	UJs	|U	< 0.2	UJs	|U	< 0.2	|U	< 0.25	|U	< 0.21	|U	< 0.2	|U	< 0.2	|U
Aroclor-1254	ug/L	0.2	0.5		< 0.2	UJs	|U	< 0.2	UJs	|U	< 0.2	|U	< 0.25	|U	< 0.21	|U	< 0.2	|U	< 0.2	|U
Aroclor-1260	ug/L	0.2	0.5		< 0.2	UJs	|U	< 0.2	UJs	|U	< 0.2	|U	< 0.25	|U	< 0.21	|U	< 0.2	|U	< 0.2	|U
Beta-BHC	ug/L	0.01	0.3	c	< 0.01	UJs	|U	< 0.01	UJs	|U	< 0.01	|U	< 0.012	|U	< 0.011	|U	< 0.01	|U	< 0.01	|U
Delta-BHC	ug/L	0.01	-		< 0.01	UJs	|U	< 0.01	UJs	|U	< 0.01	|U	< 0.012	|U	< 0.011	|U	< 0.01	|U	< 0.01	|U
Dieldrin	ug/L	0.02	-		< 0.02	UJs	|U	< 0.02	UJs	|U	< 0.02	|U	< 0.025	|U	< 0.021	|U	< 0.02	|U	< 0.02	|U
Endosulfan I	ug/L	0.01	-		< 0.01	UJs	|U	< 0.01	UJs	|U	< 0.01	|U	< 0.012	|U	< 0.011	|U	< 0.01	|U	< 0.01	|U
Endosulfan II	ug/L	0.02	-		< 0.02	UJs	|U	< 0.02	UJs	|U	< 0.02	|U	< 0.025	|U	< 0.021	|U	< 0.02	|U	< 0.02	|U
Endosulfan Sulfate	ug/L	0.02	-		< 0.02	UJs	|U	< 0.02	UJs	|U	< 0.02	|U	< 0.025	|U	< 0.021	|U	< 0.02	|U	< 0.02	|U
Endrin	ug/L	0.02	0.2		< 0.02	UJs	|U	< 0.02	UJs	|U	< 0.02	|U	< 0.025	|U	< 0.021	|U	< 0.02	|U	< 0.02	|U
Endrin Aldehyde	ug/L	0.02	-		< 0.02	UJs	|U	< 0.02	UJs	|U	< 0.02	|U	< 0.025	|U	< 0.021	|U	< 0.02	|U	< 0.02	|U
Endrin Ketone	ug/L	0.02	-		< 0.02	UJs	|U	< 0.02	UJs	|U	< 0.02	|U	< 0.025	|U	< 0.021	|U	< 0.02	|U	< 0.02	|U
Gamma-BHC	ug/L	0.01	0.2		< 0.01	UJs	|U	< 0.01	UJs	|U	< 0.01	|U	< 0.012	|U	< 0.011	|U	< 0.01	|U	< 0.01	|U
Gamma-Chlordane	ug/L	0.01	-		< 0.01	UJs	|U	< 0.01	UJs	|U	< 0.01	|U	< 0.012	|U	< 0.011	|U	< 0.01	|U	< 0.01	|U
Heptachlor	ug/L	0.01	0.01		< 0.01	UJs	|U	< 0.01	UJs	|U	< 0.01	|U	< 0.012	|U	< 0.011	|U	< 0.01	|U	< 0.01	|U
Heptachlor Epoxide	ug/L	0.01	0.01		< 0.01	UJs	|U	< 0.01	UJs	|U	< 0.01	|U	< 0.012	|U	< 0.011	|U	< 0.01	|U	< 0.01	|U
Methoxychlor	ug/L	0.1	40	#	< 0.1	UJs	|U	< 0.1	UJs	|U	< 0.1	|U	< 0.12	|U	< 0.11	|U	< 0.1	|U	< 0.1	|U
Toxaphene	ug/L	1	3	#	< 1	UJs	|U	< 1	UJs	|U	< 1	|U	< 1.2	|U	< 1.1	|U	< 1	|U	< 1	|U

TABLE A.3
ANALYTICAL RESULTS FOR GROUNDWATER 1995
PESTICIDES AND PCBS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL	UCD2-14 WINTER	UCD2-14 SPRING	UCD2-14 SUMMER	UCD2-14 FALL	UCD2-15 WINTER	UCD2-15 SPRING	UCD2-15 SUMMER
4,4'-DDD	ug/L	0.02	-	< 0.024 |U	< 0.021 |U	< 0.02 |U	< 0.02 |U	< 0.025 |U	< 0.021 |U	< 0.02 |U
4,4'-DDE	ug/L	0.02	-	< 0.024 |U	< 0.021 |U	< 0.02 |U	< 0.02 |U	< 0.025 |U	< 0.021 |U	< 0.02 |U
4,4'-DDT	ug/L	0.02	-	< 0.024 |U	< 0.021 |U	< 0.02 |U	< 0.02 |U	< 0.025 UJt |U	< 0.021 |U	< 0.02 |U
Aldrin	ug/L	0.01	0.05 c	< 0.012 |U	< 0.011 |U	< 0.01 |U	< 0.01 |U	< 0.013 |U	< 0.01 |U	< 0.01 |U
Alpha-BHC	ug/L	0.01	0.7 c	< 0.012 |U	< 0.011 |U	< 0.01 |U	< 0.01 |U	< 0.013 |U	< 0.01 |U	< 0.01 |U
Alpha-Chlordane	ug/L	0.01	-	< 0.012 |U	< 0.011 |U	< 0.01 |U	< 0.01 |U	< 0.013 |U	< 0.01 |U	< 0.01 |U
Aroclor-1016	ug/L	0.2	0.5	< 0.24 |U	< 0.21 |U	< 0.2 |U	< 0.2 |U	< 0.25 |U	< 0.21 |U	< 0.2 |U
Aroclor-1221	ug/L	0.4	0.5	< 0.47 |U	< 0.43 |U	< 0.4 |U	< 0.4 |U	< 0.51 |U	< 0.42 |U	< 0.4 |U
Aroclor-1232	ug/L	0.2	0.5	< 0.24 |U	< 0.21 |U	< 0.2 |U	< 0.2 |U	< 0.25 |U	< 0.21 |U	< 0.2 |U
Aroclor-1242	ug/L	0.2	0.5	< 0.24 |U	< 0.21 |U	< 0.2 |U	< 0.2 |U	< 0.25 |U	< 0.21 |U	< 0.2 |U
Aroclor-1248	ug/L	0.2	0.5	< 0.24 |U	< 0.21 |U	< 0.2 |U	< 0.2 |U	< 0.25 |U	< 0.21 |U	< 0.2 |U
Aroclor-1254	ug/L	0.2	0.5	< 0.24 |U	< 0.21 |U	< 0.2 |U	< 0.2 |U	< 0.25 |U	< 0.21 |U	< 0.2 |U
Aroclor-1260	ug/L	0.2	0.5	< 0.24 |U	< 0.21 |U	< 0.2 |U	< 0.2 |U	< 0.25 |U	< 0.21 |U	< 0.2 |U
Beta-BHC	ug/L	0.01	0.3 c	< 0.012 UJt |U	< 0.011 |U	< 0.01 |U	< 0.01 |U	< 0.013 |U	< 0.01 |U	< 0.01 |U
Delta-BHC	ug/L	0.01	-	< 0.012 |U	< 0.011 |U	< 0.01 |U	< 0.01 |U	< 0.013 |U	< 0.01 |U	< 0.01 |U
Dieldrin	ug/L	0.02	-	< 0.024 |U	< 0.021 |U	< 0.02 |U	< 0.02 |U	< 0.025 |U	< 0.021 |U	< 0.02 |U
Endosulfan I	ug/L	0.01	-	< 0.012 |U	< 0.011 |U	< 0.01 |U	< 0.01 |U	< 0.013 |U	< 0.01 |U	< 0.01 |U
Endosulfan II	ug/L	0.02	-	< 0.024 |U	< 0.021 |U	< 0.02 |U	< 0.02 |U	< 0.025 |U	< 0.021 |U	< 0.02 |U
Endosulfan Sulfate	ug/L	0.02	-	< 0.024 |U	< 0.021 |U	< 0.02 |U	< 0.02 |U	< 0.025 |U	< 0.021 |U	< 0.02 |U
Endrin	ug/L	0.02	0.2	< 0.024 |U	< 0.021 |U	< 0.02 |U	< 0.02 |U	< 0.025 |U	< 0.021 |U	< 0.02 |U
Endrin Aldehyde	ug/L	0.02	-	< 0.024 |U	< 0.021 |U	< 0.02 |U	< 0.02 |U	< 0.025 |U	< 0.021 |U	< 0.02 |U
Endrin Ketone	ug/L	0.02	-	< 0.024 |U	< 0.021 |U	< 0.02 |U	< 0.02 |U	< 0.025 |U	< 0.021 |U	< 0.02 |U
Gamma-BHC	ug/L	0.01	0.2	< 0.012 |U	< 0.011 |U	< 0.01 |U	< 0.01 |U	< 0.013 |U	< 0.01 |U	< 0.01 |U
Gamma-Chlordane	ug/L	0.01	-	< 0.012 |U	< 0.011 |U	< 0.01 |U	< 0.01 |U	< 0.013 |U	< 0.01 |U	< 0.01 |U
Heptachlor	ug/L	0.01	0.01	< 0.012 |U	< 0.011 |U	< 0.01 |U	< 0.01 |U	< 0.013 |U	< 0.01 |U	< 0.01 |U
Heptachlor Epoxide	ug/L	0.01	0.01	< 0.012 |U	< 0.011 |U	< 0.01 |U	< 0.01 |U	< 0.013 |U	< 0.01 |U	< 0.01 |U
Methoxychlor	ug/L	0.1	40 #	< 0.12 |U	< 0.11 |U	< 0.1 |U	< 0.1 |U	< 0.13 |U	< 0.1 |U	< 0.1 |U
Toxaphene	ug/L	1	3 #	< 1.2 |U	< 1.1 |U	< 1 |U	< 1 |U	< 1.3 |U	< 1 |U	< 1 |U

TABLE A.3
ANALYTICAL RESULTS FOR GROUNDWATER 1995
PESTICIDES AND PCBS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL	UCD2-15 FALL	UCD2-16 WINTER	UCD2-16 SPRING	UCD2-17 WINTER	UCD2-17 SPRING	UCD2-26 FALL	UCD2-27Z4 FALL
4,4'-DDD	ug/L	0.02	-	< 0.02 |U	< 0.027 |U	< 0.021 |U	< 0.023 |U	< 0.022 |U	< 0.02 |U	< 0.02 UJs |U
4,4'-DDE	ug/L	0.02	-	< 0.02 |U	< 0.027 |U	< 0.021 |U	< 0.023 |U	< 0.022 |U	< 0.02 |U	< 0.02 UJs |U
4,4'-DDT	ug/L	0.02	-	< 0.02 |U	< 0.027 UJt |U	< 0.021 |U	< 0.023 |U	< 0.022 |U	< 0.02 |U	< 0.02 UJs |U
Aldrin	ug/L	0.01	0.05 c	< 0.01 |U	< 0.014 |U	< 0.01 |U	< 0.012 |U	< 0.011 UJm |U	< 0.01 |U	< 0.01 UJs |U
Alpha-BHC	ug/L	0.01	0.7 c	< 0.01 |U	< 0.014 |U	< 0.01 |U	< 0.012 |U	< 0.011 |U	< 0.01 |U	< 0.01 UJs |U
Alpha-Chlordane	ug/L	0.01	-	< 0.01 |U	< 0.014 |U	< 0.01 |U	< 0.012 |U	< 0.011 |U	< 0.01 |U	< 0.01 UJs |U
Aroclor-1016	ug/L	0.2	0.5	< 0.2 |U	< 0.27 |U	< 0.21 |U	< 0.23 |U	< 0.22 |U	< 0.2 |U	< 0.2 UJs |U
Aroclor-1221	ug/L	0.4	0.5	< 0.4 |U	< 0.55 |U	< 0.41 |U	< 0.47 |U	< 0.43 |U	< 0.4 |U	< 0.4 UJs |U
Aroclor-1232	ug/L	0.2	0.5	< 0.2 |U	< 0.27 |U	< 0.21 |U	< 0.23 |U	< 0.22 |U	< 0.2 |U	< 0.2 UJs |U
Aroclor-1242	ug/L	0.2	0.5	< 0.2 |U	< 0.27 |U	< 0.21 |U	< 0.23 |U	< 0.22 |U	< 0.2 |U	< 0.2 UJs |U
Aroclor-1248	ug/L	0.2	0.5	< 0.2 |U	< 0.27 |U	< 0.21 |U	< 0.23 |U	< 0.22 |U	< 0.2 |U	< 0.2 UJs |U
Aroclor-1254	ug/L	0.2	0.5	< 0.2 |U	< 0.27 |U	< 0.21 |U	< 0.23 |U	< 0.22 |U	< 0.2 |U	< 0.2 UJs |U
Aroclor-1260	ug/L	0.2	0.5	< 0.2 |U	< 0.27 |U	< 0.21 |U	< 0.23 |U	< 0.22 |U	< 0.2 |U	< 0.2 UJs |U
Beta-BHC	ug/L	0.01	0.3 c	< 0.01 |U	< 0.014 |U	< 0.01 |U	< 0.012 UJt |U	< 0.011 |U	< 0.01 |U	< 0.01 UJs |U
Delta-BHC	ug/L	0.01	-	< 0.01 |U	< 0.014 |U	< 0.01 |U	< 0.012 |U	< 0.011 |U	< 0.01 |U	< 0.01 UJs |U
Dieldrin	ug/L	0.02	-	< 0.02 |U	< 0.027 |U	< 0.021 |U	< 0.023 |U	< 0.022 |U	< 0.02 |U	< 0.02 UJs |U
Endosulfan I	ug/L	0.01	-	< 0.01 |U	< 0.014 |U	< 0.01 |U	< 0.012 |U	< 0.011 |U	< 0.01 |U	< 0.01 UJs |U
Endosulfan II	ug/L	0.02	-	< 0.02 |U	< 0.027 |U	< 0.021 |U	< 0.023 |U	< 0.022 |U	< 0.02 |U	< 0.02 UJs |U
Endosulfan Sulfate	ug/L	0.02	-	< 0.02 |U	< 0.027 |U	< 0.021 |U	< 0.023 |U	< 0.022 |U	< 0.02 |U	< 0.02 UJs |U
Endrin	ug/L	0.02	0.2	< 0.02 |U	< 0.027 |U	< 0.021 |U	< 0.023 |U	< 0.022 |U	< 0.02 |U	< 0.02 UJs |U
Endrin Aldehyde	ug/L	0.02	-	< 0.02 |U	< 0.027 |U	< 0.021 |U	< 0.023 |U	< 0.022 |U	< 0.02 |U	< 0.02 UJs |U
Endrin Ketone	ug/L	0.02	-	< 0.02 |U	< 0.027 |U	< 0.021 |U	< 0.023 |U	< 0.022 |U	< 0.02 |U	< 0.02 UJs |U
Gamma-BHC	ug/L	0.01	0.2	< 0.01 |U	< 0.014 |U	< 0.01 |U	< 0.012 |U	< 0.011 |U	< 0.01 |U	< 0.01 UJs |U
Gamma-Chlordane	ug/L	0.01	-	< 0.01 |U	< 0.014 |U	< 0.01 |U	< 0.012 |U	< 0.011 |U	< 0.01 |U	< 0.01 UJs |U
Heptachlor	ug/L	0.01	0.01	< 0.01 |U	< 0.014 |U	< 0.01 |U	< 0.012 |U	< 0.011 |U	< 0.01 |U	< 0.01 UJs |U
Heptachlor Epoxide	ug/L	0.01	0.01	< 0.01 |U	< 0.014 |U	< 0.01 |U	< 0.012 |U	< 0.011 |U	< 0.01 |U	< 0.01 UJs |U
Methoxychlor	ug/L	0.1	40 #	< 0.1 |U	< 0.14 |U	< 0.1 |U	< 0.12 |U	< 0.11 |U	< 0.1 |U	< 0.1 UJs |U
Toxaphene	ug/L	1	3 #	< 1 |U	< 1.4 |U	< 1 |U	< 1.2 |U	< 1.1 |U	< 1 |U	< 1 UJs |U

TABLE A.3
ANALYTICAL RESULTS FOR GROUNDWATER 1995
PESTICIDES AND PCBS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD2-27Z5 FALL		UCD2-27Z6 FALL		UCD2-27Z7 FALL		UCD2-35 FALL		UCD2-7 WINTER		UCD2-7 WINTER D1		UCD2-7 SPRING	
4,4'-DDD	ug/L	0.02	-		< 0.02	U	< 0.02	U	< 0.021	U	< 0.02	U	< 0.022	U	< 0.022	U	< 0.021	U
4,4'-DDE	ug/L	0.02	-		< 0.02	U	< 0.02	U	< 0.021	U	< 0.02	U	< 0.022	U	< 0.022	U	< 0.021	U
4,4'-DDT	ug/L	0.02	-		< 0.02	U	< 0.02	U	< 0.021	U	< 0.02	U	< 0.022	U	< 0.022	U	< 0.021	U
Aldrin	ug/L	0.01	0.05	c	< 0.01	U	< 0.01	U	< 0.01	U	< 0.01	U	< 0.011	U	< 0.011	U	< 0.01	U
Alpha-BHC	ug/L	0.01	0.7	c	< 0.01	U	< 0.01	U	< 0.01	U	< 0.01	U	< 0.011	U	< 0.011	U	< 0.01	U
Alpha-Chlordane	ug/L	0.01	-		< 0.01	U	< 0.01	U	< 0.01	U	< 0.01	U	< 0.011	U	< 0.011	U	< 0.01	U
Aroclor-1016	ug/L	0.2	0.5		< 0.2	U	< 0.2	U	< 0.21	U	< 0.2	U	< 0.22	U	< 0.22	U	< 0.21	U
Aroclor-1221	ug/L	0.4	0.5		< 0.4	U	< 0.41	U	< 0.41	U	< 0.4	U	< 0.43	U	< 0.43	U	< 0.42	U
Aroclor-1232	ug/L	0.2	0.5		< 0.2	U	< 0.2	U	< 0.21	U	< 0.2	U	< 0.22	U	< 0.22	U	< 0.21	U
Aroclor-1242	ug/L	0.2	0.5		< 0.2	U	< 0.2	U	< 0.21	U	< 0.2	U	< 0.22	U	< 0.22	U	< 0.21	U
Aroclor-1248	ug/L	0.2	0.5		< 0.2	U	< 0.2	U	< 0.21	U	< 0.2	U	< 0.22	U	< 0.22	U	< 0.21	U
Aroclor-1254	ug/L	0.2	0.5		< 0.2	U	< 0.2	U	< 0.21	U	< 0.2	U	< 0.22	U	< 0.22	U	< 0.21	U
Aroclor-1260	ug/L	0.2	0.5		< 0.2	U	< 0.2	U	< 0.21	U	< 0.2	U	< 0.22	U	< 0.22	U	< 0.21	U
Beta-BHC	ug/L	0.01	0.3	c	< 0.01	U	< 0.01	U	< 0.01	U	< 0.01	U	< 0.011	U	< 0.011	U	< 0.01	U
Delta-BHC	ug/L	0.01	-		< 0.01	U	< 0.01	U	< 0.01	U	< 0.01	U	< 0.011	U	< 0.011	U	< 0.01	U
Dieldrin	ug/L	0.02	-		< 0.02	U	< 0.02	U	< 0.021	U	< 0.02	U	< 0.022	U	< 0.022	U	< 0.021	U
Endosulfan I	ug/L	0.01	-		< 0.01	U	< 0.01	U	< 0.01	U	< 0.01	U	< 0.011	U	< 0.011	U	< 0.01	U
Endosulfan II	ug/L	0.02	-		< 0.02	U	< 0.02	U	< 0.021	U	< 0.02	U	< 0.022	U	< 0.022	U	< 0.021	U
Endosulfan Sulfate	ug/L	0.02	-		< 0.02	U	< 0.02	U	< 0.021	U	< 0.02	U	< 0.022	U	< 0.022	U	< 0.021	U
Endrin	ug/L	0.02	0.2		< 0.02	U	< 0.02	U	< 0.021	U	< 0.02	U	< 0.022	U	< 0.022	U	< 0.021	U
Endrin Aldehyde	ug/L	0.02	-		< 0.02	U	< 0.02	U	< 0.021	U	< 0.02	U	< 0.022	U	< 0.022	U	< 0.021	U
Endrin Ketone	ug/L	0.02	-		< 0.02	U	< 0.02	U	< 0.021	U	< 0.02	U	< 0.022	U	< 0.022	U	< 0.021	U
Gamma-BHC	ug/L	0.01	0.2		< 0.01	U	< 0.01	U	< 0.01	U	< 0.01	U	< 0.011	U	< 0.011	U	< 0.01	U
Gamma-Chlordane	ug/L	0.01	-		< 0.01	U	< 0.01	U	< 0.01	U	< 0.01	U	< 0.011	U	< 0.011	U	< 0.01	U
Heptachlor	ug/L	0.01	0.01		< 0.01	U	< 0.01	U	< 0.01	U	< 0.01	U	< 0.011	U	< 0.011	U	< 0.01	U
Heptachlor Epoxide	ug/L	0.01	0.01		< 0.01	U	< 0.01	U	< 0.01	U	< 0.01	U	< 0.011	U	< 0.011	U	< 0.01	U
Methoxychlor	ug/L	0.1	40	#	< 0.1	U	< 0.1	U	< 0.1	U	< 0.1	U	< 0.11	U	< 0.11	U	< 0.1	U
Toxaphene	ug/L	1	3	#	< 1	U	< 1	U	< 1	U	< 1	U	< 1.1	U	< 1.1	U	< 1	U

TABLE A.3
ANALYTICAL RESULTS FOR GROUNDWATER 1995
PESTICIDES AND PCBS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1 = Duplicate Sample

- = Parameter not analyzed or no MCL

DL = Detection Limit

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

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

 # = USEPA MCL

c = California State Action Level, Department of Health Services.

See Appendix A for explanation of data qualifiers.

TABLE A.4
ANALYTICAL RESULTS FOR GROUNDWATER 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-1 WINTER		UCD1-1 SPRING		UCD1-1 SPRING D1		UCD1-1 SUMMER	UCD1-10 WINTER		UCD1-10 SPRING		UCD1-10 SUMMER
Antimony	ug/L	5	6		< 5	|U	< 5	|U	< 5	|U	-	< 5	|U	< 5	|U	-
Arsenic	ug/L	2	50		4	Up |	< 2	|U	< 2	|U	-	3.7	Jk |	2.5		-
Barium	ug/L	20	1000		219		237		248		-	25.7		30.1		-
Beryllium	ug/L	1	4		< 1	|U	< 1	|U	< 1	|U	-	< 1	|U	< 1	|U	-
Cadmium	ug/L	1	5	#	< 1	|U	< 1	|U	< 1	|U	-	< 1	|U	< 1	|U	-
Chromium	ug/L	10	50		32.8		29.2		30.1		-	67.2		74.9		-
Chromium, Hexavalent (+6)	ug/L	10	50		29		18		19		32	69		73		74
Cobalt	ug/L	10	-		1.4	|B	< 10	|U	< 10	|U	-	< 10	|U	< 10	|U	-
Copper	ug/L	10	1000	S	1.9	|B	< 10	|U	< 10	|U	-	2.6	|B	< 10	|U	-
Iron	ug/L	100	300	S	< 100	|U	18.8	|B	15.7	|B	-	24.9	|B	67.3	|B	-
Lead	ug/L	2	15		< 2	|U	< 2	|U	< 2	|U	-	< 2	|U	< 2	|U	-
Mercury	ug/L	0.2	2		< 0.2	|U	< 0.2	|U	< 0.2	|U	-	< 0.2	|U	< 0.2	|U	-
Molybdenum	ug/L	10	-		< 10	|U	2.2	|B	1.9	|B	-	< 10	|U	2.4	|B	-
Nickel	ug/L	20	100		1	|B	1.7	|B	1.8	|B	-	1.1	|B	1.8	|B	-
Selenium	ug/L	3	5	#	< 3	|U	< 3	|U	< 3	|U	-	23		21.2		-
Silver	ug/L	10	50		< 10	|U	< 10	|U	< 10	|U	-	< 10	|U	< 10	|U	-
Thallium	ug/L	10	2		< 10	|U	< 10	|U	< 10	|U	-	< 10	|U	< 10	|U	-
Vanadium	ug/L	10	-		9.5	|B	4.9	|B	4.6	|B	-	10.3		5.1	|B	-
Zinc	ug/L	20	5000	S	2.7	|B	< 20	|U	< 20	|U	-	6.5	|B	< 20	|U	-

TABLE A.4
ANALYTICAL RESULTS FOR GROUNDWATER 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-10 FALL	UCD1-11 WINTER		UCD1-11 SPRING		UCD1-11 SUMMER	UCD1-12 WINTER		UCD1-12 SPRING		UCD1-12 SUMMER
Antimony	ug/L	5	6		-	< 5	|U	< 5	|U	-	< 5	|U	< 5	|U	-
Arsenic	ug/L	2	50		-	3.9	Jk |	2.8		-	4.9	Up |	< 2	|U	-
Barium	ug/L	20	1000		-	262		325		-	340		355		-
Beryllium	ug/L	1	4		-	< 1	|U	< 1	|U	-	< 1	|U	< 1	|U	-
Cadmium	ug/L	1	5	#	-	< 1	|U	< 1	|U	-	< 1	|U	< 1	|U	-
Chromium	ug/L	10	50		-	266		279		-	191		187		-
Chromium, Hexavalent (+6)	ug/L	10	50		64	290		270		270	170		140		190
Cobalt	ug/L	10	-		-	< 10	|U	< 10	|U	-	1.9	|B	< 10	|U	-
Copper	ug/L	10	1000	S	-	1	|B	< 10	|U	-	2	|B	< 10	|U	-
Iron	ug/L	100	300	S	-	20	|B	34.8	|B	-	< 100	|U	< 100	|U	-
Lead	ug/L	2	15		-	< 2	|U	< 2	|U	-	< 2	|U	< 2	|U	-
Mercury	ug/L	0.2	2		-	0.23		< 0.2	|U	-	< 0.2	|U	< 0.2	|U	-
Molybdenum	ug/L	10	-		-	< 10	|U	2.3	|B	-	< 10	|U	< 10	|U	-
Nickel	ug/L	20	100		-	< 20	|U	1.3	|B	-	5.7	|B	4.2	|B	-
Selenium	ug/L	3	5	#	-	11.7		9.9		-	11.6		11.6		-
Silver	ug/L	10	50		-	< 10	|U	< 10	|U	-	< 10	|U	< 10	|U	-
Thallium	ug/L	10	2		-	< 10	|U	< 10	|U	-	< 10	|U	< 10	|U	-
Vanadium	ug/L	10	-		-	4	|B	< 10	|U	-	8.7	|B	4.9	|B	-
Zinc	ug/L	20	5000	S	-	6.1	|B	< 20	|U	-	2.6	|B	< 20	|U	-

TABLE A.4
ANALYTICAL RESULTS FOR GROUNDWATER 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-12 FALL	UCD1-13 WINTER		UCD1-13 SPRING		UCD1-13 SUMMER	UCD1-13 FALL	UCD1-13 FALL D1	UCD1-18 WINTER	
Antimony	ug/L	5	6		-	< 5	|U	< 5	|U	-	-	-	< 5	|U
Arsenic	ug/L	2	50		-	3.3	Up |	< 2	|U	-	-	-	4.9	Up |
Barium	ug/L	20	1000		-	327		352		-	-	-	152	
Beryllium	ug/L	1	4		-	< 1	|U	< 1	|U	-	-	-	< 1	|U
Cadmium	ug/L	1	5	#	-	< 1	|U	< 1	|U	-	-	-	< 1	|U
Chromium	ug/L	10	50		-	94.6		90.6		-	-	-	14.6	
Chromium, Hexavalent (+6)	ug/L	10	50		170	86		61		85	76	75	< 10	
Cobalt	ug/L	10	-		-	1.5	|B	< 10	|U	-	-	-	1.5	|B
Copper	ug/L	10	1000	S	-	1.1	|B	< 10	|U	-	-	-	1.4	|B
Iron	ug/L	100	300	S	-	< 100	|U	< 100	|U	-	-	-	< 100	|U
Lead	ug/L	2	15		-	< 2	|U	< 2	|U	-	-	-	< 2	|U
Mercury	ug/L	0.2	2		-	< 0.2	|U	< 0.2	|U	-	-	-	< 0.2	|U
Molybdenum	ug/L	10	-		-	< 10	|U	< 10	|U	-	-	-	< 10	|U
Nickel	ug/L	20	100		-	1.5	|B	1.5	|B	-	-	-	65.1	
Selenium	ug/L	3	5	#	-	4.1	JQ |	< 3	|U	-	-	-	< 3	|U
Silver	ug/L	10	50		-	< 10	|U	< 10	|U	-	-	-	< 10	|U
Thallium	ug/L	10	2		-	< 10	|U	< 10	|U	-	-	-	< 10	|U
Vanadium	ug/L	10	-		-	11.7		7.7	|B	-	-	-	10.6	
Zinc	ug/L	20	5000	S	-	2.4	|B	< 20	|U	-	-	-	1.8	|B

TABLE A.4
ANALYTICAL RESULTS FOR GROUNDWATER 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-18 WINTER D1		UCD1-18 SPRING		UCD1-18 SUMMER	UCD1-19 WINTER		UCD1-19 SPRING		UCD1-19 SPRING D1		UCD1-19 SUMMER
Antimony	ug/L	5	6		< 5	|U	< 5	|U	-	1.4	|B	< 5	|U	< 5	|U	-
Arsenic	ug/L	2	50		3.8	Up |	2	|B	-	3.7	Jk |	< 2	|U	< 2	|U	-
Barium	ug/L	20	1000		152		188	|B	-	84.6		88.6		81.5		-
Beryllium	ug/L	1	4		< 1	|U	< 1	|U	-	< 1	|U	< 1	|U	< 1	|U	-
Cadmium	ug/L	1	5	#	< 1	|U	< 1	|U	-	< 1	|U	< 1	|U	< 1	|U	-
Chromium	ug/L	10	50		14.7		21.3		-	155		170		171		-
Chromium, Hexavalent (+6)	ug/L	10	50		< 10		16		22	170		< 10		54		180
Cobalt	ug/L	10	-		1.5	|B	< 10	|U	-	< 10	|U	< 10	|U	< 10	|U	-
Copper	ug/L	10	1000	S	1.5	|B	< 10	|U	-	< 10	|U	< 10	|U	< 10	|U	-
Iron	ug/L	100	300	S	< 100	|U	15.3	|B	-	26.4	|B	22.8	|B	< 100	|U	-
Lead	ug/L	2	15		< 2	|U	< 2	|U	-	< 2	|U	< 2	|U	< 2	|U	-
Mercury	ug/L	0.2	2		< 0.2	|U	< 0.2	|U	-	< 0.2	|U	< 0.2	|U	< 0.2	|U	-
Molybdenum	ug/L	10	-		< 10	|U	< 10	|U	-	1.2	|B	1.3	|B	1.2	|B	-
Nickel	ug/L	20	100		66		31.8	|B	-	< 20	|U	1.4	|B	1.4	|B	-
Selenium	ug/L	3	5	#	< 3	|U	< 3	|U	-	8.7	JQ |	9.3		8.4		-
Silver	ug/L	10	50		< 10	|U	< 10	|U	-	< 10	|U	< 10	|U	< 10	|U	-
Thallium	ug/L	10	2		< 10	|U	< 10	|U	-	< 10	|U	< 10	|U	< 10	|U	-
Vanadium	ug/L	10	-		10.6		5.4		-	9.1	|B	6.4	|B	5	|B	-
Zinc	ug/L	20	5000	S	2.6	|B	4	|B	-	2.8	|B	< 20	|U	< 20	|U	-

TABLE A.4
ANALYTICAL RESULTS FOR GROUNDWATER 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-19 FALL	UCD1-20 WINTER		UCD1-20 SPRING		UCD1-20 SUMMER	UCD1-21 WINTER		UCD1-21 SPRING		UCD1-22 WINTER	
Antimony	ug/L	5	6		-	< 5	|U	< 5	|U	-	1.1	|B	< 5	|U	< 5	|U
Arsenic	ug/L	2	50		-	4	Jk |	2.1		-	2.6	Jk |	< 2	|U	3	Jk |
Barium	ug/L	20	1000		-	81.3		97.8		-	140		140	|B	78.8	
Beryllium	ug/L	1	4		-	< 1	|U	< 1	|U	-	< 1	|U	< 1	|U	< 1	|U
Cadmium	ug/L	1	5	#	-	< 1	|U	< 1	|U	-	< 1	|U	< 1	|U	< 1	|U
Chromium	ug/L	10	50		-	27.7		28.6		-	54.2		58.2		4.9	|B
Chromium, Hexavalent (+6)	ug/L	10	50		170	28		29		31	57		58		< 10	
Cobalt	ug/L	10	-		-	< 10	|U	< 10	|U	-	< 10	|U	< 10	|U	< 10	|U
Copper	ug/L	10	1000	S	-	< 10	|U	< 10	|U	-	< 10	|U	< 10	|U	< 10	|U
Iron	ug/L	100	300	S	-	< 100	|U	< 100	|U	-	25.4	|B	28.3	|B	< 100	|U
Lead	ug/L	2	15		-	< 2	|U	< 2	|U	-	< 2	|U	< 2	|U	< 2	|U
Mercury	ug/L	0.2	2		-	< 0.2	|U	< 0.2	|U	-	< 0.2	|U	< 0.2	|U	< 0.2	|U
Molybdenum	ug/L	10	-		-	< 10	|U	< 10	|U	-	1.5	|B	< 10	|U	1.7	|B
Nickel	ug/L	20	100		-	< 20	|U	< 20	|U	-	< 20	|U	< 20	|U	8.3	|B
Selenium	ug/L	3	5	#	-	< 3	|U	< 3	|U	-	3.7	JQ |	< 3	|U	< 3	|U
Silver	ug/L	10	50		-	< 10	|U	< 10	|U	-	< 10	|U	< 10	|U	< 10	|U
Thallium	ug/L	10	2		-	< 10	|U	< 10	|U	-	< 10	|U	< 10	|U	< 10	|U
Vanadium	ug/L	10	-		-	11.5		10.1		-	8.6	|B	8.1		8.3	|B
Zinc	ug/L	20	5000	S	-	2.3	|B	< 20	|U	-	3.9	|B	2.7	|B	2.7	|B

TABLE A.4
ANALYTICAL RESULTS FOR GROUNDWATER 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-22 SPRING		UCD1-23 WINTER		UCD1-23 SPRING		UCD1-24 WINTER		UCD1-24 SPRING		UCD1-25 FALL		UCD1-27Z1 FALL	
Antimony	ug/L	5	6		< 5	|U	< 5	|U	< 5	|U	< 5	|U	< 5	|U	< 5	|U	< 5	|U
Arsenic	ug/L	2	50		< 2	|U	3.5	Jk |	< 2	Uz |U	3.2	Jk |	< 2	|U	< 2	|U	8.6	
Barium	ug/L	20	1000		85.6	|B	127		152	|B	198		238		124		240	
Beryllium	ug/L	1	4		< 1	|U	< 1	|U	< 1	|U	< 1	|U	< 1	|U	< 1	|U	< 1	|U
Cadmium	ug/L	1	5	#	< 1	|U	< 1	|U	< 1	|U	< 1	|U	< 1	|U	< 1	|U	< 1	|U
Chromium	ug/L	10	50		6.9	|B	20.1		26.4		28.2		29.5		290		3.8	|B
Chromium, Hexavalent (+6)	ug/L	10	50		< 10		< 10		-		28		-		310		10	Jh |H
Cobalt	ug/L	10	-		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	1.2	|B	3	|B
Copper	ug/L	10	1000	S	< 10	|U	< 10	|U	< 10	|U	1.2	|B	< 10	|U	4.7	|B	< 10	|U
Iron	ug/L	100	300	S	< 100	|U	28.7	|B	< 100	|U	23.9	|B	< 100	|U	23.2	|B	3970	
Lead	ug/L	2	15		< 2	|U	< 2	|U	< 2	|U	< 2	|U	< 2	|U	< 2	|U	< 2	|U
Mercury	ug/L	0.2	2		< 0.2	|U	0.61		< 0.2	|U	< 0.2	|U	< 0.2	|U	< 0.2	|U	< 0.2	|U
Molybdenum	ug/L	10	-		< 10	|U	1.1	|B	< 10	|U	< 10	|U	< 10	|U	< 10	|U	5.5	|B
Nickel	ug/L	20	100		10.2	|B	39		27.8	|B	< 20	|U	< 20	|U	7.1	|B	32.5	
Selenium	ug/L	3	5	#	< 3	|U	3.3	JQ |	< 3	|U	4.8	JQ |	< 3	|U	5.9		< 3	|U
Silver	ug/L	10	50		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U
Thallium	ug/L	10	2		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U
Vanadium	ug/L	10	-		9.8		9.5	|B	12.1		11.1		6.9		10.8		< 10	|U
Zinc	ug/L	20	5000	S	4.4	|B	3	|B	5.2	|B	7.3	|B	3.7	|B	65.7		559	

TABLE A.4
ANALYTICAL RESULTS FOR GROUNDWATER 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-27Z2 FALL		UCD1-27Z3 FALL		UCD1-34 FALL		UCD1-4 WINTER		UCD1-4 SPRING		UCD1-4 SUMMER	UCD1-4 FALL
Antimony	ug/L	5	6		< 5	|U	< 5	|U	< 5	|U	< 5	|U	< 5	|U	-	-
Arsenic	ug/L	2	50		8.4		3.1		2		2.8	Jk |	< 2	|U	-	-
Barium	ug/L	20	1000		194		189		89.6		202		310		-	-
Beryllium	ug/L	1	4		< 1	|U	< 1	|U	< 1	|U	< 1	|U	< 1	|U	-	-
Cadmium	ug/L	1	5	#	< 1	|U	< 1	|U	< 1	|U	< 1	|U	< 1	|U	-	-
Chromium	ug/L	10	50		4.7	|B	3.1	|B	< 10	|U	9.5	|B	26.9		-	-
Chromium, Hexavalent (+6)	ug/L	10	50		< 10		28		< 10	|U	< 10		23		23	19
Cobalt	ug/L	10	-		2.7	|B	2.8	|B	1.8	|B	< 10	|U	< 10	|U	-	-
Copper	ug/L	10	1000	S	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	-	-
Iron	ug/L	100	300	S	3020		2520		12.3	|B	19.3	|B	93.9	|B	-	-
Lead	ug/L	2	15		< 2	|U	< 2	|U	< 2	|U	< 2	|U	< 2	|U	-	-
Mercury	ug/L	0.2	2		< 0.2	|U	< 0.2	|U	< 0.2	|U	0.26		< 0.2	|U	-	-
Molybdenum	ug/L	10	-		5.2	|B	2.1	|B	1.2	|B	< 10	|U	4.2	|B	-	-
Nickel	ug/L	20	100		11.6	|B	6.9	|B	13.1	|B	3.8	|B	3.3	|B	-	-
Selenium	ug/L	3	5	#	< 3	|U	< 3	|U	< 3	|U	< 3	|U	< 3	|U	-	-
Silver	ug/L	10	50		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	-	-
Thallium	ug/L	10	2		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	-	-
Vanadium	ug/L	10	-		< 10	|U	< 10	|U	8.2	|B	7.7	|B	5	|B	-	-
Zinc	ug/L	20	5000	S	218		8.4	Jm |ENB	36.3		13.4	|B	< 20	|U	-	-

TABLE A.4
ANALYTICAL RESULTS FOR GROUNDWATER 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD2-14 WINTER		UCD2-14 SPRING		UCD2-14 SUMMER		UCD2-14 SUMMER D1		UCD2-14 FALL		UCD2-15 WINTER		UCD2-15 SPRING	
Antimony	ug/L	5	6		< 5	|U	< 5	|U	< 5	|U	< 5	|U	< 5	|U	1	|B	1.7	|B
Arsenic	ug/L	2	50		4.2	Up |	< 2	|U	2.1		< 2	|U	< 2	|U	3.1	Jk |	< 2	|U
Barium	ug/L	20	1000		155		266		244		252		192		125		144	
Beryllium	ug/L	1	4		< 1	|U	< 1	|U	< 1	|U	< 1	|U	< 1	|U	< 1	|U	< 1	|U
Cadmium	ug/L	1	5	#	< 1	|U	< 1	|U	< 1	|U	< 1	|U	< 1	|U	< 1	|U	< 1	|U
Chromium	ug/L	10	50		19.5		46.2		43.1		44.9		26.5		7.7	|B	10	
Chromium, Hexavalent (+6)	ug/L	10	50		< 10		-		37		37		24		< 10		< 10	
Cobalt	ug/L	10	-		1.5	|B	< 10	|U	6.5	|B	6.9	|B	< 10	|U	< 10	|U	< 10	|U
Copper	ug/L	10	1000	S	< 10	|U	< 10	|U	2.2	|B	2.5	|B	< 10	|U	< 10	|U	< 10	|U
Iron	ug/L	100	300	S	< 100	|U	< 100	|U	103		85.8	|B	10.6	|B	< 100	|U	< 100	|U
Lead	ug/L	2	15		< 2	|U	< 2	|U	< 2	|U	< 2	|U	< 2	|U	< 2	|U	< 2	|U
Mercury	ug/L	0.2	2		< 0.2	|U	0.32		< 0.2	|U	< 0.2	|U	< 0.2	|U	< 0.2	|U	< 0.2	|U
Molybdenum	ug/L	10	-		< 10	|U	< 10	|U	1.7	|B	1.4	|B	< 10	|U	1.7	|B	< 10	|U
Nickel	ug/L	20	100		1.3	|B	1.5	|B	11.2	|B	9.5	|B	6.2	|B	6.6	|B	1.9	|B
Selenium	ug/L	3	5	#	< 3	|U	< 3	|U	< 3	|U	< 3	|U	< 3	|U	< 3	|U	< 3	|U
Silver	ug/L	10	50		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U
Thallium	ug/L	10	2		< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U
Vanadium	ug/L	10	-		9.6	|B	9.4		9.2	|B	9.5	|B	13.4		8.1	|B	5.4	|B
Zinc	ug/L	20	5000	S	1.3	|B	2.3	|B	5.5	|B	4.6	|B	8	|B	2.6	|B	< 20	|U

TABLE A.4
ANALYTICAL RESULTS FOR GROUNDWATER 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD2-15 SUMMER	UCD2-15 FALL	UCD2-16 WINTER	UCD2-16 SPRING	UCD2-16 SUMMER	UCD2-16 FALL	UCD2-17 WINTER
Antimony	ug/L	5	6		-	-	< 5 |U	2.3 |B	< 5 |U	< 5 |U	< 5 |U
Arsenic	ug/L	2	50		-	-	3.4 Jk |	< 2 |U	2.4	< 2 |U	4.4 Up |
Barium	ug/L	20	1000		-	-	133	139	141	146	127
Beryllium	ug/L	1	4		-	-	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Cadmium	ug/L	1	5	#	-	-	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Chromium	ug/L	10	50		-	-	24	26.1	31.1	26.5	15
Chromium, Hexavalent (+6)	ug/L	10	50		< 20	6 |B	26	25	25	24	< 20
Cobalt	ug/L	10	-		-	-	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U
Copper	ug/L	10	1000	S	-	-	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U
Iron	ug/L	100	300	S	-	-	< 100 |U	< 100 |U	154	37.2 |B	< 100 |U
Lead	ug/L	2	15		-	-	< 2 |U	< 2 |U	< 2 |U	< 2 |U	< 2 |U
Mercury	ug/L	0.2	2		-	-	< 0.2 |U	< 0.2 |U	< 0.2 |U	< 0.2 |U	< 0.2 |U
Molybdenum	ug/L	10	-		-	-	< 10 |U	< 10 |U	1.4 |B	1.3 |B	< 10 |U
Nickel	ug/L	20	100		-	-	< 20 |U	< 20 |U	5.2 |B	4 |B	1.8 |B
Selenium	ug/L	3	5	#	-	-	3.2 JQ |	< 3 |U	4.7	3.6	< 3 |U
Silver	ug/L	10	50		-	-	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U
Thallium	ug/L	10	2		-	-	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U
Vanadium	ug/L	10	-		-	-	7.3 |B	< 10 |U	7.5 |B	13.1	9.8 |B
Zinc	ug/L	20	5000	S	-	-	1.8 |B	< 20 |U	8.5 |B	7.8 |B	1.2 |B

TABLE A.4
ANALYTICAL RESULTS FOR GROUNDWATER 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD2-17 SPRING		UCD2-17 SUMMER	UCD2-26 FALL		UCD2-27Z4 FALL		UCD2-27Z5 FALL		UCD2-27Z6 FALL		UCD2-27Z7 FALL	
Antimony	ug/L	5	6		1.8	|B	-	< 5	|U	2.3	|B	< 5	|U	< 5	|U	< 5	|U
Arsenic	ug/L	2	50		< 2	|U	-	< 2	|U	2		3.2		3.4		3	
Barium	ug/L	20	1000		129	|B	-	< 20	|U	105		154		149		133	
Beryllium	ug/L	1	4		< 1	|U	-	< 1	|U	< 1	|U	< 1	|U	< 1	|U	< 1	|U
Cadmium	ug/L	1	5	#	< 1	|U	-	< 1	|U	< 1	|U	< 1	|U	< 1	|U	< 1	|U
Chromium	ug/L	10	50		13.5		-	7.2	|B	4	|B	8.7	|B	3.2	|B	3	|B
Chromium, Hexavalent (+6)	ug/L	10	50		13		< 20	11		< 10		< 10		< 10		< 10	
Cobalt	ug/L	10	-		< 10	|U	-	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U
Copper	ug/L	10	1000	S	< 10	|U	-	10.2		< 10	|U	< 10	|U	< 10	|U	< 10	|U
Iron	ug/L	100	300	S	17.3	|B	-	26.6	|B	654		338		446		762	
Lead	ug/L	2	15		< 2	|U	-	< 2	|U	< 2	|U	< 2	|U	< 2	|U	< 2	|U
Mercury	ug/L	0.2	2		< 0.2	|U	-	< 0.2	|U	< 0.2	|U	< 0.2	|U	< 0.2	|U	< 0.2	|U
Molybdenum	ug/L	10	-		< 10	|U	-	< 10	|U	2.2	|B	1.4	|B	< 10	|U	1.4	|B
Nickel	ug/L	20	100		< 20	|U	-	< 20	|U	4.7	|B	5.9	|B	4	|B	4.7	|B
Selenium	ug/L	3	5	#	< 3	|U	-	< 3	|U	< 3	|U	< 3	|U	< 3	|U	< 3	|U
Silver	ug/L	10	50		< 10	|U	-	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U
Thallium	ug/L	10	2		< 10	|U	-	< 10	|U	< 10	|U	< 10	|U	< 10	|U	< 10	|U
Vanadium	ug/L	10	-		10.2		-	< 10	|U	< 10	|U	7.2	|B	5.7	|B	5	|B
Zinc	ug/L	20	5000	S	4.9	|B	-	18.7	|B	6.5	Jm |ENB	20.9	Jm |EN	5.8	Jm |ENB	7.4	Jm |ENB

TABLE A.4
ANALYTICAL RESULTS FOR GROUNDWATER 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD2-35 FALL		UCD2-7 WINTER		UCD2-7 WINTER D1		UCD2-7 SPRING		UCD2-7 SUMMER
Antimony	ug/L	5	6		< 5	|U	< 5	|U	< 5	|U	< 5	|U	-
Arsenic	ug/L	2	50		< 2	|U	3.1	Jk |	3.1	Jk |	< 2	|U	-
Barium	ug/L	20	1000		99.1		167		160		182		-
Beryllium	ug/L	1	4		< 1	|U	< 1	|U	< 1	|U	< 1	|U	-
Cadmium	ug/L	1	5	#	< 1	|U	< 1	|U	< 1	|U	< 1	|U	-
Chromium	ug/L	10	50		3.6	|B	45.6		44.6		47.7		-
Chromium, Hexavalent (+6)	ug/L	10	50		< 10	|U	43		42		38		64
Cobalt	ug/L	10	-		1.4	|B	< 10	|U	< 10	|U	< 10	|U	-
Copper	ug/L	10	1000	S	< 10	|U	1.1	|B	1	|B	< 10	|U	-
Iron	ug/L	100	300	S	14.5	|B	< 100	|U	< 100	|U	32.8	|B	-
Lead	ug/L	2	15		< 2	|U	< 2	|U	< 2	|U	< 2	|U	-
Mercury	ug/L	0.2	2		< 0.2	|U	0.68		< 0.2	|U	< 0.2	|U	-
Molybdenum	ug/L	10	-		2	|B	1.3	|B	1.1	|B	3.1	|B	-
Nickel	ug/L	20	100		9.2	|B	< 20	|U	< 20	|U	1.5	|B	-
Selenium	ug/L	3	5	#	< 3	|U	< 3	|U	3.8	JQ |	3.4		-
Silver	ug/L	10	50		< 10	|U	< 10	|U	< 10	|U	< 10	|U	-
Thallium	ug/L	10	2		< 10	|U	< 10	|U	< 10	|U	< 10	|U	-
Vanadium	ug/L	10	-		9.6	|B	7.7	|B	7.5	|B	5	|B	-
Zinc	ug/L	20	5000	S	14	|B	5.3	|B	5.2	|B	< 20	|U	-

TABLE A.4
ANALYTICAL RESULTS FOR GROUNDWATER 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1	=	Duplicate Sample
-	=	Parameter not analyzed or no MCL
DL	=	Detection Limit
<	=	Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.
MCL	=	Maximum Contaminant Level (primary), Title 22 Division 4 Chapter 15.
#	=	USEPA MCL
S	=	Secondary Drinking Water Standard

See Appendix A for explanation of data qualifiers.

TABLE A.5
ANALYTICAL RESULTS FOR GROUNDWATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	UCD1-1 WINTER				UCD1-1 SPRING				UCD1-1 SPRING D1				UCD1-10 WINTER			
			Value		Error	MDA	Value		Error	MDA	Value		Error	MDA	Value		Error	MDA
Actinium-228	901.1	-	18		22	30	-6.1		6.3	15	20		22	32	1		21	37
Bismuth-212	901.1	-	5		43	60	5		18	25	42		42	43	37		52	67
Bismuth-214	901.1	-	48		18	20	12.8		6.1	8.2	9		14	19	8		13	18
Cesium-134	901.1	-	-		-	-	-		-	-	-		-	-	-		-	-
Cesium-137	901.1	-	0.4		4.9	8.9	0.4		2.1	2.7	0		0	8.6	-5.4		3.5	11
Cobalt-57	901.1	-	-		-	-	-		-	-	-		-	-	-		-	-
Cobalt-60	901.1	-	2.3		3.4	9.3	0.8		1.6	2.6	-2.4		2.9	11	-0.3		2.7	11
Lead-210	901.1	-	-40		110	170	0		290	420	10		110	170	-10		110	180
Lead-212	901.1	-	11		10	14	-4.5		5	8.1	4.4		9.8	14	0.7		9.5	14
Lead-214	901.1	-	23		14	21	12.2		5.7	7.9	16		12	16	1		10	18
Potassium-40	901.1	-	19		73	110	-8		26	46	-14		67	110	-5		63	110
Ra-223	901.1	-	-		-	-	-		-	-	-		-	-	-		-	-
Radium-226	901.1	5	-490		130	200	43		60	85	-70		120	180	-110		110	180
Thallium-208	901.1	-	3.6		7.6	11	0.6		2.8	4.2	-1		6.7	10	-5.8		3.1	11
Thorium-234	901.1	-	-21		68	160	-8		46	150	24		66	150	18		67	150
Uranium-235	901.1	-	-13		15	44	-5		13	24	-4		27	42	-2		27	42
Radium-226	903.1M	5	0.17		0.18	0.29	0.3		0.13	0.1	0.15		0.11	0.14	0.019		0.083	0.18
Strontium-90	905	8	-0.3		1.1	1	0.66		0.51	0.84	0.7		0.47	0.76	-0.7		3	1.5
Tritium	906	20000 *	-220		150	260	-10		220	260	-50		210	260	0		220	300
Gross Alpha	9310	15	1.1	|C	2.5	4.8	0.1	|C	3.8	8.5	0.4	|C	3.8	8.4	1.9	|C	5.8	12
Gross Beta	9310	50	7	Jd |C	3.7	5.8	2.2	|C	5.4	9.4	-3.1	|C	5.1	9.4	-2.8	|C	6.9	13
Americium-241	LAS108	-	-0.001	Jm |	0.029	0.048	-0.006		0.044	0.071	-0.049		0.066	0.11	-0.002	Jm |	0.03	0.058
Plutonium-241	LAS178	-	-0.1		1.3	1.6	-0.5	Jz |	1.8	1.4	0.3	Jz |	1.8	1.1	-0.2		1.5	1.7
Carbon-14	LSC	-	-9		82	110	3		83	110	-19		81	110	-14		78	100

TABLE A.5
ANALYTICAL RESULTS FOR GROUNDWATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	UCD1-10 SPRING				UCD1-11 WINTER				UCD1-11 SPRING				UCD1-12 WINTER			
			Value		Error	MDA	Value		Error	MDA	Value		Error	MDA	Value		Error	MDA
Actinium-228	901.1	-	2		21	38	6		21	37	-9		12	39	4.9		8	14
Bismuth-212	901.1	-	-21		27	79	5		35	58	-43		30	87	-5		17	26
Bismuth-214	901.1	-	19		14	18	-2		13	20	25		16	19	17.5		6.5	7.5
Cesium-134	901.1	-	-		-	-	-		-	-	-		-	-	-		-	-
Cesium-137	901.1	-	2.9		5.9	7.7	0.5		6.3	8.5	-0.3		6.3	9.1	-0.1		1.6	2.9
Cobalt-57	901.1	-	-		-	-	-		-	-	-		-	-	-		-	-
Cobalt-60	901.1	-	-2.5		1.5	9.8	1.2		3.4	8.2	-0.7		4.9	11	-0.33		0.92	3.3
Lead-210	901.1	-	10		110	170	-50		100	170	-20		110	170	-70		290	420
Lead-212	901.1	-	6.2		9.7	14	7		9.3	13	3.7		9.8	14	8.5		6	8.4
Lead-214	901.1	-	21		12	16	-11.4		8.2	18	33		13	16	12.3		5.7	8.4
Potassium-40	901.1	-	-13		63	110	33		74	110	3		59	97	-5		26	44
Ra-223	901.1	-	-		-	-	-		-	-	-		-	-	-		-	-
Radium-226	901.1	5	40		120	180	-280		120	180	80		120	180	-27		57	84
Thallium-208	901.1	-	-1.8		7.1	11	-1.1		6	9	-0.7		7	11	4		3.1	4.2
Thorium-234	901.1	-	-106		67	160	-37		65	160	5		67	160	6		48	150
Uranium-235	901.1	-	-8		27	42	26		26	35	-4		26	40	-16		9.2	26
Radium-226	903.1M	5	0.24		0.15	0.18	0.19		0.18	0.28	0.093'		0.086	0.12	0.26		0.19	0.099
Strontium-90	905	8	0.7		0.47	0.77	-0.9		3.3	1.6	0.12		0.46	0.79	-0.9		2.9	1.4
Tritium	906	20000 *	30		220	260	-140		200	310	-40		220	260	-100		170	260
Gross Alpha	9310	15	0	|C	6	13	2.7	|C	5.2	9.4	0.8	|C	3.7	7.5	2.4	|C	8.4	17
Gross Beta	9310	50	1.1	|C	6.8	12	1.4	|C	4.6	8	4.6	|C	5.3	8.8	6.4	Jd |C	9.5	16
Americium-241	LAS108	-	0.106		0.062	0.069	0.006	Jm |	0.058	0.099	-0.004		0.053	0.081	0.007	Jm |	0.039	0.063
Plutonium-241	LAS178	-	1	Jz |	1.8	1.2	-0.9		1.6	2.2	0	Jz |	1.8	1.3	-0.2		1.4	1.9
Carbon-14	LSC	-	-5		82	110	2		80	110	14		84	110	119		93	110

TABLE A.5
ANALYTICAL RESULTS FOR GROUNDWATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	UCD1-12 SPRING				UCD1-12 SUMMER				UCD1-12 FALL				UCD1-13 WINTER			
			Value		Error	MDA	Value		Error	MDA	Value		Error	MDA	Value		Error	MDA
Actinium-228	901.1	-	7.2		7.6	13	-15		12	42	7.9		7.6	13	0.1		7.8	14
Bismuth-212	901.1	-	3		16	22	-		-	-	3		17	23	9		18	25
Bismuth-214	901.1	-	12.3		5.7	7.5	5		12	18	14.4		6.4	8.5	20.2		6.9	8.1
Cesium-134	901.1	-	-		-	-	-1.7		2.1	7.2	-		-	-	-		-	-
Cesium-137	901.1	-	-1.2		1.2	3.5	2.7		5	7.8	0.4		1.7	2.8	-1.2		1.9	3.6
Cobalt-57	901.1	-	-		-	-	1.6		3.4	4.4	-		-	-	-		-	-
Cobalt-60	901.1	-	-0.1		1.4	2.9	-1		1.6	11	-0.2		1.6	3.5	0.9		1.4	2.4
Lead-210	901.1	-	30		280	390	-		-	-	80		290	410	-100		290	420
Lead-212	901.1	-	-1.2		5.1	7.9	3		9.7	14	6.2		5.4	7.6	0.6		5.1	7.9
Lead-214	901.1	-	9.2		5.4	7.6	-2	Je |	10	18	7.2		5.1	7.7	23.1		6.4	8.2
Potassium-40	901.1	-	-14		27	48	8		68	100	5		27	44	14		29	45
Ra-223	901.1	-	-		-	-	-		-	-	-8		20	61	-		-	-
Radium-226	901.1	5	-154		58	84	-		-	-	24		56	82	7		58	87
Thallium-208	901.1	-	0.7		2.8	4.3	-1.5		6.5	9.5	-1.7		2.8	4.5	-1.4		2.8	4.5
Thorium-234	901.1	-	12		48	150	-51		64	150	-11		47	140	-19		47	150
Uranium-235	901.1	-	8		15	23	-11		26	41	-9		12	23	-10		13	23
Radium-226	903.1M	5	0.19		0.12	0.14	0.12		0.13	0.21	0.55		0.29	0.25	0.22		0.2	0.29
Strontium-90	905	8	0.32		0.5	0.84	0.09		0.47	0.8	0.84		0.65	1.1	-0.6		1.5	0.99
Tritium	906	20000 *	-100		210	250	-30		220	300	-40		170	240	17600		1100	250
Gross Alpha	9310	15	-2.8	|C	4.9	14	11	|C	11	17	6	|C	10	17	2.7	|C	5.7	11
Gross Beta	9310	50	4.6	|C	7.4	13	0	|C	10	18	1.9	|C	6.6	12	15	Jd |C	8	12
Americium-241	LAS108	-	-0.014		0.049	0.077	-		-	-	-		-	-	-0.026	Jm |	0.03	0.071
Plutonium-241	LAS178	-	-0.4	Jz |	1.8	1.1	-		-	-	-		-	-	0.2		1.8	2.8
Carbon-14	LSC	-	199		98	110	208		95	100	171		96	100	1169	Jd |	92	41

TABLE A.5
ANALYTICAL RESULTS FOR GROUNDWATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	UCD1-13 SPRING				UCD1-13 SUMMER				UCD1-13 FALL				UCD1-13 FALL D1			
			Value		Error	MDA	Value		Error	MDA	Value		Error	MDA	Value		Error	MDA
Actinium-228	901.1	-	0.1		7.7	14	-4		21	40	-1.1		7.2	12	4.7		7.4	13
Bismuth-212	901.1	-	-3		18	26	-		-	-	-1		15	21	9		18	23
Bismuth-214	901.1	-	14.2		6.2	8.2	4		13	19	2.1		5.2	7.7	8.2		5.5	7.6
Cesium-134	901.1	-	-		-	-	-3		3.5	6.2	-		-	-	-		-	-
Cesium-137	901.1	-	-0.9		1.2	3.5	2.4		4.8	7.6	-1		1.2	3.5	-1.9		1.4	4
Cobalt-57	901.1	-	-		-	-	0.6		3.3	4.3	-		-	-	-		-	-
Cobalt-60	901.1	-	-0.93		0.82	2.8	4.1		4.6	7.5	1.2		1.6	2.7	-0.95		0.85	3.3
Lead-210	901.1	-	-130		300	450	-		-	-	-60		270	400	-130		280	420
Lead-212	901.1	-	5.5		5.4	7.8	3		10	15	1.4		4.8	7.2	0.2		5.2	7.8
Lead-214	901.1	-	11.5		5.4	7.5	-1	Je |	11	18	1.7		4.7	7.5	5.8		5.3	8.1
Potassium-40	901.1	-	-2		26	45	3		66	100	-15		26	47	0		25	43
Ra-223	901.1	-	-		-	-	-		-	-	-13		14	64	-19		14	56
Radium-226	901.1	5	19		54	79	-		-	-	-173		58	84	6		56	83
Thallium-208	901.1	-	2.3		2.8	4	5.3		6.6	8.3	0.6		2.6	3.9	0		2.7	4.2
Thorium-234	901.1	-	30		47	130	-24		98	150	-12		48	140	-8		47	140
Uranium-235	901.1	-	-2		15	24	-21		13	42	7		15	21	-2		12	22
Radium-226	903.1M	5	0.23		0.14	0.17	0.1		0.15	0.26	0.25		0.13	0.16	0.012		0.068	0.14
Strontium-90	905	8	0.26		0.47	0.81	-0.17		0.53	0.92	-0.19		0.57	1	0.4		0.64	1.1
Tritium	906	20000 *	a		-	-	19600		1200	300	16480		960	210	15190		910	210
Gross Alpha	9310	15	3.4	|C	5.4	9.5	4.4	|C	7.6	13	0.8	|C	5.3	11	3.6	|C	6.6	12
Gross Beta	9310	50	4	|C	6.6	11	-3.8	|C	6.5	12	1.3	|C	4.1	7.1	3.8	|C	5	8.3
Americium-241	LAS108	-	0.032		0.058	0.081	-		-	-	-		-	-	-		-	-
Plutonium-241	LAS178	-	0.1	Jz |	1.9	1.6	-		-	-	-		-	-	-		-	-
Carbon-14	LSC	-	900		150	130	1750		180	100	1900		180	92	1770		170	92

TABLE A.5
ANALYTICAL RESULTS FOR GROUNDWATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	UCD1-18 WINTER				UCD1-18 WINTER D1				UCD1-18 SPRING				UCD1-19 WINTER			
			Value		Error	MDA	Value		Error	MDA	Value		Error	MDA	Value		Error	MDA
Actinium-228	901.1	-	-19		10	42	-9.2		6.7	36	6		21	36	-2.2		7.6	14
Bismuth-212	901.1	-	-4		45	66	-7		50	74	9		49	68	14		18	22
Bismuth-214	901.1	-	30		16	21	9		14	21	11		13	19	0.2		5.2	8.3
Cesium-134	901.1	-	-		-	-	-		-	-	-		-	-	-		-	-
Cesium-137	901.1	-	2.5		5.2	8.9	-2.3		4.4	8.6	-1.6		4.9	9.2	-1.3		1.1	3.3
Cobalt-57	901.1	-	-		-	-	-		-	-	-		-	-	-		-	-
Cobalt-60	901.1	-	-3.2		3	12	3.5		4.1	9.6	-0.1		1.8	9.2	-0.3		1.3	3.5
Lead-210	901.1	-	-40		100	170	10		100	160	-40		110	170	60		290	410
Lead-212	901.1	-	2		10	15	9		10	14	1.8		9.6	14	9		5.3	7.1
Lead-214	901.1	-	18		13	20	12		12	18	5		12	19	2.3		4.7	7.4
Potassium-40	901.1	-	3		62	100	-8		68	110	-26		76	130	6		26	42
Ra-223	901.1	-	-		-	-	-		-	-	-		-	-	-		-	-
Radium-226	901.1	5	-140		120	190	-350		120	180	30		120	180	-133		57	85
Thallium-208	901.1	-	3		7	9.9	-0.2		7.1	11	2.4		7.1	10	-0.8		2.6	4.1
Thorium-234	901.1	-	-41		69	170	-3		66	150	8		66	160	33		47	140
Uranium-235	901.1	-	7		27	41	10		27	41	-16		15	42	11		15	20
Radium-226	903.1M	5	0.33		0.23	0.24	0.4		0.25	0.28	0.27		0.15	0.056	0.18		0.13	0.15
Strontium-90	905	8	-0.6		2.7	1.6	-0.4		2.1	1.4	0.52	Jm |	0.52	0.86	-0.8		3.5	1.7
Tritium	906	20000 *	90		190	260	-270		140	270	-130		160	220	-110		200	310
Gross Alpha	9310	15	0.1	|C	3.3	6.9	-1	|C	2.7	6.2	2.1	Jm |C	3.1	5.4	5.7	|C	6.9	11
Gross Beta	9310	50	3	Jd |C	3.5	5.9	0.9	Jd |C	3.5	6	1.3	|C	3.3	5.6	4.3	|C	6.8	11
Americium-241	LAS108	-	0.015	Jm |	0.084	0.14	0.002	Jm |	0.052	0.085	0.004		0.014	0.031	-0.019	Jm |	0.05	0.087
Plutonium-241	LAS178	-	-0.7		1.6	1.9	0		1.3	I.6	-0.1	Jc |	2.3	3	0.1		1.6	2
Carbon-14	LSC	-	42		87	110	-1		83	110	-1		84	110	-41		77	110

TABLE A.5
ANALYTICAL RESULTS FOR GROUNDWATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	UCD1-19 SPRING				UCD1-19 SPRING D1				UCD1-20 WINTER				UCD1-20 SPRING			
			Value		Error	MDA	Value		Error	MDA	Value		Error	MDA	Value		Error	MDA
Actinium-228	901.1	-	5.9		7.7	14	-3.2		7.5	15	-20		130	220	7		22	35
Bismuth-212	901.1	-	-2		16	24	6		17	23	-280		230	430	0		46	64
Bismuth-214	901.1	-	21.9		6.8	8.1	19		6.7	7.9	-59		54	110	26		16	21
Cesium-134	901.1	-	-		-	-	-		-	-	-		-	-	-		-	-
Cesium-137	901.1	-	-0.1		2.3	3.2	-0.3		1.1	3.2	7		41	52	-1.5		4.8	8.9
Cobalt-57	901.1	-	-		-	-	-		-	-	-		-	-	-		-	-
Cobalt-60	901.1	-	-0.1		1.4	2.9	-0.9		1.1	3.8	-11		15	46	-4		3.5	11
Lead-210	901.1	-	100		300	420	0		280	400	-400		1300	2000	-70		100	170
Lead-212	901.1	-	1.2		5.1	7.7	-4.4		5.2	8.3	-14		54	76	-12		9.5	15
Lead-214	901.1	-	24		6.4	7.9	19.5		6.2	7.7	-67		46	97	31		13	17
Potassium-40	901.1	-	8		28	45	11		28	44	-110		400	620	51		74	100
Ra-223	901.1	-	-		-	-	-		-	-	-		-	-	-		-	-
Radium-226	901.1	5	0		57	83	54		57	80	-580		630	930	-270		120	180
Thallium-208	901.1	-	1.7		3	4.4	0.9		2.8	4.1	0		42	57	0.4		6.7	9.8
Thorium-234	901.1	-	8		48	150	8		49	150	-260		340	750	-18		65	160
Uranium-235	901.1	-	0		16	24	-3		15	24	40		150	210	14		26	38
Radium-226	903.1M	5	0.069		0.1	0.18	0.112		0.1	0.15	0.17		0.11	0.051	0.103		0.087	0.11
Strontium-90	905	8	0.75		0.5	0.81	0.27		0.46	0.79	-0.6		3	1.6	0.5		0.48	0.8
Tritium	906	20000 *	-30		220	260	20		220	250	-30		220	310	b		-	-
Gross Alpha	9310	15	7.9	|C	6	8	0	|C	5	11	1.5	|C	2.3	3.9	1	|C	2.3	4.2
Gross Beta	9310	50	3	|C	5.9	10	0	|C	6.1	11	0.8		2.3	4	1.8	|C	2.6	4.4
Americium-241	LAS108	-	0.01		0.051	0.076	0.019		0.053	0.078	0.018	Jm |	0.082	0.13	-0.027		0.041	0.07
Plutonium-241	LAS178	-	0	Jz |	1.8	1.4	2.7	Jz |	1.9	1.7	-0.1		1.6	2	-0.3	Jz |	1.9	1.9
Carbon-14	LSC	-	-8		82	110	-12		81	110	2		80	110	-12		81	110

TABLE A.5
ANALYTICAL RESULTS FOR GROUNDWATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	UCD1-20 SUMMER				UCD1-20 FALL				UCD1-21 WINTER				UCD1-21 SPRING			
			Value		Error	MDA	Value		Error	MDA	Value		Error	MDA	Value		Error	MDA
Actinium-228	901.1	-	2		21	40	-		-	-	-45		46	230	0		17	36
Bismuth-212	901.1	-	-		-	-	-		-	-	0		210	360	-5		42	64
Bismuth-214	901.1	-	3	Jz |	14	20	-		-	-	3		78	110	33		15	18
Cesium-134	901.1	-	-0.9		2.7	8.5	-		-	-	-		-	-	-		-	-
Cesium-137	901.1	-	2.1		5.2	8.9	-		-	-	8		43	54	4		6.2	7.3
Cobalt-57	901.1	-	-0.5		2.6	4.6	-		-	-	-		-	-	-		-	-
Cobalt-60	901.1	-	2.4		4.6	10	-		-	-	23		20	36	3		4.9	8.4
Lead-210	901.1	-	-		-	-	-		-	-	0		1300	1900	-60		100	170
Lead-212	901.1	-	2		10	15	-		-	-	-5		56	77	5		10	14
Lead-214	901.1	-	2	Jz |	11	17	-		-	-	-14		63	99	7		12	18
Potassium-40	901.1	-	-21		65	110	-		-	-	-30		390	590	10		66	110
Ra-223	901.1	-	-		-	-	-		-	-	-		-	-	-		-	-
Radium-226	901.1	5	-		-	-	-		-	-	-100		650	950	-290		120	170
Thallium-208	901.1	-	0.8		6.6	9.7	-		-	-	-23		40	58	-5.5		4	12
Thorium-234	901.1	-	-28		66	160	-		-	-	-170		340	770	15		65	150
Uranium-235	901.1	-	9		27	39	-		-	-	-60		150	230	15		27	38
Radium-226	903.1M	5	0.093		0.086	0.11	-		-	-	0.14		0.15	0.24	0.063		0.092	0.15
Strontium-90	905	8	-0.15		0.26	0.47	-		-	-	-1		3.3	1.7	0.37	Jm |	0.5	0.84
Tritium	906	20000 *	-50		220	290	70		170	220	-100		210	310	50		180	220
Gross Alpha	9310	15	0.6	|C	2.1	4	-		-	-	-0.5	|C	4.6	11	0.3	Jm |C	4	8.6
Gross Beta	9310	50	0.7		2.2	3.8	-		-	-	3.9	|C	6	10	-1.5	|C	4.9	8.9
Americium-241	LAS108	-	-		-	-	-		-	-	-0.09	Jm |	0.23	0.4	0.013		0.029	0.048
Plutonium-241	LAS178	-	-		-	-	-		-	-	0.2		1.8	2.4	1.7	Jc |	1.9	2.4
Carbon-14	LSC	-	102		92	100	-		-	-	-34		77	100	35		87	110

TABLE A.5
ANALYTICAL RESULTS FOR GROUNDWATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	UCD1-22 WINTER				UCD1-22 SPRING				UCD1-22 SUMMER				UCD1-23 WINTER			
			Value		Error	MDA	Value		Error	MDA	Value		Error	MDA	Value		Error	MDA
Actinium-228	901.1	-	-88		84	210	5		20	33	-10.6		5.3	15	-13		10	42
Bismuth-212	901.1	-	-110		120	400	8		45	64	-		-	-	35		59	74
Bismuth-214	901.1	-	11		80	110	8		13	19	20.4	Jz |	6.9	7.9	15		15	19
Cesium-134	901.1	-	-		-	-	-		-	-	0		1.1	2.7	-		-	-
Cesium-137	901.1	-	16		40	49	3.3		4.4	6.9	-0.8		1.8	3.3	-0.5		7.3	9.4
Cobalt-57	901.1	-	-		-	-	-		-	-	0.6		1.6	2.6	-		-	-
Cobalt-60	901.1	-	0		14	56	2.6		4.1	8.6	-0.66		0.85	2.8	6.2		4.5	8.9
Lead-210	901.1	-	1100		2500	3600	-30		110	170	-		-	-	-30		130	200
Lead-212	901.1	-	15		54	74	-3.4		9.4	15	0.2		5.4	8.1	2		11	16
Lead-214	901.1	-	-27		62	100	3		11	17	19.8	Jz |	6.2	8.1	3		13	19
Potassium-40	901.1	-	10		400	620	18		67	110	-19		27	48	-9		79	130
Ra-223	901.1	-	-		-	-	-		-	-	-		-	-	-		-	-
Radium-226	901.1	5	-1770		680	970	0		110	170	-		-	-	-10		130	190
Thallium-208	901.1	-	6		43	58	0.3		6.5	9.5	1		2.7	4	1.3		8.5	12
Thorium-234	901.1	-	60		340	720	-24		67	160	3		46	150	3		77	190
Uranium-235	901.1	-	40		150	220	13		26	36	-5		13	24	-23		22	43
Radium-226	903.1M	5	0.3		0.16	0.14	-0.1		0.11	0.31	0.048		0.082	0.15	0.21		0.14	0.15
Strontium-90	905	8	-0.6		3.8	1.7	0.31	Jm |	0.59	1	0.25		0.37	0.62	-0.6		3.2	1.6
Tritium	906	20000 *	-190		190	310	80		180	220	100		240	300	-250		180	300
Gross Alpha	9310	15	0.9	|C	2.9	5.8	1.2	Jm |C	3.3	6.2	3.5	|C	4.5	7.4	3.2	|C	5	8.7
Gross Beta	9310	50	0.4	|C	3.6	6.3	2.2	|C	3.2	5.4	-0.7	|C	3.8	6.7	-0.5	|C	4.8	8.5
Americium-241	LAS108	-	-0.013	Jm |	0.07	0.13	0.015		0.02	0.026	0.016		0.021	0.028	0.008	Jm |	0.05	0.081
Plutonium-241	LAS178	-	-1.1		1.5	1.8	3.2	Jc |	2.3	3	1.5	Jc |	2.9	3.6	-0.4		1.5	1.9
Carbon-14	LSC	-	-4		79	100	-26		82	110	-		-	-	184		93	100

TABLE A.5
ANALYTICAL RESULTS FOR GROUNDWATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	UCD1-23 SPRING				UCD1-23 SUMMER				UCD1-24 WINTER				UCD1-24 SPRING			
			Value		Error	MDA	Value		Error	MDA	Value		Error	MDA	Value		Error	MDA
Actinium-228	901.1	-	0.6		7.7	14	-3		24	37	-5		22	40	-11		5	14
Bismuth-212	901.1	-	11		16	19	-		-	-	4		47	67	0		18	26
Bismuth-214	901.1	-	0.7		5.1	7.8	11	Jz |	14	20	-1		13	20	8.5		5.6	7.4
Cesium-134	901.1	-	-		-	-	1		2.2	7.5	-		-	-	-		-	-
Cesium-137	901.1	-	-0.2		1.7	3.2	3.3		5.2	8.7	2.1		6.2	7.9	-0.4		1.7	3.1
Cobalt-57	901.1	-	-		-	-	1.5		2.4	4	-		-	-	-		-	-
Cobalt-60	901.1	-	0		1.5	3.3	4.3		4.4	7.9	-0.1		3.8	7.5	0.4		1.4	2.7
Lead-210	901.1	-	-20		300	430	-		-	-	-120		110	180	0		280	400
Lead-212	901.1	-	-2		5.1	7.9	-1.1		9.4	14	0		10	15	-2.8		5	7.9
Lead-214	901.1	-	-0.2		4.8	7.8	20	Jz |	12	17	-4.8		8.7	19	2.9		4.9	7.6
Potassium-40	901.1	-	-20		26	48	-12		73	120	-43		64	120	-23		26	48
Ra-223	901.1	-	-		-	-	-		-	-	-		-	-	-		-	-
Radium-226	901.1	5	-188		59	85	-		-	-	-110		110	180	-55		56	89
Thallium-208	901.1	-	1.4		2.8	4.1	-1.4		6.2	9.6	-3.8		7.7	12	0.9		2.8	4.1
Thorium-234	901.1	-	-13		48	150	-17		66	160	-26		66	150	-12		47	140
Uranium-235	901.1	-	3		14	22	4		27	42	-2		27	42	1		12	22
Radium-226	903.1M	5	0.15		0.14	0.2	0.016		0.1	0.21	0.09		0.12	0.2	0.18		0.13	0.062
Strontium-90	905	8	-0.15	Jm |	0.51	0.89	-0.04		0.25	0.44	-0.6		3.1	1.6	0.36	Jm |	0.49	0.83
Tritium	906	20000 *	100		180	220	120		250	310	30		220	310	20		170	230
Gross Alpha	9310	15	0.1	Jm |C	2.7	6.1	1.2	|C	4	7.8	-2	|C	3.5	9.5	2.8	Jm |C	4.8	8.6
Gross Beta	9310	50	0.3	|C	3.2	5.7	1.1	|C	4	6.9	2.2	|C	5.4	9.3	0	|C	4.6	8.1
Americium-241	LAS108	-	0.006		0.016	0.027	-		-	-	0	Jm |	0.048	0.079	0.036		0.028	0.016
Plutonium-241	LAS178	-	-0.5	Jc |	1.5	1.9	-		-	-	0		1.5	1.8	-1.1	Jc |	1.5	2.2
Carbon-14	LSC	-	230		100	110	370		110	100	45		83	100	18		86	110

TABLE A.5
ANALYTICAL RESULTS FOR GROUNDWATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	UCD1-25 FALL				UCD1-27Z1 FALL				UCD1-27Z2 FALL				UCD1-27Z3 FALL			
			Value		Error	MDA	Value		Error	MDA	Value		Error	MDA	Value		Error	MDA
Actinium-228	901.1	-	0.7		7.6	13	-6		13	18	3		13	15	-2.2		7.4	13
Bismuth-212	901.1	-	-4		11	28	4		28	29	9		27	26	6		17	24
Bismuth-214	901.1	-	19.2		6.8	8.4	13.4		8.2	8.4	2		7.5	8.7	9		6	8.5
Cesium-134	901.1	-	-		-	-	-		-	-	-		-	-	-		-	-
Cesium-137	901.1	-	-1.3		1.2	3.6	0.3		2.2	3.7	2.7		2.2	3.3	-0.6		1.1	3.3
Cobalt-57	901.1	-	-		-	-	-		-	-	-		-	-	-		-	-
Cobalt-60	901.1	-	1.1		1.5	2.4	-2.03		0.52	4.6	0.4		2.7	4.2	-0.56		0.84	3.8
Lead-210	901.1	-	-160		310	470	-4		64	78	16		59	69	-60		270	400
Lead-212	901.1	-	4.8		5.3	7.5	2.8		5.6	6.2	-10.7		5.1	6.1	2.5		5	7.4
Lead-214	901.1	-	12.5		5.6	8.1	6.7		6.6	7.6	5.6		6.5	7.4	7.9		5.4	8.3
Potassium-40	901.1	-	-6		25	44	13		43	50	31		41	44	-1		27	46
Ra-223	901.1	-	-8		14	66	-6.3		6.3	64	7		20	61	-25		13	69
Radium-226	901.1	5	-4		56	84	-14		67	76	-173		68	79	-52		56	87
Thallium-208	901.1	-	1.7		2.9	4.1	1.7		4	4.1	1.4		4.1	4.4	0.9		2.7	4
Thorium-234	901.1	-	-24		46	150	10		39	70	-19		38	68	-1		47	150
Uranium-235	901.1	-	-10.8		7.8	24	1		15	17	5		15	17	-2		15	24
Radium-226	903.1M	5	0.14		0.11	0.16	0.085		0.091	0.14	0.45		0.16	0.15	0.29		0.18	0.22
Strontium-90	905	8	0.38		0.66	1.1	0.15		0.68	1.2	0.32		0.6	1	0.07		0.46	0.8
Tritium	906	20000 *	-80		150	210	-10		170	250	-90		160	250	-70		170	250
Gross Alpha	9310	15	-4.1	|C	6.3	15	-2.3	|C	3.3	8.4	-0.5	|C	2.5	5.4	1.3	|C	2.5	4.6
Gross Beta	9310	50	0.4	|C	10	5.8	0	|C	2.9	5.2	2	|C	2	3.3	1.9	|C	1.9	3
Americium-241	LAS108	-	0.035		0.037	0.044	0.01		0.022	0.037	0.029		0.028	0.02	0.012		0.021	0.031
Plutonium-241	LAS178	-	0.5	JI |	3.5	5.2	0.2		2.2	2.6	-0.6		2.2	2.7	1.5		2.2	2.3
Carbon-14	LSC	-	19		74	92	30		85	100	19		84	100	-6		82	100

TABLE A.5
ANALYTICAL RESULTS FOR GROUNDWATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	UCD1-34 FALL				UCD1-4 WINTER				UCD1-4 SPRING				UCD1-4 SUMMER			
			Value		Error	MDA	Value		Error	MDA	Value		Error	MDA	Value		Error	MDA
Actinium-228	901.1	-	4		7.8	13	0.4		7.7	15	-1.7		7.6	15	0.9		7.4	14
Bismuth-212	901.1	-	8		17	22	1		17	23	11		18	25	-		-	-
Bismuth-214	901.1	-	13.7		6	7.4	3.7		4.9	7.4	9.5		6.1	8.4	12.9	Jz |	6.2	8.3
Cesium-134	901.1	-	-		-	-	-		-	-	-		-	-	0		1.3	2.6
Cesium-137	901.1	-	-0.3		2.3	3.2	0.1		2.6	3.6	0.2		2.2	3	-1.1		1.9	3.6
Cobalt-57	901.1	-	-		-	-	-		-	-	-		-	-	0.3		1.6	2.7
Cobalt-60	901.1	-	-1.6		1.1	4	-0.38		0.81	3.3	-1.64		0.88	3.4	-0.6		0.91	3.2
Lead-210	901.1	-	-70		270	400	270		290	370	50		280	400	-		-	-
Lead-212	901.1	-	0.8		5.1	7.6	2.1		4.9	7.2	0.6		5.1	7.8	0.8		5.4	8
Lead-214	901.1	-	11.6		5.6	8.1	2.2		4.8	7.7	10.3		5.5	7.6	16.6	Jz |	6	8.4
Potassium-40	901.1	-	-13		26	47	2		26	43	-18		26	48	8		29	45
Ra-223	901.1	-	23		24	59	-		-	-	-		-	-	-		-	-
Radium-226	901.1	5	-45		55	87	-40		56	81	-38		55	84	-		-	-
Thallium-208	901.1	-	-0.9		2.7	4.3	0.3		2.5	3.9	0		2.9	4.5	1.1		2.8	4.1
Thorium-234	901.1	-	5		46	150	7		48	150	-4		47	150	-3		48	150
Uranium-235	901.1	-	-9		12	23	2		15	22	2		15	24	7		15	22
Radium-226	903.1M	5	0.025		0.078	0.15	0.04		0.15	0.29	0.1		0.12	0.19	0.18		0.14	0.2
Strontium-90	905	8	0.38		0.65	1.1	-0.2		3	1.6	0.67		0.46	0.76	-0.16		0.25	0.45
Tritium	906	20000 *	90		170	210	20		220	310	-80		210	260	-110		220	300
Gross Alpha	9310	15	8.1	|C	4.1	4.9	-1.2	|C	2.1	5.8	6.5	|C	4.9	6.6	1.9	|C	4.3	7.9
Gross Beta	9310	50	1	|C	2.4	4.1	0.7	|C	3.1	5.5	2.9	|C	4.7	7.9	2	|C	4	6.8
Americium-241	LAS108	-	0.018		0.02	0.016	-0.033	Jm |	0.04	0.078	-0.005		0.04	0.064	-		-	-
Plutonium-241	LAS178	-	-1.2	Jl |	2.6	3.1	-0.2		1.5	1.8	-0.5	Jz |	1.8	1.2	-		-	-
Carbon-14	LSC	-	33		75	92	-34		77	100	43		86	110	-		-	-

TABLE A.5
ANALYTICAL RESULTS FOR GROUNDWATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	UCD1-4 FALL				UCD2-14 WINTER				UCD2-14 SPRING				UCD2-14 SUMMER			
			Value		Error	MDA	Value		Error	MDA	Value		Error	MDA	Value		Error	MDA
Actinium-228	901.1	-	-0.1		7.2	13	-14		11	41	29		17	26	3		18	31
Bismuth-212	901.1	-	-5.5		9.8	27	11		46	63	18		48	68	-		-	-
Bismuth-214	901.1	-	10.6		6.1	8	14		13	18	2		13	19	9		14	20
Cesium-134	901.1	-	-		-	-	-		-	-	-		-	-	-3.2		2.7	6.8
Cesium-137	901.1	-	-1		1	3.3	3.6		4.9	7.9	1.9		6.6	8.7	-0.6		5.4	9.5
Cobalt-57	901.1	-	-		-	-	-		-	-	-		-	-	2.5		2.5	3.9
Cobalt-60	901.1	-	-0.5		1	3.6	-1.3		3.7	7.9	-2.7		3.4	12	-2.5		3.2	12
Lead-210	901.1	-	70		290	400	0		100	170	0		100	160	-		-	-
Lead-212	901.1	-	1.2		4.9	7.4	-4.7		9.6	15	3		10	14	-2.9		9.8	15
Lead-214	901.1	-	7.5		5.3	8.3	7		12	20	-3		11	18	23	Je |	12	17
Potassium-40	901.1	-	-4		25	44	-8		56	97	-12		66	110	16		69	110
Ra-223	901.1	-	-13		13	66	-		-	-	-		-	-	-		-	-
Radium-226	901.1	5	-4		54	82	-350		120	180	-280		120	170	-		-	-
Thallium-208	901.1	-	1		2.8	4.1	0.9		7.5	11	2.2		7	9.9	-0.3		7.1	11
Thorium-234	901.1	-	-2		48	160	-26		67	160	-26		64	150	40		100	160
Uranium-235	901.1	-	-3		15	22	11		27	41	15		26	37	7		28	44
Radium-226	903.1M	5	0.133		0.1	0.14	0.46		0.26	0.29	0.11		0.16	0.26	0.04		0.13	0.24
Strontium-90	905	8	0.06		0.66	1.1	-0.6		1.7	1	-0.37	J`m |	0.49	0.87	1.06		0.56	0.9
Tritium	906	20000 *	-30		160	220	590		240	260	5320		500	220	5590		600	300
Gross Alpha	9310	15	1	|C	3	5.7	2	|C	3.7	6.7	1.2	Jm |C	3.5	7	3.1	|C	4.9	8.5
Gross Beta	9310	50	1.7	|C	2	3.4	2.7	Jd |C	3.5	5.9	1.9	|C	4.7	8	6.1	|C	4.6	7.3
Americium-241	LAS108	-	-		-	-	0.002	Jm |	0.031	0.054	0.014		0.018	0.024	0.029		0.035	0.046
Plutonium-241	LAS178	-	-		-	-	-0.8		1.4	1.9	0.6	Jc |	1.5	1.7	0.7	Jc |	2.8	3.5
Carbon-14	LSC	-	-		-	-	64		88	110	460		130	130	510		120	100

TABLE A.5
ANALYTICAL RESULTS FOR GROUNDWATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	UCD2-14 FALL				UCD2-15 WINTER				UCD2-15 SPRING				UCD2-15 SUMMER			
			Value		Error	MDA	Value		Error	MDA	Value		Error	MDA	Value		Error	MDA
Actinium-228	901.1	-	-1.1		7.8	15	100		130	180	12		22	34	-31		17	39
Bismuth-212	901.1	-	9		17	22	-90		190	340	32		47	61	-		-	-
Bismuth-214	901.1	-	16.1		6.5	8.1	-17		77	110	18		15	19	6	Jz |	14	20
Cesium-134	901.1	-	-		-	-	-		-	-	-		-	-	-0.4		3.1	7.7
Cesium-137	901.1	-	-1.5		1.3	3.8	4		39	49	0.4		6.4	9.1	5.1		4.2	6.2
Cobalt-57	901.1	-	-		-	-	-		-	-	-		-	-	-0.3		2.4	4.2
Cobalt-60	901.1	-	-1		1	2.8	-16		16	56	-1.4		2.7	10	-2.6		2.3	11
Lead-210	901.1	-	-120		500	750	400		1400	2000	60		110	180	-		-	-
Lead-212	901.1	-	0.2		4.9	7.5	42		53	69	-6.1		9.8	15	1		9.5	14
Lead-214	901.1	-	9.8		5.6	8.4	-23		64	100	28		13	17	3	Jz |	11	18
Potassium-40	901.1	-	-1		26	44	-30		450	670	30		69	100	-3		70	110
Ra-223	901.1	-	8		25	64	-		-	-	-		-	-	-		-	-
Radium-226	901.1	5	-28		57	85	150		650	940	10		120	180	-		-	-
Thallium-208	901.1	-	0.2		2.7	4.1	4		42	57	-1.4		6.5	10	2.9		7.5	10
Thorium-234	901.1	-	34		48	180	-250		350	790	-41		68	160	-32		97	150
Uranium-235	901.1	-	-2		15	23	-120		100	210	-13		27	42	-29		15	45
Radium-226	903.1M	5	0.22		0.12	0.15	0.22		0.2	0.29	0.098		0.098	0.15	0.082		0.096	0.15
Strontium-90	905	8	0.5		0.62	1	-0.5		3.9	1.8	0.27		0.46	0.77	-0.02		0.28	0.5
Tritium	906	20000 *	1670		320	240	140		240	310	-40		210	260	10		230	300
Gross Alpha	9310	15	3.5	|C	4.2	7	1.2	|C	2.8	5.1	1.9	|C	2.8	4.8	0.6	|C	1.8	3.4
Gross Beta	9310	50	8.8	|C	2.8	4	1	|C	2.5	4.4	0.3	|C	2.5	4.4	4.1		2.4	3.7
Americium-241	LAS108	-	0.037		0.03	0.017	0.009	Jm |	0.058	0.094	0.005		0.049	0.073	-		-	-
Plutonium-241	LAS178	-	-0.1	Jl |	2.8	3.5	-0.3		1.5	1.8	-0.2	Jz |	1.8	1.2	-		-	-
Carbon-14	LSC	-	236		89	92	2		80	110	7		83	110	-		-	-

TABLE A.5
ANALYTICAL RESULTS FOR GROUNDWATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	UCD2-15 FALL				UCD2-16 WINTER				UCD2-16 SPRING				UCD2-16 SUMMER			
			Value		Error	MDA	Value		Error	MDA	Value		Error	MDA	Value		Error	MDA
Actinium-228	901.1	-	-6		12	16	5		21	37	-5.1		7.8	15	4		20	34
Bismuth-212	901.1	-	-20.1		2.9	28	37		46	56	3		18	26	-		-	-
Bismuth-214	901.1	-	5.4		7.1	7.2	-11		11	18	7.5		5.7	8	-2	Jz |	12	20
Cesium-134	901.1	-	-		-	-	-		-	-	-		-	-	0.5		3.3	7.5
Cesium-137	901.1	-	0.1		2	3.4	-5		3.5	11	-0.5		1.3	3.5	3.5		4.5	7.4
Cobalt-57	901.1	-	-		-	-	-		-	-	-		-	-	-0.4		2.5	4.5
Cobalt-60	901.1	-	-1.29		0.53	3.8	-0.1		1.4	9.5	-0.2		1.5	3.1	-2.6		3.2	12
Lead-210	901.1	-	-7		61	70	-40		110	180	110		290	410	-		-	-
Lead-212	901.1	-	0.7		5.3	5.8	3.2		9.9	14	-2.9		4.7	7.8	-1		8.9	13
Lead-214	901.1	-	2.5		6.1	7	3		11	17	8.3		5.3	7.6	8	Jz |	11	18
Potassium-40	901.1	-	1		39	45	-48		68	130	4		28	46	24		75	110
Ra-223	901.1	-	11		26	57	-		-	-	-		-	-	-		-	-
Radium-226	901.1	5	-80		64	69	-50		110	180	-52		57	84	-		-	-
Thallium-208	901.1	-	2.1		3.9	3.9	-5		7.6	12	-1.1		2.9	4.6	2.6		7.3	10
Thorium-234	901.1	-	12		37	64	-1		66	150	28		47	140	11		97	150
Uranium-235	901.1	-	4		14	15	-4		22	41	-4		15	23	-20.6		7.4	44
Radium-226	903.1M	5	0.122		0.1	0.15	0.32		0.18	0.19	0		0.08	0.17	0.065		0.1	0.17
Strontium-90	905	8	-0.1		0.81	1.4	-0.7		3.7	1.7	0.75		0.49	0.8	0.13		0.26	0.45
Tritium	906	20000 *	10		170	240	250		250	310	-40		220	260	20		230	300
Gross Alpha	9310	15	0.5	|C	2.7	5.1	2.1	|C	3.1	5.3	2.4	|C	2.6	4.1	2.5	|C	2.9	4.7
Gross Beta	9310	50	0.6	|C	2	3.5	0.9	|C	2.9	5.1	1.4	|C	2.7	4.6	0.5	|C	2.5	4.4
Americium-241	LAS108	-	-		-	-	-0.029	Jm |	0.07	0.13	0.036		0.057	0.078	-		-	-
Plutonium-241	LAS178	-	-		-	-	-1.5		1.8	2.8	-0.1	Jz |	1.8	1.2	-		-	-
Carbon-14	LSC	-	-		-	-	-4		79	100	35		85	110	-		-	-

TABLE A.5
ANALYTICAL RESULTS FOR GROUNDWATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	UCD2-17 WINTER				UCD2-17 SPRING				UCD2-26 FALL				UCD2-27Z4 FALL			
			Value		Error	MDA	Value		Error	MDA	Value		Error	MDA	Value		Error	MDA
Actinium-228	901.1	-	-92		56	240	-3.1		7.8	15	19		28	34	5.4		6.5	10
Bismuth-212	901.1	-	70		280	350	-4		16	24	11		64	66	13		14	15
Bismuth-214	901.1	-	-108		30	130	14.2		6.5	8.2	-7		20	25	5.7		5	7.2
Cesium-134	901.1	-	-		-	-	-		-	-	-		-	-	-		-	-
Cesium-137	901.1	-	-6		27	49	-0.9		1.9	3.6	3.7		4.9	7.4	-1.6		1.5	2.7
Cobalt-57	901.1	-	-		-	-	-		-	-	-		-	-	-		-	-
Cobalt-60	901.1	-	30		20	56	-0.58		0.81	2.7	-0.1		5.6	8.8	-0.74		0.74	3
Lead-210	901.1	-	-500		1300	2000	-120		290	430	-110		680	710	40		260	340
Lead-212	901.1	-	31		56	74	3.7		5.2	7.6	-7		18	21	0.5		4.4	6.3
Lead-214	901.1	-	-22		62	95	9.1		5.4	8	-6		18	23	8.2		4.5	6.2
Potassium-40	901.1	-	-90		420	660	-1		28	46	-84		90	110	2		23	34
Ra-223	901.1	-	-		-	-	-		-	-	17		52	150	11		15	47
Radium-226	901.1	5	-2560		730	960	-337		67	86	-290		210	220	27		49	67
Thallium-208	901.1	-	8		43	60	-0.1		2.9	4.4	-5		10	12	0.2		2.5	3.5
Thorium-234	901.1	-	50		340	720	34		48	150	30		140	300	-23		41	130
Uranium-235	901.1	-	180		150	190	22		15	21	26		51	53	-15		10	18
Radium-226	903.1M	5	0.22		0.2	0.29	0.16		0.13	0.17	0.66		0.34	0.4	0.18		0.13	0.18
Strontium-90	905	8	-0.2		1.5	1.2	0.14	Jm |	0.55	0.94	0.59		0.59	0.97	0.13		0.27	0.46
Tritium	906	20000 *	40		180	260	40		170	220	-60		170	250	10		170	240
Gross Alpha	9310	15	46.8	|C	9.1	4.9	1.2	Jm |C	2.2	3.9	1.2	|C	2.7	4.9	-0.5	|C	2.2	4.7
Gross Beta	9310	50	16.2	Jd |	3.4	3.9	2.7		2	3.2	3.2	|C	2.4	3.8	0.3		1.7	2.9
Americium-241	LAS108	-	-0.062	Jm |	0.06	0.12	0.023		0.026	0.021	0.014		0.02	0.019	0.017		0.025	0.035
Plutonium-241	LAS178	-	-0.3		1.2	1.5	1.8	Jc |	1.9	2.4	0.2		2.2	2.7	0.6		2.2	2.4
Carbon-14	LSC	-	-19		81	110	3		84	110	4		83	100	-3		82	100

TABLE A.5
ANALYTICAL RESULTS FOR GROUNDWATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	UCD2-27Z5 FALL			UCD2-27Z6 FALL			UCD2-27Z7 FALL			UCD2-35 FALL		
			Value	Error	MDA	Value	Error	MDA	Value	Error	MDA	Value	Error	MDA
Actinium-228	901.1	-	3.7	7.6	12	0.1	7.3	12	-0.6	7.3	14	7.2	7.4	12
Bismuth-212	901.1	-	-1	17	24	9	17	22	1	17	24	7	16	21
Bismuth-214	901.1	-	8.3	6	8.8	24.2	7.2	8	9.3	5.8	7.9	5.1	5.6	8.3
Cesium-134	901.1	-	-	-	-	-	-	-	-	-	-	-	-	-
Cesium-137	901.1	-	-0.4	1.8	3.2	-2.3	1.2	3.7	1	1.7	2.7	-1.6	1.1	3.5
Cobalt-57	901.1	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt-60	901.1	-	-0.2	1.5	3.6	-0.29	0.88	2.4	-1.76	0.8	3.9	-0.71	0.85	3.3
Lead-210	901.1	-	30	290	400	60	300	420	70	280	390	40	270	390
Lead-212	901.1	-	2.6	5.1	7.6	-0.7	5.1	7.9	1	5	7.6	-1	5	7.7
Lead-214	901.1	-	9.5	5.4	8.1	26.8	6.6	8.2	6.9	5.3	8	2.3	5.1	8.1
Potassium-40	901.1	-	-5	25	43	0	28	47	-13	25	44	6	27	44
Ra-223	901.1	-	0	20	68	8	24	63	-2	20	70	-12	12	64
Radium-226	901.1	5	32	58	84	-7	55	84	18	57	83	-5	55	83
Thallium-208	901.1	-	0.1	2.8	4.2	-0.1	2.7	4.2	1.6	2.8	4.1	0.3	2.7	4.1
Thorium-234	901.1	-	4	49	140	-18	47	150	-19	46	150	-12	46	140
Uranium-235	901.1	-	-11	12	23	-8.4	4.1	24	-12.1	8.8	25	-4	15	23
Radium-226	903.1M	5	0.05	0.11	0.2	0.1	0.12	0.21	1.05	0.3	0.19	0.69	0.19	0.15
Strontium-90	905	8	-0.05	0.28	0.5	0.03	0.26	0.46	-0.06	0.26	0.46	-0.12	0.65	1.1
Tritium	906	20000 *	-90	160	240	-140	160	250	110	190	250	20	160	220
Gross Alpha	9310	15	1.1 |C	2.2	3.9	0.2 |C	2.4	4.9	2.1 |C	2.9	4.9	1.3 |C	2.4	4.3
Gross Beta	9310	50	0.4	1.4	2.5	0.7	1.7	3	1.1 |C	1.8	3.1	2.2 |C	2	3.2
Americium-241	LAS108	-	0.024	0.029	0.036	0.014	0.02	0.019	0.039	0.032	0.03	0.023	0.026	0.03
Plutonium-241	LAS178	-	-0.1	1.9	2.4	0.6	1.9	2.2	0.8	2.2	2.4	3.3 JI |	3.7	4.8
Carbon-14	LSC	-	-3	82	100	23	84	100	12	84	100	19	74	92

TABLE A.5
ANALYTICAL RESULTS FOR GROUNDWATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	UCD2-7 WINTER				UCD2-7 WINTER D1				UCD2-7 SPRING				UCD2-7 SUMMER			
			Value		Error	MDA	Value		Error	MDA	Value		Error	MDA	Value		Error	MDA
Actinium-228	901.1	-	-70		120	220	8		12	19	-14		15	46	-3.4		5.1	14
Bismuth-212	901.1	-	0		270	460	-10		14	41	12		51	69	-		-	-
Bismuth-214	901.1	-	-42		73	130	-0.6		7.5	12	42		17	19	25.2	Jz |	7.3	8.1
Cesium-134	901.1	-	-		-	-	-		-	-	-		-	-	0.4		1.3	2.7
Cesium-137	901.1	-	0		45	63	-2.2		1.6	5	-1.9		5.1	9.5	0.2		1.8	3.1
Cobalt-57	901.1	-	-		-	-	-		-	-	-		-	-	-0.8		1.5	2.7
Cobalt-60	901.1	-	-15		34	94	1.3		1.8	4	-0.7		3.3	11	-0.28		0.51	2.8
Lead-210	901.1	-	-100		1500	2400	-40		440	630	2		99	160	-		-	-
Lead-212	901.1	-	-27		66	100	2.7		7.8	11	13		10	14	2.3		5.4	8
Lead-214	901.1	-	-24		57	120	2.9		6.7	10	35		13	17	26.1	Jz |	6.7	8.4
Potassium-40	901.1	-	400		520	710	14		37	58	73		70	88	0		26	44
Ra-223	901.1	-	-		-	-	-		-	-	-		-	-	-		-	-
Radium-226	901.1	5	-400		750	1200	-20		83	130	-80		110	180	-		-	-
Thallium-208	901.1	-	8		46	66	-3.5		4.2	6.9	0.7		7.2	10	0.4		2.8	4.2
Thorium-234	901.1	-	-310		390	930	16		68	210	5		67	160	-4		48	150
Uranium-235	901.1	-	10		170	250	-3		18	32	-27		17	47	-3		15	24
Radium-226	903.1M	5	0.07		0.13	0.24	0.24		0.14	0.055	0.21		0.14	0.18	0.111		0.1	0.15
Strontium-90	905	8	-0.8		3.8	1.8	-0.7		3.2	1.5	0.78		0.51	0.83	0.17		0.28	0.48
Tritium	906	20000 *	220		250	310	360		260	310	40		220	260	0		230	300
Gross Alpha	9310	15	0.9	|C	2.5	5	0.8	|C	3	6	4.5	|C	3.8	5.5	4.6	|C	3.3	4.5
Gross Beta	9310	50	1.9	|C	2.9	4.9	2	|C	3.2	5.4	1.8	|C	3.2	5.4	9.6	|C	3.7	5.5
Americium-241	LAS108	-	0.036	Jm |	0.09	0.14	0.025	Jm |	0.052	0.08	-0.024		0.042	0.072	-		-	-
Plutonium-241	LAS178	-	0.8		1.6	1.9	-0.3		1.6	1.9	0.2	Jz |	1.8	1.2	-		-	-
Carbon-14	LSC	-	-1		80	110	19		81	100	-1		82	110	85		91	100

TABLE A.5
ANALYTICAL RESULTS FOR GROUNDWATER 1995
RADIONUCLIDES
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1 = Duplicate Sample

- = Parameter not analyzed or no MCL

DL = Detection Limit

MDA = Minimum Detectable Activity

*** = Proposed MCL for Tritium is 60,000 pCi/L**

a = Reported tritium activity of 50 pCi/L is suspected to belong to UCD1-20. The tritium activity for UCD1-20 was reported as 16,600 pCi/L which is more consistent with historical trend for UCD1-13.

b = Reported tritium activity of 16,600 pCi/L is suspected to belong to UCD1-13. The tritium activity for UCD1-13 was reported as 50 pCi/L which is more consistent with historical trend for UCD1-20.

See Appendix A for explanation of data qualifiers.

TABLE A.6
ANALYTICAL RESULTS FOR GROUNDWATER 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-1 WINTER		UCD1-1 SPRING		UCD1-1 SPRING D1		UCD1-1 SUMMER	UCD1-10 WINTER		UCD1-10 SPRING		UCD1-10 SUMMER
Ammonia-Nitrogen	mg/L	0.05	-		< 0.05		< 0.05		< 0.05		-	< 0.05		< 0.05		-
Calcium	mg/L	2	-		62		62.5		62.7		-	45.6		47		-
Chloride	mg/L	1	250	S	6.2		7.8		7.7		-	39		38		-
Magnesium	mg/L	2	-		154		153		154		-	170		177		-
Nitrogen, Nitrate (as N)	mg/L	0.1	10	#	17		16		16		17	36		36		37
Phosphate, Total (as P)	mg/L	1	-		< 1		< 1		< 1		-	< 1		< 1		-
Potassium	mg/L	2	-		< 2	|U	< 2	|U	< 2	|U	-	1.51	|B	0.862	|B	-
Sodium	mg/L	2	-		35.4		33.5		33.7		-	160		168		-
Sulfate	mg/L	1	250	S	27		27		27		-	290		270		-
Total Kjeldahl Nitrogen	mg/L	0.5	-		< 0.5		< 0.5		< 0.5		-	< 0.5		< 0.5		-
Alkalinity Total(as CaCO3)	mg/L	-	-		730		770		750		-	650		740		-

TABLE A.6
ANALYTICAL RESULTS FOR GROUNDWATER 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-10 FALL	UCD1-11 WINTER		UCD1-11 SPRING		UCD1-11 SUMMER	UCD1-12 WINTER	UCD1-12 SPRING		UCD1-12 SUMMER
Ammonia-Nitrogen	mg/L	0.05	-		-	< 0.05		< 0.05		-	< 0.5	< 0.05		-
Calcium	mg/L	2	-		-	44.6		48.4		-	74	71.7		-
Chloride	mg/L	1	250	S	-	70		92		-	220	180		-
Magnesium	mg/L	2	-		-	116		127		-	227	218		-
Nitrogen, Nitrate (as N)	mg/L	0.1	10	#	36	27		30		27	65	58		72
Phosphate, Total (as P)	mg/L	1	-		-	< 1		< 1		-	< 1	< 1		-
Potassium	mg/L	2	-		-	< 2	|U	< 2	|U	-	2.01	1.48	|B	-
Sodium	mg/L	2	-		-	71.8		78.5		-	103	96.3		-
Sulfate	mg/L	1	250	S	-	43		43		-	91	78		-
Total Kjeldahl Nitrogen	mg/L	0.5	-		-	< 0.5		< 0.5		-	< 0.5	< 0.5		-
Alkalinity Total(as CaCO3)	mg/L	-	-		-	550		500		-	690	750		-

TABLE A.6
ANALYTICAL RESULTS FOR GROUNDWATER 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-12 FALL	UCD1-13 WINTER		UCD1-13 SPRING		UCD1-18 WINTER		UCD1-18 WINTER D1		UCD1-18 SPRING		UCD1-18 SUMMER
Ammonia-Nitrogen	mg/L	0.05	-		-	4.4		< 0.05		< 0.05		< 0.05		< 0.05		-
Calcium	mg/L	2	-		-	73.2		75.4		39.5		40.2		46.1		-
Chloride	mg/L	1	250	S	-	39		36		43		44		39		-
Magnesium	mg/L	2	-		-	187		191		96.9		97.7		112		-
Nitrogen, Nitrate (as N)	mg/L	0.1	10	#	59	19		17		14		14		19		23
Phosphate, Total (as P)	mg/L	1	-		-	< 1		< 1		< 1		< 1		< 1		-
Potassium	mg/L	2	-		-	1.01	|B	1.4	|B	< 2	|U	< 2	|U	0.942	|B	-
Sodium	mg/L	2	-		-	58.4		58.9		39.7		39.9		42.3		-
Sulfate	mg/L	1	250	S	-	81		73		39		39		38		-
Total Kjeldahl Nitrogen	mg/L	0.5	-		-	< 0.5		< 0.5		< 0.5		< 0.5		< 0.5	|Z	-
Alkalinity Total(as CaCO3)	mg/L	-	-		-	460		860		400		380		460		-

TABLE A.6
ANALYTICAL RESULTS FOR GROUNDWATER 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-19 WINTER		UCD1-19 SPRING		UCD1-19 SPRING D1		UCD1-20 WINTER		UCD1-20 SPRING		UCD1-21 WINTER		UCD1-21 SPRING	
Ammonia-Nitrogen	mg/L	0.05	-		0.1		< 0.05		< 0.05		< 0.05		< 0.05		< 0.05		< 0.05	
Calcium	mg/L	2	-		57.9		60.1		60		25.2		25.4		54.9		56.6	
Chloride	mg/L	1	250	S	16		19		19		2.6		2.5		18		18	
Magnesium	mg/L	2	-		164		170		166		62.2		62.3		136		140	
Nitrogen, Nitrate (as N)	mg/L	0.1	10	#	16		19		19		6.4		6.1		56		56	
Phosphate, Total (as P)	mg/L	1	-		< 1		< 1		< 1		< 1		< 1		< 1		< 1	
Potassium	mg/L	2	-		< 2	|U	0.73	|B	1.13	|B	< 2	|U	< 2	|U	1.07	|B	0.879	|B
Sodium	mg/L	2	-		67.5		74.1		74		36.8		36.7		92.9		96.5	
Sulfate	mg/L	1	250	S	57		59		59		24		27		58		61	
Total Kjeldahl Nitrogen	mg/L	0.5	-		< 0.5		< 0.5		< 0.5		< 0.5		< 0.5		< 0.5		< 0.5	
Alkalinity Total(as CaCO3)	mg/L	-	-		820		820		870		330		330		590		620	

TABLE A.6
ANALYTICAL RESULTS FOR GROUNDWATER 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-22 WINTER		UCD1-22 SPRING		UCD1-23 WINTER		UCD1-23 SPRING		UCD1-24 WINTER		UCD1-24 SPRING		UCD1-25 FALL	
Ammonia-Nitrogen	mg/L	0.05	-		< 0.05		< 0.05		< 0.05		< 0.05		< 0.05		< 0.05		-	
Calcium	mg/L	2	-		36.5		38.8		46.3		51.7		51.9		58.7		49.4	
Chloride	mg/L	1	250	S	37		39		24		24		28		31		-	
Magnesium	mg/L	2	-		72.3		77.1		110		122		131		147		145	Jk |E
Nitrogen, Nitrate (as N)	mg/L	0.1	10	#	4.5		5		8.8		11		63		65		13	
Phosphate, Total (as P)	mg/L	1	-		< 1		< 1		< 1		< 1		< 1		< 1		-	
Potassium	mg/L	2	-		0.995	|B	1.46	|B	0.779	|B	0.793	|B	0.954	|B	0.799	|B	1.52	|B
Sodium	mg/L	2	-		88.7		97.6		42.7		45.2		74.2		82.3		80.1	
Sulfate	mg/L	1	250	S	33		32		30		30		45		40		-	
Total Kjeldahl Nitrogen	mg/L	0.5	-		< 0.5		< 0.5		< 0.5		< 0.5		< 0.5		< 0.5		-	
Alkalinity Total(as CaCO3)	mg/L	-	-		470		530		550		600		510		560		-	

TABLE A.6
ANALYTICAL RESULTS FOR GROUNDWATER 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-27Z1 FALL		UCD1-27Z2 FALL		UCD1-27Z3 FALL		UCD1-34 FALL		UCD1-4 WINTER		UCD1-4 SPRING		UCD1-4 SUMMER
Ammonia-Nitrogen	mg/L	0.05	-		-		-		-		-		< 0.05		< 0.05		-
Calcium	mg/L	2	-		34.5		39		39.6		35.5		44		58.2		-
Chloride	mg/L	1	250	S	-		-		-		-		42		35		-
Magnesium	mg/L	2	-		49.3		64.9		62.9		65	Jk |E	75.5		111		-
Nitrogen, Nitrate (as N)	mg/L	0.1	10	#	< 0.1		< 0.1		< 0.1		0.16		1.2		6.1		7.3
Phosphate, Total (as P)	mg/L	1	-		-		-		-		-		< 1		< 1		-
Potassium	mg/L	2	-		2.25	|B	1.26	|B	1.48	|B	1.79	|B	0.791	|B	< 2	|U	-
Sodium	mg/L	2	-		191		81.7		72.7		54.5		33.7		40.5		-
Sulfate	mg/L	1	250	S	-		-		-		-		34		40		-
Total Kjeldahl Nitrogen	mg/L	0.5	-		-		-		-		-		< 0.5		< 0.5		-
Alkalinity Total(as CaCO3)	mg/L	-	-		-		-		-		-		410		530		-

TABLE A.6
ANALYTICAL RESULTS FOR GROUNDWATER 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-4 FALL	UCD2-14 WINTER		UCD2-14 SPRING		UCD2-14 SUMMER		UCD2-14 SUMMER D1		UCD2-14 FALL		UCD2-15 WINTER	
Ammonia-Nitrogen	mg/L	0.05	-		-	< 0.05		< 0.05		-		-		-		0.064	
Calcium	mg/L	2	-		-	39		60.2		58.5		60.1		43.3		35.2	
Chloride	mg/L	1	250	S	-	34		32		-		-		-		19	
Magnesium	mg/L	2	-		-	85.4		146		137		142		101	Jk |E	60.8	
Nitrogen, Nitrate (as N)	mg/L	0.1	10	#	2.4	4.5		9.9		11		11		5.3		2.1	
Phosphate, Total (as P)	mg/L	1	-		-	< 1		< 1		-		-		-		< 1	
Potassium	mg/L	2	-		-	0.722	|B	0.718	|B	0.918	|B	< 2	|U	0.535	|B	0.931	|B
Sodium	mg/L	2	-		-	41.4		48.4		45		47.1		42.6		28.4	
Sulfate	mg/L	1	250	S	-	51		64		-		-		-		38	
Total Kjeldahl Nitrogen	mg/L	0.5	-		-	< 0.5		< 0.5		-		-		-		< 0.5	
Alkalinity Total(as CaCO3)	mg/L	-	-		-	420		700		-		-		-		310	

TABLE A.6
ANALYTICAL RESULTS FOR GROUNDWATER 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD2-15 SPRING		UCD2-15 SUMMER	UCD2-15 FALL	UCD2-16 WINTER		UCD2-16 SPRING		UCD2-16 SUMMER		UCD2-16 FALL	
Ammonia-Nitrogen	mg/L	0.05	-		< 0.05		-	-	< 0.05		< 0.05		-		-	
Calcium	mg/L	2	-		38.5		-	-	37.6		37.6		38.8		36.9	
Chloride	mg/L	1	250	S	23		-	-	18		18		-		-	
Magnesium	mg/L	2	-		66.8		-	-	63.9		66.3		66.4		65.1	Jk |E
Nitrogen, Nitrate (as N)	mg/L	0.1	10	#	2.7		2	1.8	4.1		3.9		4.5		-	
Phosphate, Total (as P)	mg/L	1	-		< 1		-	-	< 1		< 1		-		-	
Potassium	mg/L	2	-		< 2	|U	-	-	0.907	|B	< 2	|U	< 2	|U	< 2	|U
Sodium	mg/L	2	-		30.9		-	-	41.5		43.6		43.3		41.2	
Sulfate	mg/L	1	250	S	42		-	-	42		42		-		-	
Total Kjeldahl Nitrogen	mg/L	0.5	-		< 0.5		-	-	< 0.5		< 0.5		-		-	
Alkalinity Total(as CaCO3)	mg/L	-	-		340		-	-	350		380		-		-	

TABLE A.6
ANALYTICAL RESULTS FOR GROUNDWATER 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD2-17 WINTER		UCD2-17 SPRING		UCD2-17 SUMMER	UCD2-26 FALL		UCD2-27Z4 FALL		UCD2-27Z5 FALL		UCD2-27Z6 FALL	
Ammonia-Nitrogen	mg/L	0.05	-		< 0.05		< 0.05		-	-		-		-		-	
Calcium	mg/L	2	-		36.4		37.3		-	36.5		30.2		35.3		35.9	
Chloride	mg/L	1	250	S	20		16		-	-		-		-		-	
Magnesium	mg/L	2	-		61.1		62.3		-	66.5	Jk |E	64.2		67		61	
Nitrogen, Nitrate (as N)	mg/L	0.1	10	#	2.1		1.6		1.4	3.1		0.6		2.4		1.4	
Phosphate, Total (as P)	mg/L	1	-		< 1		< 1		-	-		-		-		-	
Potassium	mg/L	2	-		< 2	|U	< 2	|U	-	1.56	|B	1.12	|B	1.01	|B	< 2	|U
Sodium	mg/L	2	-		30.7		30.3		-	36.7		39.4		34.6		41.8	
Sulfate	mg/L	1	250	S	39		34		-	-		-		-		-	
Total Kjeldahl Nitrogen	mg/L	0.5	-		< 0.5		< 0.5		-	-		-		-		-	
Alkalinity Total(as CaCO3)	mg/L	-	-		320		330		-	-		-		-		-	

TABLE A.6
ANALYTICAL RESULTS FOR GROUNDWATER 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD2-27Z7 FALL		UCD2-35 FALL		UCD2-7 WINTER		UCD2-7 WINTER D1		UCD2-7 SPRING		UCD2-7 SUMMER
Ammonia-Nitrogen	mg/L	0.05	-		-		-		< 0.05		0.26		< 0.05		-
Calcium	mg/L	2	-		33.8		37.2		36.4		36.2		38.5		-
Chloride	mg/L	I	250	S	-		-		21		21		23		-
Magnesium	mg/L	2	-		58.1		63.8	Jk |E	78.7		77.8		86.4		-
Nitrogen, Nitrate (as N)	mg/L	0.1	10	#	1.2		1.2		12		10		12		21
Phosphate, Total (as P)	mg/L	1	-		-		-		< 1		< 1		< 1		-
Potassium	mg/L	2	-		0.888	|B	0.982	|B	0.698	|B	0.867	|B	< 2	|U	-
Sodium	mg/L	2	-		51.9		33.3		47.1		46.1		51.5		-
Sulfate	mg/L	1	250	S	-		-		41		40		43		-
Total Kjeldahl Nitrogen	mg/L	0.5	-		-		-		< 0.5		< 0.5		< 0.5		-
Alkalinity Total(as CaCO3)	mg/L	-	-		-		-		380		400		520		-

TABLE A.6
ANALYTICAL RESULTS FOR GROUNDWATER 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1 = Duplicate Sample

- = Parameter not analyzed or no MCL

DL = Detection Limit

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

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

 # = USEPA MCL

S = Secondary Drinking Water Standard

See Appendix A for explanation of data qualifiers.

TABLE A.7
ANALYTICAL RESULTS FOR GROUNDWATER 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL	UCD1-1 WINTER	UCD1-1 SPRING	UCD1-1 SPRING D1	UCD1-1 SUMMER	UCD1-1 FALL	UCD1-10 WINTER	UCD1-10 SPRING
Chemical Oxygen Demand	mg/L	50	-	< 50	< 50	< 50	-	-	< 50	< 50
EH-F	mvolt	-	-	141	150	150	-	-	153	155
Formaldehyde	mg/L	150	-	< 1 UJc |	-	-	-	-	< 1	-
Specific Conductance (EC-F)	umhos/cm	-	-	1236	1230	1230	2.77 RQ |	10.07 RQ |	1771	1748
Temperature-F	degC	-	-	19.1	19.2	19.2	21.33	16.44	18.6	18.7
Total Dissolved Solids	mg/L	20	500 S	860	830	810	-	-	1300	1300
Total Organic Carbon	mg/L	-	-	< 1	< 1	< 1	-	-	2.5	1.7
Turbidity	NTU	0.1	-	1.4	0.62	0.59	-	-	2.3	0.79
Turbidity-F	NTU	0.1	-	13.5	1.99	1.99	21.2	0.72	2.9	1.41
pH-F	std	-	-	6.84	7.15	7.15	7.63	7.4	7.24	7.22

TABLE A.7
ANALYTICAL RESULTS FOR GROUNDWATER 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-10 SUMMER		UCD1-10 FALL		UCD1-11 WINTER	UCD1-11 SPRING	UCD1-11 SUMMER		UCD1-12 WINTER		UCD1-12 SPRING
Chemical Oxygen Demand	mg/L	50	-		-		-		< 50	< 50	-		< 50		< 50
EH-F	mvolt	-	-		-		-		130	146	-		163		157
Formaldehyde	mg/L	150	-		-		-		< 1	-	-		< 1	UJc |	-
Specific Conductance (EC-F)	umhos/cm	-	-		3.91	RQ |	18.25	RQ |	986	1169	2.89	RQ |	2120		2000
Temperature-F	degC	-	-		22.78		21.4		18.6	18.6	23.28		19.1		19.7
Total Dissolved Solids	mg/L	20	500	S	1300		1300		810	830	-		1500		1300
Total Organic Carbon	mg/L	-	-		-		-		1.9	< 1	-		2.8		1.6
Turbidity	NTU	0.1	-		-		-		0.16	0.34	-		4.7		1.1
Turbidity-F	NTU	0.1	-		1.7		0.61		0.5	0.05	2		6.57		1.33
pH-F	std	-	-		7.67		8.1		7.37	7.63	7.69		7.02		7.2

TABLE A.7
ANALYTICAL RESULTS FOR GROUNDWATER 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-12 SUMMER		UCD1-12 SUMMER D1		UCD1-12 FALL		UCD1-12 FALL D1		UCD1-13 WINTER		UCD1-13 SPRING		UCD1-13 SUMMER	
Chemical Oxygen Demand	mg/L	50	-		-		-		-		-		< 50		< 50		-	
EH-F	mvolt	-	-		-		-		-		-		110		128		-	
Formaldehyde	mg/L	150	-		-		-		-		-		< 1	UJc |	-		-	
Specific Conductance (EC-F)	umhos/cm	-	-		5.56	RQ |	5.56	RQ |	18.6	RQ |	18.6	RQ |	1509		1461		2.79	RQ |
Temperature-F	degC	-	-		21.72		21.72		18.5		18.5		18.8		19.1		18.56	
Total Dissolved Solids	mg/L	20	500	S	1700		-		1400		-		1100		1000		1200	
Total Organic Carbon	mg/L	-	-		-		-		-		-		1.1		1.2		-	
Turbidity	NTU	0.1	-		-		-		-		-		0.52		0.24		-	
Turbidity-F	NTU	0.1	-		8.9		8.9		0.2		0.2		2.03		0.33		0.43	
pH-F	std	-	-		7.66		7.66		7.2		7.2		6.91		7.15		7.4	

TABLE A.7
ANALYTICAL RESULTS FOR GROUNDWATER 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-13 FALL		UCD1-13 FALL D1		UCD1-18 WINTER		UCD1-18 WINTER D1		UCD1-18 SPRING		UCD1-18 SUMMER		UCD1-19 WINTER	
Chemical Oxygen Demand	mg/L	50	-		-		-		< 50		< 50		< 50		-		< 50	
EH-F	mvolt	-	-		-		-		40		40		272		-		219	
Formaldehyde	mg/L	150	-		-		-		< 1	UJc |	< 1	UJc |	-		-		< 1	
Specific Conductance (EC-F)	umhos/cm	-	-		12.93	RQ |	12.93	RQ |	842		842		923		2	RQ |	1222	
Temperature-F	degC	-	-		20.9		20.9		18.2		18.2		18.5		21.44		19.4	
Total Dissolved Solids	mg/L	20	500	S	1100		1000		610		620		660	|C	-		1000	|H
Total Organic Carbon	mg/L	-	-		-		-		1		1		< 1		-		1.8	
Turbidity	NTU	0.1	-		-		-		1.7		1.7		0.89		-		0.42	
Turbidity-F	NTU	0.1	-		0.35		0.35		2.03		2.03		3.86		9.47		1.28	
pH-F	std	-	-		7.7		7.7		7.11		7.11		7.12		7.56		7.5	

TABLE A.7
ANALYTICAL RESULTS FOR GROUNDWATER 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-19 SPRING	UCD1-19 SPRING D1	UCD1-19 SUMMER		UCD1-19 FALL		UCD1-20 WINTER	UCD1-20 SPRING	UCD1-20 SUMMER	
Chemical Oxygen Demand	mg/L	50	-		< 50	< 50	-		-		< 50	< 50	-	
EH-F	mvolt	-	-		148	148	-		-		167	131	-	
Formaldehyde	mg/L	150	-		-	-	-		-		< 1	-	-	
Specific Conductance (EC-F)	umhos/cm	-	-		1425	1425	14.76	RQ |	15.83	RQ |	624	569	14.16	RQ |
Temperature-F	degC	-	-		19.7	19.7	23.11		20.2		19.4	20	23.94	
Total Dissolved Solids	mg/L	20	500	S	950	940	-		-		420	380	-	
Total Organic Carbon	mg/L	-	-		< 1	< 1	-		-		1.2	< 1	-	
Turbidity	NTU	0.1	-		< 0.1	0.69	-		-		< 0.1	0.17	-	
Turbidity-F	NTU	0.1	-		0.57	0.57	0.55		0.73		0.25	0.19	3.07	
pH-F	std	-	-		7.35	7.35	7.76		7.9		7.15	7.83	7.81	

TABLE A.7
ANALYTICAL RESULTS FOR GROUNDWATER 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL	UCD1-20 FALL	UCD1-21 WINTER	UCD1-21 SPRING	UCD1-22 WINTER	UCD1-22 SPRING	UCD1-22 SUMMER	UCD1-23 WINTER
Chemical Oxygen Demand	mg/L	50	-	-	< 50	< 50	< 50	< 50	-	< 50
EH-F	mvolt	-	-	-	175	260	122	262	-	148
Formaldehyde	mg/L	150	-	-	< 1	-	< 1	-	-	< 1
Specific Conductance (EC-F)	umhos/cm	-	-	6.5 RQ |	1407	1414	918	1017	2.41 RQ |	1007
Temperature-F	degC	-	-	21.3	20.1	20.1	19.6	20	23.56	19.1
Total Dissolved Solids	mg/L	20	500 S	-	1000	1000 |C	610	600 |C	580	670
Total Organic Carbon	mg/L	-	-	-	1.6	< 1	1.9	< 1	-	1.6
Turbidity	NTU	0.1	-	-	0.18	0.12	0.55	0.24	-	< 0.1
Turbidity-F	NTU	0.1	-	1.58	0.49	1.24	1.11	1.66	4.08	0.38
pH-F	std	-	-	7.9	7.18	7.14	7.19	7.28	7.43	6.98

TABLE A.7
ANALYTICAL RESULTS FOR GROUNDWATER 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-23 SPRING	UCD1-23 SUMMER		UCD1-24 WINTER	UCD1-24 SPRING	UCD1-25 FALL		UCD1-27Z1 FALL		UCD1-27Z2 FALL	
Chemical Oxygen Demand	mg/L	50	-		< 50	-		< 50	< 50	-		-		-	
EH-F	mvolt	-	-		248	-		140	272	-		-		-	
Formaldehyde	mg/L	150	-		-	-		< 1	-	-		-		-	
Specific Conductance (EC-F)	umhos/cm	-	-		1064	2.34	RQ |	1317	1999	13.88	RQ |	0.99	RQ |	0.54	RQ |
Temperature-F	degC	-	-		19.4	22		20.1	20.4	20		21.8		19.88	
Total Dissolved Solids	mg/L	20	500	S	690	-		970	1100	860		940		460	
Total Organic Carbon	mg/L	-	-		< 1	-		1.5	< 1	-		-		-	
Turbidity	NTU	0.1	-		< 0.1	-		< 0.1	< 0.1	-		-		-	
Turbidity-F	NTU	0.1	-		0.24	9.26		0.7	0.94	9.35		11.23		1.6	
pH-F	std	-	-		7.25	7.46		6.92	7.16	7.5		7.9		7.3	

TABLE A.7
ANALYTICAL RESULTS FOR GROUNDWATER 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		UCD1-27Z3 FALL		UCD1-34 FALL		UCD1-4 WINTER	UCD1-4 SPRING	UCD1-4 SUMMER		UCD1-4 FALL		UCD2-14 WINTER	
Chemical Oxygen Demand	mg/L	50	-		-		-		< 50	< 50	-		-		< 50	
EH-F	mvolt	-	-		-		-		128	149	-		-		82	
Formaldehyde	mg/L	150	-		-		-		< 1	-	-		-		< 1	UJc |
Specific Conductance (EC-F)	umhos/cm	-	-		0.6	RQ |	6.38	RQ |	533	994	2.35	RQ |	9.34	RQ |	767	
Temperature-F	degC	-	-		19.8		18.9		18.8	18.5	21.72		17.7		18.9	
Total Dissolved Solids	mg/L	20	500	S	490		470		500	640	670		550		530	
Total Organic Carbon	mg/L	-	-		-		-		1.7	< 1	-		-		< 1	
Turbidity	NTU	0.1	-		-		-		7.9	2.8	-		-		0.24	
Turbidity-F	NTU	0.1	-		9.81		13.1		14.01	5.26	19.2		1.09		0.44	
pH-F	std	-	-		7.4		7.9		6.91	7.17	7.26		7.66		7.27	

TABLE A.7
ANALYTICAL RESULTS FOR GROUNDWATER 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL	UCD2-14 SPRING	UCD2-14 SUMMER	UCD2-14 SUMMER D1	UCD2-14 FALL	UCD2-15 WINTER	UCD2-15 SPRING	UCD2-15 SUMMER
Chemical Oxygen Demand	mg/L	50	-	< 50	-	-	-	< 50	< 50	-
EH-F	mvolt	-	-	242	-	-	-	171	143	-
Formaldehyde	mg/L	150	-	-	-	-	-	< 1	-	-
Specific Conductance (EC-F)	umhos/cm	-	-	1176	2.39 RQ |	2.39 RQ |	9.23 RQ |	-	630	13.78 RQ |
Temperature-F	degC	-	-	19	17.72	17.72	17.4	18.2	18.2	23.39
Total Dissolved Solids	mg/L	20	500 S	840	860	850	600	420 |H	410	410
Total Organic Carbon	mg/L	-	-	< 1	-	-	-	1.6	< 1	-
Turbidity	NTU	0.1	-	< 0.1	-	-	-	< 0.1	< 0.1	-
Turbidity-F	NTU	0.1	-	0.66	1.98	1.98	0.33	-	0.19	0.75
pH-F	std	-	-	7.19	7.78	7.78	7.8	7.39	7.61	8.65

TABLE A.7
ANALYTICAL RESULTS FOR GROUNDWATER 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL	UCD2-15 FALL	UCD2-16 WINTER	UCD2-16 SPRING	UCD2-16 SUMMER	UCD2-16 FALL	UCD2-17 WINTER	UCD2-17 SPRING
Chemical Oxygen Demand	mg/L	50	-	-	< 50	< 50	-	-	< 50	< 50
EH-F	mvolt	-	-	-	129	128	-	-	146	236
Formaldehyde	mg/L	150	-	-	< 1	-	-	-	< 1 UJc |	-
Specific Conductance (EC-F)	umhos/cm	-	-	7.48 RQ |	706	1461	16.17 RQ |	8.26 RQ |	619	610
Temperature-F	degC	-	-	18.4	18.6	19.1	20.67	20.5	18.3	18.6
Total Dissolved Solids	mg/L	20	500 S	420	480 |H	440	470	430	420	410 |C
Total Organic Carbon	mg/L	-	-	-	1.5	< 1	-	-	< 1	< 1
Turbidity	NTU	0.1	-	-	0.12	< 0.1	-	-	< 0.1	< 0.1
Turbidity-F	NTU	0.1	-	0.2	0.06	0.33	0.12	3.35	0.1	0.18
pH-F	std	-	-	8.14	7.26	7.15	7.58	8.07	7.43	7.35

TABLE A.7
ANALYTICAL RESULTS FOR GROUNDWATER 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL	UCD2-17 SUMMER		UCD2-26 FALL		UCD2-27Z4 FALL		UCD2-27Z5 FALL		UCD2-27Z6 FALL		UCD2-27Z7 FALL		UCD2-35 FALL	
Chemical Oxygen Demand	mg/L	50	-	-		-		-		-		-		-		-	
EH-F	mvolt	-	-	-		-		-		-		-		-		-	
Formaldehyde	mg/L	150	-	-		-		-		-		-		-		-	
Specific Conductance (EC-F)	umhos/cm	-	-	1.24	RQ |	-	RQ |	0.5	RQ |	0.51	RQ |	0.49	RQ |	0.55	RQ |	11.6	RQ |
Temperature-F	degC	-	-	20.72		21.1		19.1		17.5		18.06		19.06		21	
Total Dissolved Solids	mg/L	20	500 S	-		420		410		450		440		440		460	
Total Organic Carbon	mg/L	-	-	-		-		-		-		-		-		-	
Turbidity	NTU	0.1	-	-		-		-		-		-		-		-	
Turbidity-F	NTU	0.1	-	2.83		3.1		1.5		0.28		0.56		0.62		12.9	
pH-F	std	-	-	7.69		7.8		7.6		9		8.2		8.8		8.1	

TABLE A.7
ANALYTICAL RESULTS FOR GROUNDWATER 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL	UCD2-7 WINTER	UCD2-7 WINTER D1	UCD2-7 SPRING	UCD2-7 SUMMER
Chemical Oxygen Demand	mg/L	50	-	< 50	< 50	< 50	-
EH-F	mvolt	-	-	99	99	195	-
Formaldehyde	mg/L	150	-	< 1	< 1	-	-
Specific Conductance (EC-F)	umhos/cm	-	-	747	747	818	1.85 RQ |
Temperature-F	degC	-	-	19	19	18.7	21.17
Total Dissolved Solids	mg/L	20	500 S	550	530	550	-
Total Organic Carbon	mg/L	-	-	2.1	1.4	< 1	-
Turbidity	NTU	0.1	-	< 0.1	< 0.1	0.14	-
Turbidity-F	NTU	0.1	-	0.33	0.33	0.12	0.68
pH-F	std	-	-	7.22	7.22	7.55	7.61

TABLE A.7
ANALYTICAL RESULTS FOR GROUNDWATER 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1 = Duplicate Sample

- = Parameter not analyzed or no MCL

DL = Detection Limit

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

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

S = Secondary Drinking Water Standard

See Appendix A for explanation of data qualifiers.

TABLE A.8
ANALYTICAL RESULTS FOR TRIP BLANKS 1995
VOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		TBGW0016 WINTER			TBGW0017 WINTER			TBGW0018 WINTER			TBGW0020 WINTER			TBSW0002 WINTER			TBSW0003 WINTER			TBGW0023 SPRING			TBGW0024 SPRING		
1,1,1-Trichloroethane	ug/L	1	200		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
1,1,2,2-Tetrachloroethane	ug/L	1	1		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
1,1,2-Trichloroethane	ug/L	1	5	#	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
1,1-Dichloroethane	ug/L	1	5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
1,1-Dichloroethene	ug/L	1	6		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
1,2-Dibromo-3-chloropropane	ug/L	1	-		< 1	Rc	U	< 1	Rc	U	< 1	Rc	U	< 1	Rc	U	< 1	Rc	U	< 2	Rc	U	< 1	Rc	U	< 1	Rc	U
1,2-Dibromoethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
1,2-Dichlorobenzene	ug/L	10	600	#	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
1,2-Dichloroethane	ug/L	1	0.5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
1,2-Dichloropropane	ug/L	1	5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
1,3-Dichlorobenzene	ug/L	10	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
1,4-Dichlorobenzene	ug/L	10	5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
2-Butanone	ug/L	5	-		< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 10	Rc	U	< 5		U	< 5		U
2-Hexanone	ug/L	5	-		< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 10		U	< 5		U	< 5		U
4-Methyl-2-Pentanone	ug/L	5	-		< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 10		U	< 5		U	< 5		U
Acetone	ug/L	5	-		< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 10	Rc	U	2.3	Jc	BJ	< 5	Rc	U
Benzene	ug/L	1	1		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
Bromochloromethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
Bromodichloromethane	ug/L	1	100	a	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
Bromoform	ug/L	1	100	a	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
Bromomethane	ug/L	1	-		< 1	Uz		< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
Carbon Disulfide	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
Carbon Tetrachloride	ug/L	1	0.5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
Chlorobenzene	ug/L	1	30		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
Chloroethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
Chloroform	ug/L	1	100	a	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
Chloromethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
Dibromochloromethane	ug/L	1	100	a	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
Ethyl Benzene	ug/L	1	680		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
Methylene Chloride	ug/L	2	5		< 2		U	< 2		U	< 2		U	< 2		U	< 2		U	< 4		U	< 2		U	< 2		U
Styrene	ug/L	1	100	#	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
Tetrachloroethene	ug/L	1	5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
Toluene	ug/L	1	1000	#	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
Trichloroethene	ug/L	1	5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
Vinyl Chloride	ug/L	1	0.5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
Xylenes (Total)	ug/L	1	1750		1.3			< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
cis-1,2-Dichloroethene	ug/L	1	6		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
cis-1,3-Dichloropropene	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
trans-1,2-Dichloroethene	ug/L	1	10		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U
trans-1,3-Dichloropropene	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 2		U	< 1		U	< 1		U

TABLE A.8
ANALYTICAL RESULTS FOR TRIP BLANKS 1995
VOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		TBGW0025 SPRING			TBGW0026 SPRING			TBGW0027 SPRING			TBSW0004 SPRING			TBGW0100 SUMMER			TBGW0101 SUMMER			TBGW0102 SUMMER			TBGW0103 SUMMER		
1,1,1-Trichloroethane	ug/L	1	200		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1,2,2-Tetrachloroethane	ug/L	1	1		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1,2-Trichloroethane	ug/L	1	5	#	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1-Dicbloroethane	ug/L	1	5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1-Dichloroethene	ug/L	1	6		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dibromo-3-chloropropane	ug/L	1	-		< 1	Rc	U	< 1	Rc	U	< 1	Rc	U	< 1	Rc	U	< 1	Rc	U	< 1	Rc	U	< 1	Rc	U	< 1	Rc	U
1,2-Dibromoethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichlorobenzene	ug/L	10	600	#	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichloroethane	ug/L	1	0.5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichloropropane	ug/L	1	5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,3-Dichlorobenzene	ug/L	10	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,4-Dichlorobenzene	ug/L	10	5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
2-Butanone	ug/L	5	-		< 5		U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U
2-Hexanone	ug/L	5	-		< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U
4-Methyl-2-Pentanone	ug/L	5	-		< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U
Acetone	ug/L	5	-		< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U
Benzene	ug/L	1	1		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromochloromethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromodichloromethane	ug/L	1	100	a	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromoform	ug/L	1	100	a	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromomethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Carbon Disulfide	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Carbon Tetrachloride	ug/L	1	0.5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Chlorobenzene	ug/L	1	30		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Chloroethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Chloroform	ug/L	1	100	a	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Chloromethane	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Dibromochloromethane	ug/L	1	100	a	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Ethyl Benzene	ug/L	1	680		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Methylene Chloride	ug/L	2	5		< 2		U	< 2		U	< 2		U	< 2		U	< 2		U	< 2		U	< 2		U	< 2		U
Styrene	ug/L	1	100	#	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Tetrachloroethene	ug/L	1	5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Toluene	ug/L	1	1000	#	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Trichloroethene	ug/L	1	5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Vinyl Chloride	ug/L	1	0.5		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Xylenes (Total)	ug/L	1	1750		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
cis-1,2-Dichloroethene	ug/L	1	6		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
cis-1,3-Dichloropropene	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
trans-1,2-Dichloroethene	ug/L	1	10		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
trans-1,3-Dichloropropene	ug/L	1	-		< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U

TABLE A.8
ANALYTICAL RESULTS FOR TRIP BLANKS 1995
VOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL	TBGW0104 SUMMER	TBGW0105 SUMMER	TBGW0113 FALL	TBGW0114 FALL	TBGW0115 FALL	TBGW0122 FALL	TBGW0123 FALL	TBGW0124 FALL
1,1,1-Trichloroethane	ug/L	1	200	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1,2,2-Tetrachloroethane	ug/L	1	1	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1,2-Trichloroethane	ug/L	1	5 #	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1-Dichloroethane	ug/L	1	5	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,1-Dichloroethene	ug/L	1	6	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dibromo-3-chloropropane	ug/L	1	-	< 1 U	< 1 Rc U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dibromoethane	ug/L	1	-	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dichlorobenzene	ug/L	10	600 #	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dichloroethane	ug/L	1	0.5	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,2-Dichloropropane	ug/L	1	5	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,3-Dichlorobenzene	ug/L	10	-	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
1,4-Dichlorobenzene	ug/L	10	5	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
2-Butanone	ug/L	5	-	< 5 U	< 5 Rc U	< 5 Rc U	< 5 Rc U	< 5 Rc U	< 5 Rc U	< 5 Rc U	< 5 Rc U
2-Hexanone	ug/L	5	-	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
4-Methyl-2-Pentanone	ug/L	5	-	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U
Acetone	ug/L	5	-	< 5 U	< 5 Rc U	2.3 Jc J	2.5 Jc J	< 5 Rc U	< 5 Rc U	< 5 Rc U	< 5 Rc U
Benzene	ug/L	1	1	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Bromochloromethane	ug/L	1	-	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Bromodichloromethane	ug/L	1	100 a	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Bromoform	ug/L	1	100 a	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Bromomethane	ug/L	1	-	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Carbon Disulfide	ug/L	1	-	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Carbon Tetrachloride	ug/L	1	0.5	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Chlorobenzene	ug/L	1	30	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Chloroethane	ug/L	1	-	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Chloroform	ug/L	1	100 a	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Chloromethane	ug/L	1	-	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Dibromochloromethane	ug/L	1	100 a	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Ethyl Benzene	ug/L	1	680	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Methylene Chloride	ug/L	2	5	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
Styrene	ug/L	1	100 #	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Tetrachloroethene	ug/L	1	5	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Toluene	ug/L	1	1000 #	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Trichloroethene	ug/L	1	5	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Vinyl Chloride	ug/L	1	0.5	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Xylenes (Total)	ug/L	1	1750	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
cis-1,2-Dichloroethene	ug/L	1	6	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
cis-1,3-Dichloropropene	ug/L	1	-	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
trans-1,2-Dichloroethene	ug/L	1	10	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
trans-1,3-Dichloropropene	ug/L	1	-	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U

TABLE A.8
ANALYTICAL RESULTS FOR TRIP BLANKS 1995
VOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

Parameter	Units	DL	MCL		TBGW0125 FALL			TBGW0126 FALL			TBGW0127 FALL			TBGW0128 FALL			TBGW0129 FALL			TBGW0130 FALL			TBGW0290 FALL			TBSW0051 FALL		
1,1,1-Trichloroethane	ug/L	1	200		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1,2,2-Tetrachloroethane	ug/L	1	1		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1,2-Trichloroethane	ug/L	1	5	#	< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1-Dichloroethane	ug/L	1	5		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1-Dichloroethene	ug/L	1	6		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dibromo-3-chloropropane	ug/L	1	-		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dibromoethane	ug/L	1	-		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichlorobenzene	ug/L	10	600	#	< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichloroethane	ug/L	1	0.5		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichloropropane	ug/L	1	5		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,3-Dichlorobenzene	ug/L	10	-		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,4-Dichlorobenzene	ug/L	10	5		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
2-Butanone	ug/L	5	-		< 5	Rc	U	< 5	Rc	U	< 25	Rc	U	< 5	Rc	U	< 5		U	< 5		U	< 5	Rc	U	< 5	Rc	U
2-Hexanone	ug/L	5	-		< 5		U	< 5		U	< 25		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U
4-Methyl-2-Pentanone	ug/L	5	-		< 5		U	< 5		U	< 25		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U
Acetone	ug/L	5	-		2.1	Jc	JB	< 5	Rc	U	< 25	Rc	U	< 5	Rc	U	< 5		U	< 5		U	2.2	Jz	JB	2.3	Jc	J
Benzene	ug/L	1	1		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromochloromethane	ug/L	1	-		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromodichloromethane	ug/L	1	100	a	< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromoform	ug/L	1	100	a	< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromomethane	ug/L	1	-		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Carbon Disulfide	ug/L	1	-		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Carbon Tetrachloride	ug/L	1	0.5		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Chlorobenzene	ug/L	1	30		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Chloroethane	ug/L	1	-		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Chloroform	ug/L	1	100	a	< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Chloromethane	ug/L	1	-		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Dibromochloromethane	ug/L	1	100	a	< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Ethyl Benzene	ug/L	1	680		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Methylene Chloride	ug/L	2	5		< 2		U	< 2		U	< 10		U	< 2		U	< 2		U	< 2		U	< 2		U	< 2		U
Styrene	ug/L	1	100	#	< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Tetrachloroethene	ug/L	1	5		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Toluene	ug/L	1	1000	#	< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Trichloroethene	ug/L	1	5		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Vinyl Chloride	ug/L	1	0.5		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Xylenes (Total)	ug/L	1	1750		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
cis-1,2-Dichloroethene	ug/L	1	6		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
cis-1,3-Dichloropropene	ug/L	1	-		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
trans-1,2-Dichloroethene	ug/L	1	10		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
trans-1,3-Dichloropropene	ug/L	1	-		< 1		U	< 1		U	< 5		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U

TABLE A.8
ANALYTICAL RESULTS FOR TRIP BLANKS 1995
VOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1 = Duplicate Sample
- = Parameter not analyzed or no MCL
DL = Detection Limit
< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.
MCL = Maximum Contaminant Level (primary), Title 22 Division 4 Chapter 15.
 # = USEPA MCL
a = MCL for total trihalomethanes, EPA, Region 9, PRG for specific trihalomethanes is less than this value.

See Appendix A for explanation of data qualifiers.

Appendix B

Surface Water and Storm Water Analytical Results

Appendix B

Surface Water and Storm Water Analytical Results

How to Read Appendix B Data Qualifiers

The key below defines the relationship between a given result and the associated data qualifiers, as presented in the tables of analytical results in Appendix B.

Key →	A	B	C	D
Example Data →	<	5.200	Uz	JB

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

In the example above, the chemical was analyzed for, but was qualified as not detected due to the bias introduced by contamination in the method blank associated with this analysis. Presence of the analyte in the method blank is noted by the laboratory qualifier, "B." The Consultants qualifier, "Uz," indicates that the analyte concentration is considered to be below the adjusted detection limit (quantitation limit) due to the level of contamination in the method blank.

DATA VALIDATION QUALIFIERS

Assigned by Consultants Data Review Team

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

Flag	Data Qualifier Definition
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
c	Calibration failure; poor or unstable response.
d	Laboratory duplicate imprecision.
e	Laboratory duplicate control sample imprecision.
f	Field duplicate imprecision.
h	Holding time violation.
k	Serial dilution imprecision.
l	Laboratory control sample recovery failure.
m	Matrix spike/matrix spike duplicate recovery failure.
o	Calibration blank contamination (metals/inorganics only).
p	Preparation blank contamination (metals/inorganics only).

r	Linearity failure in initial calibration.
s	Surrogate spike recovery failure (GC organics and GC/MS organics only).
z	Method blank contamination.

Lockheed Analytical Services
Data Qualifiers for Organic Analyses
(Revised 01/19/1994)

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

Lockheed Analytical Services
Data Qualifiers for Organic Analyses (contd)

a[1]	The spike recovery and/or RPD for matrix spike and matrix spike duplicates cannot be evaluated due to insufficient spiking level compared to the elevated sample analyte concentration.
b[1]	The RPD cannot be computed because the sample and/or duplicate concentration was below the RDL.

Lockheed Analytical Services
Data Qualifiers for Inorganic Analyes

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

Lockheed Analytical Services
Data Qualifiers for Radiochemical Analyes

For Use On the Analytical Data Reporting Forms	
B	Any constituent that was also detected in the associated blank whose concentration was greater than the reporting detection limit (RDL) and/or minimum detectable activity (MDA).
C	Presence of high TDS in sample required reduction of sample size which increased the MDA.
D	Constituent detected in the diluted sample.
E	Constituent concentration exceeded the calibration or attenuation curve range.
F	***For Alpha Spectrometry Only*** — FWHM exceed acceptance limits.
H	Sample analysis performed outside of method-specified maximum holding time requirement.
Y	Chemical yield exceeded acceptance limits.
For Use on the QC Data Reporting Forms	
*****	QC data (i.e., percent recovery data for laboratory control standard and matrix spike; and RPD for replicate analyses) exceeded acceptance limits.
a[1]	The spike recovery and/or RPD for matrix spike and duplicates cannot be evaluated due to insufficient spiking level compared to the elevated sample analyte concentration.
b[1]	The RPD cannot be computed because the sample and/or duplicate concentration was below the MDA.

TABLE B.1
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
VOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

Parameter	Units	DL	MCL	PCD WINTER			PCD SPRING			PCD SUMMER			PCD FALL			PCD FALL D1			PCU WINTER			PCU SPRING			PCU SPRING D1		
1,1,1-Trichloroethane	ug/L	1	200	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1,2,2-Tetrachloroethane	ug/L	1	1	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1,2-Trichloroethane	ug/L	1	5	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1-Dichloroethane	ug/L	1	5	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1-Dichloroethene	ug/L	1	6	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dibromo-3-chloropropane	ug/L	1	-	< 1	Rc	U	< 1	Rc	U	< 1	Rc	U	< 1		U	< 1		U	< 1	Rc	U	< 1	Rc	U	< 1	Rc	U
1,2-Dibromoethane	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichlorobenzene	ug/L	10	600	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichloroethane	ug/L	1	0.5	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichloropropane	ug/L	1	5	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,3-Dichlorobenzene	ug/L	10	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,4-Dichlorobenzene	ug/L	10	5	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 10		U	< 1		U	< 1		U
2-Butanone	ug/L	5	-	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U
2-Hexanone	ug/L	5	-	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U
4-Methyl-2-Pentanone	ug/L	5	-	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U
Acetone	ug/L	5	-	< 5	Rc	U	2.2	Uz	BJ	< 5	Rc	U	3.1	Jz	JB	2.8	Jz	JB	< 5	Rc	U	2.1	Uz	BJ	2.2	Uz	BJ
Benzene	ug/L	1	1	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromochloromethane	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromodichloromethane	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromoform	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromomethane	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Carbon Disulfide	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Carbon Tetrachloride	ug/L	1	0.5	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Chlorobenzene	ug/L	1	30	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Chloroethane	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Chloroform	ug/L	1	-	0.7		J	< 1		U	1.1			1.9	Jy		< 1		U	< 1		U	< 1		U	< 1		U
Chloromethane	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Dibromochloromethane	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Ethyl Benzene	ug/L	1	680	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Methylene Chloride	ug/L	2	5	< 2		U	< 2		U	< 2		U	< 2		U	< 2		U	< 2		U	< 2		U	< 2		U
Styrene	ug/L	1	100	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Tetrachloroethene	ug/L	1	5	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Toluene	ug/L	1	1000	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Trichloroethene	ug/L	1	5	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Vinyl Chloride	ug/L	1	0.5	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Xylenes (Total)	ug/L	1	1750	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
cis-1,2-Dichloroethene	ug/L	1	6	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
cis-1,3-Dichloropropene	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
trans-1,2-Dichloroethene	ug/L	1	10	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
trans-1,3-Dichloropropene	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U

See explanation at end of table

TABLE B.1
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
VOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

Parameter	Units	DL	MCL	PCU SUMMER			PCU SUMMER D1			PCU FALL			STPO WINTER			STPO WINTER D1			STPO SPRING			STPO SUMMER			STPO FALL		
1,1,1-Trichloroethane	ug/L	1	200	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1,2,2-Tetrachloroethane	ug/L	1	1	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1,2-Trichloroethane	ug/L	1	5	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1-Dichloroethane	ug/L	1	5	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,1-Dichloroethene	ug/L	1	6	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dibromo-3-chloropropane	ug/L	1	-	< 1	Rc	U	< 1	Rc	U	< 1		U	< 1	Rc	U	< 1	Rc	U	< 1	Rc	U	< 1	Rc	U	< 1		U
1,2-Dibromoethane	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichlorobenzene	ug/L	10	600	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichloroethane	ug/L	1	0.5	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,2-Dichloropropane	ug/L	1	5	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,3-Dichlorobenzene	ug/L	10	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
1,4-Dichlorobenzene	ug/L	10	5	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
2-Butanone	ug/L	5	-	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U	< 5	Rc	U
2-Hexanone	ug/L	5	-	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U
4-Methyl-2-Pentanone	ug/L	5	-	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U	< 5		U
Acetone	ug/L	5	-	< 5	Rc	U	< 5	Rc	U	2.8	Jz	JB	2.2	Jc	J	< 5	Rc	U	3.1	Uz	BJ	< 5	Rc	U	7.1	Jz	B
Benzene	ug/L	1	1	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromochloromethane	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Bromodichloromethane	ug/L	1	-	< 1		U	< 1		U	< 1		U	1			1.1			2.6	Jy		1.1			4.5		
Bromoform	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	1.8			< 1		U	2.9		
Bromomethane	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Carbon Disulfide	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Carbon Tetrachloride	ug/L	1	0.5	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Chlorobenzene	ug/L	1	30	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Chloroethane	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Chloroform	ug/L	1	-	< 1		U	< 1		U	< 1		U	3.7			3.4			2.2	Jy		5.3			2.5	Jy	
Chloromethane	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Dibromochloromethane	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	3.2			< 1		U	5.4		
Ethyl Benzene	ug/L	1	680	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Methylene Chloride	ug/L	2	5	< 2		U	< 2		U	< 2		U	7.4			7.1			< 2		U	40	Jz		1.6		J
Styrene	ug/L	1	100	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Tetrachloroethene	ug/L	1	5	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Toluene	ug/L	1	1000	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Trichloroethene	ug/L	1	5	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Vinyl Chloride	ug/L	1	0.5	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
Xylenes (Total)	ug/L	1	1750	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
cis-1,2-Dichloroethene	ug/L	1	6	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
cis-1,3-Dichloropropene	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
trans-1,2-Dichloroethene	ug/L	1	10	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U
trans-1,3-Dichloropropene	ug/L	1	-	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U	< 1		U

See explanation at end of table

TABLE B.1
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
VOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

Parameter	Units	DL	MCL	SWL00001 WINTER			SWL00002 WINTER			SWL00002 WINTER D1		
1,1,1-Trichloroethane	ug/L	1	200	< 1		|U	< 1		|U	< 1		|U
1,1,2,2-Tetrachloroethane	ug/L	1	1	< 1		|U	< 1		|U	< 1		|U
1,1,2-Trichloroethane	ug/L	1	5	< 1		|U	< 1		|U	< 1		|U
1,1-Dichloroethane	ug/L	1	5	< 1		|U	< 1		|U	< 1		|U
1,1-Dichloroethene	ug/L	1	6	< 1		|U	< 1		|U	< 1		|U
1,2-Dibromo-3-chloropropane	ug/L	1	-	< 1	Rc	|U	< 1	Rc	|U	< 1	Rc	|U
1,2-Dibromoethane	ug/L	1	-	< 1		|U	< 1		|U	< 1		|U
1,2-Dichlorobenzene	ug/L	10	600	< 1		|U	< 1		|U	< 1		|U
1,2-Dichloroethane	ug/L	1	0.5	< 1		|U	< 1		|U	< 1		|U
1,2-Dichloropropane	ug/L	1	5	< 1		|U	< 1		|U	< 1		|U
1,3-Dichlorobenzene	ug/L	10	-	< 1		|U	< 1		|U	< 1		|U
1,4-Dichlorobenzene	ug/L	10	5	< 1		|U	< 1		|U	< 1		|U
2-Butanone	ug/L	5	-	< 5	Rc	|U	< 5	Rc	|U	< 5	Rc	|U
2-Hexanone	ug/L	5	-	< 5		|U	< 5		|U	< 5		|U
4-Methyl-2-Pentanone	ug/L	5	-	< 5		|U	< 5		|U	< 5		|U
Acetone	ug/L	5	-	6	Jc		4.6	UJc	|BJ	8.8	Jc	
Benzene	ug/L	1	1	< 1		|U	< 1		|U	< 1		|U
Bromochloromethane	ug/L	1	-	< 1		|U	< 1		|U	< 1		|U
Bromodichloromethane	ug/L	1	-	< 1		|U	< 1		|U	< 1		|U
Bromoform	ug/L	1	-	< 1		|U	< 1		|U	< 1		|U
Bromomethane	ug/L	1	-	< 1		|U	< 1		|U	< 1		|U
Carbon Disulfide	ug/L	1	-	< 1		|U	< 1		|U	< 1		|U
Carbon Tetrachloride	ug/L	1	0.5	< 1		|U	< 1		|U	< 1		|U
Chlorobenzene	ug/L	1	30	< 1		|U	< 1		|U	< 1		|U
Chloroethane	ug/L	1	-	< 1		|U	< 1		|U	< 1		|U
Chloroform	ug/L	1	-	< 1		|U	< 1		|U	< 1		|U
Chloromethane	ug/L	1	-	< 1		|U	< 1		|U	< 1		|U
Dibromochloromethane	ug/L	1	-	< 1		|U	< 1		|U	< 1		|U
Ethyl Benzene	ug/L	1	680	< 1		|U	< 1		|U	< 1		|U
Methylene Chloride	ug/L	2	5	< 2		|U	< 2		|U	< 2		|U
Styrene	ug/L	1	100	< 1		|U	< 1		|U	< 1		|U
Tetrachloroethene	ug/L	1	5	< 1		|U	< 1		|U	< 1		|U
Toluene	ug/L	1	1000	0.99		|J	< 1		|U	< 1		|U
Trichloroethene	ug/L	1	5	< 1		|U	< 1		|U	< 1		|U
Vinyl Chloride	ug/L	1	0.5	< 1		|U	< 1		|U	< 1		|U
Xylenes (Total)	ug/L	1	1750	< 1		|U	< 1		|U	< 1		|U
cis-1,2-Dichloroethene	ug/L	1	6	< 1		|U	< 1		|U	< 1		|U
cis-1,3-Dichloropropene	ug/L	1	-	< 1		|U	< 1		|U	< 1		|U
trans-1,2-Dichloroethene	ug/L	1	10	< 1		|U	< 1		|U	< 1		|U
trans-1,3-Dichloropropene	ug/L	1	-	< 1		|U	< 1		|U	< 1		|U

See explanation at end of table

TABLE B.1
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
VOLATILE ORGANIC COMPOUNDS
ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

DI = Duplicate sample.

- = Parameter not analyzed. Storm water runoff available for sampling in March, 1995 only.

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

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

* = Proposed USEPA MCL.

= USEPA MCL.

See Appendix B for explanation of data qualifiers.

A = MCL for total trihalomethanes is 100 ug/L. Chloroform is the predominant trihalomethane detected at LEHR.

TABLE B.2
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

Parameter	Units	DL	MCL	PCD WINTER		PCD SPRING		PCU WINTER		PCU SPRING		PCU SPRING D1		STPO WINTER		STPO WINTER D1		STPO SPRING	
1,2,4-Trichlorobenzene	ug/L	10	70	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
1,2-Dichlorobenzene	ug/L	10	600 #	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
1,3-Dichlorobenzene	ug/L	10	-	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
1,4-Dichlorobenzene	ug/L	10	5	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
2,2'-oxybis(1-Chloropropane)	ug/L	10	-	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
2,4,5-Trichlorophenol	ug/L	25	-	< 29	U	< 26	U	< 29	U	< 27	U	< 27	U	< 29	U	< 29	U	< 26	U
2,4,6-Trichlorophenol	ug/L	10	-	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
2,4-Dichlorophenol	ug/L	10	70 #	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
2,4-Dimethylphenol	ug/L	10	-	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
2,4-Dinitrophenol	ug/L	25	-	< 29	U	< 26	U	< 29	U	< 27	U	< 27	U	< 29	U	< 29	U	< 26	U
2,4-Dinitrotoluene	ug/L	10	-	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
2,6-Dinitrotoluene	ug/L	10	-	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
2-Chloronaphthalene	ug/L	10	-	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
2-Chlorophenol	ug/L	10	-	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
2-Methyl-4,6-dinitrophenol	ug/L	25	-	< 29	U	< 26	U	< 29	U	< 27	U	< 27	U	< 29	U	< 29	U	< 26	U
2-Methylnaphthalene	ug/L	10	-	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
2-Methylphenol	ug/L	10	-	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
2-Nitroaniline	ug/L	25	-	< 29	U	< 26	U	< 29	U	< 27	U	< 27	U	< 29	U	< 29	U	< 26	U
2-Nitrophenol	ug/L	10	-	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
3,3'-Dichlorobenzidine	ug/L	10	-	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
3-Nitroaniline	ug/L	25	-	< 29	U	< 26	U	< 29	U	< 27	U	< 27	U	< 29	U	< 29	U	< 26	U
4-Bromophenyl Phenyl Ether	ug/L	10	-	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
4-Chloro-3-Methylphenol	ug/L	10	-	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
4-Chloroaniline	ug/L	10	-	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
4-Chlorophenyl Phenyl Ether	ug/L	10	-	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
4-Methylphenol	ug/L	10	-	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
4-Nitroaniline	ug/L	25	-	< 29	U	< 26	U	< 29	U	< 27	U	< 27	U	< 29	U	< 29	U	< 26	U
4-Nitrophenol	ug/L	25	-	< 29	U	< 26	U	< 29	U	< 27	U	< 27	U	< 29	U	< 29	U	< 26	U
Acenaphthene	ug/L	10	-	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
Acenaphthylene	ug/L	10	-	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U
Anthracene	ug/L	10	-	< 11	U	< 10	U	< 12	U	< 11	U	< 11	U	< 12	U	< 12	U	< 10	U

See explanation at end of table

TABLE B.2
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

Parameter	Units	DL	MCL	PCD WINTER		PCD SPRING		PCU WINTER		PCU SPRING		PCU SPRING D1		STPO WINTER		STPO WINTER D1		STPO SPRING	
Benzo(a)anthracene	ug/L	10	0.1 *	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Benzo(a)pyrene	ug/L	10	0.2	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Benzo(b)fluoranthene	ug/L	10	0.2 *	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Benzo(g,h,i)perylene	ug/L	10	-	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Benzo(k)fluoranthene	ug/L	10	0.2 *	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Benzyl Butyl Phthalate	ug/L	10	100 #	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Bis(2-Chloroethoxy)methane	ug/L	10	-	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Bis(2-Chloroethyl)ether	ug/L	10	-	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Bis(2-Ethylhexyl)phthalate	ug/L	10	4	< 11	|U	37	Uz |B	0.7	|J	2	Uz |BJ	10	Uz |BJ	3	|J	3	|J	2	Uz |BJ
Carbazole	ug/L	10	-	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Chrysene	ug/L	10	0.2 *	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Di-n-Butylphthalate	ug/L	10	-	3	|J	59	|B	< 12	|U	130	Jf |B	38	Jf |B	3	|J	2	|J	23	Uz |B
Di-n-Octylphthalate	ug/L	10	-	< 11	|U	< 10	UJc |U	< 12	|U	< 11	UJc |U	< 11	UJc |U	< 12	|U	< 12	|U	< 10	UJc |U
Dibenzo(a,h)anthracene	ug/L	10	0.3 *	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Dibenzofuran	ug/L	10	-	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Diethyl Phthalate	ug/L	10	-	< 11	|U	1	|J	< 12	|U	2	|J	1	|J	< 12	|U	< 12	|U	1	|J
Dimethyl Phthalate	ug/L	10	-	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Fluoranthene	ug/L	10	-	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Fluorene	ug/L	10	-	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Hexachlorobenzene	ug/L	10	1	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Hexachlorobutadiene	ug/L	10	-	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Hexachlorocyclopentadiene	ug/L	10	50	< 11	UJr |U	< 10	|U	< 12	UJr |U	< 11	|U	< 11	|U	< 12	UJr |U	< 12	UJr |U	< 10	|U
Hexachloroethane	ug/L	10	-	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Indeno(1,2,3-cd)pyrene	ug/L	10	0.4 *	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Isophorone	ug/L	10	-	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
N-Nitrosodi-n-propylamine	ug/L	10	-	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
N-Nitrosodiphenylamine	ug/L	10	-	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Naphthalene	ug/L	10	-	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Nitrobenzene	ug/L	10	-	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Pentachlorophenol	ug/L	25	1 #	< 29	|U	< 26	|U	< 29	|U	< 27	|U	< 27	|U	< 29	|U	< 29	|U	< 26	|U
Phenanthrene	ug/L	10	-	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Phenol	ug/L	10	-	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U
Pyrene	ug/L	10	-	< 11	|U	< 10	|U	< 12	|U	< 11	|U	< 11	|U	< 12	|U	< 12	|U	< 10	|U

See explanation at end of table

TABLE B.2
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

Parameter	Units	DL	MCL	SWL00001 WINTER		SWL00002 WINTER		SWL00002 WINTER D1	
1,2,4-Trichlorobenzene	ug/L	10	70	< 10	U	< 10	U	< 10	U
1,2-Dichlorobenzene	ug/L	10	600 #	< 10	U	< 10	U	< 10	U
1,3-Dichlorobenzene	ug/L	10	-	< 10	U	< 10	U	< 10	U
1,4-Dichlorobenzene	ug/L	10	5	< 10	U	< 10	U	< 10	U
2,2'-oxybis(1-Chloropropane)	ug/L	10	-	< 10	U	< 10	U	< 10	U
2,4,5-Trichlorophenol	ug/L	25	-	< 25	U	< 26	U	< 26	U
2,4,6-Trichlorophenol	ug/L	10	-	< 10	U	< 10	U	< 10	U
2,4-Dichlorophenol	ug/L	10	70 #	< 10	U	< 10	U	< 10	U
2,4-Dimethylphenol	ug/L	10	-	< 10	U	< 10	U	< 10	U
2,4-Dinitrophenol	ug/L	25	-	< 25	U	< 26	U	< 26	U
2,4-Dinitrotoluene	ug/L	10	-	< 10	U	< 10	U	< 10	U
2,6-Dinitrotoluene	ug/L	10	-	< 10	U	< 10	U	< 10	U
2-Chloronaphthalene	ug/L	10	-	< 10	U	< 10	U	< 10	U
2-Chlorophenol	ug/L	10	-	< 10	U	< 10	U	< 10	U
2-Methyl-4,6-dinitrophenol	ug/L	25	-	< 25	U	< 26	U	< 26	U
2-Methylnaphthalene	ug/L	10	-	< 10	U	< 10	U	< 10	U
2-Methylphenol	ug/L	10	-	< 10	U	< 10	U	< 10	U
2-Nitroaniline	ug/L	25	-	< 25	U	< 26	U	< 26	U
2-Nitrophenol	ug/L	10	-	< 10	U	< 10	U	< 10	U
3,3'-Dichlorobenzidine	ug/L	10	-	< 10	U	< 10	U	< 10	U
3-Nitroaniline	ug/L	25	-	< 25	U	< 26	U	< 26	U
4-Bromophenyl Phenyl Ether	ug/L	10	-	< 10	U	< 10	U	< 10	U
4-Chloro-3-Methylphenol	ug/L	10	-	< 10	U	< 10	U	< 10	U
4-Chloroaniline	ug/L	10	-	< 10	U	< 10	U	< 10	U
4-Chlorophenyl Phenyl Ether	ug/L	10	-	< 10	U	< 10	U	< 10	U
4-Methylphenol	ug/L	10	-	< 10	U	< 10	U	< 10	U
4-Nitroaniline	ug/L	25	-	< 25	U	< 26	U	< 26	U
4-Nitrophenol	ug/L	25	-	< 25	U	< 26	U	< 26	U
Acenaphthene	ug/L	10	-	< 10	U	< 10	U	< 10	U
Acenaphthylene	ug/L	10	-	< 10	U	< 10	U	< 10	U
Anthracene	ug/L	10	-	< 10	U	< 10	U	< 10	U

See explanation at end of table

TABLE B.2
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

Parameter	Units	DL	MCL	SWL00001 WINTER		SWL00002 WINTER		SWL00002 WINTER D1	
Benzo(a)anthracene	ug/L	10	0.1 *	< 10	|U	< 10	|U	< 10	|U
Benzo(a)pyrene	ug/L	10	0.2	< 10	|U	< 10	|U	< 10	|U
Benzo(b)fluoranthene	ug/L	10	0.2 *	< 10	|U	< 10	|U	< 10	|U
Benzo(g,h,i)perylene	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
Benzo(k)fluoranthene	ug/L	10	0.2 *	< 10	|U	< 10	|U	< 10	|U
Benzyl Butyl Phthalate	ug/L	10	100 #	0.8	|J	< 10	|U	< 10	|U
Bis(2-Chloroethoxy)methane	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
Bis(2-Chloroethyl)ether	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
Bis(2-Ethylhexyl)phthalate	ug/L	10	4	1	|J	< 10	|U	0.5	|J
Carbazole	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
Chrysene	ug/L	10	0.2 *	< 10	|U	< 10	|U	< 10	|U
Di-n-Butylphthalate	ug/L	10	-	6	Uz |BJ	8	Uz |BJ	5	Uz |BJ
Di-n-Octylphthalate	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
Dibenzo(a,h)anthracene	ug/L	10	0.3 *	< 10	|U	< 10	|U	< 10	|U
Dibenzofuran	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
Diethyl Phthalate	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
Dimethyl Phthalate	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
Fluoranthene	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
Fluorene	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
Hexachlorobenzene	ug/L	10	1	< 10	|U	< 10	|U	< 10	|U
Hexachlorobutadiene	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
Hexachlorocyclopentadiene	ug/L	10	50	< 10	|U	< 10	|U	< 10	|U
Hexachloroethane	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
Indeno(1,2,3-cd)pyrene	ug/L	10	0.4 *	< 10	|U	< 10	|U	< 10	|U
Isophorone	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
N-Nitrosodi-n-propylamine	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
N-Nitrosodiphenylamine	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
Naphthalene	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
Nitrobenzene	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
Pentachlorophenol	ug/L	25	1 #	< 25	|U	< 26	|U	< 26	|U
Phenanthrene	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
Phenol	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
Pyrene	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U

See explanation at end of table

TABLE B.2
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
SEMIVOLATILE ORGANIC COMPOUNDS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

DI = Duplicate sample.
- = Parameter not analyzed. Storm water runoff available for sampling in March, 1995 only.
< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.
MCL = Maximum Contaminant Level (primary), Title 22 Division 4 Chapter 15.
* = Proposed USEPA MCL.
# = USEPA MCL.
See Appendix B for explanation of data qualifiers.

TABLE B.3
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
PESTICIDES AND PCBS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

Parameter	Units	DL	MCL	PCD WINTER	PCD SPRING	PCD SUMMER	PCD FALL	PCD FALL D1	PCU WINTER	PCU SPRING	PCU SPRING D1
4,4'-DDD	ug/L	0.02	-	< 0.022 |U	< 0.022 UJs |U	< 0.02 UJs |U	< 0.02 UJs |U	< 0.02 UJs |U	< 0.024 |U	< 0.022 UJs |U	< 0.021 |U
4,4'-DDE	ug/L	0.02	-	< 0.022 |U	< 0.022 UJs |U	< 0.02 UJs |U	< 0.02 UJs |U	< 0.02 UJs |U	< 0.024 |U	< 0.022 UJs |U	< 0.021 |U
4,4'-DDT	ug/L	0.02	-	< 0.022 |U	< 0.022 UJs |U	< 0.02 UJs |U	< 0.02 UJs |U	< 0.02 UJs |U	< 0.024 |U	< 0.022 UJs |U	< 0.021 |U
Aldrin	ug/L	0.01	0.05 c	< 0.011 |U	< 0.011 UJs |U	< 0.01 UJs |U	< 0.01 UJs |U	< 0.01 UJs |U	< 0.012 |U	< 0.011 UJs |U	< 0.01 UJm |U
Alpha-BHC	ug/L	0.01	0.7 c	< 0.011 |U	< 0.011 UJs |U	< 0.01 UJs |U	< 0.01 UJs |U	< 0.01 UJs |U	< 0.012 |U	< 0.011 UJs |U	< 0.01 |U
Alpha-Chlordane	ug/L	0.01	-	< 0.011 |U	< 0.011 UJs |U	< 0.01 UJs |U	< 0.01 UJs |U	< 0.01 UJs |U	< 0.012 |U	< 0.011 UJs |U	< 0.01 |U
Aroclor-1016	ug/L	0.2	0.5	< 0.22 |U	< 0.22 UJs |U	< 0.2 UJs |U	< 0.2 UJs |U	< 0.2 UJs |U	< 0.24 |U	< 0.22 UJs |U	< 0.21 |U
Aroclor-1221	ug/L	0.4	0.5	< 0.44 |U	< 0.43 UJs |U	< 0.4 UJs |U	< 0.4 UJs |U	< 0.41 UJs |U	< 0.47 |U	< 0.43 UJs |U	< 0.42 |U
Aroclor-1232	ug/L	0.2	0.5	< 0.22 |U	< 0.22 UJs |U	< 0.2 UJs |U	< 0.2 UJs |U	< 0.2 UJs |U	< 0.24 |U	< 0.22 UJs |U	< 0.21 |U
Aroclor-1242	ug/L	0.2	0.5	< 0.22 |U	< 0.22 UJs |U	< 0.2 UJs |U	< 0.2 UJs |U	< 0.2 UJs |U	< 0.24 |U	< 0.22 UJs |U	< 0.21 |U
Aroclor-1248	ug/L	0.2	0.5	< 0.22 |U	< 0.22 UJs |U	< 0.2 UJs |U	< 0.2 UJs |U	< 0.2 UJs |U	< 0.24 |U	< 0.22 UJs |U	< 0.21 |U
Aroclor-1254	ug/L	0.2	0.5	< 0.22 |U	< 0.22 UJs |U	< 0.2 UJs |U	< 0.2 UJs |U	< 0.2 UJs |U	< 0.24 |U	< 0.22 UJs |U	< 0.21 |U
Aroclor-1260	ug/L	0.2	0.5	< 0.22 |U	< 0.22 UJs |U	< 0.2 UJs |U	< 0.2 UJs |U	< 0.2 UJs |U	< 0.24 |U	< 0.22 UJs |U	< 0.21 |U
Beta-BHC	ug/L	0.01	0.3 c	< 0.011 UJt |U	< 0.011 UJs |U	< 0.01 UJs |U	< 0.01 UJs |U	< 0.01 UJs |U	< 0.012 UJt |U	< 0.011 UJs |U	< 0.01 |U
Delta-BHC	ug/L	0.01	-	< 0.011 |U	< 0.011 UJs |U	< 0.01 UJs |U	< 0.01 UJs |U	< 0.01 UJs |U	< 0.012 |U	< 0.011 UJs |U	< 0.01 |U
Dieldrin	ug/L	0.02	-	< 0.022 |U	< 0.022 UJs |U	< 0.02 UJs |U	< 0.02 UJs |U	< 0.02 UJs |U	< 0.024 |U	< 0.022 UJs |U	< 0.021 |U
Endosulfan I	ug/L	0.01	-	< 0.011 |U	< 0.011 UJs |U	< 0.01 UJs |U	< 0.01 UJs |U	< 0.01 UJs |U	< 0.012 |U	< 0.011 UJs |U	< 0.01 |U
Endosulfan II	ug/L	0.02	-	< 0.022 |U	< 0.022 UJs |U	< 0.02 UJs |U	< 0.02 UJs |U	< 0.02 UJs |U	< 0.024 |U	< 0.022 UJs |U	< 0.021 |U
Endosulfan Sulfate	ug/L	0.02	-	< 0.022 |U	< 0.022 UJs |U	< 0.02 UJs |U	< 0.02 UJs |U	< 0.02 UJs |U	< 0.024 |U	< 0.022 UJs |U	< 0.021 |U
Endrin	ug/L	0.02	0.2	< 0.022 |U	< 0.022 UJs |U	< 0.02 UJs |U	< 0.02 UJs |U	< 0.02 UJs |U	< 0.024 |U	< 0.022 UJs |U	< 0.021 |U
Endrin Aldehyde	ug/L	0.02	-	< 0.022 |U	< 0.022 UJs |U	< 0.02 UJs |U	< 0.02 UJs |U	< 0.02 UJs |U	< 0.024 |U	< 0.022 UJs |U	< 0.021 |U
Endrin Ketone	ug/L	0.02	-	< 0.022 |U	< 0.022 UJs |U	< 0.02 UJs |U	< 0.02 UJs |U	< 0.02 UJs |U	< 0.024 |U	< 0.022 UJs |U	< 0.021 |U
Gamma-BHC	ug/L	0.01	0.2	< 0.011 |U	< 0.011 UJs |U	< 0.01 UJs |U	< 0.01 UJs |U	< 0.01 UJs |U	< 0.012 |U	< 0.011 UJs |U	< 0.01 |U
Gamma-Chlordane	ug/L	0.01	-	< 0.011 |U	< 0.011 UJs |U	< 0.01 UJs |U	< 0.01 UJs |U	< 0.01 UJs |U	< 0.012 |U	< 0.011 UJs |U	< 0.01 |U
Heptachlor	ug/L	0.01	0.01	< 0.011 |U	< 0.011 UJs |U	< 0.01 UJs |U	< 0.01 UJs |U	< 0.01 UJs |U	< 0.012 |U	< 0.011 UJs |U	< 0.01 |U
Heptachlor Epoxide	ug/L	0.01	0.01	< 0.011 |U	< 0.011 UJs |U	< 0.01 UJs |U	< 0.01 UJs |U	< 0.01 UJs |U	< 0.012 |U	< 0.011 UJs |U	< 0.01 |U
Methoxychlor	ug/L	0.1	40 #	< 0.11 |U	< 0.11 UJs |U	< 0.1 UJs |U	< 0.1 UJs |U	< 0.1 UJs |U	< 0.12 |U	< 0.11 UJs |U	< 0.1 |U
Toxaphene	ug/L	1	3 #	< 1.1 |U	< 1.1 UJs |U	< 1 UJs |U	< 1 UJs |U	< 1 UJs |U	< 1.2 |U	< 1.1 UJs |U	< 1 |U

See explanation at end of table

TABLE B.3
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
PESTICIDES AND PCBS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

Parameter	Units	DL	MCL	PCU SUMMER		PCU SUMMER D1		PCU FALL		STPO WINTER		STPO WINTER D1		STPO SPRING		STPO SUMMER		STPO FALL	
4,4'-DDD	ug/L	0.02	-	< 0.02	|U	< 0.02	|U	< 0.02	UJs |U	< 0.024	UJs |U	< 0.022	UJs |U	< 0.021	UJs |U	< 0.02	|U	< 0.02	UJs |U
4,4'-DDE	ug/L	0.02	-	< 0.02	|U	< 0.02	|U	< 0.02	UJs |U	< 0.024	UJs |U	< 0.022	UJs |U	< 0.021	UJs |U	< 0.02	|U	< 0.02	UJs |U
4,4'-DDT	ug/L	0.02	-	< 0.02	|U	< 0.02	|U	< 0.02	UJs |U	< 0.024	UJs |U	< 0.022	UJs |U	< 0.021	UJs |U	< 0.02	|U	< 0.02	UJs |U
Aldrin	ug/L	0.01	0.05 c	< 0.01	|U	< 0.01	|U	< 0.01	UJs |U	< 0.012	UJs |U	< 0.011	UJs |U	< 0.01	UJs |U	< 0.01	|U	< 0.01	UJs |U
Alpha-BHC	ug/L	0.01	0.7 c	< 0.01	|U	< 0.01	|U	< 0.01	UJs |U	< 0.012	UJs |U	< 0.011	UJs |U	< 0.01	UJs |U	< 0.01	|U	< 0.01	UJs |U
Alpha-Chlordane	ug/L	0.01	-	< 0.01	|U	< 0.01	|U	< 0.01	UJs |U	< 0.012	UJs |U	< 0.011	UJs |U	< 0.01	UJs |U	< 0.01	|U	< 0.01	UJs |U
Aroclor-1016	ug/L	0.2	0.5	< 0.2	|U	< 0.2	|U	< 0.2	UJs |U	< 0.24	UJs |U	< 0.22	UJs |U	< 0.21	UJs |U	< 0.2	|U	< 0.2	UJs |U
Aroclor-1221	ug/L	0.4	0.5	< 0.4	|U	< 0.4	|U	< 0.4	UJs |U	< 0.47	UJs |U	< 0.44	UJs |U	< 0.42	UJs |U	< 0.4	|U	< 0.4	UJs |U
Aroclor-1232	ug/L	0.2	0.5	< 0.2	|U	< 0.2	|U	< 0.2	UJs |U	< 0.24	UJs |U	< 0.22	UJs |U	< 0.21	UJs |U	< 0.2	|U	< 0.2	UJs |U
Aroclor-1242	ug/L	0.2	0.5	< 0.2	|U	< 0.2	|U	< 0.2	UJs |U	< 0.24	UJs |U	< 0.22	UJs |U	< 0.21	UJs |U	< 0.2	|U	< 0.2	UJs |U
Aroclor-1248	ug/L	0.2	0.5	< 0.2	|U	< 0.2	|U	< 0.2	UJs |U	< 0.24	UJs |U	< 0.22	UJs |U	< 0.21	UJs |U	< 0.2	|U	< 0.2	UJs |U
Aroclor-1254	ug/L	0.2	0.5	< 0.2	|U	< 0.2	|U	< 0.2	UJs |U	< 0.24	UJs |U	< 0.22	UJs |U	< 0.21	UJs |U	< 0.2	|U	< 0.2	UJs |U
Aroclor-1260	ug/L	0.2	0.5	< 0.2	|U	< 0.2	|U	< 0.2	UJs |U	< 0.24	UJs |U	< 0.22	UJs |U	< 0.21	UJs |U	< 0.2	|U	< 0.2	UJs |U
Beta-BHC	ug/L	0.01	0.3 c	< 0.01	|U	< 0.01	|U	< 0.01	UJs |U	< 0.012	UJs |U	< 0.011	UJt |U	< 0.01	UJs |U	< 0.01	|U	< 0.01	UJs |U
Delta-BHC	ug/L	0.01	-	< 0.01	|U	< 0.01	|U	< 0.01	UJs |U	< 0.012	UJs |U	< 0.011	UJs |U	< 0.01	UJs |U	< 0.01	|U	< 0.01	UJs |U
Dieldrin	ug/L	0.02	-	< 0.02	|U	< 0.02	|U	< 0.02	UJs |U	< 0.024	UJs |U	< 0.022	UJs |U	< 0.021	UJs |U	< 0.02	|U	< 0.02	UJs |U
Endosulfan I	ug/L	0.01	-	< 0.01	|U	< 0.01	|U	< 0.01	UJs |U	< 0.012	UJs |U	< 0.011	UJs |U	< 0.01	UJs |U	< 0.01	|U	< 0.01	UJs |U
Endosulfan II	ug/L	0.02	-	< 0.02	|U	< 0.02	|U	< 0.02	UJs |U	< 0.024	UJs |U	< 0.022	UJs |U	< 0.021	UJs |U	< 0.02	|U	< 0.02	UJs |U
Endosulfan Sulfate	ug/L	0.02	-	< 0.02	|U	< 0.02	|U	< 0.02	UJs |U	< 0.024	UJs |U	< 0.022	UJs |U	< 0.021	UJs |U	< 0.02	|U	< 0.02	UJs |U
Endrin	ug/L	0.02	0.2	< 0.02	|U	< 0.02	|U	< 0.02	UJs |U	< 0.024	UJs |U	< 0.022	UJs |U	< 0.021	UJs |U	< 0.02	|U	< 0.02	UJs |U
Endrin Aldehyde	ug/L	0.02	-	< 0.02	|U	< 0.02	|U	< 0.02	UJs |U	< 0.024	UJs |U	< 0.022	UJs |U	< 0.021	UJs |U	< 0.02	|U	< 0.02	UJs |U
Endrin Ketone	ug/L	0.02	-	< 0.02	|U	< 0.02	|U	< 0.02	UJs |U	< 0.024	UJs |U	< 0.022	UJs |U	< 0.021	UJs |U	< 0.02	|U	< 0.02	UJs |U
Gamma-BHC	ug/L	0.01	0.2	< 0.01	|U	< 0.01	|U	< 0.01	UJs |U	< 0.012	UJs |U	< 0.011	UJs |U	< 0.01	UJs |U	< 0.01	|U	< 0.01	UJs |U
Gamma-Chlordane	ug/L	0.01	-	< 0.01	|U	< 0.01	|U	< 0.01	UJs |U	< 0.012	UJs |U	< 0.011	UJs |U	< 0.01	UJs |U	< 0.01	|U	< 0.01	UJs |U
Heptachlor	ug/L	0.01	0.01	< 0.01	|U	< 0.01	|U	< 0.01	UJs |U	< 0.012	UJs |U	< 0.011	UJs |U	< 0.01	UJs |U	< 0.01	|U	< 0.01	UJs |U
Heptachlor Epoxide	ug/L	0.01	0.01	< 0.01	|U	< 0.01	|U	< 0.01	UJs |U	< 0.012	UJs |U	< 0.011	UJs |U	< 0.01	UJs |U	< 0.01	|U	< 0.01	UJs |U
Methoxychlor	ug/L	0.1	40 #	< 0.1	|U	< 0.1	|U	< 0.1	UJs |U	< 0.12	UJs |U	< 0.11	UJs |U	< 0.1	UJs |U	< 0.1	|U	< 0.1	UJs |U
Toxaphene	ug/L	1	3 #	< 1	|U	< 1	|U	< 1	UJs |U	< 1.2	UJs |U	< 1.1	UJs |U	< 1	UJs |U	< 1	|U	< 1	UJs |U

See explanation at end of table

TABLE B.3
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
PESTICIDES AND PCBS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

Parameter	Units	DL	MCL	SWL00001 WINTER			SWL00002 WINTER			SWL00002 WINTER D1		
4,4'-DDD	ug/L	0.02	-	< 0.02	UJs	|U	< 0.021	UJs	|U	< 0.021	UJs	|U
4,4'-DDE	ug/L	0.02	-	< 0.02	UJs	|U	< 0.021	UJs	|U	< 0.021	UJs	|U
4,4'-DDT	ug/L	0.02	-	< 0.02	UJs	|U	< 0.021	UJs	|U	< 0.021	UJs	|U
Aldrin	ug/L	0.01	0.05 c	< 0.01	UJs	|U	< 0.01	UJs	|U	< 0.01	UJs	|U
Alpha-BHC	ug/L	0.01	0.7 c	< 0.01	UJs	|U	< 0.01	UJs	|U	< 0.01	UJs	|U
Alpha-Chlordane	ug/L	0.01	-	0.015	Js	|P	< 0.01	UJs	|U	< 0.01	UJs	|U
Aroclor-1016	ug/L	0.2	0.5	< 0.2	UJs	|U	< 0.21	UJs	|U	< 0.21	UJs	|U
Aroclor-1221	ug/L	0.4	0.5	< 0.4	UJs	|U	< 0.41	UJs	|U	< 0.41	UJs	|U
Aroclor-1232	ug/L	0.2	0.5	< 0.2	UJs	|U	< 0.21	UJs	|U	< 0.21	UJs	|U
Aroclor-1242	ug/L	0.2	0.5	< 0.2	UJs	|U	< 0.21	UJs	|U	< 0.21	UJs	|U
Aroclor-1248	ug/L	0.2	0.5	< 0.2	UJs	|U	< 0.21	UJs	|U	< 0.21	UJs	|U
Aroclor-1254	ug/L	0.2	0.5	< 0.2	UJs	|U	< 0.21	UJs	|U	< 0.21	UJs	|U
Aroclor-1260	ug/L	0.2	0.5	< 0.2	UJs	|U	< 0.21	UJs	|U	< 0.21	UJs	|U
Beta-BHC	ug/L	0.01	0.3 c	< 0.01	UJs	|U	< 0.01	UJs	|U	< 0.01	UJs	|U
Delta-BHC	ug/L	0.01	-	< 0.01	UJs	|U	< 0.01	UJs	|U	< 0.01	UJs	|U
Dieldrin	ug/L	0.02	-	< 0.02	UJs	|U	< 0.021	UJs	|U	< 0.021	UJs	|U
Endosulfan I	ug/L	0.01	-	< 0.01	UJs	|U	< 0.01	UJs	|U	< 0.01	UJs	|U
Endosulfan II	ug/L	0.02	-	< 0.02	UJs	|U	< 0.021	UJs	|U	< 0.021	UJs	|U
Endosulfan Sulfate	ug/L	0.02	-	< 0.02	UJs	|U	< 0.021	UJs	|U	< 0.021	UJs	|U
Endrin	ug/L	0.02	0.2	< 0.02	UJs	|U	< 0.021	UJs	|U	< 0.021	UJs	|U
Endrin Aldehyde	ug/L	0.02	-	< 0.02	UJs	|U	< 0.021	UJs	|U	< 0.021	UJs	|U
Endrin Ketone	ug/L	0.02	-	< 0.02	UJs	|U	< 0.021	UJs	|U	< 0.021	UJs	|U
Gamma-BHC	ug/L	0.01	0.2	< 0.01	UJs	|U	< 0.01	UJs	|U	< 0.01	UJs	|U
Gamma-Chlordane	ug/L	0.01	-	0.013	Js	|P	< 0.01	UJs	|U	< 0.01	UJs	|U
Heptachlor	ug/L	0.01	0.01	< 0.01	UJs	|U	< 0.01	UJs	|U	< 0.01	UJs	|U
Heptachlor Epoxide	ug/L	0.01	0.01	< 0.01	UJs	|U	< 0.01	UJs	|U	< 0.01	UJs	|U
Methoxychlor	ug/L	0.1	40 #	< 0.1	UJs	|U	< 0.1	UJs	|U	< 0.1	UJs	|U
Toxaphene	ug/L	1	3 #	< 1	UJs	|U	< 1	UJs	|U	< 1	UJs	|U

See explanation at end of table

TABLE B.3
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
PESTICIDES AND PCBS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

DI = Duplicate sample.
- = Parameter not analyzed. Storm water runoff available for sampling in March, 1995 only.
< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.
MCL = Maximum Contaminant Level (primary), Title 22 Division 4 Chapter 15.
C = California State Action Level, Department of Health Services.
# = USEPA MCL.
See Appendix B for explanation of data qualifiers.

TABLE B.4
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

Parameter	Units	DL	MCL	PCD WINTER	PCD SPRING	PCD SUMMER	PCD FALL	PCD FALL D1	PCU WINTER	PCU SPRING	PCU SPRING D1
Antimony	ug/L	5	6	< 5 |U	< 5 |U	< 5 |U	< 5 |U	4.7 |B	< 5 |U	< 5 |U	< 5 |U
Arsenic	ug/L	2	50	3.5 Up |	< 2 |U	< 2 |U	2.7	2	3 Up	< 2 |U	< 2 |U
Barium	ug/L	20	1000	100	113 |B	92.8	73.6	73	105	113 |B	114 |B
Beryllium	ug/L	1	4	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Cadmium	ug/L	1	5 #	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Chromium	ug/L	10	50	3.6 |B	4.6 |B	2.3 |B	4.5 |B	4.7 |B	4.3 |B	4.3 |B	4 |B
Chromium, Hexavalent (+6)	ug/L	10	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Cobalt	ug/L	10	-	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U
Copper	ug/L	10	1000 S	1.4 |B	< 10 |U	3.9 |B	< 10 |U	10 |B	3.5 |B	< 10 |U	< 10 |U
Iron	ug/L	100	300 S	< 100 |U	47.6 |B	63.9 |B	244	269	< 100 |U	39.1 |B	39.1 |B
Lead	ug/L	2	15	< 2 |U	< 2 |U	< 2 |U	< 2 |U	< 2 |U	< 2 |U	< 2 |U	< 2 |U
Mercury	ug/L	0.2	2	< 0.2 |U	< 0.2 |U	< 0.2 |U	< 0.2 |U	< 0.2 |U	< 0.2 |U	< 0.2 |U	< 0.2 |U
Molybdenum	ug/L	10	-	< 10 |U	< 10 |U	2.2 |B	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U
Nickel	ug/L	20	100	1.6 |B	2 |B	4.3 |B	4.4 |B	5.2 |B	1.9 |B	1.2 |B	1.1 |B
Selenium	ug/L	3	5 #	< 3 |U	< 3 |U	< 3 |U	< 3 |U	< 3 |U	< 3 |U	< 3 |U	< 3 |U
Silver	ug/L	10	50	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U
Thallium	ug/L	10	2	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U
Vanadium	ug/L	10	-	4.6 |B	< 10 |U	8.5 |B	< 10 |U	< 10 |U	4.4 |B	< 10 |U	< 10 |U
Zinc	ug/L	20	5000 S	2.1 |B	5 |B	10.7 |B	8.2 Jm |ENB	9 Jm |ENB	3.3 |B	3.7 |B	3.2 |B

See explanation at end of table

TABLE B.4
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

Parameter	Units	DL	MCL	PCU SUMMER	PCU SUMMER D1	PCU FALL	STPO WINTER	STPO WINTER D1	STPO SPRING	STPO SUMMER	STPO FALL
Antimony	ug/L	5	6	< 5 |U	< 5 |U	< 5 |U	< 5 |U	< 5 |U	1.2 |B	< 5 |U	< 5 |U
Arsenic	ug/L	2	50	2.5	2.6	2.5	5.6 Up |	5.6 Up |	3.3 Uz |B	3.3	4.5
Barium	ug/L	20	1000	113	112	82.1	21.5	20.9	22.9 |B	35.3	30.7
Beryllium	ug/L	1	4	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Cadmium	ug/L	1	5 #	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U	< 1 |U
Chromium	ug/L	10	50	3.3 |B	4.3 |B	4.4 |B	2.2 |B	2 |B	< 10 |U	3 |B	5.1 |B
Chromium, Hexavalent (+6)	ug/L	10	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Cobalt	ug/L	10	-	< 10 |U	< 10 |U	< 10 |U	2 |B	1.7 |B	< 10 |U	< 10 |U	< 10 |U
Copper	ug/L	10	1000 S	< 10 |U	< 10 |U	< 10 |U	5 |B	4.8 |B	5.5 |B	3.1 |B	6.5 |B
Iron	ug/L	100	300 S	58.6 |B	67.8 |B	256	56.6 |B	49.9 |B	< 100 |U	88.3 |B	228
Lead	ug/L	2	15	< 2 |U	< 2 |U	< 2 |U	< 2 |U	< 2 |U	< 2 |U	< 2 |U	< 2 |U
Mercury	ug/L	0.2	2	< 0.2 |U	< 0.2 |U	< 0.2 |U	< 0.2 |U	< 0.2 |U	< 0.2 |U	< 0.2 |U	< 0.2 |U
Molybdenum	ug/L	10	-	1.1 |B	1.1 |B	< 10 |U	7.5 |B	7.2 |B	6 |B	7.3 |B	10.7
Nickel	ug/L	20	100	4.6 |B	4.5 |B	4.2 |B	2.3 |B	2.1 |B	< 20 |U	3 |B	5.1 |B
Selenium	ug/L	3	5 #	< 3 |U	< 3 |U	< 3 |U	< 3 |U	< 3 |U	< 3 |U	3.6	7.4
Silver	ug/L	10	50	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U
Thallium	ug/L	10	2	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U	< 10 |U
Vanadium	ug/L	10	-	7.6 |B	4.9 |B	< 10 |U	9.8 |B	9.3 |B	10.5	10.3	8.7 |B
Zinc	ug/L	20	5000 S	6 |B	9.2 |B	5.2 Jm |EN	28.3	28	33.6	39.2	39.2 Jm |EN

See explanation at end of table

TABLE B.4
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

Parameter	Units	DL	MCL	SWL00001 WINTER		SWL00002 WINTER		SWL00002 WINTER D1	
Antimony	ug/L	5	6	74.8		156		137	
Arsenic	ug/L	2	50	< 2	|U	< 2	|U	< 2	|U
Barium	ug/L	20	1000	3.5	|B	3.3	|B	3	|B
Beryllium	ug/L	1	4	< 20	|U	< 20	|U	< 20	|U
Cadmium	ug/L	1	5 #	< 1	|U	< 1	|U	< 1	|U
Chromium	ug/L	10	50	< 10	|U	< 10	|U	< 10	|U
Chromium, Hexavalent (+6)	ug/L	10	50	< 20		< 20		< 20	
Cobalt	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
Copper	ug/L	10	1000 S	3.5	|B	2.2	|B	1.9	|B
Iron	ug/L	100	300 S	54.9	|B	< 100	|U	< 100	|U
Lead	ug/L	2	15	10.4		38.4		35.9	
Mercury	ug/L	0.2	2	< 0.2	|U	< 0.2	|U	< 0.2	|U
Molybdenum	ug/L	10	-	< 10	|U	< 10	|U	< 10	|U
Nickel	ug/L	20	100	1.6	|B	< 20	|U	< 20	|U
Selenium	ug/L	3	5 #	< 3	|U	< 3	|U	< 3	|U
Silver	ug/L	10	50	< 10	|U	< 10	|U	< 10	|U
Thallium	ug/L	10	2	< 10	|U	< 10	|U	< 10	|U
Vanadium	ug/L	10	-	1	|B	< 10	|U	< 10	|U
Zinc	ug/L	20	5000 S	60.8		94.1		112	

See explanation at end of table

TABLE B.4
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
METALS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

DI = Duplicate sample.
- = Parameter not analyzed. Storm water runoff available for sampling in March, 1995 only.
< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.
MCL = Maximum Contaminant Level (primary), Title 22 Division 4 Chapter 15.
# = USEPA MCL.
See Appendix B for explanation of data qualifiers.
S = Secondary Drinking Water Standard

TABLE B.5
ANALYTICAL RESULTS FOR SURFACE AND STORM WATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	PCD WINTER				PCD SPRING				PCD SUMMER				PCD FALL			
			Value		Error	MDA	Value		Error	MDA	Value		Error	MDA	Value		Error	MDA
Actinium-228	901.1	-	-14.5		9.7	40	-34		17	37	8		72	120	-1		6.7	13
Bismuth-212	901.1	-	-8		49	73	9		42	58					6		16	21
Bismuth-214	901.1	-	8		13	19	17		13	17	33		47	63	6.2		6	9.1
Cesium-134	901.1	-									2		15	25				
Cesium-137	901.1	-	-0.8		4.9	9.1	2.2		5.5	9.2	-2		21	27	0.3		2	3.3
Cobalt-57	901.1	-									6.2		9.9	16				
Cobalt-60	901.1	-	2.4		3.7	9.3	-1.6		2.4	9.8	0		15	30	-0.33		0.51	4.1
Lead-210	901.1	-	-40		110	170	30		110	170					190		290	390
Lead-212	901.1	-	0		9.1	14	12		10	14	33		40	55	0.9		5	7.5
Lead-214	901.1	-	-4		11	20	8		11	17	2	Je |	41	62	4.3		5.2	8.3
Potassium-40	901.1	-	-41		31	120	1		66	110	-60		250	390	18		30	46
Ra-223	901.1	-													5		19	60
Radium-226	901.1	5	0		120	180	-160		110	180					-54		57	85
Thallium-208	901.1	-	-2.3		7.1	11	4.7		7.7	11	16		25	34	0.6		3	4.4
Thorium-234	901.1	-	0		69	160	-19		66	160	330		310	740	-12		49	150
Uranium-235	901.1	-	-11		26	42	10		27	38	40		110	160	0		16	24
Radium-226	903.1M	5	0.22		0.23	0.36	0.18		0.18	0.29	0.15		0.17	0.27	0.12		0.13	0.2
Strontium-90	905	8	-0.3		1.5	1.2	0.06	Jm |	0.5	0.86	0.7		0.56	0.91	0.2		0.29	0.49
Tritium	906	20000 *	0		180	260	10		170	220	-70		220	300	-70		180	250
GrossAlpha	9310	15	1.7	|C	2.7	4.8	1.1	Jm |C	1.8	3.2	2.3	|C	2.4	3.8	1.3	|C	1.5	2.5
GrossBeta	9310	50	3.9	Jd |	2.3	3.7	2		1.8	3	7.3		2.2	3.1	2.8		1.4	2.2
Americium-241	LAS108	-	-0.014	Jm |	0.04	0.085	0.024		0.026	0.031	0.034		0.027	0.015	-0.0021		0.0042	0.027
Plutonium-241	LAS178	-	0		1.3	1.7	0.3	Jc |	1.5	1.8	0.4	Jc |	2.8	3.7	-0.3		1.9	2.4
Carbon-14	LSC	-	-19		81	110	-23		82	110	15	Jm |	11	12	1		83	100

TABLE B.5
ANALYTICAL RESULTS FOR SURFACE AND STORM WATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	PCD FALL D1			PCU WINTER			PCU SPRING			PCU SPING D1		
			Value	Error	MDA	Value	Error	MDA	Value	Error	MDA	Value	Error	MDA
Actinium-228	901.1	-	2.8	8.2	15	0	84	160	6	21	38	-1.3	8	15
Bismuth-212	901.1	-	-4	18	26	-161	87	300	-18	21	71	4	16	21
Bismuth-214	901.1	-	9.8	6.2	8.7	5	58	89	21	14	18	-1.9	5.3	8.8
Cesium-134	901.1	-												
Cesium-137	901.1	-	-2	1.9	3.5	-5	17	31	-0.4	4.8	8.7	0.2	1.7	3
Cobalt-57	901.1	-												
Cobalt-60	901.1	-	0.1	1.6	3.2	7	17	37	1.1	4.1	7.9	1	1.5	3
Lead-210	901.1	-	-110	280	410	-100	7800	11000	0	110	170	110	290	410
Lead-212	901.1	-	0.3	5	7.6	16	47	71	3	10	15	2.6	5.3	7.9
Lead-214	901.1	-	8.3	5.7	8.4	2	47	80	1	11	19	0.1	4.7	7.9
Potassium-40	901.1	-	10	30	47	320	330	470	23	61	95	0	28	47
Ra-223	901.1	-	33	20	60									
Radium-226	901.1	5	-3	57	83	-1110	510	770	10	120	180	-18	59	91
Thallium-208	901.1	-	1.1	2.8	4.2	22	32	46	5.4	7.3	9.7	-2	3	4.9
Thorium-234	901.1	-	-36	46	150	-320	350	1000	-32	66	160	-24	47	160
Uranium-235	901.1	-	0	16	24	10	130	200	12	27	39	-6	15	24
Radium-226	903.1M	5	0.86	0.24	0.16	0.07	0.14	0.25	0.2	0.15	0.2	0.05	0.14	0.27
Strontium-90	905	8	0.25	0.28	0.47	-0.3	1.1	1	0.21 Jm |	0.53	0.9	-0.05 Jm |	0.52	0.9
Tritium	906	20000 *	-50	180	250	0	180	260	30	170	220	-50	170	220
GrossAlpha	9310	15	1.1 |C	1.8	3.2	1.5 |C	1.8	3	0.5 Jm |C	1.8	3.4	-0.1 Jm |C	1.5	3.4
GrossBeta	9310	50	3.4	1.5	2.2	8.2 Jd |	2	2.6	1.6	2.1	3.6	0.6	1.7	3
Americium-241	LAS108	-	0.035	0.034	0.032	0.004 Jm |	0.031	0.055	0	0	0.012	0.009	0.019	0.031
Plutonium-241	LAS178	-	-0.4	1.9	2.6	0.5	1.4	1.6	-0.3 Jc |	1.7	2.4	-1.3 Jc |	1.7	2.5
Carbon-14	LSC	-	52	87	100	6	84	110	18	86	110	25	86	110

TABLE B.5
ANALYTICAL RESULTS FOR SURFACE AND STORM WATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	PCU SUMMER			PCU SUMMER D1				PCU FALL				STPO WINTER			
			Value	Error	MDA	Value		Error	MDA	Value		Error	MDA	Value		Error	MDA
Actinium-228	901.1	-	-	-	-	12		22	39	-17.1		3	18	2.8		7.5	12
Bismuth-212	901.1	-	-	-	-	-		-	-	6		17	28	0		16	24
Bismuth-214	901.1	-	-	-	-	0		13	20	9.3		7.2	8.2	0.5		4.9	7.5
Cesium-134	901.1	-	-	-	-	-0.4		2.5	7.6	-		-	-	-		-	-
Cesium-137	901.1	-	-	-	-	-1.7		4.6	8.3	0.2		2.4	4.1	1.3		1.6	2.4
Cobalt-57	901.1	-	-	-	-	-1		1.7	4.6	-		-	-	-		-	-
Cobalt-60	901.1	-	-	-	-	-2.8		2.9	12	0		2	4	-0.65		0.98	3.6
Lead-210	901.1	-	-	-	-	-		-	-	-30		65	79	-60		270	400
Lead-212	901.1	-	-	-	-	-3.6		9.6	15	4.1		5.9	6.5	-3.3		4.9	7.9
Lead-214	901.1	-	-	-	-	-1	Je |	11	18	2.7		6.7	8.1	-4.3		4.6	8.2
Potassium-40	901.1	-	-	-	-	1		71	110	19		41	45	19		27	40
Ra-223	901.1	-	-	-	-	-		-	-	-28		7.1	66	-		-	-
Radium-226	901.1	5	-	-	-	-		-	-	-81		68	78	31		56	81
Thallium-208	901.1	-	-	-	-	2.7		7	9.5	1.4		4.1	4.3	-1.2		2.7	4.3
Thorium-234	901.1	-	-	-	-	-77		65	150	-19		39	71	-24		49	150
Uranium-235	901.1	-	-	-	-	-8		28	43	-9		16	19	-1.9		7.4	22
Radium-226	903.1M	5	-	-	-	0.089		0.086	0.06	0.26		0.13	0.13	0		0.15	0.32
Strontium-90	905	8	-	-	-	0.21		0.42	0.72	-0.06		0.37	0.66	-0.2		1.4	1.1
Tritium	906	20000 *	-70	220	300	60		230	290	20		190	250	60		190	260
GrossAlpha	9310	15	-	-	-	0.6		1.7	3.2	0.4	|C	1.7	3.1	-0.4	|C	2.1	4.9
GrossBeta	9310	50	-	-	-	1.4		1.9	3.2	4.6		1.7	2.4	17.2	Jd |C	3.6	4.5
Americium-241	LAS108	-	-	-	-	0.032		0.028	0.018	0.02		0.022	0.018	0.027	Jm |	0.039	0.063
Plutonium-241	LAS178	-	-	-	-	2.4		2.4	2.6	0.6		2.1	2.9	-0.8		1.4	1.6
Carbon-14	LSC	-	-14	76	100	4		78	100	34		85	100	28		85	110

TABLE B.5
ANALYTICAL RESULTS FOR SURFACE AND STORM WATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	STPO WINTER D1				STPO SPRING				STPO SUMMER				STPO FALL			
			Value		Error	MDA	Value		Error	MDA	Value		Error	MDA	Value		Error	MDA
Actinium-228	901.1	-	3.8		7.4	12	6		14	26	-1		20	38	-0.4		6.9	12
Bismuth-212	901.1	-	-6		17	26	-8		46	71	-		-	-	-1		19	27
Bismuth-214	901.1	-	6.4		5.3	7.2	-4		10	16	4		13	18	6.5		5.5	8
Cesium-134	901.1	-	-		-	-	-		-	-	0.8		3.6	6.6	-		-	-
Cesium-137	901.1	-	-0.3		1.7	3.1	-2		3.4	9.7	-4.9		5.4	10	2.5		1.9	2.5
Cobalt-57	901.1	-	-		-	-	-		-	-	-1.6		2.5	4.4	-		-	-
Cobalt-60	901.1	-	0		1.6	3.3	5.9		4.8	6	-1.4		1.5	7.6	-0.5		1.1	3.7
Lead-210	901.1	-	-40		280	410	0		110	170	-		-	-	90		280	390
Lead-212	901.1	-	2.7		5.1	7.7	2.3		9.5	14	-2		10	16	1.9		5	7.4
Lead-214	901.1	-	4.3		5	7.8	-6		11	19	3	Je |	11	18	4.4		5.1	8.1
Potassium-40	901.1	-	11		27	43	10		66	110	42		77	110	5		27	44
Ra-223	901.1	-	-		-	-	-		-	-	-		-	-	13		19	55
Radium-226	901.1	5	-34		54	84	-480		120	170	-		-	-	5		55	82
Thallium-208	901.1	-	1.7		3	4.4	0.9		7.1	10	6.3		7.1	9.2	-0.2		2.7	4.1
Thorium-234	901.1	-	-48		46	160	4		65	150	40		100	160	-30		47	150
Uranium-235	901.1	-	-3		14	22	17		25	36	4		27	41	-16		13	23
Radium-226	903.1M	5	0.17		0.17	0.26	0.46		0.24	0.21	0.12		0.16	0.27	0.8		0.29	0.26
Strontium-90	905	8	-0.5		8.7	2.9	-0.06	Jm |	0.56	0.97	0.53		0.49	0.82	0.04		0.26	0.46
Tritium	906	20000 *	50		190	260	0		170	230	0		190	260	0		180	240
GrossAlpha	9310	15	3.2	|C	3	4.5	0	Jm |C	1.8	4	1	|C	2.8	5.4	1.7	|C	3.3	5.9
GrossBeta	9310	50	29.5	Jd |C	4.1	4.1	11.4	|C	3.3	4.6	19.3	|C	3.8	4.6	16.1	|C	3.5	4.4
Americium-241	LAS108	-	0.097	Jm |Y	0.075	0.1	0.02		0.02	0.014	0.026		0.032	0.042	0.012		0.022	0.033
Plutonium-241	LAS178	-	-0.4		1.2	1.4	0.6	Jc |	1.7	2.2	-1	Jc |	2.9	4.3	0.3		2	2.7
Carbon-14	LSC	-	-16		82	110	14		85	110	6	Jm |	10	12	37		86	100

TABLE B.5
ANALYTICAL RESULTS FOR SURFACE AND STORM WATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

PARAMETER	METHOD	MCL pCi/L	SWL00001 WINTER				SWL00002 WINTER				SWL00002 WINTER D1			
			Value		Error	MDA	Value		Error	MDA	Value		Error	MDA
Actinium-228	901.1	-	-1.2		7.4	0	2		21	0	0.7		7.7	0
Bismuth-212	901.1	-	0		17	0	33		49	0	3		18	0
Bismuth-214	901.1	-	0.5		5.3	0	-6		10	0	-1.4		5.3	0
Cesium-134	901.1	-	-		-	-	-		-	-	-		-	-
Cesium-137	901.1	-	1.4		1.7	0	1.9		7	0	-0.5		1.8	0
Cobalt-57	901.1	-	-		-	-	-		-	-	-		-	-
Cobalt-60	901.1	-	-0.21		0.52	0	-4.4		3.8	0	-0.3		1.2	0
Lead-210	901.1	-	100		290	0	70		110	0	-10		270	0
Lead-212	901.1	-	2.3		5.1	0	2		10	0	-3.1		5.1	0
Lead-214	901.1	-	-1.9		4.9	0	0		11	0	-3.8		3.9	0
Potassium-40	901.1	-	-2		25	0	8		67	0	7		23	0
Ra-223	901.1	-	-		-	-	-		-	-	-		-	-
Radium-226	901.1	5	-55		55	0	-80		110	0	-68		57	0
Thallium-208	901.1	-	0.3		2.8	0	7.4		7.6	0	0.5		2.7	0
Thorium-234	901.1	-	14		46	0	-4		65	0	24		47	0
Uranium-235	901.1	-	6		14	0	-6		28	0	0		14	0
Radium-226	903.1M	5	0		0.13	0	-0.039		0.093	0	0.2		0.17	0
Strontium-90	905	8	-0.03		0.77	0	0.06		0.77	0	-0.17		0.81	0
Tritium	906	20000 *	-40	Jm |	200	0	-60	Jm |	200	0	150	Jm |	220	0
GrossAlpha	9310	15	0.14		0.56	0	0.29		0.54	0	-0.06		0.46	0
GrossBeta	9310	50	1.7		1.3	0	0.5		1.2	0	0.7		1.2	0
Americium-241	LAS108	-	0.022		0.024	0	0.012		0.031	0	0.011		0.021	0
Plutonium-241	LAS178	-	-0.5		1.4	0	0.3		1.6	0	-1.1		2.4	0
Carbon-14	LSC	-	16		83	0	-3		81	0	-57		76	0

TABLE B.5
ANALYTICAL RESULTS FOR SURFACE AND STORM WATER, 1995
RADIONUCLIDES
1995 WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS, CALIFORNIA

D1 = Duplicate Sample

- = Parameter not analyzed or no MCL Note: Only the result for Tritium was reported for PCU-Summer due to insufficient volume to analyze other constituents.

MDA = Method Detectable Activity

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

*** = Proposed MCL for Tritium is 60,000 pCi/L**

See Appendix B for explanation of data qualifiers.

TABLE B.6
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

Parameter	Units	DL	MCL	PCD WINTER	PCD SPRING	PCD SUMMER	PCD FALL	PCD FALL D1	PCU WINTER	PCU SPRING	PCU SPRING D1
Alkalinity Total(as CaCO3)	mg/L	-	-	250	260	-	-	-	250	260	270
Ammonia-Nitrogen	mg/L	0.1	-	< 0.05	< 0.05	-	-	-	< 0.05	< 0.05	< 0.05
Calcium	mg/L	2	-	41.2	40.5	32.6	23.2	22.9	42.2	41.3	41
Chloride	mg/L	1	250 S	37	27	-	-	-	27	26	26
Magnesium	mg/L	2	-	41.9	45.7	38.1	29.2	29	44	46.5	46
Nitrogen, Nitrate (as N)	mg/L	0.1	10 #	2.7	2.6	1.9	1.8	1.9	2.6	2.6	2.6
Phosphate, Total (as P)	mg/L	1	-	< 1	< 1	-	-	-	< 1	< 1	< 1
Potassium	mg/L	2	-	1.96 |B	1.67 |B	2.95	2.87 |B	3.3 |B	1.49 |B	1.52 |B	1.71 |B
Sodium	mg/L	2	-	38.9	32.7	44.8	19.1	19.1	31.4	29.5	28.9
Sulfate	mg/L	1	250 S	54	34	-	-	-	52	34	34
Total Kjeldahl Nitrogen	mg/L	0.5	-	< 0.5	< 0.5	-	-	-	< 0.5	< 0.5	< 0.5

See explanation at end of table

TABLE B.6
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

Parameter	Units	DL	MCL	PCU SUMMER	PCU SUMMER D1	PCU FALL	STPO WINTER	STPO WINTER D1	STPO SPRING	STPO SUMMER	STPO FALL
Alkalinity Total(as CaCO3)	mg/L	-	-	-	-	-	180	180	180	-	-
Ammonia-Nitrogen	mg/L	0.1	-	-	-	-	3.2	3.2	1.4	-	-
Calcium	mg/L	2	-	35.2	33.1	22.9	18.4	18	19.1	22.1	19.2
Chloride	mg/L	1	250 S	-	-	-	120	120	110	-	-
Magnesium	mg/L	2	-	41.3	38.5	29.5	18.4	18.1	18.2	23.1	22
Nitrogen, Nitrate (as N)	mg/L	0.1	10 #	1.5	1.5	1.8	7.5	7.4	9.4	1.5	3
Phosphate, Total (as P)	mg/L	1	-	-	-	-	< 2	< 2	< 5	-	-
Potassium	mg/L	2	-	1.67 |B	1.92 |B	2.5 |B	10	9.87	9.09	8.69	14.6
Sodium	mg/L	2	-	30.5	28.1	17.2	141	140	137	153	122
Sulfate	mg/L	1	250 S	-	-	-	63	63	54	-	-
Total Kjeldahl Nitrogen	mg/L	0.5	-	-	-	-	3.1	3.1	2.5	-	-

See explanation at end of table

TABLE B.6
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

Parameter	Units	DL	MCL		SWL00001 WINTER		SWL00002 WINTER		SWL00002 WINTER D1	
Alkalinity Total(as CaCO3)	mg/L	-	-		15		14		14	
Ammonia-Nitrogen	mg/L	0.1	-		-		-		-	
Calcium	mg/L	2	-		1.35	|B	0.57	|B	0.6	|B
Chloride	mg/L	1	250	S	2		< 1		< 1	
Magnesium	mg/L	2	-		0.46	|B	0.13	|B	0.13	|B
Nitrogen, Nitrate (as N)	mg/L	0.1	10	#	0.24		0.13		< 0.1	
Phosphate, Total (as P)	mg/L	1	-		-		-		-	
Potassium	mg/L	2	-		1.3	|B	0.89	|B	< 2	|U
Sodium	mg/L	2	-		3.66		0.29	|B	0.27	|B
Sulfate	mg/L	1	250	S	1.2		< 1		< 1	
Total Kjeldahl Nitrogen	mg/L	0.5	-		-		-		-	

See explanation at end of table

TABLE B.6
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
ANIONS AND CATIONS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

DI = Duplicate sample.
- = Parameter not analyzed. Storm water runoff available for sampling in March, 1995 only.
< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.
MCL = Maximum Contaminant Level (primary), Title 22 Division 4 Chapter 15.
# = USEPA MCL.
See Appendix B for explanation of data qualifiers.
S = Secondary Drinking Water Standard

TABLE B.7
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

Parameter	Units	DL	MCL	PCD WINTER	PCD SPRING	PCD SUMMER	PCD FALL	PCD FALL D1	PCU WINTER	PCU SPRING	PCU SPRING D1
Chemical Oxygen Demand	mg/L	50	-	< 50	< 50	-	-	-	< 50	< 50	< 50
EH-F	mvolt	-	-	174	151	-	-	-	151	84	84
Formaldehyde	mg/L	150	-	< 1 UJc	-	-	-	-	< 1 UJc	-	-
pH-F	std	-	-	7.86	8.17	8.47	-	-	7.95	8.15	8.15
Specific Conductance (EC-F)	umhos/c	-	-	535	592	1.25 RQ |	-	-	512	589	589
Temperature-F	deg C	-	-	14.2	20.4	29.2	-	-	13.7	20.4	20.4
Total Dissolved Solids	mg/L	20	500 S	390	360 |C	420	300	260	380	370 |C	370 |C
Total Oil & Grease	mg/L	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	mg/L	-	-	2.9	2.6	-	-	-	2.6	2.5	2.4
Total Suspended Solids	mg/L	-	-	-	-	-	-	-	-	-	-
Turbidity-F	NTU	0.1	-	19.2	29.4	25.4	-	-	24.3	49	49
Turbidity	NTU	0.1	-	31 |N	32	-	-	-	37 |N	62	55

See explanation at end of table

TABLE B.7
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

Parameter	Units	DL	MCL	PCU SUMMER	PCU SUMMER D1	PCU FALL	STPO WINTER	STPO WINTER D1	STPO SPRING	STPO SUMMER	STPO FALL
Chemical Oxygen Demand	mg/L	50	-	-	-	-	< 50	< 50	< 50	-	-
EH-F	mvolt	-	-	-	-	-	163	163	141	-	-
Formaldehyde	mg/L	150	-	-	-	-	< 1 UJc	< 1 UJc	-	-	-
pH-F	std	-	-	9.07	9.07	-	7.17	7.17	7.51	7.59	-
Specific Conductance (EC-F)	umhos/c	-	-	1.2 RQ |	1.2 RQ |	-	834	834	870	2.15 RQ |	-
Temperature-F	deg C	-	-	22.3	22.3	-	20.1	20.1	22	27.8	-
Total Dissolved Solids	mg/L	20	500 S	290	300	240	530	540	540 |C	640	550
Total Oil & Grease	mg/L	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	mg/L	-	-	-	-	-	7.4	7.1	8	-	-
Total Suspended Solids	mg/L	-	-	-	-	-	-	-	-	-	-
Turbidity-F	NTU	0.1	-	16.2	16.2	-	6.94	6.94	13.3	1.93	-
Turbidity	NTU	0.1	-	-	-	-	6.2 |N	9.1 |N	9.3	-	-

See explanation at end of table

TABLE B.7
ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

Parameter	Units	DL	MCL		SWL00001 WINTER		SWL00002 WINTER		SWL00002 WINTER D1	
Chemical Oxygen Demand	mg/L	50	-		< 50		< 50		< 50	
EH-F	mvolt	-	-		263		198		265	
Formaldehyde	mg/L	150	-		< 1		< 1		< 1	
pH-F	std	-	-		5.6		6.2		5.4	
Specific Conductance (EC-F)	umhos/c	-	-		0.03		0.02		0.02	
Temperature-F	deg C	-	-		13.6		12.9		12.9	
Total Dissolved Solids	mg/L	20	500	S	25		< 20		< 20	
Total Oil & Grease	mg/L	-	-		< 1	|U	< 1	|U	< 1	|U
Total Organic Carbon	mg/L	-	-		6.8		2.5		2.5	
Total Suspended Solids	mg/L	-	-		< 12		< 12		< 12	
Turbidity-F	NTU	0.1	-							
Turbidity	NTU	0.1	-		17		3.1		3.1	

See explanation at end of table

TABLE B.7

ANALYTICAL RESULTS FOR SURFACE WATER AND STORM WATER, 1995
OTHER PARAMETERS
1995 ANNUAL WATER MONITORING REPORT
LEHR ENVIRONMENTAL RESTORATION, DAVIS CA

DI = Duplicate sample.

- = Parameter not analyzed. Storm water runoff available for sampling in March, 1995 only.

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

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

See Appendix B for explanation of data qualifiers.

S = Secondary Drinking Water Standard

Appendix C

Time Series Tables

Groundwater Analytical Results

Table C.1. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Volatile Organic Compounds

Chloroform

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	10.3	< 1.6	NA	2.8	< 1.6	2300	< 1.6	< 1.6	< 1.6	2.4	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	6.0	< 1.6	< 1.6
1991 Win	2.5	NA	NA	NA	NA	NA	NA	NA	NA	3.3	< 1.6	NA	< 1.6	< 1.6	NA	NA	< 1.6	< 1.6
1991 Spr	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	18000	< 1.6	< 1.6	< 1.6	2.7	< 1.6	< 1.6	3.5	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6
1991 Sum	< 1.6	1.6	NA	< 1.6	NA	NA	NA	< 1.6	< 1.6	2.6	1.6	< 1.6	< 1.6	< 1.6	< 1.6	4.8	< 1.6	< 1.6
1991 Fall	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	21000	1.7	< 1.6	< 1.6	2.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	4.1	< 1.6	< 1.6
1992 Win	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	160	< 1.6	< 1.6	< 1.6	2.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	2.1	< 1.6	< 1.6
1992 Spr	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	16000	1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	2.4	< 1.6	< 1.6
1992 Sum	< 1.6	NA	NA	NA	NA	NA	NA	< 1.6	< 1.6	1.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6
1992 Fall	< 1.6	< 1.6	NA	< 1.6	< 1.6	7900	< 1.6	< 1.6	< 1.6	1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	3.3	< 1.6	< 1.6
1993 Win	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	8710	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	1.6	< 1.6	< 1.6
1993 Spr	< 1.6	1.6	< 1.6	< 1.6	< 1.6	7660	1.8	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	2.4	< 1.6	< 1.6	1.8	< 1.6	< 1.6
1993 Sum	< 1	< 1	< 1	< 1	< 1	4900	2.1	< 1	< 1	< 1	< 1	< 1	1.5	< 1	< 1.0	3.7	< 1	< 1
1993 Fall	< 1	< 1	< 1	< 1	< 1	8000	2.8	< 1	< 1	< 1	< 1	1.0	1.3	< 1	< 1.0	2.1	< 1	< 1
1994 Win	< 1	< 1	< 1	< 1	1	2300	2.0	< 1	< 1	0.90	0.4	0.90	1.2	0.50	< 1.0	2.2	< 1	< 1
1994 Spr	< 1	< 1	4	< 1	0.80	11000	1.8	< 1	< 1	0.71	< 1	0.87	1.3	< 1	< 1.0	2.5	< 1	< 1
1994 Sum	< 1	NA	NA	< 1	NA	NA	NA	< 1	< 1	< 1	< 1	< 1.0	< 1	< 1	< 1.0	4.1	< 1	< 1
1994 Fall	< 1	< 1	NA	< 1	NA	11000	1.5	< 1	< 1	1.1	< 1	0.80	0.70	< 1	< 1.0	3.5	0.074	< 1
1995 Win	< 1	< 1	< 1	< 1	1.6	> 3200	140R	< 1	< 1	0.59	< 1	0.68	0.74	< 1	< 1.0	1.9	< 1	< 1
1995 Spr	< 1	< 1	< 1	< 1	0.8	1000	1.6	< 1	< 1	< 1	< 1	0.64	1.5	< 1	< 1.0	1.5	< 1	< 1
1995 Sum	NA	NA	< 1	5.1	NA	5700	1.8	NA	NA	NA	NA	NA	NA	NA	NA	2.1	0.79	3.8
1995 Fall	NA	< 1	< 1	< 1	NA	5800	1.7	NA	NA	NA	NA	NA	NA	NA	NA	3.2	< 1	NA
MEAN	< 1.9	< 1.3	< 1.5	< 1.6	< 1.4	> 7919	1.8	< 1.3	< 1.3	1.6	< 1.3	< 1.3	1.6	< 1.3	< 1.3	2.8	< 1.3	< 1.5

Notes:

1. Units are in ug/L.
2. NA indicates that the sample was not analyzed for chloroform.
3. If a less than flag (<) is present, chloroform was not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limits.
5. The "R" suffix on the value for UCD1-13 Win 1995 indicates that the analysis is suspected to be high due to carry-over in chromatograph and the analysis has been rejected.
6. The National Primary Drinking Water Standard for total trihalomethanes (THM) is 100 ug/L. Chloroform is the predominant THM present in the samples.

Table C.1. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Volatile Organic Compounds

Bromodichloromethane

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	< 2.2	< 2.2	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
1991 Win	< 2.2	NA	NA	NA	NA	NA	NA	NA	NA	< 2.2	< 2.2	NA	< 2.2	< 2.2	NA	NA	< 2.2	< 2.2
1991 Spr	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
1991 Sum	< 2.2	NA	NA	< 2.2	NA	NA	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
1991 Fall	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	2.4	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
1992 Win	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
1992 Spr	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
1992 Sum	< 2.2	NA	NA	NA	NA	NA	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
1992 Fall	< 2.2	< 2.2	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
1993 Win	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
1993 Spr	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
1993 Sum	< 1	< 1	< 1	< 1	< 1	1.4	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1993 Fall	< 1	< 1	< 1	< 1	< 1	1.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Win	< 1	< 1	< 1	< 1	< 1	1.6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Spr	< 1	< 1	< 1	< 1	< 1	2.6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Sum	< 1	NA	NA	< 1	NA	NA	NA	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Fall	< 1	< 1	NA	< 1	< 1	1.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Win	< 1	< 1	< 1	< 1	< 1	1.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Spr	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Sum	NA	NA	< 1	< 1	NA	0.82	< 1	NA	NA	NA	NA	NA	NA	NA	NA	< 1	< 1	< 1
1995 Fall	NA	< 1	< 1	< 1	NA	0.63	< 1	NA	NA	NA	NA	NA	NA	NA	NA	< 1	< 1	NA
MEAN	< 1	< 1	< 1	< 1	< 1	1.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Notes:

1. Units are in ug/L.
2. NA indicates that the sample was not analyzed for bromodichloromethane.
3. If a less than flag (<) is present, bromodichloromethane was not detected above the value reported which is the detection limit.
4. Mean values were calculated for results from the summer of 1993 and latter.
5. The National Primary Drinking Water Standard for total trihalomethanes (THM) is 100 ug/L. Bromodichloromethane is a THM of which chloroform is the predominant THM present in the samples.

Table C.1. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Volatile Organic Compounds

1,1-dichloroethane

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	< 4.7	< 4.7	NA	< 4.7	< 4.7	24.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7
1991 Win	< 4.7	NA	NA	NA	NA	< NA	NA	NA	NA	< 4.7	< 4.7	NA	< 4.7	< 4.7	NA	NA	< 4.7	< 4.7
1991 Spr	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	23.0	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7
1991 Sum	< 4.7	NA	NA	< 4.7	NA	< NA	NA	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7
1991 Fall	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	27.0	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7
1992 Win	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	6.3	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7
1992 Spr	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	24.0	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7
1992 Sum	< 4.7	NA	NA	NA	NA	< NA	NA	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7
1992 Fall	< 4.7	< 4.7	NA	< 4.7	< 4.7	6.8	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7
1993 Win	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	9.6	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7
1993 Spr	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	8.1	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7	< 4.7
1993 Sum	< 1	< 1	< 1	< 1	< 1	10.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1993 Fall	< 1	< 1	< 1	< 1	< 1	10.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Win	< 1	< 1	< 1	< 1	< 1	8.5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Spr	< 1	< 1	< 1	< 1	< 1	12.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Sum	< 1	NA	NA	< 1	NA	< NA	NA	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Fall	< 1	< 1	NA	< 1	< 1	15.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Win	< 1	< 1	< 1	< 1	< 1	6.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Spr	< 1	< 1	< 1	< 1	< 1	0.51	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Sum	NA	NA	< 1	< 1	NA	4.1	< 1	NA	NA	NA	NA	NA	NA	NA	NA	< 1	< 1	< 1
1995 Fall	NA	< 1	< 1	< 1	NA	5.8	< 1	NA	NA	NA	NA	NA	NA	NA	NA	< 1	< 1	NA
MEAN	< 1	< 1	< 1	< 1	< 1	8.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Notes:

1. Units are in ug/L.
2. NA indicates that the sample was not analyzed for 1,1-dichloroethane.
3. If a less than flag (<) is present, 1,1-dichloroethane was not detected above the value reported which is the detection limit.
4. Mean values were calculated for results from the summer of 1993 and latter.
5. There is no Drinking Water Standard for 1,1-dichloroethane. Concentration required for a hazard quotient of 1 (ingestion and inhalation pathways only) is 810 ug/L.

Table C.1. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Volatile Organic Compounds

1,1-dichloroethene

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	< 2.8	< 2.8	NA	< 2.8	< 2.8	53.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1991 Win	< 2.8	NA	NA	NA	NA	NA	NA	NA	NA	< 2.8	< 2.8	NA	< 2.8	< 2.8	NA	NA	< 2.8	< 2.8
1991 Spr	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	3.9	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1991 Sum	< 2.8	NA	NA	< 2.8	NA	NA	NA	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1991 Fall	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	51.0	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1992 Win	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	7.6	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1992 Spr	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	44.0	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1992 Sum	< 2.8	NA	NA	NA	NA	NA	NA	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1992 Fall	< 2.8	< 2.8	NA	< 2.8	< 2.8	6.7	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1993 Win	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	21.6	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1993 Spr	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	13.6	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1993 Sum	< 1	< 1	< 1	< 1	< 1	21.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1993 Fall	< 1	< 1	< 1	< 1	< 1	19.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Win	< 1	< 1	< 1	< 1	< 1	16.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Spr	< 1	< 1	< 1	< 1	< 1	23.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Sum	< 1	NA	NA	< 1	NA	NA	NA	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Fall	< 1	< 1	NA	< 1	< 1	33.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Win	< 1	< 1	< 1	< 1	< 1	9.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Spr	< 1	< 1	< 1	< 1	< 1	1.1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Sum	NA	NA	< 1	< 1	NA	1.2	< 1	NA	NA	NA	NA	NA	NA	NA	NA	< 1	< 1	< 1
1995 Fall	NA	< 1	< 1	< 1	NA	11	< 1	NA	NA	NA	NA	NA	NA	NA	NA	< 1	< 1	NA
MEAN	< 1	< 1	< 1	< 1	< 1	15.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Notes:

1. Units are in ug/L.
2. NA indicates that the sample was not analyzed for 1,1-dichloroethene.
3. If a less than flag (<) is present, 1,1-dichloroethene was not detected above the value reported which is the detection limit.
4. Mean values were calculated for results from the summer of 1993 and latter.
5. The National Primary Drinking Water Standard for 1,1-dichloroethene is 7 ug/L. Concentration required for a 1E-6 cancer risk (ingestion and inhalation pathways only) is 0.046 ug/L.

Table C.1. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Volatile Organic Compounds

1,2-dichloroethane

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	< 2.8	< 2.8	NA	< 2.8	< 2.8	15.5	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1991 Win	< 2.8	NA	NA	NA	NA	NA	NA	NA	NA	< 2.8	< 2.8	NA	< 2.8	< 2.8	NA	NA	< 2.8	< 2.8
1991 Spr	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	19.0	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1991 Sum	< 2.8	NA	NA	< 2.8	NA	NA	NA	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1991 Fall	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	20.0	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1992 Win	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	3.6	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1992 Spr	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	15.0	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1992 Sum	< 2.8	NA	NA	NA	NA	NA	NA	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1992 Fall	< 2.8	< 2.8	NA	< 2.8	< 2.8	8.0	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1993 Win	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	6.0	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1993 Spr	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	4.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8	< 2.8
1993 Sum	< 1	< 1	< 1	< 1	< 1	7.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1993 Fall	< 1	< 1	< 1	< 1	< 1	6.1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Win	< 1	< 1	< 1	< 1	< 1	4.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Spr	< 1	< 1	< 1	< 1	< 1	8.8	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Sum	< 1	NA	NA	< 1	NA	NA	NA	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Fall	< 1	< 1	NA	< 1	< 1	8.4	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Win	< 1	< 1	< 1	< 1	< 1	4.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Spr	< 1	< 1	< 1	< 1	< 1	< 1.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Sum	NA	NA	< 1	< 1	NA	4.7	< 1	NA	NA	NA	NA	NA	NA	NA	NA	< 1	< 1	< 1
1995 Fall	NA	< 1	< 1	< 1	NA	3.2	< 1	NA	NA	NA	NA	NA	NA	NA	NA	< 1	< 1	NA
MEAN	< 1	< 1	< 1	< 1	< 1	5.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Notes:

1. Units are in ug/L.
2. NA indicates that the sample was not analyzed for 1,2-dichloroethane.
3. If a less than flag (<) is present, 1,2-dichloroethane was not detected above the value reported which is the detection limit.
4. Mean values were calculated for results from the summer of 1993 and latter.
5. The National Primary Drinking Water Standard for 1,2-dichloroethane is 5 ug/L. Concentration required for a 1E-6 cancer risk (ingestion and inhalation pathways only) is 0.12 ug/L.

Table C.1. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Volatile Organic Compounds

1,1,2-trichloroethane

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	< 5	< 5	NA	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1991 Win	< 5	NA	NA	NA	NA	NA	NA	NA	NA	< 5	< 5	NA	< 5	< 5	NA	NA	< 5	< 5
1991 Spr	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1991 Sum	< 5	NA	NA	< 5	NA	NA	NA	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1991 Fall	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1992 Win	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1992 Spr	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1992 Sum	< 5	NA	NA	NA	NA	NA	NA	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1992 Fall	< 5	< 5	NA	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1993 Win	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1993 Spr	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1993 Sum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1993 Fall	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Win	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Spr	< 1	< 1	< 1	< 1	< 1	0.92	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Sum	< 1	NA	NA	< 1	NA	NA	NA	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Fall	< 1	< 1	NA	< 1	< 1	2.7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Win	< 1	< 1	< 1	< 1	< 1	0.90	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Spr	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Sum	NA	NA	< 1	< 1	NA	2.8	< 1	NA	NA	NA	NA	NA	NA	NA	NA	< 1	< 1	< 1
1995 Fall	NA	< 1	< 1	< 1	NA	1.1	< 1	NA	NA	NA	NA	NA	NA	NA	NA	< 1	< 1	NA
MEAN	< 1	< 1	< 1	< 1	< 1	1.38	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Notes:

1. Units are in ug/L.
2. NA indicates that the sample was not analyzed for 1,1,2-trichloroethane.
3. If a less than flag (<) is present, 1,1,2-trichloroethane was not detected above the value reported which is the detection limit.
4. Mean values were calculated for results from the summer of 1993 and latter.
5. The National Primary Drinking Water Standard for 1,1,2-trichloroethane is 5 ug/L. Concentration required for a 1E-6 cancer risk (ingestion and inhalation pathways only) is 0.2 ug/L.

Table C.2. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Pesticides and PCBs

Alpha Chlordane

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Sum	< 0.050	< 0.057	< 0.052	< 0.005	< 0.005	< 0.053	NA	< 0.050	< 0.050	< 0.051	< 0.005	< 0.050	< 0.050	< 0.005	< 0.005	< 0.005	< 0.050	0.050
1993 Fall	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.011	< 0.010	< 0.010	< 0.010	< 0.011	< 0.010	< 0.010	< 0.010	< 0.011	< 0.010	< 0.010	< 0.011	0.010
1994 Win	< 0.010	< 0.011	< 0.010	< 0.010	< 0.011	< 0.010	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.012	< 0.011	< 0.011	< 0.010	< 0.011	< 0.011	0.010
1994 Spr	< 0.010	< 0.010	< 0.011	< 0.011	< 0.011	< 0.010	0.011	< 0.010	< 0.010	< 0.010	< 0.011	< 0.011	< 0.011	< 0.010	< 0.011	< 0.010	< 0.010	0.010
1994 Sum	< 0.011	NA	NA	< 0.011	NA	NA	NA	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.011	< 0.011	< 0.011	< 0.010	0.010
1994 Fall	< 0.010	< 0.010	NA	< 0.011	< 0.010	< 0.011	0.0046	< 0.010	< 0.010	< 0.010	< 0.010	< 0.011	< 0.011	< 0.011	< 0.010	< 0.011	< 0.011	0.011
1995 Win	< 0.012	< 0.012	< 0.012	< 0.011	< 0.011	< 0.011	0.0054	< 0.010	< 0.012	< 0.014	< 0.011	< 0.010	< 0.011	< 0.012	< 0.011	< 0.012	< 0.013	0.014
1995 Spr	< 0.011	< 0.010	< 0.011	< 0.011	< 0.011	< 0.010	< 0.010	< 0.010	< 0.010	< 0.011	< 0.011	< 0.011	< 0.010	< 0.011	< 0.010	< 0.011	< 0.010	0.010
1995 Sum	NA	NA	< 0.010	NA	NA	< 0.010	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	< 0.010	< 0.010	NA
1995 Fall	NA	NA	< 0.010	NA	NA	< 0.010	0.0057	NA	NA	NA	NA	NA	NA	NA	NA	< 0.010	< 0.010	NA
MEAN	< 0.016	< 0.017	< 0.016	< 0.010	< 0.010	< 0.015	0.0085	< 0.015	< 0.015	< 0.016	< 0.010	< 0.016	< 0.016	< 0.010	< 0.010	< 0.010	< 0.015	< 0.016

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for alpha chlordane.
3. If a less than flag (<) is present, alpha chlordane was not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limits.
5. The National Primary Drinking Water Standard for chlordane is 2 ug/L. Concentration required for a 1E-6 cancer risk (ingestion and inhalation pathways only) is 0.05 ug/L.

Table C.2. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Pesticides and PCBs

Gamma Chlordane

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Sum	< 0.050	< 0.057	< 0.052	< 0.005	< 0.005	< 0.053	NA	< 0.050	< 0.050	< 0.051	< 0.005	< 0.050	< 0.050	< 0.005	< 0.005	< 0.005	< 0.050	< 0.050
1993 Fall	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.011	< 0.010	< 0.010	< 0.010	< 0.011	< 0.010	< 0.010	< 0.010	< 0.011	< 0.010	< 0.010	< 0.011	< 0.010
1994 Win	< 0.010	< 0.011	< 0.010	< 0.010	< 0.011	< 0.010	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.012	< 0.011	< 0.011	< 0.010	< 0.011	< 0.011	< 0.010
1994 Spr	< 0.010	< 0.010	< 0.011	< 0.011	< 0.011	< 0.010	0.012	< 0.010	< 0.010	< 0.010	< 0.011	< 0.011	< 0.011	< 0.010	< 0.011	< 0.010	< 0.010	< 0.010
1994 Sum	< 0.011	NA	NA	< 0.011	NA	NA	NA	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.011	< 0.011	< 0.011	< 0.010	< 0.010
1994 Fall	< 0.010	< 0.010	NA	< 0.011	< 0.010	< 0.011	0.0088	< 0.010	< 0.010	< 0.010	< 0.010	< 0.011	< 0.011	< 0.011	< 0.010	< 0.011	< 0.011	< 0.011
1995 Win	< 0.012	< 0.012	< 0.012	< 0.011	< 0.011	< 0.011	0.0051	< 0.010	< 0.012	< 0.014	< 0.011	< 0.010	< 0.011	< 0.012	< 0.011	< 0.012	< 0.013	< 0.014
1995 Spr	< 0.011	< 0.010	< 0.011	< 0.011	< 0.011	< 0.010	< 0.010	< 0.010	< 0.010	< 0.011	< 0.011	< 0.011	< 0.010	< 0.011	< 0.010	< 0.011	< 0.010	< 0.010
1995 Sum	NA	NA	< 0.010	NA	NA	< 0.010	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	< 0.010	< 0.010	NA
1995 Fall	NA	NA	< 0.010	NA	NA	< 0.010	0.0049	NA	NA	NA	NA	NA	NA	NA	NA	< 0.010	< 0.010	NA
MEAN	< 0.016	< 0.017	< 0.016	< 0.010	< 0.010	< 0.015	0.0090	< 0.015	< 0.015	< 0.016	< 0.010	< 0.016	< 0.016	< 0.010	< 0.010	< 0.010	< 0.015	< 0.016

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for gamma chlordane.
3. If a less than flag (<) is present, gamma chlordane was not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limits.
5. The National Primary Drinking Water Standard for chlordane is 2 ug/L. Concentration required for a 1E-6 cancer risk (ingestion and inhalation pathways only) is 0.05 ug/L.

Table C.2. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Pesticides and PCBs

Dieldrin

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	< 0.002	< 0.002	NA	< 0.002	< 0.002	< 0.002	0.021	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1991 Win	< 0.002	NA	NA	NA	NA	NA	0.025	NA	NA	< 0.002	< 0.002	< NA	< 0.002	< 0.002	NA	NA	< 0.002	< 0.002
1991 Spr	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1991 Sum	< 0.002	NA	NA	NA	NA	NA	NA	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1991 Fall	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.000	0.030	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1992 Win	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1992 Spr	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.060	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1992 Sum	< 0.002	NA	NA	NA	NA	NA	NA	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1992 Fall	< 0.002	< 0.002	NA	< 0.002	< 0.002	< 0.002	0.085	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1993 Win	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.030	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.000	NA	< 0.002
1993 Spr	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.070	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.000	< 0.002
1993 Sum	< 0.100	< 0.110	< 0.100	< 0.010	< 0.010	< 0.110	NA	< 0.100	< 0.100	< 0.100	< 0.010	< 0.100	< 0.100	< 0.010	< 0.010	< 0.010	< 0.100	< 0.100
1993 Fall	< 0.021	< 0.021	< 0.021	< 0.020	< 0.020	< 0.021	0.059	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.020	< 0.021	< 0.021
1994 Win	< 0.021	< 0.021	< 0.021	< 0.020	< 0.022	< 0.021	0.048	< 0.022	< 0.022	< 0.023	< 0.022	< 0.024	< 0.022	< 0.021	< 0.021	< 0.021	< 0.022	< 0.021
1994 Spr	< 0.020	< 0.021	< 0.021	< 0.021	< 0.021	< 0.020	0.076	< 0.020	< 0.021	< 0.020	< 0.021	< 0.022	< 0.021	< 0.020	< 0.021	< 0.021	< 0.021	< 0.021
1994 Sum	< 0.022	NA	NA	< 0.021	NA	NA	NA	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.021	< 0.021	< 0.022	< 0.020	< 0.020
1994 Fall	< 0.021	< 0.020	NA	< 0.022	< 0.021	< 0.022	0.094	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.022	< 0.022	< 0.020	< 0.022	< 0.021	< 0.022
1995 Win	< 0.024	< 0.024	< 0.025	< 0.022	< 0.022	< 0.022	0.029	< 0.020	< 0.025	< 0.027	< 0.023	< 0.020	< 0.021	< 0.023	< 0.022	< 0.024	< 0.025	< 0.027
1995 Spr	< 0.022	< 0.021	< 0.021	< 0.022	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.022	< 0.021	< 0.021	< 0.022	< 0.021	< 0.021	< 0.021	< 0.021
1995 Sum	NA	NA	< 0.020	NA	NA	< 0.020	< 0.020	NA	NA	NA	NA	NA	NA	NA	NA	< 0.020	< 0.020	NA
1995 Fall	NA	NA	< 0.020	NA	NA	< 0.020	0.028	NA	NA	NA	NA	NA	NA	NA	NA	< 0.020	< 0.020	NA
MEAN	< 0.014	< 0.017	< 0.019	< 0.011	< 0.010	< 0.017	0.041	< 0.015	< 0.015	< 0.014	< 0.010	< 0.015	< 0.014	< 0.010	< 0.010	< 0.011	< 0.015	< 0.014

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for dieldrin.
3. If a less than flag (<) is present, dieldrin was not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limits.
5. There is no Drinking Water Standard for dieldrin. Concentration required for a 1E-6 cancer risk (ingestion and inhalation pathways only) is 0.004 ug/L.

Table C.2. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Pesticides and PCBs

Endrin

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	< 0.006	< 0.006	NA	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
1991 Win	< 0.006	NA	NA	NA	NA	NA	0.020	NA	NA	< 0.006	< 0.006	NA	< 0.006	< 0.006	NA	NA	< 0.006	< 0.006
1991 Spr	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
1991 Sum	< 0.006	NA	NA	NA	NA	NA	NA	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
1991 Fall	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	0.010	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
1992 Win	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
1992 Spr	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	0.050	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
1992 Sum	< 0.006	NA	NA	NA	NA	NA	NA	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
1992 Fall	< 0.006	< 0.006	NA	< 0.006	< 0.006	< 0.006	0.040	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
1993 Win	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	0.013	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	NA	< 0.006
1993 Spr	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	0.020	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
1993 Sum	< 0.100	< 0.110	< 0.100	< 0.010	< 0.010	< 0.110	NA	< 0.100	< 0.100	< 0.100	< 0.010	< 0.100	< 0.100	< 0.010	< 0.010	< 0.010	< 0.100	< 0.100
1993 Fall	< 0.021	< 0.021	< 0.021	< 0.020	< 0.020	< 0.021	0.027	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.020	< 0.021	< 0.021
1994 Win	< 0.021	< 0.021	< 0.021	< 0.020	< 0.022	< 0.021	0.020	< 0.022	< 0.022	< 0.023	< 0.022	< 0.024	< 0.022	< 0.021	< 0.021	< 0.021	< 0.022	< 0.021
1994 Spr	< 0.020	< 0.021	< 0.021	< 0.021	< 0.021	< 0.020	0.031	< 0.020	< 0.021	< 0.020	< 0.021	< 0.022	< 0.021	< 0.020	< 0.021	< 0.021	< 0.021	< 0.021
1994 Sum	< 0.022	NA	NA	< 0.021	NA	NA	NA	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.021	< 0.021	< 0.022	< 0.020	< 0.020
1994 Fall	< 0.021	< 0.020	NA	< 0.022	< 0.021	< 0.022	0.035	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.022	< 0.022	< 0.020	< 0.022	< 0.021	< 0.022
1995 Win	< 0.024	< 0.024	< 0.025	< 0.022	< 0.022	< 0.022	0.012	< 0.020	< 0.025	< 0.027	< 0.023	< 0.020	< 0.021	< 0.023	< 0.022	< 0.024	< 0.025	< 0.027
1995 Spr	< 0.022	< 0.021	< 0.021	< 0.022	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021	< 0.022	< 0.021	< 0.021	< 0.022	< 0.021	< 0.021	< 0.021	< 0.021
1995 Sum	NA	NA	< 0.020	NA	NA	< 0.020	< 0.020	NA	NA	NA	NA	NA	NA	NA	NA	< 0.020	< 0.020	NA
1995 Fall	NA	NA	< 0.020	NA	NA	< 0.020	0.0085	NA	NA	NA	NA	NA	NA	NA	NA	< 0.020	< 0.020	NA
MEAN	< 0.017	< 0.019	< 0.020	< 0.013	< 0.012	< 0.019	0.020	< 0.017	< 0.017	< 0.017	< 0.012	< 0.017	< 0.017	< 0.012	< 0.012	< 0.013	< 0.018	< 0.017

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for endrin.
3. If a less than flag (<) is present, endrin was not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limits.
5. The National Primary Drinking Water Standard for endrin is 2 ug/L. Concentration required for a hazard quotient of 1 (ingestion and inhalation pathways only) is 11ug/L.

Table C.3. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Metals

Antimony

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	120	310	NA	330	240	260	280	120	120	340	260	190	270	200	100	170	190	190
1991 Win	< 10	NA	NA	NA	NA	NA	< 10	NA	NA	< 10	< 10	NA	< 10	< 10	NA	NA	< 10	< 10
1991 Spr	2	3	5	4	5	20	11	6	5	5	65	3	4	31	31	9	5	2
1991 Sum	5	NA	NA	NA	NA	NA	NA	10	7	7	3	4	7	3	4	7	3	3
1991 Fall	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1992 Win	< 10	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1992 Spr	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1992 Sum	< 10	NA	NA	NA	NA	NA	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1992 Fall	< 10	10	NA	< 10	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	10	10	< 10	< 10
1993 Win	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1993 Spr	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1993 Sum	< 5	1.1	1.3	< 5	1.9	< 5	< 5	1.9	< 5	2.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1993 Fall	1.1	< 5	2	< 5	2	< 5	< 5	< 5	< 5	1.3	2.1	2.5	< 5	2.6	< 5	< 5	< 5	< 5
1994 Win	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1994 Spr	< 5	< 5	1.7	< 5	< 5	2.2	< 5	< 5	< 5	< 5	1.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1994 Sum	2.1	NA	NA	< 5	NA	NA	NA	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1994 Fall	1.1	1.3	NA	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	1.2	< 5	< 5	< 5
1995 Win	< 5	< 5	< 5	< 5	< 5	< 5	< 5	1.4	< 5	1.1	< 5	< 5	< 5	< 5	< 5	< 5	1.0	< 5
1995 Spr	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	1.8	< 5	< 5	1.7	2.3
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5	NA	< 5
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5	NA	< 5
MEAN	< 3.7	< 3.9	< 3.3	< 5.0	< 4.1	< 4.6	< 5.0	< 4.2	< 5.0	< 3.7	< 4.2	< 4.7	< 5.0	< 4.3	< 4.5	< 5.0	< 4.1	< 4.7

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for antimony.
3. If a less than flag (<) is present, antimony was not detected above the value reported which is the detection limit.
4. Mean values were calculated using data collected starting in the summer of 1993 because of the lower detection limit during this time period.
5. The National Primary Drinking Water Standard for antimony is 6 ug/L. Concentration required for hazard index of 1 (ingestion and inhalation pathways only) is 15 ug/L.

Table C.3. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Metals

Arsenic

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1991 Win	< 10	NA	NA	NA	NA	NA	< 10	NA	NA	< 10	< 10	NA	< 10	< 10	NA	NA	< 10	< 10
1991 Spr	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1991 Sum	< 10	NA	NA	NA	NA	NA	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1991 Fall	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1992 Win	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1992 Spr	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1992 Sum	< 10	NA	NA	NA	NA	NA	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1992 Fall	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1993 Win	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1993 Spr	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1993 Sum	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1993 Fall	2.8	2.6	2.9	3.4	3.5	3.0	2.3	3.4	3.2	2.9	3.0	3.2	3.1	2.8	3.5	2.6	2.2	2.5
1994 Win	3.1	2.3	2.3	3.5	< 2	< 2	2.3	2.8	2.6	2.4	< 2	2.4	2.7	2.7	< 2	< 2	2.5	2.6
1994 Spr	5.8	< 2	< 2	2.5	2.7	2.4	< 2	4.2	3.3	9.8	3.3	3.4	3.7	2.8	< 2	< 2	< 2	2.7
1994 Sum	< 2	NA	NA	< 2	NA	NA	NA	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1994 Fall	2.9	2.4	NA	3.1	3.2	2.6	2.3	3.8	3.5	2.6	3.1	2.9	2.6	3.1	3.3	2.7	3.0	2.7
1995 Win	4.9	4.0	2.8	3.7	3.9	4.9	3.3	3.7	4.0	2.6	3.0	3.5	3.2	4.4	3.1	4.2	3.1	3.4
1995 Spr	< 2	< 2	< 2	2.5	2.8	< 2	< 2	< 2	2.1	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1	NA	2.4
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	< 2
MEAN	3.2	2.5	2.3	2.8	2.9	2.7	2.3	3.0	2.8	3.3	2.6	2.7	2.7	2.7	2.5	2.4	2.4	2.4

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for arsenic.
3. If a less than flag (<) is present, arsenic was not detected above the value reported which is the detection limit.
4. Mean values were calculated using data collected starting in the summer of 1993 because of the lower detection limit during this time period.
5. The National Primary Drinking Water Standard for arsenic is 50 ug/L. Concentration required for 10E-6 risk (ingestion and inhalation pathways only) is 0.038 ug/L.

Table C.3. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Metals

Barium

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	50	200	NA	< 30	120	400	180	30	130	120	60	80	170	150	160	150	160	150
1991 Win	< 30	NA	NA	NA	NA	NA	280	NA	NA	120	< 30	NA	50	130	NA	NA	130	130
1991 Spr	60	160	230	< 30	150	500	220	40	70	80	< 30	30	90	130	190	270	140	120
1991 Sum	< 30	NA	NA	NA	NA	NA	NA	40	130	110	30	40	120	150	210	270	160	150
1991 Fall	80	190	300	< 30	140	410	250	50	160	140	30	50	120	150	170	150	160	150
1992 Win	120	250	240	< 30	190	190	330	70	110	130	60	60	120	140	180	130	160	140
1992 Spr	170	190	280	< 30	180	430	260	70	90	100	50	60	160	150	200	240	140	140
1992 Sum	120	NA	NA	NA	NA	NA	NA	50	110	120	50	80	150	110	170	300	150	140
1992 Fall	120	200	NA	20	170	380	220	80	100	140	50	80	170	130	150	190	140	160
1993 Win	170	230	280	20	250	250	280	70	90	130	60	80	180	130	190	120	140	130
1993 Spr	170	230	320	40	310	300	330	80	90	120	60	100	200	130	200	270	150	140
1993 Sum	140	216	297	26.3	226	296	281	71.9	86.5	112	69.2	105	181	121	225	207	126	135
1993 Fall	156	212	267	29.7	267	292	281	83.7	99.5	127	61.7	133	202	130	200	256	158	140
1994 Win	161	226	278	30.1	141	169	304	96.1	103	142	73.2	129	208	132	92.2	260	156	141
1994 Spr	168	195	306	28.2	285	388	304	60.1	90.2	137	68.8	143	227	127	210	338	145	145
1994 Sum	151	NA	NA	26.2	NA	NA	NA	58.1	72.0	120	47.2	99.1	190	119	176	222	127	128
1994 Fall	131	188	NA	28.2	239	339	249	66.0	97.1	146	70.5	123	196	124	184	153	124	128
1995 Win	152	219	202	25.7	262	340	327	84.6	81.3	140	78.8	127	198	127	167	155	125	133
1995 Spr	188	237	310	30.1	325	355	352	88.6	97.8	140	85.6	152	238	129	182	266	144	139
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	244	NA	141
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	192	NA	146
MEAN	125	210	276	28	217	336	278	66	100	125	56	93	167	132	181	219	144	139

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for barium.
3. If a less than flag (<) is present, barium was not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limits.
5. The National Primary Drinking Water Standard for barium is 2,000 ug/L. Concentration required for hazard index of 1 (ingestion and inhalation pathways only) is 2,600 ug/L.

Table C.3. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Metals

Beryllium

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	3	< 1	NA	2	1	1	< 1	1	3	< 1	1	3	2	6	1	2	5	5
1991 Win	< 1	NA	NA	NA	NA	NA	< 1	NA	NA	< 1	< 1	NA	< 1	< 1	NA	NA	< 1	< 1
1991 Spr	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1991 Sum	< 1	NA	NA	NA	NA	NA	NA	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1991 Fall	1	1	1	< 1	< 1	1	< 1	< 1	1	1	< 1	< 1	< 1	< 1	1	< 1	< 1	< 1
1992 Win	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1992 Spr	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1992 Sum	< 1	NA	NA	NA	NA	NA	NA	< 1	< 1	2	3	2	< 1	< 1	< 1	< 1	< 1	< 1
1992 Fall	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1993 Win	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1993 Spr	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1993 Sum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1993 Fall	1.5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Win	< 1	1.4	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Spr	< 1	NA	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Sum	< 1	< 1	NA	< 1	NA	NA	NA	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Fall	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Win	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Spr	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1	NA	< 1
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1	NA	< 1
MEAN	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for beryllium.
3. If a less than flag (<) is present, beryllium was not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limits.
5. The National Primary Drinking Water Standard for beryllium is 4 ug/L. Concentration required for 10E-6 risk (ingestion and inhalation pathways only) is 0.016 ug/L.

Table C.3. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Metals

Cadmium

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	1	2	NA	< 1	< 1	2	1	2	1	1	1	< 1	1	< 1	< 1	< 1	< 1	< 1
1991 Win	< 1	NA	NA	NA	NA	NA	1	NA	NA	< 1	1	NA	< 1	< 1	NA	NA	< 1	< 1
1991 Spr	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1991 Sum	< 1	NA	NA	NA	NA	NA	NA	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1991 Fall	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1992 Win	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1992 Spr	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1992 Sum	< 2	NA	NA	NA	NA	NA	NA	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1992 Fall	< 2	< 2	NA	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1993 Win	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1993 Spr	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1993 Sum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1993 Fall	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Win	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Spr	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Sum	< 1	NA	NA	< 1	NA	NA	NA	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Fall	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Win	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Spr	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1	NA	< 1
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1	NA	< 1
MEAN	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for cadmium.
3. If a less than flag (<) is present, cadmium was not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limits.
5. The National Primary Drinking Water Standard for cadmium is 5 ug/L. Concentration required for hazard index of 1 (ingestion and inhalation pathways only) is 18 ug/L.

Table C.3. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Metals

Cobalt

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	< 50	< 50	NA	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1991 Win	< 10	NA	NA	NA	NA	NA	< 30	NA	NA	< 10	< 10	NA	< 10	< 10	NA	NA	< 10	< 10
1991 Spr	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1991 Sum	< 50	NA	NA	NA	NA	NA	NA	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1991 Fall	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1992 Win	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1992 Spr	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	10	< 10	10	< 10	< 10	< 10	< 10	< 10
1992 Sum	< 30	NA	NA	NA	NA	NA	NA	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1992 Fall	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1993 Win	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1993 Spr	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1993 Sum	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1993 Fall	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1994 Win	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1994 Spr	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	1.3	1.8	< 10	< 10	< 10	< 10	< 10	< 10	< 10	1.1
1994 Sum	< 10	NA	NA	< 10	NA	NA	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1994 Fall	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1995 Win	1.5	1.4	< 10	< 10	< 10	1.9	1.5	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1995 Spr	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.5	NA	< 10
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 10	NA	< 10
MEAN	< 9.2	< 9.1	< 10	< 10	< 10	< 9.2	< 9.2	< 10	< 9.2	< 9.3	< 10	< 10	< 10	< 10	< 10	< 9.7	< 10	< 9.3

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for cobalt.
3. If a less than flag (<) is present, cobalt was not detected above the value reported which is the detection limit.
4. Mean values were calculated using data collected starting in the fall of 1992 because of the lower detection limit during this time period.
5. There is no Drinking Water Standard for cobalt.

Table C.3. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Metals

Total Chromium

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	< 30	< 30	NA	< 30	280	140	100	160	60	< 30	< 30	< 30	< 30	50	< 30	40	70	150
1991 Win	< 10	NA	NA	NA	NA	NA	56	NA	NA	58	< 10	NA	31	25	NA	NA	11	26
1991 Spr	< 30	< 30	< 30	40	330	200	100	260	50	60	< 30	< 30	30	< 30	70	70	< 30	< 30
1991 Sum	< 30	NA	NA	NA	NA	220	NA	280	90.0	90	< 30	< 30	90	< 30	60	70	< 30	50
1991 Fall	< 30	60	< 30	70	340	210	100	290	110	100	< 30	< 30	40	40	30	< 30	< 30	40
1992 Win	30	80	30	100	370	260	130	300	80	90	< 30	< 30	60	< 30	60	30	< 30	50
1992 Spr	40	60	40	70	320	240	120	270	30	70	40	40	70	30	120	60	30	40
1992 Sum	50	NA	NA	NA	NA	NA	NA	270	90	130	40	20	70	40	60	100	30	50
1992 Fall	30	70	NA	80	340	200	120	280	70	80	20	110	60	20	30	50	20	40
1993 Win	30	50	40	100	300	280	120	210	40	90	30	20	60	20	100	30	30	40
1993 Spr	40	60	50	150	450	208	170	220	40	100	50	40	50	20	120	110	30	30
1993 Sum	18.6	51	51	81	322	187	104	184	43	55.5	21.2	23.7	30.8	21.4	62.4	47.0	11.1	30.8
1993 Fall	13.2	34	22	65	319	NA	82	191	48	62.2	8	24.5	31.8	9.9	48.9	36.9	12.8	25.2
1994 Win	15.5	31	19	64	152	93	83	170	40	58.1	6.5	22.2	32.5	9.9	20.1	39.7	11.5	24.5
1994 Spr	16.7	27	24	62	296	185	81	194	40	46.9	11.3	20.1	28.2	10.4	69.8	48.5	9.3	29.4
1994 Sum	16.8	NA	NA	60	NA	NA	NA	183	40	52.0	10.2	20.1	29.0	14.6	29.6	41.4	8.5	27.5
1994 Fall	13.1	30	NA	61	285	167	87	179	42	59.5	11.2	19.8	30.5	17.1	35.3	19.4	8.5	22.8
1995 Win	14.6	32.8	9.5	67.2	266	191	94.6	155	27.7	54.2	4.9	20.1	28.2	15	45.6	19.5	7.7	24
1995 Spr	21.3	30.1	26.9	74.9	279	187	90.6	171	28.6	58.2	6.9	26.4	29.5	13.5	47.7	46.2	10	26.1
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	44.9	NA	31.1
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	26.5	NA	26.5
MEAN	25.3	45.0	31.0	73.4	310	198	102	220	53.8	70.8	5.9	30.9	43.8	23.5	57.7	48.0	22.1	38.8

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for total chromium.
3. If a less than flag (<) is present, total chromium was not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limits.
5. The National Primary Drinking Water Standard for total chromium is 100 ug/L. The State of California Standard is 50 mg/L.

Table C.3. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Metals

Hexavalent Chromium

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	10	80	NA	30	400	160	70	200	70	90	10	20	60	20	40	30	10	30
1991 Win	10	NA	NA	NA	NA	NA	60	NA	NA	60	< 10	NA	40	30	NA	NA	10	30
1991 Spr	20	20	260	20	340	200	80	10	60	70	< 10	< 10	30	20	90	50	20	30
1991 Sum	30	NA	NA	NA	NA	NA	NA	200	70	90	60	60	50	20	40	50	10	30
1991 Fall	40	40	10	40	30	190	80	290	100	80	< 10	10	40	22	30	20	10	40
1992 Win	< 10	30	< 10	50	330	153	80	270	70	60	< 10	< 10	30	15	30	10	11	20
1992 Spr	20	34	13	53	290	180	79	260	44	60	< 10	< 10	30	10	80	42	10	30
1992 Sum	40	NA	NA	NA	NA	NA	NA	230	90	210	250	170	80	10	34	51	< 10	30
1992 Fall	20	50	NA	60	310	190	110	290	60	60	< 10	20	50	20	30	30	10	30
1993 Win	20	40	30	70	350	180	80	250	40	60	20	10	40	10	110	10	50	30
1993 Spr	29	20	30	80	340	190	80	200	40	60	20	20	30	15	70	50	10	42
1993 Sum	< 20	32	29	67	330	180	77	200	42	59	< 20	23	31	< 20	49	32	< 20	25
1993 Fall	< 20	< 20	< 20	46	160	140	79	150	47	63	< 20	24	33	< 20	31	30	< 20	25
1994 Win	11	27	16	62	310	110	< 10	180	39	58	< 10	21	31	< 10	40	27	11	25
1994 Spr	18	27	21	65	310	190	84	200	39	55	< 10	14	28	< 10	73	48	< 10	29
1994 Sum	14	NA	NA	68	NA	NA	NA	110	38	57	< 10	17	29	27	27	38	< 10	31
1994 Fall	14	26	NA	59	300	180	73	180	46	61	< 10	16	28	17	35	20	< 10	27
1995 Win	< 10	29	< 10	69	290	170	86	170	28	57	< 10	< 10	28	< 20	43	< 10	< 10	26
1995 Spr	16	19	23	73	270	140	61	54	29	58	< 10	NA	NA	13	38	NA	< 10	25
1995 Sum	22	32	23	74	270	190	85	180	31	NA	NA	NA	NA	< 20	64	37	< 20	25
1995 Fall	NA	NA	19	64	NA	170	76	170	NA	NA	NA	NA	NA	NA	NA	24	6	24
MEAN	20	33	37	58	289	171	75	190	52	72	27	27	38	17	50	32	14	29

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for hexavalent chromium
3. If a less-than flag (<) is present, the analysis is less than the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limits.
5. The National Primary Drinking Water Standard for total chromium is 100 ug/L. The State of California Standard is 50 mg/L.

Table C.3. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Metals

Copper

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	< 30	< 30	NA	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1991 Win	< 30	NA	NA	NA	NA	NA	< 30	NA	NA	< 30	< 30	NA	< 30	30	NA	NA	< 30	< 30
1991 Spr	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1991 Sum	< 30	NA	NA	NA	NA	NA	NA	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1991 Fall	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1992 Win	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1992 Spr	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1992 Sum	< 30	NA	NA	NA	NA	NA	NA	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1992 Fall	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	20
1993 Win	< 10	< 10	20	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1993 Spr	< 10	< 10	< 10	10	10	10	10	< 10	< 10	< 10	10	< 10	< 10	< 10	10	10	< 10	< 10
1993 Sum	1.5	4.2	3.1	3.3	2.2	3.0	2.7	2.3	2.5	2.6	2.6	2.1	4.7	1.5	2.1	2.3	1.5	1.2
1993 Fall	1.5	2.5	2.1	2.9	2.4	2.7	< 10	1.9	3.7	2.5	4.0	3.1	2.8	2.7	1.7	1.3	1.2	1.6
1994 Win	1.3	1.3	2.9	3.2	< 10	< 10	1.2	3.0	1.5	2.5	2.2	1.8	1.5	1.4	< 10	1.2	1.5	2.0
1994 Spr	5.1	2.5	7.8	4.1	2.1	6.7	1.9	5.4	2.9	1.5	1.8	1.7	4.9	3.1	1.8	1.8	1.8	2.6
1994 Sum	2.6	NA	NA	5.0	1.8	NA	NA	2.7	1.0	2.3	1.6	1.6	3.8	1.2	3.2	2.5	< 10	< 10
1994 Fall	< 10	2.0	NA	2.1	< 10	10	1.1	< 10	< 10	1.2	< 10	2.7	1.4	< 10	5.1	< 10	< 10	< 10
1995 Win	1.4	1.9	< 10	2.6	1.0	2.0	1.1	< 10	< 10	< 10	< 10	< 10	1.2	< 10	1.1	< 10	< 10	< 10
1995 Spr	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.2	NA	< 10
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 10	NA	< 10
MEAN	4.2	3.5	6.0	4.2	4.9	6.3	4.0	5.7	5.2	4.1	5.3	4.1	3.8	5.0	4.4	< 5.1	< 5.8	< 6.7

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for copper.
3. If a less than flag (<) is present, copper was not detected above the value reported which is the detection limit.
4. Mean values were calculated using data collected starting in the summer of 1993 because of the lower detection limit during this time period.
5. The Secondary Drinking Water Regulation for copper is 1,000 ug/L. Concentration required for hazard index of 1 (ingestion and inhalation pathways only) is 1,400 ug/L.

Table C.3. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Metals

Iron

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Sum	171	266	265	218	247	317	338	227	130	229	166	203	216	158	238	208	154	151
1993 Fall	122	174	148	137	127	203	177	158	89.4	144	140	139	158	90	105	136	114	110
1994 Win	502	730	642	633	228	210	921	762	344	667	390	574	636	403	173	716	464	406
1994 Spr	81.7	42.2	24.5	39.5	22.9	433	57	90.6	59.3	83.5	< 100	40.7	33.3	71.7	< 100	49.3	58.4	60
1994 Sum	< 100	NA	NA	< 100	20.2	66.1	NA	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
1994 Fall	< 100	< 100	NA	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
1995 Win	< 100	< 100	19.3	24.9	20	< 100	< 100	26.4	< 100	25.4	< 100	28.7	23.9	< 100	< 100	< 100	< 100	< 100
1995 Spr	15.3	18.8	93.9	67.3	34.8	< 100	< 100	22.8	< 100	28.3	< 100	< 100	< 100	17.3	32.8	< 100	< 100	< 100
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	103	NA	154
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.6	NA	37.2
MEAN	149	204	199	165	100	191	256	186	128	172	150	161	171	130	119	162	149	132

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for iron.
3. If a less than flag (<) is present, iron was not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limits.
5. The Secondary Drinking Water Regulation for iron is 300 ug/L.

Table C.3. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Metals

Lead

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	1	< 1	NA	< 1	< 1	< 1	< 1	3	< 1	1	< 1	< 1	< 1	< 1	1	< 1	< 1	< 1
1991 Win	< 1	NA	NA	NA	NA	NA	< 1	NA	NA	< 1	< 1	NA	< 1	< 1	NA	NA	< 1	< 1
1991 Spr	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1991 Sum	< 1	NA	NA		NA	NA	NA	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1	1	< 1	< 1
1991 Fall	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1992 Win	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
1992 Spr	< 3	4	18	< 3	4	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	63	< 3	< 3	< 3
1992 Sum	< 3	NA	NA	NA	NA	NA	NA	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
1992 Fall	< 3	< 3	NA	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
1993 Win	< 3	< 3	< 3	< 3	< 3	< 3	33	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
1993 Spr	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	3	< 3	4	< 3	< 3	< 3	< 3
1993 Sum	< 2	3.9	3.6	6.2	2	2	4.6	4.6	4.6	4.6	10.5	< 2	3.9	< 2	< 2	4.2	< 2	8.2
1993 Fall	< 2	2.5	< 2	< 2	< 2	< 2	< 2	1.2	< 2	< 2	< 2	< 2	< 2	1.2	2.6	< 2	1.8	< 2
1994 Win	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1994 Spr	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1994 Sum	< 2	NA	NA	< 2	< 2	NA	NA	< 2	< 2	< 2	< 2	< 2	< 2	< 2	1.4	< 2	< 2	< 2
1994 Fall	< 2	< 2	NA	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1995 Win	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1995 Spr	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	< 2
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2	NA	< 2
MEAN	< 2.1	< 2.4	< 3.6	< 2.4	< 2.2	< 2.1	< 4.1	< 2.3	< 2.3	< 2.2	< 2.5	< 2.1	< 2.2	< 2.1	< 5.4	< 2.2	< 2.0	< 2.4

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for lead.
3. If a less than flag (<) is present, lead was not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limits.
5. In lieu of an MCL, the treatment technique action level for lead is 15 ug/L. Concentration required for a hazard index of 1 (ingestion and inhalation pathways only) is 4 ug/L.

Table C.3. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Metals

Manganese

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994 Spr	< 10	1.1	1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	12.4	< 10	< 10	< 10	< 10	< 10	< 10
1994 Sum	9.9	NA	NA	< 10	NA	NA	NA	< 10	< 10	< 10	< 10	1.7	< 10	< 10	< 10	< 10	< 10	< 10
1994 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for Manganese.
3. If a less than flag (<) is present, manganese was not detected above the value reported which is the detection limit.
4. The National Secondary Drinking Water Standard for manganese is 50 ug/L. Concentration required for hazard index of 1 (ingestion and inhalation pathways only) is 180 ug/L.

Table C.3. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Metals

Mercury

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	< 0.4	< 0.4	NA	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	0.5	< 0.4	< 0.4	< 0.4	< 0.4
1991 Win	< 0.4	NA	NA	NA	NA	NA	< 0.4	NA	NA	< 0.4	< 0.4	NA	< 0.4	< 0.4	NA	NA	< 0.4	< 0.4
1991 Spr	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1991 Sum	< 0.4	NA	NA	NA	NA	NA	NA	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1991 Fall	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1992 Win	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1992 Spr	< 0.4	< 0.4	< 0.4	1.1	< 0.4	< 0.4	< 0.4	1.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	1.0	< 0.4	< 0.4
1992 Sum	< 0.4	NA	NA	NA	NA	NA	NA	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1992 Fall	< 0.4	< 0.4	NA	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1993 Win	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1993 Spr	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
1993 Sum	0.38	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	2.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1993 Fall	< 0.2	< 0.2	< 0.2	< 0.2	0.44	< 0.2	0.39	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.28	< 0.2	< 0.2
1994 Win	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1994 Spr	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1994 Sum	< 0.2	NA	NA	< 0.2	NA	NA	NA	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1994 Fall	< 0.2	< 0.2	NA	0.90	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	1.0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1995 Win	< 0.2	< 0.2	0.26	< 0.2	0.23	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.61	< 0.2	< 0.2	0.68	< 0.2	< 0.2	< 0.2
1995 Spr	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.32	< 0.2	< 0.2
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.2	NA	< 0.2
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.2	NA	< 0.2
MEAN	< 0.3	< 0.3	< 0.3	< 0.4	< 0.3	< 0.3	< 0.3	< 0.4	< 0.3	< 0.4	< 0.4	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for mercury.
3. If a less than flag (<) is present, mercury was not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limits.
5. The National Primary Drinking Water Standard for mercury is 2 ug/L. Concentration required for hazard index of 1 (ingestion and inhalation pathways only) is 11 ug/L.

Table C.3. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Metals

Molybdenum

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	90	260	NA	250	150	170	210	90	70	240	170	140	190	130	60	100	140	120
1991 Win	< 10	NA	NA	NA	NA	NA	< 10	NA	NA	< 10	< 10	NA	< 10	< 10	NA	NA	< 10	< 10
1991 Spr	< 30	70	30	50	40	60	< 30	50	30	30	30	30	30	< 30	30	50	< 30	< 30
1991 Sum	< 50	NA	NA	NA	NA	NA	NA	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1991 Fall	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1992 Win	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1992 Spr	20	< 10	< 10	20	< 10	10	20	10	< 10	10	10	< 10	< 10	< 10	20	20	10	10
1992 Sum	< 30	NA	NA	NA	NA	NA	NA	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1992 Fall	10	< 10	NA	< 10	< 10	< 10	< 10	10	10	< 10	< 10	70	< 10	10	< 10	< 10	< 10	10
1993 Win	10	20	20	< 10	< 10	< 10	10	< 10	< 10	10	< 10	< 10	10	< 10	< 10	< 10	10	10
1993 Spr	10	10	< 10	10	< 10	10	10	< 10	< 10	20	< 10	10	< 10	< 10	< 10	< 10	< 10	< 10
1993 Sum	1.5	< 10	< 10	< 10	1.3	< 10	< 10	1.8	< 10	1.1	1.2	1.2	1.2	1.5	1.3	1.3	1.5	1.3
1993 Fall	2.5	1	1.8	1.2	1.7	1.2	< 10	1.7	1.3	1.4	2.3	1.4	1.9	1.9	1.9	1.5	2.0	1.8
1994 Win	1.9	< 10	1.1	1.2	< 10	< 10	< 10	2.7	1.3	1.3	2.0	1.3	1.7	1.9	< 10	1.4	1.8	1.8
1994 Spr	1.2	< 10	1.4	< 10	1.5	< 10	< 10	1.8	1.5	1.7	1.9	1.3	1.4	1.8	1.3	< 10	1.6	1.2
1994 Sum	< 10	NA	NA	< 10	NA	NA	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1994 Fall	< 10	< 10	NA	< 10	< 10	< 10	< 10	5.0	< 10	< 10	< 10	< 10	< 10	< 10	5.0	< 10	< 10	< 10
1995 Win	< 10	< 10	< 10	< 10	< 10	< 10	< 10	1.2	< 10	1.5	1.7	1.1	< 10	< 10	1.3	< 10	1.7	< 10
1995 Spr	< 10	2.2	4.2	2.4	2.3	< 10	< 10	1.3	< 10	< 10	< 10	< 10	< 10	< 10	3.1	< 10	< 10	< 10
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.7	NA	1.4
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 10	NA	1.3
MEAN	5.9	7.6	4.8	6.9	5.3	8.7	< 10	3.2	6.8	4.6	4.9	4.5	5.8	5.9	4.2	6.6	4.8	4.9

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for molybdenum.
3. If a less than flag (<) is present, molybdenum was not detected above the value reported which is the detection limit.
4. Mean values were calculated using data collected starting in the summer of 1993 because of the lower detection limit during this time period.
5. There is no Drinking Water Standard for molybdenum. Concentration required for hazard index of 1 (ingestion and inhalation pathways only) is 180 ug/L.

Table C.3. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Metals

Nickel

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	< 30	< 30	NA	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1991 Win	< 30	NA	NA	NA	NA	NA	< 30	NA	NA	< 30	< 30	NA	< 30	< 30	NA	NA	< 30	< 30
1991 Spr	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	30	< 30	< 30	< 30	< 30	< 30	< 30
1991 Sum	30	NA	NA	NA	NA	NA	NA	< 30	< 30	< 30	< 30	50	< 30	< 30	< 30	< 30	< 30	< 30
1991 Fall	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	30	< 30	< 30	< 30	< 30	< 30	< 30
1992 Win	30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1992 Spr	30	< 10	10	20	20	30	20	20	< 10	10	50	170	10	< 10	30	< 10	10	< 10
1992 Sum	80	NA	NA	NA	NA	NA	NA	< 30	< 30	90	130	380	< 30	< 30	< 30	40	< 30	< 30
1992 Fall	50	< 10	NA	< 10	10	30	20	10	10	10	50	390	10	20	< 10	< 10	10	20
1993 Win	30	< 10	20	20	20	30	30	10	10	< 10	40	60	20	20	< 10	20	20	30
1993 Spr	20	20	10	40	40	40	40	< 10	< 10	70	50	30	< 10	< 10	30	40	10	< 10
1993 Sum	12.6	3.4	3.3	2.3	2.1	8.3	3.8	3.5	1.9	4.2	18.4	21.7	2.7	1.7	6.9	2.6	3.6	2.0
1993 Fall	10.2	3.6	8.4	2.3	2.2	13.8	2.3	1.7	1.9	1.6	16.4	19.1	1.6	1.4	1.2	2.4	3.4	2.0
1994 Win	36.5	5.7	7.2	4.3	< 20	7.7	6.7	5.2	2.4	4.9	11.4	36.4	4.0	2.9	< 20	5.4	3.7	3.2
1994 Spr	43.1	3.1	7.8	3.3	3	20.6	4.5	9.7	5.1	10.3	17.7	117	2.7	6.0	2.5	4.6	3.0	5.8
1994 Sum	96	NA	NA	3.0	NA	NA	NA	2.0	1.8	1.7	19.6	59.5	1.6	< 20	1.7	2.3	< 20	< 20
1994 Fall	32.9	3.9	NA	1.6	1.9	9.4	1.7	1.3	< 20	1.2	22.4	60.9	1.0	2.1	1.4	1.1	1.6	< 20
1995 Win	65.1	1.0	3.8	1.1	< 20	5.7	1.5	< 20	< 20	< 20	8.3	39	< 20	1.8	< 20	1.3	6.6	< 20
1995 Spr	31.8	1.7	3.3	1.8	1.3	4.2	1.5	1.4	< 20	< 20	10.2	27.8	< 20	< 20	1.5	1.5	1.9	< 20
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11.2	NA	5.2
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.2	NA	4
MEAN	41.0	3.2	5.6	2.5	7.2	10.0	3.1	5.6	9.1	8.0	15.6	47.7	6.7	7.0	6.9	3.9	5.5	10.2

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for nickel.
3. If a less than flag (<) is present, nickel was not detected above the value reported which is the detection limit.
4. Mean values were calculated using data collected starting in the summer of 1993 because of the lower detection limit during this time period.
5. The National Primary Drinking Water Standard for nickel is 100 ug/L. Concentration required for a hazard index of 1 (ingestion and inhalation pathways only) is 730 ug/L.

Table C.3. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Metals

Selenium

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	< 10	< 10	NA	< 10	10	< 10	< 10	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1991 Win	< 10	NA	NA	NA	NA	NA	< 10	NA	NA	< 10	< 10	NA	< 10	< 10	NA	NA	< 10	< 10
1991 Spr	< 10	< 10	< 10	< 10	10	< 10	< 10	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1991 Sum	< 10	NA	NA	NA	NA	NA	NA	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1991 Fall	< 10	< 10	< 10	< 10	31	23	< 10	31	< 10	12	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1992 Win	< 10	< 10	< 10	12	12	13	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1992 Spr	< 10	< 10	< 10	< 10	< 10	< 10	< 10	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1992 Sum	< 10	NA	NA	NA	NA	NA	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1992 Fall	< 10	< 10	NA	< 10	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1993 Win	< 10	< 10	< 10	22	< 10	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1993 Spr	< 10	< 10	< 10	20	10	10	< 10	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1993 Sum	2.9	< 3	< 3	22.9	12.3	11.6	< 3	9.2	3	4.9	< 3	2.6	3.6	< 3	2	< 3	2.6	4.3
1993 Fall	< 3	< 3	3.4	26.0	11.3	10.5	< 3	9.3	< 3	4.3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	3.5
1994 Win	< 3	< 3	< 3	21.4	3.7	5.8	< 3	9.9	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
1994 Spr	4.6	< 3	4.3	25.1	11.6	9.7	< 3	12.8	< 3	5.8	< 3	< 3	< 3	< 3	4.5	< 3	< 3	17.9
1994 Sum	< 3	NA	NA	16.1	NA	NA	NA	8.5	< 3	< 3	< 3	< 3	< 3	< 3	3.2	< 3	< 3	< 3
1994 Fall	< 3	< 3	NA	20.3	11.3	12.5	2.2	10.4	2.3	4.6	< 3	< 3	3.3	3.1	2.3	< 3	1.7	4.6
1995 Win	< 3	< 3	< 3	23.0	11.7	11.6	4.1	8.7	< 3	3.7	< 3	3.3	4.8	< 3	< 3	< 3	< 3	3.2
1995 Spr	< 3	< 3	< 3	21.2	9.9	11.6	< 3	9.3	< 3	< 3	< 3	< 3	< 3	< 3	3.4	< 3	< 3	< 3
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3	NA	4.7
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3	NA	3.6
MEAN	< 3.2	< 3.0	< 3.3	22.0	10.3	10.5	< 3.0	9.8	< 2.9	4.0	< 3.0	< 3.0	3.3	< 3.0	3.1	< 3.0	< 2.8	5.1

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for selenium.
3. If a less than flag (<) is present, selenium was not detected above the value reported which is the detection limit.
4. Mean values were calculated using data collected starting in the summer of 1993 because of the lower detection limit during this time period.
5. The National Primary Drinking Water Standard for selenium is 50 ug/L. Concentration required for hazard index of 1 (ingestion and inhalation pathways only) is 180 ug/L.

Table C.3. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Metals

Silver

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	< 30	< 30	NA	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1991 Win	< 30	NA	NA	NA	NA	NA	< 30	NA	NA	< 30	< 30	NA	< 30	< 30	NA	NA	< 30	< 30
1991 Spr	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1991 Sum	< 30	NA	NA	NA	NA	NA	NA	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1991 Fall	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1992 Win	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1992 Spr	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1992 Sum	< 10	NA	NA	NA	NA	NA	NA	< 10	< 10	< 10	< 10	< 10	< 10	10	< 10	< 10	< 10	< 10
1992 Fall	< 10	10	NA	< 10	< 10	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	10	< 10
1993 Win	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1993 Spr	< 10	< 10	< 10	30	30	30	30	< 10	< 10	< 10	20	< 10	< 10	< 10	20	30	< 10	< 10
1993 Sum	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1993 Fall	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1994 Win	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1994 Spr	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1994 Sum	< 10	NA	NA	< 10	NA	NA	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1994 Fall	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1995 Win	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1995 Spr	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 10	NA	< 10
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 10	NA	< 10
MEAN	< 10	< 10	< 10	< 12	< 12	< 12	< 12	< 10	< 10	< 10	< 11	< 10	< 10	< 10	< 11	< 11	< 10	< 10

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for silver.
3. If a less than flag (<) is present, silver was not detected above the value reported which is the detection limit.
4. Mean values were calculated using data collected starting in the spring of 1992 because of the lower detection limit during this time period.
4. The Secondary Drinking Water Regulation for silver is 100 ug/L. Concentration required for hazard index of 1 (ingestion and inhalation pathways only) is 180 ug/L.

Table C.3. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Metals

Thallium

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	120	270	NA	250	180	200	220	110	110	280	200	150	210	150	80	150	140	150
1991 Win	< 30	NA	NA	NA	NA	NA	80	NA	NA	< 30	< 30	NA	< 30	< 30	NA	NA	< 30	< 30
1991 Spr	5	2	7	6	9	31	14	11	8	11	6	7	10	6	11	12	5	7
1991 Sum	6	NA	NA	NA	NA	NA	NA	8	10	10	5	5	8	4	6	9	5	5
1991 Fall	5	8	6	13	< 5	23	13	9	12	7	< 5	7	8	< 5	7	< 5	9	6
1992 Win	< 10	20	< 10	30	130	130	100	40	20	110	< 10	< 10	10	< 10	30	< 10	< 10	20
1992 Spr	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1992 Sum	< 10	NA	NA	NA	NA	NA	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1992 Fall	< 5	< 5	NA	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1993 Win	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1993 Spr	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1993 Sum	2.4	< 10	< 10	1	< 10	< 10	< 10	4.9	3	3	1.1	2.9	3.1	1.2	1.1	< 10	2.7	7.7
1993 Fall	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1994 Win	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1994 Spr	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1994 Sum	< 10	NA	NA	< 10	NA	NA	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1994 Fall	< 10	< 10	NA	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1995 Win	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1995 Spr	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 10	NA	< 10
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 10	NA	< 10
MEAN	< 9.1	< 10.0	< 10.0	< 8.9	< 10.0	< 10.0	< 10.0	< 9.4	< 9.1	< 9.2	< 8.9	< 9.1	< 9.1	< 8.9	< 8.9	< 10.0	< 9.1	< 9.8

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for thallium.
3. If a less than flag (<) is present, thallium was not detected above the value reported which is the detection limit.
4. Mean values were calculated using data collected starting in the summer of 1993.
5. The National Primary Drinking Water Standard for thallium is 2 ug/L. Concentration required for hazard index of 1 (ingestion and inhalation pathways only) is 2.9 ug/L.

Table C.3. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Metals

Vanadium

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	< 50	< 50	NA	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1991 Win	< 100	NA	NA	NA	NA	NA	< 100	NA	NA	< 100	< 100	NA	< 100	< 100	NA	NA	< 100	< 100
1991 Spr	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1991 Sum	< 50	NA	NA	NA	NA	NA	NA	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1991 Fall	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1992 Win	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1992 Spr	10	20	10	20	< 10	30	20	20	10	10	< 10	< 10	10	10	10	10	10	< 10
1992 Sum	< 30	NA	NA	NA	NA	NA	NA	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1992 Fall	20	10	NA	10	10	20	10	20	20	20	10	20	20	10	< 10	< 10	< 10	20
1993 Win	20	30	40	30	10	20	20	20	20	20	20	20	30	20	< 10	< 10	20	20
1993 Spr	20	20	20	20	20	30	30	20	20	10	10	20	20	20	10	20	10	10
1993 Sum	10	3.2	2.5	2.8	2.3	3.5	3.8	9.1	11.7	8.8	4.9	10	11.6	5.0	4.2	3.2	9.1	7.4
1993 Fall	10.5	9.4	9.1	12.0	8.2	8.8	10.8	11.4	11.4	10.4	9.8	11.7	12.0	9.1	9.5	9.7	9.4	9.4
1994 Win	10.6	9.4	9.1	11.3	3.1	4.0	10.6	12.1	12.1	10.8	9.3	10.8	12.6	9.3	4.3	10.1	9.6	9.2
1994 Spr	8.5	8.8	9.0	8.9	6.2	5.4	9.9	2.5	10.7	6.9	8.4	10.3	12.0	9.5	8.1	10.6	9.0	6.7
1994 Sum	9.0	NA	NA	10.7	NA	NA	NA	8.5	10.9	8.3	6.5	8.7	10.5	7.8	8.6	8.9	7.9	7.5
1994 Fall	9.5	8.8	NA	9.6	4.3	6.1	8.5	8.3	10.6	8.4	7.9	8.8	10.3	8.8	8.2	8.5	7.9	7.7
1995 Win	10.6	9.5	7.7	10.3	4.0	8.7	11.7	9.1	11.5	8.6	8.3	9.5	11.1	9.8	7.7	9.6	8.1	7.3
1995 Spr	5.4	4.9	5.0	5.1	< 10	4.9	7.7	6.4	10.1	8.1	9.8	12.1	6.9	10.2	5.0	9.4	5.4	< 10
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.2	NA	7.5
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13.4	NA	13.1
MEAN	9.3	7.7	7.1	8.8	5.4	5.9	9.0	8.4	11.1	8.8	8.1	10.2	10.9	8.7	7.0	9.3	8.3	8.6

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for vanadium.
3. If a less than flag (<) is present, vanadium was not detected above the value reported which is the detection limit.
4. Mean values were calculated using data collected starting in the summer of 1993 because of the lower detection limit during this time period.
5. There is no Drinking Water Standard for vanadium. Concentration required for hazard index of 1 (ingestion and inhalation pathways only) is 260 ug/L.

Table C.3. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Metals

Zinc

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	< 30	40	NA	< 30	< 30	< 30	30	40	< 30	30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1991 Win	< 30	NA	NA	NA	NA	NA	40	NA	NA	< 30	< 30	NA	< 30	< 30	NA	NA	< 30	< 30
1991 Spr	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1991 Sum	< 30	NA	NA	NA	NA	NA	NA	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1991 Fall	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1992 Win	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1992 Spr	30	20	20	20	30	20	20	20	20	20	30	20	30	20	20	20	20	20
1992 Sum	< 30	NA	NA	NA	NA	NA	NA	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
1992 Fall	10	10	NA	20	10	20	10	30	20	20	10	20	20	10	10	10	10	20
1993 Win	30	30	30	20	20	20	30	20	20	20	30	20	60	20	10	10	30	30
1993 Spr	10	20	20	40	20	20	30	20	20	10	20	20	20	10	40	20	20	20
1993 Sum	18.3	8.4	8.6	6.5	6.0	7.7	8.4	3.2	3.6	4.9	8.1	5.7	7.6	5.7	7	7.3	3.8	< 10
1993 Fall	3.7	15.6	16.3	9.3	9.7	14.2	5.8	9.8	10.4	9.2	11.7	9.4	14.4	12.7	10.6	8.7	8.4	6.0
1994 Win	7.4	7.5	6.7	5.8	4.0	4.0	15.1	21.1	3.3	3.4	2.4	2.6	2.5	21.3	3.3	5.2	4.2	3.7
1994 Spr	7.9	10.4	5.1	6.0	4.4	5.3	10.1	5.0	8.0	26.2	20.3	4.1	10.8	5.3	6.7	4.4	7.5	4.4
1994 Sum	7.2	NA	NA	13.7	NA	NA	NA	6.3	2.8	6.1	6.5	3.9	7.8	4.4	8.7	11.4	3.9	4.9
1994 Fall	2.5	6.8	NA	4.9	2.6	3.2	2.8	3.6	1.7	3.1	2.1	3.9	3.7	3.9	2.5	2.2	1.8	2.8
1995 Win	2.6	2.7	13.4	6.5	6.1	2.6	2.4	2.8	2.3	3.9	2.7	3.0	7.3	1.2	5.3	1.3	2.6	1.8
1995 Spr	4.0	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	2.7	4.4	5.2	3.7	4.9	< 20	2.3	< 20	< 20
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.5	NA	8.5
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.0	NA	7.8
MEAN	6.7	10.2	11.7	9.1	7.5	8.1	9.2	9.0	6.5	7.4	7.3	4.7	7.2	7.4	8.0	5.6	6.5	7.0

Notes:

1. Units are in ug/L.
2. NA indicates that the well was not analyzed for zinc.
3. If a less than flag (<) is present, zinc was not detected above the value reported which is the detection limit.
4. Mean values were calculated using data collected starting in the summer of 1993 because of the lower detection limit during this time period.
5. The Secondary Drinking Water Regulation for zinc is 5,000 ug/L. Concentration required for hazard index of 1 (ingestion and inhalation pathways only) is 11,000 ug/L.

Table C.4. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Radionuclides

Tritium

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	1618	< 500	NA	< 500	1382	1172	29066	1100	1573	< 500	< 500	< 500	1231	< 500	< 500	3864	< 500	< 500
1991 Win	< 500	NA	NA	NA	NA	NA	NA	NA	NA	< 500	< 500	NA	< 500	< 500	NA	NA	< 500	< 500
1991 Spr	< 500	< 500	< 500	< 500	< 500	< 500	26186	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	7728	< 500	< 500
1991 Sum	< 500	NA	NA	< 500	NA	NA	NA	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	5482	< 500	< 500
1991 Fall	< 500	< 500	< 500	< 500	< 500	< 500	24576	< 500	< 500	9752	< 500	< 500	< 500	< 500	< 500	652	< 500	< 500
1992 Win	< 500	< 500	< 500	< 500	< 500	< 500	22594	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500
1992 Spr	< 500	< 500	< 500	< 500	< 500	< 500	20589	< 500	< 500	< 500	< 500	2081	< 500	< 500	< 500	3848	< 500	< 500
1992 Sum	965	NA	NA	NA	NA	NA	NA	< 500	< 500	< 500	< 500	< 500	< 500	< 500	691	5525	< 500	< 500
1992 Fall	614	< 500	NA	< 500	< 500	< 500	29838	< 500	< 500	509	< 500	< 500	< 500	< 500	< 500	1204	< 500	1200
1993 Win	< 500	625	< 500	< 500	1024	921	20705	1640	1550	< 500	< 500	< 500	965	< 500	< 500	908	< 500	< 500
1993 Spr	< 500	2211	2022	< 500	< 500	< 500	20917	< 500	< 500	811	< 500	734	< 500	< 500	< 500	5949	1524	< 500
1993 Sum	< 220	< 230	< 230	< 230	< 230	< 230	19620	< 220	< 220	< 220	< 230	< 220	< 220	< 230	< 220	3810	< 220	< 220
1993 Fall	< 240	< 240	< 240	< 240	< 240	< 240	20590	< 240	< 240	< 240	< 240	< 240	< 240	< 240	< 240	4760	< 240	< 250
1994 Win	< 260	< 260	< 260	< 260	< 260	< 260	21490	< 230	< 240	< 240	< 240	< 240	< 240	< 240	< 260	5440	< 240	< 240
1994 Spr	< 250	< 250	< 240	< 250	< 250	< 250	19250	< 240	< 240	< 250	< 250	< 250	< 240	< 240	< 250	8320	< 240	< 240
1994 Sum	< 250	NA	NA	< 260	NA	NA	NA	< 270	< 260	< 260	< 270	< 270	< 270	< 260	< 260	2500	< 270	< 270
1994 Fall	< 240	< 240	NA	< 240	< 240	< 240	450	< 240	< 240	< 240	< 240	< 240	< 240	< 240	< 240	17900	< 240	< 240
1995 Win	< 270	< 260	< 310	< 300	< 310	< 260	17600	< 310	< 310	< 310	< 310	< 300	< 310	< 260	< 310	590	< 310	< 310
1995 Spr	< 220	< 260	< 260	< 260	< 260	< 250	< 260R	< 260	16600R	< 220	< 220	< 220	< 230	< 220	< 260	5320	< 260	< 220
1995 Sum	NA	NA	< 300	NA	NA	< 300	19600	NA	< 290	NA	< 300	< 310	NA	NA	< 300	5590	< 300	< 300
1995 Fall	NA	NA	< 220	NA	NA	< 240	16480	NA	< 220	NA	NA	NA	NA	NA	NA	1670	< 240	NA
MEAN	< 480	< 500	< 470	< 390	< 480	< 430	20597	< 490	< 494	< 900	< 390	< 480	< 460	< 390	< 400	4580	< 430	< 430

Notes:

1. Units are in pCi/L.
2. NA indicates that the well was not analyzed for tritium.
3. A less than flag (<) indicates that the tritium activity was less than the MDA reported.
4. Rejected analyses (R) in the spring quarter of1995 for wells UCD1-13 and UCD1-20 are thought to have been switched. These results are not included in the mean.
5. Mean calculated using all numerical entries including MDA values.
6. The National Primary Drinking Water Standard for tritium is 20,000 pCi/L

Table C.4. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Radionuclides

Carbon-14

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Spr	< 500	NA	< 500	NA	NA	NA	1652	NA	NA	NA	NA	NA	NA	< 500	NA	1131	< 500	NA
1991 Sum	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 500	NA	1003	< 500	NA
1991 Fall	< 500	NA	< 300	NA	NA	NA	1815	NA	NA	NA	NA	NA	NA	< 500	NA	< 300	< 500	NA
1992 Win	< 500	NA	< 500	NA	NA	NA	2464	NA	NA	NA	NA	NA	NA	< 500	NA	< 500	< 500	NA
1992 Spr	< 500	NA	< 500	NA	NA	NA	1875	NA	NA	NA	NA	NA	NA	< 500	NA	< 500	< 500	NA
1992 Sum	< 500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 500	NA	1598	< 500	NA
1992 Fall	< 500	NA	NA	NA	NA	NA	1794	NA	NA	NA	NA	NA	NA	< 500	NA	< 500	< 500	NA
1993 Win	< 500	NA	< 500	NA	NA	NA	1867	NA	NA	NA	NA	NA	NA	< 500	NA	< 500	< 500	NA
1993 Spr	< 500	NA	< 500	NA	NA	NA	1930	NA	NA	NA	NA	NA	NA	< 500	NA	945	< 500	NA
1993 Sum	< 12	46	57	< 49	195	190	994	< 88	< 12	< 12	92	107	< 12	< 49	< 49	568	< 12	< 12
1993 Fall	< 40	72	< 39	< 40	< 40	360	1793	< 39	< 39	< 40	< 39	358	< 39	< 40	< 40	864	< 39	< 40
1994 Win	< 110	< 110	< 110	< 110	< 110	179	2150	< 110	< 110	< 110	< 110	197	< 110	< 110	< 110	810	< 110	< 110
1994 Spr	< 91	< 110	< 110	< 110	< 110	278	1380	< 110	< 110	< 91	< 110	137	< 110	< 110	< 110	790	< 110	< 110
1994 Sum	< 88	NA	NA	< 88	NA	NA	NA	< 130	< 130	< 130	< 130	< 130	< 130	< 88	< 88	641	< 130	< 130
1994 Fall	< 130	< 130	NA	< 130	< 130	270	1980	< 130	< 130	< 130	< 130	130	< 130	< 130	< 130	< 130	< 130	< 130
1995 Win	< 110	< 110	< 100	< 100	< 110	119	1169	< 110	< 110	< 100	< 100	184	< 100	< 110	< 110	< 110	< 110	< 100
1995 Spr	< 110	< 110	< 110	< 110	< 110	199	900	< 110	< 110	< 110	< 110	230	< 110	< 110	< 110	460	< 110	< 110
1995 Sum	NA	NA	NA	NA	NA	208	1750	NA	102	NA	NA	370	NA	NA	< 100	510	NA	NA
1995 Fall	NA	NA	NA	NA	NA	171	1900	NA	NA	NA	NA	NA	NA	NA	NA	236	NA	NA
MEAN	< 86	< 98	< 88	< 92	< 115	219	1713	< 103	< 95	< 90	< 103	205	< 93	< 93	< 94	637	< 94	< 93

Notes:

1. Units are in pCi/L
2. NA indicates that either a sample was not collected or the sample was not analyzed for carbon-14.
3. A less than flag (<) indicates that the carbon-14 activity was less than the MDA reported.
4. Mean values were calculated using data collected starting in the summer of 1993 because of the lower detection limit during this time period. All values were used for UCD1-13 and UCD2-14.

Table C.4. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Radionuclides

Radium-226

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Fall	< 0.37	< 0.21	< 0.27	< 0.28	< 0.20	< 0.25	< 0.38	< 0.24	< 0.15	< 0.24	NA	< 0.22	NA	< 0.18	0.26	< 0.21	< 0.2	< 0.19
1994 Win	< 0.12	< 0.29	< 0.24	< 0.24	< 0.19	< 0.12	< 0.13	< 0.17	< 0.22	< 0.22	< 0.21	< 0.13	< 0.22	0.066	< 0.18	< 0.15	< 0.22	< 0.17
1994 Spr	< 0.32	< 0.34	0.56	< 0.30	< 0.34	< 0.33	< 0.31	< 0.29	< 0.28	< 0.20	< 0.18	0.22	0.24	< 0.28	< 0.11	< 0.32	< 0.19	< 0.28
1994 Sum	< 0.24	NA	NA	< 0.27	NA	NA	NA	< 0.12	< 0.19	< 0.16	< 0.16	< 0.19	< 0.21	< 0.29	< 0.32	< 0.29	0.16	< 0.25
1994 Fall	< 0.68	< 0.66	NA	< 0.47	< 0.17	< 0.63	< 0.68	< 0.59	0.31	< 0.48	0.73	< 0.53	< 0.47	< 0.58	< 0.58	2.14	0.52	< 0.83
1995 Win	0.33	< 0.29	< 0.29	< 0.18	< 0.28	0.26	< 0.29	0.18	0.17	< 0.24	0.30	0.21	< 0.20	< 0.29	< 0.24	0.46	< 0.29	0.32
1995 Spr	0.27	0.30	< 0.19	0.24	< 0.12	0.19	0.23	< 0.15	< 0.11	< 0.15	< 0.31	< 0.20	0.18	< 0.17	0.21	< 0.26	< 0.15	< 0.17
1995 Sum	NA	NA	< 0.20	NA	NA	< 0.21	< 0.26	NA	< 0.11	NA	< 0.15	< 0.21	NA	NA	< 0.15	< 0.24	< 0.15	< 0.17
1995 Fall	NA	NA	< 0.14	NA	NA	0.55	0.25	NA	NA	NA	NA	NA	NA	NA	NA	0.22	< 0.15	NA
MEAN	< 0.33	< 0.35	< 0.27	< 0.28	< 0.22	< 0.32	< 0.32	< 0.25	< 0.19	< 0.24	< 0.29	< 0.24	< 0.25	< 0.27	< 0.26	< 0.48	< 0.23	< 0.30

Notes:

1. Units are in pCi/L.
2. NA indicates that the well was not analyzed for radium-226.
3. A less than flag (<) indicates that the radium activity was less than the MDA reported.
4. Mean calculated using all numerical entries including MDA values.
5. The National Primary Drinking Water Standard for radium-226 plus radium-228 is 5 pCi/L. A proposed MCL is 20 pCi/L for each nuclide.

Table C.4. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Radionuclides

Strontium-90

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	< 0.50	< 0.50	NA	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50[d]	< 0.50	< 15	< 0.50	< 0.50	< 0.50
1991 Win	< 0.50	NA	NA	NA	NA	NA	NA		NA	< 0.50	< 0.50	NA	< 0.50	< 0.50	NA	NA	< 0.50	< 0.50
1991 Spr	< 0.50	4.3	< 0.50	3.8	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.7	< 0.50	< 0.50	< 0.50
1991 Sum	< 0.50	NA	NA	NA	NA	NA	NA	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1991 Fall	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1992 Win	1.7	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.0	< 0.50	< 0.50
1992 Spr	< 0.50	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 0.50	< 0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 0.50	< 1.0	< 0.50	< 1.0	< 0.50
1992 Sum	< 1.0	NA	NA	NA	NA	NA	NA	8.4	< 1.0	< 0.50	< 1.4	2.5	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 1.0
1992 Fall	< 0.50	< 0.50	NA	1.2	< 0.50	1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.90	< 0.50
1993 Win	< 0.50	< 0.50	0.90	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.9	< 0.50	< 0.50	1.3	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1993 Spr	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1993 Sum	< 1.2	< 0.97	< 0.95	< 0.86	< 1.0	1.94	< 1.1	< 1.10	< 1.1	< 1.1	< 0.98	< 1.4	< 1.4	< 1.1	< 0.93	< 0.95	< 1.1	< 1.3
1993 Fall	< 0.65	< 0.71	< 0.61	< 1.1	< 0.93	< 0.87	1.33	< 0.62	< 0.69	< 0.68	< 0.67	< 0.68	< 0.65	< 0.64	< 0.66	1.7	< 1.1	< 0.66
1994 Win	< 1.1	< 0.96	< 1.0	< 1.1	< 1.2	< 1.60	< 2.0	< 0.87	< 0.95	< 0.91	< 0.82	< 0.81	< 0.72	< 0.76	< 1.0	< 1.3	≤ 0.75	< 0.76
1994 Spr	< 0.87	< 1.3	< 0.97	< 0.91	< 0.80	< 0.99	< 1.0	1.5	1.38	< 0.97	< 0.83	< 0.84	< 0.88	< 0.80	< 1.1	< 1.2	< 0.75	< 0.92
1994 Sum	< 1.0	NA	NA	< 1.1	NA	NA	NA	< 1.5	< 1.6	< 1.5	< 1.5	< 1.5	< 1.4	< 1.0	< 1.1	< 1.1	< 1.5	< 1.6
1994 Fall	< 0.76	< 0.86	NA	< 0.73	< 0.74	< 0.85	< 0.80	< 0.77	< 0.82	< 0.81	< 0.73	< 0.79	< 0.77	< 0.88	< 0.77	< 0.94	< 0.86	< 0.87
1995 Win	< 1.4	< 1.0	< 1.6	< 1.5	< 1.6	< 1.4	< 0.99	< 1.7	< 1.6	< 1.7	< 1.7	< 1.6	< 1.6	< 1.2	< 1.5	< 1.0	< 1.8	< 1.7
1995 Spr	< 0.86	< 0.84	< 0.76	< 0.77	< 0.79	< 0.84	< 0.81	< 0.81	< 0.80	< 0.84	< 1.0	< 0.89	< 0.83	< 0.94	< 0.83	< 0.87	< 0.77	< 0.80
1995 Sum	NA	NA	< 0.45	NA	NA	< 0.80	< 0.92	NA	< 0.47	NA	< 0.62	< 0.44	NA	NA	< 0.48	1.06	< 0.5	< 0.45
1995 Fall	NA	NA	< 1.1	NA	NA	< 1.1	< 1.0	NA	NA	NA	NA	NA	NA	NA	NA	< 1.0	< 1.4	NA
MEAN	< 0.79	< 1.00	< 0.81	< 1.00	< 0.77	< 0.91	< 0.82	< 1.21	< 0.88	< 1.06	< 0.79	< 0.91	< 0.76	< 0.67	< 1.77	< 0.98	< 0.83	< 0.75

Notes:

1. Units are in pCi/L.
2. NA indicates that the well was not analyzed for strontium-90.
3. If a less than flag (<) is present, strontium-90 was not detected above the value reported which is the MDA.
4. Mean calculated using all numerical entries including MDA values.
5. The National Primary Drinking Water Standard for strontium-90 is 8 pCi/L.

Table C.4. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Radionuclides

Cesium-137

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Spr	NA	NA	NA	NA	NA	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994 Win	< 2.4	< 7.6	< 7.3	< 6.6	< 2.3	< 2.3	< 6.3	< 7.0	< 7.1	< 6.6	< 2.4	< 2.3	< 2.5	< 6.7	< 2.5	< 7.2	< 6.1	< 7.0
1994 Spr	7.5	< 7.7	< 7.7	< 7.5	< 6.9	< 7.4	< 7.8	< 2.3	< 6.9	< 7.3	< 7.4	< 7.7	< 7.6	< 2.4	< 6.8	< 7.6	< 2.6	< 2.5
1994 Sum	< 6.9	NA	NA	< 28	NA	NA	NA	< 3.5	< 9.1	< 9.6	< 8.4	< 3.4	< 7.7	< 33	< 12	< 8.0	< 49	< 9.3
1994 Fall	< 4.2	< 2.8	NA	< 2.4	< 6.7	< 4.7	< 4.4	< 3.6	< 3.5	< 4.3	< 4.8	< 3.5	< 3.7	< 3.3	< 6.7	< 4.3	< 5.9	< 3.6
1995 Win	< 8.9	< 8.9	< 3.6	< 11	< 8.5	< 2.9	< 3.6	< 3.3	< 52	< 54	< 49	< 9.4	< 7.9	< 49	< 5.0	< 7.9	< 49	< 11
1995 Spr	< 9.2	< 2.7	< 3.0	< 7.7	< 9.1	< 3.5	< 3.5	< 3.2	< 8.9	< 7.3	< 6.9	< 3.2	< 3.1	< 3.6	< 9.5	< 8.7	< 9.1	< 3.5
1995 Sum	NA	NA	< 3.6	NA	NA	< 7.8	< 7.6	NA	< 8.9	NA	< 3.3	< 8.7	NA	NA	< 3.1	< 9.5	< 6.2	< 7.4
1995 Fall	NA	NA	< 3.3	NA	NA	< 2.8	< 3.5	NA	NA	NA	NA	NA	NA	NA	NA	< 3.8	< 3.4	NA
MEAN	< 6.5	< 5.9	< 4.8	< 10.5	< 6.7	< 5.3	< 5.2	< 3.8	< 13.8	< 14.9	< 11.7	< 5.5	< 5.4	< 16.3	< 6.5	< 7.1	< 16.4	< 6.3

Notes:

1. Units are in pCi/L.
2. NA indicates that the well was not analyzed for cesium-137.
3. If a less than flag (<) is present, cesium-137 was not detected above the value reported which is the minimum detectable activity.
4. Mean calculated using all numerical entries including MDA values.
5. The cesium-137 activity to equal the National Primary Drinking Water Standard of 4 mrem/yr dose is 200 pCi/L.

Table C.4. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Radionuclides

Plutonium-241

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994 Sum	< 3.7	NA	NA	< 2.6	NA	NA	NA	< 2.9	< 3.3	< 7.8	< 3	< 2.9	< 3.8	< 2.3	< 3.2	< 2.3	< 2.8	< 3
1994 Fall	< 1.7	< 1.6	NA	< 1.7	< 1.0	< 2.0	< 1.8	< 1.5	< 1.5	< 1.6	< 1.6	< 1.4	< 1.5	< 1.8	< 1.2	< 1.7	< 2.2	< 2.6
1995 Win	< 1.6	< 1.6	< 1.8	< 1.7	< 2.2	< 1.9	< 2.8	< 2.0	< 2.0	< 2.4	< 1.8	< 1.9	< 1.8	< 1.5	< 1.9	< 1.9	< 1.8	< 2.8
1995 Spr	< 3	< 1.4	< 1.2	< 1.2	< 1.3	< 1.1	< 1.6	< 1.4	< 1.9	< 2.4	3.2	< 1.9	< 2.2	< 2.4	< 1.2	< 1.7	< 1.2	< 1.2
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.6	NA	NA	NA	NA	< 3.5	NA	NA
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2.8	NA	NA
MEAN	< 2.5	< 1.5	< 1.5	< 1.8	< 1.5	< 1.7	< 2.1	< 2.0	< 2.2	< 3.6	< 2.6	< 2.0	< 2.3	< 2.0	< 1.9	< 2.3	< 2.0	< 2.4

Notes:

1. Units are in pCi/L.
2. NA indicates that the well was not analyzed for plutonium-241.
3. A less than flag (<) indicates that the plutonium activity was less than the MDA reported.
4. Mean calculated using all numerical entries including MDA values.

Table C.4. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Radionuclides

Americium-241

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994 Sum	NA	NA	NA	< 2.6	NA	NA	NA	NA	< 0.039	< 0.35	< 0.028	< 0.036	< 0.033	< 0.055	< 0.059	< 0.058	< 0.023	< 0.024
1994 Fall	< 0.046	< 0.11	NA	0.63	< 0.058	< 0.051	< 0.067	< 0.031	< 0.087	< 0.060	< 0.16	< 0.046	< 0.067	< 0.065	< 0.055	< 0.069	< 0.058	< 0.088
1995 Win	< 0.14	< 0.048	< 0.078	< 0.058	< 0.099	< 0.063	< 0.071	< 0.087	< 0.13	< 0.4	< 0.13	< 0.081	< 0.079	< 0.12	< 0.14	< 0.054	< 0.094	< 0.13
1995 Spr	< 0.031	< 0.071	< 0.064	0.106	< 0.081	< 0.077	< 0.081	< 0.076	< 0.07	< 0.048	< 0.026	< 0.027	0.036	< 0.026	< 0.072	< 0.024	< 0.073	< 0.078
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.028	NA	NA	NA	NA	< 0.046	NA	NA
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.037	NA	NA
MEAN	< 0.086	< 0.060	< 0.071	0.849	< 0.079	< 0.064	< 0.073	< 0.065	< 0.082	< 0.215	< 0.074	< 0.048	< 0.054	< 0.067	< 0.082	< 0.048	< 0.062	< 0.080

Notes:

1. Units are in pCi/L.
2. NA indicates that the well was not analyzed for americium-241.
3. A less than flag (<) indicates that the americium activity was less than the MDA reported.
4. Mean calculated using all numerical entries including MDA values.

Table C.4. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Radionuclides

Gross Alpha

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	3	27	NA	< 2	< 2	7	< 2	< 2	< 2	5	3	< 2	4	< 2	4	< 2	< 2	< 2
1991 Win	< 2	NA	NA	NA	NA	NA	NA	NA	NA	< 2	3	NA	< 2	< 2	NA	NA	< 2	< 2
1991 Spr	< 2	< 2	< 2	< 2	< 2	7	< 2	< 2	10	4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1991 Sum	6	NA	NA	NA	NA	NA	NA	4	4	3	< 2	5	4	< 2	< 2	< 2	< 2	< 2
1991 Fall	< 2	< 2	7	< 2	3	< 2	3	< 2	3	< 2	< 2	< 2	3	< 2	< 2	< 2	< 2	< 2
1992 Win	< 2	4	4	< 2	3	< 2	10	3	3	< 2	< 2	< 2	< 2	< 2	4	< 2	< 2	< 2
1992 Spr	< 2	10	4	4	< 2	6	3	< 2	< 2	< 2	< 2	3	< 2	< 2	4	< 2	< 2	< 2
1992 Sum	< 2	NA	NA	NA	NA	NA	NA	6	40	4	5	4	5	3	< 2	6	16	< 2
1992 Fall	< 2	4	NA	3	< 2	5	< 2	< 2	< 2	< 2	6	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1993 Win	< 2	< 2	< 2	< 2	4	5	10	4	< 2	< 2	< 2	5	< 2	< 2	3	7	< 2	< 2
1993 Spr	< 2	< 2	< 2	< 2	< 2	< 2	4	< 2	< 2	3	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
1993 Sum	< 6.8	< 9.6	< 8.0	< 7.3	< 7.6	< 6.5	< 5	< 5.3	< 6.0	< 4.7	< 6.9	< 8.6	< 6.6	< 4.5	< 7.2	< 4.0	< 4.9	< 4.4
1993 Fall	< 5.5	< 8.8	< 6.3	< 6.5	< 7.5	< 6.2	< 5.6	< 5.9	< 5.0	< 5.7	< 5.4	< 6.1	< 3.9	< 4.1	< 5.8	< 4.7	< 3.9	< 4.2
1994 Win	< 6.9	< 11	< 7.8	< 9.3	< 8.7	< 11	< 8.4	< 5.9	< 5.7	< 5.0	< 8.1	< 8.8	< 5.1	< 4.0	< 6.1	< 5.7	< 4.4	< 4.6
1994 Spr	< 6.6	< 10	< 8.0	< 7.8	< 7.5	< 5.6	< 6.4	< 5.7	< 6.2	< 5.4	< 7.6	< 8.4	< 6.3	< 5.1	< 8.2	< 5.7	< 4.3	< 5.6
1994 Sum	< 6.7	NA	NA	< 4.9	< 10	NA	NA	< 5.5	< 4.9	< 4.9	< 6.7	< 5.8	< 5.4	< 4.9	< 6.0	< 3.9	< 4.3	< 5.0
1994 Fall	< 5.7	< 8.6	NA	< 8.2	< 7.2	< 10	< 6.1	< 10	< 5.1	< 6.2	< 6.3	< 7.6	< 4.3	< 4.2	< 5.6	< 2.9	< 4.6	< 8.6
1995 Win	< 6.9	< 4.8	< 5.8	< 5.8	< 9.4	< 8.4	< 5.7	< 6.9	< 3.9	< 4.6	< 5.8	< 8.7	< 9.5	46.8	< 5.0	< 6.7	< 5.1	< 5.3
1995 Spr	< 5.4	< 8.5	< 6.6	< 6.0	< 7.5	< 4.9	< 5.4	< 8.0	< 4.2	< 4.0	< 6.2	< 6.1	< 8.6	< 3.9	< 5.5	< 7.0	< 4.8	< 4.1
1995 Sum	NA	NA	< 7.9	NA	NA	< 17	< 7.6	NA	< 4.0	NA	< 7.4	< 7.8	NA	NA	4.6	< 8.5	< 3.4	< 4.7
1995 Fall	NA	NA	< 5.7	NA	NA	< 17	< 11	NA	NA	NA	NA	NA	NA	NA	NA	< 7.0	< 5.1	NA
MEAN	< 4.1	< 7.6	< 5.5	< 4.7	< 5.3	< 7.2	< 5.7	< 4.5	< 6.1	< 3.8	< 4.6	< 5.1	< 4.2	< 5.3	< 4.3	< 4.3	< 3.8	< 3.4

Notes:

1. Units are in pCi/L.
2. NA indicates that the well was not analyzed for gross alpha activity.
3. If a less than flag (<) is present, gross alpha activity was not detected above the value reported which is the minimum detectable activity or error.
4. Mean calculated using all numerical entries including MDA values.
5. The National Primary Drinking Water Standard for gross alpha activity is 15 pCi/L.

Table C.4. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Radionuclides

Gross Beta

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	< 3	62	NA	< 3	< 3	8	9	< 3	5	6	10	6	6	< 3	9	3	< 3	< 3
1991 Win	6	NA	NA	NA	NA	NA	NA	NA	NA	< 3	3	NA	6	< 3	NA	NA	5	9
1991 Spr	< 3	17	< 3	4	< 3	9	< 3	< 3	17	6	4	< 3	< 3	< 3	4	< 3	< 3	< 3
1991 Sum	22	NA	NA	NA	6	NA	NA	10	8	6	8	17	10	< 3	< 3	< 3	< 3	< 3
1991 Fall	< 3	6	16	5	< 3	< 3	< 3	< 3	6	< 3	< 3	< 3	4	4	< 3	< 3	< 3	< 3
1992 Win	< 3	4	20	< 3	< 3	< 3	10	4	4	6	< 3	< 3	7	< 3	< 3	6	< 3	< 3
1992 Spr	4	< 13	< 6	< 3	NA	5	< 3	< 3	< 3	< 3	< 3	6	< 3	< 3	6	6	< 3	< 3
1992 Sum	7	NA	NA	NA	< 3	NA	NA	7	24	6	7	22	4	< 3	4	8	12	< 3
1992 Fall	< 3	21	NA	8	4	9	4	< 3	< 3	< 3	12	< 3	< 3	< 3	< 3	< 3	< 3	< 3
1993 Win	< 3	9	< 3	< 3	< 3	18	20	< 3	5	< 3	< 3	8	< 3	< 3	6	22	< 3	< 3
1993 Spr	< 3	7	7	< 3	< 9	< 3	< 3	< 3	< 3	4	< 3	< 3	< 3	< 3	< 3	5	< 3	< 3
1993 Sum	< 6.3	< 9.2	< 8.0	< 14	< 7.0	< 19	< 14	< 8.2	< 4.8	< 7.8	< 6.7	< 7.9	< 9.1	< 4.6	< 7.8	< 9.1	< 4.0	< 4.6
1993 Fall	< 5.7	< 7.7	< 4.5	< 10	< 9.1	< 12	< 9.6	< 9.3	< 5.0	< 8.7	< 6.6	< 6.9	< 7.4	< 4.4	< 5.6	< 7.1	< 4.0	< 4.5
1994 Win	< 7.3	< 11.0	23.4	< 13	< 10	< 18	< 13	< 9.3	< 4.6	< 8.6	< 5.5	< 6.3	< 7.9	< 3.7	< 7.1	< 10	< 4.0	< 4.0
1994 Spr	< 6.7	< 10.0	< 8.0	< 14	NA	< 19	< 14	< 11	< 5.7	< 10	< 7.2	< 8.1	< 11	< 5.6	< 6.9	< 11	< 5.5	< 6.3
1994 Sum	< 5.3	NA	NA	< 14	NA	NA	NA	< 6.7	< 3.6	< 7.8	< 5.9	11.6	< 7.5	< 3.8	< 5.6	< 6.7	< 3.6	< 3.9
1994 Fall	< 5.8	< 11.0	NA	< 11	< 5.4	< 18	< 11	< 8.7	< 5.4	< 10	< 7.0	< 6.7	< 11	< 4.8	< 4.9	< 5.3	< 5.5	< 18
1995 Win	< 5.9	7.0	< 5.5	< 13	< 8.0	< 16	15	< 11	< 4.0	< 10	< 6.3	< 8.5	< 9.3	16.2	< 4.9	< 5.9	< 4.4	< 5.1
1995 Spr	< 5.6	< 9.4	< 7.9	< 12	< 8.8	< 13	< 11	< 10	< 4.4	< 8.9	< 5.4	< 5.7	< 8.1	< 3.2	< 5.4	< 8.0	< 4.4	< 4.6
1995 Sum	NA	NA	< 6.8	NA	NA	< 18	< 12	NA	< 3.8	NA	< 6.7	< 6.9	NA	NA	9.6	< 7.3	4.1	< 4.4
1995 Fall	NA	NA	< 3.4	NA	NA	< 12	< 7.1	NA	NA	NA	NA	NA	NA	NA	NA	8.8	< 3.5	NA
MEAN	< 5.7	< 14	< 8.8	< 8.3	< 5.7	< 12	< 9.5	< 6.5	< 6.3	< 6.4	< 5.8	< 7.5	< 6.5	< 4.2	< 5.4	< 7.1	< 4.1	< 4.7

Notes:

1. Units are in pCi/L.
2. NA indicates that the well was not analyzed for gross beta activity.
3. If a less than flag (<) is present, gross beta activity was not detected above the value reported which is the minimum detectable activity.
4. Mean calculated using all numerical entries including MDA values.

Table C.5. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Cations and Anions

Calcium

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	32.7	46.8	NA	52.0	37.6	90.1	83.3	45.2	63.5	54.8	31.7	32.5	47.3	42.6	39.5	53.7	44.1	35.3
1991 Win	30.6	NA	NA	NA	NA	NA	65.7	NA	NA	56.8	26.3	NA	45.3	< 1.0	NA	NA	38.5	32.2
1991 Spr	29.2	51.6	46.4	45.3	39.0	103.0	66.1	43.9	36.4	53.2	27.3	34.2	45.7	34.1	36.8	55.4	34.2	35.0
1991 Sum	31.7	NA	NA	NA	NA	NA	NA	39.2	52.2	53.3	27.8	30.6	15.0	38.2	39.6	51.8	39.3	34.8
1991 Fall	29.9	58.4	59.5	51.4	41.5	93.1	67.9	48.3	47.2	55.6	28.9	33.4	46.0	36.4	39.1	35.1	36.0	23.7
1992 Win	37.9	59.4	46.2	44.8	39.4	68.4	65.7	58.0	38.5	55.0	27.8	33.1	45.8	37.1	37.5	33.2	38.8	34.9
1992 Spr	31.2	45.9	44.3	34.3	31.1	73.8	52.3	37.1	24.7	36.8	22.6	27.7	34.4	29.3	29.8	39.1	26.4	25.8
1992 Sum	34.4	NA	NA	NA	NA	NA	NA	33.1	30.4	49.5	28.7	33.1	42.4	31.4	33.3	53.6	31.6	29.5
1992 Fall	26.6	64.4	NA	36.4	33.9	73.0	53.4	41.7	29.1	43.0	24.3	30.8	37.6	26.6	26.9	33.6	28.0	27.7
1993 Win	35.5	50.0	43.4	38.7	36.2	58.6	56.0	52.2	23.0	14.6	27.6	34.6	41.7	28.8	29.9	25.5	30.6	30.0
1993 Spr	38.3	53.7	52.0	41.5	42.2	64.2	66.0	52.7	24.4	45.0	31.7	42.2	46.4	32.4	31.7	48.5	34.0	31.4
1993 Sum	41.4	56.8	61.8	48.1	46.1	76.6	72.6	55.6	29.9	53.0	35.8	48.6	53.7	34.0	48.5	43.4	36.4	38.5
1993 Fall	38.9	58.0	48.1	49.1	46.2	74.8	74.8	39.2	32.1	56.2	38.0	50.3	53.3	35.7	32.0	55.6	40.3	36.3
1994 Win	41.2	62.1	52.5	50.3	47.5	79.3	77.2	64.3	30.1	55.5	36.8	49.9	53.6	36.3	39.7	60.8	40.8	35.7
1994 Spr	41.1	58.8	59.2	49.7	47.3	83.1	78.1	49.8	27.1	51.4	38.2	46.5	54.3	34.9	37.4	67.1	37.6	36.2
1994 Sum	39.7	NA	NA	44.6	NA	NA	NA	46.5	27.7	53.7	39.3	47.6	50.7	33.7	37.7	46.4	36.1	36.6
1994 Fall	35.6	57.8	NA	48.5	42.5	85.7	77.1	56.2	29.3	57.2	38.9	47.6	53.1	36.8	42.5	38.8	35.5	35.9
1995 Win	39.5	62.0	44.0	45.6	44.6	74.0	73.2	57.9	25.2	54.9	36.5	46.3	51.9	36.4	36.4	39.0	35.2	37.6
1995 Spr	46.1	62.5	58.2	47.0	48.4	71.7	75.4	60.1	25.4	56.6	38.8	51.7	58.7	37.3	38.5	60.2	38.5	37.6
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	58.5	NA	38.8
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	43.3	NA	36.9
MEAN	35.9	56.5	51.3	45.5	41.6	78.0	69.1	48.9	33.1	50.3	31.9	40.0	46.2	32.8	36.5	47.1	35.9	33.8

Notes:

1. Units are in mg/L.
2. NA indicates that the well was not analyzed for calcium.
3. If a less than flag (<) is present, calcium was not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limit values.
5. There is no Drinking Water Standard for calcium.

Table C.5. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Cations and Anions

Magnesium

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	60.8	86.0	NA	157	73.7	250	168	103	138	99.1	48.0	53.7	86.0	60.6	65.9	89.0	58.3	57.7
1991 Win	72.7	NA	NA	NA	NA	NA	148	NA	NA	144	52.1	NA	116	62.3	NA	NA	62.6	56.7
1991 Spr	74.9	125	84.0	0.5	101	320	163	124	96.0	128	54.3	82.4	117	63.5	91.9	133	64.0	62.8
1991 Sum	80.2	NA	NA	NA	NA	NA	NA	119	135	135	60.4	78.9	45.7	65.7	85.6	134	66.9	65.5
1991 Fall	68.2	147	99.2	176	108	311	184	134	126	137	58.3	81.8	120	60.4	75.0	78.9	60.8	58.7
1992 Win	70.0	136	68.0	151	92.0	173	164	107	74.0	98.0	51.0	66.0	83.0	46.0	63.0	59.4	48.0	55.6
1992 Spr	98.9	152	101	174	111	333	184	144	79.4	131	58.2	89.6	126	60.5	100	121	62.7	60.7
1992 Sum	84.9	NA	NA	NA	NA	NA	NA	88.8	86.0	133	62.3	89.8	110	56.7	66.2	133	57.0	57.7
1992 Fall	86.2	110	NA	118	101	281	187	113	78.8	109	62.7	81.9	101	65.7	61.3	94.9	60.4	68.8
1993 Win	111	168	191	186	123	333	194	173	74.1	260	90.1	109	140	78.4	153	73.9	85.8	79.7
1993 Spr	86.0	124	97.0	167	97.0	190	171	163	65.7	127	61.0	94.4	136	50.0	72.6	97.0	55.5	53.0
1993 Sum	101	138	108	179	118	234	182	149	79.9	124	72.6	112	132	57.5	99.8	104	62.5	67.8
1993 Fall	95.6	138	85.2	184	121	234	188	101	80.0	136	73.9	115	130	58.3	62.6	133	67.4	63.6
1994 Win	101	153	96.4	185	120	242	188	175	74.2	134	71.5	115	133	59.2	81.5	142	67.5	61.1
1994 Spr	105	147	100	188	121	260	197	131	73.6	129	76.3	113	139	59.5	90.2	171	64.2	65.6
1994 Sum	99.2	NA	NA	173	NA	NA	NA	132	75.5	133	80.2	119	136	57.2	76.9	121	60.8	64.3
1994 Fall	88.3	147	NA	183	113	269	195	157	78.7	148	79.0	116	138	60.9	82.7	86.6	60.5	60.7
1995 Win	96.9	154	75.5	170	116	227	187	164	62.2	136	72.3	110	131	61.1	78.7	85.4	60.8	63.9
1995 Spr	112	154	111	177	127	218	191	170	62.3	140	77.1	122	147	62.3	86.4	146	66.8	66.3
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	137	NA	66.4
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	101	NA	65.1
MEAN	89.1	139	101	161	110	258	181	136	85.5	136	66.4	97.2	119	60.3	83.0	112	62.8	62.9

Notes:
1. Units are in mg/L.
2. NA indicates that the well was not analyzed for magnesium.
3. If a less than flag (<) is present, magnesium was not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limit values.
5. There is no Drinking Water Standard for magnesium.

Table C.5. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Cations and Anions

Sodium

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	42.9	39.1	NA	157	67.9	115	57.7	77.0	63.9	94.3	92.1	39.1	73.6	10.4	50.7	46.3	27.4	21.7
1991 Win	32.4	NA	NA	NA	NA	NA	53.3	NA	NA	88.4	71.6	NA	70.1	30.4	NA	NA	27.5	46.6
1991 Spr	43.9	40.7	39.4	166	77.8	130	60.8	76.1	59.5	108	88.0	43.8	79.3	37.7	64.7	51.2	34.4	47.5
1991 Sum	23.7	NA	NA	NA	NA	NA	NA	51.7	39.8	85.9	54.7	28.6	58.6	19.2	34.0	30.8	20.7	34.5
1991 Fall	29.9	29.8	32.5	102	48.6	86.0	36.2	44.3	39.5	65.9	46.2	27.5	50.2	19.2	27.0	51.6	19.4	28.8
1992 Win	35.3	30.2	29.8	153	57.0	73.0	54.6	60.5	45.5	77.1	57.1	34.9	63.4	26.0	42.6	32.4	25.6	48.1
1992 Spr	40.1	36.7	37.9	128	81.9	102	48.9	61.8	47.2	86.3	69.0	37.1	69.7	25.8	52.6	39.4	41.0	37.4
1992 Sum	35.5	NA	NA	NA	NA	NA	NA	67.3	45.3	98.2	80.2	42.1	72.6	28.0	44.6	47.9	27.3	41.0
1992 Fall	38.8	36.1	NA	151	72.9	108	54.1	66.9	44.4	84.9	70.1	40.8	69.7	21.5	35.9	40.8	27.9	42.6
1993 Win	39.9	38.1	36	166	77.6	93.0	61.9	75.5	42.3	103	85.2	42.3	75.2	27.0	62.0	36.4	25.6	43.4
1993 Spr	42.8	36.2	42.8	190	75.8	11.1	63.3	73.2	40.2	88.4	104	44.1	63.2	29.6	54.7	44.1	30.9	42.1
1993 Sum	38.3	32.5	37.6	168	77.4	95.7	58.6	71.2	40.3	99.6	90.1	43.6	79.0	28.5	60.6	39.6	28.9	46.4
1993 Fall	40.8	32.5	32.3	170	76.0	102	57.7	43.0	39.4	94.4	102	43.1	73.8	28.4	41.1	46.4	29.9	45.1
1994 Win	39.2	33.8	35.3	169	74.3	102	56.3	73.0	40.2	98.2	89.7	44.9	77.4	29.5	53.4	47.2	31.1	42.7
1994 Spr	41.4	35.7	37.8	175	79.5	103	64.3	71.2	38.2	93.7	98.3	45.6	82.3	29.0	59.9	53.3	28.9	46.9
1994 Sum	35.9	NA	NA	159	NA	NA	NA	68.8	38.0	102	95.0	47.3	77.3	28.9	40.2	43.2	29.1	46.0
1994 Fall	39.5	37.4	NA	173	73.0	103	59.1	75.8	40.0	99.2	97.1	47.1	80.8	29.9	41.0	43.2	29.0	41.5
1995 Win	39.7	35.4	33.7	160	71.8	103	58.4	67.5	36.8	92.9	88.7	42.7	74.2	30.7	47.1	41.4	28.4	41.5
1995 Spr	42.3	33.5	40.5	168	78.5	96.3	58.9	74.1	36.7	96.5	97.6	45.2	82.3	30.3	51.5	48.4	30.9	43.6
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	45.0	NA	43.3
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	42.6	NA	41.2
MEAN	38.0	35.2	36.3	159.7	72.7	94.9	56.5	66.6	43.2	92.5	83.0	41.1	72.2	26.8	48.0	43.6	28.6	41.5

Notes:

1. Units are in mg/L.
2. NA indicates that the well was not analyzed for sodium.
3. If a less than flag (<) is present, sodium was not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limit values.
5. There is no Drinking Water Standard for sodium.

Table C.5. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Cations and Anions

Potassium

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	2.90	1.30	NA	1.80	1.70	3.70	2.90	4.10	2.90	3.40	5.10	2.20	3.40	0.60	0.70	1.30	0.70	1.00
1991 Win	1.26	NA	NA	NA	NA	NA	2.08	NA	NA	2.41	1.98	NA	2.60	< 1.0	NA	NA	< 1.0	< 1.0
1991 Spr	1.70	1.30	0.60	1.40	1.20	5.60	3.00	1.80	2.50	2.00	2.20	1.40	1.60	0.40	0.80	0.90	0.50	0.70
1991 Sum	2.00	NA	NA	NA	NA	NA	NA	1.60	1.70	2.00	1.40	1.10	1.40	0.55	0.80	1.00	0.60	0.85
1991 Fall	1.20	1.20	1.60	1.60	1.50	4.10	1.90	1.40	1.90	1.70	1.50	1.40	1.40	0.60	0.80	1.10	0.80	0.70
1992 Win	1.20	1.10	1.10	1.70	1.00	7.00	9.20	1.20	1.40	1.70	1.20	1.20	1.30	0.70	0.80	0.80	0.80	0.70
1992 Spr	1.00	1.12	1.12	1.26	1.14	4.50	2.80	1.50	1.30	1.63	1.37	1.15	1.09	0.62	0.90	0.98	0.81	0.69
1992 Sum	1.20	NA	NA	NA	NA	NA	NA	2.19	1.20	2.00	1.70	1.60	1.21	0.50	0.70	0.90	0.60	0.50
1992 Fall	0.69	1.10	NA	1.60	1.03	4.00	3.10	0.79	0.99	1.20	1.02	0.98	0.87	0.44	1.10	1.10	0.70	1.13
1993 Win	0.74	0.90	0.70	0.93	0.70	4.70	4.20	1.20	0.80	1.20	1.14	1.00	0.75	0.47	0.64	0.62	0.56	0.52
1993 Spr	0.80	0.10	0.70	2.00	1.10	5.00	4.60	1.70	1.00	1.20	1.80	1.20	1.10	0.60	1.10	1.00	0.60	0.70
1993 Sum	0.33	0.65	< 1.0	0.94	0.11	3.19	2.07	0.83	0.84	1.16	0.99	0.58	1.40	0.26	0.32	0.14	1.04	0.39
1993 Fall	1.29	1.04	0.77	0.87	< 0.67	4.15	1.56	0.76	1.28	1.21	1.72	< 0.67	1.23	0.76	0.71	0.89	< 0.67	0.71
1994 Win	2.20	1.66	2.01	2.63	2.14	4.54	3.45	0.93	< 2.0	0.60	1.16	0.82	< 2.0	0.74	2.50	2.42	0.78	< 2.0
1994 Spr	1.11	0.83	0.77	1.31	0.79	2.43	2.14	1.45	< 2.0	0.83	1.40	0.72	0.75	0.58	0.88	0.70	< 2.0	0.50
1994 Sum	0.58	NA	NA	0.51	NA	NA	NA	1.33	< 2.0	1.22	1.12	0.74	0.77	0.41	0.52	0.47	0.66	< 2.0
1994 Fall	0.81	0.95	NA	1.07	< 2.0	1.30	1.84	1.28	0.71	1.12	1.18	1.10	1.18	< 2.0	< 2.0	0.77	< 2.0	< 2.0
1995 Win	< 2.0	< 2.0	0.79	1.51	< 2.0	2.01	1.01	< 2.0	< 2.0	1.07	1.00	0.78	0.95	< 2.0	0.70	0.72	0.93	0.91
1995 Spr	0.94	< 2.0	< 2.0	0.86	< 2.0	1.48	1.40	0.73	< 2.0	0.88	1.46	0.79	0.80	< 2.0	< 2.0	0.72	< 2.0	< 2.0
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.92	NA	< 2.0
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.54	NA	< 2.0
MEAN	1.26	1.15	1.10	1.37	1.27	3.85	2.95	1.49	1.58	1.50	1.60	1.08	1.36	0.80	1.00	0.90	0.93	1.10

Notes:

1. Units are in mg/L.
2. NA indicates that the well was not analyzed for potassium.
3. If a less than flag (<) is present, potassium was not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limit values.
5. There is no Drinking Water Standard for potassium.

Table C.5. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Cations and Anions

Ammonia

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Sum	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1993 Fall	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.051	< 0.05	< 0.05	< 0.05	< 0.05
1994 Win	< 0.05	0.051	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1994 Spr	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.25	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1994 Sum	< 0.05	NA	NA	< 0.05	NA	NA	NA	0.17	0.19	< 0.05	0.056	< 0.05	0.44	< 0.05	0.073	< 0.05	< 0.05	0.30
1994 Fall	< 0.05	< 0.05	NA	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.08	0.080	< 0.05	< 0.05	< 0.05
1995 Win	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	4.4	0.10	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.06	< 0.05
1995 Spr	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MEAN	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.67	0.07	0.07	< 0.05	0.08	< 0.05	0.10	< 0.05	0.06	< 0.05	< 0.05	0.08

Notes:

1. Units are in mg/L.
2. NA indicates that the well was not analyzed for ammonia.
3. If a less than flag (<) is present, ammonia was not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limit values.
5. There is no Drinking Water Standard for ammonia.

Table C.5. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Cations and Anions

Nitrate

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	2.3	10.3	NA	11.6	4.7	106.0	15.4	18.9	51.3	40.1	5.0	3.3	44.7	2.3	10.9	9.4	2.4	2.7
1991 Win	2.0	NA	NA	NA	NA	NA	17.5	NA	NA	49.7	1.0	NA	51.5	3.1	NA	NA	3.1	1.8
1991 Spr	7.6	12.4	2.4	15.6	24.3	122.0	17.4	12.8	31.9	53.2	2.2	5.5	56.8	2.5	37.4	9.9	3.0	4.2
1991 Sum	6.8	NA	NA	NA	NA	NA	NA	11.2	34.2	46.7	3.5	4.2	54.9	2.2	20.1	8.4	2.4	4.1
1991 Fall	4.6	11.9	3.0	15.6	24.4	100.4	15.9	11.9	46.4	45.3	4.6	5.4	50.1	2.8	9.4	4.7	2.4	3.3
1992 Win	5.1	11.5	1.9	21.0	24.1	52.7	15.8	10.5	25.2	40.3	0.5	3.9	42.9	1.9	12.4	2.7	2.5	3.1
1992 Spr	19.8	18.7	3.0	13.2	27.4	9.8	9.8	10.0	21.3	44.9	4.1	8.0	56.4	1.9	34.1	11.5	2.9	2.0
1992 Sum	7.4	NA	NA	NA	NA	NA	NA	5.0	12.4	32.9	3.1	4.4	13.0	1.9	9.5	6.4	0.8	3.0
1992 Fall	8.2	11.3	NA	21.6	24.4	9.5	16.2	11.3	19.6	4.5	6.6	7.6	5.1	2.6	8.5	5.8	2.0	3.2
1993 Win	17.0	16.6	10.2	28.5	23.8	55.4	14.1	10.8	8.9	44.1	4.7	7.8	45.2	1.8	30.2	2.6	2.5	3.5
1993 Spr	16.1	16.5	10.3	36.2	26.0	55.0	18.3	13.2	8.8	51.5	10.0	12.3	46.7	1.6	20.4	10.1	2.5	4.1
1993 Sum	13.0	15.0	6.9	36.0	26.0	65.0	18.0	13.0	9.4	49.0	9.1	9.2	54.0	1.5	31.0	7.0	2.0	4.4
1993 Fall	9.3	16.0	1.8	36.0	26.0	57.0	17.0	12.0	9.6	52.0	9.3	8.6	54.0	1.5	17.0	8.2	2.3	3.2
1994 Win	12.0	16.0	2.4	35.0	26.0	60.0	17.0	12.0	8.4	51.0	5.0	6.5	52.0	1.5	14.0	9.1	2.3	3.1
1994 Spr	20.0	15.0	3.4	37.0	25.0	68.0	19.0	14.0	8.2	56.0	8.7	5.0	65.0	1.5	22.0	13.0	2.1	4.7
1994 Sum	15.0	NA	NA	34.0	NA	NA	NA	20.0	8.6	51.0	9.2	6.9	60.0	2.4	17.0	8.4	9.1	4.3
1994 Fall	9.5	15.0	NA	35.0	26.0	78.0	17.0	14.0	9.3	57.0	83.0	7.1	58.0	3.0	17.0	4.6	1.9	3.6
1995 Win	14.0	17.0	1.2	36.0	27.0	65.0	19.0	16.0	6.4	56.0	4.5	8.8	63.0	2.1	12.0	4.5	2.1	4.1
1995 Spr	19.0	16.0	6.1	36.0	30.0	58.0	17.0	19.0	6.1	56.0	5.0	11.0	65.0	1.6	12.0	9.9	2.7	3.9
1995 Sum	23.0	17.0	7.3	37.0	27.0	72.0	NA	NA	NA	NA	NA	NA	NA	1.4	21.0	11.0	2.0	4.5
1995 Fall	NA	NA	2.4	36.0	NA	59.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3	1.8	NA
MEAN	11.6	14.8	4.5	29.0	24.5	64.3	16.5	13.1	18.1	46.4	9.4	7.0	49.4	2.0	18.7	7.6	2.6	3.5

Notes:
1. Units are in mg/L nitrate as nitrogen.
2. NA indicates that the well was not analyzed for nitrate.
3. Mean calculated using all numerical entries including detection limit values.
4. The National Primary Drinking Water Standard for Nitrate is 10 mg/L as nitrogen.

Table C.5. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Cations and Anions

Alkalinity

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	396	704	NA	704	451	766	836	653	704	627	385	407	539	352	389	466	297	407
1991 Win	376	NA	NA	NA	NA	NA	< 1	NA	NA	690	376	NA	499	368	NA	NA	359	376
1991 Spr	391	690	675	640	524	834	840	421	476	650	379	425	506	373	415	675	368	384
1991 Sum	449	NA	NA	NA	NA	NA	NA	595	542	633	378	421	464	354	403	613	344	367
1991 Fall	380	760	575	675	525	815	885	701	591	661	420	449	501	360	425	415	350	366
1992 Win	411	760	366	673	499	735	861	864	465	648	378	408	495	349	400	357	359	364
1992 Spr	338	703	529	655	500	777	783	719	439	582	382	473	512	449	406	526	336	357
1992 Sum	435	NA	NA	NA	NA	NA	NA	533	468	628	430	346	500	335	384	719	350	360
1992 Fall	397	513	NA	NA	515	629	480	757	478	622	415	472	497	331	357	383	322	353
1993 Win	465	758	535	707	490	697	838	828	374	606	460	505	556	333	396	333	359	348
1993 Spr	446	723	598	703	515	733	868	802	361	614	497	522	590	320	381	619	346	347
1993 Sum	420	710	570	730	540	720	890	800	390	630	460	610	560	310	480	540	350	380
1993 Fall	410	740	230	730	520	780	850	840	390	610	500	590	550	320	440	620	340	350
1994 Win	410	650	470	600	450	620	780	800	320	520	390	470	460	270	380	600	300	310
1994 Spr	470	670	470	670	530	670	860	690	370	570	420	530	540	310	390	740	300	360
1994 Sum	410	NA	NA	660	NA	NA	NA	610	390	590	510	570	540	300	360	540	270	310
1994 Fall	380	720	NA	660	490	730	830	730	380	560	450	500	510	300	370	370	310	330
1995 Win	400	730	410	650	550	690	460	820	330	590	470	550	510	320	380	420	310	350
1995 Spr	460	770	530	740	500	750	860	820	330	620	530	600	560	330	520	700	340	380
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MEAN	413	707	497	680	507	644	745	721	433	613	433	492	520	336	404	535	332	358

Notes:

1. Units are in mg/L as $CaCO_3$.
2. NA indicates that the well was not analyzed for alkalinity.
3. If a less than flag (<) is present, alkalinity was not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limit values.
5. There is no Drinking Water Standard for alkalinity.

Table C.5. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Cations and Anions

Sulfate

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	50.0	64.6	NA	392	56.4	167	125	117	76.0	94.7	43.0	37.0	70.1	38.4	45.2	75.4	39.3	46.0
1991 Win	35.6	NA	NA	NA	NA	NA	116	NA	NA	87.5	38.2	NA	70.0	41.9	NA	NA	39.0	41.6
1991 Spr	34.2	41.9	70.5	413	45.0	12.8	91.0	35.2	50.2	74.4	34.8	29.0	58.1	34.9	41.5	86.4	35.6	39.7
1991 Sum	35.3	NA	NA	NA	NA	NA	NA	75.0	70.1	88.8	38.3	28.1	67.8	38.5	40.9	102.0	8.1	69.8
1991 Fall	32.6	40.1	30.2	457	41.1	82.7	73.3	60.8	50.0	59.2	27.1	26.7	54.4	33.4	36.1	40.4	33.1	41.9
1992 Win	43.6	52.4	42.8	897	232	103	246	85.1	51.9	76.2	34.8	34.2	63.7	39.8	44.1	44.9	39.1	42.3
1992 Spr	40.1	32.4	38.8	402	45.1	123	84.5	68.6	49.8	62.3	31.8	27.8	52.7	32.9	41.2	64.3	32.6	68.6
1992 Sum	40.3	NA	NA	NA	NA	NA	NA	67.5	51.3	80.3	55.2	45.6	69.7	35.5	41.3	88.4	35.4	42.4
1992 Fall	32.0	31.0	NA	300	39.0	101	71.0	58.0	39.0	42.0	30.0	26.0	49.0	31.0	34.0	47.0	32.0	35.0
1993 Win	38.6	16.5	32.8	304	41.9	83.8	77.9	55.2	30.0	60.8	37.3	26.3	47.2	32.7	38.6	36.1	30.7	38.2
1993 Spr	43.0	88.4	56.0	282	44.7	92.6	87.2	68.4	32.4	69.1	40.0	34.2	46.8	33.4	31.7	70.7	37.6	39.1
1993 Sum	37	25	34	320	44	80	77	61	32	63	33	29	44	33	43	59	37	40
1993 Fall	35	26	36	290	42	77	76	59	31	64	35	30	47	34	40	65	37	38
1994 Win	37	26	36	280	43	77	76	58	30	61	33	30	46	33	38	71	36	36
1994 Spr	38	25	37	330	44	76	75	63	29	57	33	32	43	34	42	75	36	39
1994 Sum	35	NA	NA	340	NA	NA	NA	59	29	59	32	30	43	35	40	71	34	39
1994 Fall	34	26	NA	340	44	100	75	60	30	60	32	30	45	37	43	49	37	41
1995 Win	39	27	34	290	43	91	81	57	24	58	33	30	45	39	41	51	38	42
1995 Spr	38	27	40	270	43	78	73	59	27	61	32	30	40	34	43	64	42	42
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MEAN	37.8	36.6	40.7	369	56.5	89.7	94.1	64.8	40.7	67.3	35.4	30.9	52.8	35.3	40.3	64.5	34.7	43.2

Notes:

1. Units are in mg/L.
2. NA indicates that the well was not analyzed for sulfate.
3. If a less than flag (<) is present, sulfate was not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limit values.
5. The National Secondary Drinking Water Standard for sulfate is 250 mg/L.

Table C.5. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Cations and Anions

Chloride

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	28.7	35.6	NA	27.5	45.9	375	40.9	21.3	25.9	35.6	46.1	43.5	40.6	18.8	26.1	30.7	20.5	19.3
1991 Win	24.6	NA	NA	NA	NA	NA	41.7	NA	NA	25.5	39.4	NA	28.7	17.7	NA	NA	20.8	20.3
1991 Spr	25.5	18.2	13.4	24.8	48.6	39.9	42.4	57.4	12.4	23.1	39.6	34.9	25.7	16.7	28.3	38.2	19.0	17.7
1991 Sum	26.7	NA	NA	NA	NA	NA	NA	12.3	16.0	22.6	37.5	32.3	26.8	18.8	26.1	35.3	20.7	20.0
1991 Fall	20.6	16.8	51.7	29.8	50.1	265	31.5	11.3	22.4	19.7	29.5	18.7	20.8	18.7	23.1	27.4	19.8	21.0
1992 Win	33.8	14.9	66.6	35.6	58.8	182	38.9	13.4	10.4	22.2	36.8	34.0	26.4	19.2	14.8	28.6	21.5	19.4
1992 Spr	41.8	12.5	60.6	34.4	49.8	370	38.7	13.7	6.9	17.1	36.6	30.6	21.5	19.9	25.3	33.6	20.7	19.4
1992 Sum	31.6	NA	NA	NA	NA	NA	NA	12.7	8.6	21.7	38.7	34.1	23.9	17.7	24.0	36.5	21.1	19.5
1992 Fall	28.0	10.0	NA	25.0	45.0	364	35.0	11.0	8.0	22.0	34.0	29.0	21.0	16.0	20.0	31.0	18.0	17.0
1993 Win	39.4	4.66	37.7	41.0	54.8	204	37.6	13.3	3.7	15.7	32.0	29.0	18.0	16.5	23.3	30.0	19.6	18.0
1993 Spr	37.7	7.00	35.0	44.5	59.2	144	37.5	15.1	3.8	18.7	30.4	29.6	20.2	18.2	21.8	36.0	21.4	18.0
1993 Sum	33	5.6	36	43	60	240	35	14	4.2	16	3.3	26	23	17	24	42	20	17
1993 Fall	33	5.3	35	43	66	210	35	15	4.2	19	35	26	25	17	23	38	20	17
1994 Win	42	5.8	37	43	68	220	37	16	3.8	19	41	33	25	16	24	38	19	16
1994 Spr	39	5.4	35	51	65	230	39	15	3.1	16	42	38	30	18	23	40	22	19
1994 Sum	33	NA	NA	43	NA	NA	NA	13	3.1	18	39	31	28	16	26	37	18	17
1994 Fall	34	6.5	NA	46	63	350	38	15	3.4	22	37	29	27	17	24	38	20	19
1995 Win	43	6.2	42	39	70	220	39	16	2.6	18	37	24	28	20	21	34	19	18
1995 Spr	39	7.8	35	38	92	180	36	19	2.5	18	39	24	31	16	23	32	23	18
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MEAN	33.4	10.8	40.4	38.0	59.7	240	37.7	16.9	8.1	20.5	35.5	30.4	25.8	17.6	23.4	34.8	20.2	18.5

Notes:

1. Units are in mg/L.
2. NA indicates that the well was not analyzed for chloride.
3. If a less than flag (<) is present, chloride was not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limit values.
5. The Secondary Drinking Water Standard for chloride is 250 mg/L.

Table C.5. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Cations and Anions

Phosphate

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	0.20	0.30	NA	0.20	1.00	0.50	0.60	< 0.1	1.00	0.40	0.20	0.10	0.10	0.20	< 0.1	0.70	0.10	0.20
1991 Win	0.10	NA	NA	NA	NA	NA	0.40	NA	NA	0.10	0.10	NA	0.20	0.10	NA	NA	0.1	0.10
1991 Spr	< 0.1	0.40	0.40	0.40	0.40	0.10	0.50	0.30	0.20	0.30	0.20	0.20	0.60	0.10	0.20	0.40	< 0.1	< 0.1
1991 Sum	1.00	NA	NA	NA	NA	NA	NA	0.30	0.60	0.70	0.70	0.90	0.80	0.40	< 0.1	< 0.10	0.40	0.40
1991 Fall	0.21	0.83	0.53	< 0.31	< 0.31	< 0.31	0.61	0.30	0.18	0.14	0.21	0.17	0.35	0.17	< 0.1	0.58	0.11	< 0.1
1992 Win	0.10	0.10	0.20	< 0.10	< 0.10	0.20	0.10	< 0.1	< 0.1	< 0.1	< 0.1	0.10	< 0.1	< 0.1	< 0.1	0.10	< 0.1	< 0.1
1992 Spr	< 0.1	0.58	0.59	0.72	0.71	0.71	0.92	0.81	0.18	0.81	0.73	0.64	0.83	0.1	0.72	0.77	0.49	< 0.1
1992 Sum	0.20	NA	NA	NA	NA	NA	NA	0.51	0.23	0.35	0.17	0.20	0.19	0.10	0.10	0.12	0.11	0.11
1992 Fall	0.22	0.13	NA	0.18	0.21	0.18	0.22	0.22	0.18	0.17	0.16	0.19	0.18	0.15	0.15	0.16	0.15	0.17
1993 Win	0.20	0.17	0.14	0.13	0.17	0.15	0.13	0.18	0.16	0.15	0.13	0.16	0.16	0.11	0.08	0.11	0.10	0.12
1993 Spr	0.18	0.28	0.32	0.11	0.18	0.18	0.14	0.18	0.16	0.13	0.13	0.15	0.14	0.10	0.10	0.12	0.10	0.11
1993 Sum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1993 Fall	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Win	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Spr	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Sum	< 1	NA	NA	< 1	NA	NA	NA	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1994 Fall	< 1	< 1	NA	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Win	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Spr	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MEAN	< 0.56	< 0.65	< 0.68	< 0.63	< 0.67	< 0.62	< 0.66	< 0.61	< 0.61	< 0.60	< 0.55	< 0.60	< 0.61	< 0.51	< 0.54	< 0.62	< 0.52	< 0.51

Notes:

1. Units are in mg/L phosphate as phosphorus.
2. NA indicates that the well was not analyzed for phosphate.
3. If a less than flag (<) is present, phosphate not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limit values.
5. There is no Drinking Water Standard for phosphate.

Table C.6. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Other Parameters

pH

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	7.7	6.8	NA	7.5	7.0	7.3	7.3	7.5	7.5	7.4	7.5	7.6	7.4	7.4	7.3	7.1	7.8	7.4
1991 Win	7.6	6.9	7.3	7.2	7.8	7.6	7.0	7.5	7.4	7.3	7.6	7.6	7.4	7.6	7.5	7.6	7.7	7.8
1991 Spr	7.6	7.2	7.3	7.8	7.7	7.4	7.2	7.5	7.5	7.4	7.6	7.5	7.3	7.4	7.6	7.7	7.6	7.7
1991 Sum	7.6	NA	NA	7.5	NA	NA	NA	7.6	7.4	7.3	7.5	7.6	7.4	7.8	7.6	7.4	7.8	7.8
1991 Fall	7.7	6.9	7.8	7.1	7.8	7.7	7.9	7.6	7.6	7.4	7.6	7.6	7.5	7.9	7.6	8.0	7.9	7.7
1992 Win	7.6	7.3	7.6	8.0	7.9	7.9	7.8	7.7	7.6	7.5	7.8	7.8	7.5	8.1	7.9	7.9	8.3	7.3
1992 Spr	7.5	7.2	7.5	7.7	7.5	7.9	7.7	7.7	7.7	7.5	7.6	7.6	7.5	7.9	7.7	7.6	7.8	7.8
1992 Sum	7.7	NA	NA	NA	NA	NA	NA	7.6	7.6	7.4	7.6	7.6	7.4	7.8	7.7	7.4	7.7	7.8
1992 Fall	7.6	7.0	NA	7.5	7.4	7.3	7.2	7.5	7.6	7.4	7.5	7.6	7.3	7.6	7.6	7.6	7.7	7.6
1993 Win	7.9	7.6	7.2	7.5	7.4	7.0	7.6	7.1	7.4	7.2	7.7	7.5	7.5	7.6	7.1	7.6	7.6	7.9
1993 Spr	7.5	7.7	7.7	7.5	7.5	7.5	7.1	7.5	7.6	7.5	7.9	7.9	7.2	7.8	7.5	7.2	7.9	7.7
1993 Sum	7.6	7.3	7.3	7.4	7.7	7.4	7.4	7.6	7.9	7.7	7.6	7.7	7.6	7.7	7.7	7.5	7.9	8.1
1993 Fall	7.6	6.9	7.1	7.4	7.5	7.3	7.1	7.3	7.6	7.3	7.5	7.5	7.3	7.6	7.4	7.3	7.7	7.7
1994 Win	7.3	6.9	7.0	7.1	7.2	7.0	6.8	7.1	7.4	7.2	7.3	7.2	7.0	7.4	7.3	7.2	7.5	7.4
1994 Spr	7.5	6.8	7.1	7.1	7.2	7.2	7.2	7.4	7.4	7.4	7.3	7.2	7.0	7.9	7.2	7.2	7.4	7.5
1994 Sum	7.3	NA	NA	7.2	NA	NA	NA	7.5	7.6	7.2	7.3	7.5	7.2	7.5	7.4	7.0	7.6	7.6
1994 Fall	7.5	NA	NA	7.4	7.5	7.2	6.5	7.3	7.5	7.2	7.4	7.3	NA	7.4	7.6	7.0	7.6	7.5
1995 Win	7.1	6.8	6.9	7.2	7.4	7.0	6.9	7.5	7.2	7.2	7.2	7.0	6.9	7.4	7.2	7.3	7.4	7.3
1995 Spr	7.1	7.2	7.2	7.2	7.6	7.2	7.2	7.4	7.8	7.1	7.3	7.3	7.2	7.4	7.6	7.2	7.6	7.2
1995 Sum	7.6	7.6	7.3	7.7	7.7	7.7	7.4	7.8	7.8	NA	7.4	7.5	NA	7.7	7.6	7.8	8.7	7.6
1995 Fall	NA	7.4	7.7	8.1	NA	7.2	7.7	7.9	7.9	NA	NA	NA	NA	NA	NA	7.8	8.1	8.1
MEAN	7.5	7.1	7.3	7.4	7.5	7.4	7.3	7.5	7.6	7.4	7.5	7.5	7.3	7.6	7.5	7.4	7.8	7.6

Notes:

1. Units are in standard pH units.
2. NA indicates that the well was not analyzed for pH.
3. The National Secondary Drinking Water Standard for pH is a range from 6.5 to 8.5.

Table C.6. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Other Parameters

Temperature

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	19.2	18.1	NA	18.0	18.5	18.7	18.5	20.3	19.5	20.5	20.0	20.6	20.1	18.8	19.1	19.0	18.3	18.4
1991 Win	16.6	17.7	16.9	16.7	16.5	17.6	18.7	18.1	16.4	18.2	19.0	18.2	18.4	16.7	18.2	16.8	16.1	15.0
1991 Spr	18.0	18.6	19.6	18.7	18.5	19.2	19.1	19.6	19.2	20.1	19.8	20.3	21.1	18.0	18.7	18.5	17.9	18.2
1991 Sum	19.7	NA	NA	21.4	NA	NA	NA	20.3	21.0	21.3	21.3	22.6	20.6	18.7	19.3	19.5	19.3	18.7
1991 Fall	18.7	16.9	16.9	17.1	17.5	17.6	17.1	18.4	19.4	19.5	19.3	19.9	17.9	17.8	17.7	16.6	16.6	18.2
1992 Win	17.8	17.9	17.8	17.5	17.3	17.9	18.1	18.9	18.7	19.8	19.5	19.8	19.3	17.6	17.8	17.4	17.2	17.5
1992 Spr	18.9	18.4	18.9	18.6	18.0	18.7	17.8	19.7	19.0	20.2	19.8	21.2	19.9	18.3	17.7	17.4	18.7	18.9
1992 Sum	19.2	NA	NA	NA	NA	NA	NA	23.6	21.2	22.1	20.7	24.9	20.8	18.8	19.7	18.9	19.1	18.7
1992 Fall	18.1	16.1	NA	16.5	17.6	17.3	15.6	18.2	19.0	19.7	18.9	18.3	19.2	17.9	15.6	15.6	17.2	18.2
1993 Win	16.4	17.0	17.2	15.2	16.3	16.2	17.0	16.9	17.3	18.8	17.2	16.7	16.1	16.1	16.1	16.8	19.3	16.9
1993 Spr	19.5	20.8	20.2	18.3	18.8	19.4	19.3	20.1	20.2	19.5	20.3	19.8	19.4	19.6	19.8	18.3	18.3	19.5
1993 Sum	19.3	21.1	19.4	21.1	19.7	21.2	20.6	18.9	19.2	19.7	20.2	19.4	19.2	18.3	20.5	20.3	18.8	19.1
1993 Fall	18.5	19.8	19.0	18.5	18.6	19.2	19.1	19.7	19.5	20.1	19.5	19.1	20.0	18.3	19.1	18.8	17.9	18.5
1994 Win	18.1	19.9	19.2	18.8	18.9	19.4	19.3	19.9	20.0	20.9	19.8	20.1	20.0	18.6	19.2	18.8	18.5	19.2
1994 Spr	18.6	20.5	19.4	18.8	18.8	19.3	19.1	19.7	19.8	20.3	20.4	19.8	20.5	18.5	19.1	19.5	18.5	18.7
1994 Sum	18.7	NA	NA	20.1	NA	NA	NA	19.9	21.3	20.5	20.8	20.7	21.3	19.2	19.2	19.4	18.5	18.8
1994 Fall	18.6	NA	NA	19.1	18.8	19.7	19.2	19.6	19.6	20.0	19.8	19.2	NA	18.4	18.7	18.8	18.4	18.4
1995 Win	18.2	19.1	18.8	18.6	18.6	19.1	18.8	19.4	19.4	20.1	19.6	19.1	20.1	18.3	19.0	18.9	18.2	18.6
1995 Spr	18.5	19.2	18.5	18.7	18.6	19.7	19.1	19.7	20.0	20.1	20.0	19.4	20.4	18.6	18.7	19.0	18.2	19.1
1995 Sum	21.4	21.3	21.7	22.8	23.3	21.7	18.6	23.1	23.9	NA	23.6	22.0	NA	20.7	21.2	17.7	23.4	20.7
1995 Fall	NA	16.4	17.7	21.4	NA	18.5	20.9	20.2	21.3	NA	NA	NA	NA	NA	NA	17.4	18.4	20.5
MEAN	18.6	18.8	18.8	18.8	18.5	18.9	18.7	19.7	19.8	20.1	20.0	20.1	19.7	18.4	18.7	18.3	18.4	18.6

Notes:

1. Units are in °C.
2. NA indicates that the well was not analyzed for temperature.

Table C.6. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Other Parameters

Specific Conductance

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	720	1001	1154	1530	990	2480	1039	1217	1360	1442	820	775	1090	670	810	733	649	660
1991 Win	926	1627	NA	22500R	1472	4090	1865	1660	1920	1989	1050	1011	1665	897	1220	912	889	887
1991 Spr	770	1138	817	1620	1026	2730	1350	1078	449	1205	749	774	1080	692	971	1078	636	557
1991 Sum	922	NA	NA	2080	NA	NA	NA	1152	1408	1702	910	954	1456	744	839	1132	761	806
1991 Fall	770	1470	1172	1945	1284	3290	1970	1266	1378	1520	985	903	1451	674	921	1007	644	720
1992 Win	1102	1366	889	1856	1203	2740	1641	1250	1202	1766	889	1053	1325	870	883	746	910	886
1992 Spr	1036	1351	1122	1907	1153	3080	1633	1343	914	1549	885	989	1336	675	1088	1113	571	716
1992 Sum	679	NA	NA	NA	NA	NA	NA	870	925	1262	702	772	1326	440	770	1342	440	552
1992 Fall	860	1339	NA	1780	1180	2270	1402	1112	961	1533	957	986	1390	678	732	838	671	734
1993 Win	785	486	498	1340	359	465	255	475	375	421	968	364	1028	543	362	260	596	594
1993 Spr	1087	1210	689	1902	1327	2187	1745	1337	768	1286	971	957	1531	717	1047	1317	667	750
1993 Sum	1205	1490	1410	2400	1550	4640	2090	1465	953	1850	1230	1429	1729	790	1400	1420	867	943
1993 Fall	804	1131	656	1499	924	1615	1155	1212	638	1059	916	788	1071	466	718	842	630	572
1994 Win	880	1202	899	1503	1099	2070	1119	1408	717	1391	909	1026	1013	449	773	912	584	650
1994 Spr	1012	1195	865	1829	1013	2320	1326	1287	713	1226	957	994	1408	556	612	1384	645	703
1994 Sum	908	NA	NA	1859	NA	NA	NA	1051	767	1419	1016	942	1415	472	747	1049	480	594
1994 Fall	812	NA	NA	1620	992	2560	1463	1270	742	1382	738	1003	NA	561	855	747	617	587
1995 Win	842	1236	533	1771	986	2120	1509	1222	624	1407	918	1007	1317	619	747	767	NA	706
1995 Spr	923	1230	994	1748	1169	2000	1461	1425	569	1414	1017	1064	1999	610	818	1176	630	731
1995 Sum	2.0R	2.77R	2.35R	3.91R	2.89R	5.56R	2.79R	14.76R	14.16R	NA	2.41R	2.34R	NA	1.24R	1.85R	2.39R	13.78R	16.17R
1995 Fall	NA	10.07R	9.34R	18.25R	NA	18.6R	12.93R	15.83R	6.5R	NA	NA	NA	NA	NA	NA	9.23R	7.48R	8.26R
MEAN	897	1231	900	1776	1108	2541	1439	1216	915	1412	926	936	1368	638	859	988	660	703

Notes:

1. Units are in umhos/cm.
2. NA indicates that the well was not analyzed for specific conductance.
3. If a less than flag (<) is present, specific conductance was not detected above the value reported which is the detection limit.
4. Values that have an "R" suffix in the summer and fall of 1995 have been rejected for calibration reasons.
5. Mean calculated using all numerical entries except rejected values.

Table C.6. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Other Parameters

Eh

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Fall	118	93	65	18	77	62	87	95	95	110	78	81	109	99	63	67	127	105
1994 Win	170	231	79	125	181	197	116	124	137	142	75	113	98	98	156	157	88	74
1994 Spr	113	118	138	126	114	143	119	131	154	95	123	46	144	NA	140	114	NA	67
1994 Sum	237	NA	NA	186	NA	NA	NA	183	251	210	163	100	184	225	223	205	180	192
1994 Fall	176	NA	NA	218	224	169	206	206	228	247	104	203	NA	192	219	163	167	171
1995 Win	40	141	128	153	130	163	110	219	167	175	122	148	140	146	99	82	171	129
1995 Spr	272	150	149	155	146	157	128	148	131	260	262	248	272	236	195	242	143	128
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MEAN	161	147	112	140	145	149	128	158	166	177	132	134	158	166	156	147	146	124

Notes:
1. Units are in mvolts.
2. NA indicates that the well was not analyzed for Eh.
3. There is no Drinking Water Standard for Eh.

Table C.6. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Other Parameters

Turbidity

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	4	> 200	NA	6	1	26	28	4	17	30	7	3	17	0.2	2	3	1	0.4
1991 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Spr	6	> 200	6	88	4	11	5	7	1	12	1	5	2	0.2	3	3	0.3	0.2
1991 Sum	> 200	NA	NA	> 200	NA	NA	NA	> 200	> 200	> 200	30	> 200	> 200	0.1	4	3	0.2	0.1
1991 Fall	20	133	189	28	7	26	13	2	10	2	2	3	2	0.5	3	12	0.1	0.3
1992 Win	25	102	> 200	7	7	7	3	8	2	5	12	30	1	0.7	1	18	0.2	0.4
1992 Spr	26	> 200	> 200	15	7	12	10	6	24	54	9	66	3	0.7	3	2	1	1
1992 Sum	12	NA	NA	NA	NA	NA	NA	> 200	97	4	11	72	46	0.2	1	4	0.2	0.2
1992 Fall	9	> 200	NA	2	3	4	3	3	2	1	3	2	3	1.9	4	7	2	1
1993 Win	0.4	5	4	1	2	2	2	1	2	2	8	2	0.5	0.2	1	8	1	0.1
1993 Spr	4	> 200	> 200	5	6	10	4	1	1	3	1	2	1	0.9	4	4	1	1
1993 Sum	8	> 200	102	2	1	4	1	3	2	2	1	1	1	0.2	7	2	0.4	2
1993 Fall	NA	3	43	1	2	6	2	2	1	1	0.3	0.5	1	0.3	5	1	NA	NA
1994 Win	11	2	9	2	2	3	4	0.5	0.1	0.4	11	1	2	0.2	1	1	0.3	0.1
1994 Spr	9	53	50	5	3	3	5	5	4	5	9	5	1	0.7	1	0.3	2	2
1994 Sum	11	NA	NA	1	NA	NA	NA	6	19	13	9	47	13	0.3	1	1	2	1
1994 Fall	6	NA	NA	3	0.2	6	4	0.2	0.3	0.3	0.3	0.1	NA	0.1	0.2	0.1	0.3	0.3
1995 Win	2	14	14	3	1	7	2	1	0.3	0.5	1	0.4	1	0.1	0.3	0.4	NA	0.1
1995 Spr	4	2	5	1	0.1	1	0.3	1	0.2	1	2	0.2	1	0.2	0.1	1	0.2	0.3
1995 Sum	9	21	19	2	2	9	0.4	1	3	NA	4	9	NA	3	1	2	1	0.1
1995 Fall	NA	1	1	1	NA	0.2	0.4	1	2	NA	NA	NA	NA	NA	NA	0.3	0.2	3

Notes:

1. Units are in nephelometric turbidity units (NTU).
2. NA indicates that the well was not analyzed for turbidity.
3. There is no Drinking Water Standard for turbidity.
4. All measurements were made in the field at the time of sampling.

Table C.6. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Other Parameters

Total Dissolved Solids

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	432	818	NA	1300	766	2000	1010	786	920	1090	580	524	922	490	510	694	448	486
1991 Win	443	NA	NA	NA	NA	NA	1050	NA	NA	1020	465	NA	848	453	NA	NA	439	455
1991 Spr	489	813	792	1310	9190	2080	1070	555	687	1010	469	497	867	429	676	881	443	603
1991 Sum	535	NA	NA	NA	NA	NA	NA	793	845	1030	523	532	893	6730	613	860	460	466
1991 Fall	428	733	540	1240	684	1730	947	783	864	946	518	479	896	392	482	459	395	416
1992 Win	560	848	525	1320	727	1340	1020	941	690	993	487	519	852	444	572	456	452	467
1992 Spr	887	906	763	1450	915	2451	1180	983	602	1040	611	651	1090	548	786	890	631	592
1992 Sum	579	NA	NA	NA	NA	NA	NA	683	647	973	542	582	943	424	564	896	420	459
1992 Fall	497	878	NA	1300	781	1760	1020	823	617	925	543	590	850	430	475	474	426	460
1993 Win	580	785	608	1320	726	1430	1030	892	422	888	552	687	82	365	673	418	392	452
1993 Spr	639	855	766	1298	357	1259	1060	952	480	1032	628	611	949	412	557	742	466	447
1993 Sum	590	840	670	1400	770	1400	1000	900	480	940	600	660	930	380	700	660	410	470
1993 Fall	520	800	550	1300	790	1400	970	940	480	980	630	670	920	380	600	720	420	440
1994 Win	590	830	600	1400	820	1500	1100	980	450	970	570	670	940	390	560	780	410	420
1994 Spr	650	770	600	1400	800	1500	1100	870	440	930	610	620	970	380	600	930	410	460
1994 Sum	620	NA	NA	1400	NA	NA	NA	830	470	990	570	610	920	410	580	760	380	460
1994 Fall	540	800	NA	1300	730	1700	1100	890	460	1000	590	610	880	390	540	510	390	440
1995 Win	610	860	500	1300	810	1500	1100	1000	420	1000	610	670	970	420	550	530	420	480
1995 Spr	660	830	640	1300	830	1300	1000	950	380	1000	600	690	1100	410	550	840	410	440
1995 Sum	NA	NA	670	1300	NA	1700	1200	NA	NA	NA	580	NA	NA	NA	NA	860	410	470
1995 Fall	NA	NA	550	1300	NA	1400	1100	NA	NA	NA	NA	NA	NA	NA	NA	600	420	430
MEAN	571	824	627	1330	1313	1615	1059	864	575	987	564	604	885	751	588	698	431	467

Notes:
1. Units are in mg/L.
2. NA indicates that the well was not analyzed for total dissolved solids.
3. The National Secondary Drinking Water Standard for TDS is 500 mg/L.

Table C.6. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Other Parameters

Total Kjeldahl Nitrogen (TKN)

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Sum	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1993 Fall	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1994 Win	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1994 Spr	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1994 Sum	< 0.10	NA	NA	< 0.10	NA	NA	NA	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.10	< 0.10	< 0.10	< 0.50	< 0.50
1994 Fall	< 0.50	< 0.50	NA	2.20	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.86	< 0.50	< 0.50	< 0.50	< 0.50
1995 Win	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1995 Spr	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MEAN	< 0.5	< 0.5	< 0.5	< 0.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

Notes:

1. Units are in mg/L as nitrogen.
2. NA indicates that the well was not analyzed for total kjeldahl nitrogen (TKN).
3. If a less than flag (<) is present, TKN not detected above the value reported which is the detection limit.
3. Mean calculated using all numerical entries including detection limit values.
4. There is no Drinking Water Standard for TKN.

Table C.6. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Other Parameters

Total Organic Carbon (TOC)

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1991 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1992 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Sum	1.1	2.9	1.8	2.7	1.1	3.6	1.7	1.3	< 1.0	1.2	1.2	1.3	< 1.0	1.3	1.4	1.3	< 1.0	3.9
1993 Fall	< 1.0	1.4	1.3	5.8	1.6	1.9	4.8	1.4	1.2	2.2	1.2	< 1.0	< 1.0	< 1.0	< 1.0	1.3	1.0	< 1.0
1994 Win	1.0	1.2	< 1.0	2.0	< 1.0	2.8	1.4	1.1	< 1.0	< 1.0	1.0	< 1.0	1.0	< 1.0	< 1.0	1.0	< 1.0	< 1.0
1994 Spr	1.4	1.2	1.0	1.9	1.1	4.0	1.5	1.0	< 1.0	1.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.3	1.0	1.1
1994 Sum	1.0	NA	NA	3.1	NA	NA	NA	< 1.0	< 1.0	1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.2	< 1.0	< 1.0
1994 Fall	1.1	1.8	NA	2.2	1.2	4.8	1.7	1.2	< 1.0	1.2	1.1	1.2	< 1.0	6.3	2.1	< 1.0	< 1.0	< 1.0
1995 Win	1.0	< 1.0	1.7	2.5	1.9	2.8	1.1	1.8	1.2	1.6	1.9	1.6	1.5	< 1.0	2.1	< 1.0	1.6	1.5
1995 Spr	< 1.0	< 1.0	< 1.0	1.7	< 1.0	1.6	1.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MEAN	1.1	1.5	1.3	2.7	1.3	3.1	1.9	1.2	< 1.1	1.3	1.2	< 1.1	< 1.1	< 1.7	< 1.3	1.1	< 1.1	< 1.4

Notes:

1. Units are in mg/L.
2. NA indicates that the well was not analyzed for total organic carbon (TOC).
3. If a less than flag (<) is present, TOC not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limit values.
5. There is no Drinking Water Standard for TOC.

Table C.6. Analytical Results for Groundwater, Fall 1990 Through Fall 1995, Other Parameters

Chemical Oxygen Demand (COD)

Event	UCD1-18	UCD1-01	UCD1-04	UCD1-10	UCD1-11	UCD1-12	UCD1-13	UCD1-19	UCD1-20	UCD1-21	UCD1-22	UCD1-23	UCD1-24	UCD2-17	UCD2-07	UCD2-14	UCD2-15	UCD2-16
1990 Fall	32	24	NA	1.2	< 1	38	8	20	6	4	18	18	13	2	32	3	2	1
1991 Win	7.5	NA	NA	NA	NA	NA	8	NA	NA	5	0.8	NA	2	2	NA	NA	7	124
1991 Spr	< 1.0	207	77	232	6	< 1	41	257	244	3	7	31	60	9	113	101	2	269
1991 Sum	24	NA	NA	NA	NA	NA	NA	5	24	24	27	27	27	27	< 1	< 1	27	28
1991 Fall	16	27	42	29	32	51	19	21	32	16	43	48	29	24	19	16	8	32
1992 Win	< 1.0	10	< 1	< 1	< 1	7	< 1	< 1	< 1	< 1	2	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1992 Spr	25	55	65	< 1	< 1	15	3	< 1	2	5	< 1	< 1	< 1	20	< 1	< 1	< 1	35
1992 Sum	12	NA	NA	NA	NA	NA	NA	< 1	11	4	2	< 1	3	< 1	2	4	5	1
1992 Fall	< 1.0	< 1	NA	6	< 1	5	< 1	< 1	< 1	< 1	3	< 1	< 1	< 1	< 1	< 1	< 1	< 1
1993 Win	4.2	4.0	28	8	< 1	< 1	34	< 1	< 1	< 1	20	< 1	20	32	< 1	< 1	40	< 1
1993 Spr	52	10	< 1	36	42	31	26	< 1	5	10	< 1	5	5	5	< 1	16	10	< 1
1993 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1993 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994 Win	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994 Spr	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1994 Fall	< 10	< 10	NA	< 10	< 10	< 10	< 10	11	10	< 10	10	10	11	16	< 10	< 10	< 10	< 10
1995 Win	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1995 Spr	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
1995 Sum	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1995 Fall	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

1. Units are in mg/L.
2. NA indicates that the well was not analyzed for chemical oxygen demand (COD).
3. If a less than flag (<) is present, COD not detected above the value reported which is the detection limit.
4. Mean calculated using all numerical entries including detection limit values.
5. There is no Drinking Water Standard for COD.

Surface Water Analytical Results

Table C.7. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Volatile Organic Compounds

Chloroform (ug/L)

Event	PCU	STPO	PCD
1990 Fall	4.9	3.4	10
1991 Win	< 1.6	7.4	< 1.6
1991 Spr	< 1.6	3.1	10
1991 Sum	< 1.6	5.7	14
1991 Fall	2.0	7.2	< 1.6
1992 Win	< 1.6	4.7	< 1.6
1992 Spr	< 1.6	33	4.7
1992 Sum	19	5.5	8.9
1992 Fall	3.6	5.8	4.7
1993 Win	< 1.6	5.0	< 1.6
1993 Spr	< 1.6	7.9	< 1.6
1993 Sum	< 1.0	16	1.2
1993 Fall	< 1.0	14	< 1.0
1994 Win	< 1.0	3.9	0.5
1994 Spr	< 1.0	5.6	8.4
1994 Sum	2.2	3.7	4.4
1994 Fall	< 1.0	3.8	2.8
1995 Win	< 1.0	3.7	0.7
1995 Spr	< 1.0	2.2	< 1.0
1995 Sum	< 1.0	5.3	1.1
1995 Fall	< 1.0	2.5	1.9

Bromodichloromethane (ug/L)

Event	PCU	STPO	PCD
1990 Fall	< 2.2	< 2.2	< 2.2
1991 Win	< 2.2	< 2.2	< 2.2
1991 Spr	< 2.2	2.2	4.1
1991 Sum	< 2.2	< 2.2	5.8
1991 Fall	< 2.2	< 2.2	< 2.2
1992 Win	< 2.2	< 2.2	< 2.2
1992 Spr	< 2.2	13	< 2.2
1992 Sum	7.1	1.3	2.8
1992 Fall	< 2.2	< 2.2	< 2.2
1993 Win	< 2.2	< 2.2	< 2.2
1993 Spr	< 2.2	< 2.2	< 2.2
1993 Sum	< 1.0	< 1.0	< 1.0
1993 Fall	< 1.0	< 1.0	< 1.0
1994 Win	< 1.0	1.1	< 1.0
1994 Spr	< 1.0	0.9	1.6
1994 Sum	< 1.0	< 1.0	1.1
1994 Fall	< 1.0	< 1.0	< 1.0
1995 Win	< 1.0	1.0	< 1.0
1995 Spr	< 1.0	2.6	< 1.0
1995 Sum	< 1.0	1.1	< 1.0
1995 Fall	< 1.0	4.5	< 1.0

Table C.7. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Volatile Organic Compounds

Dibromochloromethane (ug/L)

Event	PCU	STPO	PCD
1990 Fall	< 3.1	< 3.1	< 3.1
1991 Win	< 3.1	< 3.1	< 3.1
1991 Spr	< 3.1	< 3.1	< 3.1
1991 Sum	< 3.1	< 3.1	3.4
1991 Fall	< 3.1	< 3.1	< 3.1
1992 Win	< 3.1	< 3.1	< 3.1
1992 Spr	< 3.1	4.8	< 3.1
1992 Sum	2.7	< 3.1	1.1
1992 Fall	< 3.1	< 3.1	< 3.1
1993 Win	< 3.1	< 3.1	< 3.1
1993 Spr	< 3.1	< 3.1	< 3.1
1993 Sum	< 1	< 1	< 1
1993 Fall	< 1	< 1	< 1
1994 Win	< 1	< 1	< 1
1994 Spr	< 1	< 1	< 1
1994 Sum	< 1	< 1	< 1
1994 Fall	< 1	< 1	< 1
1995 Win	< 1	< 1	< 1
1995 Spr	< 1	3.2	< 1
1995 Sum	< 1	< 1	< 1
1995 Fall	< 1	5.4	< 1

Bromoform (ug/L)

Event	PCU	STPO	PCD
1990 Fall	< 4.7	< 4.7	< 4.7
1991 Win	< 4.7	< 4.7	< 4.7
1991 Spr	< 4.7	< 4.7	< 4.7
1991 Sum	< 4.7	< 4.7	< 4.7
1991 Fall	< 4.7	< 4.7	< 4.7
1992 Win	< 4.7	< 4.7	< 4.7
1992 Spr	< 4.7	< 4.7	< 4.7
1992 Sum	< 4.7	< 4.7	< 4.7
1992 Fall	< 4.7	< 4.7	< 4.7
1993 Win	< 4.7	< 4.7	< 4.7
1993 Spr	< 4.7	< 4.7	< 4.7
1993 Sum	< 1	< 1	< 1
1993 Fall	< 1	< 1	< 1
1994 Win	< 1	< 1	< 1
1994 Spr	< 1	< 1	< 1
1994 Sum	< 1	< 1	< 1
1994 Fall	< 1	< 1	< 1
1995 Win	< 1	< 1	< 1
1995 Spr	< 1	1.8	< 1
1995 Sum	< 1	< 1	< 1
1995 Fall	< 1	2.9	< 1

Table C.7. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Volatile Organic Compounds

Methylene Chloride (ug/L)

Event	PCU	STPO	PCD
1990 Fall	< 2.8	< 2.8	< 2.8
1991 Win	< 2.8	< 2.8	< 2.8
1991 Spr	< 2.8	5.4	< 2.8
1991 Sum	< 2.8	< 2.8	< 2.8
1991 Fall	< 2.8	< 2.8	< 2.8
1992 Win	< 2.8	4.1	3.0
1992 Spr	< 2.8	< 2.8	< 2.8
1992 Sum	< 2.8	5.2	< 2.8
1992 Fall	< 2.8	< 2.8	< 2.8
1993 Win	< 2.8	< 2.8	< 2.8
1993 Spr	< 2.8	3.8	< 2.8
1993 Sum	< 2	3.9	1.8
1993 Fall	< 2	5.7	0.90
1994 Win	< 2	6.8	1.3
1994 Spr	< 2	2.5	0.76
1994 Sum	< 2	13	< 2
1994 Fall	< 2	5.3	< 2
1995 Win	< 2	7.4	< 2
1995 Spr	< 2	< 2	< 2
1995 Sum	< 2	40	< 2
1995 Fall	< 2	1.6	< 2

Acetone (ug/L)

Event	PCU	STPO	PCD
1990 Fall	NA	NA	NA
1991 Win	NA	NA	NA
1991 Spr	NA	NA	NA
1991 Sum	NA	NA	NA
1991 Fall	NA	NA	NA
1992 Win	NA	NA	NA
1992 Spr	NA	NA	NA
1992 Sum	NA	NA	NA
1992 Fall	NA	NA	NA
1993 Win	NA	NA	NA
1993 Spr	NA	NA	NA
1993 Sum	< 5	36	9.2
1993 Fall	< 5	< 5	< 5
1994 Win	< 5	4.3	18
1994 Spr	3.9	4.9	5.7
1994 Sum	3.3	< 5	2.9
1994 Fall	< 5	< 5	5.0
1995 Win	< 5	2.2	< 5
1995 Spr	2.1	3.1	2.2
1995 Sum	< 5	< 5	< 5
1995 Fall	2.8	7.1	3.1

Notes:

1. NA indicates that no sample was analyzed for this constituent.

Table C.7. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Volatile Organic Compounds

Total Trihalomethanes (ug/L)

Event	PCU	STPO	PCD
1990 Fall	< 15	13	20
1991 Win	< 12	17	< 12
1991 Spr	< 12	13	22
1991 Sum	< 12	16	28
1991 Fall	< 12	17	< 12
1992 Win	< 12	15	< 12
1992 Spr	< 12	56	15
1992 Sum	34	15	18
1992 Fall	< 14	16	15
1993 Win	< 12	15	< 12
1993 Spr	< 12	18	< 12
1993 Sum	< 4	19	4
1993 Fall	< 4	17	< 4
1994 Win	< 4	7	4
1994 Spr	< 4	9	12
1994 Sum	< 5	7	8
1994 Fall	< 4	7	6
1995 Win	< 20	7	4
1995 Spr	< 4	10	< 4
1995 Sum	< 4	8	4
1995 Fall	< 4	15	5

Notes:

1. Total Trihalomethanes is the sum of conentrations of chloroform, bromodichloromethane, dibromochloromethane, and bromoform.

Table C.8. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Pesticides and PCBs

Chlordane (ug/L)

Event	PCU	STPO	PCD
1990 Fall	< 0.014	< 0.014	< 0.014
1991 Win	< 0.014	< 0.014	< 0.014
1991 Spr	< 0.014	< 0.014	< 0.014
1991 Sum	< 0.014	< 0.014	< 0.014
1991 Fall	< 0.014	< 0.014	< 0.014
1992 Win	< 0.014	< 0.014	< 0.014
1992 Spr	< 0.014	< 0.014	< 0.014
1992 Sum	< 0.014	< 0.014	< 0.014
1992 Fall	< 0.014	< 0.014	< 0.014
1993 Win	< 0.014	< 0.014	< 0.014
1993 Spr	< 0.014	< 0.014	< 0.014
1993 Sum	NA	NA	NA
1993 Fall	NA	NA	NA
1994 Win	NA	NA	NA
1994 Spr	NA	NA	NA
1994 Sum	NA	NA	NA
1994 Fall	NA	NA	NA
1995 Win	NA	NA	NA
1995 Spr	NA	NA	NA
1995 Sum	NA	NA	NA
1995 Fall	NA	NA	NA

Dieldrin (ug/L)

Event	PCU	STPO	PCD
1990 Fall	< 0.002	< 0.002	< 0.002
1991 Win	0.015	0.007	0.012
1991 Spr	< 0.002	< 0.002	< 0.002
1991 Sum	< 0.002	< 0.002	< 0.002
1991 Fall	< 0.002	< 0.002	< 0.002
1992 Win	< 0.002	< 0.002	< 0.002
1992 Spr	< 0.002	< 0.002	< 0.002
1992 Sum	< 0.002	< 0.002	< 0.002
1992 Fall	< 0.002	< 0.002	0.043
1993 Win	< 0.002	0.006	< 0.002
1993 Spr	< 0.002	< 0.002	< 0.002
1993 Sum	< 0.100	< 0.100	< 0.100
1993 Fall	< 0.020	< 0.021	< 0.020
1994 Win	< 0.021	< 0.021	< 0.021
1994 Spr	< 0.021	< 0.020	< 0.020
1994 Sum	< 0.021	< 0.021	< 0.021
1994 Fall	< 0.022	< 0.022	< 0.022
1995 Win	< 0.024	< 0.024	< 0.022
1995 Spr	< 0.022	< 0.021	< 0.022
1995 Sum	< 0.020	< 0.020	< 0.020
1995 Fall	< 0.020	< 0.020	< 0.020

Notes:

1. NA indicates that no sample was analyzed for this constituent.

Table C.8. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Pesticides and PCBs

Delta-BHC (ug/L)

Event	PCU	STPO	PCD
1990 Fall	0.023	0.027	0.012
1991 Win	< 0.009	< 0.009	< 0.009
1991 Spr	< 0.009	< 0.009	< 0.009
1991 Sum	< 0.009	0.033	< 0.009
1991 Fall	< 0.009	< 0.009	< 0.009
1992 Win	< 0.009	< 0.009	< 0.009
1992 Spr	< 0.009	< 0.009	< 0.009
1992 Sum	< 0.009	0.048	< 0.009
1992 Fall	0.055	0.095	< 0.009
1993 Win	< 0.009	< 0.009	< 0.009
1993 Spr	< 0.009	< 0.009	< 0.009
1993 Sum	< 0.050	< 0.050	< 0.051
1993 Fall	< 0.010	< 0.010	< 0.010
1994 Win	< 0.010	< 0.011	< 0.010
1994 Spr	< 0.010	< 0.010	< 0.010
1994 Sum	< 0.010	< 0.011	< 0.011
1994 Fall	< 0.011	< 0.011	< 0.011
1995 Win	< 0.012	< 0.012	< 0.011
1995 Spr	< 0.011	< 0.010	< 0.011
1995 Sum	< 0.010	< 0.010	< 0.010
1995 Fall	< 0.010	< 0.010	< 0.010

Gamma-BHC (ug/L)

Event	PCU	STPO	PCD
1990 Fall	< 0.004	< 0.004	< 0.004
1991 Win	0.006	< 0.004	< 0.004
1991 Spr	< 0.004	< 0.004	< 0.004
1991 Sum	< 0.004	< 0.004	< 0.004
1991 Fall	< 0.004	< 0.004	< 0.004
1992 Win	0.004	< 0.004	< 0.004
1992 Spr	< 0.004	< 0.004	< 0.004
1992 Sum	< 0.004	0.052	< 0.004
1992 Fall	< 0.004	< 0.004	0.019
1993 Win	< 0.004	< 0.004	< 0.004
1993 Spr	< 0.004	0.009	< 0.004
1993 Sum	< 0.050	< 0.050	< 0.051
1993 Fall	< 0.010	< 0.010	< 0.010
1994 Win	0.010	0.020	0.011
1994 Spr	< 0.010	< 0.010	< 0.010
1994 Sum	0.026	0.066	< 0.011
1994 Fall	< 0.011	0.013	< 0.011
1995 Win	< 0.012	< 0.012	< 0.011
1995 Spr	< 0.011	< 0.010	< 0.011
1995 Sum	< 0.010	< 0.010	< 0.010
1995 Fall	< 0.010	< 0.010	< 0.010

Table C.9. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Metals

Antimony (ug/L)

Event	PCU	STPO	PCD
1990 Fall	90	110	70
1991 Win	< 10	< 10	19
1991 Spr	2.0	1.0	3.0
1991 Sum	3.0	2.0	3.0
1991 Fall	< 10	< 10	< 10
1992 Win	< 10	< 10	< 10
1992 Spr	< 10	< 10	< 10
1992 Sum	10	< 10	10
1992 Fall	10	< 10	10
1993 Win	< 10	10	< 10
1993 Spr	< 10	< 10	< 10
1993 Sum	1.9	3.8	3.8
1993 Fall	3.9	7.1	4.7
1994 Win	< 5	< 5	9.1
1994 Spr	1.2	5	2.0
1994 Sum	< 5	< 5	< 5
1994 Fall	< 5	< 5	< 5
1995 Win	< 5	< 5	< 5
1995 Spr	< 5	1.2	< 5
1995 Sum	< 5	< 5	< 5
1995 Fall	< 5	< 5	< 5

Arsenic (ug/L)

Event	PCU	STPO	PCD
1990 Fall	< 10	< 10	< 10
1991 Win	< 10	< 10	< 10
1991 Spr	< 10	< 10	< 10
1991 Sum	< 10	< 10	< 10
1991 Fall	< 10	< 10	< 10
1992 Win	< 10	< 10	< 10
1992 Spr	< 10	< 10	< 10
1992 Sum	< 10	< 10	< 10
1992 Fall	< 10	< 10	< 10
1993 Win	< 10	< 10	< 10
1993 Spr	< 10	< 10	< 10
1993 Sum	< 2.0	2.1	1.0
1993 Fall	2.2	5.0	2.7
1994 Win	< 2.0	4.4	< 2.0
1994 Spr	3.5	7.4	7.4
1994 Sum	6.5	4.0	5.3
1994 Fall	1.5	5.0	2.6
1995 Win	3.0	5.6	3.5
1995 Spr	< 2.0	3.3	< 2.0
1995 Sum	2.6	3.3	< 2.0
1995 Fall	2.5	4.5	2.7

Table C.9. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Metals

Barium (ug/L)

Event	PCU	STPO	PCD
1990 Fall	40	40	40
1991 Win	40	< 30	70
1991 Spr	80	< 30	70
1991 Sum	110	60	120
1991 Fall	80	30	60
1992 Win	60	< 30	60
1992 Spr	80	30	70
1992 Sum	50	30	50
1992 Fall	30	20	30
1993 Win	50	20	50
1993 Spr	80	40	80
1993 Sum	59	23.1	78.3
1993 Fall	80.1	23.9	73.3
1994 Win	62.5	26.1	60.3
1994 Spr	82.4	20.6	55.0
1994 Sum	55.4	23.8	36.7
1994 Fall	67.5	25.2	62.0
1995 Win	105	21.5	100
1995 Spr	113	22.9	113
1995 Sum	112	35.3	92.8
1995 Fall	82.1	30.7	73.6

Copper (ug/L)

Event	PCU	STPO	PCD
1990 Fall	< 30	< 30	< 30
1991 Win	30	30	< 30
1991 Spr	< 30	< 30	< 30
1991 Sum	< 30	< 30	50
1991 Fall	< 30	< 30	< 30
1992 Win	< 30	< 30	< 30
1992 Spr	< 10	< 10	< 10
1992 Sum	< 30	< 30	< 30
1992 Fall	< 10	< 10	< 10
1993 Win	40	10	< 10
1993 Spr	< 10	10	< 10
1993 Sum	3.9	3.4	3.7
1993 Fall	4.9	9.8	4.3
1994 Win	3.5	9.6	6.6
1994 Spr	4.0	10.1	6.9
1994 Sum	3.3	6.6	2.7
1994 Fall	1.9	4.8	2.5
1995 Win	3.5	5.0	1.4
1995 Spr	< 10	5.5	< 10
1995 Sum	< 10	3.1	3.9
1995 Fall	< 10	6.5	< 10

Table C.9. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Metals

Chromium - Hexavalent (ug/L)

Event	PCU	STPO	PCD
1990 Fall	< 10	10	< 10
1991 Win	< 10	< 10	< 10
1991 Spr	18	11	19
1991 Sum	10	10	20
1991 Fall	< 10	< 10	< 10
1992 Win	< 10	< 10	< 10
1992 Spr	10	< 10	< 10
1992 Sum	43	45	42
1992 Fall	10	10	< 10
1993 Win	< 10	10	< 10
1993 Spr	< 10	< 10	< 10
1993 Sum	< 20	< 20	< 20
1993 Fall	< 20	< 20	< 20
1994 Win	< 10	< 10	< 10
1994 Spr	< 10	< 10	< 10
1994 Sum	< 10	< 10	< 10
1994 Fall	< 10	< 10	< 10
1995 Win	< 10	< 10	< 10
1995 Spr	< 10	< 10	< 10
1995 Sum	< 10	< 10	< 10
1995 Fall	< 10	< 10	< 10

Chromium - Total (ug/L)

Event	PCU	STPO	PCD
1990 Fall	60	110	< 30
1991 Win	< 10	< 10	11
1991 Spr	< 30	< 30	< 30
1991 Sum	< 30	< 30	< 30
1991 Fall	< 30	< 30	< 30
1992 Win	< 30	< 30	< 30
1992 Spr	< 10	< 10	10
1992 Sum	30	10	10
1992 Fall	20	10	< 10
1993 Win	< 10	< 10	80
1993 Spr	< 10	< 10	< 10
1993 Sum	1.7	< 10	< 10
1993 Fall	3.3	2.8	2.7
1994 Win	2.1	3.9	2.1
1994 Spr	< 10	4.2	2.8
1994 Sum	< 10	2.7	1.2
1994 Fall	1.3	3.2	1.8
1995 Win	4.3	2.2	3.6
1995 Spr	4.3	< 10	4.6
1995 Sum	4.3	3.0	2.3
1995 Fall	4.4	5.1	4.5

Table C.9. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Metals

Lead (ug/L)

Event	PCU	STPO	PCD
1990 Fall	2	1	2
1991 Win	4	< 1	4
1991 Spr	< 1	1	1
1991 Sum	3	7	7
1991 Fall	< 1	1	< 1
1992 Win	< 3	< 3	< 3
1992 Spr	< 3	< 3	< 3
1992 Sum	< 3	< 3	< 3
1992 Fall	< 3	< 3	10
1993 Win	< 3	< 3	< 3
1993 Spr	< 3	< 3	< 3
1993 Sum	7.3	11.2	6
1993 Fall	< 2	1.7	< 2
1994 Win	< 2	< 2	< 2
1994 Spr	< 2	1.2	< 2
1994 Sum	< 2	< 2	< 2
1994 Fall	< 2	< 2	< 2
1995 Win	< 2	< 2	< 2
1995 Spr	< 2	< 2	< 2
1995 Sum	< 2	< 2	< 2
1995 Fall	< 2	< 2	< 2

Manganese (ug/L)

Event	PCU	STPO	PCD
1990 Fall	NA	NA	NA
1991 Win	NA	NA	NA
1991 Spr	NA	NA	NA
1991 Sum	NA	NA	NA
1991 Fall	NA	NA	NA
1992 Win	NA	NA	NA
1992 Spr	NA	NA	NA
1992 Sum	NA	NA	NA
1992 Fall	NA	NA	NA
1993 Win	NA	NA	NA
1993 Spr	NA	NA	NA
1993 Sum	NA	NA	NA
1993 Fall	NA	NA	NA
1994 Win	NA	NA	NA
1994 Spr	1.5	8.1	2.0
1994 Sum	6.4	21.8	8.0
1994 Fall	NA	NA	NA
1995 Win	NA	NA	NA
1995 Spr	NA	NA	NA
1995 Sum	NA	NA	NA
1995 Fall	NA	NA	NA

Notes:

1. NA indicates that no sample was analyzed for this constituent.

Table C.9. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Metals

Mercury (ug/L)

Event	PCU	STPO	PCD
1990 Fall	< 0.4	< 0.4	< 0.4
1991 Win	< 0.4	< 0.4	< 0.4
1991 Spr	< 0.4	< 0.4	< 0.4
1991 Sum	< 0.4	< 0.4	< 0.4
1991 Fall	< 0.4	< 0.4	< 0.4
1992 Win	< 0.4	< 0.4	< 0.4
1992 Spr	0.4	< 0.4	< 0.4
1992 Sum	< 0.4	< 0.4	< 0.4
1992 Fall	< 0.4	< 0.4	< 0.4
1993 Win	< 0.4	< 0.4	< 0.4
1993 Spr	< 0.4	< 0.4	< 0.4
1993 Sum	< 0.2	0.63	0.27
1993 Fall	< 0.2	0.25	< 0.2
1994 Win	< 0.2	< 0.2	< 0.2
1994 Spr	< 0.2	< 0.2	< 0.2
1994 Sum	< 0.2	< 0.2	< 0.2
1994 Fall	< 0.2	< 0.2	< 0.2
1995 Win	< 0.2	< 0.2	< 0.2
1995 Spr	< 0.2	< 0.2	< 0.2
1995 Sum	< 0.2	< 0.2	< 0.2
1995 Fall	< 0.2	< 0.2	< 0.2

Molybdenum (ug/L)

Event	PCU	STPO	PCD
1990 Fall	60	70	50
1991 Win	< 10	< 10	< 10
1991 Spr	< 30	< 30	< 30
1991 Sum	< 50	< 50	< 50
1991 Fall	< 50	50	< 50
1992 Win	< 30	< 30	< 30
1992 Spr	< 10	< 10	< 10
1992 Sum	< 30	< 30	< 30
1992 Fall	< 10	< 10	< 10
1993 Win	< 10	< 10	10
1993 Spr	< 10	110	10
1993 Sum	3.5	57.9	4.6
1993 Fall	1.1	61.3	9.2
1994 Win	< 10	56.1	5.7
1994 Spr	2.9	34.9	6.3
1994 Sum	39.9	28.3	27.6
1994 Fall	< 10	14.3	6.0
1995 Win	< 10	7.5	< 10
1995 Spr	< 10	6.0	< 10
1995 Sum	1.1	7.3	2.2
1995 Fall	< 10	10.7	< 10

Table C.9. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Metals

Nickel (ug/L)

Event	PCU	STPO	PCD
1990 Fall	< 30	< 30	< 30
1991 Win	50	< 30	< 30
1991 Spr	< 30	< 30	< 30
1991 Sum	< 30	< 30	< 30
1991 Fall	< 30	< 30	< 30
1992 Win	< 30	< 30	< 30
1992 Spr	< 10	< 10	< 10
1992 Sum	50	< 30	< 30
1992 Fall	< 10	< 10	< 10
1993 Win	10	< 10	310
1993 Spr	< 10	< 10	< 10
1993 Sum	2.6	2.3	2.4
1993 Fall	2.7	2.2	2.5
1994 Win	4.9	3.3	5.6
1994 Spr	11.1	11.9	11.1
1994 Sum	2.5	< 20.0	1.9
1994 Fall	1.7	1.6	1.8
1995 Win	1.9	2.3	1.6
1995 Spr	1.2	< 20.0	2.0
1995 Sum	4.5	3.0	4.3
1995 Fall	4.2	5.1	4.4

Selenium (ug/L)

Event	PCU	STPO	PCD
1990 Fall	< 10	< 10	< 10
1991 Win	< 10	< 10	< 10
1991 Spr	< 10	< 10	< 10
1991 Sum	< 10	< 10	< 10
1991 Fall	< 10	39	< 10
1992 Win	< 10	< 10	< 10
1992 Spr	< 10	< 10	< 10
1992 Sum	< 10	< 10	< 10
1992 Fall	< 10	< 10	< 10
1993 Win	< 10	< 10	< 10
1993 Spr	< 10	< 10	< 10
1993 Sum	< 3	< 3.0	< 3
1993 Fall	< 3	< 3.0	< 3
1994 Win	< 3	< 3.0	< 3
1994 Spr	< 3	4.3	3.8
1994 Sum	< 3	< 3.0	< 3
1994 Fall	< 3	< 3.0	< 3
1995 Win	< 3	< 3.0	< 3
1995 Spr	< 3	< 3.0	< 3
1995 Sum	< 3	3.6	< 3
1995 Fall	< 3	7.4	< 3

Table C.9. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Metals

Silver (ug/L)

Event	PCU	STPO	PCD
1990 Fall	< 30	< 30	< 30
1991 Win	< 40	< 30	< 30
1991 Spr	< 30	< 30	< 30
1991 Sum	< 30	30	< 30
1991 Fall	< 30	< 30	< 30
1992 Win	< 30	< 30	< 30
1992 Spr	< 10	< 30	< 10
1992 Sum	< 10	< 10	< 10
1992 Fall	< 10	< 10	< 10
1993 Win	< 10	< 10	< 10
1993 Spr	< 10	< 10	< 10
1993 Sum	< 10	< 10	< 10
1993 Fall	< 10	< 10	< 10
1994 Win	< 10	< 10	< 10
1994 Spr	< 10	< 10	< 10
1994 Sum	< 10	< 10	< 10
1994 Fall	< 10	< 10	< 10
1995 Win	< 10	< 10	< 10
1995 Spr	< 10	< 10	< 10
1995 Sum	< 10	< 10	< 10
1995 Fall	< 10	< 10	< 10

Thallium (ug/L)

Event	PCU	STPO	PCD
1990 Fall	90	100	80
1991 Win	< 30	< 30	< 30
1991 Spr	4.0	1.0	1.0
1991 Sum	2.0	< 1	1.0
1991 Fall	< 5	< 5	< 5
1992 Win	50	60	< 10
1992 Spr	< 10	< 10	< 10
1992 Sum	< 10	< 10	< 10
1992 Fall	< 5	< 5	< 5
1993 Win	< 10	< 10	< 10
1993 Spr	< 10	< 10	< 10
1993 Sum	2.9	4.7	2.4
1993 Fall	< 10	< 10	< 10
1994 Win	< 10	< 10	< 10
1994 Spr	< 10	< 10	< 10
1994 Sum	< 10	< 10	< 10
1994 Fall	< 10	< 10	< 10
1995 Win	< 10	< 10	< 10
1995 Spr	< 10	< 10	< 10
1995 Sum	< 10	< 10	< 10
1995 Fall	< 10	< 10	< 10

Table C.9. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Metals

Vanadium (ug/L)

Event	PCU	STPO	PCD
1990 Fall	< 50	< 50	< 50
1991 Win	< 100	< 100	< 100
1991 Spr	< 30	< 30	< 30
1991 Sum	< 50	< 50	< 50
1991 Fall	< 50	< 50	< 50
1992 Win	< 30	< 30	< 30
1992 Spr	< 10	10	20
1992 Sum	< 30	< 30	< 30
1992 Fall	< 10	< 10	< 10
1993 Win	< 10	< 10	< 10
1993 Spr	< 10	< 10	< 10
1993 Sum	5.8	8.1	8.0
1993 Fall	3.4	9.7	5.0
1994 Win	2.8	12.3	4.0
1994 Spr	8.8	12.0	12
1994 Sum	13.4	5.6	8.8
1994 Fall	2.6	9.6	5.9
1995 Win	4.4	9.8	4.6
1995 Spr	< 10	10.5	< 10
1995 Sum	4.9	10.3	8.5
1995 Fall	< 10	8.7	< 10

Zinc (ug/L)

Event	PCU	STPO	PCD
1990 Fall	39	< 30	1190
1991 Win	50	40	50
1991 Spr	< 30	30	30
1991 Sum	30	100	40
1991 Fall	< 30	30	< 30
1992 Win	< 30	30	< 30
1992 Spr	30	40	10
1992 Sum	< 30	30	< 30
1992 Fall	30	30	20
1993 Win	20	40	30
1993 Spr	10	60	10
1993 Sum	5.0	21.1	5.5
1993 Fall	6.5	32.6	10.0
1994 Win	4.3	33.1	6.0
1994 Spr	3.9	23.4	12.8
1994 Sum	17.7	16.2	14.6
1994 Fall	1.6	41.0	10.0
1995 Win	3.3	28.3	2.1
1995 Spr	3.7	33.6	5.0
1995 Sum	9.2	39.2	10.7
1995 Fall	5.2	39.2	8.2

Table C.10. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Radionuclides

Tritium (pCi/)

Event	PCU	STPO	PCD
1990 Fall	1341	704	1313
1991 Win	< 500	< 500	< 500
1991 Spr	< 500	< 500	< 500
1991 Sum	< 500	< 500	< 500
1991 Fall	< 500	< 500	< 500
1992 Win	< 500	752	754
1992 Spr	< 500	< 500	< 500
1992 Sum	650	< 500	800
1992 Fall	< 500	1724	851
1993 Win	< 500	< 500	< 500
1993 Spr	< 500	< 500	< 500
1993 Sum	< 220	300	< 220
1993 Fall	< 240	< 240	< 240
1994 Win	< 260	< 260	< 260
1994 Spr	< 250	320	2030
1994 Sum	< 270	< 260	570
1994 Fall	< 240	480	< 240
1995 Win	< 260	< 260	< 260
1995 Spr	< 220	< 230	< 220
1995 Sum	< 290	< 260	< 300
1995 Fall	< 250	< 240	< 250

Carbon-14 (pCi/L)

Event	PCU	STPO	PCD
1990 Fall	NA	NA	NA
1991 Win	NA	NA	NA
1991 Spr	NA	NA	NA
1991 Sum	NA	NA	NA
1991 Fall	NA	NA	NA
1992 Win	NA	NA	NA
1992 Spr	NA	NA	NA
1992 Sum	NA	NA	NA
1992 Fall	NA	NA	NA
1993 Win	NA	NA	NA
1993 Spr	NA	NA	NA
1993 Sum	36	< 12	< 12
1993 Fall	122	65	< 40
1994 Win	< 110	< 110	< 110
1994 Spr	< 91	< 91	< 91
1994 Sum	< 130	< 130	< 130
1994 Fall	< 130	< 130	< 130
1995 Win	< 110	< 110	< 110
1995 Spr	< 110	< 110	< 110
1995 Sum	< 100	< 12.	15
1995 Fall	< 100	< 100	< 100

Notes:

1. NA indicates that no sample was analyzed for this constituent.

Table C.10. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Radionuclides

Strontium-90 (pCi/L)

Event	PCU	STPO	PCD
1990 Fall	2.6	5.4	4.2
1991 Win	< 0.5	0.8	< 0.5
1991 Spr	< 0.5	< 0.5	< 0.5
1991 Sum	< 0.5	< 0.5	1.8
1991 Fall	< 0.5	< 0.5	< 0.5
1992 Win	< 0.5	< 0.5	< 0.5
1992 Spr	< 1.0	< 1	< 1.0
1992 Sum	6.9	1.5	2.5
1992 Fall	0.90	< 0.5	< 0.5
1993 Win	< 0.5	1.0	< 0.5
1993 Spr	< 0.5	< 0.5	< 0.5
1993 Sum	< 1.3	< 1.2	< 1.2
1993 Fall	< 0.79	< 1.2	< 0.89
1994 Win	< 1.1	< 1.2	< 1.2
1994 Spr	< 1.0	< 1.6	< 1.0
1994 Sum	< 1.7	< 1.7	2.1
1994 Fall	< 0.69	< 0.97	< 0.78
1995 Win	< 1.0	< 1.1	< 1.2
1995 Spr	< 0.90	< 0.97	< 0.86
1995 Sum	< 0.72	< 0.82	< 0.91
1995 Fall	< 0.66	< 0.46	< 0.49

Radium-226 (pCi/L)

Event	PCU	STPO	PCD
1990 Fall	NA	NA	NA
1991 Win	NA	NA	NA
1991 Spr	NA	NA	NA
1991 Sum	NA	NA	NA
1991 Fall	NA	NA	NA
1992 Win	NA	NA	NA
1992 Spr	NA	NA	NA
1992 Sum	NA	NA	NA
1992 Fall	NA	NA	NA
1993 Win	NA	NA	NA
1993 Spr	NA	NA	NA
1993 Sum	NA	NA	NA
1993 Fall	< 0.28	< 0.38	0.29
1994 Win	< 0.20	< 0.12	< 0.25
1994 Spr	< 0.33	< 0.10	< 0.33
1994 Sum	< 0.20	< 0.15	< 0.18
1994 Fall	< 0.58	< 0.32	< 0.43
1995 Win	< 0.25	< 0.32	< 0.36
1995 Spr	< 0.20	0.46	< 0.29
1995 Sum	0.089	< 0.27	< 0.27
1995 Fall	0.26	0.80	< 0.20

Notes:

1. NA indicates that no sample was analyzed for this constituent.

Table C.10. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Radionuclides

Plutonium-241 (pCi/L)

Event	PCU	STPO	PCD
1990 Fall	NA	NA	NA
1991 Win	NA	NA	NA
1991 Spr	NA	NA	NA
1991 Sum	NA	NA	NA
1991 Fall	NA	NA	NA
1992 Win	NA	NA	NA
1992 Spr	NA	NA	NA
1992 Sum	NA	NA	NA
1992 Fall	NA	NA	NA
1993 Win	NA	NA	NA
1993 Spr	NA	NA	NA
1993 Sum	NA	NA	NA
1993 Fall	NA	NA	NA
1994 Win	NA	NA	NA
1994 Spr	NA	NA	NA
1994 Sum	< 2.7	< 3.2	< 4.2
1994 Fall	< 2.2	< 1.7	< 1.6
1995 Win	< 1.6	< 1.6	< 1.7
1995 Spr	< 2.4	< 2.2	< 1.8
1995 Sum	< 2.6	< 4.3	< 3.7
1995 Fall	< 2.9	< 2.7	< 2.4

Notes:
1. NA indicates that no sample was analyzed for this constituent.

Americium-241 (pCi/L)

Event	PCU	STPO	PCD
1990 Fall	NA	NA	NA
1991 Win	NA	NA	NA
1991 Spr	NA	NA	NA
1991 Sum	NA	NA	NA
1991 Fall	NA	NA	NA
1992 Win	NA	NA	NA
1992 Spr	NA	NA	NA
1992 Sum	NA	NA	NA
1992 Fall	NA	NA	NA
1993 Win	NA	NA	NA
1993 Spr	NA	NA	NA
1993 Sum	NA	NA	NA
1993 Fall	NA	NA	NA
1994 Win	NA	NA	NA
1994 Spr	NA	NA	NA
1994 Sum	< 0.047	< 0.026	< 0.026
1994 Fall	< 0.079	< 0.100	< 0.047
1995 Win	< 0.055	< 0.063	< 0.085
1995 Spr	< 0.012	< 0.020	< 0.031
1995 Sum	0.032	< 0.042	0.034
1995 Fall	< 0.022	< 0.033	< 0.027

Notes:
1. NA indicates that no sample was analyzed for this constituent.

Table C.10. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Radionuclides

Bismuth-214 (pCi/L)

Event	PCU	STPO	PCD
1990 Fall	NA	NA	NA
1991 Win	NA	NA	NA
1991 Spr	NA	NA	NA
1991 Sum	NA	NA	NA
1991 Fall	NA	NA	NA
1992 Win	NA	NA	NA
1992 Spr	NA	NA	NA
1992 Sum	NA	NA	NA
1992 Fall	NA	NA	NA
1993 Win	NA	NA	NA
1993 Spr	NA	NA	NA
1993 Sum	NA	NA	NA
1993 Fall	NA	NA	NA
1994 Win	< 8.4	17.2	25.4
1994 Spr	20	< 7.9	< 16
1994 Sum	< 8.6	< 21	< 19
1994 Fall	< 20	< 9	< 19
1995 Win	< 89	< 7.5	< 19
1995 Spr	21	< 16	< 17
1995 Sum	< 20.	< 18	< 63
1995 Fall	9.3	< 8	< 9.1

Notes:
1. NA indicates that no sample was analyzed for this constituent.

Thallium-208 (pCi/L)

Event	PCU	STPO	PCD
1990 Fall	NA	NA	NA
1991 Win	NA	NA	NA
1991 Spr	NA	NA	NA
1991 Sum	NA	NA	NA
1991 Fall	NA	NA	NA
1992 Win	NA	NA	NA
1992 Spr	NA	NA	NA
1992 Sum	NA	NA	NA
1992 Fall	NA	NA	NA
1993 Win	NA	NA	NA
1993 Spr	NA	NA	NA
1993 Sum	NA	NA	NA
1993 Fall	NA	NA	NA
1994 Win	< 4.0	< 8.8	< 9.8
1994 Spr	6.3	< 4.1	< 8.7
1994 Sum	< 4.9	< 12	< 9.3
1994 Fall	< 9.0	< 4.6	< 10
1995 Win	< 46	< 4.3	< 11
1995 Spr	< 9.7	< 10	< 11
1995 Sum	< 9.5	< 9.2	< 34
1995 Fall	< 4.3	< 4.1	< 4.4

Notes:
1. NA indicates that no sample was analyzed for this constituent.

Table C.10. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Radionuclides

Gross Alpha (pCi/L)

Event	PCU	STPO	PCD
1990 Fall	< 2	< 2	< 2
1991 Win	3	7	< 2
1991 Spr	3	< 2	< 2
1991 Sum	< 2	< 2	3
1991 Fall	< 2	< 2	25
1992 Win	< 2	3	< 2
1992 Spr	< 2	< 2	< 2
1992 Sum	3	< 2	3
1992 Fall	8	12	9
1993 Win	< 2	3	< 2
1993 Spr	4	3	3
1993 Sum	< 2.7	< 5.1	< 4
1993 Fall	< 3.1	< 5.7	< 3.3
1994 Win	< 1.8	< 4.8	< 2.5
1994 Spr	< 2.8	< 4.5	< 4.7
1994 Sum	< 4.5	< 3.4	< 3.6
1994 Fall	< 2.2	13.9	< 3.4
1995 Win	< 3.0	< 4.9	< 4.8
1995 Spr	< 3.4	< 4.0	< 3.2
1995 Sum	< 3.2	< 5.4	< 3.8
1995 Fall	< 3.1	< 5.9	< 2.5

Gross Beta (pCi/L)

Event	PCU	STPO	PCD
1990 Fall	17	20	8
1991 Win	7	34	13
1991 Spr	9	12	7
1991 Sum	3	11	9
1991 Fall	< 3	4	46
1992 Win	7	15	4
1992 Spr	4	6	10
1992 Sum	15	7	16
1992 Fall	29	37	34
1993 Win	5	9	< 3
1993 Spr	10	9	7
1993 Sum	2.7	27.3	4.3
1993 Fall	< 2.7	41.0	5.5
1994 Win	< 2.4	17.2	3.3
1994 Spr	< 2.3	11.9	8.8
1994 Sum	13.8	14.5	22
1994 Fall	< 2.8	17.1	3.9
1995 Win	8.2	17.2	3.9
1995 Spr	< 3.6	11.4	< 3
1995 Sum	< 3.2	19.3	7.3
1995 Fall	4.6	16.1	2.8

Table C.11. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Cations and Anions

Calcium (mg/L)

Event	PCU	STPO	PCD
1990 Fall	18.8	21.3	21.8
1991 Win	10.8	17.9	13.7
1991 Spr	25.4	17.8	21.7
1991 Sum	25.3	17.9	20.1
1991 Fall	20.3	18.6	20.1
1992 Win	21.4	19.2	20.1
1992 Spr	18.7	14.3	21.0
1992 Sum	15.1	16.2	16.1
1992 Fall	14.1	13.7	14.4
1993 Win	26.4	16.3	26.1
1993 Spr	25.4	18.3	26.1
1993 Sum	25.5	19.3	24.8
1993 Fall	26.9	19.4	26.8
1994 Win	23.9	19.7	22.5
1994 Spr	24.6	18.7	20.4
1994 Sum	22.4	18.7	18.6
1994 Fall	22.1	19.3	24.9
1995 Win	42.2	18.4	41.2
1995 Spr	41.3	19.1	40.5
1995 Sum	33.1	22.1	32.6
1995 Fall	22.9	19.2	23.2

Magnesium (mg/L)

Event	PCU	STPO	PCD
1990 Fall	21.5	20.8	21.0
1991 Win	6.0	17.7	7.4
1991 Spr	35.3	21.4	27.6
1991 Sum	36.7	20.4	25.3
1991 Fall	30.8	22.8	28.5
1992 Win	19.0	21.7	18.6
1992 Spr	36.1	20.7	28.2
1992 Sum	21.4	22.0	22.0
1992 Fall	23.9	23.7	22.9
1993 Win	20.2	23.0	20.5
1993 Spr	34.4	21.4	35.3
1993 Sum	35.8	21.6	33.2
1993 Fall	35.8	20.3	35.0
1994 Win	24.0	21.1	22.5
1994 Spr	38.6	21.6	28.5
1994 Sum	26.3	19.9	20.7
1994 Fall	32.0	19.5	33.4
1995 Win	44.0	18.4	41.9
1995 Spr	46.5	18.2	45.7
1995 Sum	38.5	23.1	38.1
1995 Fall	29.5	22.0	29.2

Table C.11. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Cations and Anions

Sodium (mg/L)

Event	PCU	STPO	PCD
1990 Fall	104	104	101
1991 Win	35.8	121	68.7
1991 Spr	19.9	160	113
1991 Sum	49.8	129	107
1991 Fall	23.8	286	36.0
1992 Win	15.2	103	41.1
1992 Spr	22.1	131	88.4
1992 Sum	147	139	143
1992 Fall	136	136	132
1993 Win	23.2	131	23.6
1993 Spr	23.7	32.2	27.6
1993 Sum	19.7	140	31.4
1993 Fall	19.5	164	38.6
1994 Win	18.7	164	30.6
1994 Spr	21.9	129	87.3
1994 Sum	140	156	134
1994 Fall	14.4	164	59.6
1995 Win	31.4	141	38.9
1995 Spr	29.5	137	32.7
1995 Sum	28.1	153	44.8
1995 Fall	17.2	122	19.1

Potassium (mg/L)

Event	PCU	STPO	PCD
1990 Fall	10.4	10.1	10.3
1991 Win	6.19	13.3	11.1
1991 Spr	1.90	12.9	8.00
1991 Sum	3.00	8.30	6.20
1991 Fall	1.70	12.9	4.60
1992 Win	2.80	11.9	4.90
1992 Spr	1.89	8.37	6.14
1992 Sum	7.20	56.9	7.90
1992 Fall	16.3	15.0	11.2
1993 Win	1.61	13.2	2.37
1993 Spr	2.00	25.4	2.50
1993 Sum	1.55	8.14	2.20
1993 Fall	1.02	13.1	2.54
1994 Win	3.51	14.3	4.54
1994 Spr	1.70	10.0	5.48
1994 Sum	6.79	5.77	4.24
1994 Fall	1.62	12.3	5.20
1995 Win	1.49	10.0	1.96
1995 Spr	1.52	9.09	1.67
1995 Sum	1.92	8.69	2.95
1995 Fall	2.50	14.6	2.87

Table C.11. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Cations and Anions

Alkalinity (mg/L as $CaCO_3$)

Event	PCU	STPO	PCD
1990 Fall	198	204	187
1991 Win	115	194	138
1991 Spr	184	220	193
1991 Sum	246	217	194
1991 Fall	185	183	200
1992 Win	133	155	140
1992 Spr	219	174	200
1992 Sum	190	224	194
1992 Fall	185	216	160
1993 Win	146	172	141
1993 Spr	228	218	218
1993 Sum	210	210	200
1993 Fall	190	210	200
1994 Win	100	200	130
1994 Spr	210	200	160
1994 Sum	230	200	190
1994 Fall	170	180	190
1995 Win	250	180	250
1995 Spr	260	180	260
1995 Sum	NA	NA	NA
1995 Fall	NA	NA	NA

Notes:
1. NA indicates that no sample was analyzed for this constituent.

Sulfate (mg/L)

Event	PCU	STPO	PCD
1990 Fall	75.7	73.6	77.6
1991 Win	36.2	66.2	51.6
1991 Spr	26.8	64.8	54.6
1991 Sum	84.6	64.1	55.7
1991 Fall	22.4	50.4	30.6
1992 Win	24.4	41.0	26.6
1992 Spr	29.4	54.8	44.1
1992 Sum	61.9	52.5	66.6
1992 Fall	60.0	65.0	78.0
1993 Win	52.0	130	50.2
1993 Spr	34.5	62.8	38.1
1993 Sum	38.0	59.0	30.0
1993 Fall	25.0	58.0	29.0
1994 Win	28.0	56.0	30.0
1994 Spr	28.0	58.0	47.0
1994 Sum	93.0	56.0	68.0
1994 Fall	24.0	65.0	38.0
1995 Win	52.0	63.0	54.0
1995 Spr	34.0	54.0	34.0
1995 Sum	NA	NA	NA
1995 Fall	NA	NA	NA

Notes:
1. NA indicates that no sample was analyzed for this constituent.

Table C.11. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Cations and Anions

Total Phosphorus as P (mg/L)

Event	PCU	STPO	PCD
1990 Fall	4.5	4.40	3.2
1991 Win	1.0	4.70	2.8
1991 Spr	< 0.1	3.60	1.6
1991 Sum	< 0.1	3.30	1.5
1991 Fall	< 0.31	11.7	3.2
1992 Win	< 0.1	4.70	0.90
1992 Spr	0.22	2.50	1.1
1992 Sum	1.73	2.22	1.49
1992 Fall	4.07	4.78	3.44
1993 Win	0.09	2.91	0.12
1993 Spr	< 0.05	2.94	0.16
1993 Sum	< 1	< 10	< 1
1993 Fall	< 1	< 10	< 1
1994 Win	< 1	< 2	< 1
1994 Spr	< 1	2.90	< 1
1994 Sum	< 2	< 2	< 2
1994 Fall	< 1	< 4	< 1
1995 Win	< 1	< 2	< 1
1995 Spr	< 1	< 5	< 1
1995 Sum	NA	NA	NA
1995 Fall	NA	NA	NA

Notes:
1. NA indicates that no sample was analyzed for this constituent.

Chloride (mg/L)

Event	PCU	STPO	PCD
1990 Fall	156	139	156
1991 Win	29	142	63
1991 Spr	13	76	65
1991 Sum	33	156	146
1991 Fall	8.5	106	57
1992 Win	12	181	49
1992 Spr	19	147	93
1992 Sum	160	148	139
1992 Fall	147	124	165
1993 Win	13	121	13
1993 Spr	19	128	25
1993 Sum	16	130	26
1993 Fall	15	150	32
1994 Win	12	150	23
1994 Spr	17	100	85
1994 Sum	100	130	120
1994 Fall	12	160	57
1995 Win	27	120	37
1995 Spr	26	110	27
1995 Sum	NA	NA	NA
1995 Fall	NA	NA	NA

Notes:
1. NA indicates that no sample was analyzed for this constituent.

Table C.11. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Cations and Anions

Nitrate-Nitrogen (ug/L)

Event	PCU	STPO	PCD
1990 Fall	7300	6500	5700
1991 Win	400	11900	2000
1991 Spr	< 100	6500	5700
1991 Sum	< 100	5220	3910
1991 Fall	< 100	10940	3470
1992 Win	300	8750	2340
1992 Spr	< 100	11100	3510
1992 Sum	5980	5720	3960
1992 Fall	3960	2200	4090
1993 Win	230	8950	280
1993 Spr	1210	4700	1080
1993 Sum	540	3100	690
1993 Fall	1000	3100	1700
1994 Win	4300	6700	1600
1994 Spr	< 100	6100	3700
1994 Sum	1100	890	1500
1994 Fall	290	3600	3600
1995 Win	2600	7500	2700
1995 Spr	2600	9400	2600
1995 Sum	1500	1500	1900
1995 Fall	1800	3000	1800

Ammonia-Nitrogen (ug/L)

Event	PCU	STPO	PCD
1990 Fall	NA	NA	NA
1991 Win	NA	NA	NA
1991 Spr	NA	NA	NA
1991 Sum	NA	NA	NA
1991 Fall	NA	NA	NA
1992 Win	NA	NA	NA
1992 Spr	NA	NA	NA
1992 Sum	NA	NA	NA
1992 Fall	NA	NA	NA
1993 Win	NA	NA	NA
1993 Spr	NA	NA	NA
1993 Sum	67	3900	560
1993 Fall	< 50	8300	530
1994 Win	97	4900	290
1994 Spr	68	4800	600
1994 Sum	1500	3300	77
1994 Fall	< 50	5800	350
1995 Win	< 50	3200	< 50
1995 Spr	< 50	1400	< 50
1995 Sum	NA	NA	NA
1995 Fall	NA	NA	NA

Notes:

1. NA indicates that no sample was analyzed for this constituent.

Table C.12. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Other Parameters

pH (st'd units)

Event	PCU	STPO	PCD
1990 Fall	7.2	7.3	7.4
1991 Win	8.3	7.3	7.6
1991 Spr	8.8	7.3	8.2
1991 Sum	9.2	7.3	8.8
1991 Fall	8.4	7.4	8.6
1992 Win	8.4	7.3	8.0
1992 Spr	8.9	7.2	8.3
1992 Sum	7.8	7.5	7.8
1992 Fall	7.5	7.5	7.7
1993 Win	NA	NA	NA
1993 Spr	7.6	8.0	7.7
1993 Sum	8.1	7.5	7.1
1993 Fall	8.1	7.4	7.8
1994 Win	7.9	7.0	7.7
1994 Spr	8.4	7.2	7.7
1994 Sum	7.6	7.1	6.9
1994 Fall	8.2	7.0	7.5
1995 Win	8.0	7.2	7.9
1995 Spr	8.2	7.5	8.2
1995 Sum	9.1	7.6	8.5
1995 Fall	-	-	-

Notes:
1. All measurement were made in the field.
2. Field data for Fall 1995 are unavailable.
   Field record forms lost by sampling team.
3. NA indicates that no sample was analyzed for this constituent.

Temperature (°C)

Event	PCU	STPO	PCD
1990 Fall	16.5	22.8	16.0
1991 Win	14.1	17.9	16.6
1991 Spr	20.7	23.9	23.2
1991 Sum	25.6	27.2	28.9
1991 Fall	10.5	20.0	16.0
1992 Win	14.4	23.6	19.7
1992 Spr	22.4	24.7	27.7
1992 Sum	20.8	28.8	25.8
1992 Fall	14.1	20.8	14.1
1993 Win	9.4	17.1	9.2
1993 Spr	19.9	20.7	19.8
1993 Sum	23.3	27.1	24.0
1993 Fall	10.2	19.3	11.2
1994 Win	10.9	20.2	14.1
1994 Spr	19.8	25.2	25.4
1994 Sum	22.0	25.9	21.0
1994 Fall	6.8	22.2	9.2
1995 Win	13.7	20.1	14.2
1995 Spr	20.1	22.0	20.4
1995 Sum	22.3	27.8	29.2
1995 Fall	-	-	-

Notes:
1. All measurement were made in the field.
2. Field data for Fall 1995 are unavailable.
   Field record forms lost by sampling team.

Table C.12. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Other Parameters

Turbidity - Field

Event	PCU	STPO	PCD
1990 Fall	8.0	8.0	7.5
1991 Win	NA	NA	NA
1991 Spr	15	3.5	28
1991 Sum	26	3.4	30
1991 Fall	4.7	4.3	9.3
1992 Win	> 200	3.2	> 200
1992 Spr	42	5.0	16
1992 Sum	30	6.0	> 200
1992 Fall	4.2	5.0	17
1993 Win	> 200	9.4	> 200
1993 Spr	> 200	63	> 200
1993 Sum	19	8.5	16
1993 Fall	NA	NA	NA
1994 Win	> 200	88	> 200
1994 Spr	20	8.2	14
1994 Sum	NA	10	4.4
1994 Fall	5.1	5.3	6.2
1995 Win	24	6.9	19
1995 Spr	49	13	29
1995 Sum	16	1.9	25
1995 Fall	-	-	-

Notes:
1. All measurement were made in the field.
2. Field data for Fall 1995 are unavailable.
   Field record forms lost by sampling team.
3. NA indicates that no sample was analyzed for this constituent.

Turbidity - Lab

Event	PCU	STPO	PCD
1990 Fall	6.5	9.0	8.4
1991 Win	52	6.4	37
1991 Spr	39	4.5	25
1991 Sum	29	7.3	26
1991 Fall	8.5	8.6	8.7
1992 Win	110	2.6	77
1992 Spr	31	2.8	14
1992 Sum	8.1	1.8	8.6
1992 Fall	3.9	3.5	18
1993 Win	128	5.9	112
1993 Spr	10	16	25
1993 Sum	19	7.1	16
1993 Fall	4.8	4.7	10
1994 Win	130	5.5	120
1994 Spr	18	6.9	17
1994 Sum	59	6.9	2.8
1994 Fall	10	4.6	4.7
1995 Win	37	6.2	31
1995 Spr	62	9.3	32
1995 Sum	NA	NA	NA
1995 Fall	NA	NA	NA

Notes:
1. NA indicates that no sample was analyzed for this constituent.

Table C.12. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Other Parameters

Specific Conductance (umhos/cm)

Event	PCU	STPO	PCD
1990 Fall	1080	1237	1017
1991 Win	365	1223	622
1991 Spr	381	982	680
1991 Sum	691	1166	985
1991 Fall	373	1110	569
1992 Win	333	1111	518
1992 Spr	487	953	728
1992 Sum	840	770	1390
1992 Fall	967	1042	894
1993 Win	453	1190	404
1993 Spr	670	1310	749
1993 Sum	488	1101	566
1993 Fall	332	979	410
1994 Win	263	506	349
1994 Spr	446	917	766
1994 Sum	933	577	882
1994 Fall	283	1001	409
1995 Win	512	834	535
1995 Spr	589	870	592
1995 Sum	1.2R	2.15R	1.25R
1995 Fall	-	-	-

Total Dissolved Solids (mg/L)

Event	PCU	STPO	PCU
1990 Fall	642	602	644
1991 Win	202	596	326
1991 Spr	277	558	459
1991 Sum	430	632	568
1991 Fall	196	605	306
1992 Win	210	625	296
1992 Spr	400	619	507
1992 Sum	572	575	562
1992 Fall	582	515	593
1993 Win	225	514	236
1993 Spr	289	595	298
1993 Sum	290	560	290
1993 Fall	260	590	280
1994 Win	220	600	250
1994 Spr	260	500	410
1994 Sum	570	560	540
1994 Fall	220	590	330
1995 Win	380	530	390
1995 Spr	370	540	360
1995 Sum	290	640	420
1995 Fall	240	550	300

Notes:

1. All measurements were made in the field.
2. Summer 1995 data rejected - no calibration records
3. Field data for Fall 1995 are unavailable.
   Field record forms lost by sampling team.

Table C.12. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Other Parameters

Total Kjeldahl Nitrogen (ug/L)

Event	PCU	STPO	PCD
1990 Fall	NA	NA	NA
1991 Win	NA	NA	NA
1991 Spr	NA	NA	NA
1991 Sum	NA	NA	NA
1991 Fall	NA	NA	NA
1992 Win	NA	NA	NA
1992 Spr	NA	NA	NA
1992 Sum	NA	NA	NA
1992 Fall	NA	NA	NA
1993 Win	NA	NA	NA
1993 Spr	NA	NA	NA
1993 Sum	< 500	4000	670
1993 Fall	< 500	9200	1300
1994 Win	< 500	6200	930
1994 Spr	< 500	6700	1500
1994 Sum	2200	3500	660
1994 Fall	< 500	6100	720
1995 Win	< 500	3100	< 500
1995 Spr	< 500	2500	< 500
1995 Sum	NA	NA	NA
1995 Fall	NA	NA	NA

Notes:
1. NA indicates that no sample was analyzed for this constituent.

Total Organic Carbon (mg/L)

Event	PCU	STPO	PCD
1990 Fall	NA	NA	NA
1991 Win	NA	NA	NA
1991 Spr	NA	NA	NA
1991 Sum	NA	NA	NA
1991 Fall	NA	NA	NA
1992 Win	NA	NA	NA
1992 Spr	NA	NA	NA
1992 Sum	NA	NA	NA
1992 Fall	NA	NA	NA
1993 Win	NA	NA	NA
1993 Spr	NA	NA	NA
1993 Sum	11	7.7	11
1993 Fall	3.6	7.1	4.3
1994 Win	9.4	8.4	6.5
1994 Spr	5.1	8.7	6.7
1994 Sum	6.0	4.2	4.8
1994 Fall	3.7	6.5	4.6
1995 Win	2.6	7.4	2.9
1995 Spr	2.5	8.0	2.6
1995 Sum	NA	NA	NA
1995 Fall	NA	NA	NA

Notes:
1. NA indicates that no sample was analyzed for this constituent.

Table C.12. Analytical Results for Surface Water, Fall 1990 Through Fall 1995, Other Parameters

Eh (mvolt)

Event	PCU	STPO	PCD
1990 Fall	NA	NA	NA
1991 Win	NA	NA	NA
1991 Spr	NA	NA	NA
1991 Sum	NA	NA	NA
1991 Fall	NA	NA	NA
1992 Win	NA	NA	NA
1992 Spr	NA	NA	NA
1992 Sum	NA	NA	NA
1992 Fall	NA	NA	NA
1993 Win	NA	NA	NA
1993 Spr	NA	NA	NA
1993 Sum	NA	NA	NA
1993 Fall	39	52	41
1994 Win	127	132	133
1994 Spr	108	88	81
1994 Sum	164	192	167
1994 Fall	148	174	181
1995 Win	151	163	174
1995 Spr	84	141	151
1995 Sum	NA	NA	NA
1995 Fall	NA	NA	NA

Notes:
1. All measurements were made in the field.
2. NA indicates that no sample was analyzed for this constituent.

Chemical Oxygen Demand (mg/L)

Event	PCU	STPO	PCD
1990 Fall	23.3	32.9	32.9
1991 Win	90.8	8.0	151
1991 Spr	496	279	49.4
1991 Sum	23.6	23.8	25.7
1991 Fall	27.2	46.4	40.0
1992 Win	10.8	20.2	10.4
1992 Spr	5.0	< 1	10.0
1992 Sum	< 1	< 1	< 1.0
1992 Fall	16.6	27.5	20.2
1993 Win	27.9	55.8	4.0
1993 Spr	5.2	31.2	36.3
1993 Sum	NA	NA	NA
1993 Fall	NA	NA	NA
1994 Win	NA	NA	NA
1994 Spr	NA	NA	NA
1994 Sum	NA	NA	NA
1994 Fall	19.0	25.0	19.0
1995 Win	< 50	< 50	< 50
1995 Spr	< 50	< 50	< 50
1995 Sum	NA	NA	NA
1995 Fall	NA	NA	NA

Notes:
1. NA indicates that no sample was analyzed for this constituent.

Appendix D

Fall Quarter 1995 Water Monitoring

Appendix D

Fall Quarter 1995 Water Monitoring

This Appendix summarizes activities associated with fall quarter 1995 water monitoring. Sampling and shipping procedures, quality assurance activities, and data validation for the fall quarter are discussed. Fall quarter data are presented along with other 1995 results in the main body of this report.

Sampling and Shipping Procedures

Twenty-three groundwater samples (including two duplicate samples) were collected from 21 monitoring wells, and four surface water samples (including one duplicate sample) were collected from three surface water locations between November 28 and December 12, 1995. Groundwater and surface water samples were collected and handled according to procedures described in the Water Monitoring Plan (PNL 1994). Storm water samples were collected and handled according to procedures described in the Final Draft RI/FS Work Plan (DOE 1994a). Groundwater monitoring well and surface water sample locations are presented in Figures 2.2, 2.3, and 2.4, in Section 2 of the main report.

Groundwater samples were collected by purging and sampling monitoring wells with dedicated electric submersible pumps. Duplicate samples were collected from monitoring wells UCD1-13 and UCD1-12.

Surface water samples were collected from three locations along Putah Creek: the UC Davis Wastewater Treatment Plant outfall tributary (designated STPO); upstream of the LEHR facility (designated PCU); and downstream of the LEHR facility (designated PCD) (Figure 2.4 in Section 2 of the report). A duplicate sample was collected at sample location PCD.

Requested chemical and radiological analyses of groundwater and surface water are listed in Tables 2.2, 2.3, 2.4, and 2.5. Samples were shipped daily via Federal Express for overnight delivery to Lockheed Analytical Services (Lockheed) in Las Vegas, Nevada. Immediately upon receipt of the sample shipment, Lockheed documented the condition of the sample containers on the chain-of-custody forms and faxed a copy of the chain-of-custody to the task manager. Lockheed was given approval to begin analyses on all samples that arrived in acceptable condition.

Quality Assurance Activities

On December 6 and 7, 1995, an audit of Lockheed Analytical Services was conducted by PNNL Quality Assurance and technical staff. Laboratory operations and quality assurance practices were reviewed to assess compliance with project controlling documents, including the PNNL Master Agreement, the Laboratory Services Agreement, the Quality Assurance Project Plan (QAPjP) (PNL 1994) and USEPA standard methods. Details of the audit results are discussed in Section 2.0 of this report.

Data Validation

The results of the data validation indicate that some sample results for the field and laboratory quality control data fell outside specified validation criteria: field duplicate imprecision for some radionuclides, contamination of some laboratory method blanks from acetone, calibration failures associated with volatile analyses, and some surrogate recoveries for pesticide results that fell below the acceptable ranges established in the QAPjP (the criteria for pesticide surrogates are advisory only, and the results did not impact the data quality). Data validation flags have been applied to those sample results (see Appendixes A and B). Field duplicates were collected from wells UCD1-12 and UCD1-13, and surface water location PCD.

During the radiation process, some data points were identified as unreliable. Instrument calibration failures for volatile compounds were noted for acetone and 2-butanone. This qualification is based on validation guidance documents, which differ from technical requirements. For subject compounds, the method has no established criteria for calibration. However, for the purpose of data validation, the criteria established for other compounds are presumed reliable for all compounds. Although qualified as unreliable, these calibration failures are not expected to impact the data significantly. Historically, these compounds have not been detected in groundwater monitoring samples at the LEHR site, until this fall when detected in well UCD1/2-27.

The presence of acetone, a common laboratory contaminant, in the associated laboratory method blanks was not significant. Some primary samples had reported detections of acetone at concentrations similar to those reported in the method blanks. Sample results associated with these blanks have been qualified with "J" to indicate the bias introduced by the analytical process (see Tables 5.3 and 6.3).

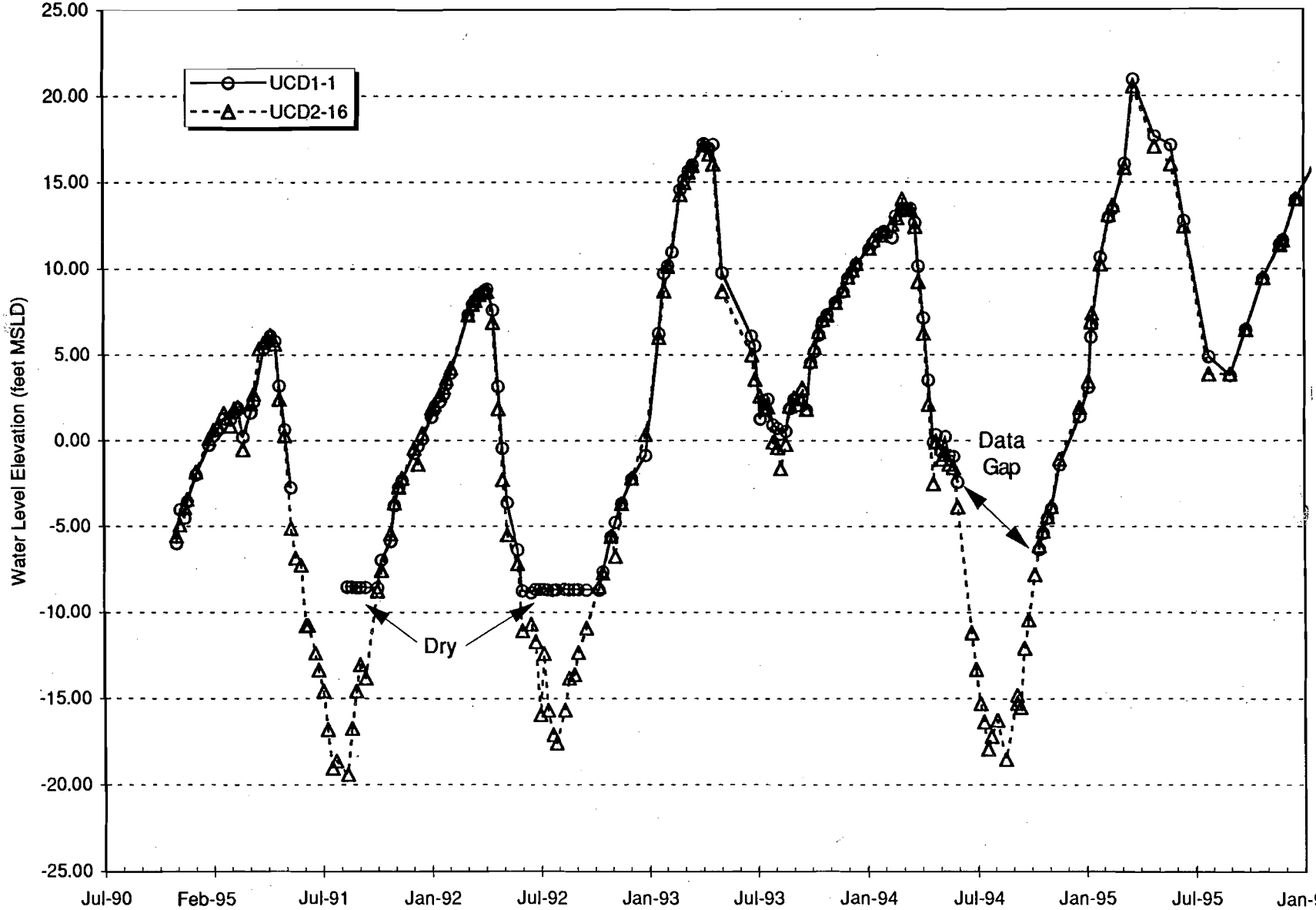
The calculated relative percent difference between field duplicate samples collected and analyzed for fall quarter were within specified guidelines with two exceptions, radium-226 and bismuth-214 for well UCD1-13. The duplicate results for fall quarter monitoring indicate that samples were representative of field conditions.

Data validation results show that requested analyses were completed. The required holding time for each analytical method was met. More than 98% of the data were judged to be valid, according to criteria set forth in the QAPjP. The fall quarter 1995 data, which

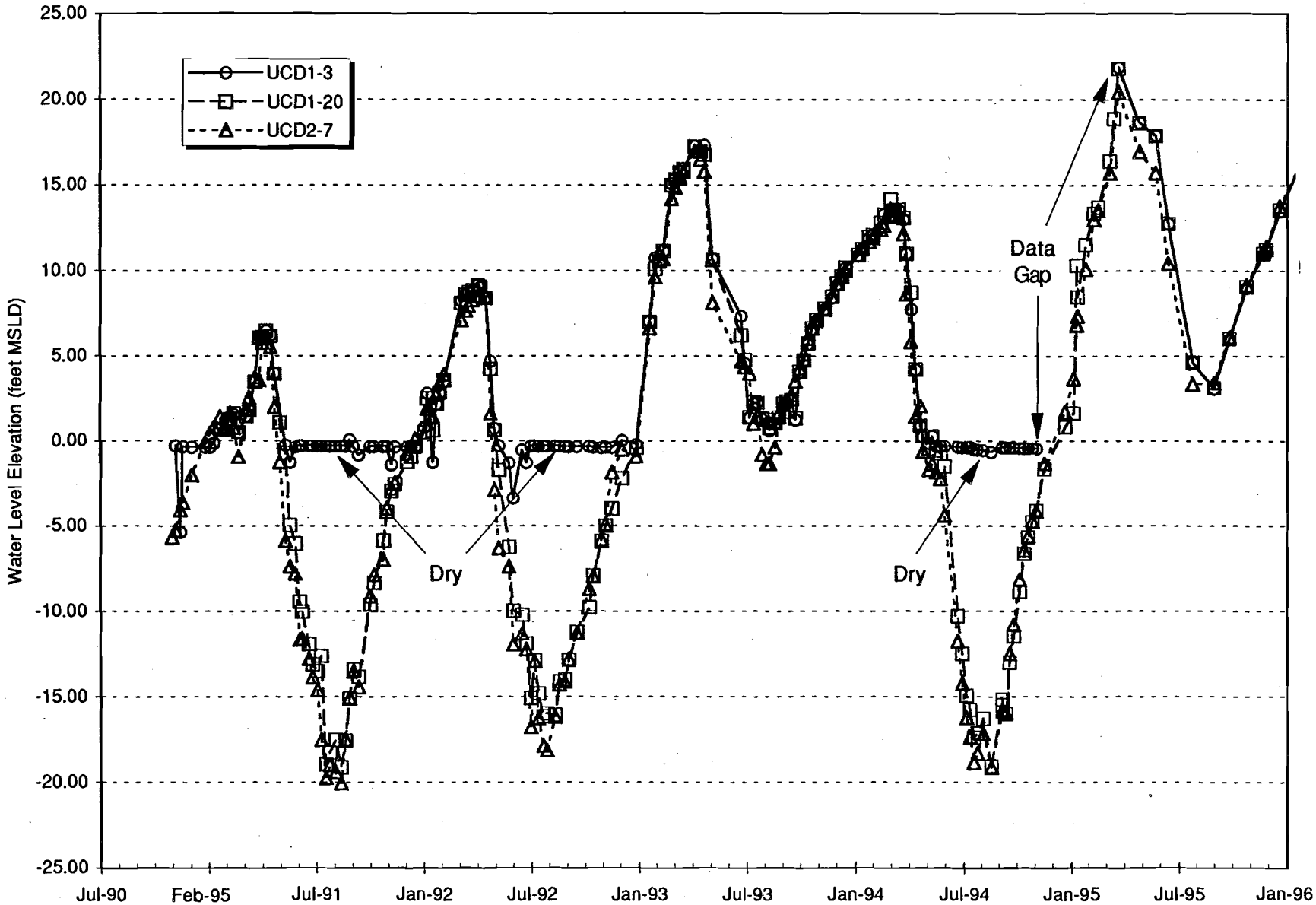
Data validation results show that requested analyses were completed. The required holding time for each analytical method was met. More than 98% of the data were judged to be valid, according to criteria set forth in the QAPjP. The fall quarter 1995 data, which include approximately 3,144 individual analytical results (both detected and nondetected), were deemed reliable for their intended purpose with the exception of 36 results. A detailed discussion of the data validation results is presented in Section 3 of this report.

Appendix E

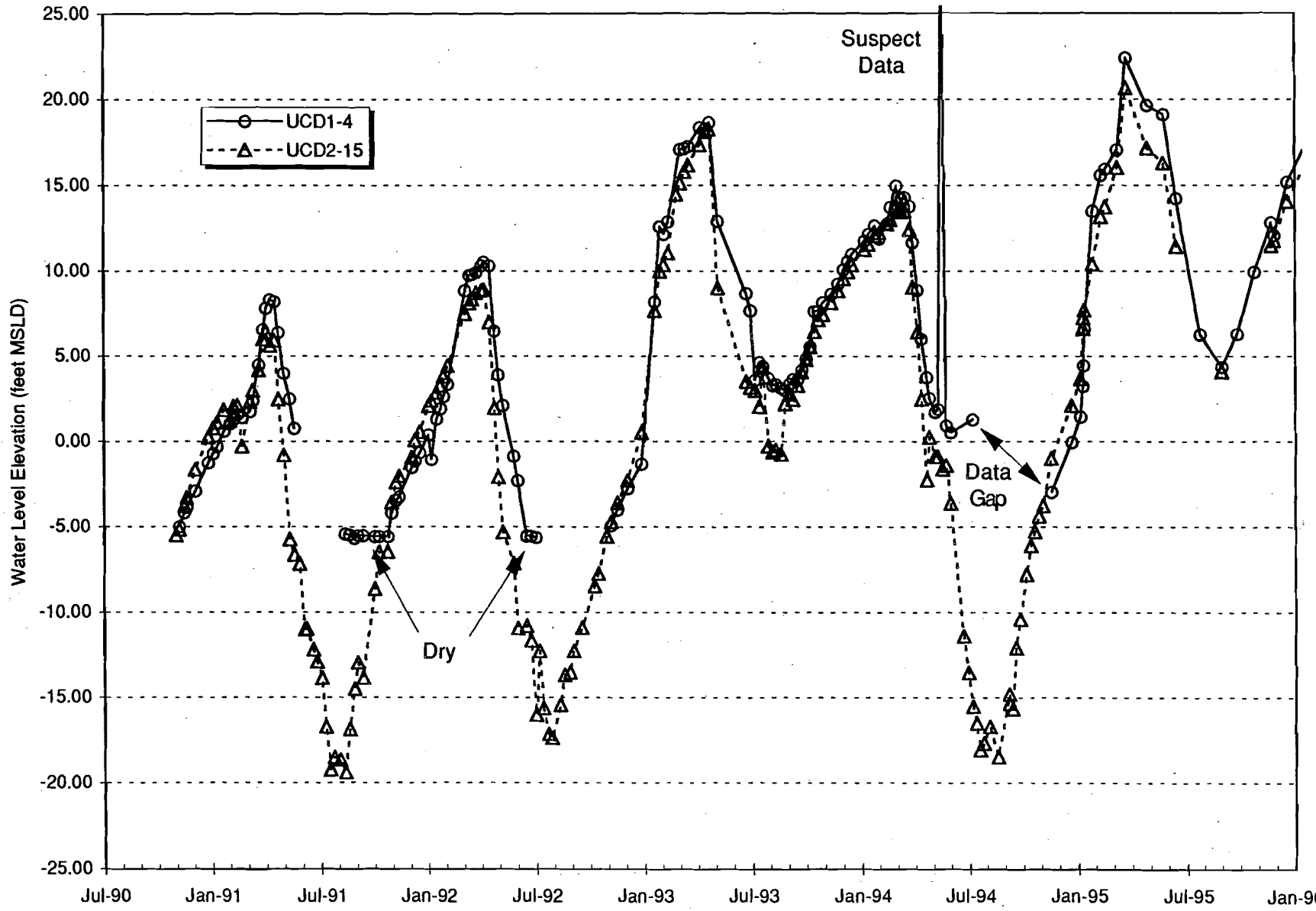
Groundwater Elevation Data



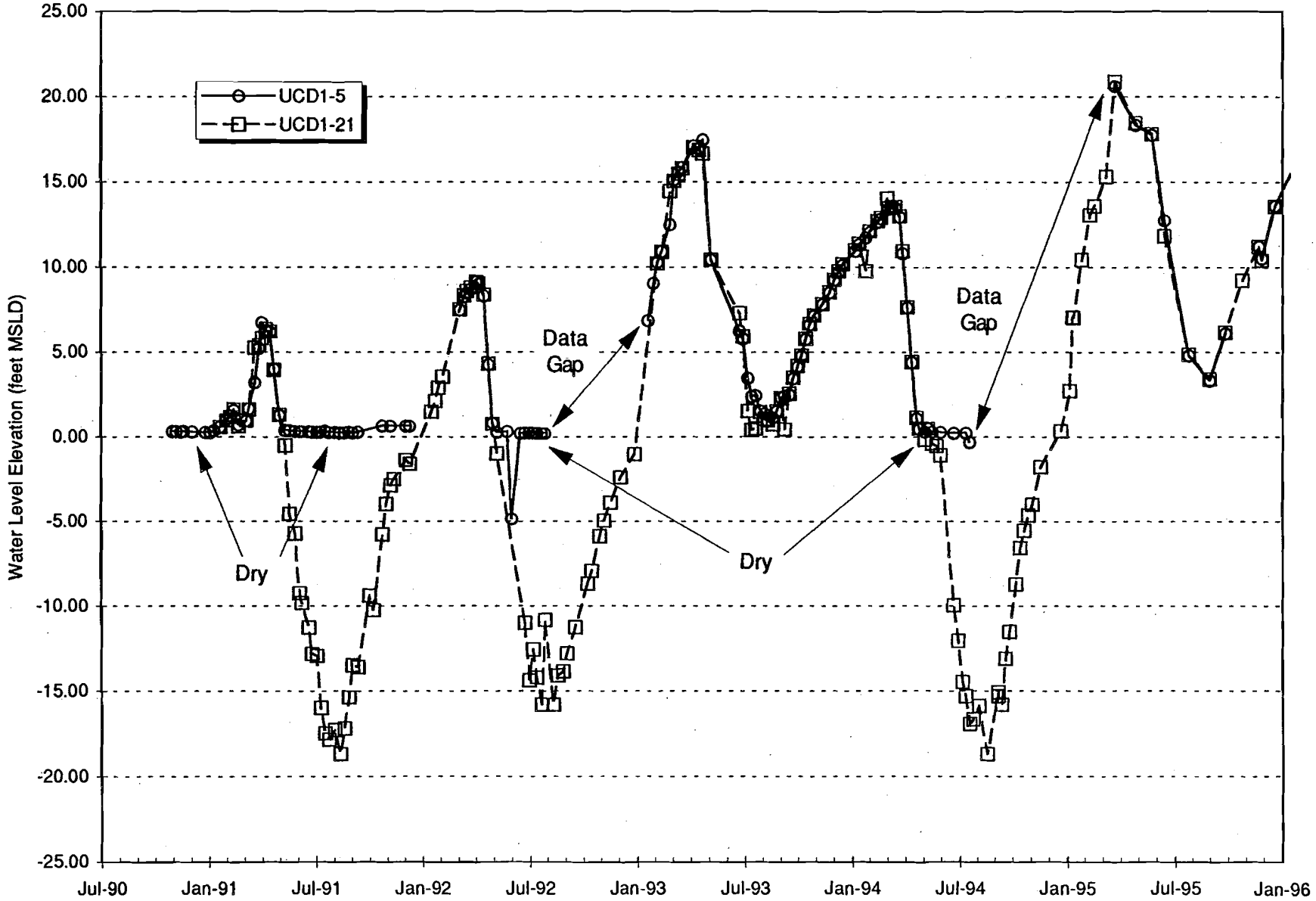
Groundwater Elevation Hydrograph
UCD1-1 & UCD2-16
3/24/96



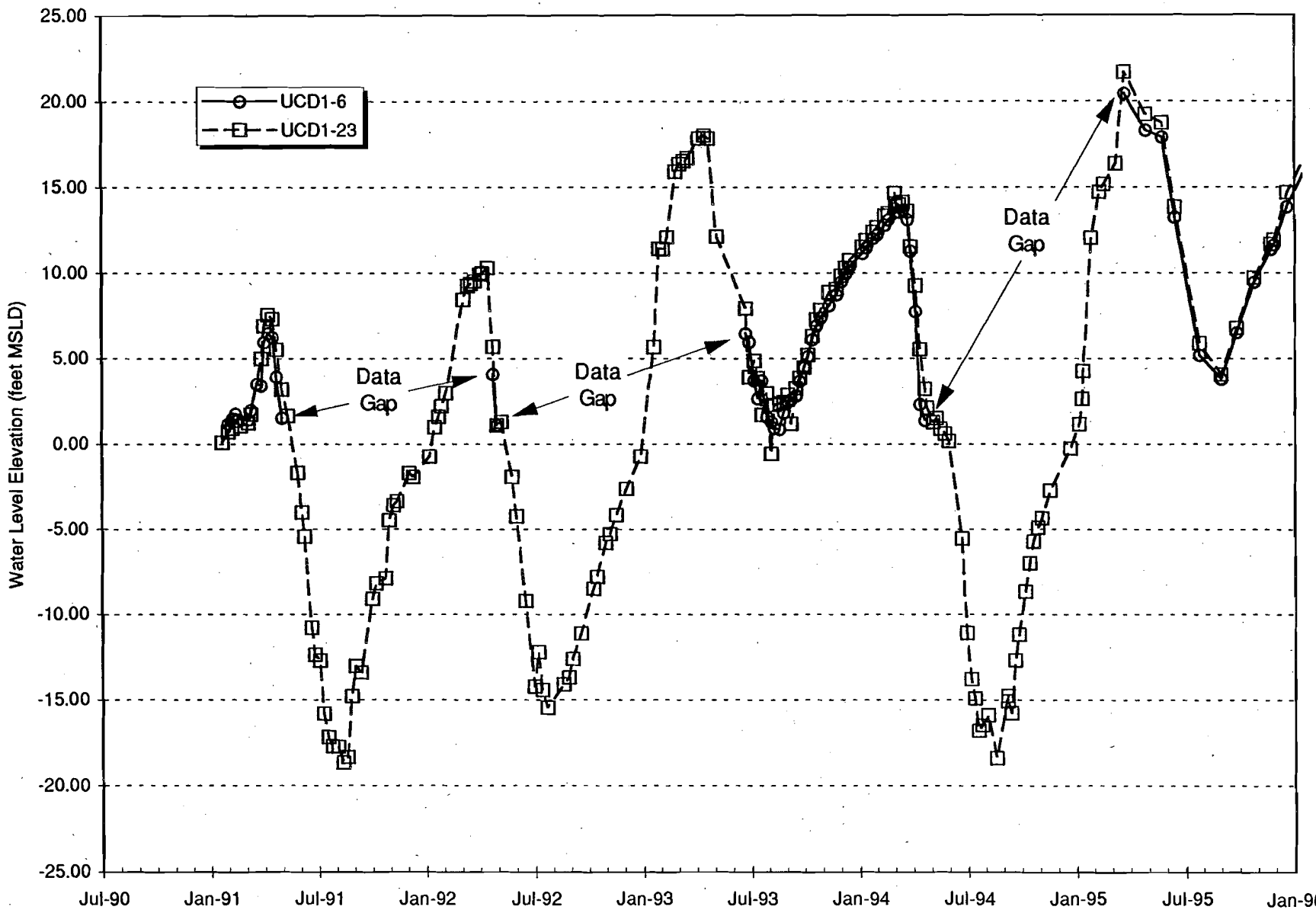
Groundwater Elevation Hydrograph
UCD1-3, -20, & UCD2-7
3/24/96



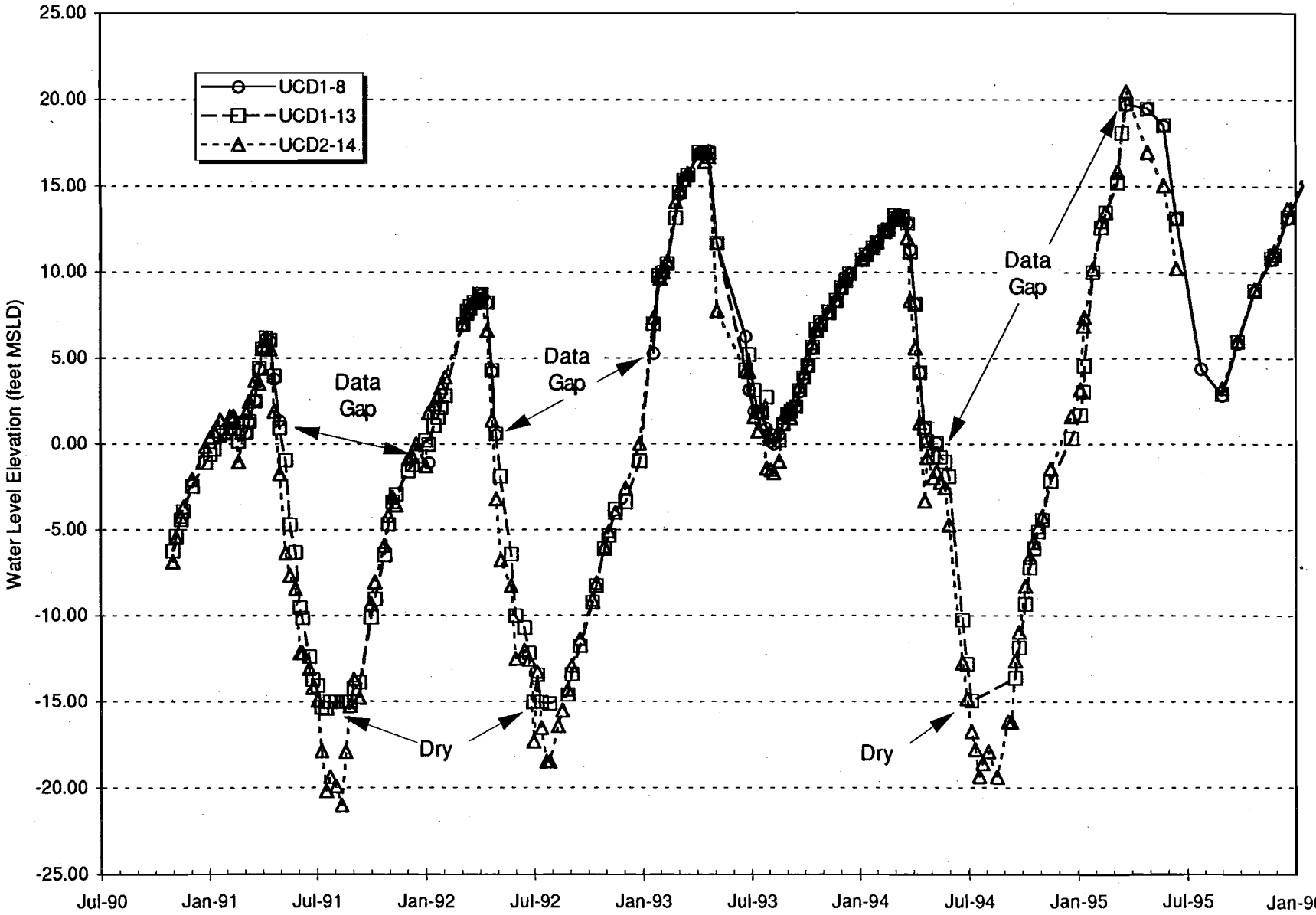
Groundwater Elevation Hydrograph
UCD1-4 & UCD2-15
3/24/96



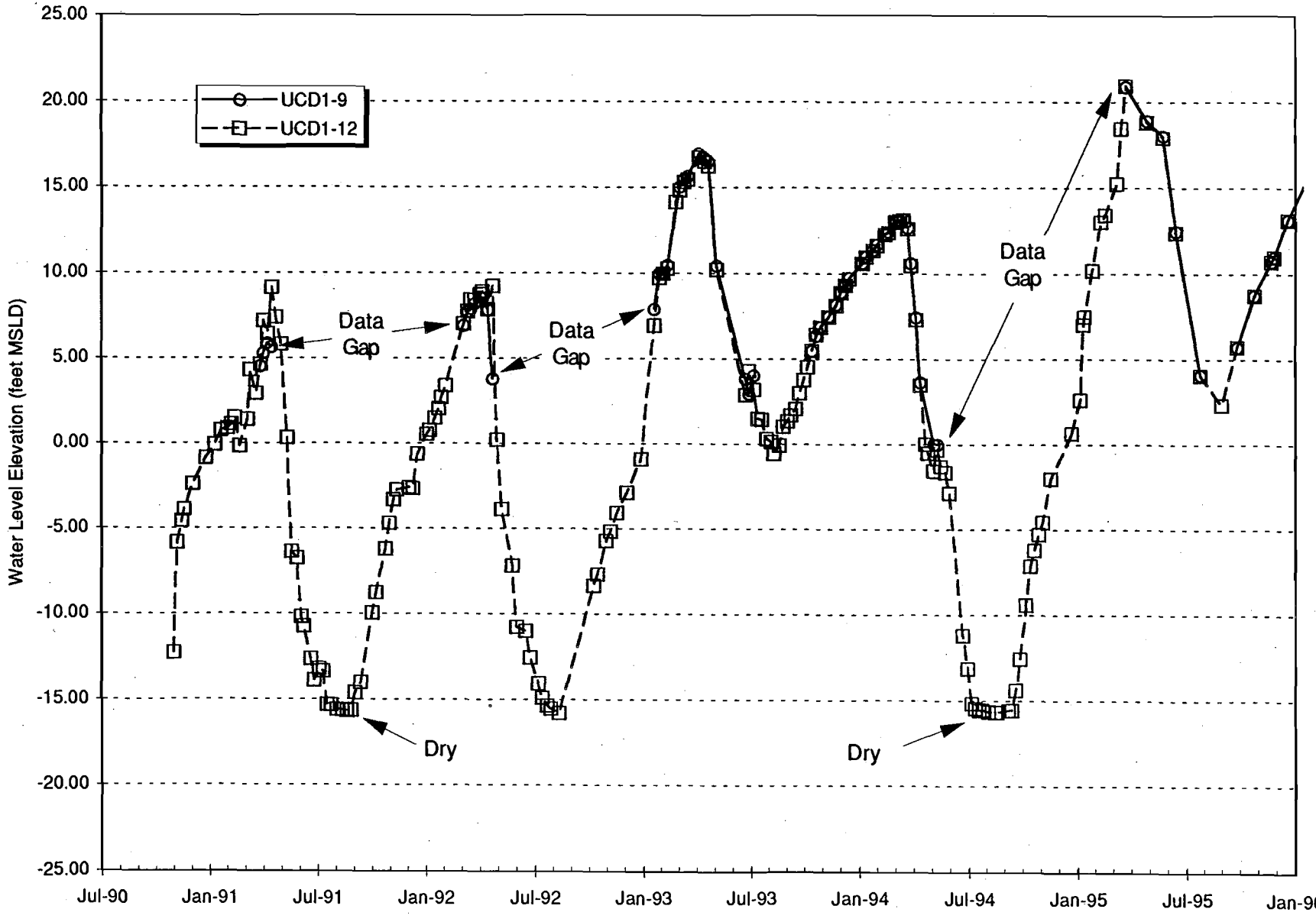
Groundwater Elevation Hydrograph
UCD1-5 & -20
3/24/96



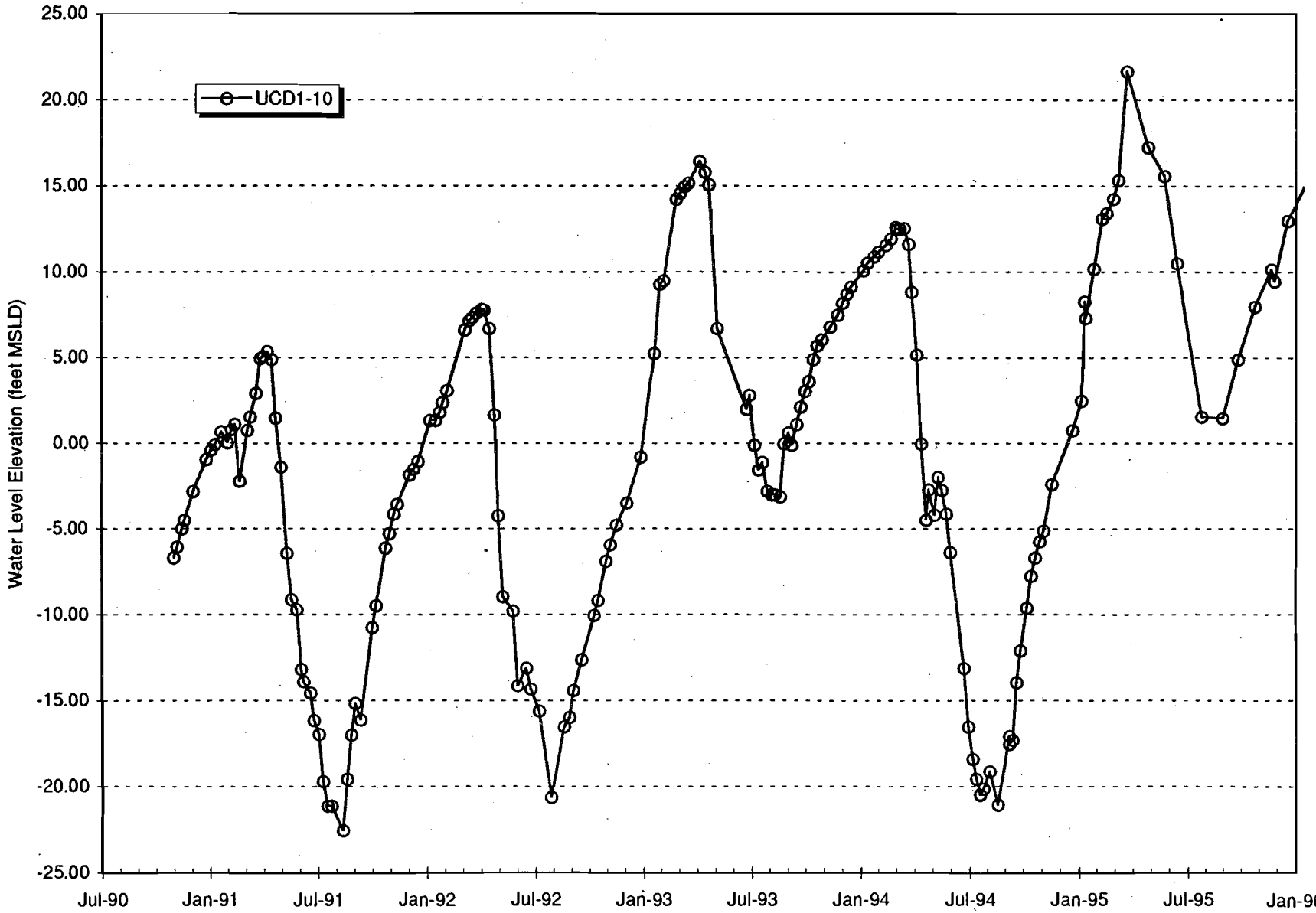
Groundwater Elevation Hydrograph
UCD1-6 & -023
3/24/96



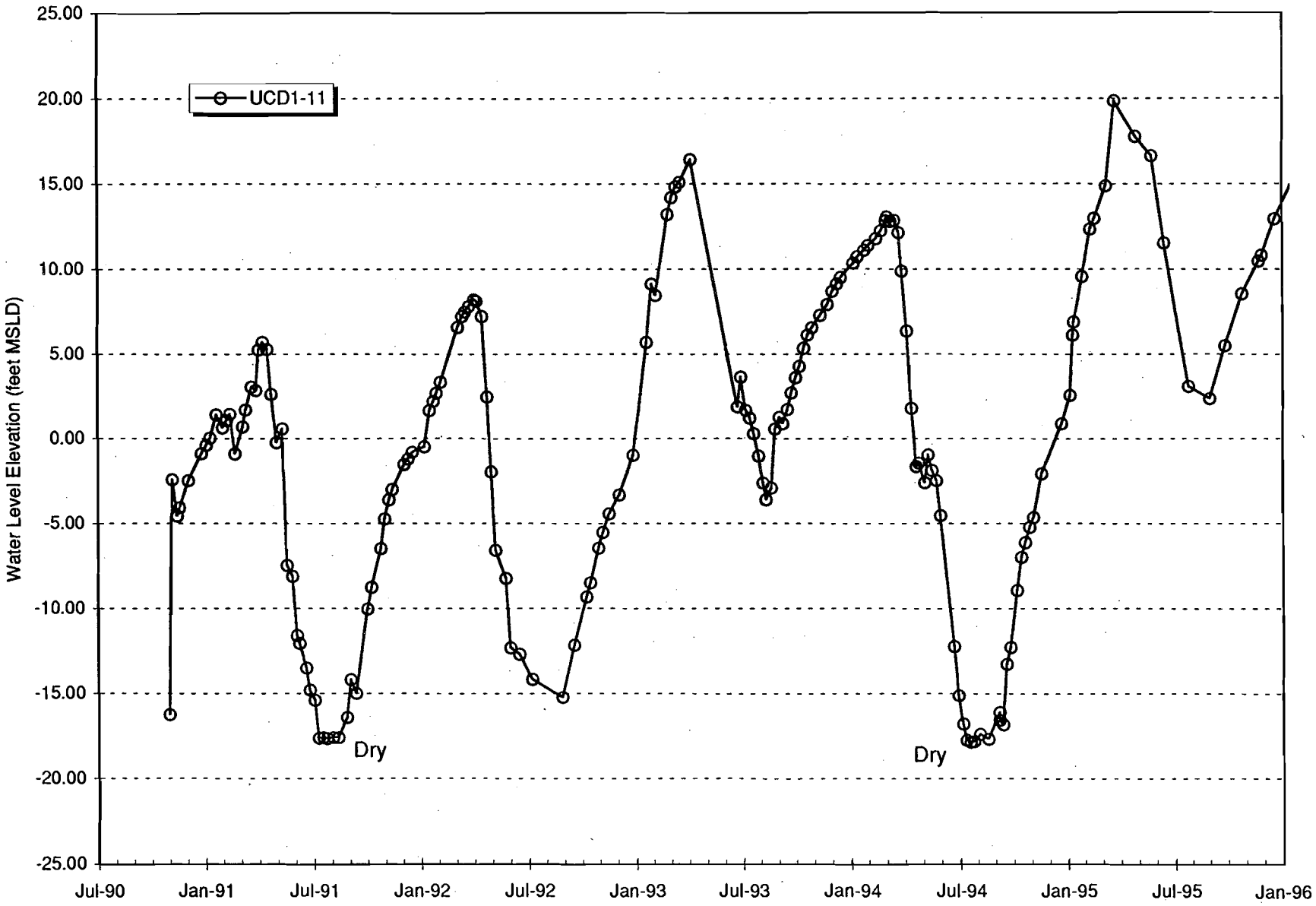
Groundwater Elevation Hydrograph
UCD1-8, -13, and UCD2-14
3/24/96



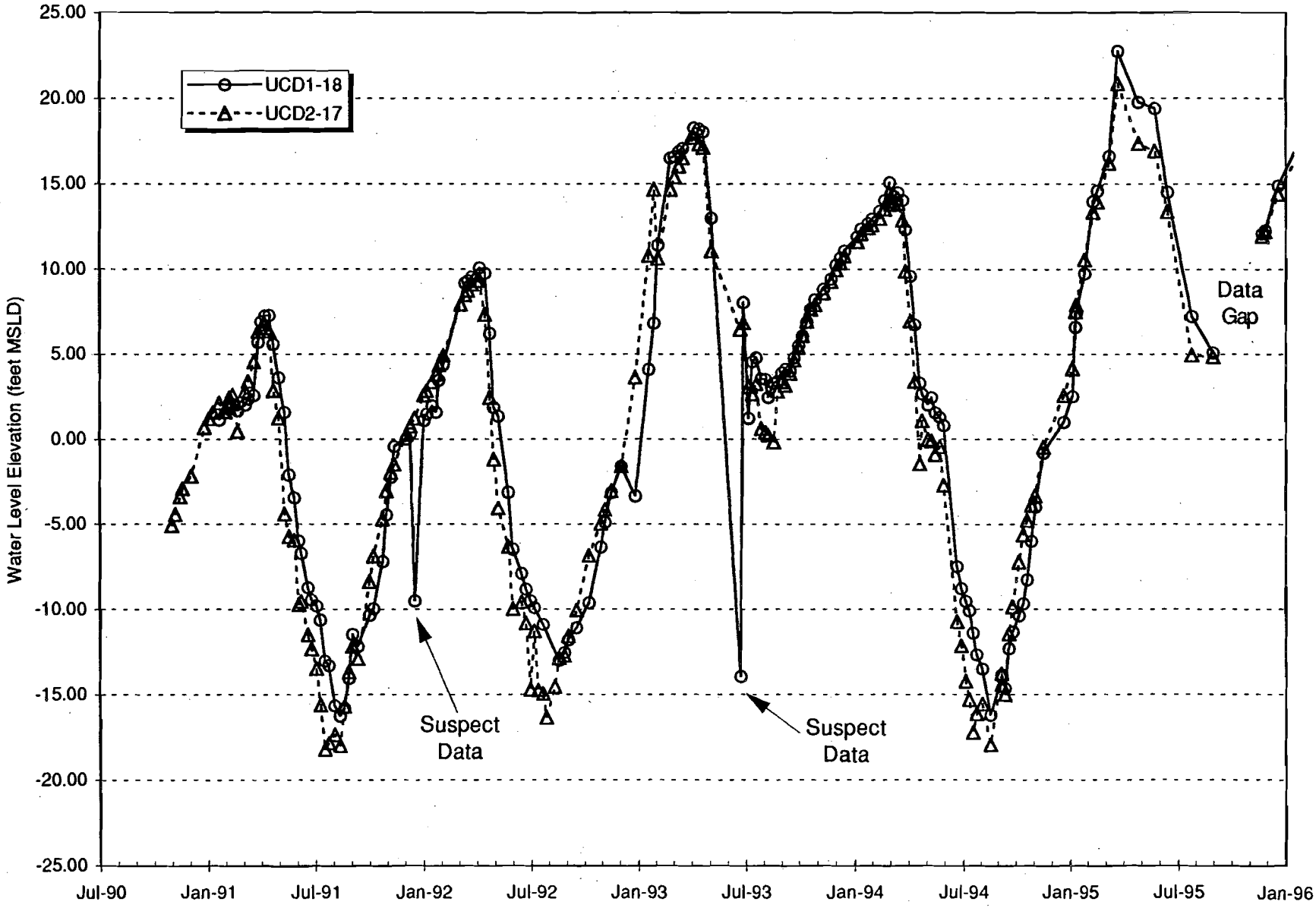
Groundwater Elevation Hydrograph
UCD1-9 & -12
3/24/96



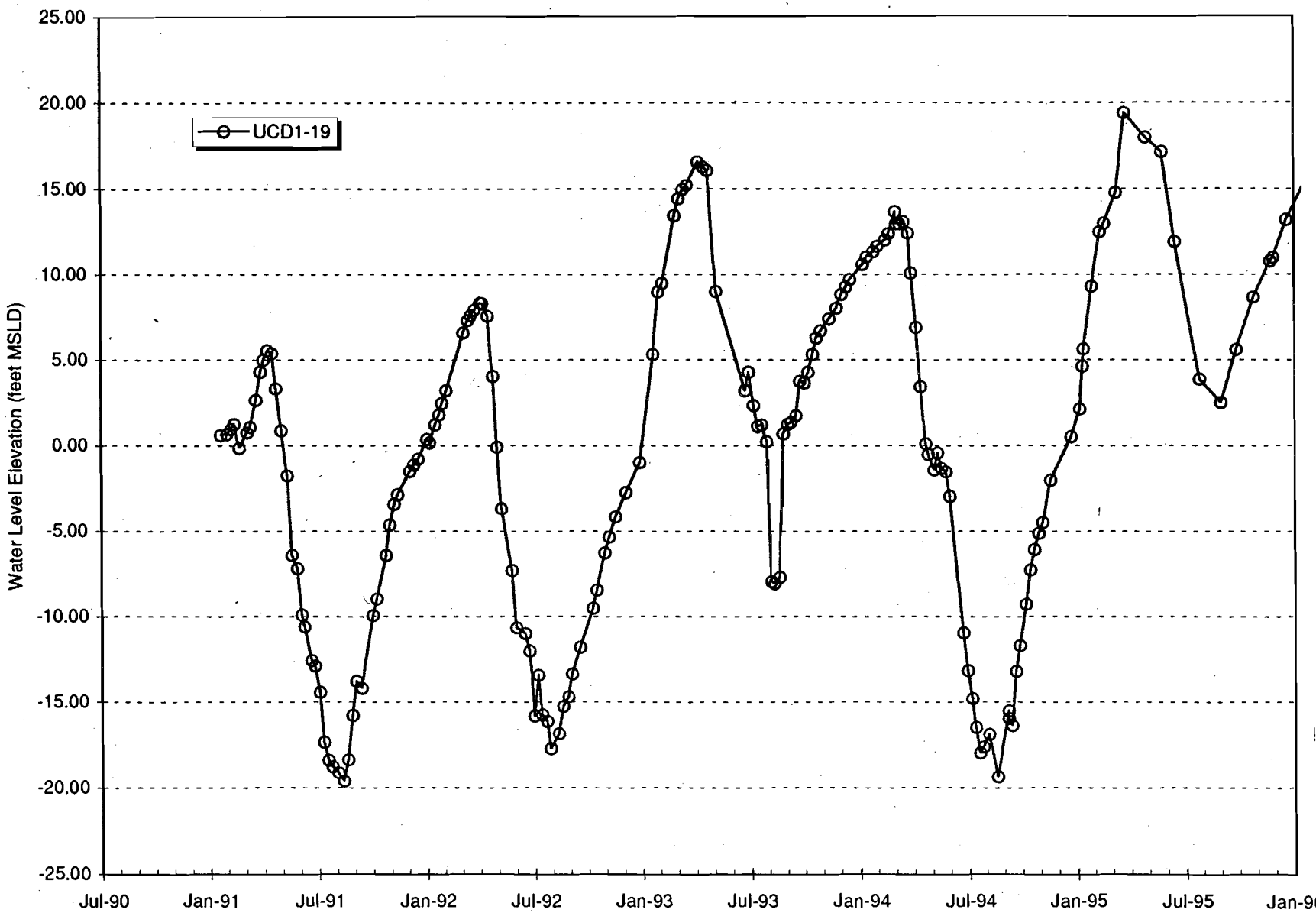
Groundwater Elevation Hydrograph
UCD1-10
3/24/96



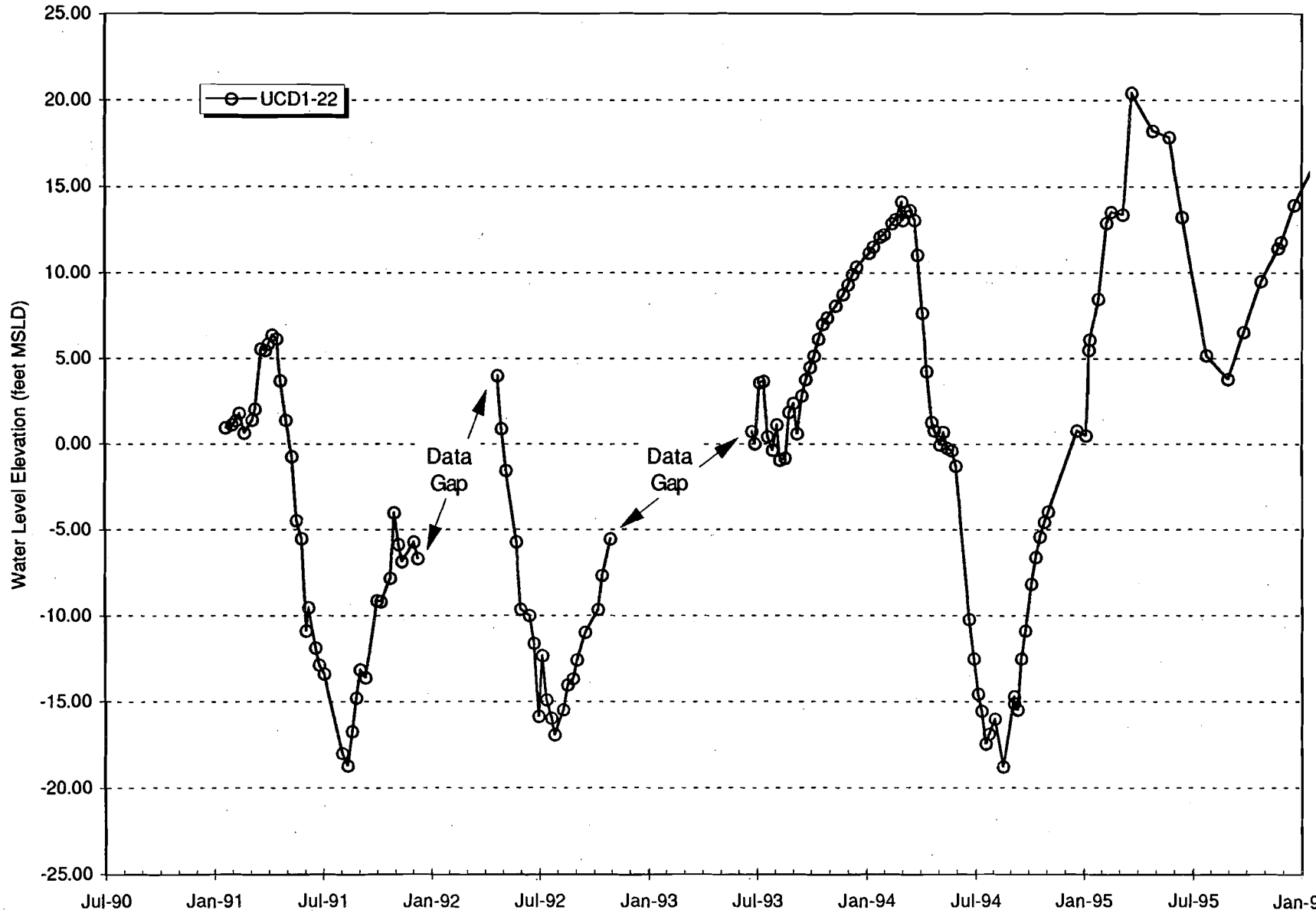
Groundwater Elevation Hydrograph
UCD1-11
3/24/96



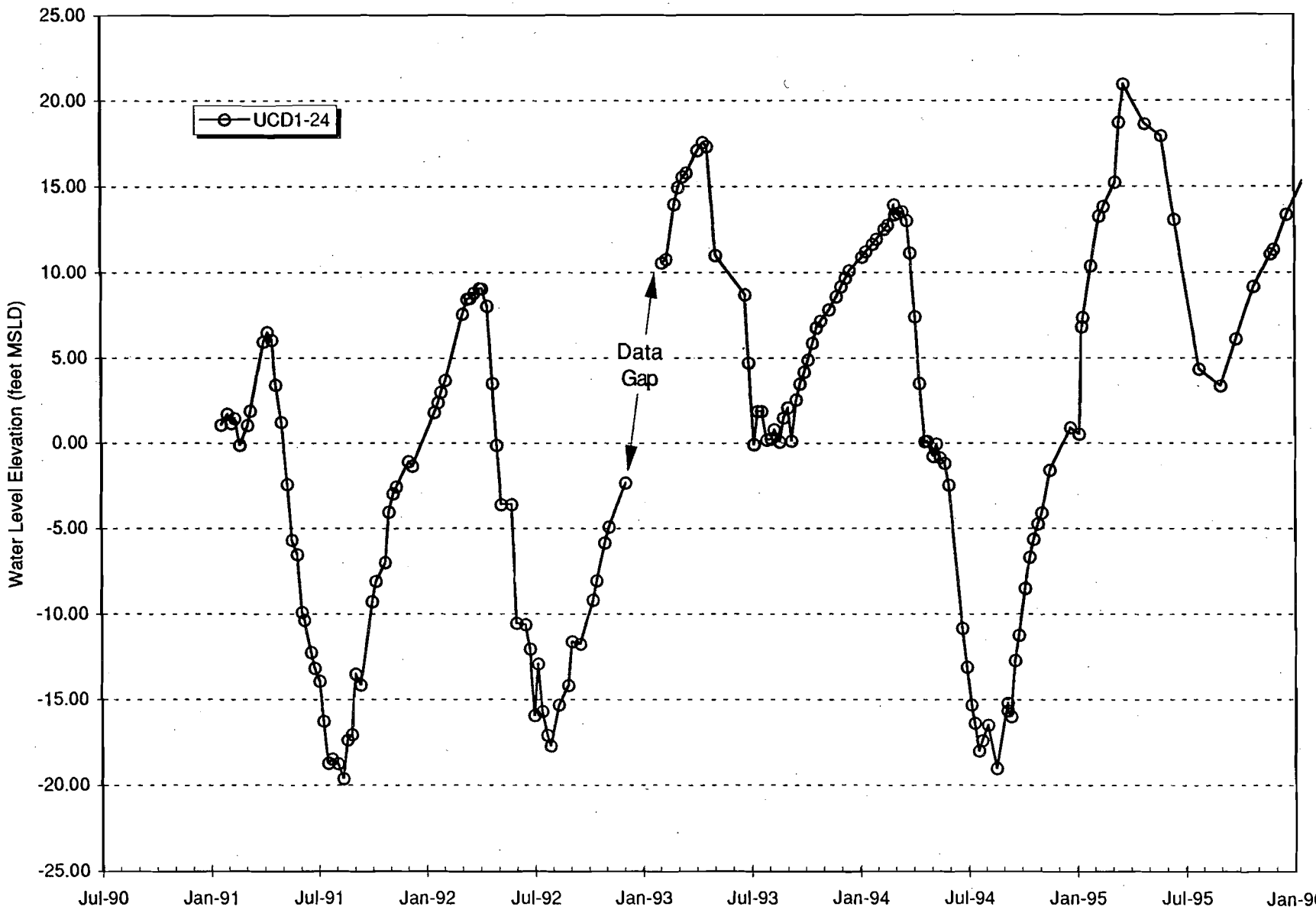
Groundwater Elevation Hydrograph
UCD1-18 & UCD2-17
3/24/96



Groundwater Elevation Hydrograph
UCD1-19
3/24/96



Groundwater Elevation Hydrograph
UCD1-22
3/24/96



Groundwater Elevation Hydrograph
UCD1-24
3/24/96

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 1	11/2/90	50.05	56.03	-5.98	
UCD1- 1	11/8/90	50.05	54.08	-4.03	
UCD1- 1	11/16/90	50.05	54.56	-4.51	
UCD1- 1	11/20/90	50.05	53.60	-3.55	
UCD1- 1	12/5/90	50.05	52.04	-1.99	
UCD1- 1	12/27/90	50.05	50.30	-0.25	
UCD1- 1	1/4/91	50.05	49.77	0.28	
UCD1- 1	1/11/91	50.05	49.45	0.60	
UCD1- 1	1/22/91	50.05	48.77	1.28	
UCD1- 1	2/1/91	50.05	48.85	1.20	
UCD1- 1	2/8/91	50.05	48.42	1.63	
UCD1- 1	2/14/91	50.05	48.10	1.95	
UCD1- 1	2/22/91	50.05	49.84	0.21	
UCD1- 1	3/7/91	50.05	48.44	1.61	
UCD1- 1	3/12/91	50.05	47.77	2.28	
UCD1- 1	3/29/91	50.05	44.67	5.38	
UCD1- 1	4/3/91	50.05	44.33	5.72	
UCD1- 1	4/10/91	50.05	43.91	6.14	
UCD1- 1	4/17/91	50.05	44.24	5.81	
UCD1- 1	4/24/91	50.05	46.83	3.22	
UCD1- 1	5/3/91	50.05	49.41	0.64	
UCD1- 1	5/13/91	50.05	52.79	-2.74	
UCD1- 1	8/14/91	50.05	58.59	-8.54	dry
UCD1- 1	8/21/91	50.05	58.59	-8.54	dry
UCD1- 1	8/29/91	50.05	58.61	-8.56	dry
UCD1- 1	9/4/91	50.05	58.60	-8.55	dry
UCD1- 1	9/13/91	50.05	58.61	-8.56	dry
UCD1- 1	10/3/91	50.05	58.63	-8.58	dry
UCD1- 1	10/10/91	50.05	57.02	-6.97	
UCD1- 1	10/25/91	50.05	55.93	-5.88	
UCD1- 1	11/1/91	50.05	53.85	-3.80	
UCD1- 1	11/8/91	50.05	52.79	-2.74	
UCD1- 1	11/14/91	50.05	52.39	-2.34	
UCD1- 1	12/5/91	50.05	50.81	-0.76	
UCD1- 1	12/11/91	50.05	50.38	-0.33	
UCD1- 1	12/19/91	50.05	49.95	0.10	
UCD1- 1	1/3/92	50.05	48.70	1.35	
UCD1- 1	1/8/92	50.05	48.27	1.78	
UCD1- 1	1/17/92	50.05	47.80	2.25	
UCD1- 1	1/24/92	50.05	47.32	2.73	
UCD1- 1	1/29/92	50.05	46.73	3.32	
UCD1- 1	2/5/92	50.05	46.09	3.96	
UCD1- 1	3/6/92	50.05	42.72	7.33	
UCD1- 1	3/13/92	50.05	42.11	7.94	
UCD1- 1	3/18/92	50.05	41.83	8.22	
UCD1- 1	3/25/92	50.05	41.53	8.52	
UCD1- 1	4/3/92	50.05	41.29	8.76	
UCD1- 1	4/7/92	50.05	41.21	8.84	
UCD1- 1	4/16/92	50.05	42.43	7.62	
UCD1- 1	4/24/92	50.05	46.88	3.17	
UCD1- 1	5/1/92	50.05	50.49	-0.44	
UCD1- 1	5/8/92	50.05	53.65	-3.60	
UCD1- 1	5/26/92	50.05	56.41	-6.36	
UCD1- 1	6/2/92	50.05	58.80	-8.75	
UCD1- 1	6/17/92	50.05	58.91	-8.86	
UCD1- 1	6/24/92	50.05	58.73	-8.68	
UCD1- 1	7/2/92	50.05	58.72	-8.67	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 1	7/8/92	50.05	58.73	-8.68	
UCD1- 1	7/15/92	50.05	58.74	-8.69	
UCD1- 1	7/23/92	50.05	58.79	-8.74	
UCD1- 1	7/29/92	50.05	58.74	-8.69	
UCD1- 1	8/12/92	50.05	58.72	-8.67	
UCD1- 1	8/19/92	50.05	58.76	-8.71	
UCD1- 1	8/28/92	50.05	58.75	-8.70	
UCD1- 1	9/4/92	50.05	58.74	-8.69	
UCD1- 1	9/18/92	50.05	58.77	-8.72	
UCD1- 1	10/9/92	50.05	58.79	-8.74	
UCD1- 1	10/16/92	50.05	57.69	-7.64	
UCD1- 1	10/30/92	50.05	55.67	-5.62	
UCD1- 1	11/6/92	50.05	54.81	-4.76	
UCD1- 1	11/17/92	50.05	53.72	-3.67	
UCD1- 1	12/4/92	50.05	52.30	-2.25	
UCD1- 1	12/28/92	50.05	50.93	-0.88	
UCD1- 1	1/20/93	50.05	43.82	6.23	
UCD1- 1	1/29/93	50.05	40.31	9.74	
UCD1- 1	2/5/93	50.05	39.88	10.17	
UCD1- 1	2/12/93	50.05	39.06	10.99	
UCD1- 1	2/26/93	50.05	35.48	14.57	
UCD1- 1	3/5/93	50.05	34.94	15.11	
UCD1- 1	3/12/93	50.05	34.41	15.64	
UCD1- 1	3/19/93	50.05	34.07	15.98	
UCD1- 1	4/7/93	50.05	32.82	17.23	
UCD1- 1	4/16/93	50.05	33.10	16.95	
UCD1- 1	4/23/93	50.05	32.87	17.18	
UCD1- 1	5/7/93	50.05	40.28	9.77	
UCD1- 1	6/24/93	50.05	43.95	6.10	
UCD1- 1	6/30/93	50.05	44.52	5.53	
UCD1- 1	7/8/93	50.05	48.77	1.28	
UCD1- 1	7/15/93	50.05	47.70	2.35	
UCD1- 1	7/21/93	50.05	47.62	2.43	
UCD1- 1	7/30/93	50.05	49.12	0.93	
UCD1- 1	8/6/93	50.05	49.33	0.72	
UCD1- 1	8/11/93	50.05	49.68	0.37	
UCD1- 1	8/20/93	50.05	49.51	0.54	
UCD1- 1	8/27/93	50.05	48.17	1.88	
UCD1- 1	9/3/93	50.05	47.62	2.43	
UCD1- 1	9/9/93	50.05	47.64	2.41	
UCD1- 1	9/17/93	50.05	47.19	2.86	
UCD1- 1	9/24/93	50.05	48.26	1.79	
UCD1- 1	10/1/93	50.05	45.50	4.55	
UCD1- 1	10/8/93	50.05	44.85	5.20	
UCD1- 1	10/15/93	50.05	43.88	6.17	
UCD1- 1	10/22/93	50.05	43.11	6.94	
UCD1- 1	10/29/93	50.05	42.71	7.34	
UCD1- 1	11/12/93	50.05	42.01	8.04	
UCD1- 1	11/24/93	50.05	41.41	8.64	
UCD1- 1	12/3/93	50.05	40.60	9.45	
UCD1- 1	12/10/93	50.05	40.21	9.84	
UCD1- 1	12/17/93	50.05	39.79	10.26	
UCD1- 1	1/7/94	50.05	38.92	11.13	
UCD1- 1	1/14/94	50.05	38.55	11.50	
UCD1- 1	1/25/94	50.05	38.04	12.01	
UCD1- 1	2/1/94	50.05	37.89	12.16	
UCD1- 1	2/14/94	50.05	38.27	11.78	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 1	2/20/94	50.05	37.02	13.03	
UCD1- 1	3/2/94	50.05	36.57	13.48	
UCD1- 1	3/4/94	50.05	36.64	13.41	
UCD1- 1	3/10/94	50.05	36.60	13.45	
UCD1- 1	3/16/94	50.05	36.58	13.47	
UCD1- 1	3/24/94	50.05	37.39	12.66	
UCD1- 1	3/29/94	50.05	39.91	10.14	
UCD1- 1	4/6/94	50.05	42.92	7.13	
UCD1- 1	4/13/94	50.05	46.52	3.53	
UCD1- 1	4/22/94	50.05	50.14	-0.09	
UCD1- 1	4/26/94	50.05	49.71	0.34	
UCD1- 1	5/6/94	50.05	50.71	-0.66	
UCD1- 1	5/11/94	50.05	49.83	0.22	
UCD1- 1	5/18/94	50.05	50.91	-0.86	
UCD1- 1	5/25/94	50.05	50.97	-0.92	
UCD1- 1	6/1/94	50.05	52.47	-2.42	
UCD1- 1	10/14/94	50.05	56.38	-6.33	dry previous week
UCD1- 1	10/21/94	50.05	55.46	-5.41	
UCD1- 1	10/28/94	50.05	54.58	-4.53	
UCD1- 1	11/4/94	50.05	54.01	-3.96	
UCD1- 1	11/18/94	50.05	51.48	-1.43	
UCD1- 1	12/22/94	50.05	48.62	1.43	
UCD1- 1	1/6/95	50.05	46.93	3.12	
UCD1- 1	1/11/95	50.05	44.02	6.03	
UCD1- 1	1/13/95	50.05	43.29	6.76	
UCD1- 1	1/27/95	50.05	39.38	10.67	
UCD1- 1	2/10/95	50.05	37.08	12.97	
UCD1- 1	2/17/95	50.05	36.57	13.48	
UCD1- 1	3/9/95	50.05	33.97	16.08	
UCD1- 1	3/24/95	50.05	29.09	20.96	
UCD1- 1	4/28/95	50.05	32.38	17.67	
UCD1- 1	5/25/95	50.05	32.92	17.13	
UCD1- 1	6/16/95	50.05	37.28	12.77	
UCD1- 1	7/26/95	50.05	45.18 a	4.87 a	
UCD1- 1	8/31/95	50.05	46.27 a	3.78 a	
UCD1- 1	9/26/95	50.05	43.59 a	6.46 a	
UCD1- 1	10/25/95	50.05	40.62 a	9.43 a	
UCD1- 1	11/22/95	50.05	38.62 a	11.43 a	
UCD1- 1	11/27/95	50.05	38.40	11.65	
UCD1- 1	12/19/95	50.05	36.07	13.98	
UCD1- 3	11/8/90	50.05	50.34	-0.29	
UCD1- 3	11/16/90	50.05	55.43	-5.38	
UCD1- 3	11/20/90	50.05	50.39	-0.34	
UCD1- 3	12/5/90	50.05	50.44	-0.39	
UCD1- 3	12/27/90	50.05	50.43	-0.38	
UCD1- 3	1/4/91	50.05	50.44	-0.39	
UCD1- 3	1/11/91	50.05	50.20	-0.15	
UCD1- 3	1/22/91	50.05	49.41	0.64	
UCD1- 3	2/1/91	50.05	49.10	0.95	
UCD1- 3	2/8/91	50.05	48.81	1.24	
UCD1- 3	2/14/91	50.05	48.49	1.56	
UCD1- 3	2/22/91	50.05	49.55	0.50	
UCD1- 3	3/7/91	50.05	48.58	1.47	
UCD1- 3	3/12/91	50.05	48.22	1.83	
UCD1- 3	3/22/91	50.05	46.58	3.47	
UCD1- 3	3/29/91	50.05	43.93	6.12	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 3	4/3/91	50.05	43.93	6.12	
UCD1- 3	4/10/91	50.05	43.58	6.47	
UCD1- 3	4/17/91	50.05	43.84	6.21	
UCD1- 3	4/24/91	50.05	46.05	4.00	
UCD1- 3	5/13/91	50.05	50.32	-0.27	dry
UCD1- 3	5/20/91	50.05	51.32	-1.27	dry
UCD1- 3	5/29/91	50.05	50.42	-0.37	dry
UCD1- 3	6/6/91	50.05	50.35	-0.30	dry
UCD1- 3	6/10/91	50.05	50.34	-0.29	dry
UCD1- 3	6/21/91	50.05	50.34	-0.29	dry
UCD1- 3	6/27/91	50.05	50.34	-0.29	dry
UCD1- 3	7/5/91	50.05	50.35	-0.30	dry
UCD1- 3	7/12/91	50.05	50.35	-0.30	dry
UCD1- 3	7/19/91	50.05	50.34	-0.29	dry
UCD1- 3	7/26/91	50.05	50.36	-0.31	dry
UCD1- 3	8/5/91	50.05	50.38	-0.33	dry
UCD1- 3	8/14/91	50.05	50.37	-0.32	dry
UCD1- 3	8/21/91	50.05	50.37	-0.32	dry
UCD1- 3	8/29/91	50.05	50.00	0.05	dry
UCD1- 3	9/4/91	50.05	50.39	-0.34	dry
UCD1- 3	9/13/91	50.05	50.88	-0.83	dry
UCD1- 3	10/3/91	50.05	50.40	-0.35	dry
UCD1- 3	10/10/91	50.05	50.39	-0.34	dry
UCD1- 3	10/25/91	50.05	50.40	-0.35	dry
UCD1- 3	11/1/91	50.05	50.41	-0.36	dry
UCD1- 3	11/8/91	50.05	51.47	-1.42	dry
UCD1- 3	11/14/91	50.05	50.42	-0.37	dry
UCD1- 3	12/5/91	50.05	50.44	-0.39	dry
UCD1- 3	12/11/91	50.05	50.42	-0.37	dry
UCD1- 3	12/19/91	50.05	50.43	-0.38	dry
UCD1- 3	1/3/92	50.05	49.23	0.82	
UCD1- 3	1/8/92	50.05	47.25	2.80	
UCD1- 3	1/17/92	50.05	51.33	-1.28	
UCD1- 3	1/24/92	50.05	47.92	2.13	
UCD1- 3	1/29/92	50.05	47.26	2.79	
UCD1- 3	2/5/92	50.05	46.52	3.53	
UCD1- 3	3/6/92	50.05	41.81	8.24	
UCD1- 3	3/13/92	50.05	41.48	8.57	
UCD1- 3	3/18/92	50.05	41.33	8.72	
UCD1- 3	3/25/92	50.05	41.20	8.85	
UCD1- 3	4/3/92	50.05	40.92	9.13	
UCD1- 3	4/7/92	50.05	41.02	9.03	
UCD1- 3	4/16/92	50.05	41.65	8.40	
UCD1- 3	4/24/92	50.05	45.38	4.67	
UCD1- 3	5/1/92	50.05	49.33	0.72	
UCD1- 3	5/8/92	50.05	50.35	-0.30	
UCD1- 3	5/26/92	50.05	51.35	-1.30	
UCD1- 3	6/2/92	50.05	53.42	-3.37	
UCD1- 3	6/17/92	50.05	50.60	-0.55	
UCD1- 3	6/24/92	50.05	51.35	-1.30	
UCD1- 3	7/2/92	50.05	50.36	-0.31	
UCD1- 3	7/8/92	50.05	50.35	-0.30	
UCD1- 3	7/15/92	50.05	50.38	-0.33	
UCD1- 3	7/23/92	50.05	50.38	-0.33	
UCD1- 3	7/29/92	50.05	50.38	-0.33	
UCD1- 3	8/12/92	50.05	50.38	-0.33	
UCD1- 3	8/19/92	50.05	50.38	-0.33	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 3	8/28/92	50.05	50.40	-0.35	
UCD1- 3	9/4/92	50.05	50.40	-0.35	
UCD1- 3	9/18/92	50.05	50.39	-0.34	
UCD1- 3	10/9/92	50.05	50.38	-0.33	
UCD1- 3	10/16/92	50.05	50.42	-0.37	
UCD1- 3	10/30/92	50.05	50.45	-0.40	
UCD1- 3	11/6/92	50.05	50.43	-0.38	
UCD1- 3	11/17/92	50.05	50.45	-0.40	
UCD1- 3	12/4/92	50.05	50.05	0.00	
UCD1- 3	12/28/92	50.05	50.26	-0.21	
UCD1- 3	1/20/93	50.05	43.04	7.01	
UCD1- 3	1/29/93	50.05	39.30	10.75	
UCD1- 3	2/5/93	50.05	39.54	10.51	
UCD1- 3	2/12/93	50.05	38.88	11.17	
UCD1- 3	2/26/93	50.05	34.98	15.07	
UCD1- 3	3/5/93	50.05	34.64	15.41	
UCD1- 3	3/12/93	50.05	34.27	15.78	
UCD1- 3	3/19/93	50.05	34.07	15.98	
UCD1- 3	4/7/93	50.05	32.79	17.26	
UCD1- 3	4/16/93	50.05	33.06	16.99	
UCD1- 3	4/23/93	50.05	32.74	17.31	
UCD1- 3	5/7/93	50.05	39.36	10.69	
UCD1- 3	6/24/93	50.05	42.70	7.35	
UCD1- 3	6/30/93	50.05	45.47	4.58	
UCD1- 3	7/8/93	50.05	48.68	1.37	
UCD1- 3	7/15/93	50.05	47.85	2.20	
UCD1- 3	7/21/93	50.05	47.81	2.24	
UCD1- 3	7/30/93	50.05	48.81	1.24	
UCD1- 3	8/6/93	50.05	49.00	1.05	
UCD1- 3	8/11/93	50.05	49.43	0.62	
UCD1- 3	8/20/93	50.05	49.02	1.03	
UCD1- 3	8/27/93	50.05	48.71	1.34	
UCD1- 3	9/3/93	50.05	47.99	2.06	
UCD1- 3	9/9/93	50.05	47.79	2.26	
UCD1- 3	9/17/93	50.05	47.69	2.36	
UCD1- 3	9/24/93	50.05	48.81	1.24	
UCD1- 3	10/1/93	50.05	46.03	4.02	
UCD1- 3	10/8/93	50.05	45.35	4.70	
UCD1- 3	10/15/93	50.05	44.35	5.70	
UCD1- 3	10/22/93	50.05	43.47	6.58	
UCD1- 3	10/29/93	50.05	42.96	7.09	
UCD1- 3	11/12/93	50.05	42.30	7.75	
UCD1- 3	11/24/93	50.05	41.63	8.42	
UCD1- 3	12/3/93	50.05	40.85	9.20	
UCD1- 3	12/10/93	50.05	40.40	9.65	
UCD1- 3	12/17/93	50.05	39.89	10.16	
UCD1- 3	1/7/94	50.05	39.16	10.89	
UCD1- 3	1/14/94	50.05	38.79	11.26	
UCD1- 3	1/25/94	50.05	38.13	11.92	
UCD1- 3	2/1/94	50.05	37.95	12.10	
UCD1- 3	2/14/94	50.05	37.53	12.52	
UCD1- 3	2/20/94	50.05	36.76	13.29	
UCD1- 3	3/4/94	50.05	36.54	13.51	
UCD1- 3	3/10/94	50.05	36.51	13.54	
UCD1- 3	3/16/94	50.05	36.49	13.56	
UCD1- 3	3/24/94	50.05	37.03	13.02	
UCD1- 3	3/29/94	50.05	39.03	11.02	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 3	4/6/94	50.05	42.30	7.75	
UCD1- 3	4/13/94	50.05	45.84	4.21	
UCD1- 3	4/22/94	50.05	49.14	0.91	
UCD1- 3	4/26/94	50.05	49.82	0.23	
UCD1- 3	5/6/94	50.05	50.20	-0.15	
UCD1- 3	5/11/94	50.05	49.79	0.26	
UCD1- 3	5/18/94	50.05	50.36	-0.31	
UCD1- 3	5/25/94	50.05	50.38	-0.33	
UCD1- 3	6/1/94	50.05	50.35	-0.30	
UCD1- 3	6/23/94	50.05	50.41	-0.36	
UCD1- 3	7/1/94	50.05	50.43	-0.38	unclear meter response
UCD1- 3	7/8/94	50.05	50.42	-0.37	
UCD1- 3	7/14/94	50.05	50.39	-0.34	
UCD1- 3	7/20/94	50.05	50.55	-0.50	
UCD1- 3	7/26/94	50.05	50.56	-0.51	
UCD1- 3	8/5/94	50.05	50.61	-0.56	
UCD1- 3	8/19/94	50.05	50.71	-0.66	
UCD1- 3	9/7/94	50.05	50.44	-0.39	
UCD1- 3	9/7/94	50.05	50.45	-0.40	
UCD1- 3	9/13/94	50.05	50.45	-0.40	
UCD1- 3	9/19/94	50.05	50.45	-0.40	
UCD1- 3	9/26/94	50.05	50.46	-0.41	
UCD1- 3	10/7/94	50.05	50.47	-0.42	
UCD1- 3	10/14/94	50.05	50.48	-0.43	
UCD1- 3	10/21/94	50.05	50.49	-0.44	
UCD1- 3	10/28/94	50.05	50.49	-0.44	
UCD1- 3	11/4/94	50.05	50.50	-0.45	
UCD1- 3	12/22/94	50.05		NA	
UCD1- 3	3/24/95	50.05	28.21	21.84	
UCD1- 3	4/28/95	50.05	31.41	18.64	
UCD1- 3	5/25/95	50.05	32.15	17.90	
UCD1- 3	6/16/95	50.05	37.31	12.74	
UCD1- 3	7/26/95	50.05	45.42 a	4.63 a	
UCD1- 3	8/31/95	50.05	46.99 a	3.06 a	
UCD1- 3	9/26/95	50.05	44.07 a	5.98 a	
UCD1- 3	10/25/95	50.05	41.02 a	9.03 a	
UCD1- 3	11/22/95	50.05	39.09 a	10.96 a	
UCD1- 3	11/27/95	50.05	38.82	11.23	no pump
UCD1- 3	12/19/95	50.05	36.55	13.50	
UCD1- 4	11/8/90	51.69	56.68	-4.99	
UCD1- 4	11/16/90	51.69	55.88	-4.19	
UCD1- 4	11/20/90	51.69	55.56	-3.87	
UCD1- 4	12/5/90	51.69	54.60	-2.91	
UCD1- 4	12/27/90	51.69	52.95	-1.26	
UCD1- 4	1/4/91	51.69	52.42	-0.73	
UCD1- 4	1/11/91	51.69	52.01	-0.32	
UCD1- 4	1/22/91	51.69	51.10	0.59	
UCD1- 4	2/1/91	51.69	50.69	1.00	
UCD1- 4	2/8/91	51.69	50.41	1.28	
UCD1- 4	2/14/91	51.69	50.14	1.55	
UCD1- 4	2/22/91	51.69	50.29	1.40	
UCD1- 4	3/7/91	51.69	49.97	1.72	
UCD1- 4	3/12/91	51.69	49.31	2.38	
UCD1- 4	3/22/91	51.69	47.22	4.47	
UCD1- 4	3/29/91	51.69	45.13	6.56	
UCD1- 4	4/3/91	51.69	43.90	7.79	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 4	4/10/91	51.69	43.36	8.33	
UCD1- 4	4/17/91	51.69	43.49	8.20	
UCD1- 4	4/24/91	51.69	45.30	6.39	
UCD1- 4	5/3/91	51.69	47.69	4.00	
UCD1- 4	5/13/91	51.69	49.19	2.50	
UCD1- 4	5/20/91	51.69	50.93	0.76	
UCD1- 4	8/14/91	51.69	57.12	-5.43	dry
UCD1- 4	8/21/91	51.69	57.17	-5.48	dry
UCD1- 4	8/29/91	51.69	57.39	-5.70	dry
UCD1- 4	9/4/91	51.69	57.20	-5.51	dry
UCD1- 4	9/13/91	51.69	57.21	-5.52	dry
UCD1- 4	10/3/91	51.69	57.26	-5.57	dry
UCD1- 4	10/10/91	51.69	57.27	-5.58	dry
UCD1- 4	10/25/91	51.69	57.27	-5.58	dry
UCD1- 4	11/1/91	51.69	55.89	-4.20	
UCD1- 4	11/8/91	51.69	55.17	-3.48	
UCD1- 4	11/14/91	51.69	54.95	-3.26	
UCD1- 4	12/5/91	51.69	53.21	-1.52	
UCD1- 4	12/11/91	51.69	52.84	-1.15	
UCD1- 4	12/19/91	51.69	52.35	-0.66	
UCD1- 4	1/3/92	51.69	51.31	0.38	
UCD1- 4	1/8/92	51.69	52.76	-1.07	
UCD1- 4	1/17/92	51.69	50.39	1.30	
UCD1- 4	1/24/92	51.69	49.77	1.92	
UCD1- 4	1/29/92	51.69	49.06	2.63	
UCD1- 4	2/5/92	51.69	48.33	3.36	
UCD1- 4	3/6/92	51.69	42.85	8.84	
UCD1- 4	3/13/92	51.69	41.96	9.73	
UCD1- 4	3/18/92	51.69	41.90	9.79	
UCD1- 4	3/25/92	51.69	41.77	9.92	
UCD1- 4	4/3/92	51.69	41.38	10.31	
UCD1- 4	4/7/92	51.69	41.16	10.53	
UCD1- 4	4/16/92	51.69	41.38	10.31	
UCD1- 4	4/24/92	51.69	45.23	6.46	
UCD1- 4	5/1/92	51.69	47.78	3.91	
UCD1- 4	5/8/92	51.69	49.59	2.10	
UCD1- 4	5/26/92	51.69	52.56	-0.87	
UCD1- 4	6/2/92	51.69	54.01	-2.32	
UCD1- 4	6/17/92	51.69	57.24	-5.55	
UCD1- 4	6/24/92	51.69	57.23	-5.54	
UCD1- 4	7/2/92	51.69	57.33	-5.64	
UCD1- 4	11/6/92	51.69	56.62	-4.93	
UCD1- 4	11/17/92	51.69	55.70	-4.01	
UCD1- 4	12/4/92	51.69	54.46	-2.77	
UCD1- 4	12/28/92	51.69	53.02	-1.33	
UCD1- 4	1/20/93	51.69	43.51	8.18	
UCD1- 4	1/29/93	51.69	39.10	12.59	
UCD1- 4	2/5/93	51.69	39.55	12.14	
UCD1- 4	2/12/93	51.69	38.81	12.88	
UCD1- 4	3/5/93	51.69	34.62	17.07	
UCD1- 4	3/12/93	51.69	34.56	17.13	
UCD1- 4	3/19/93	51.69	34.45	17.24	
UCD1- 4	4/7/93	51.69	33.35	18.34	
UCD1- 4	4/16/93	51.69	33.42	18.27	
UCD1- 4	4/23/93	51.69	33.05	18.64	
UCD1- 4	5/7/93	51.69	38.77	12.92	
UCD1- 4	6/24/93	51.69	43.02	8.67	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 4	6/30/93	51.69	44.02	7.67	
UCD1- 4	7/8/93	51.69	48.12	3.57	
UCD1- 4	7/15/93	51.69	47.06	4.63	
UCD1- 4	7/21/93	51.69	47.31	4.38	
UCD1- 4	7/30/93	51.69	48.00	3.69	
UCD1- 4	8/6/93	51.69	48.43	3.26	
UCD1- 4	8/11/93	51.69	48.35	3.34	
UCD1- 4	8/20/93	51.69	48.58	3.11	
UCD1- 4	8/27/93	51.69	48.72	2.97	
UCD1- 4	9/3/93	51.69	48.33	3.36	
UCD1- 4	9/9/93	51.69	48.06	3.63	
UCD1- 4	9/17/93	51.69	48.08	3.61	
UCD1- 4	9/24/93	51.69	47.52	4.17	
UCD1- 4	10/1/93	51.69	46.87	4.82	
UCD1- 4	10/8/93	51.69	46.14	5.55	
UCD1- 4	10/15/93	51.69	44.07	7.62	
UCD1- 4	10/22/93	51.69	44.04	7.65	
UCD1- 4	10/29/93	51.69	43.55	8.14	
UCD1- 4	11/12/93	51.69	43.06	8.63	
UCD1- 4	11/24/93	51.69	42.43	9.26	
UCD1- 4	12/3/93	51.69	41.60	10.09	
UCD1- 4	12/10/93	51.69	41.15	10.54	
UCD1- 4	12/17/93	51.69	40.71	10.98	
UCD1- 4	1/7/94	51.69	39.92	11.77	
UCD1- 4	1/14/94	51.69	39.52	12.17	
UCD1- 4	1/25/94	51.69	39.04	12.65	
UCD1- 4	2/1/94	51.69	39.80	11.89	
UCD1- 4	2/14/94	51.69	38.91	12.78	
UCD1- 4	2/20/94	51.69	37.97	13.72	
UCD1- 4	3/2/94	51.69	36.71	14.98	
UCD1- 4	3/4/94	51.69	37.39	14.30	
UCD1- 4	3/10/94	51.69	37.47	14.22	
UCD1- 4	3/16/94	51.69	37.37	14.32	
UCD1- 4	3/24/94	51.69	37.90	13.79	
UCD1- 4	3/29/94	51.69	40.00	11.69	
UCD1- 4	4/6/94	51.69	42.83	8.86	
UCD1- 4	4/13/94	51.69	45.68	6.01	
UCD1- 4	4/22/94	51.69	47.92	3.77	
UCD1- 4	4/26/94	51.69	49.15	2.54	
UCD1- 4	5/6/94	51.69	49.98	1.71	
UCD1- 4	5/11/94	51.69	49.80	1.89	
UCD1- 4	5/18/94	51.69	20.51 b	31.18 b	
UCD1- 4	5/25/94	51.69	50.77	0.92	
UCD1- 4	6/1/94	51.69	51.16	0.53	
UCD1- 4	7/8/94	51.69	50.43	1.26	
UCD1- 4	11/18/94	51.69	54.67	-2.98	
UCD1- 4	12/22/94	51.69	51.75	-0.06	
UCD1- 4	1/6/95	51.69	50.25	1.44	
UCD1- 4	1/10/95	51.69	48.44	3.25	
UCD1- 4	1/11/95	51.69	47.24	4.45	
UCD1- 4	1/13/95	51.69	45.11	6.58	
UCD1- 4	1/27/95	51.69	38.20	13.49	
UCD1- 4	2/10/95	51.69	36.12	15.57	
UCD1- 4	2/17/95	51.69	35.76	15.93	
UCD1- 4	3/9/95	51.69	34.65	17.04	
UCD1- 4	3/24/95	51.69	29.28	22.41	
UCD1- 4	4/28/95	51.69	32.07	19.62	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 4	5/25/95	51.69	32.59	19.10	
UCD1- 4	6/16/95	51.69	37.47	14.22	
UCD1- 4	7/26/95	51.69	45.42 a	6.27 a	
UCD1- 4	8/31/95	51.69	47.32 a	4.37 a	Cap does not match/can not replace
UCD1- 4	9/26/95	51.69	45.39 a	6.30 a	cap was missing
UCD1- 4	10/25/95	51.69	41.75	9.94	
UCD1- 4	11/22/95	51.69	38.86 a	12.83 a	
UCD1- 4	11/27/95	51.69	39.62	12.07	
UCD1- 4	12/19/95	51.69	36.52	15.17	
UCD1- 5	11/2/90	50.65	50.33	0.32	dry
UCD1- 5	11/8/90	50.65	50.34	0.31	dry
UCD1- 5	11/16/90	50.65	50.35	0.30	dry
UCD1- 5	11/20/90	50.65	50.34	0.31	dry
UCD1- 5	12/5/90	50.65	50.35	0.30	dry
UCD1- 5	12/27/90	50.65	50.38	0.27	dry
UCD1- 5	1/4/91	50.65	50.38	0.27	dry
UCD1- 5	1/11/91	50.65	50.27	0.38	dry
UCD1- 5	1/22/91	50.65	50.08	0.57	
UCD1- 5	2/1/91	50.65	49.64	1.01	
UCD1- 5	2/8/91	50.65	49.42	1.23	
UCD1- 5	2/14/91	50.65	49.10	1.55	
UCD1- 5	2/22/91	50.65	49.97	0.68	
UCD1- 5	3/7/91	50.65	49.69	0.96	
UCD1- 5	3/12/91	50.65	48.98	1.67	
UCD1- 5	3/22/91	50.65	47.45	3.20	
UCD1- 5	3/29/91	50.65	45.42	5.23	
UCD1- 5	4/3/91	50.65	43.91	6.74	
UCD1- 5	4/10/91	50.65	44.39	6.26	
UCD1- 5	4/17/91	50.65	44.46	6.19	
UCD1- 5	4/24/91	50.65	46.67	3.98	
UCD1- 5	5/3/91	50.65	49.38	1.27	
UCD1- 5	5/13/91	50.65	50.27	0.38	dry
UCD1- 5	5/20/91	50.65	50.28	0.37	dry
UCD1- 5	5/29/91	50.65	50.33	0.32	dry
UCD1- 5	6/6/91	50.65	50.34	0.31	dry
UCD1- 5	6/10/91	50.65	50.33	0.32	dry
UCD1- 5	6/21/91	50.65	50.33	0.32	dry
UCD1- 5	6/27/91	50.65	50.36	0.29	dry
UCD1- 5	7/5/91	50.65	50.37	0.28	dry
UCD1- 5	7/12/91	50.65	50.37	0.28	dry
UCD1- 5	7/19/91	50.65	50.29	0.36	dry
UCD1- 5	7/26/91	50.65	50.39	0.26	dry
UCD1- 5	8/5/91	50.65	50.39	0.26	dry
UCD1- 5	8/14/91	50.65	50.41	0.24	dry
UCD1- 5	8/21/91	50.65	50.41	0.24	dry
UCD1- 5	8/29/91	50.65	50.37	0.28	dry
UCD1- 5	9/4/91	50.65	50.41	0.24	dry
UCD1- 5	9/13/91	50.65	50.37	0.28	dry
UCD1- 5	10/25/91	50.65	50.00	0.65	dry
UCD1- 5	11/8/91	50.65	50.00	0.65	dry
UCD1- 5	12/5/91	50.65	50.00	0.65	dry
UCD1- 5	12/11/91	50.65	50.00	0.65	dry
UCD1- 5	3/6/92	50.65	43.16	7.49	
UCD1- 5	3/13/92	50.65	42.38	8.27	
UCD1- 5	3/18/92	50.65	42.18	8.47	
UCD1- 5	3/25/92	50.65	41.94	8.71	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 5	4/3/92	50.65	41.51	9.14	
UCD1- 5	4/7/92	50.65	41.67	8.98	
UCD1- 5	4/16/92	50.65	42.35	8.30	
UCD1- 5	4/24/92	50.65	46.39	4.26	
UCD1- 5	5/1/92	50.65	49.85	0.80	
UCD1- 5	5/8/92	50.65	50.39	0.26	
UCD1- 5	5/26/92	50.65	50.34	0.31	
UCD1- 5	6/2/92	50.65	55.51 b	-4.86 b	
UCD1- 5	6/17/92	50.65	50.44	0.21	
UCD1- 5	6/24/92	50.65	50.41	0.24	
UCD1- 5	7/2/92	50.65	50.42	0.23	
UCD1- 5	7/8/92	50.65	50.42	0.23	
UCD1- 5	7/15/92	50.65	50.45	0.20	
UCD1- 5	7/23/92	50.65	50.44	0.21	
UCD1- 5	7/29/92	50.65	50.45	0.20	
UCD1- 5	8/12/92	50.65		NA	
UCD1- 5	1/20/93	50.65	43.79	6.86	
UCD1- 5	1/29/93	50.65	41.61	9.04	
UCD1- 5	2/5/93	50.65	40.39	10.26	
UCD1- 5	2/12/93	50.65	39.73	10.92	
UCD1- 5	2/26/93	50.65	38.17	12.48	
UCD1- 5	3/5/93	50.65	35.54	15.11	
UCD1- 5	3/12/93	50.65	35.07	15.58	
UCD1- 5	3/19/93	50.65	34.82	15.83	
UCD1- 5	4/7/93	50.65	33.54	17.11	
UCD1- 5	4/16/93	50.65	33.72	16.93	
UCD1- 5	4/23/93	50.65	33.20	17.45	
UCD1- 5	5/7/93	50.65	40.22	10.43	
UCD1- 5	6/24/93	50.65	44.41	6.24	
UCD1- 5	6/30/93	50.65	44.87	5.78	
UCD1- 5	7/8/93	50.65	47.18	3.47	
UCD1- 5	7/15/93	50.65	48.27	2.38	
UCD1- 5	7/21/93	50.65	48.20	2.45	
UCD1- 5	7/30/93	50.65	49.13	1.52	
UCD1- 5	8/6/93	50.65	49.29	1.36	
UCD1- 5	8/11/93	50.65	49.72	0.93	
UCD1- 5	8/20/93	50.65	49.51	1.14	
UCD1- 5	8/27/93	50.65	49.11	1.54	
UCD1- 5	9/3/93	50.65	48.33	2.32	
UCD1- 5	9/9/93	50.65	48.26	2.39	
UCD1- 5	9/17/93	50.65	48.16	2.49	
UCD1- 5	9/24/93	50.65	47.22	3.43	
UCD1- 5	10/1/93	50.65	46.53	4.12	
UCD1- 5	10/8/93	50.65	45.89	4.76	
UCD1- 5	10/15/93	50.65	44.91	5.74	
UCD1- 5	10/22/93	50.65	44.04	6.61	
UCD1- 5	10/29/93	50.65	43.52	7.13	
UCD1- 5	11/12/93	50.65	42.85	7.80	
UCD1- 5	11/24/93	50.65	42.15	8.50	
UCD1- 5	12/3/93	50.65	41.37	9.28	
UCD1- 5	12/10/93	50.65	40.94	9.71	
UCD1- 5	12/17/93	50.65	40.53	10.12	
UCD1- 5	1/7/94	50.65	39.70	10.95	
UCD1- 5	1/14/94	50.65	39.31	11.34	
UCD1- 5	1/25/94	50.65	38.92	11.73	
UCD1- 5	2/1/94	50.65	38.59	12.06	
UCD1- 5	2/14/94	50.65	38.01	12.64	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 5	2/20/94	50.65	37.78	12.87	
UCD1- 5	3/4/94	50.65	37.24	13.41	
UCD1- 5	3/10/94	50.65	37.18	13.47	
UCD1- 5	3/16/94	50.65	37.16	13.49	
UCD1- 5	3/24/94	50.65	37.69	12.96	
UCD1- 5	3/29/94	50.65	39.85	10.80	
UCD1- 5	4/6/94	50.65	43.02	7.63	
UCD1- 5	4/13/94	50.65	46.27	4.38	
UCD1- 5	4/22/94	50.65	49.57	1.08	
UCD1- 5	4/26/94	50.65	50.19	0.46	
UCD1- 5	5/6/94	50.65	50.36	0.29	
UCD1- 5	5/11/94	50.65	50.15	0.50	
UCD1- 5	5/18/94	50.65	50.36	0.29	
UCD1- 5	6/1/94	50.65	50.35	0.30	
UCD1- 5	6/23/94	50.65	50.43	0.22	
UCD1- 5	7/14/94	50.65	50.43	0.22	
UCD1- 5	7/20/94	50.65	50.96	-0.31	
UCD1- 5	7/26/94	50.65		NA	
UCD1- 5	3/24/95	50.65	30.05	20.60	
UCD1- 5	4/28/95	50.65	32.32	18.33	
UCD1- 5	5/25/95	50.65	32.91	17.74	
UCD1- 5	6/16/95	50.65	37.89	12.76	
UCD1- 5	7/26/95	50.65	45.84 a	4.81 a	
UCD1- 5	8/31/95	50.65	47.32 a	3.33 a	
UCD1- 5	9/26/95	50.65	44.54 a	6.11 a	
UCD1- 5	10/25/95	48.44 *		NA	well damaged
UCD1- 5	11/22/95	48.44 *	37.24 a	11.20 a	Regrouted new elevation/added silicone
UCD1- 5	11/27/95	48.44 *	37.92	10.52	no pump
UCD1- 5	12/19/95	48.44 *	34.82	13.62	
UCD1- 6	2/1/91	50.94	49.75	1.19	
UCD1- 6	2/8/91	50.94	49.48	1.46	
UCD1- 6	2/14/91	50.94	49.18	1.76	
UCD1- 6	3/7/91	50.94	49.51	1.43	
UCD1- 6	3/12/91	50.94	48.94	2.00	
UCD1- 6	3/22/91	50.94	47.43	3.51	
UCD1- 6	3/29/91	50.94	47.54	3.40	
UCD1- 6	4/3/91	50.94	44.99	5.95	
UCD1- 6	4/10/91	50.94	44.47	6.47	
UCD1- 6	4/17/91	50.94	44.70	6.24	
UCD1- 6	4/24/91	50.94	47.02	3.92	
UCD1- 6	5/3/91	50.94	49.42	1.52	
UCD1- 6	4/24/92	50.94	46.87	4.07	
UCD1- 6	5/1/92	50.94	49.83	1.11	
UCD1- 6	6/24/93	50.94	44.49	6.45	
UCD1- 6	6/30/93	50.94	45.00	5.94	
UCD1- 6	7/8/93	50.94	47.24	3.70	
UCD1- 6	7/15/93	50.94	48.27	2.67	
UCD1- 6	7/21/93	50.94	47.25	3.69	
UCD1- 6	7/30/93	50.94	49.35	1.59	
UCD1- 6	8/6/93	50.94	49.63	1.31	
UCD1- 6	8/11/93	50.94	50.01	0.93	
UCD1- 6	8/20/93	50.94	50.08	0.86	
UCD1- 6	8/27/93	50.94	49.11	1.83	
UCD1- 6	9/3/93	50.94	48.48	2.46	
UCD1- 6	9/9/93	50.94	48.34	2.60	
UCD1- 6	9/17/93	50.94	48.13	2.81	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 6	9/24/93	50.94	47.27	3.67	
UCD1- 6	10/1/93	50.94	46.47	4.47	
UCD1- 6	10/8/93	50.94	45.83	5.11	
UCD1- 6	10/15/93	50.94	44.83	6.11	
UCD1- 6	10/22/93	50.94	44.02	6.92	
UCD1- 6	10/29/93	50.94	43.56	7.38	
UCD1- 6	11/12/93	50.94	42.85	8.09	
UCD1- 6	11/24/93	50.94	42.20	8.74	
UCD1- 6	12/3/93	50.94	41.47	9.47	
UCD1- 6	12/10/93	50.94	41.00	9.94	
UCD1- 6	12/17/93	50.94	40.59	10.35	
UCD1- 6	1/7/94	50.94	39.79	11.15	
UCD1- 6	1/14/94	50.94	39.47	11.47	
UCD1- 6	1/25/94	50.94	38.91	12.03	
UCD1- 6	2/1/94	50.94	38.72	12.22	
UCD1- 6	2/14/94	50.94	38.15	12.79	
UCD1- 6	2/20/94	50.94	37.84	13.10	
UCD1- 6	3/4/94	50.94	37.42	13.52	
UCD1- 6	3/10/94	50.94	37.39	13.55	
UCD1- 6	3/16/94	50.94	37.27	13.67	
UCD1- 6	3/24/94	50.94	37.81	13.13	
UCD1- 6	3/29/94	50.94	39.68	11.26	
UCD1- 6	4/6/94	50.94	43.20	7.74	
UCD1- 6	4/13/94	50.94	48.64	2.30	
UCD1- 6	4/22/94	50.94	49.55	1.39	
UCD1- 6	5/6/94	50.94	0.00 b	NA	
UCD1- 6	5/11/94	50.94	0.00 b	NA	
UCD1- 6	3/24/95	50.94	30.52	20.42	
UCD1- 6	4/28/95	50.94	32.65	18.29	
UCD1- 6	5/25/95	50.94	33.06	17.88	
UCD1- 6	6/16/95	50.94	37.71	13.23	
UCD1- 6	7/26/95	50.94	45.77 a	5.17	
UCD1- 6	8/31/95	50.94	47.14 a	3.80	
UCD1- 6	9/26/95	50.94	44.45 a	6.49	
UCD1- 6	10/25/95	50.94	41.50 a	9.44	
UCD1- 6	11/22/95	50.94	39.59 a	11.35	
UCD1- 6	11/27/95	50.94	39.32	11.62	no pump
UCD1- 6	12/19/95	50.94	37.10	13.84	
UCD1- 8	2/8/91	51.51	50.63	0.88	
UCD1- 8	2/14/91	51.51	50.30	1.21	
UCD1- 8	3/7/91	51.51	50.89	0.62	
UCD1- 8	3/12/91	51.51	50.23	1.28	
UCD1- 8	3/22/91	51.51	49.00	2.51	
UCD1- 8	3/29/91	51.51	47.14	4.37	
UCD1- 8	4/3/91	51.51	46.03	5.48	
UCD1- 8	4/10/91	51.51	45.38	6.13	
UCD1- 8	4/17/91	51.51	45.53	5.98	
UCD1- 8	4/24/91	51.51	47.71	3.80	
UCD1- 8	5/3/91	51.51	50.16	1.35	
UCD1- 8	1/8/92	51.51	52.62	-1.11	
UCD1- 8	3/6/92	51.51	44.60	6.91	
UCD1- 8	3/13/92	51.51	43.84	7.67	
UCD1- 8	3/18/92	51.51	43.62	7.89	
UCD1- 8	3/25/92	51.51	43.28	8.23	
UCD1- 8	4/3/92	51.51	42.84	8.67	
UCD1- 8	4/7/92	51.51	42.82	8.69	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 8	4/16/92	51.51	43.29	8.22	
UCD1- 8	4/24/92	51.51	47.30	4.21	
UCD1- 8	5/1/92	51.51	51.00	0.51	
UCD1- 8	1/20/93	51.51	46.21	5.30	
UCD1- 8	1/29/93	51.51	41.97	9.54	
UCD1- 8	2/5/93	51.51	41.56	9.95	
UCD1- 8	2/12/93	51.51	41.05	10.46	
UCD1- 8	3/5/93	51.51	36.97	14.54	
UCD1- 8	3/12/93	51.51	36.19	15.32	
UCD1- 8	3/19/93	51.51	35.91	15.60	
UCD1- 8	4/7/93	51.51	34.60	16.91	
UCD1- 8	4/16/93	51.51	34.57	16.94	
UCD1- 8	4/23/93	51.51	34.45	17.06	
UCD1- 8	5/7/93	51.51	39.83	11.68	
UCD1- 8	6/24/93	51.51	45.24	6.27	
UCD1- 8	6/30/93	51.51	48.35	3.16	
UCD1- 8	7/8/93	51.51	49.60	1.91	
UCD1- 8	7/15/93	51.51	49.72	1.79	
UCD1- 8	7/21/93	51.51	49.72	1.79	
UCD1- 8	7/30/93	51.51	50.60	0.91	
UCD1- 8	8/6/93	51.51	51.37	0.14	
UCD1- 8	8/11/93	51.51	51.52	-0.01	
UCD1- 8	8/20/93	51.51	51.00	0.51	
UCD1- 8	8/27/93	51.51	50.35	1.16	
UCD1- 8	9/3/93	51.51	49.86	1.65	
UCD1- 8	9/9/93	51.51	49.71	1.80	
UCD1- 8	9/17/93	51.51	49.40	2.11	
UCD1- 8	9/24/93	51.51	48.47	3.04	
UCD1- 8	10/1/93	51.51	47.69	3.82	
UCD1- 8	10/8/93	51.51	46.97	4.54	
UCD1- 8	10/15/93	51.51	45.92	5.59	
UCD1- 8	10/22/93	51.51	44.97	6.54	
UCD1- 8	10/29/93	51.51	44.46	7.05	
UCD1- 8	11/12/93	51.51	43.86	7.65	
UCD1- 8	11/24/93	51.51	43.16	8.35	
UCD1- 8	12/3/93	51.51	42.37	9.14	
UCD1- 8	12/10/93	51.51	42.02	9.49	
UCD1- 8	12/17/93	51.51	41.60	9.91	
UCD1- 8	1/7/94	51.51	40.82	10.69	
UCD1- 8	1/14/94	51.51	40.49	11.02	
UCD1- 8	1/25/94	51.51	40.08	11.43	
UCD1- 8	2/1/94	51.51	39.76	11.75	
UCD1- 8	2/14/94	51.51	39.17	12.34	
UCD1- 8	2/20/94	51.51	38.99	12.52	
UCD1- 8	3/4/94	51.51	38.37	13.14	
UCD1- 8	3/10/94	51.51	38.33	13.18	
UCD1- 8	3/16/94	51.51	38.24	13.27	
UCD1- 8	3/24/94	51.51	38.64	12.87	
UCD1- 8	3/29/94	51.51	40.22	11.29	
UCD1- 8	4/6/94	51.51	43.36	8.15	
UCD1- 8	4/13/94	51.51	47.36	4.15	
UCD1- 8	4/22/94	51.51	50.61	0.90	
UCD1- 8	4/26/94	51.51	51.36	0.15	
UCD1- 8	5/6/94	51.51	0.00 b	NA	
UCD1- 8	5/11/94	51.51	51.44	0.07	
UCD1- 8	3/24/95	51.51	31.84	19.67	
UCD1- 8	4/28/95	51.51	32.04	19.47	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 8	5/25/95	51.51	33.05	18.46	
UCD1- 8	6/16/95	51.51	38.40	13.11	
UCD1- 8	7/26/95	51.51	47.12 a	4.39 a	
UCD1- 8	8/31/95	51.51	48.67 a	2.84 a	
UCD1- 8	9/26/95	51.51	45.64 a	5.87 a	no caps
UCD1- 8	10/25/95	51.51	42.60 a	8.91 a	
UCD1- 8	11/22/95	51.51	40.77 a	10.74 a	
UCD1- 8	11/27/95	51.51	40.54	10.97	no pump
UCD1- 8	12/19/95	51.51	38.36	13.15	
UCD1- 9	3/29/91	51.38	46.87	4.51	
UCD1- 9	4/3/91	51.38	46.13	5.25	
UCD1- 9	4/10/91	51.38	45.52	5.86	
UCD1- 9	4/17/91	51.38	45.74	5.64	
UCD1- 9	3/6/92	51.38	44.48	6.90	
UCD1- 9	3/13/92	51.38	43.65	7.73	
UCD1- 9	3/18/92	51.38	43.48	7.90	
UCD1- 9	3/25/92	51.38	43.18	8.20	
UCD1- 9	4/3/92	51.38	42.79	8.59	
UCD1- 9	4/7/92	51.38	42.86	8.52	
UCD1- 9	4/16/92	51.38	43.55	7.83	
UCD1- 9	4/24/92	51.38	47.59	3.79	
UCD1- 9	1/20/93	51.38	43.50	7.88	
UCD1- 9	1/29/93	51.38	41.42	9.96	
UCD1- 9	2/5/93	51.38	41.41	9.97	
UCD1- 9	2/12/93	51.38	40.92	10.46	
UCD1- 9	3/5/93	51.38	36.38	15.00	
UCD1- 9	3/12/93	51.38	35.91	15.47	
UCD1- 9	3/19/93	51.38	35.73	15.65	
UCD1- 9	4/7/93	51.38	34.45	16.93	
UCD1- 9	4/16/93	51.38	34.68	16.70	
UCD1- 9	4/23/93	51.38	34.89	16.49	
UCD1- 9	5/7/93	51.38	40.94	10.44	
UCD1- 9	6/24/93	51.38	47.56	3.82	
UCD1- 9	6/30/93	51.38	48.47	2.91	
UCD1- 9	7/8/93	51.38	47.35	4.03	
UCD1- 9	10/15/93	51.38	45.91	5.47	
UCD1- 9	10/22/93	51.38	45.02	6.36	
UCD1- 9	10/29/93	51.38	44.51	6.87	
UCD1- 9	11/12/93	51.38	43.89	7.49	
UCD1- 9	11/24/93	51.38	43.20	8.18	
UCD1- 9	12/3/93	51.38	42.47	8.91	
UCD1- 9	12/10/93	51.38	42.04	9.34	
UCD1- 9	12/17/93	51.38	41.64	9.74	
UCD1- 9	1/7/94	51.38	40.78	10.60	
UCD1- 9	1/14/94	51.38	40.41	10.97	
UCD1- 9	1/25/94	51.38	40.03	11.35	
UCD1- 9	2/1/94	51.38	39.69	11.69	
UCD1- 9	2/14/94	51.38	39.09	12.29	
UCD1- 9	2/20/94	51.38	38.96	12.42	
UCD1- 9	3/4/94	51.38	38.30	13.08	
UCD1- 9	3/10/94	51.38	38.29	13.09	
UCD1- 9	3/16/94	51.38	38.19	13.19	
UCD1- 9	3/24/94	51.38	38.72	12.66	
UCD1- 9	3/29/94	51.38	40.77	10.61	
UCD1- 9	4/6/94	51.38	43.93	7.45	
UCD1- 9	4/13/94	51.38	47.75	3.63	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 9	5/6/94	51.38	0.00 b	NA	
UCD1- 9	5/11/94	51.38	0.00 b	NA	
UCD1- 9	3/24/95	51.38	30.52	20.86	
UCD1- 9	4/28/95	51.38	32.47	18.91	
UCD1- 9	5/25/95	51.38	33.38	18.00	
UCD1- 9	6/16/95	51.38	38.91	12.47	
UCD1- 9	7/26/95	51.38	47.30 a	4.08 a	
UCD1- 9	8/31/95	51.38		NA	dry; Caps are missing
UCD1- 9	9/26/95	51.38	45.67 a	5.71 a	caps missing
UCD1- 9	10/25/95	51.38	42.65 a	8.73 a	
UCD1- 9	11/22/95	51.38	40.70 a	10.68 a	
UCD1- 9	11/27/95	51.38	40.42	10.96	
UCD1- 9	12/19/95	51.38	38.26	13.12	
UCD1- 10	11/2/90	49.87	56.58	-6.71	
UCD1- 10	11/8/90	49.87	55.93	-6.06	
UCD1- 10	11/16/90	49.87	54.86	-4.99	
UCD1- 10	11/20/90	49.87	54.38	-4.51	
UCD1- 10	12/5/90	49.87	52.71	-2.84	
UCD1- 10	12/27/90	49.87	50.82	-0.95	
UCD1- 10	1/4/91	49.87	50.27	-0.40	
UCD1- 10	1/11/91	49.87	49.97	-0.10	
UCD1- 10	1/22/91	49.87	49.20	0.67	
UCD1- 10	2/1/91	49.87	49.85	0.02	
UCD1- 10	2/8/91	49.87	49.10	0.77	
UCD1- 10	2/14/91	49.87	48.78	1.09	
UCD1- 10	2/22/91	49.87	52.10	-2.23	
UCD1- 10	3/7/91	49.87	49.13	0.74	
UCD1- 10	3/12/91	49.87	48.35	1.52	
UCD1- 10	3/22/91	49.87	46.96	2.91	
UCD1- 10	3/29/91	49.87	44.92	4.95	
UCD1- 10	4/3/91	49.87	44.81	5.06	
UCD1- 10	4/10/91	49.87	44.51	5.36	
UCD1- 10	4/17/91	49.87	44.99	4.88	
UCD1- 10	4/24/91	49.87	48.39	1.48	
UCD1- 10	5/3/91	49.87	51.26	-1.39	
UCD1- 10	5/13/91	49.87	56.32	-6.45	
UCD1- 10	5/20/91	49.87	59.01	-9.14	
UCD1- 10	5/29/91	49.87	59.58	-9.71	
UCD1- 10	6/6/91	49.87	63.06	-13.19	
UCD1- 10	6/10/91	49.87	63.76	-13.89	
UCD1- 10	6/21/91	49.87	64.43	-14.56	
UCD1- 10	6/27/91	49.87	66.03	-16.16	
UCD1- 10	7/5/91	49.87	66.83	-16.96	
UCD1- 10	7/12/91	49.87	69.59	-19.72	
UCD1- 10	7/19/91	49.87	71.00	-21.13	
UCD1- 10	7/26/91	49.87	71.00	-21.13	
UCD1- 10	8/14/91	49.87	72.41	-22.54	
UCD1- 10	8/21/91	49.87	69.45	-19.58	
UCD1- 10	8/29/91	49.87	66.85	-16.98	
UCD1- 10	9/4/91	49.87	65.04	-15.17	
UCD1- 10	9/13/91	49.87	66.00	-16.13	
UCD1- 10	10/3/91	49.87	60.63	-10.76	
UCD1- 10	10/10/91	49.87	59.36	-9.49	
UCD1- 10	10/25/91	49.87	56.00	-6.13	
UCD1- 10	11/1/91	49.87	55.17	-5.30	
UCD1- 10	11/8/91	49.87	54.00	-4.13	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 10	11/14/91	49.87	53.42	-3.55	
UCD1- 10	12/5/91	49.87	51.71	-1.84	
UCD1- 10	12/11/91	49.87	51.41	-1.54	
UCD1- 10	12/19/91	49.87	50.93	-1.06	
UCD1- 10	1/8/92	49.87	48.54	1.33	
UCD1- 10	1/17/92	49.87	48.55	1.32	
UCD1- 10	1/24/92	49.87	48.08	1.79	
UCD1- 10	1/29/92	49.87	47.49	2.38	
UCD1- 10	2/5/92	49.87	46.81	3.06	
UCD1- 10	3/6/92	49.87	43.27	6.60	
UCD1- 10	3/13/92	49.87	42.72	7.15	
UCD1- 10	3/18/92	49.87	42.57	7.30	
UCD1- 10	3/25/92	49.87	42.31	7.56	
UCD1- 10	4/3/92	49.87	42.06	7.81	
UCD1- 10	4/7/92	49.87	42.09	7.78	
UCD1- 10	4/16/92	49.87	43.19	6.68	
UCD1- 10	4/24/92	49.87	48.21	1.66	
UCD1- 10	5/1/92	49.87	54.13	-4.26	
UCD1- 10	5/8/92	49.87	58.83	-8.96	
UCD1- 10	5/26/92	49.87	59.66	-9.79	
UCD1- 10	6/2/92	49.87	64.01	-14.14	
UCD1- 10	6/17/92	49.87	63.00	-13.13	
UCD1- 10	6/24/92	49.87	64.20	-14.33	
UCD1- 10	7/8/92	49.87	65.47	-15.60	
UCD1- 10	7/29/92	49.87	70.51	-20.64	
UCD1- 10	8/19/92	49.87	66.39	-16.52	
UCD1- 10	8/28/92	49.87	65.85	-15.98	
UCD1- 10	9/4/92	49.87	64.29	-14.42	
UCD1- 10	9/18/92	49.87	62.51	-12.64	
UCD1- 10	10/9/92	49.87	59.92	-10.05	
UCD1- 10	10/16/92	49.87	59.06	-9.19	
UCD1- 10	10/30/92	49.87	56.77	-6.90	
UCD1- 10	11/6/92	49.87	55.83	-5.96	
UCD1- 10	11/17/92	49.87	54.68	-4.81	
UCD1- 10	12/4/92	49.87	53.36	-3.49	
UCD1- 10	12/28/92	49.87	50.68	-0.81	
UCD1- 10	1/20/93	49.87	44.63	5.24	
UCD1- 10	1/29/93	49.87	40.60	9.27	
UCD1- 10	2/5/93	49.87	40.38	9.49	
UCD1- 10	2/26/93	49.87	35.66	14.21	
UCD1- 10	3/5/93	49.87	35.30	14.57	
UCD1- 10	3/12/93	49.87	34.92	14.95	
UCD1- 10	3/19/93	49.87	34.73	15.14	
UCD1- 10	4/7/93	49.87	33.46	16.41	
UCD1- 10	4/16/93	49.87	34.09	15.78	
UCD1- 10	4/23/93	49.87	34.80	15.07	
UCD1- 10	5/7/93	49.87	43.17	6.70	
UCD1- 10	6/25/93	49.87	47.88	1.99	
UCD1- 10	6/30/93	49.87	47.07	2.80	
UCD1- 10	7/8/93	49.87	49.98	-0.11	
UCD1- 10	7/15/93	49.87	51.44	-1.57	
UCD1- 10	7/21/93	49.87	51.00	-1.13	
UCD1- 10	7/30/93	49.87	52.68	-2.81	
UCD1- 10	8/6/93	49.87	52.87	-3.00	
UCD1- 10	8/11/93	49.87	52.87	-3.00	
UCD1- 10	8/20/93	49.87	53.00	-3.13	
UCD1- 10	8/27/93	49.87	49.90	-0.03	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 10	9/3/93	49.87	49.25	0.62	
UCD1- 10	9/9/93	49.87	50.00	-0.13	
UCD1- 10	9/17/93	49.87	48.78	1.09	
UCD1- 10	9/24/93	49.87	47.75	2.12	
UCD1- 10	10/1/93	49.87	46.83	3.04	
UCD1- 10	10/8/93	49.87	46.25	3.62	
UCD1- 10	10/15/93	49.87	44.99	4.88	
UCD1- 10	10/22/93	49.87	44.17	5.70	
UCD1- 10	10/29/93	49.87	43.83	6.04	
UCD1- 10	11/12/93	49.87	43.08	6.79	
UCD1- 10	11/24/93	49.87	42.39	7.48	
UCD1- 10	12/3/93	49.87	41.69	8.18	
UCD1- 10	12/10/93	49.87	41.14	8.73	
UCD1- 10	12/17/93	49.87	40.73	9.14	
UCD1- 10	1/7/94	49.87	39.78	10.09	
UCD1- 10	1/14/94	49.87	39.35	10.52	
UCD1- 10	1/25/94	49.87	38.96	10.91	
UCD1- 10	2/1/94	49.87	38.72	11.15	
UCD1- 10	2/14/94	49.87	38.31	11.56	
UCD1- 10	2/22/94	49.87	37.94	11.93	
UCD1- 10	3/2/94	49.87	37.27	12.60	
UCD1- 10	3/4/94	49.87	37.41	12.46	
UCD1- 10	3/10/94	49.87	37.38	12.49	
UCD1- 10	3/16/94	49.87	37.33	12.54	
UCD1- 10	3/24/94	49.87	38.25	11.62	
UCD1- 10	3/29/94	49.87	41.04	8.83	
UCD1- 10	4/6/94	49.87	44.70	5.17	
UCD1- 10	4/13/94	49.87	49.90	-0.03	
UCD1- 10	4/22/94	49.87	54.36	-4.49	
UCD1- 10	4/26/94	49.87	52.59	-2.72	
UCD1- 10	5/6/94	49.87	54.06	-4.19	
UCD1- 10	5/11/94	49.87	51.87	-2.00	
UCD1- 10	5/18/94	49.87	52.63	-2.76	
UCD1- 10	5/25/94	49.87	54.00	-4.13	
UCD1- 10	6/1/94	49.87	56.27	-6.40	
UCD1- 10	6/23/94	49.87	62.98	-13.11	
UCD1- 10	7/1/94	49.87	66.40	-16.53	
UCD1- 10	7/8/94	49.87	68.28	-18.41	
UCD1- 10	7/14/94	49.87	69.45	-19.58	
UCD1- 10	7/20/94	49.87	70.37	-20.50	
UCD1- 10	7/26/94	49.87	70.02	-20.15	
UCD1- 10	8/5/94	49.87	69.00	-19.13	
UCD1- 10	8/19/94	49.87	70.95	-21.08	
UCD1- 10	9/7/94	49.87	66.95	-17.08	
UCD1- 10	9/7/94	49.87	67.40	-17.53	
UCD1- 10	9/13/94	49.87	67.19	-17.32	
UCD1- 10	9/19/94	49.87	63.82	-13.95	
UCD1- 10	9/26/94	49.87	61.99	-12.12	
UCD1- 10	10/7/94	49.87	59.50	-9.63	
UCD1- 10	10/14/94	49.87	57.65	-7.78	
UCD1- 10	10/21/94	49.87	56.58	-6.71	
UCD1- 10	10/28/94	49.87	55.62	-5.75	
UCD1- 10	11/4/94	49.87	54.99	-5.12	
UCD1- 10	11/18/94	49.87	52.26	-2.39	
UCD1- 10	12/22/94	49.87	49.13	0.74	
UCD1- 10	1/6/95	49.87	47.38	2.49	
UCD1- 10	1/11/95	49.87	41.61	8.26	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 10	1/13/95	49.87	42.57	7.30	
UCD1- 10	1/27/95	49.87	39.71	10.16	
UCD1- 10	2/10/95	49.87	36.77	13.10	
UCD1- 10	2/17/95	49.87	36.46	13.41	
UCD1- 10	3/1/95	49.87	35.62	14.25	
UCD1- 10	3/9/95	49.87	34.51	15.36	
UCD1- 10	3/24/95	49.87	28.22	21.65	
UCD1- 10	4/28/95	49.87	32.62	17.25	
UCD1- 10	5/25/95	49.87	34.28	15.59	
UCD1- 10	6/16/95	49.87	39.38	10.49	
UCD1- 10	7/26/95	49.87	48.33	1.54	
UCD1- 10	8/31/95	49.87	48.42	1.45	
UCD1- 10	9/26/95	49.87	44.98	4.89	
UCD1- 10	10/25/95	49.87	41.88	7.99	
UCD1- 10	11/22/95	49.87	39.73	10.14	
UCD1- 10	11/27/95	49.87	40.41	9.46	
UCD1- 10	12/19/95	49.87	36.88	12.99	
UCD1- 11	11/2/90	50.67	66.92	-16.25	
UCD1- 11	11/8/90	50.67	53.11	-2.44	
UCD1- 11	11/16/90	50.67	55.23	-4.56	
UCD1- 11	11/20/90	50.67	54.74	-4.07	
UCD1- 11	12/5/90	50.67	53.16	-2.49	
UCD1- 11	12/27/90	50.67	51.56	-0.89	
UCD1- 11	1/4/91	50.67	51.07	-0.40	
UCD1- 11	1/11/91	50.67	50.65	0.02	
UCD1- 11	1/22/91	50.67	49.24	1.43	
UCD1- 11	2/1/91	50.67	50.03	0.64	
UCD1- 11	2/8/91	50.67	49.61	1.06	
UCD1- 11	2/14/91	50.67	49.22	1.45	
UCD1- 11	2/22/91	50.67	51.57	-0.90	
UCD1- 11	3/7/91	50.67	49.99	0.68	
UCD1- 11	3/12/91	50.67	48.97	1.70	
UCD1- 11	3/22/91	50.67	47.60	3.07	
UCD1- 11	3/29/91	50.67	47.81	2.86	
UCD1- 11	4/3/91	50.67	45.41	5.26	
UCD1- 11	4/10/91	50.67	44.98	5.69	
UCD1- 11	4/17/91	50.67	45.39	5.28	
UCD1- 11	4/24/91	50.67	48.03	2.64	
UCD1- 11	5/3/91	50.67	50.89	-0.22	
UCD1- 11	5/13/91	50.67	50.08	0.59	
UCD1- 11	5/20/91	50.67	58.15	-7.48	
UCD1- 11	5/29/91	50.67	58.78	-8.11	
UCD1- 11	6/6/91	50.67	62.27	-11.60	
UCD1- 11	6/10/91	50.67	62.73	-12.06	
UCD1- 11	6/21/91	50.67	64.16	-13.49	
UCD1- 11	6/27/91	50.67	65.46	-14.79	
UCD1- 11	7/5/91	50.67	66.08	-15.41	
UCD1- 11	7/12/91	50.67	68.29	-17.62	dry
UCD1- 11	7/19/91	50.67	68.28	-17.61	dry
UCD1- 11	7/26/91	50.67	68.33	-17.66	dry
UCD1- 11	8/5/91	50.67	68.28	-17.61	dry
UCD1- 11	8/14/91	50.67	68.26	-17.59	dry
UCD1- 11	8/29/91	50.67	67.10	-16.43	
UCD1- 11	9/4/91	50.67	64.85	-14.18	
UCD1- 11	9/13/91	50.67	65.68	-15.01	
UCD1- 11	10/3/91	50.67	60.69	-10.02	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 11	10/10/91	50.67	59.43	-8.76	
UCD1- 11	10/25/91	50.67	57.15	-6.48	
UCD1- 11	11/1/91	50.67	55.40	-4.73	
UCD1- 11	11/8/91	50.67	54.27	-3.60	
UCD1- 11	11/14/91	50.67	53.69	-3.02	
UCD1- 11	12/5/91	50.67	52.21	-1.54	
UCD1- 11	12/11/91	50.67	51.88	-1.21	
UCD1- 11	12/19/91	50.67	51.49	-0.82	
UCD1- 11	1/8/92	50.67	51.15	-0.48	
UCD1- 11	1/17/92	50.67	49.03	1.64	
UCD1- 11	1/24/92	50.67	48.47	2.20	
UCD1- 11	1/29/92	50.67	47.97	2.70	
UCD1- 11	2/5/92	50.67	47.31	3.36	
UCD1- 11	3/6/92	50.67	44.09	6.58	
UCD1- 11	3/13/92	50.67	43.44	7.23	
UCD1- 11	3/18/92	50.67	43.18	7.49	
UCD1- 11	3/25/92	50.67	42.87	7.80	
UCD1- 11	4/3/92	50.67	42.46	8.21	
UCD1- 11	4/7/92	50.67	42.55	8.12	
UCD1- 11	4/16/92	50.67	43.45	7.22	
UCD1- 11	4/24/92	50.67	48.17	2.50	
UCD1- 11	5/1/92	50.67	52.63	-1.96	
UCD1- 11	5/8/92	50.67	57.26	-6.59	
UCD1- 11	5/26/92	50.67	58.92	-8.25	
UCD1- 11	6/2/92	50.67	62.98	-12.31	
UCD1- 11	6/17/92	50.67	63.36	-12.69	
UCD1- 11	7/8/92	50.67	64.84	-14.17	
UCD1- 11	8/28/92	50.67	65.91	-15.24	
UCD1- 11	9/18/92	50.67	62.84	-12.17	
UCD1- 11	10/9/92	50.67	60.01	-9.34	
UCD1- 11	10/16/92	50.67	59.18	-8.51	
UCD1- 11	10/30/92	50.67	57.11	-6.44	
UCD1- 11	11/6/92	50.67	56.20	-5.53	
UCD1- 11	11/17/92	50.67	55.09	-4.42	
UCD1- 11	12/4/92	50.67	53.99	-3.32	
UCD1- 11	12/28/92	50.67	51.65	-0.98	
UCD1- 11	1/20/93	50.67	44.97	5.70	
UCD1- 11	1/29/93	50.67	41.54	9.13	
UCD1- 11	2/5/93	50.67	42.20	8.47	
UCD1- 11	2/26/93	50.67	37.46	13.21	
UCD1- 11	3/5/93	50.67	36.47	14.20	
UCD1- 11	3/12/93	50.67	35.84	14.83	
UCD1- 11	3/19/93	50.67	35.57	15.10	
UCD1- 11	4/7/93	50.67	34.24	16.43	
UCD1- 11	6/24/93	50.67	48.79	1.88	
UCD1- 11	6/30/93	50.67	47.02	3.65	
UCD1- 11	7/8/93	50.67	48.98	1.69	
UCD1- 11	7/15/93	50.67	49.46	1.21	
UCD1- 11	7/21/93	50.67	50.39	0.28	
UCD1- 11	7/30/93	50.67	51.71	-1.04	
UCD1- 11	8/6/93	50.67	53.29	-2.62	
UCD1- 11	8/11/93	50.67	54.27	-3.60	
UCD1- 11	8/20/93	50.67	53.60	-2.93	
UCD1- 11	8/27/93	50.67	50.08	0.59	
UCD1- 11	9/3/93	50.67	49.40	1.27	
UCD1- 11	9/9/93	50.67	49.76	0.91	
UCD1- 11	9/17/93	50.67	48.95	1.72	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 11	9/24/93	50.67	47.94	2.73	
UCD1- 11	10/1/93	50.67	47.06	3.61	
UCD1- 11	10/8/93	50.67	46.40	4.27	
UCD1- 11	10/15/93	50.67	45.31	5.36	
UCD1- 11	10/22/93	50.67	44.54	6.13	
UCD1- 11	10/29/93	50.67	44.11	6.56	
UCD1- 11	11/12/93	50.67	43.39	7.28	
UCD1- 11	11/24/93	50.67	42.76	7.91	
UCD1- 11	12/3/93	50.67	41.98	8.69	
UCD1- 11	12/10/93	50.67	41.55	9.12	
UCD1- 11	12/17/93	50.67	41.17	9.50	
UCD1- 11	1/7/94	50.67	40.33	10.34	
UCD1- 11	1/14/94	50.67	39.96	10.71	
UCD1- 11	1/25/94	50.67	39.57	11.10	
UCD1- 11	2/1/94	50.67	39.27	11.40	
UCD1- 11	2/14/94	50.67	38.88	11.79	
UCD1- 11	2/22/94	50.67	38.41	12.26	
UCD1- 11	3/2/94	50.67	37.84	12.83	
UCD1- 11	3/4/94	50.67	37.60	13.07	
UCD1- 11	3/10/94	50.67	37.88	12.79	
UCD1- 11	3/16/94	50.67	37.81	12.86	
UCD1- 11	3/24/94	50.67	38.54	12.13	
UCD1- 11	3/29/94	50.67	40.79	9.88	
UCD1- 11	4/6/94	50.67	44.30	6.37	
UCD1- 11	4/13/94	50.67	48.87	1.80	
UCD1- 11	4/22/94	50.67	52.31	-1.64	
UCD1- 11	4/26/94	50.67	52.11	-1.44	
UCD1- 11	5/6/94	50.67	53.27	-2.60	
UCD1- 11	5/11/94	50.67	51.63	-0.96	
UCD1- 11	5/18/94	50.67	52.54	-1.87	
UCD1- 11	5/25/94	50.67	53.16	-2.49	
UCD1- 11	6/1/94	50.67	55.21	-4.54	
UCD1- 11	6/23/94	50.67	62.90	-12.23	
UCD1- 11	7/1/94	50.67	65.79	-15.12	
UCD1- 11	7/8/94	50.67	67.45	-16.78	
UCD1- 11	7/14/94	50.67	68.41	-17.74	
UCD1- 11	7/20/94	50.67	68.52	-17.85	
UCD1- 11	7/26/94	50.67	68.49	-17.82	
UCD1- 11	8/5/94	50.67	68.08	-17.41	muddy
UCD1- 11	8/19/94	50.67	68.36	-17.69	
UCD1- 11	9/7/94	50.67	66.77	-16.10	
UCD1- 11	9/7/94	50.67	67.24	-16.57	
UCD1- 11	9/13/94	50.67	67.48	-16.81	
UCD1- 11	9/19/94	50.67	63.93	-13.26	
UCD1- 11	9/26/94	50.67	62.96	-12.29	
UCD1- 11	10/7/94	50.67	59.60	-8.93	
UCD1- 11	10/14/94	50.67	57.66	-6.99	
UCD1- 11	10/21/94	50.67	56.81	-6.14	
UCD1- 11	10/28/94	50.67	55.91	-5.24	
UCD1- 11	11/4/94	50.67	55.31	-4.64	
UCD1- 11	11/18/94	50.67	52.76	-2.09	
UCD1- 11	12/22/94	50.67	49.77	0.90	
UCD1- 11	1/6/95	50.67	48.10	2.57	
UCD1- 11	1/11/95	50.67	44.55	6.12	
UCD1- 11	1/13/95	50.67	43.77	6.90	
UCD1- 11	1/27/95	50.67	41.11	9.56	
UCD1- 11	2/10/95	50.67	38.34	12.33	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 11	2/17/95	50.67	37.70	12.97	
UCD1- 11	3/9/95	50.67	35.80	14.87	
UCD1- 11	3/24/95	50.67	30.81	19.86	
UCD1- 11	4/28/95	50.67	32.89	17.78	
UCD1- 11	5/25/95	50.67	34.01	16.66	
UCD1- 11	6/16/95	50.67	39.13	11.54	
UCD1- 11	7/26/95	50.67	47.59	3.08	Cap was missing.
UCD1- 11	8/31/95	50.67	48.30	2.37	
UCD1- 11	9/26/95	50.67	45.18	5.49	caps missing
UCD1- 11	10/25/95	50.67	42.12	8.55	missing electrical cap
UCD1- 11	11/22/95	50.67	40.21	10.46	
UCD1- 11	11/27/95	50.67	39.86	10.81	
UCD1- 11	12/19/95	50.67	37.72	12.95	
UCD1- 12	11/2/90	51.76	64.05	-12.29	
UCD1- 12	11/8/90	51.76	57.59	-5.83	
UCD1- 12	11/16/90	51.76	56.34	-4.58	
UCD1- 12	11/20/90	51.76	55.67	-3.91	
UCD1- 12	12/5/90	51.76	54.15	-2.39	
UCD1- 12	12/27/90	51.76	52.63	-0.87	
UCD1- 12	1/11/91	51.76	51.85	-0.09	
UCD1- 12	1/22/91	51.76	51.01	0.75	
UCD1- 12	2/1/91	51.76	50.88	0.88	
UCD1- 12	2/8/91	51.76	50.67	1.09	
UCD1- 12	2/14/91	51.76	50.26	1.50	
UCD1- 12	2/22/91	51.76	51.92	-0.16	
UCD1- 12	3/7/91	51.76	50.38	1.38	
UCD1- 12	3/12/91	51.76	47.46	4.30	
UCD1- 12	3/22/91	51.76	48.85	2.91	
UCD1- 12	3/29/91	51.76	47.15	4.61	
UCD1- 12	4/3/91	51.76	44.55	7.21	
UCD1- 12	4/10/91	51.76	45.35	6.41	
UCD1- 12	4/17/91	51.76	42.63	9.13	
UCD1- 12	4/24/91	51.76	44.37	7.39	
UCD1- 12	5/3/91	51.76	45.94	5.82	
UCD1- 12	5/13/91	51.76	51.44	0.32	
UCD1- 12	5/20/91	51.76	58.15	-6.39	
UCD1- 12	5/29/91	51.76	58.52	-6.76	
UCD1- 12	6/6/91	51.76	61.96	-10.20	
UCD1- 12	6/10/91	51.76	62.52	-10.76	
UCD1- 12	6/21/91	51.76	64.41	-12.65	
UCD1- 12	6/27/91	51.76	65.67	-13.91	
UCD1- 12	7/5/91	51.76	65.00	-13.24	
UCD1- 12	7/12/91	51.76	65.13	-13.37	
UCD1- 12	7/19/91	51.76	67.08	-15.32	dry
UCD1- 12	7/26/91	51.76	67.10	-15.34	dry
UCD1- 12	8/5/91	51.76	67.36	-15.60	dry
UCD1- 12	8/14/91	51.76	67.40	-15.64	dry
UCD1- 12	8/21/91	51.76	67.45	-15.69	dry
UCD1- 12	8/29/91	51.76	67.40	-15.64	
UCD1- 12	9/4/91	51.76	66.38	-14.62	
UCD1- 12	9/13/91	51.76	65.77	-14.01	
UCD1- 12	10/3/91	51.76	61.73	-9.97	
UCD1- 12	10/10/91	51.76	60.55	-8.79	
UCD1- 12	10/25/91	51.76	57.96	-6.20	
UCD1- 12	11/1/91	51.76	56.46	-4.70	
UCD1- 12	11/8/91	51.76	55.08	-3.32	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 12	11/14/91	51.76	54.50	-2.74	
UCD1- 12	12/5/91	51.76	54.36	-2.60	
UCD1- 12	12/11/91	51.76	54.41	-2.65	
UCD1- 12	12/19/91	51.76	52.40	-0.64	
UCD1- 12	1/3/92	51.76	51.25	0.51	
UCD1- 12	1/8/92	51.76	51.00	0.76	
UCD1- 12	1/17/92	51.76	50.28	1.48	
UCD1- 12	1/24/92	51.76	49.73	2.03	
UCD1- 12	1/29/92	51.76	49.07	2.69	
UCD1- 12	2/5/92	51.76	48.38	3.38	
UCD1- 12	3/6/92	51.76	44.75	7.01	
UCD1- 12	3/13/92	51.76	44.00	7.76	
UCD1- 12	3/18/92	51.76	43.35	8.41	
UCD1- 12	3/25/92	51.76	43.35	8.41	
UCD1- 12	4/3/92	51.76	43.02	8.74	
UCD1- 12	4/7/92	51.76	42.86	8.90	
UCD1- 12	4/16/92	51.76	43.90	7.86	
UCD1- 12	4/24/92	51.76	42.54	9.22	
UCD1- 12	5/1/92	51.76	51.56	0.20	
UCD1- 12	5/8/92	51.76	55.63	-3.87	
UCD1- 12	5/26/92	51.76	58.97	-7.21	
UCD1- 12	6/2/92	51.76	62.55	-10.79	
UCD1- 12	6/17/92	51.76	62.76	-11.00	
UCD1- 12	6/24/92	51.76	64.33	-12.57	
UCD1- 12	7/8/92	51.76	65.84	-14.08	
UCD1- 12	7/15/92	51.76	66.66	-14.90	
UCD1- 12	7/23/92	51.76	67.15	-15.39	
UCD1- 12	7/29/92	51.76	67.30	-15.54	
UCD1- 12	8/12/92	51.76	67.57	-15.81	
UCD1- 12	10/9/92	51.76	60.10	-8.34	
UCD1- 12	10/16/92	51.76	59.45	-7.69	
UCD1- 12	10/30/92	51.76	57.49	-5.73	
UCD1- 12	11/6/92	51.76	56.93	-5.17	
UCD1- 12	11/17/92	51.76	55.83	-4.07	
UCD1- 12	12/4/92	51.76	54.65	-2.89	
UCD1- 12	12/28/92	51.76	52.68	-0.92	
UCD1- 12	1/20/93	51.76	44.83	6.93	
UCD1- 12	1/29/93	51.76	42.06	9.70	
UCD1- 12	2/5/93	51.76	41.80	9.96	
UCD1- 12	2/12/93	51.76	41.49	10.27	
UCD1- 12	2/26/93	51.76	37.64	14.12	
UCD1- 12	3/5/93	51.76	36.96	14.80	
UCD1- 12	3/12/93	51.76	36.48	15.28	
UCD1- 12	3/19/93	51.76	36.34	15.42	
UCD1- 12	4/7/93	51.76	35.06	16.70	
UCD1- 12	4/16/93	51.76	35.29	16.47	
UCD1- 12	4/23/93	51.76	35.54	16.22	
UCD1- 12	5/7/93	51.76	41.57	10.19	
UCD1- 12	6/24/93	51.76	48.90	2.86	
UCD1- 12	6/30/93	51.76	47.48	4.28	
UCD1- 12	7/8/93	51.76	48.58	3.18	
UCD1- 12	7/15/93	51.76	50.29	1.47	
UCD1- 12	7/21/93	51.76	50.33	1.43	
UCD1- 12	7/30/93	51.76	51.46	0.30	
UCD1- 12	8/6/93	51.76	51.63	0.13	
UCD1- 12	8/11/93	51.76	52.35	-0.59	
UCD1- 12	8/20/93	51.76	51.85	-0.09	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 12	8/27/93	51.76	50.74	1.02	
UCD1- 12	9/3/93	51.76	50.42	1.34	
UCD1- 12	9/9/93	51.76	50.08	1.68	
UCD1- 12	9/17/93	51.76	49.71	2.05	
UCD1- 12	9/24/93	51.76	48.77	2.99	
UCD1- 12	10/1/93	51.76	47.99	3.77	
UCD1- 12	10/8/93	51.76	47.25	4.51	
UCD1- 12	10/15/93	51.76	46.30	5.46	
UCD1- 12	10/22/93	51.76	45.33	6.43	
UCD1- 12	10/29/93	51.76	44.92	6.84	
UCD1- 12	11/12/93	51.76	44.30	7.46	
UCD1- 12	11/24/93	51.76	43.64	8.12	
UCD1- 12	12/3/93	51.76	42.88	8.88	
UCD1- 12	12/10/93	51.76	42.46	9.30	
UCD1- 12	12/17/93	51.76	42.07	9.69	
UCD1- 12	1/7/94	51.76	41.19	10.57	
UCD1- 12	1/14/94	51.76	40.82	10.94	
UCD1- 12	1/25/94	51.76	40.44	11.32	
UCD1- 12	2/1/94	51.76	40.13	11.63	
UCD1- 12	2/14/94	51.76	39.51	12.25	
UCD1- 12	2/20/94	51.76	39.40	12.36	
UCD1- 12	3/2/94	51.76	38.78	12.98	
UCD1- 12	3/4/94	51.76	38.74	13.02	
UCD1- 12	3/10/94	51.76	38.71	13.05	
UCD1- 12	3/16/94	51.76	38.65	13.11	
UCD1- 12	3/24/94	51.76	39.16	12.60	
UCD1- 12	3/29/94	51.76	41.29	10.47	
UCD1- 12	4/6/94	51.76	44.44	7.32	
UCD1- 12	4/13/94	51.76	48.30	3.46	
UCD1- 12	4/22/94	51.76	51.77	-0.01	
UCD1- 12	4/26/94	51.76	52.28	-0.52	
UCD1- 12	5/6/94	51.76	53.32	-1.56	
UCD1- 12	5/11/94	51.76	52.08	-0.32	
UCD1- 12	5/18/94	51.76	53.07	-1.31	
UCD1- 12	5/25/94	51.76	53.40	-1.64	
UCD1- 12	6/1/94	51.76	54.63	-2.87	
UCD1- 12	6/23/94	51.76	62.98	-11.22	
UCD1- 12	7/1/94	51.76	64.92	-13.16	unclear meter response
UCD1- 12	7/8/94	51.76	66.92	-15.16	
UCD1- 12	7/14/94	51.76	67.22	-15.46	
UCD1- 12	7/20/94	51.76	67.34	-15.58	
UCD1- 12	7/26/94	51.76	67.30	-15.54	
UCD1- 12	8/5/94	51.76	67.43	-15.67	
UCD1- 12	8/19/94	51.76	67.45	-15.69	
UCD1- 12	9/7/94	51.76	67.33	-15.57	
UCD1- 12	9/7/94	51.76	67.33	-15.57	
UCD1- 12	9/13/94	51.76	67.34	-15.58	
UCD1- 12	9/19/94	51.76	66.16	-14.40	
UCD1- 12	9/26/94	51.76	64.33	-12.57	lid found open
UCD1- 12	10/7/94	51.76	61.18	-9.42	
UCD1- 12	10/14/94	51.76	58.91	-7.15	
UCD1- 12	10/21/94	51.76	57.98	-6.22	
UCD1- 12	10/28/94	51.76	57.05	-5.29	
UCD1- 12	11/4/94	51.76	56.33	-4.57	
UCD1- 12	11/18/94	51.76	53.79	-2.03	
UCD1- 12	12/22/94	51.76	51.12	0.64	
UCD1- 12	1/6/95	51.76	49.15	2.61	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 12	1/11/95	51.76	44.75	7.01	
UCD1- 12	1/13/95	51.76	44.26	7.50	
UCD1- 12	1/27/95	51.76	41.60	10.16	
UCD1- 12	2/10/95	51.76	38.74	13.02	
UCD1- 12	2/17/95	51.76	38.36	13.40	
UCD1- 12	3/9/95	51.76	36.53	15.23	
UCD1- 12	3/16/95	51.76	33.32	18.44	
UCD1- 12	3/24/95	51.76	30.84	20.92	
UCD1- 12	4/28/95	51.76	32.94	18.82	
UCD1- 12	5/25/95	51.76	33.87	17.89	
UCD1- 12	6/16/95	51.76	39.38	12.38	
UCD1- 12	7/26/95	51.76	47.72	4.04	
UCD1- 12	8/31/95	51.76	49.45	2.31	Caps were off
UCD1- 12	9/26/95	51.76	46.05	5.71	
UCD1- 12	10/25/95	51.76	43.03	8.73	
UCD1- 12	11/22/95	51.76	41.08	10.68	
UCD1- 12	11/27/95	51.76	40.82	10.94	
UCD1- 12	12/19/95	51.76	38.65	13.11	
UCD1- 13	11/2/90	52.19	58.44	-6.25	
UCD1- 13	11/8/90	52.19	57.56	-5.37	
UCD1- 13	11/16/90	52.19	56.61	-4.42	
UCD1- 13	11/20/90	52.19	56.12	-3.93	
UCD1- 13	12/5/90	52.19	54.68	-2.49	
UCD1- 13	12/27/90	52.19	53.28	-1.09	
UCD1- 13	1/4/91	52.19	52.83	-0.64	
UCD1- 13	1/11/91	52.19	52.51	-0.32	
UCD1- 13	1/22/91	52.19	51.70	0.49	
UCD1- 13	2/1/91	52.19	51.50	0.69	
UCD1- 13	2/8/91	52.19	51.28	0.91	
UCD1- 13	2/14/91	52.19	50.96	1.23	
UCD1- 13	2/22/91	52.19	52.04	0.15	
UCD1- 13	3/7/91	52.19	51.53	0.66	
UCD1- 13	3/12/91	52.19	50.89	1.30	
UCD1- 13	3/22/91	52.19	49.69	2.50	
UCD1- 13	3/29/91	52.19	47.79	4.40	
UCD1- 13	4/3/91	52.19	46.67	5.52	
UCD1- 13	4/10/91	52.19	46.00	6.19	
UCD1- 13	4/17/91	52.19	46.16	6.03	
UCD1- 13	4/24/91	52.19	48.23	3.96	
UCD1- 13	5/3/91	52.19	51.27	0.92	
UCD1- 13	5/13/91	52.19	53.14	-0.95	
UCD1- 13	5/20/91	52.19	56.89	-4.70	
UCD1- 13	5/29/91	52.19	58.52	-6.33	
UCD1- 13	6/6/91	52.19	61.72	-9.53	
UCD1- 13	6/10/91	52.19	62.34	-10.15	
UCD1- 13	6/21/91	52.19	64.58	-12.39	
UCD1- 13	6/27/91	52.19	65.92	-13.73	
UCD1- 13	7/5/91	52.19	66.29	-14.10	
UCD1- 13	7/12/91	52.19	67.56	-15.37	dry
UCD1- 13	7/19/91	52.19	67.61	-15.42	dry
UCD1- 13	7/26/91	52.19	67.24	-15.05	dry
UCD1- 13	8/5/91	52.19	67.26	-15.07	dry
UCD1- 13	8/14/91	52.19	67.24	-15.05	dry
UCD1- 13	8/21/91	52.19	67.25	-15.06	dry
UCD1- 13	8/29/91	52.19	67.25	-15.06	dry
UCD1- 13	9/4/91	52.19	66.45	-14.26	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 13	9/13/91	52.19	66.09	-13.90	
UCD1- 13	10/3/91	52.19	62.31	-10.12	
UCD1- 13	10/10/91	52.19	61.24	-9.05	
UCD1- 13	10/25/91	52.19	58.65	-6.46	
UCD1- 13	11/1/91	52.19	56.88	-4.69	
UCD1- 13	11/8/91	52.19	55.56	-3.37	
UCD1- 13	11/14/91	52.19	55.13	-2.94	
UCD1- 13	12/5/91	52.19	53.78	-1.59	
UCD1- 13	12/11/91	52.19	53.44	-1.25	
UCD1- 13	12/19/91	52.19	52.93	-0.74	
UCD1- 13	1/3/92	52.19	52.00	0.19	
UCD1- 13	1/8/92	52.19	52.23	-0.04	
UCD1- 13	1/17/92	52.19	51.12	1.07	
UCD1- 13	1/24/92	52.19	50.66	1.53	
UCD1- 13	1/29/92	52.19	50.08	2.11	
UCD1- 13	2/5/92	52.19	49.38	2.81	
UCD1- 13	3/6/92	52.19	45.22	6.97	
UCD1- 13	3/13/92	52.19	44.45	7.74	
UCD1- 13	3/18/92	52.19	44.19	8.00	
UCD1- 13	3/25/92	52.19	43.92	8.27	
UCD1- 13	4/3/92	52.19	43.47	8.72	
UCD1- 13	4/7/92	52.19	43.45	8.74	
UCD1- 13	4/16/92	52.19	43.94	8.25	
UCD1- 13	4/24/92	52.19	47.92	4.27	
UCD1- 13	5/1/92	52.19	51.60	0.59	
UCD1- 13	5/8/92	52.19	54.11	-1.92	
UCD1- 13	5/26/92	52.19	58.64	-6.45	
UCD1- 13	6/2/92	52.19	62.22	-10.03	
UCD1- 13	6/17/92	52.19	62.91	-10.72	
UCD1- 13	6/24/92	52.19	64.40	-12.21	
UCD1- 13	7/2/92	52.19	67.24	-15.05	
UCD1- 13	7/8/92	52.19	65.67	-13.48	
UCD1- 13	7/15/92	52.19	67.25	-15.06	
UCD1- 13	7/29/92	52.19	67.34	-15.15	
UCD1- 13	8/28/92	52.19	66.82	-14.63	
UCD1- 13	9/4/92	52.19	65.63	-13.44	
UCD1- 13	9/18/92	52.19	63.98	-11.79	
UCD1- 13	10/9/92	52.19	61.45	-9.26	
UCD1- 13	10/16/92	52.19	60.47	-8.28	
UCD1- 13	10/30/92	52.19	58.31	-6.12	
UCD1- 13	11/6/92	52.19	57.53	-5.34	
UCD1- 13	11/17/92	52.19	56.00	-3.81	
UCD1- 13	12/4/92	52.19	55.59	-3.40	
UCD1- 13	12/28/92	52.19	53.21	-1.02	
UCD1- 13	1/20/93	52.19	45.21	6.98	
UCD1- 13	1/29/93	52.19	42.38	9.81	
UCD1- 13	2/5/93	52.19	42.22	9.97	
UCD1- 13	2/12/93	52.19	41.69	10.50	
UCD1- 13	2/26/93	52.19	39.05	13.14	
UCD1- 13	3/5/93	52.19	37.55	14.64	
UCD1- 13	3/12/93	52.19	36.84	15.35	
UCD1- 13	3/19/93	52.19	36.54	15.65	
UCD1- 13	4/7/93	52.19	35.23	16.96	
UCD1- 13	4/16/93	52.19	35.23	16.96	
UCD1- 13	4/23/93	52.19	35.28	16.91	
UCD1- 13	5/7/93	52.19	40.51	11.68	
UCD1- 13	6/24/93	52.19	47.88	4.31	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 13	6/30/93	52.19	47.00	5.19	
UCD1- 13	7/8/93	52.19	49.08	3.11	
UCD1- 13	7/15/93	52.19	50.33	1.86	
UCD1- 13	7/21/93	52.19	50.40	1.79	
UCD1- 13	7/30/93	52.19	49.47	2.72	
UCD1- 13	8/6/93	52.19	51.77	0.42	
UCD1- 13	8/11/93	52.19	51.70	0.49	
UCD1- 13	8/20/93	52.19	52.00	0.19	
UCD1- 13	8/27/93	52.19	51.02	1.17	
UCD1- 13	9/3/93	52.19	50.48	1.71	
UCD1- 13	9/9/93	52.19	50.31	1.88	
UCD1- 13	9/17/93	52.19	50.02	2.17	
UCD1- 13	9/24/93	52.19	49.06	3.13	
UCD1- 13	10/1/93	52.19	48.32	3.87	
UCD1- 13	10/8/93	52.19	47.63	4.56	
UCD1- 13	10/15/93	52.19	46.56	5.63	
UCD1- 13	10/22/93	52.19	45.48	6.71	
UCD1- 13	10/29/93	52.19	45.11	7.08	
UCD1- 13	11/12/93	52.19	44.48	7.71	
UCD1- 13	11/24/93	52.19	43.81	8.38	
UCD1- 13	12/3/93	52.19	43.08	9.11	
UCD1- 13	12/10/93	52.19	42.68	9.51	
UCD1- 13	12/17/93	52.19	42.28	9.91	
UCD1- 13	1/7/94	52.19	41.47	10.72	
UCD1- 13	1/14/94	52.19	41.18	11.01	
UCD1- 13	1/25/94	52.19	40.78	11.41	
UCD1- 13	2/1/94	52.19	40.45	11.74	
UCD1- 13	2/14/94	52.19	39.84	12.35	
UCD1- 13	2/20/94	52.19	39.69	12.50	
UCD1- 13	3/2/94	52.19	38.87	13.32	
UCD1- 13	3/4/94	52.19	39.06	13.13	
UCD1- 13	3/10/94	52.19	39.01	13.18	
UCD1- 13	3/16/94	52.19	38.92	13.27	
UCD1- 13	3/24/94	52.19	39.35	12.84	
UCD1- 13	3/29/94	52.19	41.00	11.19	
UCD1- 13	4/6/94	52.19	44.03	8.16	
UCD1- 13	4/13/94	52.19	48.04	4.15	
UCD1- 13	4/22/94	52.19	51.26	0.93	
UCD1- 13	4/26/94	52.19	52.01	0.18	
UCD1- 13	5/6/94	52.19	52.90	-0.71	
UCD1- 13	5/11/94	52.19	52.14	0.05	
UCD1- 13	5/18/94	52.19	52.96	-0.77	
UCD1- 13	5/25/94	52.19	53.23	-1.04	
UCD1- 13	6/1/94	52.19	54.10	-1.91	
UCD1- 13	6/23/94	52.19	62.46	-10.27	
UCD1- 13	7/1/94	52.19	65.02	-12.83	
UCD1- 13	7/8/94	52.19	67.17	-14.98	
UCD1- 13	9/19/94	52.19	65.84	-13.65	dry previous week
UCD1- 13	9/26/94	52.19	64.06	-11.87	
UCD1- 13	10/7/94	52.19	61.52	-9.33	
UCD1- 13	10/14/94	52.19	59.38	-7.19	
UCD1- 13	10/21/94	52.19	58.29	-6.10	
UCD1- 13	10/28/94	52.19	57.31	-5.12	
UCD1- 13	11/4/94	52.19	56.60	-4.41	
UCD1- 13	11/18/94	52.19	54.35	-2.16	
UCD1- 13	12/22/94	52.19	51.88	0.31	
UCD1- 13	1/6/95	52.19	50.50	1.69	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 13	1/11/95	52.19	49.15	3.04	
UCD1- 13	1/13/95	52.19	47.65	4.54	
UCD1- 13	1/27/95	52.19	42.18	10.01	
UCD1- 13	2/10/95	52.19	39.58	12.61	
UCD1- 13	2/17/95	52.19	38.71	13.48	
UCD1- 13	3/9/95	52.19	36.98	15.21	
UCD1- 13	3/16/95	52.19	34.12	18.07	
UCD1- 13	3/24/95	52.19	32.45	19.74	
UCD1- 13	4/28/95	52.19	32.73	19.46	
UCD1- 13	5/25/95	52.19	33.70	18.49	
UCD1- 13	6/16/95	52.19	39.06	13.13	
UCD1- 13	7/26/95	52.19		NA	Continuous well level indicator installed.
UCD1- 13	8/31/95	52.19	49.28	2.91	Electrical cap is off
UCD1- 13	9/26/95	52.19	46.24	5.95	
UCD1- 13	10/25/95	52.19	43.25	8.94	
UCD1- 13	11/22/95	52.19	41.38	10.81	
UCD1- 13	11/27/95	52.19	41.18	11.01	
UCD1- 13	12/19/95	52.19	38.95	13.24	
UCD1- 18	1/22/91	48.56	47.43	1.13	
UCD1- 18	2/1/91	48.56	47.01	1.55	
UCD1- 18	2/8/91	48.56	46.80	1.76	
UCD1- 18	2/14/91	48.56	46.52	2.04	
UCD1- 18	2/22/91	48.56	46.89	1.67	
UCD1- 18	3/7/91	48.56	46.54	2.02	
UCD1- 18	3/12/91	48.56	46.19	2.37	
UCD1- 18	3/22/91	48.56	46.00	2.56	
UCD1- 18	3/29/91	48.56	42.88	5.68	
UCD1- 18	4/3/91	48.56	41.66	6.90	
UCD1- 18	4/10/91	48.56	41.32	7.24	
UCD1- 18	4/17/91	48.56	41.29	7.27	
UCD1- 18	4/24/91	48.56	42.99	5.57	
UCD1- 18	5/3/91	48.56	44.95	3.61	
UCD1- 18	5/13/91	48.56	46.96	1.60	
UCD1- 18	5/20/91	48.56	50.68	-2.12	
UCD1- 18	5/29/91	48.56	51.99	-3.43	
UCD1- 18	6/6/91	48.56	54.54	-5.98	
UCD1- 18	6/10/91	48.56	55.27	-6.71	
UCD1- 18	6/21/91	48.56	57.28	-8.72	
UCD1- 18	6/27/91	48.56	58.02	-9.46	
UCD1- 18	7/5/91	48.56	58.35	-9.79	
UCD1- 18	7/12/91	48.56	59.19	-10.63	
UCD1- 18	7/19/91	48.56	61.60	-13.04	
UCD1- 18	7/26/91	48.56	61.85	-13.29	
UCD1- 18	8/5/91	48.56	64.22	-15.66	
UCD1- 18	8/14/91	48.56	64.83	-16.27	
UCD1- 18	8/21/91	48.56	64.37	-15.81	
UCD1- 18	8/29/91	48.56	62.60	-14.04	
UCD1- 18	9/4/91	48.56	60.02	-11.46	
UCD1- 18	9/13/91	48.56	60.74	-12.18	
UCD1- 18	10/3/91	48.56	58.92	-10.36	
UCD1- 18	10/10/91	48.56	58.54	-9.98	
UCD1- 18	10/25/91	48.56	55.77	-7.21	
UCD1- 18	11/1/91	48.56	53.02	-4.46	
UCD1- 18	11/8/91	48.56	50.81	-2.25	
UCD1- 18	11/14/91	48.56	49.00	-0.44	
UCD1- 18	12/5/91	48.56	48.52	0.04	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 18	12/11/91	48.56	48.25	0.31	
UCD1- 18	12/19/91	48.56	58.06 b	-9.50 b	
UCD1- 18	1/3/92	48.56	47.45	1.11	
UCD1- 18	1/8/92	48.56	47.10	1.46	
UCD1- 18	1/17/92	48.56	46.60	1.96	
UCD1- 18	1/24/92	48.56	46.98	1.58	
UCD1- 18	1/29/92	48.56	45.10	3.46	
UCD1- 18	2/5/92	48.56	44.18	4.38	
UCD1- 18	3/13/92	48.56	39.36	9.20	
UCD1- 18	3/18/92	48.56	39.24	9.32	
UCD1- 18	3/25/92	48.56	39.03	9.53	
UCD1- 18	4/7/92	48.56	38.47	10.09	
UCD1- 18	4/16/92	48.56	38.79	9.77	
UCD1- 18	4/24/92	48.56	42.35	6.21	
UCD1- 18	5/1/92	48.56	46.68	1.88	
UCD1- 18	5/8/92	48.56	47.19	1.37	
UCD1- 18	5/26/92	48.56	51.69	-3.13	
UCD1- 18	6/2/92	48.56	55.02	-6.46	
UCD1- 18	6/17/92	48.56	56.45	-7.89	
UCD1- 18	6/24/92	48.56	57.37	-8.81	
UCD1- 18	7/2/92	48.56	58.07	-9.51	
UCD1- 18	7/8/92	48.56	58.46	-9.90	
UCD1- 18	7/23/92	48.56	59.46	-10.90	
UCD1- 18	8/19/92	48.56	61.56	-13.00	
UCD1- 18	8/28/92	48.56	61.11	-12.55	
UCD1- 18	9/4/92	48.56	60.35	-11.79	
UCD1- 18	9/18/92	48.56	59.65	-11.09	
UCD1- 18	10/9/92	48.56	58.18	-9.62	
UCD1- 18	10/30/92	48.56	54.93	-6.37	
UCD1- 18	11/6/92	48.56	53.47	-4.91	
UCD1- 18	11/17/92	48.56	51.71	-3.15	
UCD1- 18	12/4/92	48.56	50.16	-1.60	
UCD1- 18	12/28/92	48.56	51.90	-3.34	
UCD1- 18	1/20/93	48.56	44.46	4.10	
UCD1- 18	1/29/93	48.56	41.73	6.83	
UCD1- 18	2/5/93	48.56	37.15	11.41	
UCD1- 18	2/26/93	48.56	32.07	16.49	
UCD1- 18	3/5/93	48.56	31.96	16.60	
UCD1- 18	3/12/93	48.56	31.69	16.87	
UCD1- 18	3/19/93	48.56	31.47	17.09	
UCD1- 18	4/7/93	48.56	30.29	18.27	
UCD1- 18	4/16/93	48.56	30.36	18.20	
UCD1- 18	4/23/93	48.56	30.52	18.04	
UCD1- 18	5/7/93	48.56	35.54	13.02	
UCD1- 18	6/24/93	48.56	62.48 b	-13.92 b	
UCD1- 18	6/30/93	48.56	40.52	8.04	
UCD1- 18	7/8/93	48.56	47.31	1.25	
UCD1- 18	7/15/93	48.56	44.00	4.56	
UCD1- 18	7/21/93	48.56	43.77	4.79	
UCD1- 18	7/30/93	48.56	45.00	3.56	
UCD1- 18	8/6/93	48.56	45.04	3.52	
UCD1- 18	8/11/93	48.56	46.10	2.46	
UCD1- 18	8/20/93	48.56	45.26	3.30	
UCD1- 18	8/27/93	48.56	45.15	3.41	
UCD1- 18	9/3/93	48.56	44.65	3.91	
UCD1- 18	9/9/93	48.56	44.47	4.09	
UCD1- 18	9/17/93	48.56	44.57	3.99	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 18	9/24/93	48.56	43.79	4.77	
UCD1- 18	10/1/93	48.56	43.07	5.49	
UCD1- 18	10/8/93	48.56	42.50	6.06	
UCD1- 18	10/15/93	48.56	41.68	6.88	
UCD1- 18	10/22/93	48.56	40.90	7.66	
UCD1- 18	10/29/93	48.56	40.36	8.20	
UCD1- 18	11/12/93	48.56	39.72	8.84	
UCD1- 18	11/24/93	48.56	39.13	9.43	
UCD1- 18	12/3/93	48.56	38.29	10.27	
UCD1- 18	12/10/93	48.56	37.89	10.67	
UCD1- 18	12/17/93	48.56	37.48	11.08	
UCD1- 18	1/7/94	48.56	36.66	11.90	
UCD1- 18	1/14/94	48.56	36.20	12.36	
UCD1- 18	1/25/94	48.56	35.86	12.70	
UCD1- 18	2/1/94	48.56	35.61	12.95	
UCD1- 18	2/14/94	48.56	35.14	13.42	
UCD1- 18	2/22/94	48.56	34.52	14.04	
UCD1- 18	3/2/94	48.56	33.48	15.08	
UCD1- 18	3/4/94	48.56	34.18	14.38	
UCD1- 18	3/10/94	48.56	34.27	14.29	
UCD1- 18	3/16/94	48.56	34.09	14.47	
UCD1- 18	3/24/94	48.56	34.51	14.05	
UCD1- 18	3/29/94	48.56	36.23	12.33	
UCD1- 18	4/6/94	48.56	38.97	9.59	
UCD1- 18	4/13/94	48.56	41.82	6.74	
UCD1- 18	4/22/94	48.56	45.23	3.33	
UCD1- 18	4/26/94	48.56	45.89	2.67	
UCD1- 18	5/6/94	48.56	46.54	2.02	
UCD1- 18	5/11/94	48.56	46.09	2.47	
UCD1- 18	5/18/94	48.56	47.01	1.55	
UCD1- 18	5/25/94	48.56	47.27	1.29	
UCD1- 18	6/1/94	48.56	47.76	0.80	
UCD1- 18	6/23/94	48.56	56.04	-7.48	
UCD1- 18	7/1/94	48.56	57.35	-8.79	
UCD1- 18	7/8/94	48.56	58.10	-9.54	unclear meter response
UCD1- 18	7/14/94	48.56	58.66	-10.10	
UCD1- 18	7/20/94	48.56	59.94	-11.38	
UCD1- 18	7/26/94	48.56	61.21	-12.65	
UCD1- 18	8/5/94	48.56	62.06	-13.50	
UCD1- 18	8/19/94	48.56	64.77	-16.21	
UCD1- 18	9/7/94	48.56	62.56	-14.00	
UCD1- 18	9/7/94	48.56	62.40	-13.84	
UCD1- 18	9/13/94	48.56	63.20	-14.64	
UCD1- 18	9/19/94	48.56	60.86	-12.30	
UCD1- 18	9/26/94	48.56	59.89	-11.33	
UCD1- 18	10/7/94	48.56	58.95	-10.39	
UCD1- 18	10/14/94	48.56	58.23	-9.67	
UCD1- 18	10/21/94	48.56	56.84	-8.28	
UCD1- 18	10/28/94	48.56	54.56	-6.00	
UCD1- 18	11/4/94	48.56	52.55	-3.99	
UCD1- 18	11/18/94	48.56	49.36	-0.80	
UCD1- 18	12/22/94	48.56	47.55	1.01	
UCD1- 18	1/6/95	48.56	46.05	2.51	
UCD1- 18	1/11/95	48.56	41.97	6.59	
UCD1- 18	1/13/95	48.56	41.13	7.43	
UCD1- 18	1/27/95	48.56	38.83	9.73	
UCD1- 18	2/10/95	48.56	34.58	13.98	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 18	2/17/95	48.56	33.97	14.59	
UCD1- 18	3/9/95	48.56	31.94	16.62	
UCD1- 18	3/24/95	48.56	25.82	22.74	
UCD1- 18	4/28/95	48.56	28.78	19.78	
UCD1- 18	5/25/95	48.56	29.17	19.39	
UCD1- 18	6/16/95	48.56	34.04	14.52	
UCD1- 18	7/26/95	48.56	41.33	7.23	Cap was off/inner tube is gone.
UCD1- 18	8/31/95	48.56	43.48	5.08	
UCD1- 18	9/26/95	48.56		NA	
UCD1- 18	10/25/95	48.56		NA	Continuous monitoring equipment
UCD1- 18	11/22/95	48.56	36.49	12.07	
UCD1- 18	11/27/95	48.56	36.28	12.28	no pump
UCD1- 18	12/19/95	48.56	33.66	14.90	Pump not installed
UCD1- 19	1/22/91	51.33	50.73	0.60	
UCD1- 19	2/1/91	51.33	50.66	0.67	
UCD1- 19	2/8/91	51.33	50.38	0.95	
UCD1- 19	2/14/91	51.33	50.10	1.23	
UCD1- 19	2/22/91	51.33	51.48	-0.15	
UCD1- 19	3/7/91	51.33	50.58	0.75	
UCD1- 19	3/12/91	51.33	50.26	1.07	
UCD1- 19	3/22/91	51.33	48.68	2.65	
UCD1- 19	3/29/91	51.33	47.02	4.31	
UCD1- 19	4/3/91	51.33	46.32	5.01	
UCD1- 19	4/10/91	51.33	45.77	5.56	
UCD1- 19	4/17/91	51.33	45.95	5.38	
UCD1- 19	4/24/91	51.33	48.02	3.31	
UCD1- 19	5/3/91	51.33	50.47	0.86	
UCD1- 19	5/13/91	51.33	53.08	-1.75	
UCD1- 19	5/20/91	51.33	57.74	-6.41	
UCD1- 19	5/29/91	51.33	58.54	-7.21	
UCD1- 19	6/6/91	51.33	61.23	-9.90	
UCD1- 19	6/10/91	51.33	61.93	-10.60	
UCD1- 19	6/21/91	51.33	63.89	-12.56	
UCD1- 19	6/27/91	51.33	64.23	-12.90	
UCD1- 19	7/5/91	51.33	65.76	-14.43	
UCD1- 19	7/12/91	51.33	68.68	-17.35	
UCD1- 19	7/19/91	51.33	69.71	-18.38	
UCD1- 19	7/26/91	51.33	70.08	-18.75	
UCD1- 19	8/5/91	51.33	70.42	-19.09	
UCD1- 19	8/14/91	51.33	70.93	-19.60	
UCD1- 19	8/21/91	51.33	69.68	-18.35	
UCD1- 19	8/29/91	51.33	67.10	-15.77	
UCD1- 19	9/4/91	51.33	65.12	-13.79	
UCD1- 19	9/13/91	51.33	65.52	-14.19	
UCD1- 19	10/3/91	51.33	61.26	-9.93	
UCD1- 19	10/10/91	51.33	60.29	-8.96	
UCD1- 19	10/25/91	51.33	57.75	-6.42	
UCD1- 19	11/1/91	51.33	55.96	-4.63	
UCD1- 19	11/8/91	51.33	54.75	-3.42	
UCD1- 19	11/14/91	51.33	54.19	-2.86	
UCD1- 19	12/5/91	51.33	52.82	-1.49	
UCD1- 19	12/11/91	51.33	52.46	-1.13	
UCD1- 19	12/19/91	51.33	52.10	-0.77	
UCD1- 19	1/3/92	51.33	50.96	0.37	
UCD1- 19	1/8/92	51.33	51.17	0.16	
UCD1- 19	1/17/92	51.33	50.11	1.22	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 19	1/24/92	51.33	49.55	1.78	
UCD1- 19	1/29/92	51.33	48.87	2.46	
UCD1- 19	2/5/92	51.33	48.11	3.22	
UCD1- 19	3/6/92	51.33	44.73	6.60	
UCD1- 19	3/13/92	51.33	44.02	7.31	
UCD1- 19	3/18/92	51.33	43.72	7.61	
UCD1- 19	3/25/92	51.33	43.40	7.93	
UCD1- 19	4/3/92	51.33	43.00	8.33	
UCD1- 19	4/7/92	51.33	43.04	8.29	
UCD1- 19	4/16/92	51.33	43.75	7.58	
UCD1- 19	4/24/92	51.33	47.27	4.06	
UCD1- 19	5/1/92	51.33	51.41	-0.08	
UCD1- 19	5/8/92	51.33	55.00	-3.67	
UCD1- 19	5/26/92	51.33	58.61	-7.28	
UCD1- 19	6/2/92	51.33	62.00	-10.67	
UCD1- 19	6/17/92	51.33	62.33	-11.00	
UCD1- 19	6/24/92	51.33	63.34	-12.01	
UCD1- 19	7/2/92	51.33	67.14	-15.81	
UCD1- 19	7/8/92	51.33	64.76	-13.43	
UCD1- 19	7/15/92	51.33	67.09	-15.76	
UCD1- 19	7/23/92	51.33	67.45	-16.12	
UCD1- 19	7/29/92	51.33	69.04	-17.71	
UCD1- 19	8/12/92	51.33	68.18	-16.85	
UCD1- 19	8/19/92	51.33	66.60	-15.27	
UCD1- 19	8/28/92	51.33	66.01	-14.68	
UCD1- 19	9/4/92	51.33	64.69	-13.36	
UCD1- 19	9/18/92	51.33	63.13	-11.80	
UCD1- 19	10/9/92	51.33	60.84	-9.51	
UCD1- 19	10/16/92	51.33	59.76	-8.43	
UCD1- 19	10/30/92	51.33	57.61	-6.28	
UCD1- 19	11/6/92	51.33	56.68	-5.35	
UCD1- 19	11/17/92	51.33	55.48	-4.15	
UCD1- 19	12/4/92	51.33	54.08	-2.75	
UCD1- 19	12/28/92	51.33	52.32	-0.99	
UCD1- 19	1/20/93	51.33	46.01	5.32	
UCD1- 19	1/29/93	51.33	42.35	8.98	
UCD1- 19	2/5/93	51.33	41.86	9.47	
UCD1- 19	2/26/93	51.33	37.90	13.43	
UCD1- 19	3/5/93	51.33	36.90	14.43	
UCD1- 19	3/12/93	51.33	36.36	14.97	
UCD1- 19	3/19/93	51.33	36.14	15.19	
UCD1- 19	4/7/93	51.33	34.76	16.57	
UCD1- 19	4/16/93	51.33	35.07	16.26	
UCD1- 19	4/23/93	51.33	35.27	16.06	
UCD1- 19	5/7/93	51.33	42.32	9.01	
UCD1- 19	6/24/93	51.33	48.13	3.20	
UCD1- 19	6/30/93	51.33	47.04	4.29	
UCD1- 19	7/8/93	51.33	49.00	2.33	
UCD1- 19	7/15/93	51.33	50.19	1.14	
UCD1- 19	7/21/93	51.33	50.13	1.20	
UCD1- 19	7/30/93	51.33	51.10	0.23	
UCD1- 19	8/6/93	51.33	59.29	-7.96	
UCD1- 19	8/11/93	51.33	59.38	-8.05	
UCD1- 19	8/20/93	51.33	59.01	-7.68	
UCD1- 19	8/27/93	51.33	50.63	0.70	
UCD1- 19	9/3/93	51.33	50.09	1.24	
UCD1- 19	9/9/93	51.33	49.97	1.36	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 19	9/17/93	51.33	49.59	1.74	
UCD1- 19	9/24/93	51.33	47.56	3.77	
UCD1- 19	10/1/93	51.33	47.69	3.64	
UCD1- 19	10/8/93	51.33	47.04	4.29	
UCD1- 19	10/15/93	51.33	46.00	5.33	
UCD1- 19	10/22/93	51.33	45.06	6.27	
UCD1- 19	10/29/93	51.33	44.63	6.70	
UCD1- 19	11/12/93	51.33	43.94	7.39	
UCD1- 19	11/24/93	51.33	43.29	8.04	
UCD1- 19	12/3/93	51.33	42.50	8.83	
UCD1- 19	12/10/93	51.33	42.05	9.28	
UCD1- 19	12/17/93	51.33	41.63	9.70	
UCD1- 19	1/7/94	51.33	40.74	10.59	
UCD1- 19	1/14/94	51.33	40.31	11.02	
UCD1- 19	1/25/94	51.33	40.00	11.33	
UCD1- 19	2/1/94	51.33	39.69	11.64	
UCD1- 19	2/14/94	51.33	39.32	12.01	
UCD1- 19	2/20/94	51.33	38.92	12.41	
UCD1- 19	3/2/94	51.33	37.66	13.67	
UCD1- 19	3/4/94	51.33	38.35	12.98	
UCD1- 19	3/10/94	51.33	38.34	12.99	
UCD1- 19	3/16/94	51.33	38.23	13.10	
UCD1- 19	3/24/94	51.33	38.91	12.42	
UCD1- 19	3/29/94	51.33	41.24	10.09	
UCD1- 19	4/6/94	51.33	44.43	6.90	
UCD1- 19	4/13/94	51.33	47.88	3.45	
UCD1- 19	4/22/94	51.33	51.20	0.13	
UCD1- 19	4/26/94	51.33	51.85	-0.52	
UCD1- 19	5/6/94	51.33	52.76	-1.43	
UCD1- 19	5/11/94	51.33	51.76	-0.43	
UCD1- 19	5/18/94	51.33	52.65	-1.32	
UCD1- 19	5/25/94	51.33	52.86	-1.53	
UCD1- 19	6/1/94	51.33	54.28	-2.95	
UCD1- 19	6/23/94	51.33	62.27	-10.94	
UCD1- 19	7/1/94	51.33	64.48	-13.15	
UCD1- 19	7/8/94	51.33	66.14	-14.81	unclear meter response
UCD1- 19	7/14/94	51.33	67.79	-16.46	
UCD1- 19	7/20/94	51.33	69.29	-17.96	
UCD1- 19	7/26/94	51.33	68.92	-17.59	
UCD1- 19	8/5/94	51.33	68.20	-16.87	
UCD1- 19	8/19/94	51.33	70.66	-19.33	
UCD1- 19	9/7/94	51.33	66.85	-15.52	
UCD1- 19	9/7/94	51.33	67.27	-15.94	
UCD1- 19	9/13/94	51.33	67.70	-16.37	
UCD1- 19	9/19/94	51.33	64.53	-13.20	
UCD1- 19	9/26/94	51.33	63.04	-11.71	
UCD1- 19	10/7/94	51.33	60.61	-9.28	
UCD1- 19	10/14/94	51.33	58.58	-7.25	
UCD1- 19	10/21/94	51.33	57.40	-6.07	
UCD1- 19	10/28/94	51.33	56.44	-5.11	
UCD1- 19	11/4/94	51.33	55.80	-4.47	
UCD1- 19	11/18/94	51.33	53.35	-2.02	
UCD1- 19	12/22/94	51.33	50.80	0.53	
UCD1- 19	1/6/95	51.33	49.20	2.13	
UCD1- 19	1/11/95	51.33	46.70	4.63	
UCD1- 19	1/13/95	51.33	45.70	5.63	
UCD1- 19	1/27/95	51.33	42.02	9.31	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 19	2/10/95	51.33	38.83	12.50	
UCD1- 19	2/17/95	51.33	38.34	12.99	
UCD1- 19	3/9/95	51.33	36.57	14.76	
UCD1- 19	3/24/95	51.33	31.93	19.40	
UCD1- 19	4/28/95	51.33	33.35	17.98	
UCD1- 19	5/25/95	51.33	34.20	17.13	
UCD1- 19	6/16/95	51.33	39.42	11.91	
UCD1- 19	7/26/95	51.33	47.45	3.88	
UCD1- 19	8/31/95	51.33	48.81	2.52	
UCD1- 19	9/26/95	51.33	45.71	5.62	
UCD1- 19	10/25/95	51.33	42.65	8.68	
UCD1- 19	11/22/95	51.33	40.54	10.79	
UCD1- 19	11/27/95	51.33	40.34	10.99	
UCD1- 19	12/19/95	51.33	38.11	13.22	
UCD1- 20	1/22/91	49.78	49.11	0.67	
UCD1- 20	2/1/91	49.78	48.81	0.97	
UCD1- 20	2/8/91	49.78	48.48	1.30	
UCD1- 20	2/14/91	49.78	48.16	1.62	
UCD1- 20	2/22/91	49.78	49.30	0.48	
UCD1- 20	3/7/91	49.78	48.34	1.44	
UCD1- 20	3/12/91	49.78	47.95	1.83	
UCD1- 20	3/22/91	49.78	46.30	3.48	
UCD1- 20	3/29/91	49.78	43.71	6.07	
UCD1- 20	4/3/91	49.78	43.64	6.14	
UCD1- 20	4/10/91	49.78	43.30	6.48	
UCD1- 20	4/17/91	49.78	43.61	6.17	
UCD1- 20	4/24/91	49.78	45.83	3.95	
UCD1- 20	5/3/91	49.78	48.70	1.08	
UCD1- 20	5/13/91	49.78	50.50	-0.72	
UCD1- 20	5/20/91	49.78	54.78	-5.00	
UCD1- 20	5/29/91	49.78	55.85	-6.07	
UCD1- 20	6/6/91	49.78	59.22	-9.44	
UCD1- 20	6/10/91	49.78	59.82	-10.04	
UCD1- 20	6/21/91	49.78	61.73	-11.95	
UCD1- 20	6/27/91	49.78	62.91	-13.13	
UCD1- 20	7/5/91	49.78	63.32	-13.54	
UCD1- 20	7/12/91	49.78	62.40	-12.62	
UCD1- 20	7/19/91	49.78	68.73	-18.95	
UCD1- 20	7/26/91	49.78	68.05	-18.27	
UCD1- 20	8/5/91	49.78	67.30	-17.52	
UCD1- 20	8/14/91	49.78	68.90	-19.12	
UCD1- 20	8/21/91	49.78	67.34	-17.56	
UCD1- 20	8/29/91	49.78	64.91	-15.13	
UCD1- 20	9/4/91	49.78	63.19	-13.41	
UCD1- 20	9/13/91	49.78	63.61	-13.83	
UCD1- 20	10/3/91	49.78	59.40	-9.62	
UCD1- 20	10/10/91	49.78	58.13	-8.35	
UCD1- 20	10/25/91	49.78	55.68	-5.90	
UCD1- 20	11/1/91	49.78	53.96	-4.18	
UCD1- 20	11/8/91	49.78	52.75	-2.97	
UCD1- 20	11/14/91	49.78	52.35	-2.57	
UCD1- 20	12/5/91	49.78	51.04	-1.26	
UCD1- 20	12/11/91	49.78	50.72	-0.94	
UCD1- 20	12/19/91	49.78	50.13	-0.35	
UCD1- 20	1/3/92	49.78	49.28	0.50	
UCD1- 20	1/8/92	49.78	47.28	2.50	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 20	1/17/92	49.78	49.17	0.61	
UCD1- 20	1/24/92	49.78	47.61	2.17	
UCD1- 20	1/29/92	49.78	46.94	2.84	
UCD1- 20	2/5/92	49.78	46.22	3.56	
UCD1- 20	3/6/92	49.78	41.65	8.13	
UCD1- 20	3/13/92	49.78	41.20	8.58	
UCD1- 20	3/18/92	49.78	41.05	8.73	
UCD1- 20	3/25/92	49.78	40.94	8.84	
UCD1- 20	4/3/92	49.78	40.62	9.16	
UCD1- 20	4/7/92	49.78	40.72	9.06	
UCD1- 20	4/16/92	49.78	41.41	8.37	
UCD1- 20	4/24/92	49.78	45.56	4.22	
UCD1- 20	5/1/92	49.78	49.15	0.63	
UCD1- 20	5/8/92	49.78	51.50	-1.72	
UCD1- 20	5/26/92	49.78	56.06	-6.28	
UCD1- 20	6/2/92	49.78	59.78	-10.00	
UCD1- 20	6/17/92	49.78	60.00	-10.22	
UCD1- 20	6/24/92	49.78	61.69	-11.91	
UCD1- 20	7/2/92	49.78	64.88	-15.10	
UCD1- 20	7/8/92	49.78	62.68	-12.90	
UCD1- 20	7/15/92	49.78	64.60	-14.82	
UCD1- 20	7/23/92	49.78	65.94	-16.16	
UCD1- 20	7/29/92	49.78	65.75	-15.97	
UCD1- 20	8/12/92	49.78	65.86	-16.08	
UCD1- 20	8/19/92	49.78	63.90	-14.12	
UCD1- 20	8/28/92	49.78	63.80	-14.02	
UCD1- 20	9/4/92	49.78	62.65	-12.87	
UCD1- 20	9/18/92	49.78	61.02	-11.24	
UCD1- 20	10/9/92	49.78	59.59	-9.81	
UCD1- 20	10/16/92	49.78	57.69	-7.91	
UCD1- 20	10/30/92	49.78	55.70	-5.92	
UCD1- 20	11/6/92	49.78	54.81	-5.03	
UCD1- 20	11/17/92	49.78	53.78	-4.00	
UCD1- 20	12/4/92	49.78	52.01	-2.23	
UCD1- 20	12/28/92	49.78	50.21	-0.43	
UCD1- 20	1/20/93	49.78	42.79	6.99	
UCD1- 20	1/29/93	49.78	39.68	10.10	
UCD1- 20	2/5/93	49.78	39.26	10.52	
UCD1- 20	2/12/93	49.78	38.63	11.15	
UCD1- 20	2/26/93	49.78	34.80	14.98	
UCD1- 20	3/5/93	49.78	34.43	15.35	
UCD1- 20	3/12/93	49.78	34.04	15.74	
UCD1- 20	3/19/93	49.78	33.85	15.93	
UCD1- 20	4/7/93	49.78	32.55	17.23	
UCD1- 20	4/16/93	49.78	32.83	16.95	
UCD1- 20	4/23/93	49.78	33.01	16.77	
UCD1- 20	5/7/93	49.78	39.17	10.61	
UCD1- 20	6/24/93	49.78	43.56	6.22	
UCD1- 20	6/30/93	49.78	45.00	4.78	
UCD1- 20	7/8/93	49.78	48.38	1.40	
UCD1- 20	7/15/93	49.78	47.50	2.28	
UCD1- 20	7/21/93	49.78	47.56	2.22	
UCD1- 20	7/30/93	49.78	48.46	1.32	
UCD1- 20	8/6/93	49.78	48.54	1.24	
UCD1- 20	8/11/93	49.78	49.02	0.76	
UCD1- 20	8/20/93	49.78	48.76	1.02	
UCD1- 20	8/27/93	49.78	48.40	1.38	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 20	9/3/93	49.78	47.58	2.20	
UCD1- 20	9/9/93	49.78	47.48	2.30	
UCD1- 20	9/17/93	49.78	47.36	2.42	
UCD1- 20	9/24/93	49.78	48.44	1.34	
UCD1- 20	10/1/93	49.78	45.71	4.07	
UCD1- 20	10/8/93	49.78	45.04	4.74	
UCD1- 20	10/15/93	49.78	44.03	5.75	
UCD1- 20	10/22/93	49.78	43.15	6.63	
UCD1- 20	10/29/93	49.78	42.67	7.11	
UCD1- 20	11/12/93	49.78	42.00	7.78	
UCD1- 20	11/24/93	49.78	41.32	8.46	
UCD1- 20	12/3/93	49.78	40.50	9.28	
UCD1- 20	12/10/93	49.78	40.11	9.67	
UCD1- 20	12/17/93	49.78	39.59	10.19	
UCD1- 20	1/7/94	49.78	38.85	10.93	
UCD1- 20	1/14/94	49.78	38.51	11.27	
UCD1- 20	1/25/94	49.78	37.82	11.96	
UCD1- 20	2/1/94	49.78	37.66	12.12	
UCD1- 20	2/14/94	49.78	36.99	12.79	
UCD1- 20	2/20/94	49.78	36.49	13.29	
UCD1- 20	3/2/94	49.78	35.61	14.17	
UCD1- 20	3/4/94	49.78	36.24	13.54	
UCD1- 20	3/10/94	49.78	36.23	13.55	
UCD1- 20	3/16/94	49.78	36.19	13.59	
UCD1- 20	3/24/94	49.78	36.70	13.08	
UCD1- 20	3/29/94	49.78	38.76	11.02	
UCD1- 20	4/6/94	49.78	41.06	8.72	
UCD1- 20	4/13/94	49.78	45.56	4.22	
UCD1- 20	4/22/94	49.78	48.87	0.91	
UCD1- 20	4/26/94	49.78	49.49	0.29	
UCD1- 20	5/6/94	49.78	50.23	-0.45	
UCD1- 20	5/11/94	49.78	49.53	0.25	
UCD1- 20	5/18/94	49.78	50.36	-0.58	
UCD1- 20	5/25/94	49.78	50.53	-0.75	
UCD1- 20	6/1/94	49.78	51.27	-1.49	
UCD1- 20	6/23/94	49.78	60.08	-10.30	
UCD1- 20	7/1/94	49.78	62.27	-12.49	
UCD1- 20	7/8/94	49.78	64.73	-14.95	unclear meter response
UCD1- 20	7/14/94	49.78	65.57	-15.79	
UCD1- 20	7/20/94	49.78	67.18	-17.40	
UCD1- 20	7/26/94	49.78	66.93	-17.15	
UCD1- 20	8/5/94	49.78	66.08	-16.30	
UCD1- 20	8/19/94	49.78	68.85	-19.07	
UCD1- 20	9/7/94	49.78	64.92	-15.14	missing vent cap
UCD1- 20	9/7/94	49.78	65.28	-15.50	
UCD1- 20	9/13/94	49.78	65.80	-16.02	
UCD1- 20	9/19/94	49.78	62.78	-13.00	
UCD1- 20	9/26/94	49.78	61.26	-11.48	
UCD1- 20	10/7/94	49.78	58.65	-8.87	
UCD1- 20	10/14/94	49.78	56.44	-6.66	
UCD1- 20	10/21/94	49.78	55.45	-5.67	
UCD1- 20	10/28/94	49.78	54.56	-4.78	
UCD1- 20	11/4/94	49.78	53.92	-4.14	
UCD1- 20	11/18/94	49.78	51.45	-1.67	
UCD1- 20	12/22/94	49.78	48.96	0.82	
UCD1- 20	1/6/95	49.78	48.16	1.62	
UCD1- 20	1/11/95	49.78	39.45	10.33	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 20	1/13/95	49.78	41.31	8.47	
UCD1- 20	1/27/95	49.78	38.27	11.51	
UCD1- 20	2/10/95	49.78	36.42	13.36	
UCD1- 20	2/17/95	49.78	36.07	13.71	
UCD1- 20	3/9/95	49.78	33.40	16.38	
UCD1- 20	3/16/95	49.78	30.90	18.88	
UCD1- 20	3/24/95	49.78	27.99	21.79	
UCD1- 20	4/28/95	49.78	31.17	18.61	
UCD1- 20	5/25/95	49.78	31.91	17.87	
UCD1- 20	6/16/95	49.78	37.04	12.74	
UCD1- 20	7/26/95	49.78	45.15	4.63	
UCD1- 20	8/31/95	49.78	46.67	3.11	Cap is missing
UCD1- 20	9/26/95	49.78	43.76	6.02	caps missing
UCD1- 20	10/25/95	49.78	40.71	9.07	
UCD1- 20	11/22/95	49.78	38.77	11.01	
UCD1- 20	11/27/95	49.78	38.55	11.23	
UCD1- 20	12/19/95	49.78	36.22	13.56	
UCD1- 21	1/22/91	48.73	48.16	0.57	
UCD1- 21	2/1/91	48.73	47.79	0.94	
UCD1- 21	2/8/91	48.73	47.56	1.17	
UCD1- 21	2/14/91	48.73	47.12	1.61	
UCD1- 21	2/22/91	48.73	48.13	0.60	
UCD1- 21	3/7/91	48.73	47.79	0.94	
UCD1- 21	3/12/91	48.73	47.10	1.63	
UCD1- 21	3/22/91	48.73	43.46	5.27	
UCD1- 21	3/29/91	48.73	43.33	5.40	
UCD1- 21	4/3/91	48.73	42.93	5.80	
UCD1- 21	4/10/91	48.73	42.36	6.37	
UCD1- 21	4/17/91	48.73	42.52	6.21	
UCD1- 21	4/24/91	48.73	44.77	3.96	
UCD1- 21	5/3/91	48.73	47.44	1.29	
UCD1- 21	5/13/91	48.73	49.25	-0.52	
UCD1- 21	5/20/91	48.73	53.30	-4.57	
UCD1- 21	5/29/91	48.73	54.44	-5.71	
UCD1- 21	6/6/91	48.73	57.97	-9.24	
UCD1- 21	6/10/91	48.73	58.55	-9.82	
UCD1- 21	6/21/91	48.73	60.00	-11.27	
UCD1- 21	6/27/91	48.73	61.56	-12.83	
UCD1- 21	7/5/91	48.73	61.67	-12.94	
UCD1- 21	7/12/91	48.73	64.71	-15.98	
UCD1- 21	7/19/91	48.73	66.21	-17.48	
UCD1- 21	7/26/91	48.73	66.59	-17.86	
UCD1- 21	8/5/91	48.73	66.00	-17.27	
UCD1- 21	8/14/91	48.73	67.43	-18.70	
UCD1- 21	8/21/91	48.73	65.92	-17.19	
UCD1- 21	8/29/91	48.73	64.10	-15.37	
UCD1- 21	9/4/91	48.73	62.23	-13.50	
UCD1- 21	9/13/91	48.73	62.35	-13.62	
UCD1- 21	10/3/91	48.73	58.13	-9.40	
UCD1- 21	10/10/91	48.73	58.99	-10.26	
UCD1- 21	10/25/91	48.73	54.51	-5.78	
UCD1- 21	11/1/91	48.73	52.71	-3.98	
UCD1- 21	11/8/91	48.73	51.63	-2.90	
UCD1- 21	11/14/91	48.73	51.23	-2.50	
UCD1- 21	12/5/91	48.73	50.12	-1.39	
UCD1- 21	12/11/91	48.73	50.34	-1.61	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 21	1/17/92	48.73	47.25	1.48	
UCD1- 21	1/24/92	48.73	46.62	2.11	
UCD1- 21	1/29/92	48.73	45.85	2.88	
UCD1- 21	2/5/92	48.73	45.20	3.53	
UCD1- 21	3/6/92	48.73	41.21	7.52	
UCD1- 21	3/13/92	48.73	40.40	8.33	
UCD1- 21	3/18/92	48.73	40.15	8.58	
UCD1- 21	3/25/92	48.73	39.94	8.79	
UCD1- 21	4/3/92	48.73	39.60	9.13	
UCD1- 21	4/7/92	48.73	39.69	9.04	
UCD1- 21	4/16/92	48.73	40.35	8.38	
UCD1- 21	4/24/92	48.73	44.41	4.32	
UCD1- 21	5/1/92	48.73	47.99	0.74	
UCD1- 21	5/8/92	48.73	49.73	-1.00	
UCD1- 21	6/24/92	48.73	59.75	-11.02	
UCD1- 21	7/2/92	48.73	63.12	-14.39	
UCD1- 21	7/8/92	48.73	61.29	-12.56	
UCD1- 21	7/15/92	48.73	62.96	-14.23	
UCD1- 21	7/23/92	48.73	64.55	-15.82	
UCD1- 21	7/29/92	48.73	59.57	-10.84	
UCD1- 21	8/12/92	48.73	64.55	-15.82	
UCD1- 21	8/19/92	48.73	62.82	-14.09	
UCD1- 21	8/28/92	48.73	62.61	-13.88	
UCD1- 21	9/4/92	48.73	61.52	-12.79	
UCD1- 21	9/18/92	48.73	60.01	-11.28	
UCD1- 21	10/9/92	48.73	57.44	-8.71	
UCD1- 21	10/16/92	48.73	56.67	-7.94	
UCD1- 21	10/30/92	48.73	54.64	-5.91	
UCD1- 21	11/6/92	48.73	53.69	-4.96	
UCD1- 21	11/17/92	48.73	52.62	-3.89	
UCD1- 21	12/4/92	48.73	51.17	-2.44	
UCD1- 21	12/28/92	48.73	49.77	-1.04	
UCD1- 21	2/5/93	48.73	38.52	10.21	
UCD1- 21	2/12/93	48.73	37.83	10.90	
UCD1- 21	2/26/93	48.73	34.29	14.44	
UCD1- 21	3/5/93	48.73	33.68	15.05	
UCD1- 21	3/12/93	48.73	33.26	15.47	
UCD1- 21	3/19/93	48.73	32.96	15.77	
UCD1- 21	4/7/93	48.73	31.70	17.03	
UCD1- 21	4/16/93	48.73	31.88	16.85	
UCD1- 21	4/23/93	48.73	32.08	16.65	
UCD1- 21	5/7/93	48.73	38.29	10.44	
UCD1- 21	6/24/93	48.73	41.46	7.27	
UCD1- 21	6/30/93	48.73	42.81	5.92	
UCD1- 21	7/8/93	48.73	47.19	1.54	
UCD1- 21	7/15/93	48.73	48.33	0.40	
UCD1- 21	7/21/93	48.73	48.25	0.48	
UCD1- 21	7/30/93	48.73	47.27	1.46	
UCD1- 21	8/6/93	48.73	47.70	1.03	
UCD1- 21	8/11/93	48.73	47.77	0.96	
UCD1- 21	8/20/93	48.73	48.00	0.73	
UCD1- 21	8/27/93	48.73	47.20	1.53	
UCD1- 21	9/3/93	48.73	46.44	2.29	
UCD1- 21	9/9/93	48.73	48.29	0.44	
UCD1- 21	9/17/93	48.73	46.19	2.54	
UCD1- 21	9/24/93	48.73	45.23	3.50	
UCD1- 21	10/1/93	48.73	44.55	4.18	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 21	10/8/93	48.73	43.92	4.81	
UCD1- 21	10/15/93	48.73	42.94	5.79	
UCD1- 21	10/22/93	48.73	42.06	6.67	
UCD1- 21	10/29/93	48.73	41.55	7.18	
UCD1- 21	11/12/93	48.73	40.89	7.84	
UCD1- 21	11/24/93	48.73	40.20	8.53	
UCD1- 21	12/3/93	48.73	39.46	9.27	
UCD1- 21	12/10/93	48.73	38.96	9.77	
UCD1- 21	12/17/93	48.73	38.55	10.18	
UCD1- 21	1/7/94	48.73	37.72	11.01	
UCD1- 21	1/14/94	48.73	37.35	11.38	
UCD1- 21	1/25/94	48.73	38.96	9.77	
UCD1- 21	2/1/94	48.73	36.63	12.10	
UCD1- 21	2/14/94	48.73	36.02	12.71	
UCD1- 21	2/20/94	48.73	35.80	12.93	
UCD1- 21	3/2/94	48.73	34.67	14.06	
UCD1- 21	3/4/94	48.73	35.27	13.46	
UCD1- 21	3/10/94	48.73	35.19	13.54	
UCD1- 21	3/16/94	48.73	35.17	13.56	
UCD1- 21	3/24/94	48.73	35.71	13.02	
UCD1- 21	3/29/94	48.73	37.78	10.95	
UCD1- 21	4/6/94	48.73	41.06	7.67	
UCD1- 21	4/13/94	48.73	44.32	4.41	
UCD1- 21	4/22/94	48.73	47.61	1.12	
UCD1- 21	4/26/94	48.73	48.24	0.49	
UCD1- 21	5/6/94	48.73	48.91	-0.18	
UCD1- 21	5/11/94	48.73	48.23	0.50	
UCD1- 21	5/18/94	48.73	49.13	-0.40	
UCD1- 21	5/25/94	48.73	49.27	-0.54	
UCD1- 21	6/1/94	48.73	49.84	-1.11	
UCD1- 21	6/23/94	48.73	58.69	-9.96	
UCD1- 21	7/1/94	48.73	60.77	-12.04	unclear meter response
UCD1- 21	7/8/94	48.73	63.20	-14.47	unclear meter response
UCD1- 21	7/14/94	48.73	64.06	-15.33	
UCD1- 21	7/20/94	48.73	65.67	-16.94	
UCD1- 21	7/26/94	48.73	65.40	-16.67	
UCD1- 21	8/5/94	48.73	64.63	-15.90	
UCD1- 21	8/19/94	48.73	67.43	-18.70	
UCD1- 21	9/7/94	48.73	63.81	-15.08	
UCD1- 21	9/7/94	48.73	64.04	-15.31	
UCD1- 21	9/13/94	48.73	64.55	-15.82	
UCD1- 21	9/19/94	48.73	61.86	-13.13	
UCD1- 21	9/26/94	48.73	60.25	-11.52	
UCD1- 21	10/7/94	48.73	57.45	-8.72	
UCD1- 21	10/14/94	48.73	55.31	-6.58	
UCD1- 21	10/21/94	48.73	54.29	-5.56	
UCD1- 21	10/28/94	48.73	53.37	-4.64	
UCD1- 21	11/4/94	48.73	52.75	-4.02	
UCD1- 21	11/18/94	48.73	50.51	-1.78	
UCD1- 21	12/22/94	48.73	48.37	0.36	
UCD1- 21	1/6/95	48.73	46.01	2.72	
UCD1- 21	1/11/95	48.73	41.67	7.06	
UCD1- 21	1/13/95	48.73	41.72	7.01	
UCD1- 21	1/27/95	48.73	38.31	10.42	
UCD1- 21	2/10/95	48.73	35.66	13.07	
UCD1- 21	2/17/95	48.73	35.16	13.57	
UCD1- 21	3/9/95	48.73	33.42	15.31	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 21	3/24/95	48.73	27.86	20.87	
UCD1- 21	4/28/95	48.73	30.30	18.43	
UCD1- 21	5/25/95	48.73	30.94	17.79	
UCD1- 21	6/16/95	48.73	36.91	11.82	
UCD1- 21	7/26/95	48.73	43.87	4.86	
UCD1- 21	8/31/95	48.73	45.33	3.40	
UCD1- 21	9/26/95	48.73	42.56	6.17	
UCD1- 21	10/25/95	48.73	39.51	9.22	
UCD1- 21	11/22/95	48.77 *	37.57	11.20	Regrouted - new elevation
UCD1- 21	11/27/95	48.77 *	38.36	10.41	
UCD1- 21	12/19/95	48.77 *	35.19	13.58	
UCD1- 22	1/22/91	48.99	48.04	0.95	
UCD1- 22	2/1/91	48.99	47.85	1.14	
UCD1- 22	2/8/91	48.99	47.64	1.35	
UCD1- 22	2/14/91	48.99	47.21	1.78	
UCD1- 22	2/22/91	48.99	48.36	0.63	
UCD1- 22	3/7/91	48.99	47.59	1.40	
UCD1- 22	3/12/91	48.99	46.96	2.03	
UCD1- 22	3/22/91	48.99	43.44	5.55	
UCD1- 22	3/29/91	48.99	43.54	5.45	
UCD1- 22	4/3/91	48.99	43.14	5.85	
UCD1- 22	4/10/91	48.99	42.63	6.36	
UCD1- 22	4/17/91	48.99	42.85	6.14	
UCD1- 22	4/24/91	48.99	45.28	3.71	
UCD1- 22	5/3/91	48.99	47.61	1.38	
UCD1- 22	5/13/91	48.99	49.73	-0.74	
UCD1- 22	5/20/91	48.99	53.47	-4.48	
UCD1- 22	5/29/91	48.99	54.52	-5.53	
UCD1- 22	6/6/91	48.99	59.88	-10.89	
UCD1- 22	6/10/91	48.99	58.53	-9.54	
UCD1- 22	6/21/91	48.99	60.88	-11.89	
UCD1- 22	6/27/91	48.99	61.85	-12.86	
UCD1- 22	7/5/91	48.99	62.36	-13.37	
UCD1- 22	8/5/91	48.99	66.99	-18.00	
UCD1- 22	8/14/91	48.99	67.73	-18.74	
UCD1- 22	8/21/91	48.99	65.73	-16.74	
UCD1- 22	8/29/91	48.99	63.79	-14.80	
UCD1- 22	9/4/91	48.99	62.13	-13.14	
UCD1- 22	9/13/91	48.99	62.59	-13.60	
UCD1- 22	10/3/91	48.99	58.11	-9.12	
UCD1- 22	10/10/91	48.99	58.17	-9.18	
UCD1- 22	10/25/91	48.99	56.83	-7.84	
UCD1- 22	11/1/91	48.99	53.00	-4.01	
UCD1- 22	11/8/91	48.99	54.86	-5.87	
UCD1- 22	11/14/91	48.99	55.83	-6.84	
UCD1- 22	12/5/91	48.99	54.70	-5.71	
UCD1- 22	12/11/91	48.99	55.67	-6.68	
UCD1- 22	4/24/92	48.99	45.01	3.98	
UCD1- 22	5/1/92	48.99	48.08	0.91	
UCD1- 22	5/8/92	48.99	50.54	-1.55	
UCD1- 22	5/26/92	48.99	54.72	-5.73	
UCD1- 22	6/2/92	48.99	58.61	-9.62	
UCD1- 22	6/17/92	48.99	59.00	-10.01	
UCD1- 22	6/24/92	48.99	60.60	-11.61	
UCD1- 22	7/2/92	48.99	64.85	-15.86	
UCD1- 22	7/8/92	48.99	61.32	-12.33	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 22	7/15/92	48.99	63.91	-14.92	
UCD1- 22	7/23/92	48.99	64.97	-15.98	
UCD1- 22	7/29/92	48.99	65.94	-16.95	
UCD1- 22	8/12/92	48.99	64.47	-15.48	
UCD1- 22	8/19/92	48.99	63.04	-14.05	
UCD1- 22	8/28/92	48.99	62.66	-13.67	
UCD1- 22	9/4/92	48.99	61.55	-12.56	
UCD1- 22	9/18/92	48.99	59.98	-10.99	
UCD1- 22	10/9/92	48.99	58.64	-9.65	
UCD1- 22	10/16/92	48.99	56.66	-7.67	
UCD1- 22	10/30/92	48.99	54.53	-5.54	
UCD1- 22	6/25/93	48.99	48.27	0.72	
UCD1- 22	6/30/93	48.99	48.98	0.01	
UCD1- 22	7/8/93	48.99	45.40	3.59	
UCD1- 22	7/15/93	48.99	45.33	3.66	
UCD1- 22	7/21/93	48.99	48.56	0.43	
UCD1- 22	7/30/93	48.99	49.38	-0.39	
UCD1- 22	8/6/93	48.99	47.86	1.13	
UCD1- 22	8/11/93	48.99	49.94	-0.95	
UCD1- 22	8/20/93	48.99	49.83	-0.84	
UCD1- 22	8/27/93	48.99	47.15	1.84	
UCD1- 22	9/3/93	48.99	46.61	2.38	
UCD1- 22	9/9/93	48.99	48.39	0.60	
UCD1- 22	9/17/93	48.99	46.19	2.80	
UCD1- 22	9/24/93	48.99	45.23	3.76	
UCD1- 22	10/1/93	48.99	44.52	4.47	
UCD1- 22	10/8/93	48.99	43.85	5.14	
UCD1- 22	10/15/93	48.99	42.86	6.13	
UCD1- 22	10/22/93	48.99	42.00	6.99	
UCD1- 22	10/29/93	48.99	41.62	7.37	
UCD1- 22	11/12/93	48.99	40.94	8.05	
UCD1- 22	11/24/93	48.99	40.26	8.73	
UCD1- 22	12/3/93	48.99	39.69	9.30	
UCD1- 22	12/10/93	48.99	39.08	9.91	
UCD1- 22	12/17/93	48.99	38.64	10.35	
UCD1- 22	1/7/94	48.99	37.83	11.16	
UCD1- 22	1/14/94	48.99	37.48	11.51	
UCD1- 22	1/25/94	48.99	36.92	12.07	
UCD1- 22	2/1/94	48.99	36.76	12.23	
UCD1- 22	2/14/94	48.99	36.09	12.90	
UCD1- 22	2/20/94	48.99	35.87	13.12	
UCD1- 22	3/2/94	48.99	34.87	14.12	
UCD1- 22	3/4/94	48.99	35.94	13.05	
UCD1- 22	3/10/94	48.99	35.44	13.55	
UCD1- 22	3/16/94	48.99	35.35	13.64	
UCD1- 22	3/24/94	48.99	35.92	13.07	
UCD1- 22	3/29/94	48.99	37.95	11.04	
UCD1- 22	4/6/94	48.99	41.33	7.66	
UCD1- 22	4/13/94	48.99	44.73	4.26	
UCD1- 22	4/22/94	48.99	47.73	1.26	
UCD1- 22	4/26/94	48.99	48.21	0.78	
UCD1- 22	5/6/94	48.99	49.06	-0.07	
UCD1- 22	5/11/94	48.99	48.29	0.70	
UCD1- 22	5/18/94	48.99	49.26	-0.27	
UCD1- 22	5/25/94	48.99	49.40	-0.41	
UCD1- 22	6/1/94	48.99	50.28	-1.29	
UCD1- 22	6/23/94	48.99	59.23	-10.24	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 22	7/1/94	48.99	61.51	-12.52	
UCD1- 22	7/8/94	48.99	63.55	-14.56	
UCD1- 22	7/14/94	48.99	64.55	-15.56	
UCD1- 22	7/20/94	48.99	66.46	-17.47	
UCD1- 22	7/26/94	48.99	65.86	-16.87	
UCD1- 22	8/5/94	48.99	65.00	-16.01	
UCD1- 22	8/19/94	48.99	67.78	-18.79	
UCD1- 22	9/7/94	48.99	63.70	-14.71	
UCD1- 22	9/7/94	48.99	64.10	-15.11	
UCD1- 22	9/13/94	48.99	64.47	-15.48	
UCD1- 22	9/19/94	48.99	61.49	-12.50	
UCD1- 22	9/26/94	48.99	59.88	-10.89	
UCD1- 22	10/7/94	48.99	57.17	-8.18	
UCD1- 22	10/14/94	48.99	55.60	-6.61	
UCD1- 22	10/21/94	48.99	54.41	-5.42	
UCD1- 22	10/28/94	48.99	53.56	-4.57	
UCD1- 22	11/4/94	48.99	52.96	-3.97	
UCD1- 22	12/22/94	48.99	48.21	0.78	
UCD1- 22	1/6/95	48.99	48.50	0.49	
UCD1- 22	1/11/95	48.99	43.50	5.49	
UCD1- 22	1/13/95	48.99	42.89	6.10	
UCD1- 22	1/27/95	48.99	40.52	8.47	
UCD1- 22	2/10/95	48.99	36.09	12.90	
UCD1- 22	2/17/95	48.99	35.47	13.52	
UCD1- 22	3/9/95	48.99	35.61	13.38	
UCD1- 22	3/24/95	48.99	28.58	20.41	
UCD1- 22	4/28/95	48.99	30.78	18.21	
UCD1- 22	5/25/95	48.99	31.17	17.82	
UCD1- 22	6/16/95	48.99	35.75	13.24	
UCD1- 22	7/26/95	48.99	43.82	5.17	
UCD1- 22	8/31/95	48.99	45.20	3.79	
UCD1- 22	9/26/95	48.99	42.46	6.53	
UCD1- 22	10/25/95	48.99	39.49	9.50	
UCD1- 22	11/22/95	49.06 *	37.64	11.42	Regrouted - new elevation
UCD1- 22	11/27/95	49.06 *	37.28	11.78	
UCD1- 22	12/19/95	49.06 *	35.13	13.93	
UCD1- 23	1/22/91	49.29	49.19	0.10	
UCD1- 23	2/1/91	49.29	48.59	0.70	
UCD1- 23	2/8/91	49.29	48.38	0.91	
UCD1- 23	2/14/91	49.29	47.94	1.35	
UCD1- 23	2/22/91	49.29	48.24	1.05	
UCD1- 23	3/7/91	49.29	48.08	1.21	
UCD1- 23	3/12/91	49.29	47.56	1.73	
UCD1- 23	3/29/91	49.29	44.31	4.98	
UCD1- 23	4/3/91	49.29	42.39	6.90	
UCD1- 23	4/10/91	49.29	41.74	7.55	
UCD1- 23	4/17/91	49.29	41.98	7.31	
UCD1- 23	4/24/91	49.29	43.76	5.53	
UCD1- 23	5/3/91	49.29	46.10	3.19	
UCD1- 23	5/13/91	49.29	47.64	1.65	
UCD1- 23	5/29/91	49.29	50.96	-1.67	
UCD1- 23	6/6/91	49.29	53.31	-4.02	
UCD1- 23	6/10/91	49.29	54.71	-5.42	
UCD1- 23	6/21/91	49.29	60.10	-10.81	
UCD1- 23	6/27/91	49.29	61.66	-12.37	
UCD1- 23	7/5/91	49.29	62.00	-12.71	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 23	7/12/91	49.29	65.10	-15.81	
UCD1- 23	7/19/91	49.29	66.48	-17.19	
UCD1- 23	7/26/91	49.29	67.00	-17.71	
UCD1- 23	8/5/91	49.29	67.04	-17.75	
UCD1- 23	8/14/91	49.29	67.96	-18.67	
UCD1- 23	8/21/91	49.29	67.64	-18.35	
UCD1- 23	8/29/91	49.29	64.10	-14.81	
UCD1- 23	9/4/91	49.29	62.33	-13.04	
UCD1- 23	9/13/91	49.29	62.71	-13.42	
UCD1- 23	10/3/91	49.29	58.38	-9.09	
UCD1- 23	10/10/91	49.29	57.46	-8.17	
UCD1- 23	10/25/91	49.29	57.19	-7.90	
UCD1- 23	11/1/91	49.29	53.77	-4.48	
UCD1- 23	11/8/91	49.29	52.88	-3.59	
UCD1- 23	11/14/91	49.29	52.63	-3.34	
UCD1- 23	12/5/91	49.29	51.00	-1.71	
UCD1- 23	12/11/91	49.29	51.23	-1.94	
UCD1- 23	1/8/92	49.29	50.02	-0.73	
UCD1- 23	1/17/92	49.29	48.30	0.99	
UCD1- 23	1/24/92	49.29	47.71	1.58	
UCD1- 23	1/29/92	49.29	47.10	2.19	
UCD1- 23	2/5/92	49.29	46.30	2.99	
UCD1- 23	3/6/92	49.29	40.85	8.44	
UCD1- 23	3/13/92	49.29	40.05	9.24	
UCD1- 23	3/18/92	49.29	39.93	9.36	
UCD1- 23	3/25/92	49.29	39.78	9.51	
UCD1- 23	4/3/92	49.29	39.38	9.91	
UCD1- 23	4/7/92	49.29	39.30	9.99	
UCD1- 23	4/16/92	49.29	39.00	10.29	
UCD1- 23	4/24/92	49.29	43.60	5.69	
UCD1- 23	5/1/92	49.29	48.19	1.10	
UCD1- 23	5/8/92	49.29	47.99	1.30	
UCD1- 23	5/26/92	49.29	51.20	-1.91	
UCD1- 23	6/2/92	49.29	53.53	-4.24	
UCD1- 23	6/17/92	49.29	58.51	-9.22	
UCD1- 23	7/2/92	49.29	63.51	-14.22	
UCD1- 23	7/8/92	49.29	61.52	-12.23	
UCD1- 23	7/15/92	49.29	63.70	-14.41	
UCD1- 23	7/23/92	49.29	64.74	-15.45	
UCD1- 23	8/19/92	49.29	63.38	-14.09	
UCD1- 23	8/28/92	49.29	62.99	-13.70	
UCD1- 23	9/4/92	49.29	61.88	-12.59	
UCD1- 23	9/18/92	49.29	60.43	-11.14	
UCD1- 23	10/9/92	49.29	57.80	-8.51	
UCD1- 23	10/16/92	49.29	57.08	-7.79	
UCD1- 23	10/30/92	49.29	55.10	-5.81	
UCD1- 23	11/6/92	49.29	54.57	-5.28	
UCD1- 23	11/17/92	49.29	53.46	-4.17	
UCD1- 23	12/4/92	49.29	51.93	-2.64	
UCD1- 23	12/28/92	49.29	50.01	-0.72	
UCD1- 23	1/20/93	49.29	43.63	5.66	
UCD1- 23	1/29/93	49.29	37.86	11.43	
UCD1- 23	2/5/93	49.29	37.89	11.40	
UCD1- 23	2/12/93	49.29	37.21	12.08	
UCD1- 23	2/26/93	49.29	33.38	15.91	
UCD1- 23	3/5/93	49.29	32.95	16.34	
UCD1- 23	3/12/93	49.29	32.78	16.51	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 23	3/19/93	49.29	32.61	16.68	
UCD1- 23	4/7/93	49.29	31.47	17.82	
UCD1- 23	4/16/93	49.29	31.27	18.02	
UCD1- 23	4/23/93	49.29	31.47	17.82	
UCD1- 23	5/7/93	49.29	37.15	12.14	
UCD1- 23	6/24/93	49.29	41.38	7.91	
UCD1- 23	6/30/93	49.29	45.38	3.91	
UCD1- 23	7/8/93	49.29	44.44	4.85	
UCD1- 23	7/15/93	49.29	45.44	3.85	
UCD1- 23	7/21/93	49.29	47.58	1.71	
UCD1- 23	7/30/93	49.29	46.33	2.96	
UCD1- 23	8/6/93	49.29	49.86	-0.57	
UCD1- 23	8/11/93	49.29	47.02	2.27	
UCD1- 23	8/20/93	49.29	46.93	2.36	
UCD1- 23	8/27/93	49.29	46.83	2.46	
UCD1- 23	9/3/93	49.29	46.42	2.87	
UCD1- 23	9/9/93	49.29	48.10	1.19	
UCD1- 23	9/17/93	49.29	46.06	3.23	
UCD1- 23	9/24/93	49.29	45.42	3.87	
UCD1- 23	10/1/93	49.29	44.80	4.49	
UCD1- 23	10/8/93	49.29	44.08	5.21	
UCD1- 23	10/15/93	49.29	43.00	6.29	
UCD1- 23	10/22/93	49.29	42.00	7.29	
UCD1- 23	10/29/93	49.29	41.45	7.84	
UCD1- 23	11/12/93	49.29	40.43	8.86	
UCD1- 23	11/24/93	49.29	40.24	9.05	
UCD1- 23	12/3/93	49.29	39.46	9.83	
UCD1- 23	12/10/93	49.29	39.01	10.28	
UCD1- 23	12/17/93	49.29	38.58	10.71	
UCD1- 23	1/7/94	49.29	37.76	11.53	
UCD1- 23	1/14/94	49.29	37.35	11.94	
UCD1- 23	1/25/94	49.29	36.90	12.39	
UCD1- 23	2/1/94	49.29	36.64	12.65	
UCD1- 23	2/14/94	49.29	35.97	13.32	
UCD1- 23	2/20/94	49.29	35.83	13.46	
UCD1- 23	3/2/94	49.29	34.65	14.64	purged 3/2/94
UCD1- 23	3/4/94	49.29	35.23	14.06	
UCD1- 23	3/10/94	49.29	35.29	14.00	
UCD1- 23	3/16/94	49.29	35.17	14.12	
UCD1- 23	3/24/94	49.29	35.68	13.61	
UCD1- 23	3/29/94	49.29	37.76	11.53	
UCD1- 23	4/6/94	49.29	40.04	9.25	
UCD1- 23	4/13/94	49.29	43.77	5.52	
UCD1- 23	4/22/94	49.29	46.07	3.22	
UCD1- 23	4/26/94	49.29	47.19	2.10	
UCD1- 23	5/6/94	49.29	48.01	1.28	
UCD1- 23	5/11/94	49.29	47.79	1.50	
UCD1- 23	5/18/94	49.29	48.38	0.91	
UCD1- 23	5/25/94	49.29	48.69	0.60	
UCD1- 23	6/1/94	49.29	49.13	0.16	
UCD1- 23	6/23/94	49.29	54.84	-5.55	
UCD1- 23	7/1/94	49.29	60.39	-11.10	unclear meter response
UCD1- 23	7/8/94	49.29	63.07	-13.78	unclear meter response
UCD1- 23	7/14/94	49.29	64.21	-14.92	
UCD1- 23	7/20/94	49.29	66.11	-16.82	
UCD1- 23	7/26/94	49.29	65.78	-16.49	
UCD1- 23	8/5/94	49.29	65.20	-15.91	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 23	8/19/94	49.29	67.70	-18.41	
UCD1- 23	9/7/94	49.29	64.07	-14.78	
UCD1- 23	9/7/94	49.29	64.38	-15.09	
UCD1- 23	9/13/94	49.29	65.07	-15.78	
UCD1- 23	9/19/94	49.29	61.98	-12.69	
UCD1- 23	9/26/94	49.29	60.47	-11.18	
UCD1- 23	10/7/94	49.29	57.96	-8.67	
UCD1- 23	10/14/94	49.29	56.29	-7.00	
UCD1- 23	10/21/94	49.29	55.02	-5.73	
UCD1- 23	10/28/94	49.29	54.21	-4.92	
UCD1- 23	11/4/94	49.29	53.66	-4.37	
UCD1- 23	11/18/94	49.29	52.02	-2.73	
UCD1- 23	12/22/94	49.29	49.56	-0.27	
UCD1- 23	1/6/95	49.29	48.14	1.15	
UCD1- 23	1/11/95	49.29	46.65	2.64	
UCD1- 23	1/13/95	49.29	45.03	4.26	
UCD1- 23	1/27/95	49.29	37.23	12.06	
UCD1- 23	2/10/95	49.29	34.57	14.72	
UCD1- 23	2/17/95	49.29	34.13	15.16	
UCD1- 23	3/9/95	49.29	32.92	16.37	
UCD1- 23	3/24/95	49.29	27.60	21.69	
UCD1- 23	4/28/95	49.29	30.07	19.22	
UCD1- 23	5/25/95	49.29	30.57	18.72	
UCD1- 23	6/16/95	49.29	35.44	13.85	
UCD1- 23	7/26/95	49.29	43.41	5.88	Cap Loose in well. Replaced.
UCD1- 23	8/31/95	49.29	45.24	4.05	
UCD1- 23	9/26/95	49.29	42.52	6.77	
UCD1- 23	10/25/95	49.29	39.58	9.71	
UCD1- 23	11/22/95	49.39 *	37.71	11.68	Regrouted - new elevation
UCD1- 23	11/27/95	49.39 *	37.46	11.93	
UCD1- 23	12/19/95	49.39 *	34.71	14.68	
UCD1- 24	1/22/91	48.84	47.78	1.06	
UCD1- 24	2/1/91	48.84	47.13	1.71	
UCD1- 24	2/8/91	48.84	47.69	1.15	
UCD1- 24	2/14/91	48.84	47.39	1.45	
UCD1- 24	2/22/91	48.84	48.96	-0.12	
UCD1- 24	3/7/91	48.84	47.79	1.05	
UCD1- 24	3/12/91	48.84	46.96	1.88	
UCD1- 24	4/3/91	48.84	42.88	5.96	
UCD1- 24	4/10/91	48.84	42.34	6.50	
UCD1- 24	4/17/91	48.84	42.79	6.05	
UCD1- 24	4/24/91	48.84	45.44	3.40	
UCD1- 24	5/3/91	48.84	47.64	1.20	
UCD1- 24	5/13/91	48.84	51.27	-2.43	
UCD1- 24	5/20/91	48.84	54.53	-5.69	
UCD1- 24	5/29/91	48.84	55.38	-6.54	
UCD1- 24	6/6/91	48.84	58.76	-9.92	
UCD1- 24	6/10/91	48.84	59.21	-10.37	
UCD1- 24	6/21/91	48.84	61.10	-12.26	
UCD1- 24	6/27/91	48.84	62.01	-13.17	
UCD1- 24	7/5/91	48.84	62.78	-13.94	
UCD1- 24	7/12/91	48.84	65.10	-16.26	
UCD1- 24	7/19/91	48.84	67.56	-18.72	
UCD1- 24	7/26/91	48.84	67.35	-18.51	
UCD1- 24	8/5/91	48.84	67.60	-18.76	
UCD1- 24	8/14/91	48.84	68.46	-19.62	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 24	8/21/91	48.84	66.21	-17.37	
UCD1- 24	8/29/91	48.84	65.88	-17.04	
UCD1- 24	9/4/91	48.84	62.38	-13.54	
UCD1- 24	9/13/91	48.84	63.00	-14.16	
UCD1- 24	10/3/91	48.84	58.11	-9.27	
UCD1- 24	10/10/91	48.84	56.92	-8.08	
UCD1- 24	10/25/91	48.84	55.84	-7.00	
UCD1- 24	11/1/91	48.84	52.88	-4.04	
UCD1- 24	11/8/91	48.84	51.81	-2.97	
UCD1- 24	11/14/91	48.84	51.42	-2.58	
UCD1- 24	12/5/91	48.84	49.95	-1.11	
UCD1- 24	12/11/91	48.84	50.19	-1.35	
UCD1- 24	1/17/92	48.84	47.04	1.80	
UCD1- 24	1/24/92	48.84	46.47	2.37	
UCD1- 24	1/29/92	48.84	45.86	2.98	
UCD1- 24	2/5/92	48.84	45.17	3.67	
UCD1- 24	3/6/92	48.84	41.26	7.58	
UCD1- 24	3/13/92	48.84	40.40	8.44	
UCD1- 24	3/18/92	48.84	40.35	8.49	
UCD1- 24	3/25/92	48.84	40.06	8.78	
UCD1- 24	4/3/92	48.84	39.78	9.06	
UCD1- 24	4/7/92	48.84	39.79	9.05	
UCD1- 24	4/16/92	48.84	40.81	8.03	
UCD1- 24	4/24/92	48.84	45.33	3.51	
UCD1- 24	5/1/92	48.84	48.99	-0.15	
UCD1- 24	5/8/92	48.84	52.44	-3.60	
UCD1- 24	5/26/92	48.84	52.46	-3.62	
UCD1- 24	6/2/92	48.84	59.40	-10.56	
UCD1- 24	6/17/92	48.84	59.48	-10.64	
UCD1- 24	6/24/92	48.84	60.88	-12.04	
UCD1- 24	7/2/92	48.84	64.76	-15.92	
UCD1- 24	7/8/92	48.84	61.76	-12.92	
UCD1- 24	7/15/92	48.84	64.53	-15.69	
UCD1- 24	7/23/92	48.84	65.91	-17.07	
UCD1- 24	7/29/92	48.84	66.55	-17.71	
UCD1- 24	8/12/92	48.84	64.15	-15.31	
UCD1- 24	8/28/92	48.84	63.03	-14.19	
UCD1- 24	9/4/92	48.84	60.47	-11.63	
UCD1- 24	9/18/92	48.84	60.59	-11.75	
UCD1- 24	10/9/92	48.84	58.02	-9.18	
UCD1- 24	10/16/92	48.84	56.90	-8.06	
UCD1- 24	10/30/92	48.84	54.67	-5.83	
UCD1- 24	11/6/92	48.84	53.76	-4.92	
UCD1- 24	12/4/92	48.84	51.19	-2.35	
UCD1- 24	2/5/93	48.84	38.28	10.56	
UCD1- 24	2/12/93	48.84	38.10	10.74	
UCD1- 24	2/26/93	48.84	34.89	13.95	
UCD1- 24	3/5/93	48.84	33.91	14.93	
UCD1- 24	3/12/93	48.84	33.30	15.54	
UCD1- 24	3/19/93	48.84	33.05	15.79	
UCD1- 24	4/7/93	48.84	31.75	17.09	
UCD1- 24	4/16/93	48.84	31.29	17.55	
UCD1- 24	4/23/93	48.84	31.54	17.30	
UCD1- 24	5/7/93	48.84	37.85	10.99	
UCD1- 24	6/24/93	48.84	40.15	8.69	
UCD1- 24	6/30/93	48.84	44.14	4.70	
UCD1- 24	7/8/93	48.84	48.94	-0.10	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 24	7/15/93	48.84	47.00	1.84	
UCD1- 24	7/21/93	48.84	47.00	1.84	
UCD1- 24	7/30/93	48.84	48.67	0.17	
UCD1- 24	8/6/93	48.84	48.60	0.24	
UCD1- 24	8/11/93	48.84	48.06	0.78	
UCD1- 24	8/20/93	48.84	48.77	0.07	
UCD1- 24	8/27/93	48.84	47.36	1.48	
UCD1- 24	9/3/93	48.84	46.77	2.07	
UCD1- 24	9/9/93	48.84	48.73	0.11	
UCD1- 24	9/17/93	48.84	46.31	2.53	
UCD1- 24	9/24/93	48.84	45.38	3.46	
UCD1- 24	10/1/93	48.84	44.67	4.17	
UCD1- 24	10/8/93	48.84	43.96	4.88	
UCD1- 24	10/15/93	48.84	42.96	5.88	
UCD1- 24	10/22/93	48.84	42.08	6.76	
UCD1- 24	10/29/93	48.84	41.68	7.16	
UCD1- 24	11/12/93	48.84	41.00	7.84	
UCD1- 24	11/24/93	48.84	40.26	8.58	
UCD1- 24	12/3/93	48.84	39.67	9.17	
UCD1- 24	12/10/93	48.84	39.19	9.65	
UCD1- 24	12/17/93	48.84	38.75	10.09	
UCD1- 24	1/7/94	48.84	37.95	10.89	
UCD1- 24	1/14/94	48.84	37.62	11.22	
UCD1- 24	1/25/94	48.84	37.19	11.65	
UCD1- 24	2/1/94	48.84	36.89	11.95	
UCD1- 24	2/14/94	48.84	36.32	12.52	
UCD1- 24	2/20/94	48.84	36.09	12.75	
UCD1- 24	3/2/94	48.84	34.92	13.92	purged 3/2/94
UCD1- 24	3/4/94	48.84	35.49	13.35	
UCD1- 24	3/10/94	48.84	35.39	13.45	
UCD1- 24	3/16/94	48.84	35.30	13.54	
UCD1- 24	3/24/94	48.84	35.84	13.00	
UCD1- 24	3/29/94	48.84	37.72	11.12	
UCD1- 24	4/6/94	48.84	41.41	7.43	
UCD1- 24	4/13/94	48.84	45.34	3.50	
UCD1- 24	4/22/94	48.84	48.76	0.08	
UCD1- 24	4/26/94	48.84	48.72	0.12	
UCD1- 24	5/6/94	48.84	49.63	-0.79	
UCD1- 24	5/11/94	48.84	48.90	-0.06	
UCD1- 24	5/18/94	48.84	49.70	-0.86	
UCD1- 24	5/25/94	48.84	50.03	-1.19	
UCD1- 24	6/1/94	48.84	51.29	-2.45	
UCD1- 24	6/23/94	48.84	59.67	-10.83	
UCD1- 24	7/1/94	48.84	61.95	-13.11	
UCD1- 24	7/8/94	48.84	64.15	-15.31	
UCD1- 24	7/14/94	48.84	65.22	-16.38	
UCD1- 24	7/20/94	48.84	66.86	-18.02	
UCD1- 24	7/26/94	48.84	66.25	-17.41	
UCD1- 24	8/5/94	48.84	65.33	-16.49	difficult reading
UCD1- 24	8/19/94	48.84	67.85	-19.01	
UCD1- 24	9/7/94	48.84	64.03	-15.19	
UCD1- 24	9/7/94	48.84	64.50	-15.66	
UCD1- 24	9/13/94	48.84	64.85	-16.01	
UCD1- 24	9/19/94	48.84	61.57	-12.73	
UCD1- 24	9/26/94	48.84	60.08	-11.24	
UCD1- 24	10/7/94	48.84	57.35	-8.51	
UCD1- 24	10/14/94	48.84	55.52	-6.68	

Table E.1. Cumulative Groundwater Elevation Data for HSU-1, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD1- 24	10/21/94	48.84	54.47	-5.63	
UCD1- 24	10/28/94	48.84	53.58	-4.74	
UCD1- 24	11/4/94	48.84	52.95	-4.11	
UCD1- 24	11/18/94	48.84	50.42	-1.58	
UCD1- 24	12/22/94	48.84	47.94	0.90	
UCD1- 24	1/6/95	48.84	48.31	0.53	
UCD1- 24	1/11/95	48.84	42.02	6.82	
UCD1- 24	1/13/95	48.84	41.48	7.36	
UCD1- 24	1/27/95	48.84	38.45	10.39	
UCD1- 24	2/10/95	48.84	35.58	13.26	
UCD1- 24	2/17/95	48.84	35.02	13.82	
UCD1- 24	3/9/95	48.84	33.62	15.22	
UCD1- 24	3/16/95	48.84	30.14	18.70	
UCD1- 24	3/24/95	48.84	27.91	20.93	
UCD1- 24	4/28/95	48.84	30.22	18.62	
UCD1- 24	5/25/95	48.84	30.91	17.93	
UCD1- 24	6/16/95	48.84	35.78	13.06	
UCD1- 24	7/26/95	48.84	44.50	4.34	
UCD1- 24	8/31/95	48.84	45.50	3.34	
UCD1- 24	9/26/95	48.84	42.70	6.14	
UCD1- 24	10/25/95	48.84	39.68	9.16	
UCD1- 24	11/22/95	48.91 *	37.83	11.08	Regrouted - new elevation
UCD1- 24	11/27/95	48.91 *	37.58	11.33	
UCD1- 24	12/19/95	48.91 *	35.55	13.36	
UCD1- 25	11/27/95	48.80	38.30	10.50	
UCD1- 25	12/19/95	48.80	35.88	12.92	
UCD1- 34	11/27/95	55.70	43.72	11.98	
UCD1- 34	12/19/95	55.70	40.36	15.34	

Table E.2. Cumulative Groundwater Elevation Data for HSU-2, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD2- 7	11/2/90	51.65	57.33	-5.68	
UCD2- 7	11/8/90	51.65	56.93	-5.28	
UCD2- 7	11/16/90	51.65	55.76	-4.11	
UCD2- 7	11/20/90	51.65	55.30	-3.65	
UCD2- 7	12/5/90	51.65	53.69	-2.04	
UCD2- 7	12/27/90	51.65	51.77	-0.12	
UCD2- 7	1/4/91	51.65	51.21	0.44	
UCD2- 7	1/11/91	51.65	50.88	0.77	
UCD2- 7	1/22/91	51.65	50.22	1.43	
UCD2- 7	2/1/91	51.65	51.02	0.63	
UCD2- 7	2/8/91	51.65	50.01	1.64	
UCD2- 7	2/14/91	51.65	50.94	0.71	
UCD2- 7	2/22/91	51.65	52.60	-0.95	
UCD2- 7	3/7/91	51.65	49.77	1.88	
UCD2- 7	3/12/91	51.65	49.11	2.54	
UCD2- 7	3/22/91	51.65	47.93	3.72	
UCD2- 7	3/29/91	51.65	48.10	3.55	
UCD2- 7	4/3/91	51.65	45.88	5.77	
UCD2- 7	4/10/91	51.65	45.64	6.01	
UCD2- 7	4/17/91	51.65	46.13	5.52	
UCD2- 7	4/24/91	51.65	49.68	1.97	
UCD2- 7	5/3/91	51.65	52.93	-1.28	
UCD2- 7	5/13/91	51.65	57.56	-5.91	
UCD2- 7	5/20/91	51.65	59.04	-7.39	
UCD2- 7	5/29/91	51.65	59.44	-7.79	
UCD2- 7	6/6/91	51.65	63.32	-11.67	
UCD2- 7	6/10/91	51.65	63.27	-11.62	
UCD2- 7	6/21/91	51.65	64.46	-12.81	
UCD2- 7	6/27/91	51.65	65.52	-13.87	
UCD2- 7	7/5/91	51.65	66.27	-14.62	
UCD2- 7	7/12/91	51.65	69.16	-17.51	
UCD2- 7	7/19/91	51.65	71.41	-19.76	
UCD2- 7	7/26/91	51.65	70.68	-19.03	
UCD2- 7	8/5/91	51.65	71.08	-19.43	
UCD2- 7	8/14/91	51.65	71.73	-20.08	
UCD2- 7	8/21/91	51.65	69.14	-17.49	
UCD2- 7	8/29/91	51.65	66.70	-15.05	
UCD2- 7	9/4/91	51.65	65.18	-13.53	
UCD2- 7	9/13/91	51.65	66.09	-14.44	
UCD2- 7	10/3/91	51.65	60.79	-9.14	
UCD2- 7	10/10/91	51.65	59.53	-7.88	
UCD2- 7	10/25/91	51.65	58.63	-6.98	
UCD2- 7	11/1/91	51.65	55.65	-4.00	
UCD2- 7	11/8/91	51.65	54.48	-2.83	
UCD2- 7	11/14/91	51.65	54.14	-2.49	
UCD2- 7	12/5/91	51.65	52.44	-0.79	
UCD2- 7	12/11/91	51.65	52.00	-0.35	
UCD2- 7	12/19/91	51.65	51.54	0.11	
UCD2- 7	1/8/92	51.65	49.76	1.89	
UCD2- 7	1/17/92	51.65	50.23	1.42	
UCD2- 7	1/24/92	51.65	48.89	2.76	
UCD2- 7	1/29/92	51.65	48.27	3.38	
UCD2- 7	2/5/92	51.65	47.74	3.91	
UCD2- 7	3/6/92	51.65	44.58	7.07	
UCD2- 7	3/13/92	51.65	43.99	7.66	
UCD2- 7	3/18/92	51.65	43.70	7.95	
UCD2- 7	3/25/92	51.65	43.39	8.26	

Table E.2. Cumulative Groundwater Elevation Data for HSU-2, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD2- 7	4/3/92	51.65	43.15	8.50	
UCD2- 7	4/7/92	51.65	43.19	8.46	
UCD2- 7	4/16/92	51.65	43.19	8.46	
UCD2- 7	4/24/92	51.65	50.04	1.61	
UCD2- 7	5/1/92	51.65	54.58	-2.93	
UCD2- 7	5/8/92	51.65	57.97	-6.32	
UCD2- 7	5/26/92	51.65	59.06	-7.41	
UCD2- 7	6/2/92	51.65	63.62	-11.97	
UCD2- 7	6/17/92	51.65	62.98	-11.33	
UCD2- 7	6/24/92	51.65	63.90	-12.25	
UCD2- 7	7/2/92	51.65	68.44	-16.79	
UCD2- 7	7/8/92	51.65	64.59	-12.94	
UCD2- 7	7/15/92	51.65	67.92	-16.27	
UCD2- 7	7/23/92	51.65	69.54	-17.89	
UCD2- 7	7/29/92	51.65	69.81	-18.16	
UCD2- 7	8/12/92	51.65	67.84	-16.19	
UCD2- 7	8/19/92	51.65	65.97	-14.32	
UCD2- 7	8/28/92	51.65	65.78	-14.13	
UCD2- 7	9/4/92	51.65	64.44	-12.79	
UCD2- 7	9/18/92	51.65	62.95	-11.30	
UCD2- 7	10/9/92	51.65	60.38	-8.73	
UCD2- 7	10/16/92	51.65	59.63	-7.98	
UCD2- 7	10/30/92	51.65	57.47	-5.82	
UCD2- 7	11/6/92	51.65	56.58	-4.93	
UCD2- 7	11/17/92	51.65	53.52	-1.87	
UCD2- 7	12/4/92	51.65	52.20	-0.55	
UCD2- 7	12/28/92	51.65	52.59	-0.94	
UCD2- 7	1/20/93	51.65	45.04	6.61	
UCD2- 7	1/29/93	51.65	42.06	9.59	
UCD2- 7	2/5/93	51.65	40.68	10.97	
UCD2- 7	2/12/93	51.65	40.99	10.66	
UCD2- 7	2/26/93	51.65	37.47	14.18	
UCD2- 7	3/5/93	51.65	36.83	14.82	
UCD2- 7	3/12/93	51.65	36.22	15.43	
UCD2- 7	3/19/93	51.65	35.86	15.79	
UCD2- 7	4/7/93	51.65	34.69	16.96	
UCD2- 7	4/16/93	51.65	35.19	16.46	
UCD2- 7	4/23/93	51.65	35.86	15.79	
UCD2- 7	5/7/93	51.65	43.54	8.11	
UCD2- 7	6/24/93	51.65	46.97	4.68	
UCD2- 7	6/30/93	51.65	47.31	4.34	
UCD2- 7	7/8/93	51.65	47.68	3.97	
UCD2- 7	7/15/93	51.65	50.68	0.97	
UCD2- 7	7/21/93	51.65	50.22	1.43	
UCD2- 7	7/30/93	51.65	52.50	-0.85	
UCD2- 7	8/6/93	51.65	53.00	-1.35	
UCD2- 7	8/11/93	51.65	53.02	-1.37	
UCD2- 7	8/20/93	51.65	52.06	-0.41	
UCD2- 7	8/27/93	51.65	50.02	1.63	
UCD2- 7	9/3/93	51.65	49.54	2.11	
UCD2- 7	9/9/93	51.65	49.94	1.71	
UCD2- 7	9/17/93	51.65	48.95	2.70	
UCD2- 7	9/24/93	51.65	48.14	3.51	
UCD2- 7	10/1/93	51.65	47.41	4.24	
UCD2- 7	10/8/93	51.65	46.56	5.09	
UCD2- 7	10/15/93	51.65	45.65	6.00	
UCD2- 7	10/22/93	51.65	45.02	6.63	

Table E.2. Cumulative Groundwater Elevation Data for HSU-2, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD2- 7	10/29/93	51.65	44.61	7.04	
UCD2- 7	11/12/93	51.65	43.92	7.73	
UCD2- 7	11/24/93	51.65	43.19	8.46	
UCD2- 7	12/3/93	51.65	42.41	9.24	
UCD2- 7	12/10/93	51.65	42.03	9.62	
UCD2- 7	12/17/93	51.65	41.61	10.04	
UCD2- 7	1/7/94	51.65	40.73	10.92	
UCD2- 7	1/14/94	51.65	40.38	11.27	
UCD2- 7	1/25/94	51.65	39.96	11.69	
UCD2- 7	2/1/94	51.65	39.73	11.92	
UCD2- 7	2/14/94	51.65	39.26	12.39	
UCD2- 7	2/20/94	51.65	39.01	12.64	
UCD2- 7	3/2/94	51.65	38.38	13.27	
UCD2- 7	3/4/94	51.65	38.50	13.15	
UCD2- 7	3/10/94	51.65	38.45	13.20	
UCD2- 7	3/16/94	51.65	38.43	13.22	
UCD2- 7	3/24/94	51.65	39.49	12.16	
UCD2- 7	3/29/94	51.65	43.03	8.62	
UCD2- 7	4/6/94	51.65	45.81	5.84	
UCD2- 7	4/13/94	51.65	50.22	1.43	
UCD2- 7	4/22/94	51.65	49.60	2.05	
UCD2- 7	4/26/94	51.65	52.28	-0.63	
UCD2- 7	5/6/94	51.65	53.36	-1.71	
UCD2- 7	5/11/94	51.65	53.04	-1.39	
UCD2- 7	5/18/94	51.65	53.51	-1.86	
UCD2- 7	5/25/94	51.65	53.89	-2.24	
UCD2- 7	6/1/94	51.65	56.05	-4.40	
UCD2- 7	6/23/94	51.65	63.40	-11.75	
UCD2- 7	7/1/94	51.65	65.90	-14.25	
UCD2- 7	7/8/94	51.65	67.88	-16.23	
UCD2- 7	7/14/94	51.65	69.02	-17.37	
UCD2- 7	7/20/94	51.65	70.51	-18.86	
UCD2- 7	7/26/94	51.65	69.96	-18.31	
UCD2- 7	8/5/94	51.65	68.85	-17.20	
UCD2- 7	8/19/94	51.65	70.81	-19.16	
UCD2- 7	9/7/94	51.65	67.41	-15.76	
UCD2- 7	9/7/94	51.65	67.52	-15.87	
UCD2- 7	9/13/94	51.65	67.64	-15.99	
UCD2- 7	9/19/94	51.65	64.15	-12.50	
UCD2- 7	9/26/94	51.65	62.46	-10.81	
UCD2- 7	10/7/94	51.65	59.82	-8.17	
UCD2- 7	10/14/94	51.65	58.13	-6.48	
UCD2- 7	10/21/94	51.65	57.29	-5.64	
UCD2- 7	10/28/94	51.65	56.38	-4.73	
UCD2- 7	11/4/94	51.65	55.81	-4.16	
UCD2- 7	11/18/94	51.65	53.02	-1.37	
UCD2- 7	12/22/94	51.65	49.96	1.69	
UCD2- 7	1/6/95	51.65	48.00	3.65	
UCD2- 7	1/11/95	51.65	44.86	6.79	
UCD2- 7	1/13/95	51.65	44.33	7.32	
UCD2- 7	1/27/95	51.65	41.55	10.10	
UCD2- 7	2/10/95	51.65	38.67	12.98	
UCD2- 7	2/17/95	51.65	38.11	13.54	
UCD2- 7	3/9/95	51.65	35.95	15.70	
UCD2- 7	3/24/95	51.65	31.24	20.41	
UCD2- 7	4/28/95	51.65	34.70	16.95	
UCD2- 7	5/25/95	51.65	35.95	15.70	

Table E.2. Cumulative Groundwater Elevation Data for HSU-2, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD2- 7	6/16/95	51.65	41.25	10.40	
UCD2- 7	7/26/95	51.65	48.32 a	3.33 a	
UCD2- 7	8/31/95	51.65	48.24 a	3.41 a	Caps are off / loose
UCD2- 7	9/26/95	51.65	45.54 a	6.11 a	
UCD2- 7	10/25/95	51.65	42.49 a	9.16 a	
UCD2- 7	11/22/95	51.65	40.52 a	11.13 a	
UCD2- 7	11/27/95	51.65	40.24	11.41	
UCD2- 7	12/19/95	51.65	37.88	13.77	
UCD2- 14	11/2/90	51.72	58.60	-6.88	
UCD2- 14	11/8/90	51.72	57.19	-5.47	
UCD2- 14	11/16/90	51.72	56.00	-4.28	
UCD2- 14	11/20/90	51.72	55.41	-3.69	
UCD2- 14	12/5/90	51.72	53.81	-2.09	
UCD2- 14	12/27/90	51.72	51.90	-0.18	
UCD2- 14	1/4/91	51.72	51.37	0.35	
UCD2- 14	1/11/91	51.72	51.01	0.71	
UCD2- 14	1/22/91	51.72	50.34	1.38	
UCD2- 14	2/1/91	51.72	51.11	0.61	
UCD2- 14	2/8/91	51.72	50.13	1.59	
UCD2- 14	2/14/91	51.72	50.12	1.60	
UCD2- 14	2/22/91	51.72	52.79	-1.07	
UCD2- 14	3/7/91	51.72	49.94	1.78	
UCD2- 14	3/12/91	51.72	49.26	2.46	
UCD2- 14	3/22/91	51.72	48.04	3.68	
UCD2- 14	3/29/91	51.72	48.21	3.51	
UCD2- 14	4/3/91	51.72	46.01	5.71	
UCD2- 14	4/10/91	51.72	45.75	5.97	
UCD2- 14	4/17/91	51.72	46.23	5.49	
UCD2- 14	4/24/91	51.72	49.84	1.88	
UCD2- 14	5/3/91	51.72	53.49	-1.77	
UCD2- 14	5/13/91	51.72	58.11	-6.39	
UCD2- 14	5/20/91	51.72	59.40	-7.68	
UCD2- 14	5/29/91	51.72	60.19	-8.47	
UCD2- 14	6/6/91	51.72	63.93	-12.21	
UCD2- 14	6/10/91	51.72	63.92	-12.20	
UCD2- 14	6/21/91	51.72	64.84	-13.12	
UCD2- 14	6/27/91	51.72	65.95	-14.23	
UCD2- 14	7/5/91	51.72	66.68	-14.96	
UCD2- 14	7/12/91	51.72	69.61	-17.89	
UCD2- 14	7/19/91	51.72	71.93	-20.21	
UCD2- 14	7/26/91	51.72	71.10	-19.38	
UCD2- 14	8/5/91	51.72	71.67	-19.95	
UCD2- 14	8/14/91	51.72	72.75	-21.03	
UCD2- 14	8/21/91	51.72	69.65	-17.93	
UCD2- 14	8/29/91	51.72	67.02	-15.30	
UCD2- 14	9/4/91	51.72	65.44	-13.72	
UCD2- 14	9/13/91	51.72	66.51	-14.79	
UCD2- 14	10/3/91	51.72	61.04	-9.32	
UCD2- 14	10/10/91	51.72	59.79	-8.07	
UCD2- 14	10/25/91	51.72	57.65	-5.93	
UCD2- 14	11/1/91	51.72	55.92	-4.20	
UCD2- 14	11/8/91	51.72	54.85	-3.13	
UCD2- 14	11/14/91	51.72	55.31	-3.59	
UCD2- 14	12/5/91	51.72	52.62	-0.90	
UCD2- 14	12/11/91	51.72	52.44	-0.72	
UCD2- 14	12/19/91	51.72	51.72	0.00	

Table E.2. Cumulative Groundwater Elevation Data for HSU-2, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD2- 14	1/3/92	51.72	53.01	-1.29	
UCD2- 14	1/8/92	51.72	49.93	1.79	
UCD2- 14	1/17/92	51.72	49.41	2.31	
UCD2- 14	1/24/92	51.72	49.00	2.72	
UCD2- 14	1/29/92	51.72	48.46	3.26	
UCD2- 14	2/5/92	51.72	47.84	3.88	
UCD2- 14	3/6/92	51.72	44.72	7.00	
UCD2- 14	3/13/92	51.72	44.13	7.59	
UCD2- 14	3/18/92	51.72	43.85	7.87	
UCD2- 14	3/25/92	51.72	43.52	8.20	
UCD2- 14	4/3/92	51.72	43.30	8.42	
UCD2- 14	4/7/92	51.72	43.32	8.40	
UCD2- 14	4/16/92	51.72	45.13	6.59	
UCD2- 14	4/24/92	51.72	50.36	1.36	
UCD2- 14	5/1/92	51.72	54.97	-3.25	
UCD2- 14	5/8/92	51.72	58.51	-6.79	
UCD2- 14	5/26/92	51.72	60.02	-8.30	
UCD2- 14	6/2/92	51.72	64.26	-12.54	
UCD2- 14	6/17/92	51.72	63.76	-12.04	
UCD2- 14	6/24/92	51.72	64.32	-12.60	
UCD2- 14	7/2/92	51.72	69.07	-17.35	
UCD2- 14	7/8/92	51.72	65.02	-13.30	
UCD2- 14	7/15/92	51.72	68.28	-16.56	
UCD2- 14	7/23/92	51.72	70.22	-18.50	
UCD2- 14	7/29/92	51.72	70.23	-18.51	
UCD2- 14	8/12/92	51.72	68.16	-16.44	
UCD2- 14	8/19/92	51.72	67.28	-15.56	
UCD2- 14	8/28/92	51.72	66.05	-14.33	
UCD2- 14	9/4/92	51.72	64.68	-12.96	
UCD2- 14	9/18/92	51.72	63.10	-11.38	
UCD2- 14	10/9/92	51.72	60.81	-9.09	
UCD2- 14	10/16/92	51.72	59.85	-8.13	
UCD2- 14	10/30/92	51.72	57.74	-6.02	
UCD2- 14	11/6/92	51.72	56.84	-5.12	
UCD2- 14	11/17/92	51.72	55.74	-4.02	
UCD2- 14	12/4/92	51.72	54.31	-2.59	
UCD2- 14	12/28/92	51.72	51.72	0.00	
UCD2- 14	1/20/93	51.72	44.37	7.35	
UCD2- 14	2/1/93	51.72	42.11	9.61	
UCD2- 14	2/5/93	51.72	41.67	10.05	
UCD2- 14	2/12/93	51.72	41.11	10.61	
UCD2- 14	2/26/93	51.72	37.64	14.08	
UCD2- 14	3/5/93	51.72	36.96	14.76	
UCD2- 14	3/12/93	51.72	36.33	15.39	
UCD2- 14	3/19/93	51.72	36.01	15.71	
UCD2- 14	4/7/93	51.72	34.85	16.87	
UCD2- 14	4/16/93	51.72	35.34	16.38	
UCD2- 14	4/23/93	51.72	35.05	16.67	
UCD2- 14	5/7/93	51.72	43.98	7.74	
UCD2- 14	6/24/93	51.72	47.46	4.26	
UCD2- 14	6/30/93	51.72	47.52	4.20	
UCD2- 14	7/8/93	51.72	50.17	1.55	
UCD2- 14	7/15/93	51.72	51.00	0.72	
UCD2- 14	7/21/93	51.72	50.54	1.18	
UCD2- 14	7/30/93	51.72	53.17	-1.45	
UCD2- 14	8/6/93	51.72	53.25	-1.53	
UCD2- 14	8/11/93	51.72	53.43	-1.71	

Table E.2. Cumulative Groundwater Elevation Data for HSU-2, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD2- 14	8/20/93	51.72	52.77	-1.05	
UCD2- 14	8/27/93	51.72	50.22	1.50	
UCD2- 14	9/3/93	51.72	49.72	2.00	
UCD2- 14	9/9/93	51.72	50.21	1.51	
UCD2- 14	9/17/93	51.72	49.16	2.56	
UCD2- 14	9/24/93	51.72	48.38	3.34	
UCD2- 14	10/1/93	51.72	47.59	4.13	
UCD2- 14	10/8/93	51.72	46.77	4.95	
UCD2- 14	10/15/93	51.72	45.85	5.87	
UCD2- 14	10/22/93	51.72	45.13	6.59	
UCD2- 14	10/29/93	51.72	44.79	6.93	
UCD2- 14	11/12/93	51.72	44.08	7.64	
UCD2- 14	11/24/93	51.72	43.36	8.36	
UCD2- 14	12/3/93	51.72	42.58	9.14	
UCD2- 14	12/10/93	51.72	42.19	9.53	
UCD2- 14	12/17/93	51.72	41.78	9.94	
UCD2- 14	1/7/94	51.72	40.91	10.81	
UCD2- 14	1/14/94	51.72	40.58	11.14	
UCD2- 14	1/25/94	51.72	40.13	11.59	
UCD2- 14	2/1/94	51.72	39.91	11.81	
UCD2- 14	2/14/94	51.72	39.38	12.34	
UCD2- 14	2/20/94	51.72	39.17	12.55	
UCD2- 14	3/2/94	51.72	38.51	13.21	
UCD2- 14	3/4/94	51.72	38.65	13.07	
UCD2- 14	3/10/94	51.72	38.65	13.07	
UCD2- 14	3/16/94	51.72	38.61	13.11	
UCD2- 14	3/24/94	51.72	39.72	12.00	
UCD2- 14	3/29/94	51.72	43.37	8.35	
UCD2- 14	4/6/94	51.72	46.13	5.59	
UCD2- 14	4/13/94	51.72	50.51	1.21	
UCD2- 14	4/22/94	51.72	55.07	-3.35	
UCD2- 14	4/26/94	51.72	52.54	-0.82	
UCD2- 14	5/6/94	51.72	53.72	-2.00	
UCD2- 14	5/11/94	51.72	53.36	-1.64	
UCD2- 14	5/18/94	51.72	53.97	-2.25	
UCD2- 14	5/25/94	51.72	54.28	-2.56	
UCD2- 14	6/1/94	51.72	56.46	-4.74	
UCD2- 14	6/23/94	51.72	64.49	-12.77	
UCD2- 14	7/1/94	51.72	66.57	-14.85	
UCD2- 14	7/8/94	51.72	68.49	-16.77	
UCD2- 14	7/14/94	51.72	69.52	-17.80	
UCD2- 14	7/20/94	51.72	71.09	-19.37	
UCD2- 14	7/26/94	51.72	70.34	-18.62	
UCD2- 14	8/5/94	51.72	69.65	-17.93	
UCD2- 14	8/19/94	51.72	71.12	-19.40	
UCD2- 14	9/7/94	51.72	67.91	-16.19	
UCD2- 14	9/7/94	51.72	67.91	-16.19	
UCD2- 14	9/13/94	51.72	67.94	-16.22	
UCD2- 14	9/19/94	51.72	64.39	-12.67	
UCD2- 14	9/26/94	51.72	62.69	-10.97	
UCD2- 14	10/7/94	51.72	60.02	-8.30	
UCD2- 14	10/14/94	51.72	58.33	-6.61	
UCD2- 14	10/21/94	51.72	57.48	-5.76	
UCD2- 14	10/28/94	51.72	56.57	-4.85	
UCD2- 14	11/4/94	51.72	55.97	-4.25	
UCD2- 14	11/18/94	51.72	53.18	-1.46	
UCD2- 14	12/22/94	51.72	50.14	1.58	

Table E.2. Cumulative Groundwater Elevation Data for HSU-2, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD2- 14	1/6/95	51.72	48.58	3.14	
UCD2- 14	1/11/95	51.72	44.85	6.87	
UCD2- 14	1/13/95	51.72	44.36	7.36	
UCD2- 14	1/27/95	51.72	41.56	10.16	
UCD2- 14	2/10/95	51.72	38.77	12.95	
UCD2- 14	2/17/95	51.72	38.24	13.48	
UCD2- 14	3/9/95	51.72	35.91	15.81	
UCD2- 14	3/24/95	51.72	31.30	20.42	
UCD2- 14	4/28/95	51.72	34.79	16.93	
UCD2- 14	5/25/95	51.72	36.69	15.03	
UCD2- 14	6/16/95	51.72	41.51	10.21	
UCD2- 14	7/26/95	51.72		NA	Cont. water level indicator installed
UCD2- 14	8/31/95	51.72	48.49	3.23	
UCD2- 14	9/26/95	51.72	45.74	5.98	
UCD2- 14	10/25/95	51.72	42.69	9.03	
UCD2- 14	11/22/95	51.72	40.71	11.01	
UCD2- 14	11/27/95	51.72	40.48	11.24	
UCD2- 14	12/19/95	51.72	38.06	13.66	
UCD2- 15	11/2/90	51.49	57.00	-5.51	
UCD2- 15	11/8/90	51.49	56.65	-5.16	
UCD2- 15	11/16/90	51.49	55.29	-3.80	
UCD2- 15	11/20/90	51.49	54.80	-3.31	
UCD2- 15	12/5/90	51.49	53.18	-1.69	
UCD2- 15	12/27/90	51.49	51.26	0.23	
UCD2- 15	1/4/91	51.49	50.73	0.76	
UCD2- 15	1/11/91	51.49	50.42	1.07	
UCD2- 15	1/22/91	51.49	49.67	1.82	
UCD2- 15	2/1/91	51.49	50.31	1.18	
UCD2- 15	2/8/91	51.49	49.48	2.01	
UCD2- 15	2/14/91	51.49	49.40	2.09	
UCD2- 15	2/22/91	51.49	51.80	-0.31	
UCD2- 15	3/7/91	51.49	49.20	2.29	
UCD2- 15	3/12/91	51.49	48.51	2.98	
UCD2- 15	3/22/91	51.49	47.32	4.17	
UCD2- 15	3/29/91	51.49	45.51	5.98	
UCD2- 15	4/3/91	51.49	45.07	6.42	
UCD2- 15	4/10/91	51.49	45.88	5.61	
UCD2- 15	4/17/91	51.49	45.59	5.90	
UCD2- 15	4/24/91	51.49	49.03	2.46	
UCD2- 15	5/3/91	51.49	52.33	-0.84	
UCD2- 15	5/13/91	51.49	57.23	-5.74	
UCD2- 15	5/20/91	51.49	58.14	-6.65	
UCD2- 15	5/29/91	51.49	58.67	-7.18	
UCD2- 15	6/6/91	51.49	62.50	-11.01	
UCD2- 15	6/10/91	51.49	62.47	-10.98	
UCD2- 15	6/21/91	51.49	63.69	-12.20	
UCD2- 15	6/27/91	51.49	64.41	-12.92	
UCD2- 15	7/5/91	51.49	65.35	-13.86	
UCD2- 15	7/12/91	51.49	68.23	-16.74	
UCD2- 15	7/19/91	51.49	70.74	-19.25	
UCD2- 15	7/26/91	51.49	70.02	-18.53	
UCD2- 15	8/5/91	51.49	70.16	-18.67	
UCD2- 15	8/14/91	51.49	70.92	-19.43	
UCD2- 15	8/21/91	51.49	68.39	-16.90	
UCD2- 15	8/29/91	51.49	66.00	-14.51	
UCD2- 15	9/4/91	51.49	64.48	-12.99	

Table E.2. Cumulative Groundwater Elevation Data for HSU-2, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD2- 15	9/13/91	51.49	65.35	-13.86	
UCD2- 15	10/3/91	51.49	60.13	-8.64	
UCD2- 15	10/10/91	51.49	58.00	-6.51	
UCD2- 15	10/25/91	51.49	57.96	-6.47	
UCD2- 15	11/1/91	51.49	55.08	-3.59	
UCD2- 15	11/8/91	51.49	53.92	-2.43	
UCD2- 15	11/14/91	51.49	53.54	-2.05	
UCD2- 15	12/5/91	51.49	52.45	-0.96	
UCD2- 15	12/11/91	51.49	51.43	0.06	
UCD2- 15	12/19/91	51.49	50.93	0.56	
UCD2- 15	1/3/92	51.49	49.44	2.05	
UCD2- 15	1/8/92	51.49	49.13	2.36	
UCD2- 15	1/17/92	51.49	48.63	2.86	
UCD2- 15	1/24/92	51.49	48.22	3.27	
UCD2- 15	1/29/92	51.49	47.69	3.80	
UCD2- 15	2/5/92	51.49	47.06	4.43	
UCD2- 15	3/6/92	51.49	44.01	7.48	
UCD2- 15	3/13/92	51.49	43.40	8.09	
UCD2- 15	3/18/92	51.49	43.16	8.33	
UCD2- 15	3/25/92	51.49	42.80	8.69	
UCD2- 15	4/3/92	51.49	42.64	8.85	
UCD2- 15	4/7/92	51.49	42.60	8.89	
UCD2- 15	4/16/92	51.49	44.51	6.98	
UCD2- 15	4/24/92	51.49	49.55	1.94	
UCD2- 15	5/1/92	51.49	53.60	-2.11	
UCD2- 15	5/8/92	51.49	56.82	-5.33	
UCD2- 15	5/26/92	51.49	58.64	-7.15	
UCD2- 15	6/2/92	51.49	62.44	-10.95	
UCD2- 15	6/17/92	51.49	62.31	-10.82	
UCD2- 15	6/24/92	51.49	63.18	-11.69	
UCD2- 15	7/2/92	51.49	67.52	-16.03	
UCD2- 15	7/8/92	51.49	63.76	-12.27	
UCD2- 15	7/15/92	51.49	67.14	-15.65	
UCD2- 15	7/23/92	51.49	68.67	-17.18	
UCD2- 15	7/29/92	51.49	68.89	-17.40	
UCD2- 15	8/12/92	51.49	66.95	-15.46	
UCD2- 15	8/19/92	51.49	65.20	-13.71	
UCD2- 15	8/28/92	51.49	65.04	-13.55	
UCD2- 15	9/4/92	51.49	63.76	-12.27	
UCD2- 15	9/18/92	51.49	62.41	-10.92	
UCD2- 15	10/9/92	51.49	59.96	-8.47	
UCD2- 15	10/16/92	51.49	59.23	-7.74	
UCD2- 15	10/30/92	51.49	57.07	-5.58	
UCD2- 15	11/6/92	51.49	56.24	-4.75	
UCD2- 15	11/17/92	51.49	55.09	-3.60	
UCD2- 15	12/4/92	51.49	53.79	-2.30	
UCD2- 15	12/28/92	51.49	51.00	0.49	
UCD2- 15	1/20/93	51.49	43.84	7.65	
UCD2- 15	1/29/93	51.49	41.52	9.97	
UCD2- 15	2/5/93	51.49	41.13	10.36	
UCD2- 15	2/12/93	51.49	40.46	11.03	
UCD2- 15	2/26/93	51.49	37.04	14.45	
UCD2- 15	3/5/93	51.49	36.36	15.13	
UCD2- 15	3/12/93	51.49	35.72	15.77	
UCD2- 15	3/19/93	51.49	35.34	16.15	
UCD2- 15	4/7/93	51.49	34.14	17.35	
UCD2- 15	4/16/93	51.49	33.39	18.10	

Table E.2. Cumulative Groundwater Elevation Data for HSU-2, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD2- 15	4/23/93	51.49	33.24	18.25	
UCD2- 15	5/7/93	51.49	42.49	9.00	
UCD2- 15	6/24/93	51.49	47.98	3.51	
UCD2- 15	6/30/93	51.49	48.35	3.14	
UCD2- 15	7/8/93	51.49	48.52	2.97	
UCD2- 15	7/15/93	51.49	49.46	2.03	
UCD2- 15	7/21/93	51.49	47.17	4.32	
UCD2- 15	7/30/93	51.49	51.77	-0.28	
UCD2- 15	8/6/93	51.49	52.12	-0.63	
UCD2- 15	8/11/93	51.49	52.02	-0.53	
UCD2- 15	8/20/93	51.49	52.26	-0.77	
UCD2- 15	8/27/93	51.49	49.31	2.18	
UCD2- 15	9/3/93	51.49	48.77	2.72	
UCD2- 15	9/9/93	51.49	49.05	2.44	
UCD2- 15	9/17/93	51.49	48.22	3.27	
UCD2- 15	9/24/93	51.49	47.44	4.05	
UCD2- 15	10/1/93	51.49	46.72	4.77	
UCD2- 15	10/8/93	51.49	45.96	5.53	
UCD2- 15	10/15/93	51.49	45.07	6.42	
UCD2- 15	10/22/93	51.49	44.38	7.11	
UCD2- 15	10/29/93	51.49	44.06	7.43	
UCD2- 15	11/12/93	51.49	43.36	8.13	
UCD2- 15	11/24/93	51.49	42.68	8.81	
UCD2- 15	12/3/93	51.49	41.96	9.53	
UCD2- 15	12/10/93	51.49	41.56	9.93	
UCD2- 15	12/17/93	51.49	41.15	10.34	
UCD2- 15	1/7/94	51.49	40.26	11.23	
UCD2- 15	1/14/94	51.49	39.92	11.57	
UCD2- 15	1/25/94	51.49	39.45	12.04	
UCD2- 15	2/1/94	51.49	39.26	12.23	
UCD2- 15	2/14/94	51.49	38.73	12.76	
UCD2- 15	2/20/94	51.49	38.48	13.01	
UCD2- 15	3/2/94	51.49	37.69	13.80	
UCD2- 15	3/4/94	51.49	38.04	13.45	
UCD2- 15	3/10/94	51.49	38.05	13.44	
UCD2- 15	3/16/94	51.49	37.96	13.53	
UCD2- 15	3/24/94	51.49	39.05	12.44	
UCD2- 15	3/29/94	51.49	42.45	9.04	
UCD2- 15	4/6/94	51.49	45.07	6.42	
UCD2- 15	4/13/94	51.49	49.04	2.45	
UCD2- 15	4/22/94	51.49	53.76	-2.27	
UCD2- 15	4/26/94	51.49	51.25	0.24	
UCD2- 15	5/6/94	51.49	52.40	-0.91	
UCD2- 15	5/11/94	51.49	52.38	-0.89	
UCD2- 15	5/18/94	51.49	53.15	-1.66	
UCD2- 15	5/25/94	51.49	52.90	-1.41	
UCD2- 15	6/1/94	51.49	55.14	-3.65	
UCD2- 15	6/23/94	51.49	62.91	-11.42	
UCD2- 15	7/1/94	51.49	65.04	-13.55	
UCD2- 15	7/8/94	51.49	67.03	-15.54	
UCD2- 15	7/14/94	51.49	68.01	-16.52	
UCD2- 15	7/20/94	51.49	69.58	-18.09	
UCD2- 15	7/26/94	51.49	69.21	-17.72	
UCD2- 15	8/5/94	51.49	68.22	-16.73	
UCD2- 15	8/19/94	51.49	70.00	-18.51	
UCD2- 15	9/7/94	51.49	66.31	-14.82	
UCD2- 15	9/7/94	51.49	66.87	-15.38	

Table E.2. Cumulative Groundwater Elevation Data for HSU-2, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD2- 15	9/13/94	51.49	67.17	-15.68	
UCD2- 15	9/19/94	51.49	63.60	-12.11	
UCD2- 15	9/26/94	51.49	61.93	-10.44	
UCD2- 15	10/7/94	51.49	59.29	-7.80	
UCD2- 15	10/14/94	51.49	57.63	-6.14	
UCD2- 15	10/21/94	51.49	56.78	-5.29	
UCD2- 15	10/28/94	51.49	55.88	-4.39	
UCD2- 15	11/4/94	51.49	55.29	-3.80	
UCD2- 15	11/18/94	51.49	52.49	-1.00	
UCD2- 15	12/22/94	51.49	49.42	2.07	
UCD2- 15	1/6/95	51.49	47.85	3.64	
UCD2- 15	1/10/95	51.49	44.90	6.59	
UCD2- 15	1/11/95	51.49	44.26	7.23	
UCD2- 15	1/13/95	51.49	43.81	7.68	
UCD2- 15	1/27/95	51.49	41.12	10.37	
UCD2- 15	2/10/95	51.49	38.33	13.16	
UCD2- 15	2/17/95	51.49	37.76	13.73	
UCD2- 15	3/9/95	51.49	35.49	16.00	
UCD2- 15	3/24/95	51.49	30.86	20.63	
UCD2- 15	4/28/95	51.49	34.34	17.15	
UCD2- 15	5/25/95	51.49	35.21	16.28	
UCD2- 15	6/16/95	51.49	40.08	11.41	
UCD2- 15	7/26/95	51.49		NA	Cont. water level indicator installed
UCD2- 15	8/31/95	51.49	47.42	4.07	Caps are off
UCD2- 15	9/26/95	51.49		NA	Continuous well level indicator
UCD2- 15	10/25/95	51.49		NA	Continuous monitoring equipment
UCD2- 15	11/22/95	51.49	40.01	11.48	
UCD2- 15	11/27/95	51.49	39.72	11.77	no pump
UCD2- 15	12/19/95	51.49	37.45	14.04	
UCD2- 16	11/2/90	49.95	55.52	-5.57	
UCD2- 16	11/8/90	49.95	54.88	-4.93	
UCD2- 16	11/16/90	49.95	53.88	-3.93	
UCD2- 16	11/20/90	49.95	53.38	-3.43	
UCD2- 16	12/5/90	49.95	51.79	-1.84	
UCD2- 16	12/27/90	49.95	49.85	0.10	
UCD2- 16	1/4/91	49.95	49.34	0.61	
UCD2- 16	1/11/91	49.95	49.13	0.82	
UCD2- 16	1/22/91	49.95	48.37	1.58	
UCD2- 16	2/1/91	49.95	49.10	0.85	
UCD2- 16	2/8/91	49.95	48.10	1.85	
UCD2- 16	2/14/91	49.95	48.01	1.94	
UCD2- 16	2/22/91	49.95	50.51	-0.56	
UCD2- 16	3/7/91	49.95	47.83	2.12	
UCD2- 16	3/12/91	49.95	47.27	2.68	
UCD2- 16	3/22/91	49.95	44.60	5.35	
UCD2- 16	3/29/91	49.95	44.25	5.70	
UCD2- 16	4/3/91	49.95	44.07	5.88	
UCD2- 16	4/10/91	49.95	43.81	6.14	
UCD2- 16	4/17/91	49.95	44.33	5.62	
UCD2- 16	4/24/91	49.95	47.54	2.41	
UCD2- 16	5/3/91	49.95	49.68	0.27	
UCD2- 16	5/13/91	49.95	55.10	-5.15	
UCD2- 16	5/20/91	49.95	56.84	-6.89	
UCD2- 16	5/29/91	49.95	57.23	-7.28	
UCD2- 16	6/6/91	49.95	60.76	-10.81	
UCD2- 16	6/10/91	49.95	60.73	-10.78	

Table E.2. Cumulative Groundwater Elevation Data for HSU-2, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD2- 16	6/21/91	49.95	62.36	-12.41	
UCD2- 16	6/27/91	49.95	63.32	-13.37	
UCD2- 16	7/5/91	49.95	64.54	-14.59	
UCD2- 16	7/12/91	49.95	66.78	-16.83	
UCD2- 16	7/19/91	49.95	69.00	-19.05	
UCD2- 16	7/26/91	49.95	68.58	-18.63	
UCD2- 16	8/14/91	49.95	69.38	-19.43	
UCD2- 16	8/21/91	49.95	66.71	-16.76	
UCD2- 16	8/29/91	49.95	64.54	-14.59	
UCD2- 16	9/4/91	49.95	63.02	-13.07	
UCD2- 16	9/13/91	49.95	63.80	-13.85	
UCD2- 16	10/3/91	49.95	58.74	-8.79	
UCD2- 16	10/10/91	49.95	57.55	-7.60	
UCD2- 16	10/25/91	49.95	55.40	-5.45	
UCD2- 16	11/1/91	49.95	53.61	-3.66	
UCD2- 16	11/8/91	49.95	52.69	-2.74	
UCD2- 16	11/14/91	49.95	52.17	-2.22	
UCD2- 16	12/5/91	49.95	50.45	-0.50	
UCD2- 16	12/11/91	49.95	51.37	-1.42	
UCD2- 16	12/19/91	49.95	49.56	0.39	
UCD2- 16	1/3/92	49.95	48.09	1.86	
UCD2- 16	1/8/92	49.95	47.88	2.07	
UCD2- 16	1/17/92	49.95	47.32	2.63	
UCD2- 16	1/24/92	49.95	46.90	3.05	
UCD2- 16	1/29/92	49.95	46.35	3.60	
UCD2- 16	2/5/92	49.95	45.73	4.22	
UCD2- 16	3/6/92	49.95	42.65	7.30	
UCD2- 16	3/13/92	49.95	42.04	7.91	
UCD2- 16	3/18/92	49.95	41.79	8.16	
UCD2- 16	3/25/92	49.95	41.44	8.51	
UCD2- 16	4/3/92	49.95	41.32	8.63	
UCD2- 16	4/7/92	49.95	41.28	8.67	
UCD2- 16	4/16/92	49.95	43.07	6.88	
UCD2- 16	4/24/92	49.95	48.09	1.86	
UCD2- 16	5/1/92	49.95	52.27	-2.32	
UCD2- 16	5/8/92	49.95	55.46	-5.51	
UCD2- 16	5/26/92	49.95	57.14	-7.19	
UCD2- 16	6/2/92	49.95	61.05	-11.10	
UCD2- 16	6/17/92	49.95	60.67	-10.72	
UCD2- 16	6/24/92	49.95	61.69	-11.74	
UCD2- 16	7/2/92	49.95	65.89	-15.94	
UCD2- 16	7/8/92	49.95	62.39	-12.44	
UCD2- 16	7/15/92	49.95	65.63	-15.68	
UCD2- 16	7/23/92	49.95	67.07	-17.12	
UCD2- 16	7/29/92	49.95	67.54	-17.59	
UCD2- 16	8/12/92	49.95	65.63	-15.68	
UCD2- 16	8/19/92	49.95	63.80	-13.85	
UCD2- 16	8/28/92	49.95	63.59	-13.64	
UCD2- 16	9/4/92	49.95	62.32	-12.37	
UCD2- 16	9/18/92	49.95	60.90	-10.95	
UCD2- 16	10/9/92	49.95	58.51	-8.56	
UCD2- 16	10/16/92	49.95	57.69	-7.74	
UCD2- 16	10/30/92	49.95	55.55	-5.60	
UCD2- 16	11/6/92	49.95	56.72	-6.77	
UCD2- 16	11/17/92	49.95	53.65	-3.70	
UCD2- 16	12/4/92	49.95	52.17	-2.22	
UCD2- 16	12/28/92	49.95	49.64	0.31	

Table E.2. Cumulative Groundwater Elevation Data for HSU-2, 1990-1995

WELL	DATE	PROTECTIVE CASING ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND-WATER ELEVATION (feet)	COMMENTS
UCD2- 17	4/17/91	51.83	45.50	6.33	
UCD2- 17	4/24/91	51.83	49.00	2.83	
UCD2- 17	5/3/91	51.83	50.63	1.20	
UCD2- 17	5/13/91	51.83	56.25	-4.42	
UCD2- 17	5/20/91	51.83	57.59	-5.76	
UCD2- 17	5/29/91	51.83	57.79	-5.96	
UCD2- 17	6/6/91	51.83	61.57	-9.74	
UCD2- 17	6/10/91	51.83	61.41	-9.58	
UCD2- 17	6/21/91	51.83	63.33	-11.50	
UCD2- 17	6/27/91	51.83	64.16	-12.33	
UCD2- 17	7/5/91	51.83	65.33	-13.50	
UCD2- 17	7/12/91	51.83	67.48	-15.65	
UCD2- 17	7/19/91	51.83	70.06	-18.23	
UCD2- 17	7/26/91	51.83	69.70	-17.87	
UCD2- 17	8/5/91	51.83	69.20	-17.37	
UCD2- 17	8/14/91	51.83	69.84	-18.01	
UCD2- 17	8/21/91	51.83	67.54	-15.71	
UCD2- 17	8/29/91	51.83	65.53	-13.70	
UCD2- 17	9/4/91	51.83	64.03	-12.20	
UCD2- 17	9/13/91	51.83	64.74	-12.91	
UCD2- 17	10/3/91	51.83	60.21	-8.38	
UCD2- 17	10/10/91	51.83	58.74	-6.91	
UCD2- 17	10/25/91	51.83	56.58	-4.75	
UCD2- 17	11/1/91	51.83	54.90	-3.07	
UCD2- 17	11/8/91	51.83	53.82	-1.99	
UCD2- 17	11/14/91	51.83	53.34	-1.51	
UCD2- 17	12/5/91	51.83	51.58	0.25	
UCD2- 17	12/11/91	51.83	51.09	0.74	
UCD2- 17	12/19/91	51.83	50.61	1.22	
UCD2- 17	1/3/92	51.83	49.26	2.57	
UCD2- 17	1/8/92	51.83	49.01	2.82	
UCD2- 17	1/17/92	51.83	48.47	3.36	
UCD2- 17	1/24/92	51.83	48.04	3.79	
UCD2- 17	1/29/92	51.83	47.49	4.34	
UCD2- 17	2/5/92	51.83	46.91	4.92	
UCD2- 17	3/6/92	51.83	43.91	7.92	
UCD2- 17	3/13/92	51.83	43.37	8.46	
UCD2- 17	3/18/92	51.83	43.09	8.74	
UCD2- 17	3/25/92	51.83	42.76	9.07	
UCD2- 17	4/3/92	51.83	42.54	9.29	
UCD2- 17	4/7/92	51.83	42.53	9.30	
UCD2- 17	4/16/92	51.83	44.51	7.32	
UCD2- 17	4/24/92	51.83	49.39	2.44	
UCD2- 17	5/1/92	51.83	53.03	-1.20	
UCD2- 17	5/8/92	51.83	55.91	-4.08	
UCD2- 17	5/26/92	51.83	58.15	-6.32	
UCD2- 17	6/2/92	51.83	61.82	-9.99	
UCD2- 17	6/17/92	51.83	61.43	-9.60	
UCD2- 17	6/24/92	51.83	62.67	-10.84	
UCD2- 17	7/2/92	51.83	66.58	-14.75	
UCD2- 17	7/8/92	51.83	63.12	-11.29	
UCD2- 17	7/15/92	51.83	66.61	-14.78	
UCD2- 17	7/23/92	51.83	66.79	-14.96	
UCD2- 17	7/29/92	51.83	68.22	-16.39	
UCD2- 17	8/12/92	51.83	66.40	-14.57	
UCD2- 17	8/19/92	51.83	64.71	-12.88	
UCD2- 17	8/28/92	51.83	64.58	-12.75	