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OAK RIDGE Y-12 PLANT

CALENDAR YEAR 1994 GROUNDWATER QUALITY REPORT FOR THE CHESTNUT RIDGE HYDROGEOLOGIC REGIME Y-12 PLANT, OAK RIDGE, TENNESSEE

MARTIN MARIETTA

1994 Groundwater Quality Data
and Calculated Rate of
Contaminant Migration

February 1995

Prepared by:

HSW ENVIRONMENTAL CONSULTANTS, INC.
Under Purchase Order 70Y-EAQ10C

for the

Environmental Management Department
Health, Safety, Environment, and Accountability Organization
Oak Ridge Y-12 Plant
Oak Ridge, Tennessee 37831

Managed By
MARTIN MARIETTA ENERGY SYSTEMS, INC.
for the
U.S. DEPARTMENT OF ENERGY
under contract
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MANAGED BY
MARTIN MARIETTA ENERGY SYSTEMS, INC.
FOR THE UNITED STATES
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ACRONYMS

ASO	Analytical Services Organization
ARAR	Appropriate, Relevant, and Applicable Requirement
BCV	Bear Creek Valley
bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CY	Calendar Year
DOE	U.S. Department of Energy
EMD	Environmental Monitoring Database
EP	Extraction Procedure (Toxicity test)
EPA	U.S. Environmental Protection Agency
ft	feet
ft/day	feet per day
FFA	Federal Facility Agreement
GWPP	Groundwater Protection Program
GWQR	Groundwater Quality Report
HSEA	Y-12 Plant Health, Safety, Environment, and Accountability (Organization)
mg/L	milligrams per liter
ORNL	Oak Ridge National Laboratory
ORR	Oak Ridge Reservation
OU	Operable Unit
PCPA	Post-Closure Permit Application
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation/Feasibility Study
RFI	RCRA Facility Investigation
ROD	Record of Decision
SESD	Sampling and Environmental Support Department
SWDF	Solid Waste Disposal Facility (non-RCRA)
SWMU	Solid Waste Management Unit (RCRA)
TDEC	Tennessee Department of Environment and Conservation
TDS	Total Dissolved Solids
TSD	Treatment, Storage, and Disposal (Unit)
VOC	Volatile Organic Compound

1.0 INTRODUCTION

This annual groundwater quality report (GWQR) contains groundwater quality data obtained during the 1994 calendar year (CY) at several hazardous and non-hazardous waste-management facilities associated with the U.S. Department of Energy (DOE) Y-12 Plant located on the DOE Oak Ridge Reservation (ORR) southeast of Oak Ridge, Tennessee (Figure 1). These sites are located south of the Y-12 Plant in the Chestnut Ridge Hydrogeologic Regime (Chestnut Ridge Regime), which is one of three regimes defined for the purposes of groundwater quality monitoring at the Y-12 Plant. The Environmental Management Department of the Y-12 Plant Health, Safety, Environment, and Accountability (HSEA) Organization manages the groundwater monitoring activities in each regime as part of the Y-12 Plant Groundwater Protection Program (GWPP).

The GWQR for the Chestnut Ridge Regime is completed in two-parts: Part 1 (this report) containing the groundwater quality data and Part 2 containing a detailed evaluation of the data. The primary purpose of this report is to serve as a reference containing the groundwater quality data obtained each year under the lead of the Y-12 Plant GWPP. However, because it contains information needed to comply with Resource Conservation and Recovery Act (RCRA) interim status assessment monitoring and reporting requirements, this report is submitted to the Tennessee Department of Environment and Conservation (TDEC) by the RCRA reporting deadline (March 1 of the following CY). Part 2 of the annual groundwater report, to be issued mid-year, will contain a regime-wide evaluation of groundwater quality, present the findings and status of ongoing hydrogeologic studies, describe changes in monitoring priorities, and present planned modifications to the groundwater sampling and analysis activities.

2.0 BACKGROUND INFORMATION

The Chestnut Ridge Regime is located south of the Y-12 Plant, and is flanked to the north by Bear Creek Valley (BCV) and to the south by Bethel Valley. The regime encompasses the portion of Chestnut Ridge extending from a gap in the ridge located southeast of the eastern end of the Y-12 Plant to a drainage basin on the ridge located southwest of the western end of the Y-12 Plant (Figure 2).

Groundwater quality monitoring during CY 1994 in the Chestnut Ridge Regime was performed at three classes of waste-management facilities:

- sites subject to regulation under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA);
- hazardous waste treatment, storage, and disposal (TSD) units subject to regulation under RCRA as well as CERCLA; and
- non-hazardous solid waste disposal facilities (SWDFs).

A brief description of each of the sites in the regime, including waste inventories and disposal histories, and a discussion of the regulatory status and groundwater monitoring history of each site are provided in the following sections.

2.1 CERCLA Operable Units

In January 1992, the DOE, the U.S. Environmental Protection Agency (EPA), and the TDEC negotiated a Federal Facility Agreement (FFA) regarding environmental restoration at the ORR under CERCLA. This agreement changed the regulatory status of several RCRA TSD units and RCRA regulated solid waste management units (SWMUs) at the Y-12 Plant to CERCLA Operable Units (OUs). As such, the DOE appealed the applicability of RCRA post-closure care, corrective action, and groundwater monitoring requirements to CERCLA OUs.

In April 1993, the DOE, the TDEC, and Martin Marietta Energy Systems, Inc. signed an Agreed Order for the S-3 Site RCRA post-closure permit, thereby resolving the appeal and formally agreeing to proceed with CERCLA as a lead regulatory program with RCRA as an appropriate, relevant, and applicable requirement (ARAR). Under this agreement, RCRA will

be applied as an ARAR to the extent that post-closure maintenance and care of former TSD facilities will be conducted in compliance with the terms of RCRA post-closure permits. Groundwater monitoring is to be integrated with the CERCLA remedial investigation/feasibility study (RI/FS) programs with RCRA corrective action deferred to CERCLA. Groundwater monitoring data reporting will comply with RCRA post-closure permit conditions as well as RI/FS requirements.

Two types of OUs were established under the FFA: source control OUs and integrator OUs. Source control OUs are individual or groups of waste-management sites for which a RI/FS will be performed, including any interim actions and/or remedial actions. Integrator OUs encompass groundwater and surface water, and are considered separate from source control OUs that contribute to the contamination of these media. Integrator OUs were established because available data showed that contaminants from multiple sources had intermingled in the groundwater system and migrated through common surface and subsurface exit pathways (U.S. Department of Energy 1994a). Early in CY 1994, as RIs at sites within Bear Creek Valley progressed, data increasingly indicated that the separation of source and integrator OUs was not the most technically feasible approach to the RI/FS process. Efforts were therefore initiated to revise the strategy for RI/FS implementation at sites in Bear Creek Valley. As a result, agreement was reached among regulatory agencies, the DOE, and the TDEC to proceed with an integrated RI/FS approach. Source units were to be addressed along with integrator units, with sites or locations of highest risk or concern to be targeted for focused studies. In addition, efforts were initiated to devise a conceptual groundwater flow/contaminant migration model specific to Bear Creek Valley, and are currently proceeding.

The FFA established four source control OUs that lie within the Chestnut Ridge Regime (Table 1): one former RCRA TSD unit (the Chestnut Ridge Security Pits) and three former RCRA SWMUs (Ash Disposal Basin, United Nuclear Corporation Site, and Rogers Quarry). Because there was no evidence of intermingling contaminant plumes from these sites, no integrator OU was established for the Chestnut Ridge regime and groundwater and surface water are included in the RI/FS for each source control OU.

2.1.1 Chestnut Ridge Security Pits

The 1992 FFA designated the Chestnut Ridge Security Pits (Security Pits) as Chestnut Ridge OU 01. A RI work plan for this OU has been prepared and was submitted for review by the EPA (Region IV) and the TDEC in CY 1993 (U.S. Department of Energy 1993a). Located on the crest of Chestnut Ridge, south of the central portion of the Y-12 Plant (Figure 3), the Security Pits were operated between 1973 and 1988. When in operation, the site was a series of trenches used for the disposal of hazardous and non-hazardous wastes. The disposal trenches were about 8 to 10 feet (ft) wide, 10 to 18 ft deep, and 700 to 800 ft long. Typically, several trenches were operated simultaneously to allow for the segregation of wastes in separate cells. Particularly reactive materials were disposed in six auger holes, each about 2 ft in diameter and 10 ft deep, located at the eastern end of the site (Butz and Stoner 1983).

The Security Pits contain an estimated 4,639 tons of waste materials. Detailed waste inventories are classified, but an unclassified inventory listed ten major wastes types that included acids, fiberglass, beryllium, biological material, debris, heavy metals, inorganics, organics, thorium, and uranium (Martin Marietta Energy Systems, Inc. 1989a).

Disposal of hazardous waste in the Security Pits ceased in December 1984 and disposal of non-hazardous waste ceased on November 8, 1988. A low-permeability cap was constructed over the disposal trenches in 1989 in accordance with a RCRA closure plan (Martin Marietta Energy Systems, Inc. 1988). Also in 1989, a RCRA Part B Post-Closure Permit Application (PCPA) for the Security Pits was submitted to the TDEC.

In October 1993, the TDEC issued a RCRA post-closure permit for the S-3 Site, a former RCRA TSD unit and a current source control OU located in the Bear Creek Regime, that contained details of the integrated RCRA/CERCLA requirements. Modifications to the permit and the effective date of the permit were negotiated in March 1994. Based upon agreements reached in the March negotiations, pertinent aspects of the PCPA for the Security Pits were modified and a revised PCPA was re-submitted to the TDEC in November 1994 (Martin Marietta Energy Systems, Inc. 1994a).

Groundwater monitoring at the Security Pits began with one well (well 1080) in CY 1982. Additional monitoring wells were installed at the site in CY 1985 and were periodically sampled as part of the Y-12 Plant historical and characterization monitoring programs. The site

was granted RCRA interim status in November 1985 and RCRA detection monitoring was initiated in January 1986 (Bailey, personal communication 1989). The detection and characterization monitoring programs confirmed the presence of groundwater contamination at the site. Assessment monitoring in accordance with RCRA regulations for interim status TSD facilities began in January 1988 and has continued to the present. In addition to monitoring in support of the RI, assessment monitoring at the Security Pits will continue pending final administrative disposition of the PCPA for the site, whereupon permit-specified monitoring requirements will be implemented.

2.1.2 Ash Disposal Basin

The Ash Disposal Basin, also known as the Filled Coal Ash Pond, is located on the southern flank of Chestnut Ridge about one-half mile south of the Y-12 Plant (Figure 3). The basin was created in 1955 by the construction of an earthen dam across a northern tributary of McCoy Branch. Fly-ash slurry from the Y-12 Steam Plant was pumped into the Ash Disposal Basin until it was filled in July 1967 (Battelle Columbus Division 1988). Since then, the fly-ash slurry by-passed the Ash Disposal Basin through an emergency spillway on the eastern abutment and discharged directly into McCoy Branch, which was diverted to direct the slurry into Rogers Quarry (King et al. 1989). Ash disposal ceased in July 1993 per agreement with the TDEC.

Groundwater monitoring at the Ash Disposal Basin began in 1986 with the installation of several monitoring wells that were sampled as part of the Y-12 Plant characterization monitoring program. In 1987, the Ash Disposal Basin was identified as a RCRA SWMU (Welch et al. 1987), and wells at the site were subsequently sampled for the purposes of a site-specific RCRA Facility Investigation (RFI). In CY 1990, RFI monitoring activities at the site were incorporated into the Security Pits quarterly RCRA assessment monitoring schedule, as recommended in the *Comprehensive Groundwater Monitoring Plan for the Department of Energy Y-12 Plant Oak Ridge, Tennessee* (Geraghty & Miller, Inc. 1990a).

The FFA designated the Ash Disposal Basin as Chestnut Ridge OU2. The RI work plan for this OU (U.S. Department of Energy 1993b) was approved in early 1993 by the EPA and TDEC. Field activities for the RI were completed in June 1993 and included one round of groundwater sampling from wells at the site. A RI report was issued in August 1994 (U.S.

Department of Energy 1994b), followed by a FS in January 1995 (U.S. Department of Energy 1995). Preparation of a proposed plan for public review and comment is in progress.

2.1.3 United Nuclear Corporation Site

The United Nuclear Corporation Site (Chestnut Ridge OU3) lies on the crest of Chestnut Ridge southeast of the west end of the Y-12 Plant (Figure 3). The site was excavated to a depth of about 32 feet and was used to landfill 11,000 drums (55-gallon) of sludge fixed in cement, 18,000 drums of contaminated soil, and 288 boxes of contaminated process and demolition materials (U.S. Department of Energy 1993c). The site ceased operations in 1984 (Grutzeck 1987) and was capped and closed in CY 1992 in accordance with an approved CERCLA Record of Decision (ROD) and a RCRA closure plan (U.S. Department of Energy 1991; Martin Marietta Energy Systems, Inc. 1989b). During site closure (in spring of 1992), approximately 7,000 cubic yards of low-level radiation-contaminated soil and concrete from the Elza Gate Site were placed in the UNC Site as substitute fill material. The TDEC granted formal approval for the disposal of these materials on January 2, 1992.

Characterization monitoring at the site started in 1985 and continued until 1988, when monitoring in support of an RFI was initiated. In CY 1990, monitoring wells at the site were incorporated into the ongoing quarterly assessment monitoring program for the Security Pits. Quarterly monitoring at the site in accordance with the ROD has continued since closure of the site under the management of the Y-12 Plant Environmental Restoration Surveillance and Maintenance Program (Martin Marietta Energy Systems, Inc. 1992).

2.1.4 Rogers Quarry

Rogers Quarry is located in the southwest portion of the Chestnut Ridge Regime about three miles west of Kerr Hollow Quarry (Figure 3). The quarry was used from the 1940s through the late-1950s as a source of stone-construction material, and was abandoned in the early 1960s when it filled with water. Until July 1993, the site received fly-ash slurry from the Y-12 Steam Plant that was discharged into McCoy Branch (King *et al.* 1989); disposal of fly ash in Rogers Quarry ceased per agreement with the TDEC.

Wells were installed at the site in 1985 and sampled as part of the Y-12 Plant characterization monitoring program. Although identified as a RCRA SWMU in 1987 (Welch *et al.* 1987), an RFI was not initiated at Rogers Quarry. Groundwater monitoring since 1987 has continued as a best-management practice of the Y-12 Plant GWPP. Monitoring results have not indicated that groundwater contamination is present at the site.

The FFA designated Rogers Quarry as Chestnut Ridge OU4 (Table 1). An RI work plan for this OU was submitted for review by the EPA and TDEC in CY 1993 (U.S. Department of Energy 1993d).

2.2 RCRA Treatment, Storage, or Disposal Facilities

There are three RCRA-regulated hazardous waste TSD facilities in the Chestnut Ridge Regime (Table 1): the Chestnut Ridge Sediment Disposal Basin (Sediment Disposal Basin), Kerr Hollow Quarry, and the East Chestnut Ridge Waste Pile. The Sediment Disposal Basin and Kerr Hollow Quarry are closed facilities granted RCRA interim status in 1986. The East Chestnut Ridge Waste Pile is a storage facility built and operated in accordance with RCRA operating permit issued by the TDEC in 1987.

2.2.1 Chestnut Ridge Sediment Disposal Basin

The Sediment Disposal Basin is southeast of the east end of the Y-12 Plant (Figure 3). Beginning in 1973, the site received soil and sediment that was periodically dredged from New Hope Pond, a closed surface impoundment located at the east end of the Y-12 Plant. These soils and sediments contained polychlorinated biphenyls, mercury, and uranium. Between November 1987 and April 1988, the Sediment Disposal Basin also received mercury-contaminated soils from several locations in the Y-12 Plant. Results of Extraction Procedure (EP) Toxicity analyses showed that the soils did not exhibit the characteristics of a hazardous waste (Saunders 1983; Kimbrough and McMahon 1988a and 1988b). In 1989, the Sediment Disposal Basin was closed in accordance with a TDEC-approved RCRA closure plan. A revised RCRA PCPA was prepared for the site and submitted to the TDEC in September 1994 (Martin Marietta Energy Systems, Inc. 1988).

Detection monitoring in accordance with RCRA interim status requirements has been in progress at the Sediment Disposal Basin since 1987. No statistical evidence of groundwater contamination has been determined at the site. The ongoing detection monitoring program is expected to continue after a RCRA post-closure permit is issued for the site.

2.2.2 Kerr Hollow Quarry

The Kerr Hollow Quarry is located near the south-central portion of the Chestnut Ridge Regime (Figure 3) and was a source of stone construction material in the 1940s until it filled with water and was abandoned. From the early-1950s until November 1988, Kerr Hollow Quarry was used for the disposal of reactive materials from the Y-12 Plant and the Oak Ridge National Laboratory (ORNL).

Between CYs 1989 and 1993, waste materials were removed from the quarry in an effort to obtain certified clean-closure status from the TDEC. These efforts were discontinued in CY 1993 and the site was closed with some of the wastes in place. Because clean closure of the site was not achieved, a RCRA PCPA for the site is being prepared and is scheduled for submittal to the TDEC by June 1995. When issued by the TDEC, the post-closure permit for the site is expected to require groundwater monitoring under a RCRA detection monitoring or modified corrective action program.

Detection monitoring in accordance with RCRA interim status requirements has been in progress at the Kerr Hollow Quarry since CY 1988. Required statistical evaluations of the monitoring data have not indicated that groundwater contamination is present at the site. Although low concentrations of tetrachloroethene, carbon tetrachloride, and chloroform have been detected in samples collected from wells GW-142 and GW-144, Kerr Hollow Quarry has not been conclusively identified as the source. These volatile organic compounds (VOCs) were first detected in samples from the wells in CY 1990. The frequency of occurrence of VOCs increased during CY 1992, then decreased through CY 1993. During CY 1994, the only organic compound reported for samples from these wells was carbon tetrachloride, detected only in the second quarter sample from well GW-144. This trend in the VOC detection frequency over time suggests a potential association with corrective action (debris removal and container shredding) at the site that was performed from August 1990 until October 1993.

Total elemental uranium and/or strontium concentrations reported for unfiltered samples collected from wells GW-142, GW-145, and GW-146 at the site have consistently exceeded concentrations typically reported for other wells in the regime. The lack of associated elevated alpha or beta activity may indicate that the elevated uranium and strontium concentrations reflect natural geochemical variation. Alternately, the elevated concentrations of these metals may reflect potential impacts of waste disposal at the site. Therefore, isotopic uranium and strontium analysis are planned for CY 1995. Additional, detailed discussion will be included in the Part 2 GWQR.

2.2.3 East Chestnut Ridge Waste Pile

The East Chestnut Ridge Waste Pile is a lined, hazardous waste-management facility constructed in CY 1987 as a storage site for contaminated soils from the Y-12 Plant. The site is located in the eastern portion of the Chestnut Ridge Regime near the Sediment Disposal Basin (Figure 3).

As a lined facility, the East Chestnut Ridge Waste Pile is exempt from groundwater monitoring requirements under RCRA. Nevertheless, groundwater quality monitoring has been performed at the site since CY 1987 as a best-management practice of the Y-12 Plant GWPP. Monitoring results have not indicated that groundwater contamination is present at the site.

2.3 Solid Waste Disposal Facilities

There are six non-hazardous waste landfills in the Chestnut Ridge Regime (Table 1): five TDEC-permitted SWDFs (Industrial Landfills II, IV, and V, and Construction/Demolition Landfills VI and VII) and one temporary storage facility (Chestnut Ridge Borrow Area Waste Pile). The five permitted landfills are classified as either Class II or Class IV facilities, as defined in the most recent (December 1993) *Rules of the Tennessee Department of Environment and Conservation, Division of Solid Waste Management, Chapter 1200-1-7, Solid Waste Processing and Disposal*.

Groundwater monitoring at each of the SWDFs in the Chestnut Ridge Regime is performed in accordance with the requirements for detection monitoring contained in paragraph

1200-1-7-.02(7) of the TDEC solid waste regulations. Detection monitoring at some of the permitted SWDFs includes site-specific requirements (i.e., additional analytical parameters) specified in the operating permit for the site, as requested by the TDEC, or are performed as a best-management practice of the Y-12 Plant GWPP.

Detection monitoring was initiated at Industrial Landfill II in CY 1982, at Chestnut Ridge Borrow Area Waste Pile in CY 1986, and at Industrial Landfill IV in CY 1987. Construction/Demolition Landfills VI and VII and Industrial Landfill V are newly permitted facilities. As required under the TDEC solid waste regulations and permit requirements, quarterly sampling to establish background water quality conditions for detection monitoring purposes was initiated in May 1993 at Construction/Demolition Landfills VI and VII, and Industrial Landfill V. Background monitoring protocols were modified in early-1994 to comply with amendments to TDEC Rule 1200-1-7-.04(7), effective January 1, 1994. All TDEC-permitted SWDFs will be in a semiannual detection monitoring program by the end of the first quarter of CY 1995.

2.3.1 Industrial Landfill II

Industrial Landfill II, also known as the Y-12 Plant Centralized Sanitary Landfill II, is a Class II SWDF located near the western end of the Chestnut Ridge Regime (Figure 3). The landfill is used for disposal of combustible and decomposable solid waste and construction spoil material from the Y-12 Plant, the Oak Ridge K-25 Site, ORNL, and DOE prime contractors in Oak Ridge. These wastes include scrap metal, glass, paper products, plastics, wood, organic garbage, textile products, asphalt roofing materials, and special wastes such as asbestos and beryllium oxide.

2.3.2 Industrial Landfill IV

Industrial Landfill IV is a Class II SWDF located near the west end of the Chestnut Ridge Regime (Figure 3). This site has been operated since CY 1989 for disposal of non-hazardous, non-radioactive industrial wastes. Wastes disposed at the site include cardboard, plastics,

rubber, scrap metal, wood, paper, and special wastes. Based on current waste volumes, the site is expected to receive approximately 12,000 cubic feet of waste per year.

2.3.3 Construction/Demolition Landfill VI

Construction/Demolition Landfill VI (formerly the Industrial Landfill II Expansion) is a new Class IV SWDF constructed in CY 1993. Located adjacent to Industrial Landfill II (Figure 3), the TDEC issued an operating permit for the site on October 26, 1993. Waste disposal at the site began in April 1994.

2.3.4 Industrial Landfill V and Construction/Demolition Landfill VII

Industrial Landfill V and Construction/Demolition Landfill VII are new Class II and Class IV SWDFs, respectively, located adjacent to each other in the south-central part of the Chestnut Ridge Regime (Figure 3). Both sites are collectively known as the Steam Plant Ash Disposal Landfill. Permits for each site were issued by the TDEC on April 26, 1993. Construction of Industrial Landfill V was completed in April 1994 and the site is currently in service. Construction of Construction/Demolition Landfill VII was completed December 1994 and the TDEC granted approval to operate the facility in January 1995. Operation of the facility will not commence immediately in consideration of available space in Construction/Demolition Landfill VI.

2.4 Chestnut Ridge Borrow Area Waste Pile

The Chestnut Ridge Borrow Area Waste Pile, also known as the Civic Center Spoil Pile, is located near the eastern end of the Chestnut Ridge Regime (Figure 3). The site was built as a temporary storage area for contaminated soils removed from the Oak Ridge Civic Center properties and the Oak Ridge Sewer Line Beltway. Soils in both areas contained mercury and other metals (and possibly some organic compounds) believed to have originated from the Y-12 Plant. Results of EP Toxicity analyses indicated that the soils do not exhibit the toxicity characteristic of a hazardous waste. A soil sampling plan designed to determine if the soils are

toxic hazardous wastes based on results of the Toxicity Characteristic Leaching Procedure was submitted to the TDEC for review in September 1992 (Science Applications International Corporation 1992).

The Chestnut Ridge Borrow Area Waste Pile is approximately 70 ft wide, 10 to 12 ft deep, and 200 ft long. The bottom and walls of the pit are lined with polyvinyl chloride and the bottom is sloped to facilitate drainage. Perimeter channels divert surface runoff and a plastic liner on top of the pile restricts infiltration. Approximately 3,000 cubic yards of soil are now stored at the facility.

3.0 CY 1994 GROUNDWATER PROTECTION PROGRAM

The following sections describe the groundwater sampling activities performed during CY 1994 in the Chestnut Ridge Regime under the lead of the Y-12 Plant GWPP. Included are details regarding the groundwater sampling locations, frequency, and procedures, analytical parameters, quality assurance/quality control (QA/QC) sampling, and data management.

3.1 Sampling Locations

Groundwater monitoring during CY 1994 involved the collection of groundwater samples from 74 monitoring wells and one spring (Table 2). Locations of these sampling points are shown on Figure 4. Data regarding the elevation of the screened or open hole interval for the monitoring wells are summarized in Table 3; detailed well construction information is contained in Appendix C.

Samples were collected for the purposes of four monitoring programs: (1) RCRA interim status assessment monitoring, (2) RCRA interim status detection monitoring, (3) SWDF detection monitoring, and (4) best-management practice monitoring. Descriptions of the monitoring well networks used for each program are provided in the following sections.

3.1.1 RCRA Interim Status Assessment Monitoring

Assessment monitoring during CY 1994 involved 10 monitoring wells at the Security Pits (Table 2). Assessment monitoring at the Security Pits has been in progress since CY 1988 and will be discontinued when a RCRA post-closure permit (which is expected to require RCRA corrective action monitoring) is issued for the site by the TDEC.

3.1.2 RCRA Interim Status Detection Monitoring

Detection monitoring in accordance with the RCRA interim status regulations was performed during CY 1994 at the Sediment Disposal Basin and Kerr Hollow Quarry, and included a total of 15 monitoring wells (Table 2). As required for interim status detection

monitoring, results of selected indicator parameters (e.g., pH and specific conductance) were analyzed to identify any statistically significant changes in groundwater quality. Results of these statistical analyses were submitted to the TDEC in September 1994 (Martin Marietta Energy Systems, Inc. 1994c and 1994d) and February 1995 (Martin Marietta Energy Systems, Inc. 1995a and 1995b). The annual RCRA detection monitoring report for these facilities also was submitted in February 1995 (Martin Marietta Energy Systems, Inc. 1995c).

3.1.3 SWDF Detection/Background Monitoring

As noted in Section 2.3, groundwater monitoring in accordance with the TDEC solid waste management regulations is performed at all of the SWDFs in the regime. In CY 1994, 24 monitoring wells and one spring at the SWDFs were sampled for detection or background monitoring purposes (Table 2).

3.1.4 Best-Management Practice Monitoring

Groundwater samples were collected from 25 monitoring wells during CY 1994 as a best-management practice of the Y-12 Plant GWPP (Table 2). Best-management practice monitoring was performed at 5 sites where regulation-driven monitoring is not specified. For example, groundwater quality monitoring at the East Chestnut Ridge Waste Pile has been performed since 1987 even though this hazardous waste TSD unit is a lined facility exempt from RCRA groundwater monitoring requirements. Also, groundwater monitoring at the United Nuclear Corporation Site is a post-closure requirement; but the number of wells and the sampling frequency are not specified in the ROD.

3.2 Sampling Frequency

Groundwater samples were collected during each quarter of CY 1994. First through fourth quarter sampling events were performed January 5 - March 25, April 4 - June 29, July 6 - September 7, and October 3 - December 19, respectively.

As summarized in the following table, 48 of the wells included in the previously described monitoring programs were sampled at a quarterly frequency, and 26 wells were sampled semiannually.

Site	Sampling Frequency (No. of Wells)	
	Quarterly	Semiannual
Chestnut Ridge Security Pits	10	.
Chestnut Ridge Sediment Disposal Basin	8	.
Kerr Hollow Quarry	7	.
Industrial Landfill II	3	.
Industrial Landfill IV	5	.
Industrial Landfill V	4	.
Construction/Debris Landfill VI	.	7
Construction/Debris Landfill VII	5	.
Ash Disposal Basin	.	4
Chestnut Ridge Borrow Area Waste Pile	.	7
East Chestnut Ridge Waste Pile	.	4
Rogers Quarry	.	4
United Nuclear Corporation Site	6	.
Total	48	26

Monitoring wells sampled on a semiannual basis are located at sites for which a quarterly monitoring frequency is not a regulatory, DOE, or best-management practice requirement. In April 1994, the semiannual sampling schedule was phased into the ongoing quarterly monitoring programs. Consequently, some wells scheduled for semiannual sampling actually were sampled 3 times during CY 1994 (Table 2). Additionally wells located at Rogers Quarry, which were scheduled for semiannual best-management practice monitoring during CY 1994, were sampled only once because of funding constraints.

Semiannual sampling of spring CBS-1 was performed to obtain samples during high and low flow conditions.

3.3 Sample Collection

Groundwater samples were collected by personnel from the Oak Ridge K-25 Site Sampling and Environmental Support Department (SESD). Samples from the spring were collected by personnel from the HSEA Organization. Pre-defined sampling sequences were followed to minimize the potential for cross-contamination (Appendix D). Each quarterly sequence reflected sampling from the least contaminated wells to the most contaminated wells at a site or in a sampling group (a series of monitoring wells grouped for sampling and data-tracking purposes). At sites where no groundwater contamination is present, samples were collected from the farthest downgradient wells first.

Groundwater sampling was performed in accordance with a technical procedure for groundwater sampling (SESD-TP-8204) approved by the Y-12 Plant GWPP Manager. Descriptions of the field methods and procedures used to collect the groundwater samples are contained in *Environmental Surveillance Procedures Quality Control Program, Martin Marietta Energy Systems, Inc.* (Kimbrough et al. 1987). The EPA (Region IV) and the TDEC have approved these methods and procedures (U.S. Environmental Protection Agency 1988a).

3.4 Quality Assurance/Quality Control Sampling

Quality assurance/quality control samples included laboratory blanks, trip blanks, equipment rinsates, field blanks, and duplicate groundwater samples. A total of 102 laboratory blanks, 173 trip blanks, 49 equipment rinsate samples, 8 field blanks, and 53 duplicate samples were analyzed during CY 1994. Similar numbers of QA/QC samples were analyzed during each quarterly sampling event: 20 to 34 laboratory blanks, 38 to 54 trip blanks, 9 to 16 equipment rinsates, 2 field blanks, and 11 to 14 duplicate samples.

Laboratory blanks were prepared using deionized water and analyzed along with the groundwater samples. Trip blanks were prepared in the laboratory using deionized water and transported unopened in coolers containing groundwater samples to be analyzed for VOCs. Equipment rinsates were obtained from the deionized water used to decontaminate the groundwater sampling equipment. These samples were collected after a sampling team had completed sampling at a site or finished a sampling group (typically no more than 10 wells

grouped for sampling and data-tracking purposes). If more than one team collected samples at a site or within a sampling group, each collected an equipment rinsate sample. Field blanks were prepared in the field using deionized water and were collected at a frequency of about 10 percent of the sampling groups. Duplicate groundwater samples were collected at a frequency of at least one per sampling group.

3.5 Laboratory Analysis

Groundwater samples collected from each monitoring well and spring were analyzed for the parameters and constituents specified on Table 2. As shown, samples from all of the wells were analyzed for a standard suite of analytes that included:

- principal cations and anions;
- trace metals (a term used to differentiate metals that are typically minor groundwater constituents, such as cobalt and nickel, from metals that are principal ions in groundwater, such as magnesium and sodium);
- VOCs;
- gross alpha activity and gross beta activity;
- total suspended solids, total dissolved solids (TDS), and turbidity;
- field and laboratory determinations of pH and specific conductance; and
- field determinations of temperature, dissolved oxygen, and oxidation-reduction potential.

In addition to the standard suite of analyses, groundwater samples collected from wells at some sites in the Chestnut Ridge Regime were analyzed for other compounds or parameters as required by TDEC regulations, as requested by the TDEC, or as needed based on previous monitoring results (Table 2). For example, samples collected from wells at Construction/Demolition Landfill IV were analyzed for additional organic compounds and other required parameters specified by the TDEC solid waste management regulations. Samples from other wells, such as GW-295 at the Chestnut Ridge Borrow Area Waste Pile, were analyzed for

isotopic uranium and beta-emitting radionuclides because of elevated gross alpha and gross beta activity reported for samples collected from the well in CY 1993.

All of the laboratory blanks, trip blanks, field blanks, and equipment rinsate samples were analyzed for the suite of VOCs listed on Table 2. Selected equipment rinsate samples also were analyzed for trace metals (Inductively Coupled Plasma analyses), organic compounds, gross alpha and gross beta activity, and radionuclides. Duplicate groundwater samples were analyzed for the constituents and parameters specified for the well from which the duplicate sample was collected.

Analyses of the groundwater and QA/QC samples were performed by three different laboratories: the K-25 Analytical Services Organization (ASO), EcoTek Laboratory Services, Inc. (EcoTek), and the ORNL ASO. The bulk of the analyses were performed by the K-25 ASO. EcoTek performed the analyses for the additional organic compounds required by the TDEC for the SWDFs in the regime. Selected radiochemical analyses were performed by the ORNL ASO.

3.6 Data Management

Analytical results obtained by the K-25, EcoTek, and ORNL laboratories were verified, entered into the Y-12 Plant Environmental Monitoring Database (EMD), and electronically processed through several data evaluation procedures. Brief descriptions of the data verification/entry/evaluation procedures are as follows; details are provided in the *Y-12 Plant Groundwater Protection Program Groundwater Monitoring Program Data Management Plan* (Martin Marietta Energy Systems, Inc. 1993).

Analytical results obtained from each quarterly sampling event were either downloaded directly into the EMD from data files provided by the analytical laboratory or were manually input from hardcopy documentation (laboratory reports and field data sheets). For manually input data, a double-entry procedure was followed whereby the hardcopy data were input twice into separate data files. A computer program then compared the two input data files and identified discrepancies, which were then accounted for and corrected.

When all data for each sampling event were in the EMD, a computer program then verified that the parameter names were correct, correct units were reported, and that the results

reported for each parameter were within an expected range or were valid numeric values. A second computer program was then used to scan the monitoring data, flag questionable or suspect data based on pre-defined criteria, and prepare a report for transmittal to the appropriate laboratory. This data evaluation program calculated ion-charge balances for each sample, identified changes in analytical detection limits, and validated analytical results for VOCs using the QA/QC sample data in accordance with an EPA validation procedure (U.S. Environmental Protection Agency 1988b). As a final step in the data verification process, printouts of the data were visually checked against the laboratory reports and field data sheets for completeness and obvious data outliers. The appropriate laboratory was contacted to resolve incomplete data transfers, discrepancies between electronic and hardcopy versions of the data, and questions regarding data outliers.

3.7 Analytical Results

Groundwater quality data obtained during CY 1994 are contained in Appendices E through K. Appendix E contains the analytical results for each groundwater sample and Appendix F contain the results for the field duplicate samples. Ion-charge balances for each groundwater sample are presented in Appendix G. Appendix H contains trace metal results that exceed Maximum Contaminant Levels. Analytical results for the QA/QC samples are summarized in Appendix I. Validated analytical results for VOCs are provided in Appendix J and radiochemical data are summarized in Appendix K. The data presented in these appendices were generated from the following quarterly datasets: first quarter - Q1_94R2.SD2, second quarter - Q2_94R2.SD2, third quarter - Q3_94R1.SD2, and fourth quarter - Q4_94.SD2 (H&R Technical Associates, Inc. 1995a, 1995b, 1995c, and 1995d).

4.0 HYDROGEOLOGIC FRAMEWORK

This section contains a general description of the complex hydrogeologic system in the Chestnut Ridge Regime. It provides sufficient descriptive detail needed for RCRA assessment monitoring reporting requirements regarding evaluation of groundwater flow directions. The description is based on the conceptual framework and associated nomenclature presented in: *Status Report - A Hydrologic Framework for the Oak Ridge Reservation* (Solomon et al. 1992). However, a revised conceptual model of the groundwater flow system at the Y-12 Plant is currently being developed and will incorporate the findings of several ongoing and recently completed hydrogeologic (exit pathway and RI) studies. Development of a conceptual model specific to BCV was initiated because the Solomon et al. (1992) model does not explicitly address karst and fracture flow in the Maynardville Limestone, which is the principal groundwater flow and contaminant migration pathway in the BCV. The developing BCV model differs from the ORR framework in that: (1) the amount of recharge to the Knox Aquifer is thought to be higher in BCV than previous studies indicated, and (2) the influence of stormflow in BCV is thought to be lower than elsewhere on the ORR. In addition, the base of the active flow zone within the Maynardville Limestone is now believed to be deeper than previously thought and fractures and stratabound flow may exert as much influence as solution features on patterns of contaminant transport. If completed in time, the revised conceptual model will be incorporated into the description of the groundwater flow system included in the Part 2 GWQR.

4.1 Geology

The geology in the area of the Y-12 Plant is generally characterized by sequences of south-dipping, fractured clastic (primarily shale and siltstone) and carbonate (limestone and dolostone) strata of Lower Cambrian to Lower Ordovician age (Figure 5). The primarily dolostone strata of the Knox Group form Chestnut Ridge, and the underlying interbedded limestone and shale formations of the Conasauga Group form BCV to the north. Strike and dip of bedding in the Chestnut Ridge Regime is generally N 55°E and 45°SE, respectively (not referenced to Y-12 Plant grid system).

With the exception of Kerr Hollow Quarry and Rogers Quarry, the sites in the Chestnut Ridge Regime are directly underlain by reddish-brown to yellow-orange residuum overlying the Knox Group. The residuum is characteristically slightly acidic, predominantly composed of clays and iron sesquioxides (Jennings 1985), and contains semi-continuous, relict beds of fractured chert and other lithologic inhomogeneities (such as silt bodies) that provide a weakly connected network through which saturated flow can occur (Solomon *et al.* 1992). The residuum is thin or non-existent near karst features such as dolines (sink holes), swallets (sinking streams), and solution pan features (Ketelle and Huff 1984). Depth to bedrock varies throughout the Chestnut Ridge Regime, but is usually less than 100 ft.

The Knox Group consists of 2,500 to 3,000 ft of gray to blue-gray, thin- to thick-bedded cherty dolostone with interbeds of limestone (Figure 5). All but the southernmost portion of the Chestnut Ridge Regime is underlain by the Knox Group. The Chickamauga Group overlies the Knox Group disconformably and generally consists of thin- to medium-bedded argillaceous limestone and interbedded shale.

The most pervasive structural features in the Chestnut Ridge Regime are extensional, hybrid, and shear fractures (Solomon *et al.* 1992). Three major joint orientations are evident: one that roughly parallels bedding, one steeply dipping set that parallels geologic strike, and one steeply dipping set oriented perpendicular to strike (Dreier *et al.* 1987). Fracture densities ranging from about 1 to 60 per foot have been observed in rock outcrops near the Oak Ridge National Laboratory (Dreier *et al.* 1987; Sledz and Huff 1981). Most fractures are short, ranging from tenths of inches to a few feet in length (Solomon *et al.* 1992).

Dissolution of carbonates along fractures has produced many karst features in the Chestnut Ridge Regime. Smith *et al.* (1983) identified a series of sinkholes along the crest of the ridge that show a prominent alignment parallel to strike. This linear trend may result from dissolution along a bedding plane or joint set (Ketelle and Huff 1984; Smith *et al.* 1983).

4.2 Groundwater System

Solomon *et al.* (1992) divide the groundwater system underlying the ORR into two basic hydrogeologic units with fundamentally different hydrologic characteristics: the Knox Aquifer and the ORR Aquitards. The Knox Aquifer consists of the Knox Group and the underlying

Maynardville Limestone formation of the Conasauga Group. The remaining formations of the Conasauga Group, the underlying Rome Formation, and the Chickamauga Group form the ORR Aquitards. In this report, the term "ORR Aquitards" refers only to the Conasauga Group formations (excluding the Maynardville Limestone), and the Rome Formation.

Both the Knox Aquifer and the ORR Aquitards are divided by Solomon *et al.* (1992) into four parts: (1) the stormflow zone, (2) the vadose zone, (3) the groundwater zone (subdivided into water table, intermediate, and deep intervals), and (4) the aquiclude (Figure 6). The divisions are based on the amount of water transmitted by each subsystem (i.e., flux), which decreases with depth. The flow system is vertically gradational with no discrete boundaries separating the subsystems. However, the bulk permeability of the Knox Aquifer is about ten times greater than that of the ORR Aquitards (Solomon *et al.* 1992).

The stormflow zone occurs in regolith as does much of the vadose zone, although in some areas the vadose zone includes weathered and fresh bedrock. In the bedrock, orthogonal sets of pervious, planar fractures form groundwater flow paths. Within a fracture, groundwater may flow either downdip, laterally, or in both directions. Changes in flow direction may occur at fracture splits and intersections, and groundwater flow paths may locally resemble stairsteps in both plan and sectional views (Moore 1989). Intersections of two or more fracture sets form permeable intervals or zones that transmit the bulk of the groundwater flux (Moore and Toran 1992). Fracture sets comprising the permeable zone in the water table interval are generally nonstratiform and groundwater generally flows in the direction of maximum hydraulic gradient along multiple, alternative flow paths (Moore and Toran 1992). Stratiform fracture sets are believed to form permeable zones at deeper intervals in the bedrock, and groundwater in these zones primarily flows in the direction of geologic strike (which may or may not correlate with the maximum hydraulic gradient) toward cross-cutting tributary streams (Moore and Toran 1992). Additionally, the vertical spacing between permeable zones increases with depth, and these zones are poorly connected in three dimensions (Solomon *et al.* 1992).

Recharge on Chestnut Ridge is via vertical percolation through the regolith and probably includes more direct input via sinkholes. Annual recharge is about 2.6 inches, and it is possible that a portion of the recharge results from delayed unsaturated flow (Solomon *et al.* 1992). Groundwater discharge pathways from the ridge have not been completely established, but based on knowledge of flow in similar karst systems and the results of dye-tracer tests in the Chestnut

Ridge Regime, springs and seeps located along or across strike are the probable discharge points.

4.2.1 Stormflow Zone

Investigations in Bethel Valley and Melton Valley near ORNL show that groundwater occurs intermittently above the water table in the ORR Aquitards in a shallow "stormflow zone" that extends from ground surface to a depth of about 6 ft (Moore 1989). As part of the RI/FS in progress for Bear Creek OU 04, stormflow tubes installed at 6 sites (3 along the northern flank of Chestnut Ridge) have all showed brief periods of soil saturation in response to rainfall (Figure 7) (Science Applications International Corporation 1994). These findings suggest that stormflow also occurs in BCV, although capping of the WMAs has probably altered the stormflow zone in some areas of the Bear Creek Regime. Additionally, the hydrologic importance of stormflow in BCV is not fully understood but may not be as great as in Bethel Valley and Melton Valley.

Channels for lateral flow in the stormflow zone include macropores and mesopores, which are connected voids created by various processes, including biochanneling, cracking, and soil particle aggregation (Moore 1989). This zone is thicker and more permeable in forested areas than in grassy or brushy areas, and is more permeable near the land surface than at deeper levels (Moore 1989). However, a stormflow zone may not exist in areas that have undergone substantial modification, such as capped portions of waste-management areas.

Water is present in the stormflow zone during, and for short periods after, significant rainfall events; most of the water is lost to evapotranspiration and much of the remaining water discharges at nearby seeps, springs, and streams (Figure 7). Analysis of infiltrometer test results from Bethel Valley and Melton Valley suggest that the hydraulic conductivity of the stormflow zone averages about 29 feet per day (ft/day) near the top and 0.1 ft/day near the base (Moore 1989). Lateral flow in the stormflow zone is intermittent, lasting a few days to a few weeks after precipitation. Flow is fairly rapid when the zone is full of water but relatively slow when nearly drained (Moore 1989).

4.2.2 Vadose Zone

The vadose zone occurs between the stormflow zone and the water table. The geometric mean depth to the water table in the Knox Aquifer is about 100 ft. Water is added to the vadose zone by percolation from the stormflow zone and is removed by transpiration and recharge to the water table. The vadose zone is unsaturated except in the capillary fringe above the water table and within wetting fronts during periods of vertical percolation from the stormflow zone (Moore 1989). Most recharge through the vadose zone is episodic and occurs along discrete permeable fractures that become saturated, even though surrounding micropores remain unsaturated (Solomon *et al.* 1992).

The hydraulic conductivity of the unsaturated residual soils on Chestnut Ridge has been determined from slug tests in wells located at the United Nuclear Corporation Site (Mishu 1982), and in areas several miles west of the Chestnut Ridge Regime (Woodward-Clyde Consultants, Inc. 1984). Little variation was observed with depth, but conductivities determined by field and laboratory tests varied by approximately two orders-of-magnitude for comparable depth intervals. Mean field conductivities ranged from 0.0057 to 0.49 ft/day and mean laboratory conductivities ranged from 2.8×10^{-5} to 9.1×10^{-3} ft/day. Results of the slug tests are similar to those obtained from infiltrometer tests. Moore (1988) reported a geometric mean hydraulic conductivity of about 0.006 ft/day for residuum on Chestnut Ridge based on results of infiltrometer studies near ORNL reported by Watson and Luxmoore (1986) and Wilson and Luxmoore (1988).

The hydraulic conductivity of the residuum overlying the Knox Aquifer varies with the degree of saturation (Luxmoore 1982; Daniels and Broderick 1983). Luxmoore (1982) demonstrated that hydraulic conductivity decreases by approximately one order-of-magnitude with a volumetric water content decrease to 90% of saturation, and two orders-of-magnitude with a volumetric water content decrease to 75% of saturation. Daniels and Broderick (1983), as summarized in Ketelle and Huff (1984), reported that hydraulic conductivity decreases by roughly one order-of-magnitude relative to maximum when saturation is 90%, and three orders-of-magnitude relative to maximum when saturation is 75%. Ketelle and Huff (1984) also noted that wide variations in soil permeability occur over short lateral distances. These findings are consistent with observations of permeability variation in residual soils found in other karst areas (Quinlan and Aley 1987).

4.2.3 Groundwater Zone

Solomon et al. (1992) divide the saturated zone in the Knox Aquifer and ORR Aquitards into water table, intermediate, and deep intervals based on observed changes in hydrologic characteristics and groundwater geochemistry with depth (Figure 6).

4.2.3.1 Water Table Interval

A permeable interval 3 to 15 ft thick usually occurs in the transitional horizon between regolith and unweathered bedrock. The water table often occurs within this permeable interval (Solomon et al. 1992). The saturated thickness of this interval changes with cyclic fluctuations in the water table elevation and the interval may be nearly drained during seasonal water table declines. Moore (1989) estimates an average effective porosity of 0.0042 near the water table.

Results of geochemical dating studies of the ORR Aquitards in Melton Valley generally support the concept of a groundwater zone that is most active near the water table and becomes increasingly sluggish with depth (Solomon et al. 1992). Analyses of ^3H : ^3He ratios in groundwater samples collected from 1 to 6 ft below the water table showed ages ranging from 0.09 to 7.23 years, and the presence of large amounts of ^4He in groundwater samples from greater depths (45 to 165 ft below ground surface) suggested much greater residence times (Poreda et al. 1988).

4.2.3.2 Intermediate Interval

Groundwater in the intermediate bedrock interval occurs in relatively permeable fractures in a relatively impermeable matrix, but permeable fractures are poorly connected (Solomon et al. 1992). Enlarged fractures and cavities are the primary water-producing features and solute transport pathways, and are supplied by seepage through fractures in the rock matrix, which outnumber the enlarged fractures and cavities, are interconnected, and provide the continuity for groundwater flow paths (Moore 1989).

Estimates of the hydraulic conductivity of the intermediate interval in the Knox Aquifer are provided by results of straddle packer tests performed in three core holes in the Chestnut

Ridge Regime: two at the east end of the regime near the Sediment Disposal Basin and one at the west end of the regime near Industrial Landfill IV. The tested intervals were in the Copper Ridge Dolomite of the Knox Group and were generally less than 600 ft below the ground surface. Calculated hydraulic conductivities ranged from 0.0002 to 3.1 ft/day (King and Haase 1988) and averaged about 0.6 ft/day. The upper population represents more permeable water-producing intervals and the lower population represents less permeable matrix intervals.

The hydraulic conductivity of some water-producing intervals in the Knox Aquifer is much greater than indicated by the straddle packer tests owing to an interconnected network of solution cavities and solutionally-enlarged fractures. For instance, groundwater flow rates determined from a tracer test performed by Ketelle and Huff (1984) ranged from about 490 to 1,250 ft/day. Preliminary results of a dye-tracer test performed by Geraghty & Miller, Inc. (1990b) at the Security Pits indicated flow rates of about 100 to 300 ft/day, although findings of the test were not confirmed by a second test performed at the site (Science Applications International Corporation 1993). However, results of the Ketelle and Huff (1984) and the Geraghty & Miller, Inc. (1990b) tracer tests are within the range of conduit-flow rates typical in karst terrains (Quinlan and Ewers 1985).

4.2.3.3 Deep Interval

Identification of the deep interval is based on hydraulic and geochemical data for several deep (greater than 500 ft) monitoring wells and coreholes. Solomon *et al.* (1992) report that the boundary between the intermediate interval and the deep interval in BCV occurs at depths of about 325 ft in the ORR Aquitards and 650 ft in the Knox Aquifer. The boundary is based on lower hydraulic conductivity, although use of hydraulic conductivity may not always be a reliable indicator (Solomon *et al.* 1992).

In some areas of the Bear Creek Regime, the transition from the intermediate interval to the deep interval in the ORR Aquitards is indicated by a change from sodium-bicarbonate groundwater to sodium-chloride groundwater accompanied by a general increase in specific conductance and TDS. This change in groundwater geochemistry probably reflects longer residence times in the deep interval, and usually occurs at depths of more than 400 ft below the ground surface (Solomon *et al.* 1992). However, no such change in groundwater geochemistry

is generally observed in the Knox Aquifer; calcium-magnesium-bicarbonate or calcium-sulfate groundwater occurs to depths of 1,000 ft below the ground surface (Dreier *et al.* 1993).

Evaluation of data obtained from straddle packer tests and slug tests, and slow-recovery analyses, indicates that the geometric mean hydraulic conductivity of the deep interval is about 0.001 ft/day (Solomon *et al.* 1992). The low conductivities may reflect reduced fracture apertures or increased fracture spacings (Solomon *et al.* 1992).

4.2.4 Aquiclude

The aquiclude occurs below the deep groundwater interval and is generally marked by the presence of saline water with TDS concentrations of 40,000 to 300,000 milligrams per liter (mg/L) (Solomon *et al.* 1992). Information obtained southeast of the Chestnut Ridge Regime in Melton Valley indicates that the saline water typically occurs at depths of about 600 to 700 ft below the ground surface (Solomon *et al.* 1992). The water in the aquiclude is a sodium-, calcium-, and chloride-rich brine that is chemically similar to brines associated with major sedimentary basins (Solomon *et al.* 1992).

Saline groundwater has not been encountered at depth in the Chestnut Ridge Regime. However, several wells completed at depths of about 500 to 1,000 ft below the ground surface in BCV monitor groundwater with TDS concentrations of several thousand mg/L to several tens of thousand mg/L, suggesting that the aquiclude may be present at greater depth near the Y-12 Plant than in Melton Valley (Solomon *et al.* 1992).

4.3 Groundwater Flow Directions

Directions of groundwater flow in the Chestnut Ridge Regime were evaluated from static water level measurements obtained in January and August 1994. Water levels were determined in 82 monitoring wells during January 1994 (the seasonally high water table) and in 87 wells in August 1994 (the seasonally low water table); depth-to-water and water-level elevations for each well are presented in Appendix L. Review of these data show that water level declines averaged about 8 ft in most of the wells, with the largest decreases (more than 20 ft) typically occurring in wells located along the crest of Chestnut Ridge. Additionally, the pattern of water level

decrease was the same in all wells such that there were no significant changes in groundwater flow directions (i.e., no significant deviation of horizontal hydraulic gradients).

Groundwater elevations in the Chestnut Ridge Regime are illustrated on Figure 8. Monitoring wells were the primary controls for placement of elevation isopleths, but springs and streams also provided additional control. The water table in the Chestnut Ridge Regime generally reflects surface topography and radial groundwater flow directions; strike-parallel gradients range from 0.02 to 0.05 and strike-normal gradients range from 0.06 to 0.09.

Water level hydrographs prepared from average water level elevations in wells located at several of the waste-management sites in the regime are presented on Figure 9. Water levels in wells located along the crest of Chestnut Ridge (Industrial Landfill IV, the Security Pits, and the United Nuclear Corporation Site) show generally uniform and concurrent seasonal fluctuations. However, average water level elevations in wells at other sites, particularly Kerr Hollow Quarry, show far more erratic, discordant fluctuations that appear less positively associated with seasonal water table variations. Fluctuations in these wells may result from a direct surface or conduit connection, or may represent an artifact of purging at an adjacent well.

4.4 Rate of Contaminant Migration

The following estimates of contaminant migration rates are presented to comply with RCRA interim status assessment monitoring requirements. Estimated rates are provided for migration in the residuum and the underlying Knox Group bedrock. Several methods were used to estimate the rates in both residuum and bedrock, but each method is based on the assumption that contaminants move unimpeded by various retardation processes. Factors which would reduce transport rates, such as matrix diffusion, degradation, sorption, and chemical precipitation, and factors which may increase transport rates, such as dispersion, were not explicitly considered. Moreover, migration as free product, which may occur independent of the direction and rate of groundwater flow, and vapor-phase transport, a potentially significant mechanism for the introduction of VOCs to the groundwater, also were not considered.

The wide range of potential contaminant migration rates described in the following sections demonstrates the uncertainty in determining a representative rate of solute transport for this groundwater flow system. Long term transport of solutes in dual porosity and/or highly

heterogeneous media is a complex physical process that is not fully explained by the methods used for estimating migration rates. It is probable that at various times and under various conditions, migration rates throughout the estimated ranges occur; some contaminants move relatively rapidly through the flow system while other more highly attenuated constituents move much more slowly. Moreover, even highly mobile compounds will diffuse into smaller pores from the large conduits, and then, under a reverse concentration gradient, will slowly diffuse back out. Thus, although the actual migration rates may vary over several orders of magnitude, the apparently limited extent of groundwater contamination in the regime suggests that processes such as matrix diffusion are an important controlling factor in reducing the rate of contaminant migration relative to groundwater flow velocities.

4.4.1 Residuum

Two methods were used to estimate the rate of vertical migration through the residuum overlying the Knox Aquifer; the water-balance method, and the arrival time method. The water-balance method is based on the relationship $v = q/n$, where v is the migration rate, q is the annual recharge rate, and n is the effective porosity. Based on an annual recharge of 2.6 inches per year for the Knox Aquifer (Solomon *et al.* 1992), zero to 95% subsurface runoff in the stormflow zone (Moore 1988), and an effective porosity of 0.0042 (Moore 1989), estimated contaminant migration rates range from 2.6 feet per year (ft/yr) (0.007 ft/day) assuming 95% subsurface runoff to 51.6 ft/yr (0.14 ft/day) assuming zero subsurface runoff.

Historical water quality data for well 1080 (now plugged and abandoned) were used to determine the migration rate with the arrival time method. Installed at the Security Pits in CY 1982, VOCs were first detected in samples collected from the well in CY 1986. The top of the screened interval for this well was about 160 ft bgs. Using this depth and assuming a 13-year travel time (i.e., the period from initial waste disposal at the Security Pits in CY 1973 to detection of the VOCs in CY 1986), a migration rate of about 12 ft/yr (0.033 ft/day) is calculated.

4.4.2 Bedrock

Two types of groundwater flow are typical of karst systems: diffuse flow and conduit flow. Rates for diffuse flow in the Knox Group were determined using the modified Darcy equation given by $v = Ki/n$, where v is the migration rate, K is the hydraulic conductivity, i is the horizontal hydraulic gradient, and n is the effective porosity. Using the range of hydraulic conductivity test results (0.002 to 3.1 ft/day) reported by King and Hasse (1988) for wells completed in the Knox Group, an effective porosity of 0.01 (Smith *et al.* 1976), and the range of strike-normal and strike parallel hydraulic gradients reported in Section 4.3, the Darcy velocity for diffuse flow ranges from less than 1 ft/yr to about 30 ft/day for flow perpendicular to strike, and from less than 0.5 ft/year to 16 ft/day for strike-parallel flow. Although the modified Darcy equation can be used to calculate average flow velocities in fractured rock (assuming it is an equivalent porous media), actual velocities in individual fractures may vary over orders-of-magnitude, depending on fracture aperture and wall roughness (Freeze and Cherry 1979). Additionally, the value for effective porosity is representative for fractured limestones, but the actual value may be different by more than an order-of-magnitude, which would result in an inversely proportional variation in the Darcy velocity.

Migration rates for conduit flow were inferred from the results of dye-tracer tests performed on Chestnut Ridge. Results of the Geraghty & Miller, Inc. (1990b) and Ketelle and Huff (1984) dye tracer tests provide estimates of conduit flow rates in the Knox Group. Although not confirmed by a subsequent dye test (Science Applications International Corporation 1993), results of the Geraghty & Miller, Inc. (1990b) tracer test indicated flow velocities of 100 to 300 ft/day. Ketelle and Huff (1984) determined flow rates of about 490 to 1,250 ft/day in their tracer test on Chestnut Ridge west of the Chestnut Ridge Regime.

5.0 REFERENCES

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APPENDIX A

FIGURES

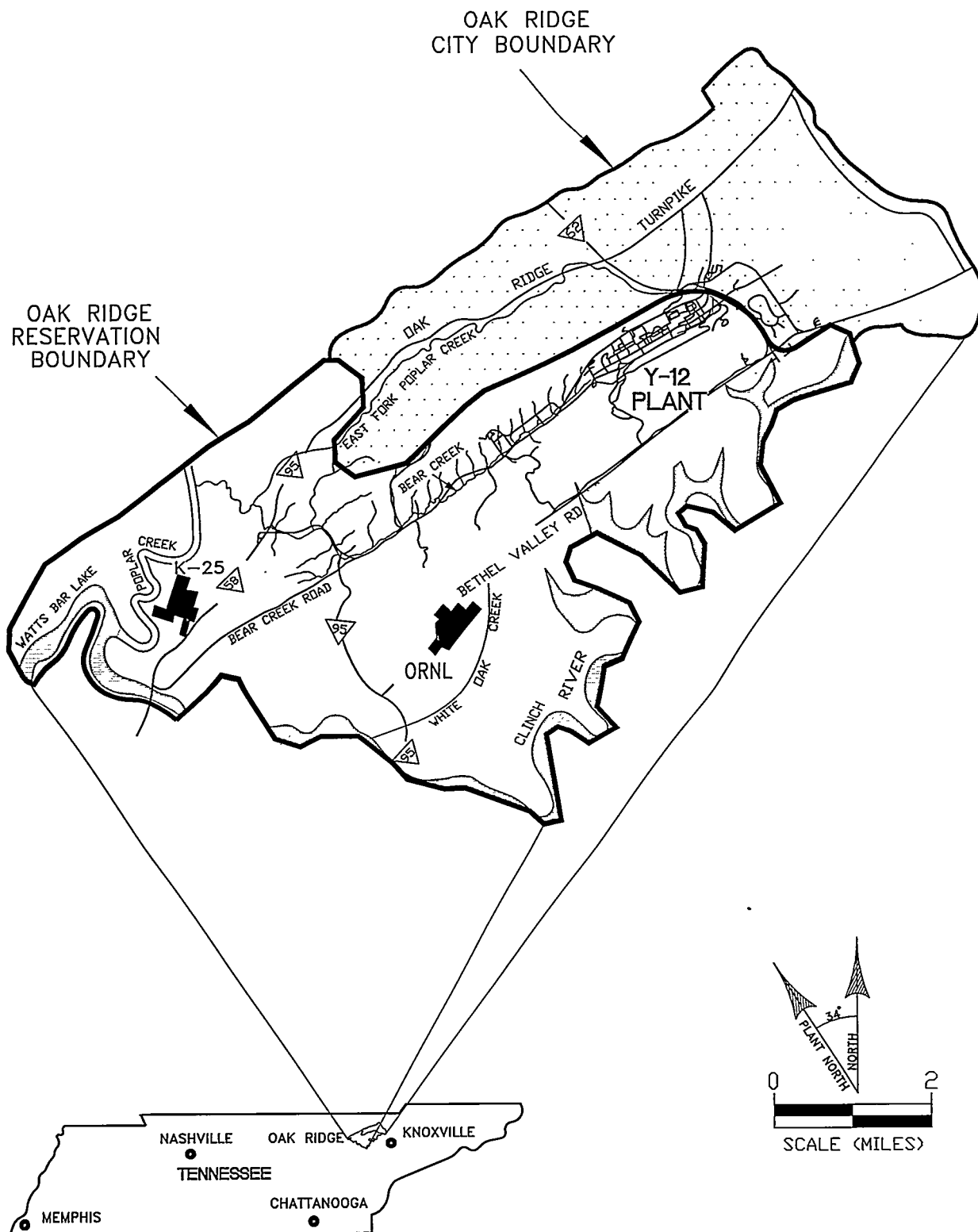


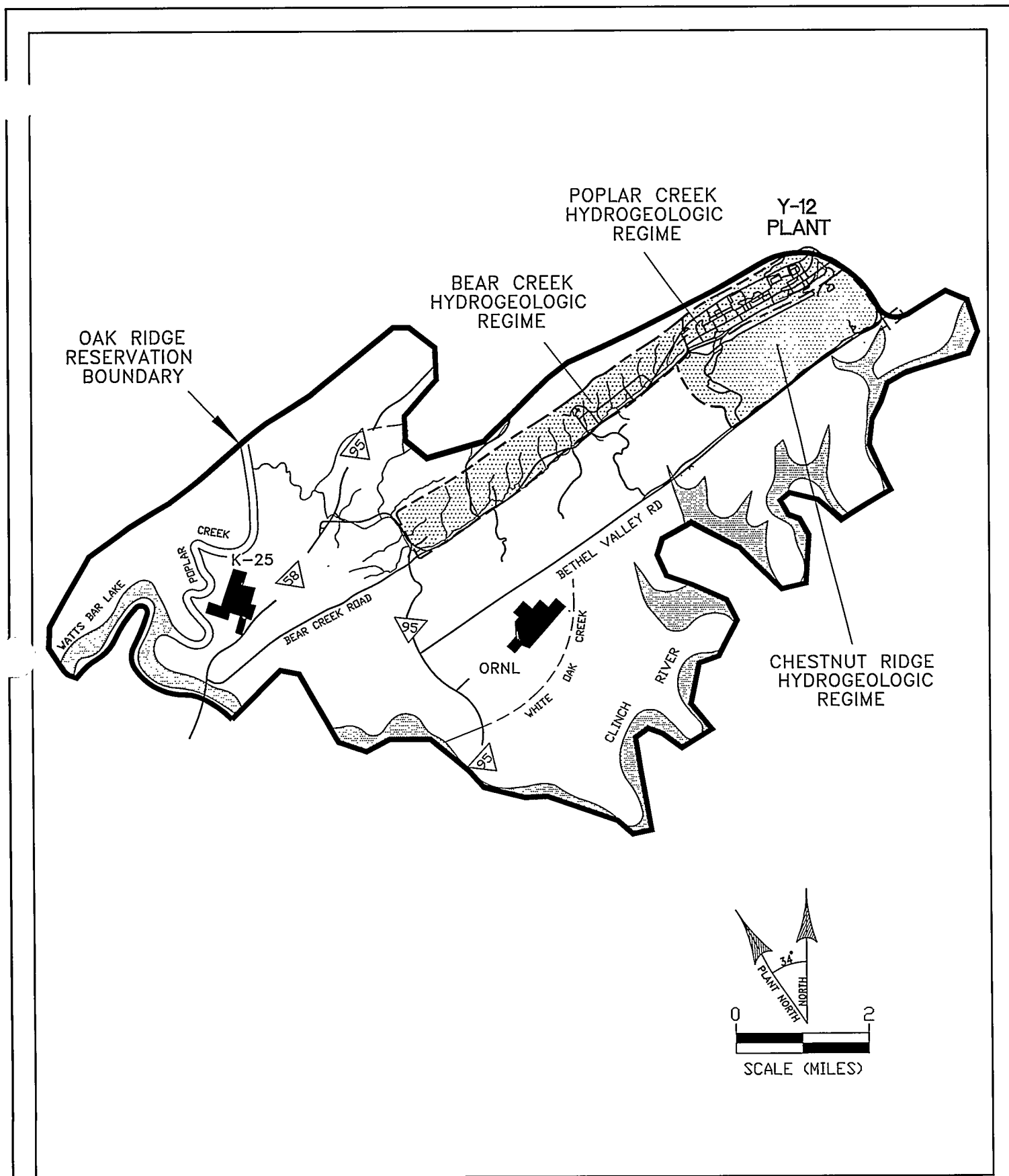
FIGURE 1

REGIONAL LOCATION OF THE Y-12 PLANT

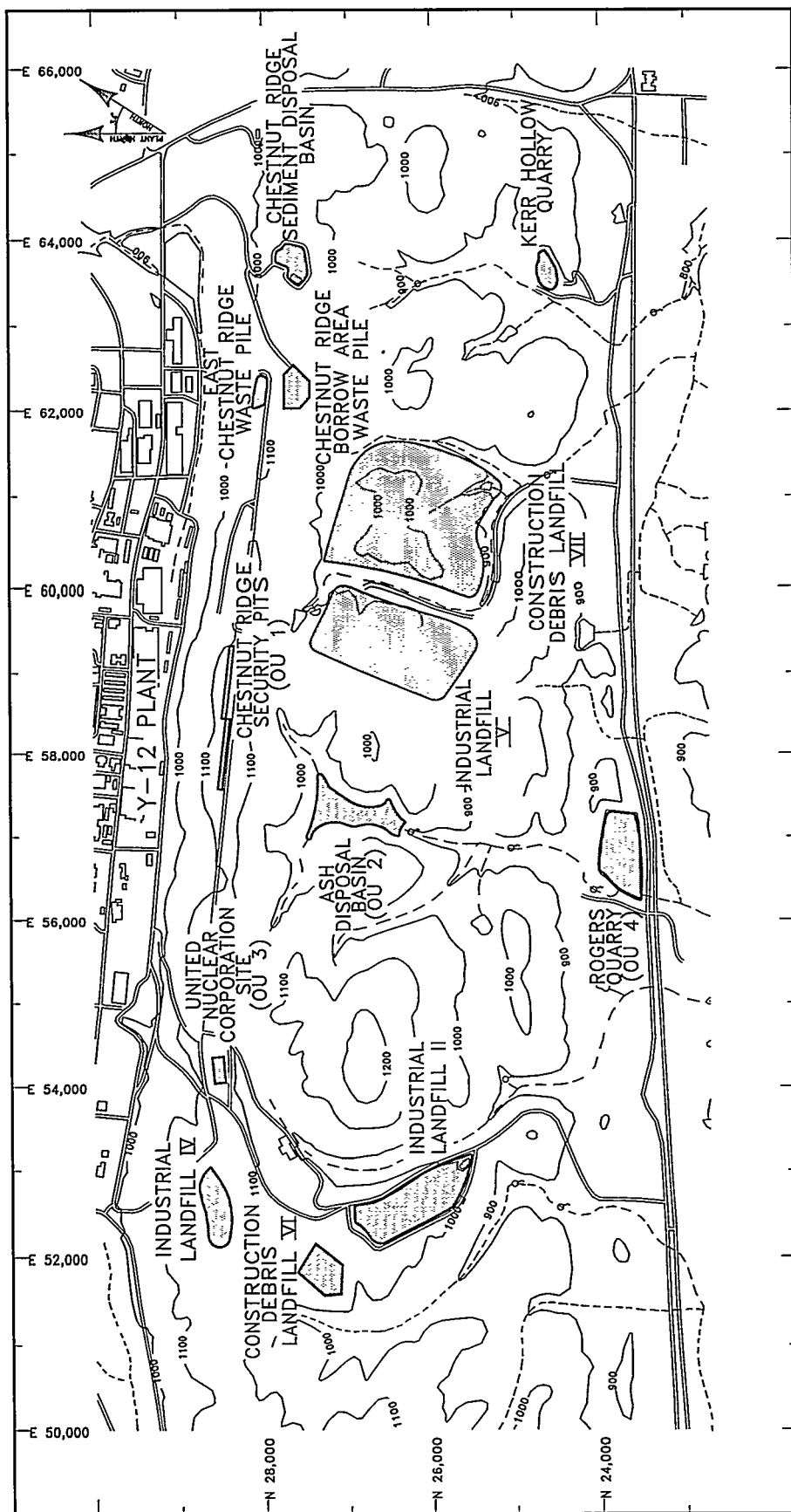
LOCATION: Y-12 PLANT
OAK RIDGE, TN.

DATE: 2-13-95

DWG ID.: OR250-HC



LOCATION:	Y-12 PLANT OAK RIDGE, TN.	FIGURE 2
DATE:	2-13-95	HYDROGEOLOGIC REGIMES AT THE Y-12 PLANT
DWG ID.:	OR321-HC	



EXPLANATION

— 1200 — TOPOGRAPHIC CONTOUR

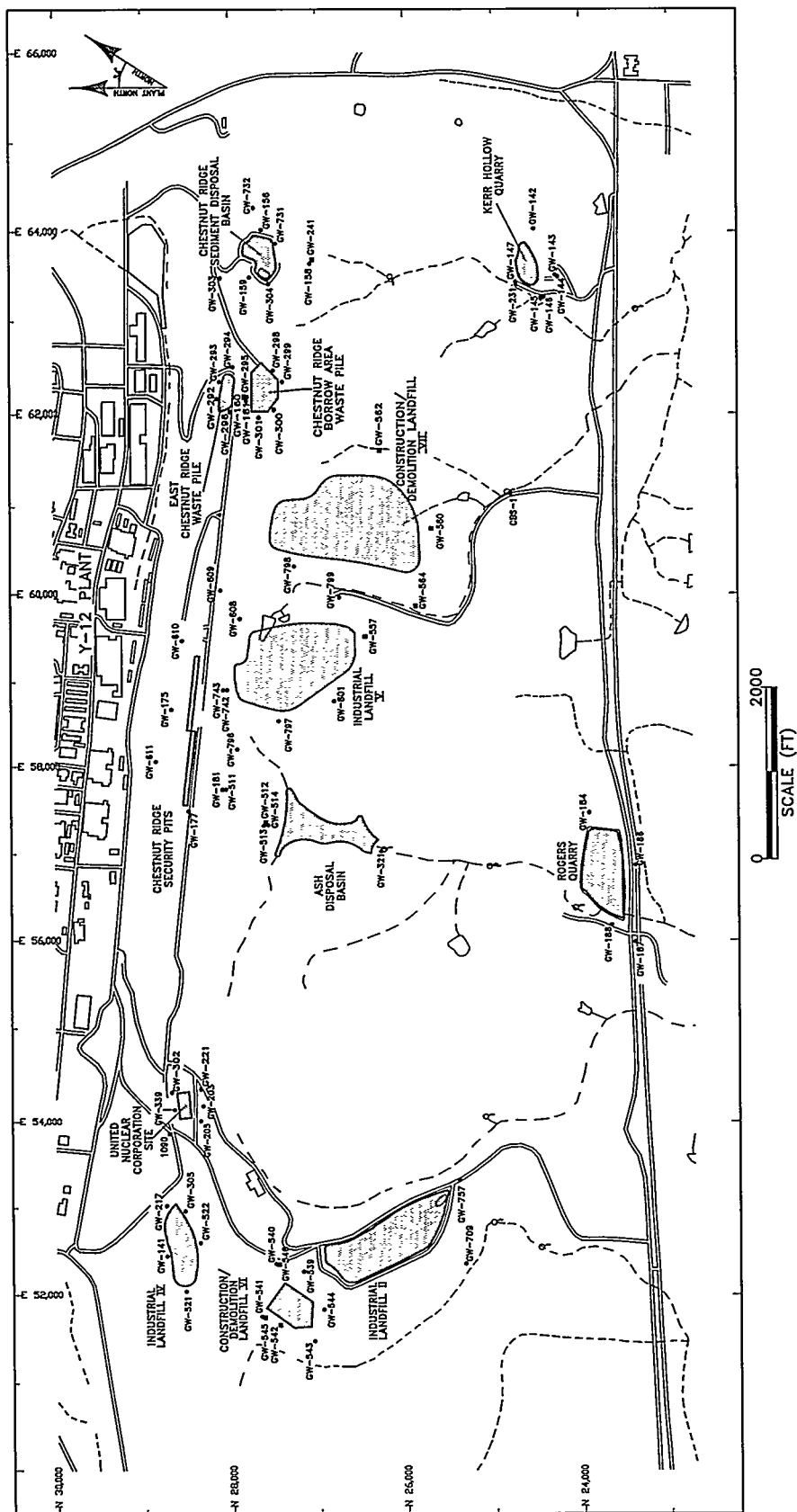
- - - SURFACE DRAINAGE FEATURE

q SPRING

LOCATION:	Y-12 PLANT OAK RIDGE, TN.
DATE:	2-13-95
DWG ID.:	OR210-HC

FIGURE 3

**WASTE-MANAGEMENT SITES AND CERCLA
OPERABLE UNITS IN THE CHESTNUT RIDGE
HYDROGEOLOGIC REGIME**



EXPLANATION	
GW-■	WATER TABLE ZONE MONITORING WELL
GW-●	BEDROCK ZONE MONITORING WELL
---	BOUNDARY OF SITE
---	SURFACE DRAINAGE FEATURE
q	SPRING
CS-1A	SPRING SAMPLING LOCATION

FIGURE 4

SAMPLING LOCATIONS FOR GROUNDWATER
AND SURFACE WATER MONITORING DURING 1994

LOCATION:

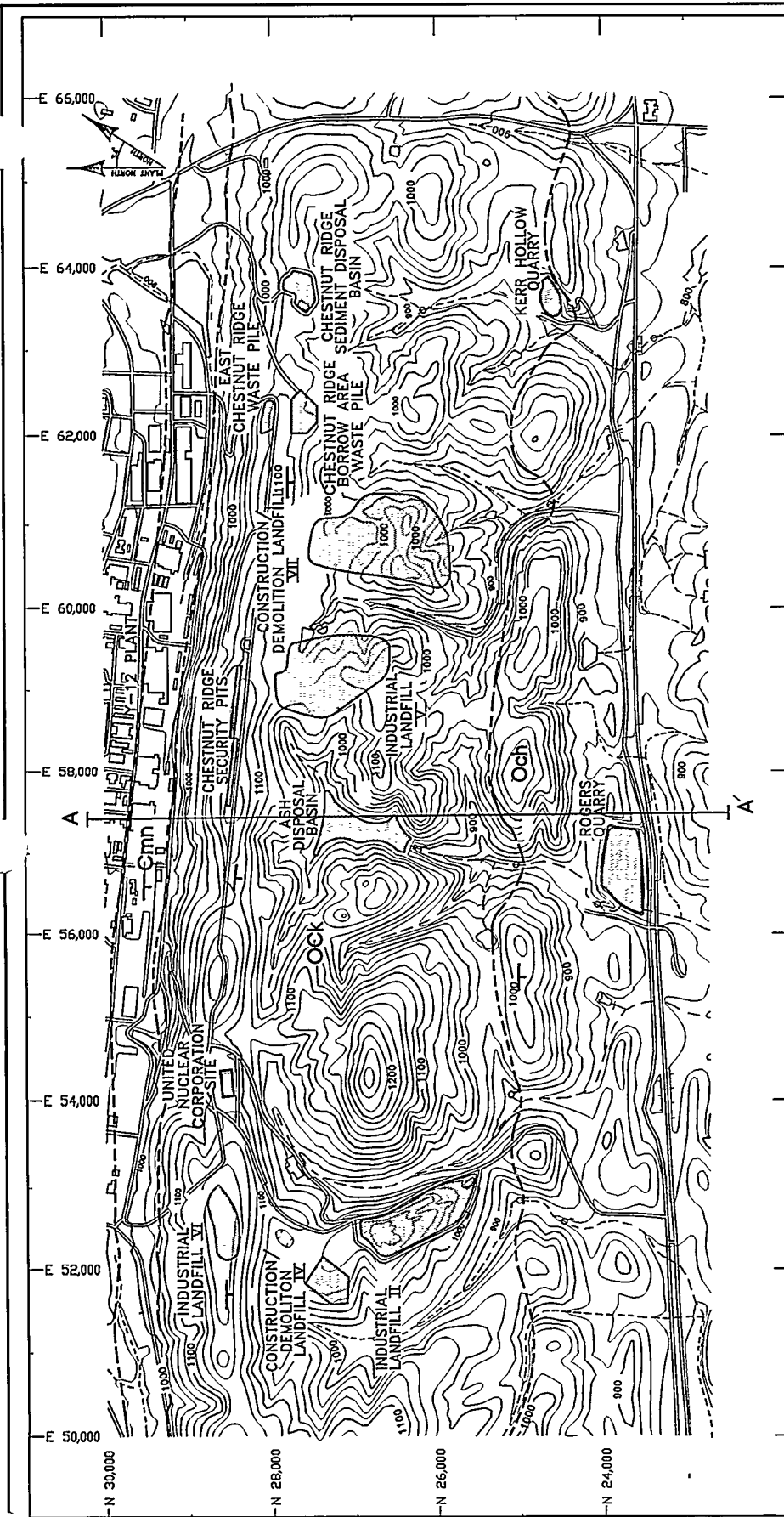
Y-12 PLANT
OAK RIDGE, TN.

DATE:

2-13-95

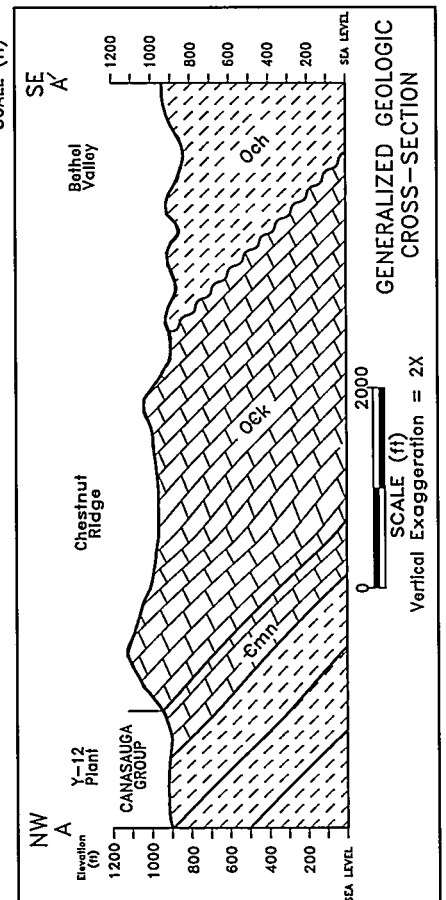
DWG ID.:

OR457-HC



SOURCE: King and Haase, 1987

SCALE (ft)
0 2000



SYSTEM	GROUP (Formation)	HYDRO UNIT	MAP SYMBOL	THICKNESS (FT)
UPPER	CHICKAMAUGA (Undifferentiated)	ORR AQUITARDS	Och	1500 TO 2000
MIDDLE	MISSING SECTION (Subaerial Erosion)			
LOWER	KNOX (Undifferentiated)	KNOX AQUIFER	Ock	2500 TO 3000
UPPER	CONASAUGA (Waynardville Limestone)		Cmn	418 TO 450

FIGURE 5

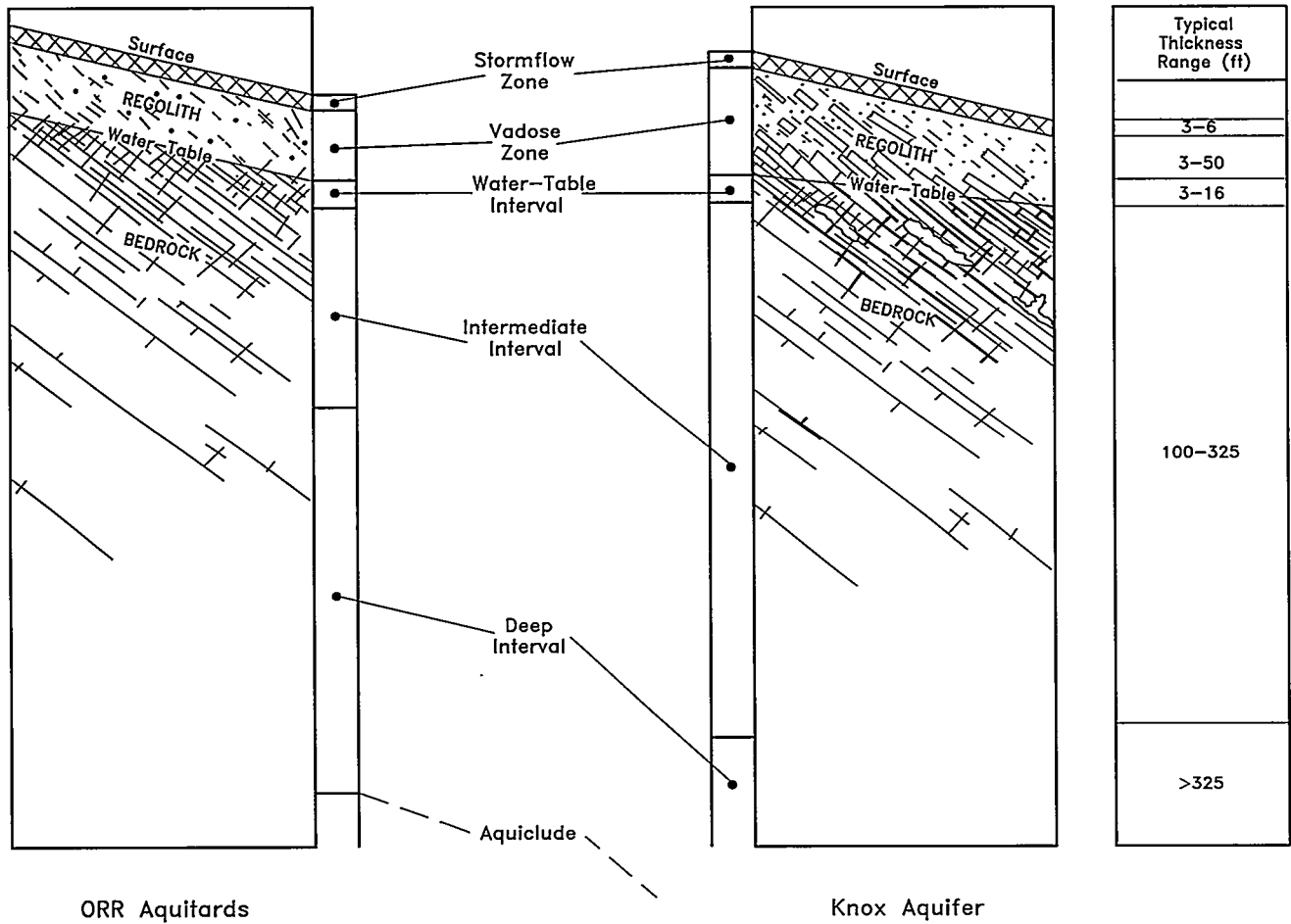
TOPOGRAPHY AND BEDROCK GEOLOGY IN THE CHESTNUT RIDGE HYDROGEOLOGIC REGIME

LOCATION: Y-12 PLANT
OAK RIDGE, TN.

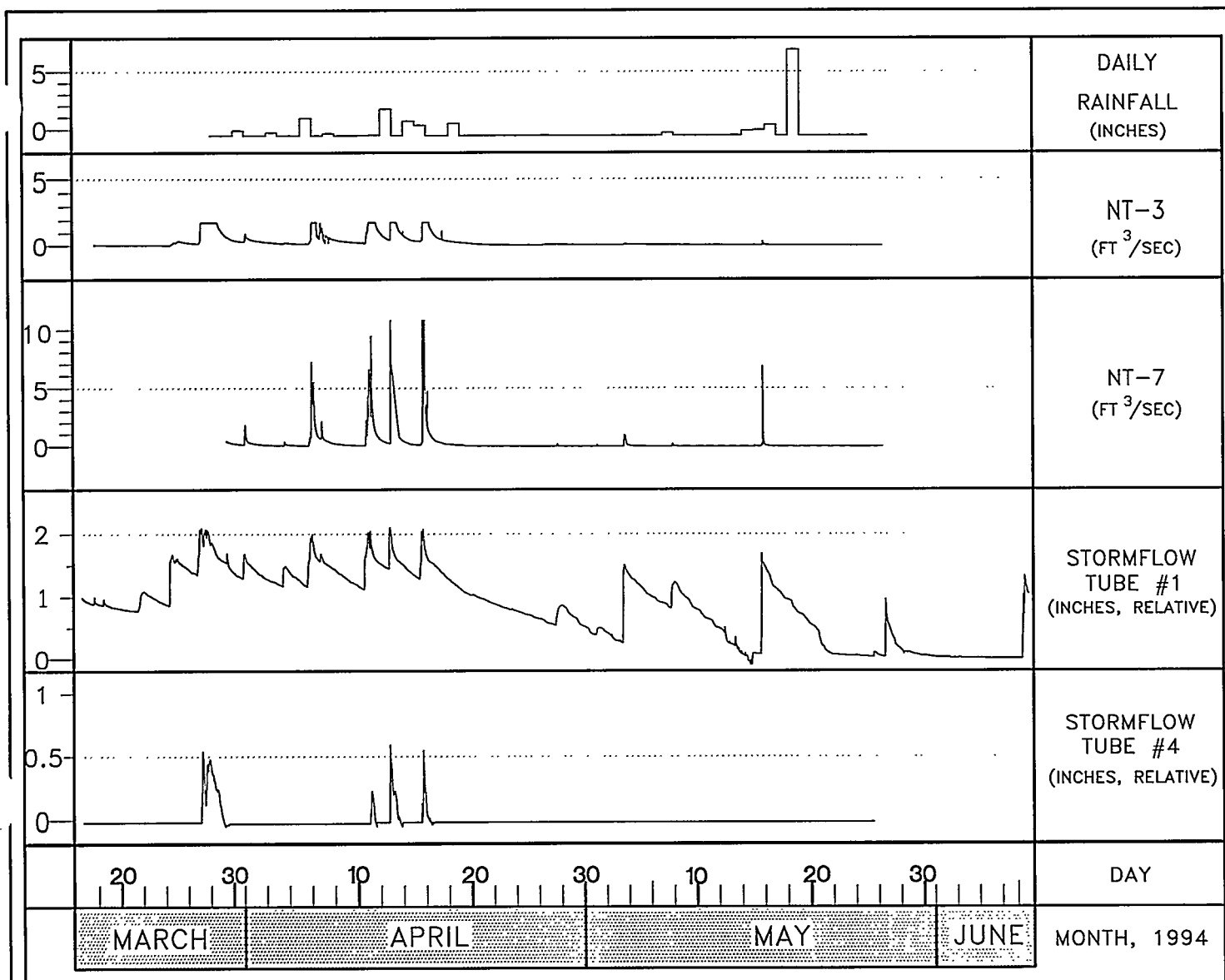
DATE: 2-13-95

DWG ID.: OR211-HC

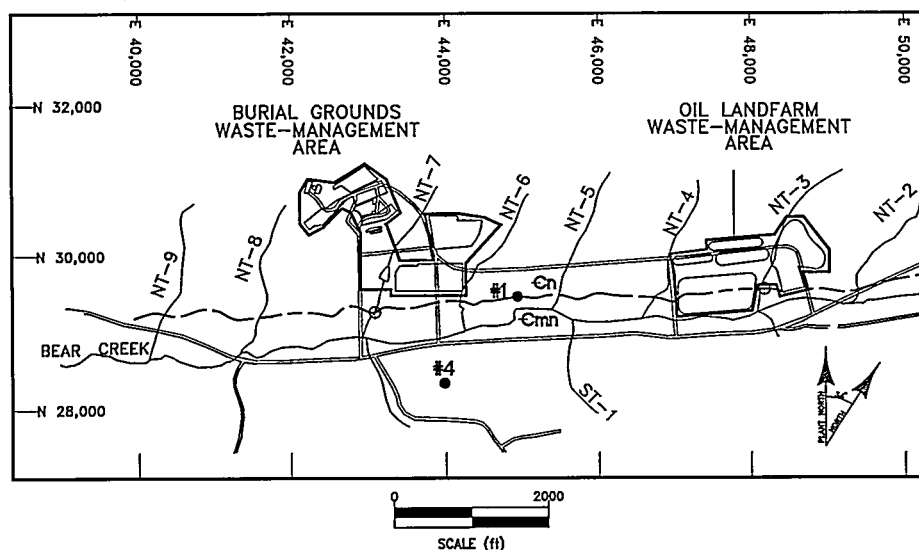
HYDROSTRATIGRAPHIC UNITS
PROPOSED BY SOLOMON et al. (1992)



LOCATION:	Y-12 PLANT OAK RIDGE, TN.	FIGURE 6 SCHEMATIC PROFILE OF HYDROSTRATIGRAPHIC UNITS IN THE CHESTNUT RIDGE HYDROGEOLOGIC REGIME
	DATE: 1-18-95	
	DWG ID.: OR213-HC	



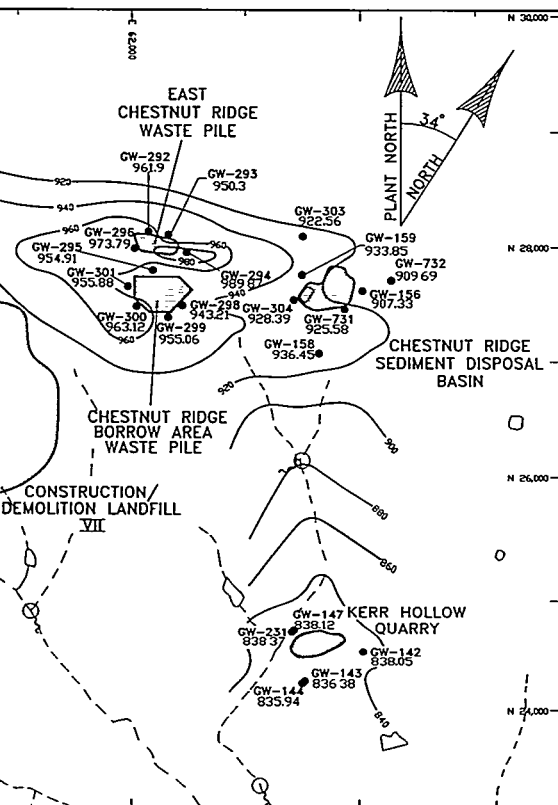
SOURCE: SAIC, 1994.



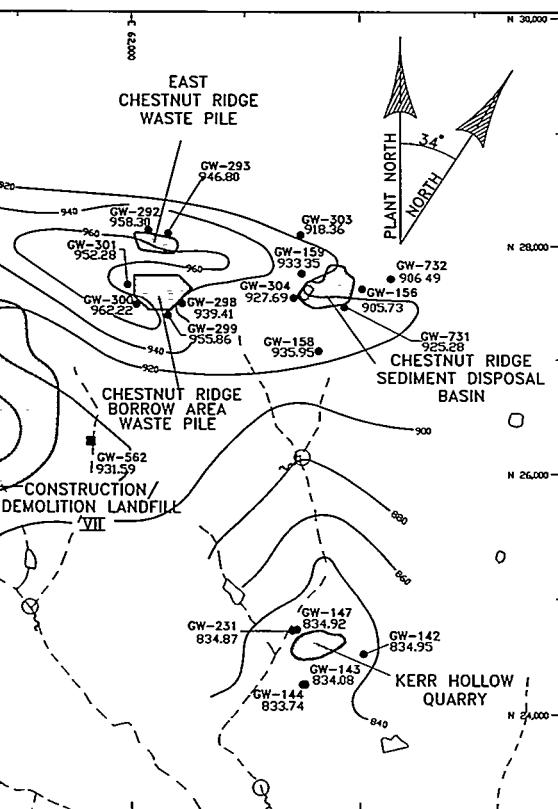
EXPLANATION

- — STORMFLOW TUBE
- ⊕ — TRIBUTARY GAUGING LOCATION
- NT — NORTH TRIBUTARY
- ST — SOUTH TRIBUTARY
- Cn — NOLICHUCKY SHALE
- — APPROXIMATE CONTACT
- Cmn — MAYNARDVILLE LIMESTONE

LOCATION:	Y-12 PLANT OAK RIDGE, TN.	FIGURE 7 RAINFALL RESPONSES IN THE STORMFLOW ZONE
DATE:	2-13-95	
DWG ID.:	OR414-HC	



Groundwater Elevations
January 11-24, 1994



Groundwater Elevations
August 22-31, 1994

EXPLANATION

GW-558 935.27 ■ Water Table Monitoring Well

GW-156 905.73 ● Bedrock Monitoring Well

— 920 — Approximate Water-Level Isopleth (ft msl)

- - - Surface Drainage Feature

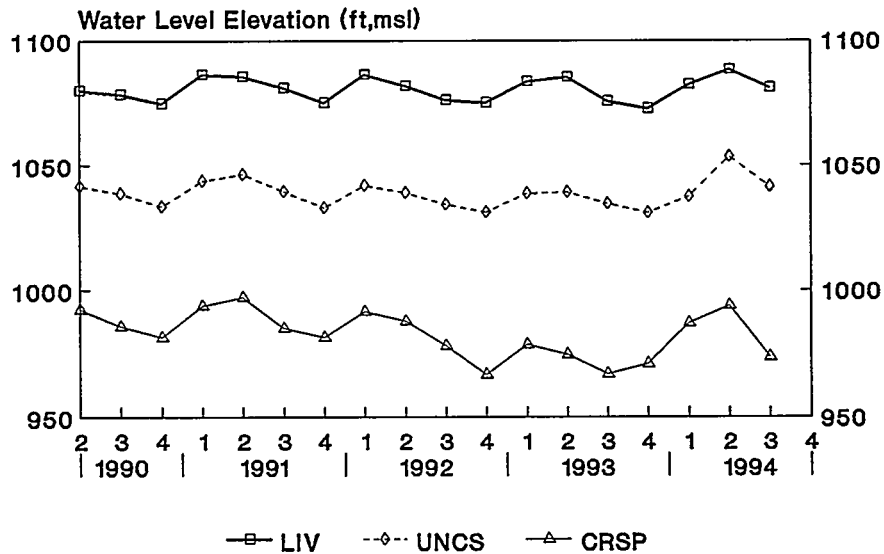
⊙ Spring

0 2000
SCALE (ft)

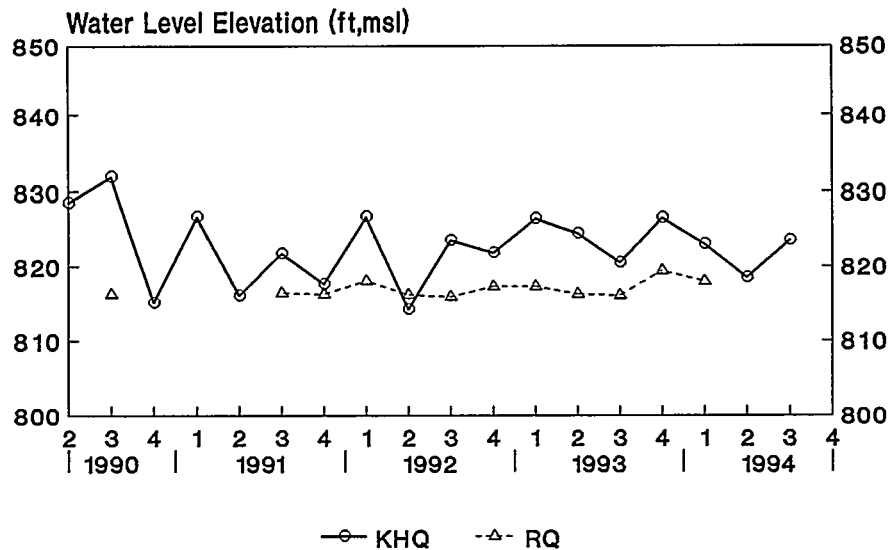
LOCATION:	Y-12 PLANT OAK RIDGE, TN.
DATE:	2-12-95
DWG ID.:	OR454-HC

FIGURE 8
GROUNDWATER ELEVATIONS
IN THE CHESTNUT RIDGE
HYDROGEOLOGIC REGIME

Upgradient Sites Recharge



Downgradient Sites Discharge



EXPLANATION

Depth-to-water measurements obtained during sampling events were averaged for all wells at each site and converted to elevations in feet above mean sea level (ft, msl).

UPGRADIENT SITES

CRSP — Chestnut Ridge Security Pits
LIV — Industrial Landfill IV
UNCS — United Nuclear Corporation Site

DOWNGRADIENT SITES

KHQ — Kerr Hollow Quarry
RQ — Rogers Quarry

LOCATION:	Y-12 PLANT OAK RIDGE, TN.	FIGURE 9 WATER LEVEL HYDROGRAPHS FOR SELECTED SITES IN THE CHESTNUT RIDGE HYDROGEOLOGIC REGIME
DATE:	2-14-95	
DWG ID.:	OR458-HC	

APPENDIX B

TABLES

**Table 1. Waste-Management Sites and CERCLA Operable Units
in the Chestnut Ridge Hydrogeologic Regime**

Site	Regulatory Classification	
	Historical ¹	Current ²
Chestnut Ridge Sediment Disposal Basin	TSD Unit	Study Area/TSD Unit
East Chestnut Ridge Waste Pile	TSD Unit	Study Area/TSD Unit
Kerr Hollow Quarry	TSD Unit	Study Area/TSD Unit
Chestnut Ridge Security Pits	TSD Unit	CR OU 01/TSD Unit
Ash Disposal Basin	SWMU	CR OU 02
United Nuclear Corporation Site	SWMU	CR OU 03
Rogers Quarry	SWMU	CR OU 04
Industrial Landfill II	SWDF	SWDF
Industrial Landfill IV	SWDF	SWDF
Industrial Landfill V	N/A	SWDF
Construction Debris Landfill VI	N/A	SWDF
Construction Debris Landfill VII	N/A	SWDF
Chestnut Ridge Borrow Area Waste Pile	SWDF	SWDF

Notes:

1 Regulatory classification before the 1992 Federal Facility Agreement.

- TSD Unit - RCRA-regulated land-based Treatment, Storage, or Disposal Facility.
- SWMU - RCRA-regulated Solid Waste Management Unit
- SWDF - Solid Waste Disposal Facility (non-hazardous waste)
- N/A - Not applicable (new facility)

2 Modified from: *Oak Ridge Reservation Site Management Plan for the Environmental Restoration Program* (U.S. Department of Energy 1994)

- CR OU 01 - Chestnut Ridge Operable Unit 01 (Source Control and Groundwater OU)
- CR OU 02 - Chestnut Ridge Operable Unit 02 (Source Control and Groundwater OU)
- CR OU 03 - Chestnut Ridge Operable Unit 03 (Source Control and Groundwater OU)
- CR OU 04 - Chestnut Ridge Operable Unit 04 (Source Control and Groundwater OU)

Table 2. Monitoring Wells Sampled During CY 1994

Monitoring Program	Sampling Point	Location ¹	Quarters Sampled ²				Analytical Parameters ³
			1st	2nd	3rd	4th	
RCRA Interim Status Assessment Monitoring							
	GW-175	CRSP	■	■	■	■	STD
	GW-177	CRSP	■	■	■	■	STD
	GW-181	CRSP	■	■	■	■	STD
	GW-511	CRSP	■	■	■	■	STD
	GW-608	CRSP	■	■	■	■	STD
	GW-609	CRSP	■	■	■	■	STD
	GW-610	CRSP	■	■	■	■	STD
	GW-611	CRSP	■	■	■	■	STD
	GW-742	CRSP	■	■	■	■	STD
	GW-743	CRSP	■	■	■	■	STD
RCRA Interim Status Detection Monitoring							
	GW-142	KHQ	■	■	■	■	STD, REP, PHEN
	GW-143	KHQ	■	■	■	■	STD, REP, PHEN
	GW-144	KHQ	■	■	■	■	STD, REP, PHEN
	GW-145 ^a	KHQ	■	■	■	■	STD, REP, PHEN
	GW-146	KHQ	■	■	■	■	STD, REP, PHEN
	GW-147	KHQ	■	■	■	■	STD, REP, PHEN
	GW-156	CRSDB	■	■	■	■	STD, REP, BNA
	GW-158	CRSDB	■	■	■	■	STD, REP, BNA
	GW-159 ^a	CRSDB	■	■	■	■	STD, REP, BNA
	GW-231	KHQ	■	■	■	■	STD, REP, PHEN
	GW-241	CRSDB	■	■	■	■	STD, REP, BNA
	GW-303	CRSDB	■	■	■	■	STD, REP, BNA
	GW-304	CRSDB	■	■	■	■	STD, REP, BNA

Table 2 (cont'd)

Monitoring Program	Sampling Point	Location ¹	Quarters Sampled ²				Analytical Parameters ³
			1st	2nd	3rd	4th	
RCRA	Interim Status Detection Monitoring (cont'd)						
	GW-731	CRSDB	■	■	■	■	STD, REP, BNA
	GW-732	CRSDB	■	■	■	■	STD, REP, BNA
	SWDF Detection and Background Monitoring						
	GW-141	LIV	■	■	■	■	STD, AOC, ORP(2)
	GW-217	LIV	■	■	■	■	STD, AOC, ORP(2)
	GW-305	LIV	■	■	■	■	STD, AOC, ORP(2)
	GW-521 ^a	LIV	■	■	■	■	STD, AOC, ORP(2), RAD
	GW-522	LIV	■	■	■	■	STD, AOC, ORP(2)
	GW-539 ^a	LII	■	■	■	■	STD, AOC, ORP(2), U, OMP
	GW-540	CDLVI	■	■	.	■	STD, AOC, ORP(2)
	GW-541 ^a	CDLVI	■	■	.	■	STD, AOC, ORP(2)
	GW-542	CDLVI	■	■	.	■	STD, AOC, ORP(2)
	GW-543	CDLVI	■	■	.	■	STD, AOC, ORP(2)
	GW-544	CDLVI	■	■	.	■	STD, AOC, ORP(2)
	GW-545 ^a	CDLVI	■	■	.	■	STD, AOC, ORP(2)
	GW-546	CDLVI	■	■	.	■	STD, AOC, ORP(2)
	GW-557	LV	■	■	■	■	STD, AOC, ORP(2), U, OMP
	GW-560	CDLVII	■	■	■	■	STD, AOC, ORP(2), U, OMP, TPH
	GW-562	CDLVII	■	■	■	■	STD, AOC, ORP(2), U, OMP, TPH
	GW-564	CDLVII	■	■	■	■	STD, AOC, ORP(2), U, OMP, TPH
	GW-709	LII	■	■	■	■	STD, AOC, ORP(2)
	GW-757	LII	■	■	■	■	STD, AOC, ORP(2)
	GW-796 ^a	LV	■	■	■	■	STD, AOC, ORP(2), U, OMP
	GW-797 ^a	LV	■	■	■	■	STD, AOC, ORP(2), OMP
	GW-798 ^a	CDLVII	■	■	■	■	STD, AOC, ORP(2), OMP, TPH
	GW-799	CDLVII	■	■	■	■	STD, AOC, ORP(2), OMP

Table 2 (cont'd)

Monitoring Program	Sampling Point	Location ¹	Quarters Sampled ²				Analytical Parameters ³
			1st	2nd	3rd	4th	
SWDF Detection and Background Monitoring (cont'd)							
	GW-801	LV	■	■	■	■	STD, AOC, ORP(2), OMP
	CBS-1 ^b	CDLVII	■	.	■	.	STD, AOC, ORP(2), OMP
Best Management Practice Monitoring							
	1090	UNCS	■	■	■	■	STD, Ra, U
	GW-160	CRBAWP	■	.	■	.	STD, AOC, ORP(1)
	GW-161	CRBAWP	■	.	■	.	STD, AOC, ORP(1)
	GW-184	RQ	■	.	.	.	STD, BNA
	GW-186	RQ	■	.	.	.	STD, BNA
	GW-187	RQ	■	.	.	.	STD, BNA
	GW-188	RQ	■	.	.	.	STD, BNA
	GW-203	UNCS	■	■	■	■	STD, Ra, U
	GW-205	UNCS	■	■	■	■	STD, Ra, U
	GW-221	UNCS	■	■	■	■	STD, Ra, U
	GW-292	ECRWP	■	■	.	■	STD
	GW-293	ECRWP	■	■	.	■	STD
	GW-294	ECRWP	■	■	.	■	STD
	GW-295	CRBAWP	■	.	■	.	STD, AOC, ORP(1), U, BETA
	GW-296	ECRWP	■	■	.	■	STD
	GW-298	CRBAWP	■	.	■	.	STD, AOC, ORP(1)
	GW-299	CRBAWP	■	.	■	.	STD, AOC, ORP(1)
	GW-300 ^a	CRBAWP	■	.	■	.	STD, AOC, ORP(1)
	GW-301	CRBAWP	■	.	■	.	STD, AOC, ORP(1)
	GW-302	UNCS	■	■	■	■	STD, Ra, U
	GW-321	ADB	■	■	.	■	STD, TOC, TOX

Table 2 (cont'd)

Monitoring Program	Sampling Point	Location ¹	Quarters Sampled ²				Analytical Parameters ³
			1st	2nd	3rd	4th	
Best Management Practice Monitoring (cont'd)							
	GW-339	UNCS	■	■	■	■	STD, Ra, U
	GW-512	ADB	■	■	.	■	STD, TOC, TOX
	GW-513	ADB	■	■	.	■	STD, TOC, TOX
	GW-514	ADB	■	■	.	■	STD, TOC, TOX

Notes:

- 1
- | | | |
|--------|---|--|
| ADB | - | Ash Disposal Basin |
| CDLVI | - | Construction/Demolition Landfill VI |
| CDLVII | - | Construction/Demolition Landfill VII |
| CRBAWP | - | Chestnut Ridge Borrow Area Waste Pile |
| CRSDB | - | Chestnut Ridge Sediment Disposal Basin |
| CRSP | - | Chestnut Ridge Security Pits |
| ECRWP | - | East Chestnut Ridge Waste Pile |
| KHQ | - | Kerr Hollow Quarry |
| LII | - | Industrial Landfill II |
| LIV | - | Industrial Landfill IV |
| LV | - | Industrial Landfill V |
| RQ | - | Rogers Quarry |
| UNCS | - | United Nuclear Corporation Site |
- 2
- | | | |
|---|---|--|
| ■ | - | sample collected during specified quarter of CY 1994 |
| . | - | sample not collected |
| | | First Quarter: January 5 - March 25 |
| | | Second Quarter: April 4 - June 29 |
| | | Third Quarter: July 6 - September 7 |
| | | Fourth Quarter: October 3 - December 19 |
- 3
- AOC - Additional Organic Compounds
- | | |
|---------------------------|------------------------|
| Acrolein | Ethanol |
| Acrylonitrile | Ethyl methacrylate |
| 2-Chloroethyl vinyl ether | Iodomethane |
| Dibromomethane | Trichlorofluoromethane |
| 1,4-Dichloro-2-butene | 1,2,3-Trichloropropane |
| Dichlorodifluoromethane | |

Table 2 (cont'd)

Notes: (cont'd)

3

BETA - Beta-emitting isotopes:

- Strontium (total)
- Technetium (⁹⁹Tc)
- Tritium (³H)

BNA - Base/Neutral/Acid Extractable Organic Compounds:

Note: parameter suite was modified after the second quarter;
benzoic acid was replaced by carbazole.

Acenaphthene	Naphthalene
Acenaphthylene	Nitrobenzene
Anthracene	Pentachlorophenol
Benzo (A) Anthracene	Phenol
Benzo (A) Pyrene	Phenanthrene
Benzo (B) Fluoranthene	Pyrene
Benzo (G,H,I) Perylene	4-Bromophenyl Phenyl Ether
Benzo (K) Fluoranthene	2-Chloronaphthalene
Benzoic Acid (Q1 and Q2)	2-Chlorophenol
Benzyl Alcohol	4-Chlorophenyl Phenyl Ether
Bis (2-Chloroethoxy) Methane	4-Chloro-3-Methylphenol
Bis (2-Chloroethyl) Ether	4-Chloroaniline
Bis (2-Chloroisopropyl) Ether	1,2-Dichlorobenzene
Bis (2-Ethylhexyl) Phthalate	1,3-Dichlorobenzene
Butyl Benzyl Phthalate	1,4-Dichlorobenzene
Carbazole (Q3 and Q4)	2,4-Dinitrotoluene
Chrysene	2,6-Dinitrotoluene
Dibenzofuran	2,4-Dichlorophenol
Dibenzo (A,H) Anthracene	2,4-Dimethylphenol
Diethylphthalate	2,4-Dinitrophenol
Dimethylphthalate	3,3-Dichlorobenzidine
Di-N-Butylphthalate	4,6-Dinitro-2-Methylphenol
Di-N-Octylphthalate	2-Methylnaphthalene
Fluoranthene	2-Methylphenol
Fluorene	4-Methylphenol
Hexachlorobenzene	2-Nitrophenol
Hexachlorobutadiene	2-Nitroaniline
Hexachlorocyclopentadiene	3-Nitroaniline
Hexachloroethane	4-Nitroaniline
Ideno(1,2,3-CD) Pyrene	4-Nitrophenol
Isophorone	1,2,4-Trichlorobenzene
N-Nitrosodi-N-Propylamine	2,4,5-Trichlorophenol
N-Nitrosodiphenylamine	2,4,6-Trichlorophenol

Table 2 (cont'd)

Notes: (cont'd)

3

OMP - Other Miscellaneous Parameters:

Trans-1,2-Dichloroethene
Ammonia (as N)
Gamma Activity (Spectrum)

ORP(1) - Other Required Parameters

Chemical Oxygen Demand
Cyanide
Total Organic Carbon (TOC)
Total Organic Halogen (TOX)

ORP(2) - Other Required Parameters; initiated after the 1st quarter sampling event
for wells at LIV and LII and CBS-1 at CDLVII

ORP(1)

Thallium (AAS)

Other Organics

- | | |
|-------------------------------|-----------------------------|
| • Bromochloromethane | • 1,4-Dichlorobenzene |
| • Dibromomethane | • Cis-1,2-Dichloroethene |
| • 1,2-Dibromo-3-chloropropane | • Trans-1,2-Dichloroethene |
| • 1,2-Dichlorobenzene | • 1,1,1,2-Tetrachloroethane |

PHEN - Phenols

Ra - Radium (total)

RAD - BETA, U, Gamma Activity, Ra

Americium (²⁴¹Am)

Iodine (¹²⁹I, ¹³¹I)

Neptunium (²³⁷Np)

Plutonium (²³⁸Pu, ²³⁹Pu)

REP - Four replicate analyses of:

pH
Specific Conductivity

TOC
TOX

Table 2 (cont'd)

Notes: (cont'd)

3 STD - Standard suite of analytical parameters includes the following:

- Inductively Coupled Plasma (ICP) Metals

Aluminum	Chromium	Potassium
Antimony	Cobalt	Selenium
Arsenic	Copper	Silver
Barium	Iron	Sodium
Beryllium	Magnesium	Strontium
Boron	Manganese	Thorium
Cadmium	Molybdenum	Vanadium
Calcium	Nickel	Zinc

- Atomic Absorption Spectroscopy (AAS) Metals

Cadmium
Chromium
Lead

- Other Metals

Mercury (Cold Vapor Atomic Absorption Spectroscopy)
Uranium (Fluorimetric Analysis)

- Volatile Organic Compounds

Acetone	1,2-Dichloropropane
Benzene	cis-1,3-Dichloropropene
Bromodichloromethane	trans-1,3-Dichloropropene
Bromoform	Ethylbenzene
Bromomethane	2-Hexanone
2-Butanone	4-Methyl-2-pentanone
Carbon disulfide	Methylene chloride
Carbon tetrachloride	Styrene
Chlorobenzene	1,1,2,2-Tetrachloroethane
Chlorodibromomethane	Tetrachloroethene
Chloroethane	Toluene
Chloroform	1,1,1-Trichloroethane
Chloromethane	1,1,2-Trichloroethane
1,1-Dichloroethane	Trichloroethene
1,2-Dichloroethane	Vinyl acetate
1,1-Dichloroethene	Vinyl chloride
1,2-Dichloroethene	Xylenes

Table 2 (cont'd)

Notes: (cont'd)

- 3 STD - Standard suite of analytical parameters (cont'd)
- Anions

Alkalinity - Carbonate	Nitrate (as N)
Alkalinity - Bicarbonate	Fluoride
Chloride	Sulfate
 - Radiological Parameters
 - Gross Alpha Activity
 - Gross Beta Activity
 - Miscellaneous Parameters
 - pH
 - Specific Conductance
 - Total Suspended Solids
 - Total Dissolved Solids
 - Turbidity
 - Field Measurements
 - Static Water Level
 - pH
 - Temperature
 - Dissolved Oxygen
 - Specific Conductance
 - Oxidation - Reduction Potential
- TOC - Total Organic Carbon
- TOX - Total Organic Halogen
- TPH - Total Petroleum Hydrocarbons - Diesel Range Organics
- U - Isotopic Uranium (²³⁴U, ²³⁵U, ²³⁸U)
- a Upgradient monitoring well
- b Spring Sampling Station

Table 3. Construction Information for Monitoring Wells Sampled During 1994¹

Well No.	Location ²	Aquifer ³		Monitored Interval ⁴					
		Zone	Unit	Depths			Elevations		
1090	UNCS	WT	Ock	unknown	-	96.7	unknown	-	1,004.9
GW-141	LIV	BDR	Ock	141.0	-	156.0	1,042.5	-	1,027.5
GW-142 ^a	KHQ	BDR	Ock	248.5	-	295.0	719.8	-	673.3
GW-143 ^a	KHQ	BDR	Ock	205.0	-	253.0	706.0	-	658.0
GW-144	KHQ	BDR	Ock	148.0	-	195.0	762.5	-	715.5
GW-145	KHQ	WT	Ock	86.0	-	110.0	751.3	-	727.3
GW-146 ^a	KHQ	BDR	Ock	190.0	-	220.0	647.0	-	617.0
GW-147	KHQ	BDR	Ock	52.0	-	69.0	796.4	-	779.4
GW-156	CRSDB	BDR	Ock	146.0	-	157.0	900.9	-	889.9
GW-158 ^a	CRSDB	BDR	Ock	356.0	-	441.0	625.2	-	540.2
GW-159	CRSDB	BDR	Ock	146.0	-	157.0	902.8	-	891.8
GW-160 ^a	CRBAWP	WT	Ock	205.0	-	235.0	885.7	-	855.7
GW-161 ^a	CRBAWP	BDR	Ock	350.0	-	400.0	740.9	-	690.9
GW-175	CRSP	BDR	Ock	148.3	-	166.7	933.6	-	915.2
GW-177	CRSP	BDR	Ock	132.0	-	145.0	1,023.5	-	1,010.5
GW-181 ^a	CRSP	BDR	Ock	155.0	-	168.0	935.6	-	922.6
GW-184	RQ	BDR	Och	101.5	-	130.0	823.2	-	794.7
GW-186	RQ	BDR	Och	142.0	-	171.0	686.3	-	657.3
GW-187	RQ	BDR	Och	139.0	-	162.0	692.6	-	669.6
GW-188	RQ	BDR	Och	49.0	-	68.0	785.3	-	766.3
GW-203	UNCS	BDR	Ock	144.0	-	156.0	958.3	-	946.3
GW-205	UNCS	BDR	Ock	154.0	-	164.0	947.5	-	937.5
GW-217	LIV	BDR	Ock	165.2	-	180.0	1,009.1	-	994.3
GW-221	UNCS	BDR	Ock	147.0	-	158.0	956.4	-	945.4
GW-231	KHQ	BDR	Ock	22.8	-	35.0	824.1	-	811.9
GW-241	CRSDB	WT	Ock	78.0	-	103.0	902.8	-	877.8
GW-292	ECRWP	BDR	Ock	172.1	-	186.0	898.0	-	884.1

Table 3 (cont'd)

Well No.	Location ²	Aquifer ³		Monitored Interval ⁴					
		Zone	Unit	Depths			Elevations		
GW-293 ^a	ECRWP	BDR	OCk	197.0	-	214.0	864.7	-	847.7
GW-294	ECRWP	BDR	OCk	113.0	-	128.0	968.7	-	953.7
GW-295	CRBAWP	BDR	OCk	130.4	-	146.0	960.0	-	944.4
GW-296	ECRWP	BDR	OCk	134.4	-	147.0	953.9	-	941.3
GW-298	CRBAWP	BDR	OCk	171.1	-	190.0	875.3	-	856.4
GW-299	CRBAWP	BDR	OCk	153.0	-	168.0	898.3	-	883.3
GW-300	CRBAWP	BDR	OCk	132.0	-	147.0	938.7	-	923.7
GW-301	CRBAWP	BDR	OCk	148.5	-	163.5	935.4	-	920.4
GW-302	UNCS	BDR	OCk	121.5	-	134.8	1,018.1	-	1,004.8
GW-303 ^a	CRSDB	BDR	OCk	300.0	-	321.0	704.4	-	683.4
GW-304	CRSDB	BDR	OCk	148.5	-	167.0	894.3	-	875.8
GW-305	LIV	BDR	OCk	165.3	-	179.6	1,015.8	-	1,001.5
GW-321	ADB	BDR	OCk	84.0	-	98.6	839.1	-	824.5
GW-339	UNCS	BDR	OCk	101.0	-	114.0	1,021.2	-	1,008.2
GW-511	CRSP	BDR	OCk	140.0	-	153.7	950.7	-	937.0
GW-512	ADB	WT	OCk	48.0	-	61.0	951.0	-	938.0
GW-513	ADB	BDR	OCk	111.0	-	125.3	888.0	-	873.7
GW-514 ^a	ADB	BDR	OCk	174.0	-	195.0	824.7	-	803.7
GW-521	LIV	BDR	OCk	123.2	-	136.0	1,056.3	-	1,043.5
GW-522	LIV	BDR	OCk	183.0	-	195.3	989.0	-	976.7
GW-539	LII	BDR	OCk	136.4	-	156.0	954.0	-	934.4
GW-540	CDLVI	BDR	OCk	158.5	-	171.5	910.9	-	897.9
GW-541	CDLVI	BDR	OCk	86.7	-	104.5	969.1	-	951.3
GW-542	CDLVI	WT	OCk	59.0	-	76.5	990.0	-	972.5
GW-543	CDLVI	BDR	OCk	76.2	-	93.6	945.0	-	927.6
GW-544	CDLVI	BDR	OCk	91.0	-	109.3	951.5	-	933.2
GW-545	CDLVI	WT	OCk	55.2	-	67.0	1,000.2	-	988.4

Table 3 (cont'd)

Well No.	Location ²	Aquifer ³		Monitored Interval ⁴					
		Zone	Unit	Depths			Elevations		
GW-546	CDLVI	WT	OCk	66.2	-	84.4	1,003.4	-	985.2
GW-557	LV	WT	OCk	112.9	-	138.0	965.7	-	940.6
GW-560	CDLVII	WT	OCk	45.2	-	69.0	891.0	-	867.2
GW-562	CDLVII	WT	OCk	36.0	-	60.0	895.9	-	871.9
GW-564	CDLVII	WT	OCk	52.0	-	81.0	883.1	-	854.1
GW-608 ^a	CRSP	BDR	OCk	148.0	-	220.0	923.0	-	851.0
GW-609	CRSP	BDR	OCk	256.4	-	269.0	853.3	-	840.7
GW-610	CRSP	BDR	OCk	105.1	-	117.4	951.7	-	939.4
GW-611	CRSP	BDR	OCk	101.5	-	121.6	943.9	-	923.8
GW-709	LII	BDR	OCk	68.7	-	80.6	835.1	-	823.2
GW-731	CRSDB	BDR	OCk	164.0	-	178.7	881.8	-	867.1
GW-732	CRSDB	BDR	OCk	178.3	-	190.0	882.4	-	870.7
GW-742 ^a	CRSP	BDR	OCk	350.0	-	420.0	747.8	-	677.8
GW-743	CRSP	BDR	OCk	150.1	-	161.1	948.6	-	937.6
GW-757	LII	BDR	OCk	134.0	-	166.7	824.7	-	792.0
GW-796	LV	BDR	OCk	122.9	-	136.5	925.9	-	912.3
GW-797	LV	BDR	OCk	118.0	-	134.1	938.1	-	922.0
GW-798	CDLVII	BDR	OCk	122.0	-	135.4	864.6	-	851.2
GW-799	CDLVII	BDR	OCk	78.7	-	92.0	899.4	-	886.1
GW-801	LV	BDR	OCk	175.8	-	188.9	918.2	-	905.1

Table 3 (cont'd)

Notes:

- 1 Well construction information compiled from: *Updated Subsurface Data Base for Bear Creek Valley, Chestnut Ridge, and Parts of Bethel Valley on the U.S. Department of Energy Oak Ridge Reservation* (Jones et al. 1994).

- 2

ADB	-	Ash Disposal Basin
CDLVI	-	Construction/Demolition Landfill VI
CDLVII	-	Construction/Demolition Landfill VII
CRBAWP	-	Chestnut Ridge Borrow Area Waste Pile
CRSDB	-	Chestnut Ridge Sediment Disposal Basin
CRSP	-	Chestnut Ridge Security Pits
ECRWP	-	East Chestnut Ridge Waste Pile
KHQ	-	Kerr Hollow Quarry
LII	-	Industrial Landfill II
LIV	-	Industrial Landfill IV
LV	-	Industrial Landfill V
RQ	-	Rogers Quarry
UNCS	-	United Nuclear Corporation Site

- 3

WT	-	Water Table
BDR	-	Bedrock
Och	-	Chickamauga Group (ORR Aquitard)
Ock	-	Knox Group (Knox Aquifer)

- 4

Depth in feet from the ground surface.
Elevation in feet above mean sea level.

- a Open borehole well construction.

APPENDIX C

MONITORING WELL CONSTRUCTION DETAILS

EXPLANATION

LOCATION:

ADB	-	Ash Disposal Basin
CDLVI	-	Construction/Demolition Landfill VI
CDLVII	-	Construction/Demolition Landfill VII
CRBAWP	-	Chestnut Ridge Borrow Area Waste Pile
CRSDB	-	Chestnut Ridge Sediment Disposal Basin
CRSP	-	Chestnut Ridge Security Pits
ECRWP	-	East Chestnut Ridge Waste Pile
KHQ	-	Kerr Hollow Quarry
LII	-	Industrial Landfill II
LIV	-	Industrial Landfill IV
LV	-	Industrial Landfill V
RQ	-	Rogers Quarry
UNCS	-	United Nuclear Corporation Site

GENERAL INFORMATION:

Coordinates	-	Y-12 Plant grid system
Elevations	-	Feet above mean sea level
Depths	-	Feet below ground surface
AQF	-	Knox Aquifer
AQT	-	ORR Aquitards
BDR	-	Bedrock Interval
WT	-	Water Table Interval
OCK	-	Knox Group
Och	-	Chickamauga Group
.	-	Not Applicable or not available

CASING:

Casing Diameter	-	Outside diameter, in inches
Borehole Diameter	-	Nominal diameter, in inches
Casing Material:		
PVC	-	Polyvinyl chloride
SS	-	Stainless Steel

MONITORED INTERVAL:

Top	-	Depth to top of filter pack or open-hole
Bottom	-	Depth to bottom of filter pack or open-hole
Screen Material:		
PVC/sl	-	Slotted
PVC/sw/.01	-	Spiral wound, 0.01 inch slot size
SS/sw/.01	-	Spiral wound, 0.01 inch slot size

Length of screen and open hole interval is in feet.

NOTE:

Data Compiled from *Updated Subsurface Data Base for Bear Creek Valley, Chestnut Ridge, and parts of Bethel Valley on the U.S. Department of Energy Oak Ridge Reservation*. (Jones et al. 1994)

APPENDIX C
Monitoring Well Construction Details

1

Well No.	1090	GW-141	GW-142	GW-143	GW-144	GW-145	GW-146
Location	UNCS	LIV	KHQ	KHQ	KHQ	KHQ	KHQ
GENERAL INFORMATION	.	.	.	.	.	.	.
	.	.	.	.	.	.	.
East Coordinate	53853.02	52463.00	64030.00	63522.00	63502.00	63266.00	63272.00
North Coordinate	28718.02	28755.00	24524.00	24257.00	24255.00	24441.00	24432.00
Measuring Pt. Elevation	1103.88	1186.06	970.35	913.18	913.34	840.04	838.16
Surface Elevation	1101.58	1183.45	968.29	911.04	910.48	837.29	837.00
Hydrostratigraphic Unit	AQF	AQF	AQF	AQF	AQF	AQF	AQF
Geologic Formation	OCK	OCK	OCK	OCK	OCK	OCK	OCK
Aquifer Zone	WT	BDR	BDR	BDR	BDR	WT	BDR
Weathered Rock - Depth	.	.	.	.	.	.	.
Weathered Rock - Elevation	.	.	.	.	.	.	.
Fresh Rock - Depth	.	57.0	.	18.0	.	.	11.0
Fresh Rock - Elevation	.	1126.45	.	893.04	.	.	826.00
Total Depth Drilled	96.7	156.0	295.0	253.0	195.0	110.0	220.0
	.	.	.	.	.	.	.
SURFACE/CONDUCTOR CASING	.	.	.	.	.	.	.
	.	.	.	.	.	.	.
Casing Depth	.	65.0	20.0	20.0	40.0	12.0	13.0
Casing Diameter	.	10.75	12.50	10.63	12.50	12.50	12.50
Casing Material	.	.	PVC/#40	PVC/#40	PVC/#40	PVC/#40	PVC/#40
	.	.	.	.	.	.	.
WELL CASING	.	.	.	.	.	.	.
	.	.	.	.	.	.	.
Borehole Depth	96.7	156.0	250.0	205.0	195.0	110.0	190.0
Borehole Diameter	8.00	10.00	11.00	10.00	11.00	11.00	11.00
Well Casing Depth	0.5	155.2	248.5	205.0	190.0	109.0	190.0
Well Casing Diameter	6.50	4.50	6.62	6.62	4.50	4.50	6.62
Well Casing Material	PVC/#40	SS/#304	Steel/F25	Steel/F25	PVC/#40	PVC/#40	Steel/F25
	.	.	.	.	.	.	.
MONITORED INTERVAL	.	.	.	.	.	.	.
	.	.	.	.	.	.	.
Top - Depth	0.0	141.0	248.5	205.0	148.0	86.0	190.0
Top - Elevation	.	1042.45	719.79	706.04	762.48	751.29	647.00
Midpoint - Depth	.	148.5	271.8	229.0	171.5	98.0	205.0
Midpoint - Elevation	.	1034.95	696.54	682.04	738.98	739.29	632.00
Bottom - Depth	0.0	156.0	295.0	253.0	195.0	110.0	220.0
Bottom - Elevation	1004.88	1027.45	673.29	658.04	715.48	727.29	617.00
Screen Material	PVC/sl	SS/sw/.01	.	.	PVC/sw/.01	PVC/sw/.01	.
Screen Length	.	10.7	.	.	40.0	20.0	.
Open-Hole Length	.	.	46.5	48.0	.	.	30.0
Open-Hole Diameter	.	.	6.00	6.00	.	.	6.00

(CONTINUED)

APPENDIX C
Monitoring Well Construction Details

2

Well No.	GW-147	GW-156	GW-158	GW-159	GW-160	GW-161	GW-175
Location	KHQ	CRSDB	CRSDB	CRSDB	CRBAWP	CRBAWP	CRSP
GENERAL INFORMATION	.	.	.	.	.	.	.
East Coordinate	63428.00	64020.00	63643.00	63496.00	62165.00	62146.00	58686.00
North Coordinate	24731.00	27626.00	27069.00	27764.00	27803.00	27805.00	28676.00
Measuring Pt. Elevation	851.62	1049.13	983.05	1051.15	1093.09	1093.54	1084.00
Surface Elevation	848.41	1046.94	981.24	1048.79	1090.66	1090.91	1081.89
Hydrostratigraphic Unit	AQF	AQF	AQF	AQF	AQF	AQF	AQF
Geologic Formation	Ock	Ock	Ock	Ock	Ock	Ock	Ock
Aquifer Zone	BDR	BDR	BDR	BDR	WT	BDR	BDR
Weathered Rock - Depth	.	84.0	87.0	.	60.0	65.0	46.0
Weathered Rock - Elevation	.	962.94	894.24	.	1030.66	1025.91	1035.89
Fresh Rock - Depth	6.0	93.0	93.0	100.0	.	95.5	98.5
Fresh Rock - Elevation	842.41	953.94	888.24	948.79	.	995.41	983.39
Total Depth Drilled	69.0	157.0	441.0	157.0	235.0	400.0	166.7
SURFACE/CONDUCTOR CASING	.	.	.	.	.	.	.
Casing Depth	4.6	94.0	94.0	123.0	112.5	108.0	61.3
Casing Diameter	10.63	10.75	10.75	10.75	12.50	12.50	10.75
Casing Material	PVC/#40	.	.	.	.	.	unknown
WELL CASING	.	.	.	.	.	.	.
Borehole Depth	69.0	157.0	356.0	157.0	205.0	350.0	166.7
Borehole Diameter	10.00	8.50	10.00	8.50	11.00	11.00	9.50
Well Casing Depth	69.0	157.0	356.0	157.0	205.0	350.0	166.7
Well Casing Diameter	4.50	4.50	6.62	4.50	6.62	6.62	4.50
Well Casing Material	PVC/#40	PVC/#40	Steel/F25	PVC/#40	Steel/F25	Steel/F25	SS/#304
MONITORED INTERVAL	.	.	.	.	.	.	.
Top - Depth	52.0	146.0	356.0	146.0	205.0	350.0	148.3
Top - Elevation	796.41	900.94	625.24	902.79	885.66	740.91	933.59
Midpoint - Depth	60.5	151.5	398.5	151.5	220.0	375.0	157.5
Midpoint - Elevation	787.91	895.44	582.74	897.29	870.66	715.91	924.39
Bottom - Depth	69.0	157.0	441.0	157.0	235.0	400.0	166.7
Bottom - Elevation	779.41	889.94	540.24	891.79	855.66	690.91	915.19
Screen Material	PVC/sw/.01	PVC/sw/.01	.	PVC/sw/.01	.	.	SS/sw/.01
Screen Length	15.0	10.0	.	10.0	.	.	15.8
Open-Hole Length	.	.	85.0	.	30.0	50.0	.
Open-Hole Diameter	.	.	6.00	.	6.00	11.00	.

(CONTINUED)

APPENDIX C

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Monitoring Well Construction Details

Well No.	GW-177	GW-181	GW-184	GW-186	GW-187	GW-188	GW-203
Location	CRSP	CRSP	RQ	RQ	RQ	RQ	UNCS
GENERAL INFORMATION	.	.	.	.	.	.	.
East Coordinate	57497.00	57736.00	57475.00	56862.00	55980.00	56174.00	54190.48
North Coordinate	28483.00	28048.00	23915.00	23387.00	23393.00	23663.00	28355.82
Measuring Pt. Elevation	1157.95	1093.03	927.63	831.32	834.28	837.09	1105.26
Surface Elevation	1155.52	1090.55	924.65	828.31	831.59	834.33	1102.34
Hydrostratigraphic Unit	AQF	AQF	AQT	AQT	AQT	AQT	AQF
Geologic Formation	OCK	OCK	Och	Och	Och	Och	OCK
Aquifer Zone	BDR	BDR	BDR	BDR	BDR	BDR	BDR
Weathered Rock - Depth	62.0	43.0	.	12.0	7.0	13.0	86.0
Weathered Rock - Elevation	1093.52	1047.55	.	816.31	824.59	821.33	1016.34
Fresh Rock - Depth	98.0	78.0	8.0	14.5	15.0	14.0	93.0
Fresh Rock - Elevation	1057.52	1012.55	916.65	813.81	816.59	820.33	1009.34
Total Depth Drilled	145.0	168.0	130.0	171.0	162.0	68.0	156.0
SURFACE/CONDUCTOR CASING	.	.	.	.	.	.	.
Casing Depth	82.0	102.0	8.0	14.5	7.0	15.0	94.0
Casing Diameter	10.75	10.75	10.63	10.63	10.63	10.63	10.75
Casing Material	.	.	PVC/#40	PVC/#40	PVC/#40	PVC/#40	.
WELL CASING	.	.	.	.	.	.	.
Borehole Depth	145.0	155.0	130.0	171.0	162.0	68.0	156.0
Borehole Diameter	8.00	9.50	10.00	10.00	10.00	10.00	8.50
Well Casing Depth	143.0	155.0	127.5	170.0	162.0	67.5	156.0
Well Casing Diameter	4.50	6.62	4.50	4.50	4.50	4.50	4.50
Well Casing Material	SS/#304	Steel/F25	PVC/#40	PVC/#40	PVC/#40	PVC/#40	PVC/#40
MONITORED INTERVAL	.	.	.	.	.	.	.
Top - Depth	132.0	155.0	101.5	142.0	139.0	49.0	144.0
Top - Elevation	1023.52	935.55	823.15	686.31	692.59	785.33	958.34
Midpoint - Depth	138.5	161.5	115.8	156.5	150.5	58.5	150.0
Midpoint - Elevation	1017.02	929.05	808.90	671.81	681.09	775.83	952.34
Bottom - Depth	145.0	168.0	130.0	171.0	162.0	68.0	156.0
Bottom - Elevation	1010.52	922.55	794.65	657.31	669.59	766.33	946.34
Screen Material	SS/sw/.01	.	PVC/sw/.01	PVC/sw/.01	PVC/sw/.01	PVC/sw/.01	PVC/sw/.01
Screen Length	10.0	.	20.0	20.0	15.0	15.0	10.0
Open-Hole Length	.	13.0	.	.	.	.	.
Open-Hole Diameter	.	6.00	.	.	.	.	.

(CONTINUED)

APPENDIX C
Monitoring Well Construction Details

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Well No.	GW-205	GW-217	GW-221	GW-231	GW-241	GW-292	GW-293
Location	UNCS	LIV	UNCS	KHQ	CRSDB	ECRWP	ECRWP
GENERAL INFORMATION	.	.	.	.	.	.	.
East Coordinate	54008.30	53020.00	54388.57	63410.00	63659.00	62146.00	62321.00
North Coordinate	28362.98	28758.00	28359.44	24725.00	27069.00	28141.00	28112.00
Measuring Pt. Elevation	1103.97	1176.86	1106.00	849.47	982.64	1073.00	1063.90
Surface Elevation	1101.46	1174.29	1103.36	846.90	980.80	1070.11	1061.70
Hydrostratigraphic Unit	AQF	AQF	AQF	AQF	AQF	AQF	AQF
Geologic Formation	OCK	OCK	OCK	OCK	OCK	OCK	OCK
Aquifer Zone	BDR	BDR	BDR	BDR	WT	BDR	BDR
Weathered Rock - Depth	100.0	55.0	36.0	.	67.0	32.0	57.0
Weathered Rock - Elevation	1001.46	1119.29	1067.36	.	913.80	1038.11	1004.70
Fresh Rock - Depth	146.0	75.0	90.0	10.5	94.6	59.5	110.0
Fresh Rock - Elevation	955.46	1099.29	1013.36	836.40	886.20	1010.61	951.70
Total Depth Drilled	164.0	180.0	158.0	35.0	103.0	186.0	214.0
SURFACE/CONDUCTOR CASING	.	.	.	.	.	.	.
Casing Depth	154.0	81.7	92.0	11.0	.	51.0	57.8
Casing Diameter	10.75	10.75	6.63	10.63	.	10.75	10.75
Casing Material	.	.	.	PVC/#40	.	.	.
WELL CASING	.	.	.	.	.	.	.
Borehole Depth	164.0	180.0	158.0	35.0	103.0	186.0	197.0
Borehole Diameter	10.00	10.00	6.00	11.00	8.50	10.00	10.00
Well Casing Depth	164.0	177.4	158.0	35.0	100.0	184.8	197.0
Well Casing Diameter	4.50	4.50	4.50	4.50	4.50	4.50	6.62
Well Casing Material	PVC/#40	SS/#304	PVC/#40	PVC/#40	SS/#304	SS/#304	Steel/F25
MONITORED INTERVAL	.	.	.	.	.	.	.
Top - Depth	154.0	165.2	147.0	22.8	78.0	172.1	197.0
Top - Elevation	947.46	1009.09	956.36	824.10	902.80	898.01	864.70
Midpoint - Depth	159.0	172.6	152.5	28.9	90.5	179.1	205.5
Midpoint - Elevation	942.46	1001.69	950.86	818.00	890.30	891.06	856.20
Bottom - Depth	164.0	180.0	158.0	35.0	103.0	186.0	214.0
Bottom - Elevation	937.46	994.29	945.36	811.90	877.80	884.11	847.70
Screen Material	PVC/sw/.01	SS/sw/.01	PVC/sw/.01	PVC/sw/.01	SS/sw/.01	SS/sw/.01	.
Screen Length	10.0	10.6	10.0	10.0	21.0	10.7	.
Open-Hole Length	.	.	.	.	.	.	17.0
Open-Hole Diameter	.	.	.	.	.	.	6.00

(CONTINUED)

APPENDIX C
Monitoring Well Construction Details

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Well No.	GW-294	GW-295	GW-296	GW-298	GW-299	GW-300	GW-301
Location	ECRWP	CRBAWP	ECRWP	CRBAWP	CRBAWP	CRBAWP	CRBAWP
GENERAL INFORMATION	.	.	.	.	.	.	.
East Coordinate	62483.00	62184.00	62023.00	62445.00	62319.00	62041.00	61964.00
North Coordinate	27958.00	27802.00	27994.00	27495.00	27392.00	27487.00	27662.00
Measuring Pt. Elevation	1083.57	1092.71	1090.99	1049.01	1053.86	1073.12	1086.38
Surface Elevation	1081.74	1090.42	1088.29	1046.40	1051.33	1070.69	1083.94
Hydrostratigraphic Unit	AQF	AQF	AQF	AQF	AQF	AQF	AQF
Geologic Formation	OCK	OCK	OCK	OCK	OCK	OCK	OCK
Aquifer Zone	BDR	BDR	BDR	BDR	BDR	BDR	BDR
Weathered Rock - Depth	62.0	62.0	67.0	65.0	66.0	102.0	94.0
Weathered Rock - Elevation	1019.74	1028.42	1021.29	981.40	985.33	968.69	989.94
Fresh Rock - Depth	87.0	94.0	82.0	80.0	70.0	106.0	136.0
Fresh Rock - Elevation	994.74	996.42	1006.29	966.40	981.33	964.69	947.94
Total Depth Drilled	128.0	146.0	147.0	190.0	168.0	147.0	163.5
SURFACE/CONDUCTOR CASING	.	.	.	.	.	.	.
Casing Depth	74.5	123.0	86.5	83.3	80.0	115.0	105.0
Casing Diameter	10.75	10.75	10.75	10.75	10.75	10.75	10.75
Casing Material	.	.	.	.	.	.	.
WELL CASING	.	.	.	.	.	.	.
Borehole Depth	128.0	146.0	147.0	190.0	168.0	147.0	163.5
Borehole Diameter	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Well Casing Depth	128.0	146.0	146.8	186.0	166.6	145.4	161.0
Well Casing Diameter	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Well Casing Material	SS/#304	SS/#304	SS/#304	SS/#304	SS/#304	SS/#304	SS/#304
MONITORED INTERVAL	.	.	.	.	.	.	.
Top - Depth	113.0	130.4	134.4	171.1	153.0	132.0	148.5
Top - Elevation	968.74	960.02	953.89	875.30	898.33	938.69	935.44
Midpoint - Depth	120.5	138.2	140.7	180.6	160.5	139.5	156.0
Midpoint - Elevation	961.24	952.22	947.59	865.85	890.83	931.19	927.94
Bottom - Depth	128.0	146.0	147.0	190.0	168.0	147.0	163.5
Bottom - Elevation	953.74	944.42	941.29	856.40	883.33	923.69	920.44
Screen Material	SS/sw/.01	SS/sw/.01	SS/sw/.01	SS/sw/.01	SS/sw/.01	SS/sw/.01	SS/sw/.01
Screen Length	10.4	10.1	10.5	10.0	10.8	10.6	10.0
Open-Hole Length	.	.	.	.	.	.	.
Open-Hole Diameter	.	.	.	.	.	.	.

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APPENDIX C
Monitoring Well Construction Details

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Well No.	GW-302	GW-303	GW-304	GW-305	GW-321	GW-339	GW-511
Location	UNCS	CRSDB	CRSDB	LIV	ADB	UNCS	CRSP
GENERAL INFORMATION	.	.	.	.	.	.	.
East Coordinate	54353.40	63488.00	63425.00	52962.00	57026.00	54146.52	57739.00
North Coordinate	28693.55	28099.00	27545.00	28548.00	26275.00	28658.72	28056.00
Measuring Pt. Elevation	1141.67	1007.16	1045.49	1183.55	925.58	1124.59	1093.21
Surface Elevation	1139.59	1004.44	1042.82	1181.07	923.10	1122.18	1090.70
Hydrostratigraphic Unit	AQF	AQF	AQF	AQF	AQF	AQF	AQF
Geologic Formation	OCK	OCK	OCK	OCK	OCK	OCK	OCK
Aquifer Zone	BDR	BDR	BDR	BDR	BDR	BDR	BDR
Weathered Rock - Depth	63.0	37.0	35.0	53.0	.	45.0	40.5
Weathered Rock - Elevation	1076.59	967.44	1007.82	1128.07	.	1077.18	1050.20
Fresh Rock - Depth	102.0	111.0	92.0	84.0	.	91.0	100.0
Fresh Rock - Elevation	1037.59	893.44	950.82	1097.07	.	1031.18	990.70
Total Depth Drilled	136.0	321.0	167.0	179.6	98.6	114.0	153.7
SURFACE/CONDUCTOR CASING	.	.	.	.	.	.	.
Casing Depth	63.8	42.8	90.0	64.0	22.0	91.0	100.0
Casing Diameter	10.75	10.75	10.75	10.75	10.75	10.75	10.75
Casing Material	Steel	.	unknown	.	.	Steel	unknown
WELL CASING	.	.	.	.	.	.	.
Borehole Depth	136.0	300.0	167.0	179.6	98.6	114.0	153.7
Borehole Diameter	9.50	10.00	9.75	10.00	8.00	9.50	9.60
Well Casing Depth	134.8	300.0	167.0	179.6	98.0	114.0	157.7
Well Casing Diameter	4.50	7.00	4.50	4.50	4.50	4.50	4.50
Well Casing Material	SS/#304	Steel	SS/#304	SS/#304	SS/#304	SS/#304	SS/#304
MONITORED INTERVAL	.	.	.	.	.	.	.
Top - Depth	121.5	300.0	148.5	165.3	84.0	101.0	140.0
Top - Elevation	1018.09	704.44	894.32	1015.77	839.10	1021.18	950.70
Midpoint - Depth	128.2	310.5	157.8	172.5	91.3	107.5	146.9
Midpoint - Elevation	1011.44	693.94	885.07	1008.62	831.80	1014.68	943.85
Bottom - Depth	134.8	321.0	167.0	179.6	98.6	114.0	153.7
Bottom - Elevation	1004.79	683.44	875.82	1001.47	824.50	1008.18	937.00
Screen Material	SS/sw/.01	.	SS/sw/.01	SS/sw/.01	SS/sw/.01	SS/sw/.01	SS/sw/.01
Screen Length	10.3	.	10.0	10.7	10.7	10.3	10.0
Open-Hole Length	.	21.0	.	.	.	.	.
Open-Hole Diameter	.	6.00	.	.	.	.	.

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APPENDIX C

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Monitoring Well Construction Details

Well No.	GW-512	GW-513	GW-514	GW-521	GW-522	GW-539	GW-540
Location	ADB	ADB	ADB	LIV	LIV	LII	CDLVI
GENERAL INFORMATION	.	.	.	.	.	.	.
East Coordinate	57343.00	57332.00	57341.00	52040.00	52612.00	52278.26	52371.31
North Coordinate	27601.00	27607.00	27575.00	28541.00	28377.00	27192.53	27489.06
Measuring Pt. Elevation	1001.54	1001.41	1001.22	1182.68	1175.31	1093.00	1072.12
Surface Elevation	998.99	998.99	998.66	1179.46	1172.04	1090.39	1069.38
Hydrostratigraphic Unit	AQF	AQF	AQF	AQF	AQF	AQF	AQF
Geologic Formation	OCK	OCK	OCK	OCK	OCK	OCK	OCK
Aquifer Zone	WT	BDR	BDR	BDR	BDR	BDR	BDR
Weathered Rock - Depth	55.0	67.0	44.0	.	85.0	.	110.0
Weathered Rock - Elevation	943.99	931.99	954.66	.	1087.04	.	959.38
Fresh Rock - Depth	.	97.0	92.0	54.0	130.0	74.0	150.0
Fresh Rock - Elevation	.	901.99	906.66	1125.46	1042.04	1016.39	919.38
Total Depth Drilled	61.0	125.3	195.0	136.0	195.5	156.0	171.5
SURFACE/CONDUCTOR CASING	.	.	.	.	.	.	.
Casing Depth	.	98.0	105.0	60.5	90.0	79.0	154.0
Casing Diameter	.	10.75	10.75	10.75	10.75	10.75	10.75
Casing Material	.	unknown	unknown	unknown	unknown	Steel	Steel
WELL CASING	.	.	.	.	.	.	.
Borehole Depth	61.0	125.3	174.0	136.0	195.5	156.0	171.5
Borehole Diameter	9.50	9.50	9.50	9.50	9.50	9.25	9.25
Well Casing Depth	61.0	125.3	174.0	135.6	195.3	156.0	171.5
Well Casing Diameter	4.50	4.50	6.62	4.50	4.50	4.50	4.50
Well Casing Material	SS/#304	SS/#304	Steel/F25	SS/#304	SS/#304	SS/#304	SS/#304
MONITORED INTERVAL	.	.	.	.	.	.	.
Top - Depth	48.0	111.0	174.0	123.2	183.0	136.4	158.5
Top - Elevation	950.99	887.99	824.66	1056.26	989.04	953.99	910.88
Midpoint - Depth	54.5	118.2	184.5	129.6	189.2	146.2	165.0
Midpoint - Elevation	944.49	880.84	814.16	1049.86	982.89	944.19	904.38
Bottom - Depth	61.0	125.3	195.0	136.0	195.3	156.0	171.5
Bottom - Elevation	937.99	873.69	803.66	1043.46	976.74	934.39	897.88
Screen Material	SS/sw/.01	SS/sw/.01	.	SS/sw/.01	SS/sw/.01	SS/sl/.01	SS/sl/.01
Screen Length	10.0	10.0	.	10.3	10.4	15.9	10.3
Open-Hole Length	.	.	21.0	.	.	.	.
Open-Hole Diameter	.	.	6.00	.	.	.	.

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APPENDIX C

8

Monitoring Well Construction Details

Well No.	GW-541	GW-542	GW-543	GW-544	GW-545	GW-546	GW-557
Location	CDLVI	CDLVI	CDLVI	CDLVI	CDLVI	CDLVI	LV
GENERAL INFORMATION	.	.	.	.	.	.	.
East Coordinate	51738.09	51641.74	51458.48	51819.56	51728.54	52366.34	59519.59
North Coordinate	27653.53	27466.22	27072.06	26963.22	27640.84	27473.75	26450.11
Measuring Pt. Elevation	1058.40	1051.60	1023.80	1044.99	1058.02	1072.21	1081.16
Surface Elevation	1055.79	1049.03	1021.19	1042.53	1055.43	1069.64	1078.63
Hydrostratigraphic Unit	AQF	AQF	AQF	AQF	AQF	AQF	AQF
Geologic Formation	OCK	OCK	OCK	OCK	OCK	OCK	OCK
Aquifer Zone	BDR	WT	BDR	BDR	WT	WT	WT
Weathered Rock - Depth	53.5	.	16.0	47.0	54.5	74.5	.
Weathered Rock - Elevation	1002.29	.	1005.19	995.53	1000.93	995.14	.
Fresh Rock - Depth	69.5	.	37.0	52.5	.	.	.
Fresh Rock - Elevation	986.29	.	984.19	990.03	.	.	.
Total Depth Drilled	104.5	77.5	94.0	110.0	67.0	84.5	139.0
SURFACE/CONDUCTOR CASING	.	.	.	.	.	.	.
Casing Depth	64.1	.	29.3	54.5	.	.	85.0
Casing Diameter	10.75	.	10.75	10.75	.	.	10.75
Casing Material	Steel	.	Steel	Steel	.	.	Steel
WELL CASING	.	.	.	.	.	.	.
Borehole Depth	104.5	76.5	93.6	109.3	67.0	84.5	138.0
Borehole Diameter	9.25	9.25	9.25	9.25	9.25	9.25	9.50
Well Casing Depth	104.5	76.5	93.6	109.3	67.0	84.4	135.8
Well Casing Diameter	4.50	4.50	4.50	4.50	4.50	4.50	4.00
Well Casing Material	SS/#304	SS/#304	SS/#304	SS/#304	SS/#304	SS/#304	SS/#304
MONITORED INTERVAL	.	.	.	.	.	.	.
Top - Depth	86.7	59.0	76.2	91.0	55.2	66.2	112.9
Top - Elevation	969.09	990.03	944.99	951.53	1000.23	1003.44	965.73
Midpoint - Depth	95.6	67.8	84.9	100.2	61.1	75.3	125.5
Midpoint - Elevation	960.19	981.28	936.29	942.38	994.33	994.34	953.18
Bottom - Depth	104.5	76.5	93.6	109.3	67.0	84.4	138.0
Bottom - Elevation	951.29	972.53	927.59	933.23	988.43	985.24	940.63
Screen Material	SS/sl/.01	SS/sl/.01	SS/sl/.01	SS/sl/.01	SS/sl/.01	SS/sl/.01	SS/sw/.01
Screen Length	15.7	15.7	15.6	15.9	10.3	15.8	20.0
Open-Hole Length	.	.	.	.	.	.	.
Open-Hole Diameter	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX C

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Monitoring Well Construction Details

Well No.	GW-560	GW-562	GW-564	GW-608	GW-609	GW-610	GW-611
Location	CDLVII	CDLVII	CDLVII	CRSP	CRSP	CRSP	CRSP
GENERAL INFORMATION	.	.	.	.	.	.	.
East Coordinate	60743.42	61640.17	59865.28	59724.35	60039.73	59471.94	58058.92
North Coordinate	25692.28	26276.29	25872.94	27889.43	28109.43	28549.31	28855.52
Measuring Pt. Elevation	938.92	934.49	937.77	1073.95	1112.11	1059.44	1048.38
Surface Elevation	936.17	931.86	935.12	1071.00	1109.70	1056.78	1045.43
Hydrostratigraphic Unit	AQF	AQF	AQF	AQF	AQF	AQF	AQF
Geologic Formation	OCK	OCK	OCK	OCK	OCK	OCK	OCK
Aquifer Zone	WT	WT	WT	BDR	BDR	BDR	BDR
Weathered Rock - Depth	.	.	.	113.0	.	39.0	30.0
Weathered Rock - Elevation	.	.	.	958.00	.	1017.78	1015.43
Fresh Rock - Depth	.	52.0	72.0	140.0	107.0	50.0	63.8
Fresh Rock - Elevation	.	879.86	863.12	931.00	1002.70	1006.78	981.63
Total Depth Drilled	117.0	133.0	88.0	220.0	269.0	117.4	121.6
SURFACE/CONDUCTOR CASING	.	.	.	.	.	.	.
Casing Depth	.	.	.	.	107.0	107.1	75.0
Casing Diameter	.	.	.	.	10.75	10.75	10.75
Casing Material	.	.	.	.	Steel	Steel	Steel
WELL CASING	.	.	.	.	.	.	.
Borehole Depth	117.0	60.0	81.0	150.0	269.0	117.4	121.6
Borehole Diameter	9.50	9.50	9.50	15.50	9.50	9.50	9.50
Well Casing Depth	69.0	58.0	75.3	148.0	269.0	117.4	117.3
Well Casing Diameter	4.00	4.00	4.00	10.75	4.50	4.50	4.50
Well Casing Material	SS/#304	SS/#304	SS/#304	Steel	SS/#304	SS/#304	SS/#304
MONITORED INTERVAL	.	.	.	.	.	.	.
Top - Depth	45.2	36.0	52.0	148.0	256.4	105.1	101.5
Top - Elevation	890.97	895.86	883.12	923.00	853.30	951.68	943.93
Midpoint - Depth	57.1	48.0	66.5	184.0	262.7	111.3	111.6
Midpoint - Elevation	879.07	883.86	868.62	887.00	847.00	945.53	933.88
Bottom - Depth	69.0	60.0	81.0	220.0	269.0	117.4	121.6
Bottom - Elevation	867.17	871.86	854.12	851.00	840.70	939.38	923.83
Screen Material	SS/sw/.01	SS/sw/.01	SS/sw/.01	.	SS/sw/.01	SS/sw/.01	SS/sw/.01
Screen Length	20.0	20.0	20.0	.	10.3	10.3	10.0
Open-Hole Length	.	.	.	72.0	.	.	.
Open-Hole Diameter	.	.	.	9.50	.	.	.

(CONTINUED)

APPENDIX C
Monitoring Well Construction Details

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Well No.	GW-709	GW-731	GW-732	GW-742	GW-743	GW-757	GW-796
Location	III	CRSDB	CRSDB	CRSP	CRSP	III	IV
GENERAL INFORMATION	.	.	.	.	.	.	.
	.	.	.	.	.	.	.
East Coordinate	52371.88	63863.14	64267.74	58908.00	58908.00	53302.52	58206.40
North Coordinate	25344.08	27463.65	27716.72	28038.00	28056.00	25409.50	27923.90
Measuring Pt. Elevation	906.60	1049.18	1064.09	1100.97	1100.36	961.43	1052.42
Surface Elevation	903.84	1045.75	1060.65	1097.83	1098.72	958.65	1048.80
Hydrostratigraphic Unit	AQF	AQF	AQF	AQF	AQF	AQF	AQF
Geologic Formation	OCK	OCK	OCK	OCK	OCK	OCK	OCK
Aquifer Zone	BDR	BDR	BDR	BDR	BDR	BDR	BDR
Weathered Rock - Depth	39.0	95.4	85.0	68.0	49.0	29.5	.
Weathered Rock - Elevation	864.84	950.35	975.65	1029.83	1049.72	929.15	.
Fresh Rock - Depth	43.0	129.4	96.0	96.0	87.5	48.0	.
Fresh Rock - Elevation	860.84	916.35	964.65	1001.83	1011.22	910.65	.
Total Depth Drilled	80.6	180.4	190.6	420.0	161.1	166.5	139.7
	.	.	.	.	.	.	.
SURFACE/CONDUCTOR CASING	.	.	.	.	.	.	.
	.	.	.	.	.	.	.
Casing Depth	50.0	122.0	100.7	92.0	82.9	46.8	107.6
Casing Diameter	11.75	11.75	11.75	11.75	11.75	10.75	10.75
Casing Material	Steel	Steel	Steel	.	.	.	.
	.	.	.	.	.	.	.
WELL CASING	.	.	.	.	.	.	.
	.	.	.	.	.	.	.
Borehole Depth	80.6	175.4	189.5	350.0	161.1	166.5	139.7
Borehole Diameter	10.60	10.60	10.60	10.60	10.60	9.62	9.50
Well Casing Depth	80.6	175.4	189.5	350.0	160.3	165.7	136.5
Well Casing Diameter	4.25	4.50	4.50	7.00	4.50	4.50	4.50
Well Casing Material	SS/#304	SS/#304	SS/#304	Steel	SS/#304	SS/#304	SS/#304
	.	.	.	.	.	.	.
MONITORED INTERVAL	.	.	.	.	.	.	.
	.	.	.	.	.	.	.
Top - Depth	68.7	164.0	178.3	350.0	150.1	134.0	122.9
Top - Elevation	835.14	881.75	882.35	747.83	948.62	824.65	925.90
Midpoint - Depth	74.7	171.4	184.2	385.0	155.6	150.4	129.7
Midpoint - Elevation	829.19	874.40	876.50	712.83	943.12	808.30	919.10
Bottom - Depth	80.6	178.7	190.0	420.0	161.1	166.7	136.5
Bottom - Elevation	823.24	867.05	870.65	677.83	937.62	791.95	912.30
Screen Material	SS/sw/.01	SS/sw/.01	SS/sw/.01	.	SS/sw/.01	SS/sw/.01	SS/sw/.01
Screen Length	10.0	10.0	10.0	.	10.1	30.0	10.0
Open-Hole Length	.	.	.	70.0	.	.	.
Open-Hole Diameter	.	.	.	6.25	.	.	.

(CONTINUED)

APPENDIX C
Monitoring Well Construction Details

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Well No.	GW-797	GW-798	GW-799	GW-801
Location	LV	CDLVII	CDLVII	LV
GENERAL INFORMATION	.	.	.	.
East Coordinate	58550.40	60310.20	59961.20	58779.90
North Coordinate	27446.60	27264.10	26745.50	26807.80
Measuring Pt. Elevation	1059.80	1000.30	981.09	1096.96
Surface Elevation	1056.10	986.60	978.10	1093.82
Hydrostratigraphic Unit	AQF	AQF	AQF	AQF
Geologic Formation	OCK	OCK	OCK	OCK
Aquifer Zone	BDR	BDR	BDR	BDR
Weathered Rock - Depth	.	.	.	112.5
Weathered Rock - Elevation	.	.	.	.
Fresh Rock - Depth	.	.	.	113.4
Fresh Rock - Elevation	.	.	.	.
Total Depth Drilled	134.1	135.5	92.0	188.9
SURFACE/CONDUCTOR CASING	.	.	.	.
Casing Depth	95.0	99.7	65.0	115.4
Casing Diameter	10.75	10.75	10.75	10.75
Casing Material	.	.	.	Steel
WELL CASING	.	.	.	.
Borehole Depth	134.1	135.5	92.0	188.9
Borehole Diameter	9.50	9.50	9.50	9.80
Well Casing Depth	133.5	134.5	91.0	178.1
Well Casing Diameter	4.50	4.50	4.50	4.50
Well Casing Material	SS/#304	SS/#304	SS/#304	SS/#304
MONITORED INTERVAL	.	.	.	.
Top - Depth	118.0	122.0	78.7	175.8
Top - Elevation	938.10	864.60	899.40	918.20
Midpoint - Depth	126.1	128.7	85.4	182.4
Midpoint - Elevation	930.05	857.90	892.75	911.70
Bottom - Depth	134.1	135.4	92.0	188.9
Bottom - Elevation	922.00	851.20	886.10	905.10
Screen Material	SS/sw/.01	SS/sw/.01	SS/sw/.01	SS/sw/.01
Screen Length	10.0	10.0	10.0	9.9
Open-Hole Length	.	.	.	.
Open-Hole Diameter	.	.	.	.

APPENDIX D
SAMPLING SEQUENCE

EXPLANATION

SAMPLING GROUP:

Series of sampling locations grouped for data tracking and accounting purposes.

SAMPLE IDENTITY:

Dupe	-	Field Duplicate Sample
RES	-	Resample
ER	-	Equipment Rinsate Sample
FB	-	Field Blank
CBS-1	-	Spring Sample

LOCATION:

ADB	-	Ash Disposal Basin
CDLVI	-	Construction/Demolition Landfill VI
CDLVII	-	Construction/Demolition Landfill VII
CRBAWP	-	Chestnut Ridge Borrow Area Waste Pile
CRSDB	-	Chestnut Ridge Sediment Disposal Basin
CRSP	-	Chestnut Ridge Security Pits
ECRWP	-	East Chestnut Ridge Waste Pile
KHQ	-	Kerr Hollow Quarry
LII	-	Industrial Landfill II
LIV	-	Industrial Landfill IV
LV	-	Industrial Landfill V
RQ	-	Rogers Quarry
UNCS	-	United Nuclear Corporation Site

PURGE TIME:

The time (in hours:minutes) that groundwater was purged from the monitoring well before samples were collected.

NOTE:

Data compiled from data tracking datasets (H&R Technical Associates, Inc. 1995a, 1995b, 1995c, and 1995d).

APPENDIX D
Sampling Sequence, First Quarter 1994

Sampling Group	Sample Identity	Location	Pump No.	Purge Time	Date Sampled	Time Sampled
CR 1	GW-217	LIV	6	1:20	01/05/94	13:30
CR 1	GW-141	LIV	6	1:35	01/06/94	10:30
CR 1	GW-141 DUPE	LIV	6	1:35	01/06/94	10:30
CR 1	GW-521	LIV	6	1:15	01/06/94	12:55
CR 1	GW-522	LIV	6	2:12	01/07/94	11:12
CR 1	ER CR 1		6	.	01/10/94	12:10
CR 1	GW-305	LIV	6	0:50	01/10/94	12:15
CR 2	GW-203	UNCS	8	1:29	01/06/94	10:49
CR 2	GW-205	UNCS	8	1:34	01/07/94	10:54
CR 2	GW-221	UNCS	8	1:28	01/10/94	12:18
CR 2	GW-221 DUPE	UNCS	8	1:28	01/10/94	12:18
CR 2	GW-339	UNCS	8	1:00	01/11/94	9:56
CR 2	GW-302	UNCS	8	0:44	01/11/94	11:04
CR 2	ER CR 2		8	.	01/11/94	14:40
CR 2	1090	UNCS	8	2:22	01/11/94	14:47
CR 3	GW-181	CRSP	11	4:14	02/16/94	14:04
CR 3	GW-181 DUPE	CRSP	11	4:14	02/16/94	14:04
CR 3	GW-511	CRSP	11	1:35	02/17/94	9:50
CR 3	GW-743	CRSP	11	1:21	02/18/94	10:01
CR 3	GW-610	CRSP	11	1:02	02/18/94	11:37
CR 3	GW-742	CRSP	2	.	02/20/94	8:45
CR 3	ER CR 3		2	.	02/20/94	9:00
CR 3	GW-608	CRSP	11	.	02/21/94	14:20
CR 3	GW-611	CRSP	11	0:15	02/22/94	13:45
CR 3	GW-175	CRSP	11	1:15	02/23/94	12:30
CR 3	ER CR 3		11	.	02/24/94	11:40
CR 3	GW-609	CRSP	11	2:48	02/24/94	11:48
CR 3	FB CR 3		11	.	02/24/94	11:50
CR 3	ER CR 3		11	.	02/28/94	10:55
CR 3	GW-177	CRSP	11	0:15	02/28/94	11:00
CR 4	GW-296	ECRWP	7	0:40	01/10/94	14:05
CR 4	GW-294	ECRWP	7	0:41	01/12/94	10:45
CR 4	GW-293	ECRWP	7	5:06	01/13/94	14:21
CR 4	GW-293 DUPE	ECRWP	7	5:06	01/13/94	14:21
CR 4	ER CR 4		7	.	01/14/94	10:00
CR 4	GW-292	ECRWP	7	1:36	01/14/94	10:06
CR 5	GW-161	CRBAWP	8	.	02/11/94	13:45
CR 5	GW-160	CRBAWP	8	5:42	02/12/94	14:22
CR 5	GW-301	CRBAWP	8	0:59	02/13/94	9:19
CR 5	GW-300	CRBAWP	8	1:04	02/13/94	11:04
CR 5	GW-299	CRBAWP	8	1:44	02/13/94	14:04
CR 5	GW-299 DUPE	CRBAWP	8	1:44	02/13/94	14:04
CR 5	GW-298	CRBAWP	8	1:28	02/14/94	13:45
CR 5	ER CR 5		8	.	02/15/94	10:40
CR 5	GW-295	CRBAWP	B	.	02/15/94	10:45
CR 6	GW-159	CRSDB	11	0:30	02/10/94	11:30
CR 6	GW-304	CRSDB	11	0:30	02/10/94	13:30
CR 6	GW-731	CRSDB	11	0:40	02/11/94	11:30

APPENDIX D
Sampling Sequence, First Quarter 1994

Sampling Group	Sample Identity	Location	Pump No.	Purge Time	Date Sampled	Time Sampled
CR 6	GW-732	CRSDB	11	1:23	02/12/94	9:48
CR 6	GW-156	CRSDB	11	0:20	02/12/94	11:45
CR 6	GW-303	CRSDB	11	.	02/14/94	13:10
CR 6	GW-303 DUPE	CRSDB	11	.	02/14/94	13:10
CR 6	ER CR 6		2	.	02/14/94	15:35
CR 6	FB CR 6		.	.	02/14/94	15:45
CR 6	GW-158	CRSDB	2	.	02/14/94	15:45
CR 6	ER CR 6		11	.	02/15/94	9:40
CR 6	GW-241	CRSDB	11	1:34	02/15/94	9:44
CR 6	FB CR 6		6	.	03/11/94	8:16
CR 7	GW-142	KHQ	2	.	02/16/94	13:45
CR 7	ER CR 7		2	.	02/17/94	13:30
CR 7	GW-147	KHQ	10	0:34	02/28/94	12:55
CR 7	GW-231	KHQ	10	0:31	02/28/94	14:11
CR 7	GW-143	KHQ	10	.	03/03/94	12:22
CR 7	GW-146	KHQ	10	.	03/03/94	13:30
CR 7	GW-144	KHQ	10	2:32	03/10/94	11:44
CR 7	GW-144 DUPE	KHQ	10	2:32	03/10/94	11:44
CR 7	GW-145	KHQ	10	0:02	03/11/94	13:30
CR 8	GW-321	ADB	11	1:55	01/11/94	11:30
CR 8	GW-513	ADB	11	2:10	01/11/94	14:15
CR 8	GW-512	ADB	11	0:54	01/12/94	9:24
CR 8	GW-512 DUPE	ADB	11	0:54	01/12/94	9:24
CR 8	ER CR 8		11	.	01/14/94	11:10
CR 8	GW-514	ADB	11	.	01/14/94	11:15
CR 9	GW-184	RQ	5	0:32	01/11/94	10:00
CR 9	GW-188	RQ	5	0:45	01/11/94	13:00
CR 9	GW-187	RQ	5	3:20	01/12/94	11:45
CR 9	ER CR 9		5	.	01/27/94	9:35
CR 9	GW-186	RQ	5	.	01/27/94	9:40
CR 9	GW-186 DUPE	RQ	5	.	01/27/94	9:40
CR 10	GW-539	LII	7	0:40	01/06/94	11:05
CR 10	GW-709	LII	7	0:42	01/06/94	13:30
CR 10	ER CR 10		7	.	01/07/94	12:10
CR 10	GW-757	LII	7	1:27	01/07/94	12:15
CR 10	GW-757 DUPE	LII	7	1:27	01/07/94	12:15
CR 11	GW-540	CDLVI	8	2:41	03/22/94	13:21
CR 11	GW-546	CDLVI	8	0:16	03/23/94	10:30
CR 11	GW-541	CDLVI	8	0:49	03/23/94	14:00
CR 11	GW-542	CDLVI	8	0:13	03/24/94	13:18
CR 11	GW-545	CDLVI	8	.	03/25/94	9:15
CR 11	GW-543	CDLVI	8	0:44	03/25/94	10:44
CR 11	ER CR 11		8	.	03/25/94	13:30
CR 11	GW-544	CDLVI	8	1:09	03/25/94	13:34
CR 12	CBS-1	CDLVII	.	.	02/14/94	12:50
CR 12	GW-560	CDLVII	11	1:28	03/07/94	11:28
CR 12	GW-562	CDLVII	11	1:32	03/07/94	13:32
CR 12	GW-564	CDLVII	6	1:28	03/07/94	13:53

APPENDIX D
Sampling Sequence, First Quarter 1994

Sampling Group	Sample Identity	Location	Pump No.	Purge Time	Date Sampled	Time Sampled
CR 12	GW-564 DUPE	CDLVII	6	1:28	03/07/94	13:53
CR 12	GW-557	LV	11	0:41	03/07/94	15:06
CR 12	GW-799	CDLVII	11	1:59	03/07/94	17:29
CR 12	GW-798	CDLVII	6	2:12	03/08/94	11:47
CR 12	GW-797	LV	11	1:19	03/08/94	12:00
CR 12	GW-801	LV	6	2:00	03/08/94	14:35
CR 12	GW-796	LV	11	2:17	03/08/94	14:47
CR 12	ER CR 12		6	.	03/08/94	14:50
CR 12	ER CR 12		11	.	03/08/94	14:55

APPENDIX D
Sampling Sequence, Second Quarter 1994

Sampling Group	Sample Identity	Location	Pump No.	Purge Time	Date Sampled	Time sampled
CR 1	GW-217	LIV	11	1:05	04/04/94	11:00
CR 1	GW-141	LIV	11	1:44	04/04/94	13:54
CR 1	GW-141 DUPE	LIV	11	1:44	04/04/94	13:54
CR 1	GW-521	LIV	11	1:27	04/05/94	9:37
CR 1	GW-522	LIV	11	2:46	04/05/94	12:56
CR 1	ER CR 1		11	.	04/06/94	11:25
CR 1	GW-305	LIV	11	0:52	04/06/94	11:30
CR 2	GW-203	UNCS	11	2:16	04/07/94	10:56
CR 2	GW-203 DUPE	UNCS	11	2:16	04/07/94	10:56
CR 2	GW-205	UNCS	11	1:33	04/07/94	13:45
CR 2	GW-221	UNCS	11	2:15	04/08/94	10:15
CR 2	GW-339	UNCS	11	1:33	04/08/94	12:20
CR 2	GW-302	UNCS	11	1:13	04/12/94	9:28
CR 2	ER CR 2		11	.	04/12/94	13:45
CR 2	1090	UNCS	11	4:00	04/12/94	13:50
CR 3	GW-181	CRSP	2	.	04/22/94	13:00
CR 3	GW-181 DUPE	CRSP	2	.	04/22/94	13:00
CR 3	GW-511	CRSP	2	2:16	04/25/94	11:31
CR 3	GW-742	CRSP	2	4:12	05/02/94	13:02
CR 3	GW-743	CRSP	2	2:00	05/03/94	12:40
CR 3	GW-610	CRSP	2	0:55	05/04/94	10:05
CR 3	GW-608	CRSP	8	.	05/18/94	17:30
CR 3	GW-611	CRSP	8	0:25	05/19/94	11:15
CR 3	GW-175	CRSP	8	1:00	05/20/94	10:30
CR 3	ER CR 3		2	.	05/20/94	13:20
CR 3	GW-609	CRSP	8	2:36	05/24/94	12:06
CR 3	FB CR 3		.	.	05/24/94	12:07
CR 3	ER CR 3		8	.	05/24/94	12:10
CR 3	GW-177	CRSP	10	0:33	06/29/94	15:20
CR 3	ER CR 3		10	.	06/29/94	15:25
CR 4	GW-296	ECRWP	6	0:42	04/08/94	11:17
CR 4	GW-294	ECRWP	6	0:50	04/08/94	13:12
CR 4	GW-293	ECRWP	6	.	04/12/94	9:50
CR 4	GW-293 DUPE	ECRWP	6	.	04/12/94	9:50
CR 4	ER CR 4		6	.	04/12/94	12:00
CR 4	GW-292	ECRWP	6	1:48	04/12/94	12:08
CR 6	GW-159	CRSDB	2	0:35	04/04/94	11:35
CR 6	GW-304	CRSDB	2	1:00	04/04/94	15:10
CR 6	GW-731	CRSDB	2	0:50	04/04/94	18:00
CR 6	GW-732	CRSDB	2	1:10	04/06/94	11:10
CR 6	GW-156	CRSDB	2	0:20	04/07/94	12:30
CR 6	GW-303	CRSDB	2	.	04/11/94	16:06
CR 6	GW-303 DUPE	CRSDB	2	.	04/11/94	16:06
CR 6	GW-241	CRSDB	.	1:54	04/12/94	11:09
CR 6	ER CR 6		2	.	04/15/94	12:55
CR 6	FB CR 6		.	.	04/15/94	13:03
CR 6	GW-158	CRSDB	2	.	04/15/94	13:03
CR 7	GW-142	KHQ	10	2:45	04/12/94	13:15

APPENDIX D
Sampling Sequence, Second Quarter 1994

Sampling Group	Sample Identity	Location	Pump No.	Purge Time	Date Sampled	Time Sampled
CR 7	GW-147	KHQ	10	0:40	04/13/94	11:30
CR 7	GW-231	KHQ	10	0:37	04/13/94	12:45
CR 7	GW-146	KHQ	10	.	04/18/94	9:30
CR 7	GW-143	KHQ	10	3:41	04/18/94	14:30
CR 7	GW-144	KHQ	10	2:30	04/19/94	11:35
CR 7	GW-144 DUPE	KHQ	10	2:30	04/19/94	11:35
CR 7	ER CR 7		10	.	04/20/94	13:25
CR 7	GW-145	KHQ	10	1:06	04/20/94	13:30
CR 8	GW-321	ADB	11	2:20	04/13/94	11:30
CR 8	GW-513	ADB	11	3:03	04/13/94	15:30
CR 8	GW-513 DUPE	ADB	11	3:03	04/13/94	15:30
CR 8	GW-512	ADB	11	1:28	04/14/94	9:43
CR 8	ER CR 8		11	.	04/18/94	12:20
CR 8	GW-514	ADB	11	.	04/18/94	12:25
CR 10	GW-539	LII	6	0:58	04/04/94	11:00
CR 10	GW-709	LII	6	0:43	04/05/94	10:15
CR 10	ER CR 10		6	.	04/06/94	12:40
CR 10	GW-757	LII	6	.	04/06/94	12:50
CR 10	GW-757 DUPE	LII	6	.	04/06/94	12:50
CR 11	GW-540	CDLVI	8	2:30	04/14/94	11:30
CR 11	GW-540 DUPE	CDLVI	8	2:30	04/14/94	11:30
CR 11	GW-546	CDLVI	8	0:25	04/14/94	13:37
CR 11	GW-541	CDLVI	8	0:42	04/18/94	13:30
CR 11	GW-545	CDLVI	8	0:15	04/19/94	10:30
CR 11	GW-542	CDLVI	8	0:40	04/19/94	13:15
CR 11	GW-543	CDLVI	8	0:53	04/20/94	13:08
CR 11	ER CR 11		8	.	04/21/94	10:25
CR 11	GW-544	CDLVI	8	1:22	04/21/94	10:32
CR 12	GW-560	CDLVII	11	1:37	04/19/94	11:22
CR 12	GW-560 DUPE	CDLVII	11	1:37	04/19/94	11:22
CR 12	GW-562	CDLVII	11	1:32	04/19/94	13:37
CR 12	GW-564	CDLVII	11	1:55	04/20/94	12:15
CR 12	GW-557	LV	11	0:48	04/21/94	8:58
CR 12	GW-799	CDLVII	11	2:18	04/21/94	11:48
CR 12	GW-798	CDLVII	11	2:48	04/22/94	12:58
CR 12	GW-797	LV	11	1:10	04/25/94	10:30
CR 12	GW-796	LV	11	2:36	04/25/94	13:36
CR 12	ER CR 12		11	.	04/27/94	11:00
CR 12	GW-801	LV	11	2:12	04/27/94	11:07

APPENDIX D
Sampling Sequence, Third Quarter 1994

Sampling Group	Sample Identity	Location	Pump No.	Purge Time	Date Sampled	Time Sampled
CR 1	GW-217	LIV	10	0:45	07/06/94	10:30
CR 1	GW-141	LIV	10	1:45	07/06/94	14:20
CR 1	GW-141 DUPE	LIV	10	1:45	07/06/94	14:20
CR 1	GW-521	LIV	10	1:30	07/07/94	10:10
CR 1	GW-522	LIV	10	2:50	07/07/94	13:25
CR 1	ER CR 1		10	.	07/07/94	15:10
CR 1	GW-305	LIV	10	0:25	07/07/94	15:15
CR 2	GW-203	UNCS	8	1:53	07/26/94	10:50
CR 2	GW-205	UNCS	8	1:52	07/26/94	14:04
CR 2	GW-221	UNCS	8	1:54	07/27/94	11:24
CR 2	GW-339	UNCS	8	0:47	07/27/94	14:15
CR 2	GW-302	UNCS	8	0:47	07/28/94	9:52
CR 2	ER CR 2		8	.	07/28/94	12:35
CR 2	1090	UNCS	8	2:10	07/28/94	12:40
CR 2	1090 DUPE	UNCS	8	2:10	07/28/94	12:40
CR 3	GW-181	CRSP	2	3:48	07/31/94	13:28
CR 3	GW-181 DUPE	CRSP	2	3:48	07/31/94	13:28
CR 3	GW-511	CRSP	2	1:18	07/31/94	15:13
CR 3	GW-742	CRSP	2	.	08/04/94	13:06
CR 3	GW-743	CRSP	2	1:46	08/06/94	9:54
CR 3	GW-610	CRSP	2	0:57	08/06/94	11:32
CR 3	GW-608	CRSP	2	.	08/08/94	13:45
CR 3	GW-177	CRSP	8	0:22	08/13/94	11:15
CR 3	GW-611	CRSP	8	0:11	08/13/94	13:00
CR 3	FB CR 3		8	.	08/13/94	14:20
CR 3	GW-175	CRSP	8	1:00	08/13/94	15:15
CR 3	GW-609	CRSP	8	2:09	08/14/94	10:54
CR 3	ER CR 3		8	.	08/14/94	11:15
CR 5	GW-161	CRBAWP	10	.	07/18/94	11:22
CR 5	GW-295	CRBAWP	B	.	07/18/94	12:00
CR 5	GW-160	CRBAWP	10	.	07/20/94	11:24
CR 5	GW-301	CRBAWP	10	0:20	07/20/94	13:15
CR 5	GW-300	CRBAWP	10	1:08	07/20/94	14:53
CR 5	GW-299	CRBAWP	10	2:01	07/21/94	10:45
CR 5	GW-299 DUPE	CRBAWP	10	2:01	07/21/94	10:45
CR 5	GW-298	CRBAWP	10	0:50	07/21/94	13:30
CR 5	ER CR 5		10	.	07/21/94	13:35
CR 6	GW-159	CRSDB	10	0:35	07/08/94	10:15
CR 6	GW-304	CRSDB	10	0:35	07/08/94	11:45
CR 6	FB CR 6		.	.	07/09/94	8:45
CR 6	GW-731	CRSDB	10	.	07/09/94	8:45
CR 6	GW-732	CRSDB	10	0:57	07/09/94	10:22
CR 6	GW-732 DUPE	CRSDB	10	0:57	07/09/94	10:22
CR 6	GW-156	CRSDB	10	0:13	07/09/94	12:00
CR 6	GW-158	CRSDB	2	.	07/11/94	9:35
CR 6	ER CR 6		2	.	07/11/94	12:15
CR 6	GW-303	CRSDB	10	.	07/11/94	14:50
CR 6	ER CR 6		10	.	07/12/94	9:55

APPENDIX D
Sampling Sequence, Third Quarter 1994

Sampling Group	Sample Identity	Location	Pump No.	Purge Time	Date Sampled	Time Sampled
CR 6	GW-241	CRSDB	10	1:26	07/12/94	10:00
CR 6	GW-303	CRSDB	10	.	07/24/94	15:00
CR 6	GW-241	CRSDB	10	1:25	07/25/94	11:00
CR 7	GW-142	KHQ	6	2:47	07/21/94	13:00
CR 7	GW-147	KHQ	6	0:28	07/22/94	10:55
CR 7	GW-231	KHQ	6	0:30	07/23/94	9:24
CR 7	GW-143	KHQ	6	3:22	07/24/94	14:00
CR 7	GW-146	KHQ	6	.	07/25/94	10:55
CR 7	GW-144	KHQ	6	.	07/26/94	10:30
CR 7	GW-144 DUPE	KHQ	6	.	07/26/94	10:30
CR 7	ER CR 7		6	.	07/26/94	14:05
CR 7	GW-145	KHQ	6	1:15	07/26/94	14:10
CR 10	GW-539	LII	10	0:40	07/13/94	13:00
CR 10	GW-709	LII	10	0:30	07/14/94	10:30
CR 10	ER CR 10		10	.	07/15/94	11:55
CR 10	GW-757	LII	10	1:35	07/15/94	12:00
CR 10	GW-757 DUPE	LII	10	1:35	07/15/94	12:00
CR 12	GW-560	CDLVII	8	1:16	07/12/94	14:44
CR 12	GW-560 DUPE	CDLVII	8	1:16	07/12/94	14:44
CR 12	GW-562	CDLVII	8	1:18	07/13/94	11:28
CR 12	GW-564	CDLVII	8	1:39	07/14/94	12:39
CR 12	GW-557	LV	8	0:39	07/15/94	10:39
CR 12	GW-799	CDLVII	8	1:57	07/18/94	14:57
CR 12	GW-798	CDLVII	8	1:57	07/19/94	13:12
CR 12	GW-797	LV	8	0:35	07/19/94	16:30
CR 12	GW-796	LV	8	1:37	07/20/94	12:47
CR 12	ER CR 12		8	.	07/21/94	12:10
CR 12	GW-801	LV	8	1:58	07/21/94	12:18
CR 12	CBS-1	CDLVII	.	.	09/07/94	14:05

APPENDIX D
Sampling Sequence, Fourth Quarter 1994

Sampling Group	Sample Identity	Location	Pump No.	Purge Time	Date Sampled	Time Sampled
CR 1	GW-217	LIV	5	0:52	10/03/94	15:12
CR 1	GW-141	LIV	5	1:16	10/04/94	13:14
CR 1	GW-141 DUPE	LIV	5	1:16	10/04/94	13:14
CR 1	GW-521	LIV	5	1:12	10/04/94	15:22
CR 1	GW-522	LIV	5	2:00	10/05/94	12:15
CR 1	ER CR 1		5	.	10/05/94	14:25
CR 1	GW-305	LIV	5	0:55	10/05/94	14:30
CR 2	GW-203	UNCS	8	1:50	10/12/94	11:58
CR 2	GW-205	UNCS	8	1:50	10/12/94	14:15
CR 2	GW-221	UNCS	8	2:00	10/15/94	10:53
CR 2	GW-221 DUPE	UNCS	8	2:00	10/15/94	10:53
CR 2	GW-339	UNCS	8	0:57	10/15/94	13:55
CR 2	GW-302	UNCS	8	0:45	10/15/94	15:15
CR 2	ER CR 2		8	.	10/16/94	.
CR 2	1090	UNCS	8	2:15	10/16/94	10:59
CR 3	GW-181	CRSP	2	3:31	11/14/94	13:46
CR 3	GW-511	CRSP	2	1:17	11/14/94	15:12
CR 3	GW-742	CRSP	2	.	11/17/94	14:05
CR 3	GW-743	CRSP	2	0:56	11/17/94	15:28
CR 3	GW-743 DUPE	CRSP	2	0:56	11/17/94	15:28
CR 3	GW-610	CRSP	2	0:52	11/21/94	11:39
CR 3	GW-608	CRSP	2	.	11/29/94	17:24
CR 3	GW-177	CRSP	2	0:27	11/30/94	13:00
CR 3	GW-611	CRSP	2	0:07	11/30/94	15:30
CR 3	GW-175	CRSP	2	0:40	12/01/94	13:15
CR 3	ER CR 3		2	.	12/01/94	16:10
CR 3	FB CR 3		2	.	12/01/94	16:19
CR 3	GW-609	CRSP	2	2:39	12/01/94	16:19
CR 4	GW-296	ECRWP	5	0:40	10/15/94	9:40
CR 4	GW-294	ECRWP	5	0:36	10/15/94	11:15
CR 4	GW-293	ECRWP	5	.	10/16/94	10:45
CR 4	ER CR 4		5	.	10/16/94	14:00
CR 4	GW-292	ECRWP	5	1:36	10/16/94	14:06
CR 4	GW-292 DUPE	ECRWP	5	1:36	10/16/94	14:06
CR 6	GW-159	CRSDB	8	0:38	10/17/94	14:00
CR 6	GW-304	CRSDB	8	0:58	10/18/94	12:10
CR 6	GW-731	CRSDB	8	0:50	10/18/94	14:30
CR 6	GW-732	CRSDB	8	0:45	10/19/94	13:45
CR 6	GW-732 DUPE	CRSDB	8	0:45	10/19/94	13:45
CR 6	GW-156	CRSDB	8	0:17	10/20/94	11:00
CR 6	GW-303	CRSDB	8	.	10/23/94	10:32
CR 6	FB CR 6		.	.	10/23/94	12:00
CR 6	ER CR 6		8	.	10/23/94	12:10
CR 6	GW-241	CRSDB	8	1:01	10/23/94	12:16
CR 6	ER CR 6		2	.	10/26/94	13:30
CR 6	GW-158	CRSDB	2	.	10/26/94	13:35
CR 7	GW-142	KHQ	11	3:45	10/22/94	13:30
CR 7	GW-147	KHQ	11	.	10/23/94	8:50

APPENDIX D
Sampling Sequence, Fourth Quarter 1994

Sampling Group	Sample Identity	Location	Pump No.	Purge Time	Date Sampled	Time Sampled
CR 7	GW-231	KHQ	11	0:29	10/23/94	9:54
CR 7	GW-143	KHQ	11	4:41	10/24/94	15:36
CR 7	GW-144	KHQ	11	2:59	10/25/94	12:26
CR 7	GW-144 DUPE	KHQ	11	2:59	10/25/94	12:26
CR 7	GW-146	KHQ	11	.	10/26/94	10:10
CR 7	ER CR 7		B	.	10/26/94	11:05
CR 7	GW-145	KHQ	11	1:05	10/26/94	11:15
CR 8	GW-321	ADB	7	1:42	10/18/94	11:34
CR 8	GW-321 DUPE	ADB	7	1:42	10/18/94	11:34
CR 8	GW-513	ADB	7	0:46	10/18/94	14:19
CR 8	GW-512	ADB	7	0:50	10/19/94	9:43
CR 8	GW-512 RES	ADB	B	.	10/20/94	13:10
CR 8	ER CR 8		7	.	10/20/94	14:45
CR 8	GW-514	ADB	7	.	10/20/94	15:02
CR 8	GW-321 RES	ADB	5	1:42	10/21/94	13:17
CR 8	ER CR 8		5	.	10/24/94	12:30
CR 8	GW-513 RES	ADB	5	2:09	10/24/94	12:39
CR 10	GW-539	LII	8	.	10/04/94	13:45
CR 10	GW-709	LII	8	1:09	10/07/94	10:24
CR 10	ER CR 10		B	.	10/07/94	13:05
CR 10	GW-757	LII	8	1:48	10/07/94	13:13
CR 10	GW-757 DUPE	LII	8	1:48	10/07/94	13:13
CR 11	GW-540	CDLVI	5	2:00	10/10/94	14:10
CR 11	GW-540 DUPE	CDLVI	5	2:00	10/10/94	14:10
CR 11	GW-546	CDLVI	5	0:03	10/11/94	10:00
CR 11	GW-541	CDLVI	5	0:53	10/11/94	12:58
CR 11	GW-545	CDLVI	5	.	10/12/94	10:10
CR 11	GW-542	CDLVI	5	0:12	10/12/94	13:32
CR 11	GW-543	CDLVI	5	0:41	10/13/94	10:11
CR 11	ER CR 11		5	.	10/13/94	12:10
CR 11	GW-544	CDLVI	5	0:45	10/13/94	12:15
CR 11	GW-545 RES	CDLVI	B	0:03	10/21/94	10:10
CR 12	GW-560	CDLVII	7	0:51	10/08/94	11:08
CR 12	GW-562	CDLVII	7	1:09	10/08/94	13:15
CR 12	GW-564	CDLVII	7	1:21	10/09/94	10:02
CR 12	GW-557	LV	6	0:27	10/09/94	12:28
CR 12	GW-799	CDLVII	7	1:46	10/10/94	13:56
CR 12	GW-799 DUPE	CDLVII	7	3:26	10/10/94	13:56
CR 12	GW-798	CDLVII	7	1:38	10/10/94	17:48
CR 12	GW-797	LV	7	1:33	10/10/94	20:08
CR 12	GW-796	LV	7	1:30	10/11/94	12:01
CR 12	ER CR 12		7	.	10/11/94	14:20
CR 12	GW-801	LV	7	1:56	10/11/94	14:30

APPENDIX E
GROUNDWATER QUALITY DATA

EXPLANATION

UNIT:

AQF	-	Knox Aquifer
AQT	-	ORR Aquitards
SPRING	-	Spring Sampling Station

LOCATION:

ADB	-	Ash Disposal Basin
CDLVI	-	Construction/Demolition Landfill VI
CDLVII	-	Construction/Demolition Landfill VII
CRBAWP	-	Chestnut Ridge Borrow Area Waste Pile
CRSDB	-	Chestnut Ridge Sediment Disposal Basin
CRSP	-	Chestnut Ridge Security Pits
ECRWP	-	East Chestnut Ridge Waste Pile
KHQ	-	Kerr Hollow Quarry
LII	-	Industrial Landfill II
LIV	-	Industrial Landfill IV
LV	-	Industrial Landfill V
RQ	-	Rogers Quarry
UNCS	-	United Nuclear Corporation Site

ALL DATA:

- Not analyzed or not reported.

ORGANIC COMPOUNDS:

All results in micrograms per liter (ug/L).

U - Compound not detected at the reported minimum attainable detection limit.

"Additional Organic Compounds" and "Other Organic Compounds" (Appendix E.3) are parameter suites required by permits at landfill sites. The additional organics analyses are performed by Ecotek and the other organics analyses are performed by the K-25 ASO.

EXPLANATION (cont'd)

METALS, ANIONS, MISCELLANEOUS, AND RADIOCHEMICAL PARAMETERS:

All analyses are by Inductively Coupled Plasma (ICP) Spectroscopy unless otherwise noted.

Bicarbonate and carbonate alkalinity reported as CaCO_3 .

<	-	Compound analyzed but not detected at the reported minimum attainable detection limit
mg/L	-	milligrams per liter
AAS	-	Atomic Absorption Spectroscopy
CVAA	-	Cold Vapor Atomic Absorption
Fluor	-	Fluorometric
DIS	-	Dissolved Concentration (Filtered Sample)
TOT	-	Total Concentration (Unfiltered Sample)
COD	-	Chemical Oxygen Demand
TOC	-	Total Organic Carbon
TOX	-	Total Organic Halogens
TDS	-	Total Dissolved Solids
TSS	-	Total Suspended Solids
Sp. Cond.	-	Specific Conductance
ppm	-	parts per million
umho/cm	-	micromhos per centimeter
NTU	-	Nephelometric Turbidity Unit
mV	-	millivolts
pCi/L	-	picoCuries per liter
Bq/L	-	Becquerels per liter
CE +/-	-	Counting Error (two standard deviations)

APPENDIX E.1
TRACE METALS AND ANIONS

APPENDIX E.1
Trace Metals and Anions, 1994

1

Sampling Point . Unit . Location . Date Sampled . Type	1090								GW-141	
	AQF								AQF	
	UNCS								LIV	
	01/11/94		04/12/94		07/28/94		10/16/94		01/06/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.027	<0.02	<0.02	<0.02	0.029	<0.02	<0.02	<0.02	0.85	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.019	0.028	0.027	0.027	0.028	0.028	0.026	0.026	0.021	0.017
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.00036	<0.0003
Boron	0.013	0.045	0.013	0.01	0.04	0.026	0.034	0.018	0.033	0.017
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	54	56	55	55	57	56	55	54	48	43
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	<0.004	<0.004	0.0044	<0.004	0.0048	<0.004	<0.004
Iron	0.014	<0.005	<0.005	<0.005	0.1	0.03	0.018	<0.005	1.1	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	32	33	33	33	34	33	32	31	29	25
Manganese	0.0015	<0.001	<0.001	<0.001	0.0018	<0.001	0.001	<0.001	0.017	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1.1	0.7	1.4	1.4	0.92	0.97	1.5	0.97	0.98	0.83
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	8.7	11	9.4	9.4	9.8	9.6	9.2	9	0.76	0.71
Strontium	0.022	0.024	0.024	0.024	0.025	0.025	0.024	0.023	0.018	0.016
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	0.001	<0.001	0.001	0.001	<0.015	<0.015	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0062	<0.005
Zinc	<0.002	<0.002	<0.002	<0.002	0.004	0.004	<0.002	<0.002	0.026	0.006
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	263	.	264	.	257	.	258	.	228	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	24	.	18.7	.	20	.	19	.	2	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	0.1	.
Nitrate-N	0.75	.	0.91	.	0.84	.	0.9	.	0.67	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	4.6	.	4.4	.	11	.	4.1	.	2.4	.
TSS (mg/L)	3	.	<1	.	<1	.	<1	.	12	.
Turbidity (NTU)	3	.	0.8	.	0.7	.	0.4	.	24	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

2

Sampling Point . Unit . Location . Date Sampled . Type	GW-141						GW-142			
	AQF						AQF			
	LIV						KHQ			
	04/04/94		07/06/94		10/04/94		02/16/94		04/12/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	1	<0.02	0.11	0.037	0.63	<0.02	<0.02	0.071	<0.02	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.021	0.018	0.018	0.019	0.019	0.018	0.42	0.41	0.42	0.41
Beryllium	0.00037	<0.0003	0.00067	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.0099	0.014	0.063	0.043	0.05	0.092	0.071	0.066	0.068	0.074
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	45	45	48	48	46	47	45	46	42	42
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.052	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.037	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.17	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0052	0.029	<0.004
Iron	0.8	<0.005	0.091	0.0085	0.46	<0.005	1.3	0.62	6.1	1.1
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0052	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	28	28	31	31	28	28	30	31	31	30
Manganese	0.012	<0.001	0.0071	0.0016	0.0087	<0.001	0.047	0.07	0.078	0.07
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	0.81	1.1	0.68	0.64	0.63	<0.6	3.7	3.9	4.5	4.3
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	0.97	0.96	0.89	0.99	0.81	0.9	0.88	1	1.1	1.1
Strontium	0.018	0.017	0.018	0.018	0.016	0.016	0.48	0.47	0.5	0.49
Thallium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.001	0.001	<0.001	<0.001	<0.015	<0.015	0.024	0.028	0.01	0.006
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.035	0.0048	0.017	0.022	0.028	0.008	<0.002	0.019	0.011	0.0079
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	229	.	241	.	230	.	238	.	237	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1.8	.	1.4	.	1.9	.	2	.	1.5	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	0.5	.	0.6	.
Nitrate-N	0.71	.	0.53	.	0.52	.	0.2	.	<0.2	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	2.1	.	2	.	8.3	.	4	.	4.9	.
TSS (mg/L)	19	.	7	.	15	.	3	.	18	.
Turbidity (NTU)	22	.	10	.	26	.	16	.	31	.

(CONTINUED)

Trace Metals and Anions, 1994

Sampling Point Unit Location Date Sampled Type	GW-142				GW-143					
	AQF				AQF					
	KHQ				KHQ					
	07/21/94		10/22/94		03/03/94		04/18/94		07/24/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.048	0.025	<0.02	<0.02	0.091	<0.02	0.021	<0.02	<0.02	0.03
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	0.069	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.063	0.061
Barium	0.43	0.42	0.42	0.42	0.038	0.035	0.036	0.035	0.04	0.04
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.15	0.056	0.038	0.043	1.1	0.9	0.79	0.8	0.9	0.91
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	44	44	42	44	31	29	30	31	32	32
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Iron	2.7	1.3	2.4	0.86	1	0.11	1.9	0.28	0.75	0.54
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	32	32	30	32	24	23	25	25	26	26
Manganese	0.066	0.065	0.054	0.055	0.014	0.012	0.036	0.032	0.031	0.029
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.014	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	3.8	3.6	4.1	3.8	18	17	17	17	17	18
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.054	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	1.1	0.95	0.92	0.96	25	24	22	23	24	24
Strontium	0.52	0.52	0.49	0.51	2.8	2.7	2.7	2.7	2.9	3
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.003	0.003	<0.015	<0.015	0.002	0.002	0.001	0.002	0.002	0.002
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.011	0.012	<0.002	0.012	0.016	<0.002	<0.002	<0.002	0.0038	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	232	.	232	.	202	.	205	.	203	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1.5	.	1.3	.	7	.	6.3	.	6.4	.
Fluoride	0.7	.	0.6	.	3	.	2.9	.	3.2	.
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	8.7	.	4.8	.	34	.	35.9	.	37.1	.
TSS (mg/L)	4	.	4	.	2	.	3	.	<1	.
Turbidity (NTU)	21	.	39	.	6.3	.	18	.	5	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

4

Sampling Point . Unit . Location . Date Sampled . Type	GW-143		GW-144							
	AQF		AQF							
	KHQ		KHQ							
	10/24/94		03/10/94		04/19/94		07/26/94		10/25/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.036	0.035	0.046	0.039	0.048	0.047	0.041	0.041	0.044	0.044
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.85	0.9	0.016	0.017	0.031	0.017	0.042	0.027	0.027	0.028
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	31	31	40	34	44	44	38	37	39	39
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0048	<0.004	<0.004	<0.004	<0.004	0.0076	<0.004	<0.004	<0.004	<0.004
Iron	0.37	0.035	0.019	<0.005	0.01	0.015	0.024	<0.005	0.022	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	24	24	14	12	15	15	14	14	15	15
Manganese	0.018	0.016	0.0049	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	18	18	2	1.5	2.2	2	1.5	1.7	1.8	2
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	24	26	1.2	1.1	1.4	1.3	0.99	0.98	1.1	1.2
Strontium	2.7	2.7	0.09	0.081	0.095	0.092	0.078	0.077	0.08	0.081
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.015	<0.015	0.002	0.002	0.002	0.002	0.002	0.002	<0.015	<0.015
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.011	<0.002	<0.002	<0.002	0.0084	0.0056	0.0036	<0.002	<0.002	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	201	.	149	.	163	.	144	.	151	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	7.2	.	3	.	2	.	2	.	1.9	.
Fluoride	2.7	.	0.1	.	0.1	.	0.1	.	0.1	.
Nitrate-N	0.3	.	2.2	.	2.1	.	1.3	.	1.1	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	46	.	6	.	7	.	9.5	.	4.3	.
TSS (mg/L)	<1	.	1	.	<1	.	6	.	<1	.
Turbidity (NTU)	3.6	.	0.6	.	0.7	.	1	.	0.1	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

5

Sampling Point . Unit . Location . Date Sampled . Type	GW-145								GW-146	
	AQF								AQF	
	KHQ								KHQ	
	03/11/94		04/20/94		07/26/94		10/26/94		03/03/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.2	<0.02	1.2	<0.02	0.95	0.028	1	<0.02	<0.02	0.063
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.092	0.085	0.13	0.098	0.18	0.12	0.14	0.12	0.067	0.065
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.22	0.22	0.25	0.31	0.33	0.26	0.24	0.26	0.5	0.71
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	49	43	57	41	81	42	76	42	42	40
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	0.0062	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Iron	0.14	<0.005	1.1	0.034	0.95	0.0083	1.4	<0.005	1	0.021
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0049	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	36	33	43	34	56	35	53	35	34	33
Manganese	0.026	0.0016	0.083	0.0072	0.15	0.024	0.13	0.021	0.02	0.015
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	0.01	0.012	0.019	0.013	0.017	0.013	0.012	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	12	12	13	12	12	12	13	13	16	17
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	5.5	6.3	6.1	9.6	5.1	7.1	8.7	7.1	12	13
Strontium	7.1	7	7.9	7.7	7.1	7.1	7.9	7.7	7.2	7.2
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.013	0.017	0.014	0.013	0.01	0.011	<0.015	<0.015	0.001	0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	<0.002	<0.002	0.0027	0.0022	0.021	0.0021	0.009	0.009	<0.002	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	235	.	236	.	145	.	229	.	201	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	9.2	.	10	.	8.6	.	9.3	.	13	.
Fluoride	2.6	.	3	.	2.5	.	2.3	.	3	.
Nitrate-N	<0.2	.	0.2	.	<0.2	.	0.31	.	0.3	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	30.7	.	36	.	32	.	37	.	70	.
TSS (mg/L)	10	.	11	.	293	.	24	.	3	.
Turbidity (NTU)	18	.	28	.	22	.	20	.	5.7	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

6

Sampling Point . Unit . Location . Date Sampled . Type	GW-146						GW-147			
	AQF						AQF			
	KHQ						KHQ			
	04/18/94		07/25/94		10/28/94		02/28/94		04/13/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.029	<0.02	0.1	<0.02	<0.02	<0.02	0.11	<0.02	0.065	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.066	0.067	0.075	0.055	0.06	0.06	0.073	0.07	0.068	0.066
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.47	0.48	0.54	0.52	0.49	0.51	0.068	0.095	0.053	0.048
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	39	41	45	40	40	42	33	32	28	29
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	0.0098	<0.004	<0.004	<0.004	<0.004	<0.004	0.0054	<0.004
Iron	0.36	<0.005	14	0.37	0.78	<0.005	0.13	<0.005	0.18	<0.005
Lead (AAS)	<0.004	<0.004	0.0053	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	33	35	35	34	33	34	19	19	18	18
Manganese	0.0095	0.0079	0.062	0.029	0.0079	0.0048	0.018	<0.001	0.012	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	16	17	16	16	16	17	5.2	5	6.8	6.6
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	12	13	12	12	12	12	3.4	3.3	3.3	3.1
Strontium	6.7	7.1	7	6.7	6.9	7.1	1.2	1.1	1.3	1
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.002	0.002	0.002	0.002	<0.015	<0.015	0.002	0.002	0.006	0.002
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0085	0.0038	0.019	0.008	0.0099	0.0062	0.0041	<0.002	0.0097	0.0039
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	200	.	201	.	204	.	159	.	161	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	11.8	.	13.6	.	11	.	1.6	.	2	.
Fluoride	2.7	.	2.9	.	2.8	.	0.3	.	0.7	.
Nitrate-N	0.34	.	0.27	.	0.47	.	1.25	.	1.2	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	68.7	.	61.3	.	64	.	3.2	.	5	.
TSS (mg/L)	4	.	69	.	4	.	3	.	<1	.
Turbidity (NTU)	2.6	.	25	.	1.6	.	2.9	.	2.3	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

7

Sampling Point . Unit . Location . Date Sampled . Type	GW-147				GW-156					
	AQF				AQF					
	KHQ				CRSDB					
	07/22/94		10/23/94		02/12/94		04/07/94		07/09/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.1	<0.02	0.088	0.066	0.032	0.026	<0.02	<0.02	0.28	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.073	0.084	0.094	0.091	0.02	0.019	0.032	0.032	0.03	0.03
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.00054	<0.0003
Boron	0.062	0.06	0.026	0.023	0.022	0.022	0.0041	0.0044	0.079	0.068
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	28	24	39	39	70	69	73	72	76	73
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	<0.004	0.0042	0.005	<0.004	0.0043	<0.004	<0.004
Iron	0.094	<0.005	0.16	0.11	0.03	<0.005	0.057	0.022	0.4	0.014
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	18	16	20	19	41	40	43	42	44	43
Manganese	0.014	0.0026	0.0053	0.0047	0.0014	0.0014	0.0019	0.0014	0.0089	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	9.7	12	3.9	4.1	4	3.7	15	14	7.6	8.7
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	3.2	3.5	3.1	2.8	3.8	3.3	9.4	8.5	4.5	5.5
Strontium	1.1	0.8	0.4	0.39	0.032	0.032	0.035	0.035	0.037	0.034
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.002	0.003	<0.015	<0.015	0.002	0.002	0.005	0.004	0.007	0.005
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0037	0.0034	0.0044	0.006	0.013	0.014	0.019	0.014	0.072	0.027
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	147	.	161	.	354	.	370	.	355	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	2	.	1.6	.	1.8	.	3	.	2.1	.
Fluoride	0.3	.	0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	1.4	.	0.8	.	0.31	.	0.5	.	0.28	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	4	.	2.8	.	5.2	.	10	.	12.2	.
TSS (mg/L)	6	.	6	.	13	.	3	.	2	.
Turbidity (NTU)	13	.	5.4	.	2	.	5	.	3	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

8

Sampling Point . Unit . Location . Date Sampled . Type	GW-156		GW-158							
	AQF		AQF							
	CRSDB		CRSDB							
	10/20/94		02/14/94		04/15/94		07/11/94		10/26/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.21	<0.02	0.048	0.038	<0.02	<0.02	<0.02	0.025	<0.02	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.024	0.022	0.05	0.048	0.048	0.046	0.039	0.038	0.046	0.039
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.0098	0.014	0.015	0.015	0.012	0.0085	0.037	0.034	0.023	0.029
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	70	68	40	42	38	38	38	38	38	39
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.005
Iron	0.42	<0.005	0.86	0.18	2	1.1	0.41	0.024	0.47	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	42	41	22	22	22	22	22	22	21	21
Manganese	0.0081	0.0014	0.01	0.0096	0.024	0.022	0.0081	0.0075	0.0099	0.0097
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	5	5.5	0.79	0.81	1.2	0.89	0.9	0.92	1.2	1.2
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	3.3	3.7	0.59	0.59	0.61	0.59	0.64	0.62	0.67	0.67
Strontium	0.029	0.029	0.026	0.025	0.023	0.022	0.021	0.022	0.022	0.022
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.015	<0.015	0.001	0.001	0.001	<0.001	<0.001	<0.001	<0.015	<0.015
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.024	0.0038	<0.002	0.0022	<0.002	<0.002	0.0028	<0.002	0.0022	0.0047
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	343	.	178	.	180	.	171	.	173	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	2.1	.	<1	.	<1	.	<1	.	1.5	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	0.1	.	<0.1	.
Nitrate-N	0.28	.	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	12	.	7.9	.	9	.	9.4	.	13	.
TSS (mg/L)	34	.	2	.	3	.	<1	.	<1	.
Turbidity (NTU)	46	.	3.8	.	16	.	4.1	.	3.5	.

(CONTINUED)

Sampling Point . Unit . Location . Date Sampled . Type	GW-159								GW-160	
	AQF								AQF	
	CRSDB								CRBAWP	
	02/10/94		04/04/94	04/05/94	07/08/94		10/17/94		02/12/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.2	0.05	0.076	<0.02	0.036	<0.02	0.034	<0.02	7.8	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.013	0.013	0.012	0.012	0.012	0.012	0.011	0.01	0.023	0.01
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.001	<0.0003
Boron	0.02	0.028	0.0047	0.005	0.03	0.054	0.016	0.038	0.062	0.0049
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	41	39	39	38	41	41	40	38	41	41
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.016	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0055	<0.004	0.0061	0.0064	<0.004	<0.004	<0.004	0.007	0.0076	<0.004
Iron	0.15	<0.005	0.19	0.02	0.21	<0.005	0.056	<0.005	9.9	0.017
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.016	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	24	24	25	24	25	24	24	22	24	23
Manganese	0.011	<0.001	0.0078	<0.001	0.0016	<0.001	0.0028	<0.001	0.14	0.011
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1.5	1.7	2.5	2.1	1.9	1.4	1.7	1.6	1.8	0.81
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0064	<0.006	<0.006	<0.006
Sodium	4.3	4.3	0.72	0.65	0.71	0.74	0.65	0.77	2.2	3.7
Strontium	0.02	0.018	0.025	0.022	0.018	0.017	0.018	0.015	0.026	0.025
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.001	<0.001	<0.001	0.001	0.001	0.001	<0.015	<0.015	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.02	<0.005
Zinc	0.0097	<0.002	<0.002	<0.002	0.012	0.0032	<0.002	<0.002	0.077	0.0067
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	191	.	193	.	194	.	189	.	190	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1	.	1.1	.	1.1	.	1	.	3.7	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	0.3	.	<0.2	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	8	.	7.9	.	15	.	7.4	.	3.5	.
TSS (mg/L)	20	.	4	.	2	.	2	.	82	.
Turbidity (NTU)	5.4	.	5.5	.	1.6	.	1.6	.	230	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

10

Sampling Point . Unit . Location . Date Sampled . Type	GW-160		GW-161				GW-175			
	AQF		AQF				AQF			
	CRBAWP		CRBAWP				CRSP			
	07/20/94		02/11/94		07/18/94		02/23/94		05/20/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	11	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	0.063	<0.05	<0.05	<0.05	<0.05
Barium	0.031	0.012	0.0088	0.0089	0.011	0.0096	0.04	0.041	0.042	0.042
Beryllium	0.0011	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.033	0.056	0.02	0.025	0.057	0.035	0.011	0.0041	0.01	0.0066
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	50	48	41	43	43	43	41	42	50	51
Chromium (AAS)	0.026	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0082	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0064	<0.004
Iron	6.4	0.013	0.27	<0.005	0.37	0.025	0.011	0.088	0.0052	<0.005
Lead (AAS)	0.026	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	30	28	24	25	25	25	25	26	29	29
Manganese	0.25	0.027	0.0094	0.011	0.021	0.021	0.001	0.0023	0.0018	<0.001
Mercury (CVAA)	0.00021	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	0.019	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	2.1	0.86	0.83	0.85	0.67	0.71	0.83	0.8	1.2	1.1
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	1.7	1.8	0.82	0.8	0.76	0.7	1.5	1	0.9	0.81
Strontium	0.027	0.025	0.013	0.013	0.014	0.014	0.013	0.012	0.014	0.014
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	0.023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.063	0.004	0.0024	<0.002	0.014	0.0044	<0.002	0.0055	<0.002	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	224	.	204	.	207	.	212	.	239	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	2.9	.	2	.	1.6	.	2	.	2	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.28	.	0.2	.	<0.2	.	0.3	.	0.2	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	7.7	.	1	.	6.2	.	<1	.	<1	.
TSS (mg/L)	238	.	<1	.	1	.	7	.	<1	.
Turbidity (NTU)	260	.	3	.	6.5	.	2.2	.	1.5	.

(CONTINUED)

Trace Metals and Anions, 1994

Sampling Point Unit Location Date Sampled Type	GW-175				GW-177					
	AQF				AQF					
	CRSP				CRSP					
	08/13/94		12/01/94		02/28/94		06/29/94		08/13/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.034	<0.02	0.046	0.026	0.035	<0.02	<0.02	<0.02	<0.02	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.062
Barium	0.045	0.018	0.056	0.055	0.019	0.019	0.019	0.02	0.041	0.016
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.023	0.036	0.025	0.02	0.058	0.05	0.094	0.048	0.032	0.031
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	45	46	43	42	46	42	46	46	46	42
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0056	0.0047	0.032	0.012	<0.004	<0.004	<0.004	<0.004	0.0048	0.0047
Iron	0.066	0.068	0.15	0.032	0.069	<0.005	0.97	0.04	0.038	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0044	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	28	28	26	26	28	26	28	27	28	25
Manganese	0.0012	0.0026	0.0046	<0.001	0.0025	<0.001	0.11	0.1	<0.001	0.0035
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	<0.6	1.6	0.85	1.1	3	2	2	2.4	<0.6	1.4
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	1.1	1.2	1.4	1.4	1.1	1.2	1.1	0.9	1.1	1.1
Strontium	0.014	0.018	0.013	0.013	0.017	0.017	0.023	0.025	0.014	0.016
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	0.003	<0.015	<0.015	0.001	0.001	0.001	0.001	0.002	0.002
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.01	0.21	0.012	0.004	0.02	0.0035	0.54	0.33	0.0058	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO ₃	216	.	212	.	215	.	208	.	218	.
Alkalinity-CO ₃	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1.9	.	2.5	.	2.2	.	2.1	.	3	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	1	.	0.49	.	<0.2	.	<0.2	.	0.3	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	1	.	1.3	.	7.5	.	14	.	6	.
TSS (mg/L)	<1	.	2	.	<1	.	5	.	1	.
Turbidity (NTU)	1.4	.	1.5	.	2.7	.	16	.	4	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

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Sampling Point . Unit . Location . Date Sampled . Type	GW-177		GW-181							
	AQF		AQF							
	CRSP		CRSP							
	11/30/94		02/16/94		04/22/94		07/31/94		11/14/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.06	<0.02	<0.02	<0.02	0.044	0.041	0.028	<0.02	<0.02	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.065	<0.05	<0.05	<0.05
Barium	0.018	0.017	0.0098	0.0076	0.0064	0.0054	0.0076	0.0076	0.0065	0.0064
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	0.00037	<0.0003	0.00031	<0.0003	<0.0003	<0.0003
Boron	0.096	0.038	0.015	0.023	0.16	0.088	0.05	0.035	0.0089	<0.004
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	44	44	34	32	30	29	34	33	32	32
Chromium (AAS)	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	0.011	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0076	0.0044	<0.004	<0.004	<0.004	<0.004	0.0096	0.0094	<0.004	<0.004
Iron	3.9	<0.005	0.41	0.012	0.69	0.014	2.7	0.0064	0.048	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	27	27	21	20	18	18	21	21	20	21
Manganese	0.017	0.0015	0.0055	0.0032	0.016	0.011	0.012	0.004	0.031	0.032
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	2.5	2	1.7	1.7	0.95	1.1	1	1.1	2	1.6
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	1.8	1.6	0.64	0.72	0.78	0.69	0.6	0.57	0.64	0.68
Strontium	0.015	0.016	0.017	0.017	0.014	0.013	0.017	0.016	0.013	0.014
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.015	<0.015
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.083	0.051	<0.002	<0.002	0.0066	0.0054	0.0048	0.012	<0.002	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	222	.	168	.	146	.	165	.	166	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	3.3	.	2	.	2	.	1.3	.	1.9	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.59	.	<0.2	.	<0.2	.	<0.2	.	0.36	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	7.1	.	1	.	1	.	1.9	.	1.8	.
TSS (mg/L)	4	.	1	.	<1	.	<1	.	1	.
Turbidity (NTU)	8.8	.	3	.	5	.	2.7	.	1.4	.

(CONTINUED)

Sampling Point	GW-184		GW-186		GW-187		GW-188		GW-203	
Unit	AQT		AQT		AQT		AQT		AQF	
Location	RQ		RQ		RQ		RQ		UNCS	
Date Sampled	01/11/94		01/27/94		01/12/94		01/11/94		01/06/94	
Type	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.036	<0.02	<0.02	<0.02	<0.02	<0.02	1.2	<0.02	0.84	0.037
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.019	0.018	0.12	0.12	0.27	0.27	0.035	0.028	0.011	0.0087
Beryllium	0.00071	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.049	0.028	0.16	0.15	0.57	0.58	0.12	0.12	0.029	0.038
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	69	64	110	100	48	50	33	35	31	28
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.008	0.01	<0.004	0.0042	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Iron	0.045	<0.005	0.73	0.72	0.046	0.11	1.1	<0.005	0.84	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0043	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	6.6	6.4	31	31	21	21	24	25	19	16
Manganese	0.0021	<0.001	0.15	0.15	0.0033	0.0044	0.14	0.043	0.028	0.0015
Mercury (CVAA)	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01
Potassium	1.4	1.3	3.1	2.8	1.9	2.1	2.6	1.9	1	0.77
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	0.0087	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	1.5	1.6	42	42	120	120	20	19	0.59	0.47
Strontium	0.14	0.15	1.7	1.7	0.91	0.93	1.9	1.9	0.012	0.011
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0067	0.0077	<0.002	<0.002	0.0066	0.0053	0.013	0.0039	0.0035	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	155	.	412	.	298	.	203	.	136	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1.8	.	16	.	128	.	4.8	.	1.5	.
Fluoride	<0.1	.	0.15	.	0.9	.	0.7	.	<0.1	.
Nitrate-N	7.49	.	<0.12	.	<0.2	.	<0.2	.	1.03	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	20.4	.	66	.	31	.	23.1	.	1.2	.
TSS (mg/L)	<1	.	2	.	<1	.	24	.	9	.
Turbidity (NTU)	1.5	.	3.5	.	29	.	30	.	13	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

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Sampling Point . Unit . Location . Date Sampled . Type	GW-203						GW-205			
	AQF						AQF			
	UNCS						UNCS			
	04/07/94		07/26/94		10/12/94		01/07/94		04/07/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.17	<0.02	0.094	<0.02	<0.02	<0.02	0.079	0.038	<0.02	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.0088	0.0084	0.0077	0.0068	0.0095	0.01	0.016	0.015	0.015	0.015
Beryllium	<0.0003	<0.0003	0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.027	0.016	0.022	0.044	0.1	0.022	0.056	0.023	0.0092	0.022
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	29	30	30	30	28	28	32	35	33	32
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0054	0.0057	<0.004	<0.004	0.0044	0.0044	<0.004	<0.004	0.0046	<0.004
Iron	0.29	0.0056	0.19	<0.005	0.14	<0.005	0.25	<0.005	0.055	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	17	17	17	17	16	16	19	22	19	19
Manganese	0.0089	<0.001	0.004	<0.001	<0.001	<0.001	0.0076	<0.001	0.0032	0.0013
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1.1	1.1	0.81	0.83	1.3	1.2	0.92	0.96	0.75	0.96
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	0.54	0.57	0.54	0.56	0.73	0.67	0.77	0.86	0.62	0.68
Strontium	0.011	0.011	0.011	0.011	0.012	0.012	0.011	0.012	0.012	0.011
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	0.001	<0.001	0.001	<0.015	<0.015	0.001	0.001	<0.001	0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0024	0.02	0.0026	<0.002	0.0024	<0.002	0.0056	<0.002	0.0048	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	142	.	136	.	128	.	152	.	155	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1	.	1.5	.	1.5	.	2.4	.	2	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	1	.	1.2	.	1.7	.	0.24	.	0.3	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	<1	.	6.2	.	<1	.	3	.	3	.
TSS (mg/L)	5	.	3	.	<1	.	3	.	<1	.
Turbidity (NTU)	5.5	.	4.2	.	0.5	.	4	.	2.5	.

(CONTINUED)

Sampling Point Unit Location Date Sampled Type	GW-205				GW-217					
	AQF				AQF					
	UNCS				LIV					
	07/26/94		10/12/94		01/05/94		04/04/94		07/06/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.06	0.03	<0.02	<0.02	0.075	0.03	0.12	<0.02	0.12	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05
Barium	0.013	0.013	0.0097	0.0085	0.029	0.029	0.029	0.029	0.028	0.027
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.032	0.067	0.037	0.039	0.15	0.15	0.16	0.16	0.2	0.22
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	31	30	20	18	29	28	29	27	37	29
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.018	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0044	<0.004	<0.004	<0.004	0.004	0.011	0.0057	0.0058	0.026	<0.004
Iron	0.1	<0.005	0.1	<0.005	0.063	<0.005	0.13	0.063	0.8	0.11
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.01	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	19	19	18	18	17	17	18	17	23	19
Manganese	0.0064	0.0012	0.0014	<0.001	0.0042	0.0013	0.0062	0.0019	0.027	0.0017
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1.3	1.3	19	19	4.6	4.9	5	5.2	4	5.2
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	0.75	0.83	2.9	2.9	4.6	4.3	4	4.4	4.5	4.7
Strontium	0.012	0.011	0.01	0.0076	0.015	0.014	0.013	0.012	0.016	0.014
Thallium (AAS)	.	.	.	.	.	.	<0.01	<0.01	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.001	0.001	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	<0.002	<0.002	<0.002	<0.002	0.0059	0.012	0.0057	<0.002	0.037	0.013
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	147	.	136	.	143	.	155	.	161	.
Alkalinity-CO3	<1	.	4	.	<1	.	<1	.	<1	.
Chloride	2.3	.	2	.	1.8	.	1.5	.	1.4	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.29	.	<0.2	.	0.42	.	0.39	.	0.32	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	7.9	.	2.2	.	5.3	.	3.9	.	5.4	.
TSS (mg/L)	2	.	4	.	6	.	3	.	5	.
Turbidity (NTU)	4.4	.	0.7	.	3.8	.	4.4	.	3.9	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

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Sampling Point • Unit • Location • Date Sampled • Type	GW-217		GW-221							
	AQF		AQF							
	LIV		UNCS							
	10/03/94		01/10/94		04/08/94		07/27/94		10/15/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.22	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.028	0.027	0.0076	0.0064	0.0075	0.007	0.007	0.0068	0.0079	0.0075
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.22	0.17	0.023	0.011	0.0068	0.0092	0.024	0.019	0.018	0.017
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	30	29	30	27	30	30	31	31	32	31
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	<0.004	0.015	0.016	<0.004	0.0067	<0.004	0.004
Iron	0.2	<0.005	0.019	<0.005	0.082	0.033	<0.005	0.23	0.011	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	18	17	18	17	18	18	19	19	19	18
Manganese	0.0057	<0.001	<0.001	<0.001	0.0014	<0.001	<0.001	<0.001	<0.001	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	3.5	3.3	<0.6	0.74	1.5	1.2	0.77	0.88	1.3	1.3
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	5.5	5.3	0.58	0.51	0.61	0.61	0.65	0.66	0.76	0.78
Strontium	0.013	0.012	0.0095	0.0095	0.0098	0.0098	0.01	0.01	0.01	0.01
Thallium (AAS)	<0.01	<0.01	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.015	<0.015	<0.001	<0.001	0.001	<0.001	0.001	0.001	<0.015	<0.015
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.023	<0.002	<0.002	<0.002	0.0034	<0.002	0.004	0.0023	<0.002	0.0048
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	152	.	149	.	148	.	152	.	153	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1.7	.	1.3	.	1	.	1.4	.	1.2	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.4	.	0.57	.	0.6	.	0.65	.	0.7	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	6.1	.	1.1	.	1	.	6.2	.	<1	.
TSS (mg/L)	12	.	<1	.	<1	.	<1	.	<1	.
Turbidity (NTU)	26	.	1.2	.	1	.	3.5	.	0.4	.

(CONTINUED)

Sampling Point . Unit . Location . Date Sampled . Type	GW-231								GW-241	
	AQF								AQF	
	KHQ								CRSDB	
	02/28/94		04/13/94		07/23/94		10/23/94		02/15/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.069	0.052	<0.02	<0.02	0.02	0.02	<0.02	<0.02	0.82	0.067
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	0.054	<0.05	<0.05	<0.05	<0.05
Barium	0.031	0.031	0.05	0.05	0.082	0.083	0.097	0.096	0.019	0.017
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.00031	<0.0003
Boron	0.011	0.025	0.0092	0.012	0.053	0.033	0.038	0.016	0.01	0.026
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	21	21	24	24	39	39	42	42	31	30
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0056	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0067	<0.004
Iron	0.087	0.073	0.014	0.015	<0.005	<0.005	<0.005	<0.005	1	0.0099
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0042
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	9.7	9.7	13	13	20	20	22	21	16	16
Manganese	0.024	0.017	<0.001	<0.001	<0.001	<0.001	0.0021	0.0016	0.038	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	0.74	1	1.1	1.5	1	1	1.8	1.7	2.5	2.4
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	1.3	1.3	0.89	0.96	0.98	0.94	1	0.98	1.8	1.8
Strontium	0.019	0.019	0.022	0.023	0.037	0.036	0.04	0.039	0.022	0.021
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.015	<0.015	0.001	0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0059	0.0048	0.0065	<0.002	0.0041	0.0041	0.032	0.002	0.0086	0.0026
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	96	.	106	.	172	.	193	.	139	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	2.4	.	2	.	1.5	.	1.6	.	<1	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	1.52	.	1.1	.	0.5	.	0.3	.	<0.2	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	3.2	.	3	.	3.6	.	2.7	.	1.2	.
TSS (mg/L)	1	.	<1	.	<1	.	<1	.	11	.
Turbidity (NTU)	1.4	.	2.2	.	0.9	.	0.1	.	17	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

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Sampling Point . Unit . Location . Date Sampled . Type	GW-241						GW-292			
	AQF						AQF			
	CRSDB						ECRWP			
	04/12/94		07/12/94		10/23/94		01/14/94		04/12/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.14	<0.02	2.9	0.046	1.8	<0.02	<0.02	0.027	0.026	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.017	0.016	0.025	0.017	0.024	0.016	0.11	0.11	0.13	0.12
Beryllium	<0.0003	<0.0003	0.00041	<0.0003	0.00044	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	<0.004	0.0065	0.066	0.05	0.078	0.0086	0.014	0.025	0.05	0.022
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	30	30	35	32	32	29	48	50	59	54
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	0.0049	<0.004	0.01	<0.004	<0.004	0.0041	<0.004	0.021
Iron	0.33	<0.005	3.2	0.0071	3.8	<0.005	0.01	0.0061	<0.005	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	0.0061	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	18	18	21	18	19	17	30	31	35	32
Manganese	0.013	<0.001	0.14	<0.001	0.14	<0.001	<0.001	<0.001	<0.001	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	2.8	2.6	2.8	2.1	3	3.1	0.66	1.2	0.78	1.1
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	0.74	0.75	0.65	0.64	0.79	0.68	4	4.1	5.4	5
Strontium	0.019	0.018	0.021	0.019	0.019	0.017	0.016	0.016	0.019	0.017
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	0.001	<0.001	<0.001	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001
Vanadium	<0.005	<0.005	0.0091	<0.005	0.0083	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	<0.002	<0.002	0.018	<0.002	0.028	<0.002	0.0063	0.0034	0.0075	0.0052
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	150	.	150	.	148	.	250	.	249	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	<1	.	1.6	.	<1	.	9	.	9.7	.
Fluoride	<0.1	.	0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	0.5	.	0.53	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	1	.	7.6	.	<1	.	4	.	2.9	.
TSS (mg/L)	4	.	57	.	64	.	<1	.	<1	.
Turbidity (NTU)	6.3	.	70	.	95	.	1	.	0.6	.

(CONTINUED)

Sampling Point	GW-292		GW-293						GW-294	
Unit	AQF		AQF						AQF	
Location	ECRWP		ECRWP						ECRWP	
Date Sampled	10/16/94		01/13/94		04/12/94		10/15/94		01/12/94	
Type	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	<0.02	0.094	0.03	0.022	0.51	0.027	<0.02	0.025	<0.02	0.1
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.1	0.11	0.19	0.19	0.19	0.18	0.17	0.17	0.01	0.011
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.039	0.033	0.02	0.046	0.042	0.029	0.029	0.033	0.015	0.0083
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	50	51	48	48	57	54	53	51	44	44
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0048	<0.004	<0.004	<0.004	0.0041	0.0096	0.0045	<0.004	0.0068	0.0074
Iron	0.029	0.022	2.1	<0.005	1.2	0.023	1.1	<0.005	0.018	0.0076
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	30	30	30	30	32	31	30	29	28	28
Manganese	<0.001	0.0011	0.012	0.0086	0.021	0.016	0.024	0.018	<0.001	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	0.78	0.8	1.5	1.7	1.4	1.3	1.4	1.2	1.3	1.8
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	4.4	4.5	4.1	4.2	4.9	4.9	4.7	4.6	3.7	3.5
Strontium	0.017	0.018	0.016	0.016	0.018	0.017	0.019	0.017	0.021	0.021
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.015	<0.015	<0.001	<0.001	0.001	<0.001	<0.015	<0.015	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	<0.002	<0.002	0.007	0.0048	0.0035	0.0087	<0.002	<0.002	0.023	0.015
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	245	.	241	.	254	.	251	.	218	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	9.4	.	11	.	11.5	.	12	.	8	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.6	.	0.4	.	0.37	.	0.4	.	3.7	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	2.4	.	5	.	3.1	.	2.8	.	3	.
TSS (mg/L)	<1	.	5	.	3	.	1	.	<1	.
Turbidity (NTU)	0.3	.	14	.	5	.	4.5	.	2	.

(CONTINUED)

Trace Metals and Anions, 1994

Sampling Point . Unit . Location . Date Sampled . Type	GW-294				GW-295				GW-296	
	AQF				AQF				AQF	
	ECRWP				CRBAWP				ECRWP	
	04/08/94		10/15/94		02/15/94		07/18/94		01/10/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.078	0.026	0.024	<0.02	1.6	0.15	0.76	0.054	0.049	0.05
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	0.056	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.011	0.011	0.011	0.011	0.019	0.016	0.023	0.063	0.011	0.01
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	0.00031	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.033	0.029	0.042	0.02	0.046	0.031	0.033	0.036	0.011	0.021
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	52	50	46	48	56	53	38	42	43	43
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	0.32	0.034	0.25	0.013	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	0.34	0.014	0.18	0.013	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.011	<0.005	<0.005
Copper	0.0054	0.0062	0.0049	0.0042	0.014	0.0056	0.0091	0.0099	0.0044	<0.004
Iron	0.22	0.033	0.16	<0.005	4.2	0.37	1.5	0.078	0.041	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	0.016	0.0055	0.0064	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	31	30	27	29	26	25	32	32	27	27
Manganese	0.0022	<0.001	0.0027	0.0013	0.063	0.0091	0.099	0.32	0.001	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	0.074	<0.01	0.17	0.2	<0.01	<0.01
Potassium	1.6	0.74	1	1.2	2.4	1.9	3.8	3.9	1.1	0.94
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0062	<0.006
Sodium	2.5	2.4	3.3	3.7	5.3	4.7	6.2	6.6	1.7	1.6
Strontium	0.022	0.021	0.021	0.023	0.056	0.05	0.07	0.08	0.016	0.016
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	0.002	<0.015	<0.015	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	0.0076	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.012	0.0056	0.0074	<0.002	0.075	0.041	0.034	0.15	0.01	0.006
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	224	.	224	.	189	.	166	.	229	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	8	.	12	.	35	.	48	.	2.3	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	2.7	.	3	.	1.5	.	0.83	.	0.3	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	2	.	3.1	.	5	.	15	.	1.4	.
TSS (mg/L)	6	.	<1	.	42	.	58	.	2	.
Turbidity (NTU)	2.6	.	6	.	54	.	40	.	1.6	.

(CONTINUED)

Sampling Point	GW-296				GW-298				GW-299	
Unit	AQF				AQF				AQF	
Location	ECRWP				CRBAWP				CRBAWP	
Date Sampled	04/08/94		10/15/94		02/14/94		07/21/94		02/13/94	
Type	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.061	<0.02	0.039	0.023	0.033	<0.02	0.026	<0.02	<0.02	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.01	0.0099	0.0097	0.0099	0.014	0.014	0.015	0.015	0.009	0.0094
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.00041
Boron	0.11	0.027	0.032	0.022	0.021	0.028	0.051	0.06	0.056	0.012
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	44	45	43	43	38	38	38	36	31	30
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	<0.004	0.0051	<0.004	<0.004	<0.004	<0.004	<0.004
Iron	0.2	<0.005	0.03	<0.005	0.088	0.02	0.29	0.015	<0.005	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	26	27	26	26	21	22	23	21	18	17
Manganese	<0.001	<0.001	0.0016	0.0013	<0.001	<0.001	0.0032	<0.001	<0.001	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	<0.6	0.96	0.67	0.74	0.87	0.77	0.73	0.69	0.68	0.68
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	0.013	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	2.2	2.2	1.3	1.3	1.2	0.89	3.6	4.1	0.72	0.68
Strontium	0.015	0.015	0.016	0.016	0.025	0.026	0.027	0.027	0.015	0.015
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.001	<0.001	<0.015	<0.015	0.001	0.002	0.002	0.002	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0062	<0.002	<0.002	<0.002	0.0078	<0.002	0.025	0.0096	0.0044	0.012
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	224	.	218	.	170	.	147	.	143	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	3	.	2.2	.	1	.	1.1	.	1.1	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.3	.	0.3	.	<0.2	.	<0.2	.	<0.2	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	1	.	1.5	.	6	.	12	.	2.6	.
TSS (mg/L)	2	.	1	.	<1	.	10	.	<1	.
Turbidity (NTU)	2	.	1	.	1.4	.	6.5	.	1.1	.

(CONTINUED)

Sampling Point Unit Location Date Sampled Type	GW-299		GW-300				GW-301			
	AQF		AQF				AQF			
	CRBAWP		CRBAWP				CRBAWP			
	07/21/94		02/13/94		07/20/94		02/13/94		07/20/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.043	0.035	0.16	<0.02	0.041	<0.02	0.35	0.021	2.8	0.029
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	0.073	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.0097	0.0092	0.016	0.016	0.021	0.021	0.02	0.019	0.029	0.019
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.079	0.024	0.025	0.018	0.091	0.029	0.023	0.015	0.079	0.055
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	30	30	21	21	30	30	35	34	49	33
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.021	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0083	<0.004
Iron	0.037	0.015	0.18	0.011	0.026	0.0058	0.41	0.0068	2.2	0.012
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0087	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	17	17	13	13	18	18	22	21	30	21
Manganese	0.0026	0.0012	<0.001	<0.001	<0.001	<0.001	0.01	<0.001	0.12	0.0012
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	0.69	0.69	<0.6	<0.6	<0.6	<0.6	0.78	0.66	0.88	<0.6
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	0.85	0.74	0.46	0.53	0.59	0.5	1.1	1	1.2	0.98
Strontium	0.015	0.015	0.014	0.014	0.02	0.02	0.02	0.02	0.026	0.019
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0071	<0.005
Zinc	0.0042	0.0062	0.0035	0.0035	0.013	0.0023	0.0041	<0.002	0.032	0.008
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	142	.	105	.	144	.	168	.	156	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1.2	.	1.1	.	1.1	.	1	.	1.3	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	0.35	.	0.5	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	7.2	.	3.3	.	6.9	.	2.4	.	6.6	.
TSS (mg/L)	<1	.	3	.	<1	.	10	.	8	.
Turbidity (NTU)	2.5	.	4.6	.	1	.	9.2	.	8.5	.

(CONTINUED)

Sampling Point • Unit • Location • Date Sampled • Type	GW-302								GW-303	
	AQF								AQF	
	UNCS								CRSDB	
	01/11/94		04/12/94		07/28/94		10/15/94		02/14/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.081	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.038
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.023	0.022	0.021	0.021	0.021	0.021	0.022	0.021	0.018	0.017
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.031	0.011	0.0074	0.0074	0.045	0.029	0.035	0.03	0.015	0.019
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	52	54	52	51	53	52	54	53	72	71
Chromium (AAS)	0.034	<0.01	0.039	<0.01	<0.01	<0.01	0.12	<0.01	<0.01	<0.01
Chromium	0.037	<0.01	0.044	<0.01	<0.01	<0.01	0.081	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	0.0061	<0.004	0.005	<0.004	0.0044	<0.004	0.0048	0.0057
Iron	0.79	0.011	0.3	<0.005	0.087	0.0097	0.86	<0.005	0.83	0.41
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	32	33	32	32	33	32	32	31	39	38
Manganese	0.019	0.0047	0.01	0.0035	0.0036	0.0024	0.014	0.0042	0.012	0.011
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	0.13	0.11	0.057	0.052	0.047	0.078	0.098	0.069	<0.01	<0.01
Potassium	1	1.2	1.3	1	0.97	1	0.87	1.1	4	4
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	13	12	9	9.2	8.6	8.4	8.1	8.1	1.1	1.1
Strontium	0.019	0.018	0.019	0.019	0.019	0.019	0.019	0.019	3.1	2.9
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	<0.001	0.001	0.002	<0.001	<0.015	<0.015	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	<0.002	<0.002	<0.002	<0.002	0.0067	0.0035	0.0038	<0.002	<0.002	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	231	.	240	.	241	.	242	.	183	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	39	.	21.9	.	20	.	19	.	1.6	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	1	.
Nitrate-N	1.13	.	0.95	.	0.96	.	1.1	.	<0.2	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	3.4	.	3	.	9.9	.	3.3	.	157	.
TSS (mg/L)	3	.	<1	.	<1	.	<1	.	1	.
Turbidity (NTU)	7.3	.	2	.	3.9	.	7.2	.	3.9	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

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Sampling Point . Unit . Location . Date Sampled . Type	GW-303						GW-304			
	AQF						AQF			
	CRSDB						CRSDB			
	04/11/94		07/11/94		10/23/94		02/10/94		04/04/94	04/05/94
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.18	0.034	0.29	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.018	0.018	0.018	0.02	0.014	0.015	0.01	0.012	0.012	0.011
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.039	0.02	0.045	0.044	0.042	0.038	0.015	0.041	0.014	0.014
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	73	73	76	79	60	60	40	39	40	40
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	0.0043	<0.004	<0.004	<0.004	<0.004	0.0041	0.0046	0.0065	<0.004
Iron	1.1	0.92	0.61	0.37	1.8	0.69	0.15	0.0057	0.33	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	41	41	42	44	39	38	23	23	25	25
Manganese	0.022	0.023	0.0097	0.0094	0.03	0.026	0.006	<0.001	0.017	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	4.7	4.6	4.1	4.3	6.3	5.6	1.5	2.4	2.2	2.3
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.012
Sodium	1.2	1.2	1.2	1.2	1.5	1.5	0.57	0.73	4.9	4.9
Strontium	3.1	3.1	3.2	3.4	2.4	2.4	0.017	0.02	0.02	0.02
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	<0.001	0.001	<0.015	<0.015	0.002	0.001	0.001	0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0061	0.0035	0.0072	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	183	.	181	.	153	.	194	.	191	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1.5	.	1.2	.	2.5	.	2	.	2.1	.
Fluoride	1	.	1	.	0.8	.	<0.1	.	<0.1	.
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	165	.	178	.	210	.	18	.	18.2	.
TSS (mg/L)	2	.	<1	.	4	.	5	.	13	.
Turbidity (NTU)	12	.	3.4	.	16	.	4.5	.	6.7	.

(CONTINUED)

Sampling Point Unit Location Date Sampled Type	GW-304				GW-305					
	AQF				AQF					
	CRSDB				LIV					
	07/08/94		10/18/94		01/10/94		04/06/94		07/07/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.18	0.021	0.08	<0.02	0.042	0.023	<0.02	<0.02	0.033	0.028
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.013	0.012	0.012	0.012	0.0076	0.0074	0.008	0.0083	0.0076	0.007
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.047	0.035	0.027	0.014	0.064	0.05	0.013	0.0058	0.084	0.024
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	43	41	38	37	27	27	27	27	27	27
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	0.0069	<0.004	<0.004	0.0061	0.004	<0.004	<0.004
Iron	0.29	0.026	0.2	<0.005	<0.005	<0.005	<0.005	<0.005	0.054	0.0072
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	26	25	24	24	16	16	17	17	18	18
Manganese	0.023	<0.001	0.0089	0.002	0.0019	0.0011	<0.001	<0.001	0.0025	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1.8	1.8	2.2	2.5	1.6	0.95	1.1	0.88	0.78	0.91
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	4	4.1	4.1	4.6	1.1	1.1	1.1	1	2.1	2.1
Strontium	0.021	0.021	0.019	0.02	0.011	0.011	0.011	0.011	0.015	0.015
Thallium (AAS)	.	.	.	.	.	.	<0.01	<0.01	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.001	0.001	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001	0.004	0.002
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0082	<0.002	<0.002	<0.002	0.0066	<0.002	0.021	<0.002	0.0084	0.0037
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	193	.	191	.	136	.	140	.	136	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	2	.
Chloride	1.9	.	1.9	.	1.8	.	2	.	1.7	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	0.2	.	0.75	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	25	.	21	.	<1	.	<1	.	9.9	.
TSS (mg/L)	23	.	26	.	<1	.	4	.	<1	.
Turbidity (NTU)	11	.	20	.	1	.	1.1	.	1.1	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

26

Sampling Point . Unit . Location . Date Sampled . Type	GW-305		GW-321						GW-339	
	AQF		AQF						AQF	
	LIV		ADB						UNCS	
	10/05/94		01/11/94		04/13/94		10/18/94	10/21/94	01/11/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.092	<0.02	<0.02	<0.02	<0.02	<0.02	0.021	<0.02	0.075	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.0098	0.0084	0.055	0.053	0.058	0.055	0.057	0.056	0.021	0.019
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.014	0.029	0.029	0.023	0.074	0.031	0.045	0.045	0.018	0.026
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	27	27	26	24	29	28	27	27	55	55
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.022	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.025	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	<0.004	<0.004	0.0041	<0.004	<0.004	<0.004	<0.004
Iron	0.16	<0.005	0.017	<0.005	0.011	0.0059	<0.005	<0.005	0.81	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	16	16	15	14	16	15	15	15	32	32
Manganese	0.014	0.0035	0.0041	0.003	0.0026	0.0026	0.0064	0.0062	0.0076	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.06	0.048
Potassium	0.75	<0.6	<0.6	<0.6	0.74	0.72	0.71	1	1.6	1.1
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	0.99	1.2	0.54	0.53	0.8	0.68	0.63	0.62	9.2	9
Strontium	0.043	0.013	0.018	0.017	0.02	0.019	0.018	0.018	0.022	0.022
Thallium (AAS)	<0.01	<0.01	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.015	<0.015	<0.001	<0.001	0.001	0.001	<0.015	<0.015	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0097	0.0022	0.0089	0.0051	<0.002	<0.002	0.0052	0.0035	0.0092	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	131	.	125	.	124	.	124	.	263	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	2.2	.	1.2	.	1	.	1.1	.	21.6	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.24	.	0.22	.	0.2	.	0.26	.	0.76	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	7.8	.	2.4	.	2	.	6.5	.	4.4	.
TSS (mg/L)	6	.	<1	.	<1	.	<1	.	6	.
Turbidity (NTU)	17	.	2.5	.	0.7	.	0.5	.	4	.

(CONTINUED)

Sampling Point . Unit . Location . Date Sampled . Type	GW-339						GW-511			
	AQF						AQF			
	UNCS						CRSP			
	04/08/94		07/27/94		10/15/94		02/17/94		04/25/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.066	0.049
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.021	0.02	0.02	0.02	0.022	0.02	0.0078	0.0073	0.0071	0.0069
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.011	0.0071	0.042	0.04	0.01	0.043	0.041	0.031	0.13	0.13
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	57	55	56	57	58	57	30	28	28	28
Chromium (AAS)	0.025	<0.01	0.093	<0.01	0.047	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	0.023	<0.01	0.092	<0.01	0.032	<0.01	<0.01	<0.01	0.013	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0064	<0.004	0.005	0.0041	0.004	<0.004	<0.004	<0.004	<0.004	0.0046
Iron	0.14	<0.005	0.12	0.023	1.7	<0.005	0.044	<0.005	0.095	0.013
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	33	33	33	34	33	32	18	17	17	17
Manganese	0.0026	0.0019	0.0055	0.0021	0.0085	0.0015	<0.001	<0.001	0.0014	0.0017
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	0.053	0.048	0.064	0.067	0.075	0.051	<0.01	<0.01	<0.01	<0.01
Potassium	1.6	1.7	1.3	1.2	1.3	1.6	3.2	3.2	3.5	3.3
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	10	10	9.3	9.7	9.6	9.3	1.2	1.1	1.3	1.4
Strontium	0.024	0.023	0.023	0.024	0.023	0.023	0.034	0.033	0.038	0.039
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	0.001	0.002	<0.015	<0.015	<0.001	0.003	0.001	0.003
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0038	<0.002	0.0097	<0.002	<0.002	<0.002	<0.002	<0.002	0.0056	0.011
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	258	.	254	.	259	.	149	.	137	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	23	.	19	.	20	.	3	.	2.6	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.9	.	0.78	.	0.9	.	<0.2	.	<0.2	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	4	.	9.2	.	4	.	1	.	1.4	.
TSS (mg/L)	2	.	<1	.	4	.	<1	.	<1	.
Turbidity (NTU)	5.3	.	1.3	.	6	.	0.6	.	4	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

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Sampling Point Unit Location Date Sampled Type	GW-511				GW-512					
	AQF				AQF					
	CRSP				ADB					
	07/31/94		11/14/94		01/12/94		04/14/94		10/19/94	10/20/94
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.036	0.027	<0.02	<0.02	1.1	0.027	<0.02	0.09	0.87	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.008	0.0082	0.0078	0.0074	0.028	0.025	0.022	0.022	0.027	0.023
Beryllium	0.00036	<0.0003	<0.0003	<0.0003	0.00044	<0.0003	<0.0003	<0.0003	0.00032	<0.0003
Boron	0.026	0.021	0.022	0.02	0.026	0.055	0.023	0.019	0.024	0.035
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	29	30	29	28	31	31	37	35	32	31
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.022
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0054	0.01	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0052
Iron	0.067	<0.005	0.1	<0.005	1.1	<0.005	0.041	0.024	1.2	0.22
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	18	18	18	17	18	18	22	20	18	18
Manganese	0.0035	0.0017	0.0051	0.0039	0.037	<0.001	0.0023	0.0023	0.038	0.0078
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.081
Potassium	2.9	2.9	3.6	4	5.1	4.8	4	4.1	4.1	4.1
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	1.1	1.1	1.1	1.1	1.4	1.4	0.89	0.83	0.95	1
Strontium	0.036	0.036	0.035	0.035	0.022	0.022	0.024	0.023	0.02	0.019
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.001	<0.001	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001	<0.015	<0.015
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0094	0.0036	<0.002	0.0027	0.027	0.0063	0.0049	0.033	0.026	0.0085
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	144	.	143	.	146	.	168	.	156	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	2.3	.	3.5	.	1	.	<1	.	<1	.
Fluoride	<0.1	.	<0.1	.	0.1	.	<0.1	.	<0.1	.
Nitrate-N	<0.2	.	0.37	.	<0.2	.	<0.2	.	<0.2	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	1.4	.	2.1	.	8	.	4	.	8.8	.
TSS (mg/L)	<1	.	2	.	19	.	<1	.	19	.
Turbidity (NTU)	1.2	.	0.4	.	24	.	1.9	.	28	.

(CONTINUED)

Sampling Point Unit Location Date Sampled Type	GW-513						GW-514			
	AQF						AQF			
	ADB						ADB			
	01/11/94		04/13/94		10/18/94		01/14/94		04/18/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.19	<0.02	0.062	<0.02	0.098	<0.02	<0.02	<0.02	<0.02	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.0084	0.0075	0.0063	0.0055	0.0078	0.0074	0.0069	0.0074	0.0052	0.0048
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.11	0.021	0.031	0.024	0.055	0.018	0.019	0.018	0.032	0.028
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	36	35	38	38	37	36	39	38	41	40
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	0.0063	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Iron	0.17	<0.005	0.055	<0.005	0.06	<0.005	0.32	<0.005	0.28	0.0095
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	21	20	22	22	21	21	22	22	23	23
Manganese	0.0049	<0.001	0.0042	<0.001	0.0022	<0.001	0.0069	0.0067	0.0094	0.0094
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1.6	1.4	1.5	1.5	1.7	1.8	0.85	0.81	0.98	0.92
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	2.2	2.1	0.95	0.89	1.6	1.6	0.45	0.41	0.48	0.49
Strontium	0.021	0.021	0.022	0.022	0.02	0.02	0.023	0.022	0.023	0.023
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	0.001	0.001	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0054	0.0037	<0.002	<0.002	0.0079	<0.002	<0.002	<0.002	<0.002	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	174	.	175	.	179	.	180	.	183	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1.3	.	1	.	1.1	.	2	.	1.2	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	3.7	.	2	.	6.8	.	5	.	3.8	.
TSS (mg/L)	2	.	1	.	2	.	<1	.	<1	.
Turbidity (NTU)	5	.	3.2	.	2.6	.	3.7	.	3.4	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

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Sampling Point	GW-514		GW-521							
Unit	AQF		AQF							
Location	ADB		LIV							
Date Sampled	10/20/94		01/06/94		04/05/94		07/07/94		10/04/94	
Type	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	<0.02	<0.02	0.15	<0.02	0.025	<0.02	0.082	<0.02	0.13	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.0078	0.0072	0.0079	0.0074	0.0082	0.008	0.0093	0.0084	0.0088	0.0081
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.015	0.014	0.022	0.018	0.0086	0.0058	0.023	0.02	0.032	0.065
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	38	38	29	29	28	28	29	29	30	30
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	<0.004	<0.004	0.0041	<0.004	<0.004	<0.004	<0.004
Iron	1.5	<0.005	0.18	<0.005	0.044	<0.005	0.07	0.027	0.053	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	0.006	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	22	22	18	18	19	19	20	20	19	19
Manganese	0.013	0.0035	0.007	<0.001	0.0016	<0.001	0.017	<0.001	0.0057	0.0012
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	0.032	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1.6	1.4	0.66	0.87	0.75	0.65	0.62	0.62	<0.6	0.67
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	0.5	0.51	0.59	0.58	0.72	0.73	0.75	0.82	0.62	0.72
Strontium	0.021	0.021	0.01	0.01	0.01	0.0099	0.01	0.011	0.011	0.011
Thallium (AAS)	.	.	.	.	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001	0.001	0.001	<0.015	<0.015
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	<0.002	<0.002	0.0072	<0.002	0.0049	<0.002	0.0097	0.0074	0.0099	0.004
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	178	.	147	.	149	.	145	.	151	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1.1	.	1.4	.	1.2	.	1.2	.	1.7	.
Fluoride	<0.1	.	0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	<0.2	.	0.23	.	<0.2	.	<0.2	.	0.24	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	8.3	.	2.3	.	<1	.	9.6	.	7.7	.
TSS (mg/L)	2	.	2	.	10	.	4	.	<1	.
Turbidity (NTU)	3.5	.	6.8	.	2.4	.	6.7	.	2.6	.

(CONTINUED)

Sampling Point Unit Location Date Sampled Type	GW-522								GW-539	
	AQF								AQF	
	LIV								LII	
	01/07/94		04/05/94		07/07/94		10/05/94		01/06/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
MTALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.31	0.024	1.1	<0.02	0.1	<0.02	0.44	<0.02	0.13	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.0085	0.0076	0.0095	0.0069	0.0075	0.0073	0.0074	0.0069	0.0092	0.065
Beryllium	<0.0003	<0.0003	0.00053	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.025	0.043	0.016	0.019	0.038	0.039	0.045	0.021	<0.004	0.0052
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	33	32	35	26	31	29	29	26	36	34
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.038	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.065	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	0.0044	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Iron	0.36	<0.005	1.2	<0.005	0.09	0.013	0.34	0.013	1	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	19	19	22	16	20	18	17	16	22	20
Manganese	0.012	<0.001	0.028	<0.001	0.0082	0.0014	0.0069	0.0012	0.012	0.0013
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.098	0.046
Potassium	1.3	1.1	1.2	0.81	0.68	0.6	<0.6	0.63	1.3	0.89
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	0.57	0.53	0.66	0.66	0.68	0.75	0.55	0.52	2.6	1.9
Strontium	0.012	0.012	0.012	0.01	0.012	0.012	0.01	0.0097	0.022	0.022
Thallium (AAS)	.	.	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.015	<0.015	0.002	0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.019	0.0046	0.052	0.0026	0.019	0.0036	0.017	0.003	0.0085	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	156	.	139	.	141	.	136	.	142	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1.8	.	1.7	.	1.5	.	1.9	.	34	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.47	.	0.42	.	0.38	.	0.4	.	0.31	.
Ammonia-N	.	.	.	.	.	.	.	.	<0.2	.
Sulfate	2.6	.	<1	.	9.1	.	7.2	.	6.5	.
TSS (mg/L)	8	.	31	.	15	.	12	.	6	.
Turbidity (NTU)	7.7	.	26	.	7.5	.	14	.	4.8	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

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Sampling Point . Unit . Location . Date Sampled . Type	GW-539						GW-540			
	AQF						AQF			
	LII						CDLVI			
	04/04/94		07/13/94		10/06/94		03/22/94		04/14/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	4.6	0.058	0.48	<0.02	0.043	<0.02	<0.02	0.17	0.083	0.054
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.037	0.0087	0.011	0.011	0.012	0.0099	0.0092	0.0096	0.0089	0.009
Beryllium	0.00041	<0.0003	0.00036	<0.0003	0.00044	0.0003	<0.0003	0.0003	<0.0003	<0.0003
Boron	0.025	0.044	0.014	0.015	0.049	0.041	0.022	0.016	0.012	0.019
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	0.0042	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	92	38	37	34	37	35	41	41	41	41
Chromium (AAS)	1.8	<0.01	0.14	<0.01	0.033	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	1.9	<0.01	0.11	<0.01	0.021	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	0.013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.099	<0.004	0.014	0.0083	<0.004	<0.004	<0.004	<0.004	<0.004	0.0084
Iron	29	<0.005	1.9	<0.005	0.4	<0.005	0.015	<0.005	0.026	0.33
Lead (AAS)	0.042	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	30	22	21	21	22	21	24	23	25	24
Manganese	0.37	<0.001	0.028	0.0011	0.0087	0.0032	<0.001	0.0011	<0.001	0.0013
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	0.018	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	0.65	0.048	0.088	0.045	0.13	0.14	<0.01	<0.01	<0.01	<0.01
Potassium	1.2	1.4	1.5	1.3	0.71	0.85	0.68	0.72	1.1	1.1
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	0.011	0.0076	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	2.4	2.8	2.8	2.9	2.5	2.6	1.9	1.9	1.4	1.3
Strontium	0.051	0.023	0.023	0.022	0.02	0.02	0.027	0.027	0.025	0.025
Thallium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.003	0.008	0.003	0.002	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001
Vanadium	0.014	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.31	0.025	0.04	0.0086	0.009	0.0037	0.0051	0.0038	0.086	0.046
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	148	.	146	.	150	.	191	.	193	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	23	.	19	.	18	.	2	.	2	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.25	.	0.38	.	0.31	.	<0.2	.	<0.2	.
Ammonia-N	0.7	.	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Sulfate	6.9	.	13	.	12	.	4	.	4	.
TSS (mg/L)	55	.	10	.	15	.	<1	.	<1	.
Turbidity (NTU)	28	.	6.4	.	7	.	0.5	.	0.4	.

(CONTINUED)

Sampling Point	GW-540		GW-541						GW-542	
Unit	AQF		AQF						AQF	
Location	CDLVI		CDLVI						CDLVI	
Date Sampled	10/10/94		03/23/94		04/18/94		10/11/94		03/24/94	
Type	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	<0.02	<0.02	0.25	<0.02	0.057	<0.02	0.22	0.065	0.28	0.042
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.011	0.01	0.0079	0.0077	0.0064	0.0063	0.01	0.0087	0.017	0.016
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.018	0.019	0.027	0.032	0.016	0.014	0.062	0.086	0.038	0.034
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	38	39	43	41	40	40	38	33	30	30
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.027	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	0.0056	<0.004	<0.004	<0.004	0.0041	0.0044	<0.004
Iron	<0.005	<0.005	0.28	0.0066	0.11	0.0059	0.17	<0.005	0.11	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	23	24	23	22	23	23	21	19	13	13
Manganese	0.0016	0.0014	0.012	0.0011	0.0024	<0.001	0.0074	<0.001	0.0079	0.002
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	0.034	0.033	0.028	0.025	0.032	0.036	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1.3	1.3	0.81	0.83	1.4	1.4	0.77	1.7	2.1	2.2
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	2.4	2.4	0.49	0.68	0.56	0.52	0.78	0.94	1.7	1.7
Strontium	0.025	0.026	0.025	0.024	0.022	0.022	0.035	0.034	0.035	0.036
Thallium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.015	<0.015	0.003	0.002	0.003	0.003	<0.015	<0.015	<0.001	0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0076	<0.002	0.029	<0.002	0.015	0.0052	0.014	0.012	0.048	0.021
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO ₃	198	.	180	.	176	.	152	.	140	.
Alkalinity-CO ₃	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	2.1	.	1	.	<1	.	1.6	.	2	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.25	.	<0.2	.	<0.2	.	<0.2	.	0.4	.
Ammonia-N	<0.2	.	<0.2	.	0.5	.	<0.2	.	<0.2	.
Sulfate	9.7	.	11	.	10.1	.	16	.	5	.
TSS (mg/L)	<1	.	5	.	2	.	8	.	3	.
Turbidity (NTU)	0.1	.	3.8	.	0.8	.	4.3	.	2.3	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

34

Sampling Point • Unit • Location • Date Sampled • Type	GW-542				GW-543					
	AQF				AQF					
	CDLVI				CDLVI					
	04/19/94		10/12/94		03/25/94		04/20/94		10/13/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.032	<0.02	0.93	0.045	0.059	<0.02	<0.02	<0.02	0.12	0.03
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.017	0.017	0.016	0.014	0.011	0.011	0.0076	0.0088	0.0099	0.0098
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.023	0.034	0.041	0.089	0.014	0.042	0.018	0.0085	0.037	0.022
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	32	33	22	23	50	48	48	50	43	44
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	0.0068	<0.004	<0.004	<0.004	<0.004	<0.004	0.0064	0.0041
Iron	0.034	0.011	0.56	<0.005	0.049	<0.005	0.016	0.0063	0.12	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	18	19	12	13	29	28	29	30	27	27
Manganese	0.0021	0.0012	0.018	0.0041	0.0011	<0.001	<0.001	<0.001	0.0024	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1.9	1.9	2.5	1.8	0.98	1.1	1.2	1.4	1.9	1.5
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	1.3	1.3	1.1	1.2	1.1	1.2	0.76	0.98	1.1	1.1
Strontium	0.024	0.025	0.019	0.019	0.027	0.026	0.022	0.024	0.022	0.022
Thallium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	<0.015	<0.015	<0.001	<0.001	0.002	0.005	<0.015	<0.015
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.036	0.031	0.068	0.041	0.053	0.04	0.0082	0.13	0.014	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	150	.	108	.	231	.	229	.	219	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	2	.	1.8	.	2	.	2	.	2.5	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.4	.	0.46	.	0.4	.	0.3	.	0.3	.
Ammonia-N	<0.2	.	<0.2	.	<0.2	.	0.2	.	<0.2	.
Sulfate	6	.	8.2	.	3	.	2	.	3	.
TSS (mg/L)	<1	.	53	.	5	.	<1	.	<1	.
Turbidity (NTU)	1.2	.	17	.	3	.	1	.	2.5	.

(CONTINUED)

Sampling Point . Unit . Location . Date Sampled . Type	GW-544						GW-545			
	AQF						AQF			
	CDLVI						CDLVI			
	03/25/94		04/21/94		10/13/94		03/25/94		04/19/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.051	<0.02	0.051	<0.02	0.23	<0.02	0.92	0.061	0.16	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.011	0.01	0.01	0.011	0.013	0.011	0.027	0.0079	0.0098	0.011
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.032	0.016	0.0079	0.0064	0.057	0.047	0.032	0.022	0.018	0.016
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	46	46	48	47	47	45	30	6.8	10	10
Chromium (AAS)	0.029	<0.01	0.01	<0.01	0.041	<0.01	0.02	0.014	0.01	<0.01
Chromium	0.024	<0.01	0.015	<0.01	0.038	<0.01	0.021	0.015	0.012	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0057	<0.004	0.0043	<0.004	0.0061	<0.004	0.01	<0.004	<0.004	<0.004
Iron	0.084	0.0058	0.18	0.0079	0.4	<0.005	0.62	<0.005	0.14	0.016
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0043	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	28	27	29	28	28	27	8	3.9	3.1	5.1
Manganese	0.0014	<0.001	0.0076	<0.001	0.012	<0.001	0.048	<0.001	0.0022	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.013	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1.4	1.1	1.3	1.7	1.3	1.6	31	22	26	23
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	4.8	4.5	4.4	4.3	5.5	5.5	9.3	6.7	9.4	7.9
Strontium	0.022	0.021	0.02	0.02	0.022	0.02	0.1	0.049	0.047	0.048
Thallium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.002	0.001	0.002	0.002	<0.015	<0.015	<0.001	0.001	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.014	0.0069	<0.005	<0.005
Zinc	0.14	0.047	0.053	<0.002	0.078	<0.002	0.059	0.002	0.0059	0.0065
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	215	.	210	.	212	.	<1	.	36	.
Alkalinity-CO3	<1	.	<1	.	<1	.	50	.	38	.
Chloride	10	.	10	.	13	.	2	.	2	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.6	.	0.5	.	0.7	.	0.8	.	0.9	.
Ammonia-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Sulfate	8	.	9	.	6.6	.	19	.	10	.
TSS (mg/L)	2	.	6	.	12	.	70	.	20	.
Turbidity (NTU)	2.1	.	3.5	.	16	.	56	.	4.5	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

36

Sampling Point	GW-545		GW-546						GW-557	
Unit	AQF		AQF						AQF	
Location	CDLVI		CDLVI						LV	
Date Sampled	10/12/94		03/23/94		04/14/94		10/11/94		03/07/94	
Type	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	30	0.11	<0.02	0.032	0.06	<0.02	8.4	0.039	0.14	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	0.092	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.16	0.0093	0.0039	0.0042	0.0037	0.0035	0.029	0.0044	0.012	0.012
Beryllium	0.0033	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.00084	<0.0003	<0.0003	<0.0003
Boron	0.055	0.018	0.021	0.022	0.017	0.014	0.042	0.073	0.02	0.022
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	0.0071	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	110	18	34	34	35	34	140	30	35	34
Chromium (AAS)	0.13	0.011	<0.01	<0.01	<0.01	<0.01	0.078	<0.01	<0.01	<0.01
Chromium	0.067	<0.01	<0.01	<0.01	<0.01	<0.01	0.036	<0.01	<0.01	<0.01
Cobalt	0.026	<0.005	<0.005	<0.005	<0.005	<0.005	0.0075	<0.005	<0.005	<0.005
Copper	0.12	0.0045	<0.004	<0.004	<0.004	<0.004	0.056	<0.004	<0.004	<0.004
Iron	45	0.03	0.038	<0.005	0.11	0.021	13	<0.005	0.3	0.03
Lead (AAS)	0.25	<0.004	<0.004	<0.004	<0.004	<0.004	0.023	<0.004	<0.004	<0.004
Lead	0.25	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	<0.05	<0.05
Magnesium	25	2.2	20	19	21	20	85	18	21	20
Manganese	1	0.0012	0.0031	0.0017	0.0049	<0.001	0.61	0.0039	0.0064	<0.001
Mercury (CVAA)	0.00044	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0005	<0.0002	<0.0002	<0.0002
Molybdenum	0.081	0.059	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	0.065	<0.01	<0.01	<0.01	<0.01	<0.01	0.055	0.015	<0.01	<0.01
Potassium	19	12	1.5	1.5	2.1	2.1	5	2.4	1.4	1.3
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	5.4	4.5	1.8	1.8	1.7	1.8	2.9	2.3	0.69	0.57
Strontium	0.14	0.042	0.02	0.02	0.019	0.019	0.069	0.019	0.017	0.017
Thallium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.015	<0.015	0.001	0.001	<0.001	<0.001	<0.015	<0.015	<0.001	<0.001
Vanadium	0.091	0.0069	<0.005	<0.005	<0.005	<0.005	0.028	<0.005	<0.005	<0.005
Zinc	0.2	0.023	0.006	<0.002	0.0074	<0.002	0.07	0.0027	0.0081	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	<1	.	161	.	162	.	139	.	169	.
Alkalinity-CO3	28	.	<1	.	<1	.	<1	.	<1	.
Chloride	2.6	.	2	.	2	.	2.2	.	1	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.89	.	<0.2	.	<0.2	.	0.31	.	0.9	.
Ammonia-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Sulfate	25	.	3	.	3	.	9.8	.	1	.
TSS (mg/L)	1214	.	3	.	2	.	1574	.	10	.
Turbidity (NTU)	750	.	2.3	.	2.3	.	220	.	6	.

(CONTINUED)

Sampling Point . Unit . Location . Date Sampled . Type	GW-557						GW-560			
	AQF						AQF			
	LV						CDLVII			
	04/21/94		07/15/94		10/09/94		03/07/94		04/19/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.068	0.038	0.038	<0.02	0.036	<0.02	0.031	0.026	0.081	0.031
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.012	0.012	0.012	0.011	0.012	0.011	0.21	0.2	0.18	0.19
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.018	0.033	0.021	0.029	0.094	0.036	0.0091	0.012	0.021	0.027
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	42	41	39	38	36	37	32	31	32	33
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	0.0063	0.0064	<0.004	<0.004	<0.004	0.016	<0.004	<0.004
Iron	0.064	<0.005	0.074	0.13	0.055	<0.005	0.028	0.025	0.019	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	23	23	22	22	21	21	14	13	12	12
Manganese	0.0024	<0.001	0.0035	0.0012	0.0024	0.0014	<0.001	<0.001	0.0014	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1.4	1.4	1.5	1.5	1.4	1.6	1.2	1.2	1	0.96
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	0.71	0.85	0.65	0.63	0.7	0.62	0.47	0.43	0.47	0.51
Strontium	0.018	0.018	0.018	0.018	0.017	0.017	0.023	0.022	0.02	0.021
Thallium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.001	0.001	<0.001	<0.001	<0.015	<0.015	<0.001	<0.001	0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.01	0.011	0.0029	0.0054	0.0068	<0.002	0.013	<0.002	0.023	0.027
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	171	.	168	.	167	.	143	.	132	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1	.	1.7	.	1.3	.	1	.	1	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.9	.	0.89	.	0.98	.	<0.2	.	<0.2	.
Ammonia-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Sulfate	1	.	6.8	.	1.7	.	2	.	2	.
TSS (mg/L)	2	.	3	.	2	.	<1	.	<1	.
Turbidity (NTU)	2.8	.	2.7	.	1.1	.	1.5	.	1.1	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

38

Sampling Point . Unit . Location . Date Sampled . Type	GW-560				GW-562					
	AQF				AQF					
	CDLVII				CDLVII					
	07/12/94		10/08/94		03/07/94		04/19/94		07/13/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	<0.02	<0.02	0.045	<0.02	0.73	0.048	0.55	<0.02	0.17	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.25	0.25	0.25	0.26	0.013	0.012	0.014	0.013	0.013	0.011
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.04	0.039	0.013	0.058	0.007	0.61	0.016	0.018	0.024	0.024
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	38	38	37	38	37	37	50	48	41	41
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0051	0.0068	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0047	0.0042
Iron	0.05	0.058	0.092	<0.005	0.69	0.012	0.42	<0.005	0.15	0.0063
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	15	15	15	15	22	22	27	26	23	23
Manganese	0.0015	<0.001	0.004	<0.001	0.019	<0.001	0.013	<0.001	0.0094	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1.4	1.3	1.4	1.3	0.7	0.64	<0.6	<0.6	0.74	<0.6
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	0.56	0.59	0.5	0.56	0.59	1.4	0.85	0.78	0.76	0.74
Strontium	0.026	0.026	0.026	0.026	0.019	0.019	0.023	0.021	0.02	0.02
Thallium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.015	0.013	0.02	0.0035	0.008	<0.002	0.04	0.0065	<0.002	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	147	.	149	.	181	.	183	.	184	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1.7	.	1.6	.	2	.	1	.	2.2	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	<0.2	.	<0.2	.	0.3	.	0.3	.	0.36	.
Ammonia-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Sulfate	8.2	.	7.6	.	1	.	1	.	8.1	.
TSS (mg/L)	<1	.	2	.	7	.	3	.	14	.
Turbidity (NTU)	1.8	.	1.6	.	15	.	8	.	12	.

(CONTINUED)

Sampling Point . Unit . Location . Date Sampled . Type	GW-562		GW-564							
	AQF		AQF							
	CDLVII		CDLVII							
	10/08/94		03/07/94		04/20/94		07/14/94		10/09/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.53	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.011	0.011	0.013	0.013	0.013	0.013	0.013	0.014	0.012	0.012
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.068	0.072	0.27	0.031	0.017	0.015	0.027	0.052	0.042	0.11
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	39	39	29	30	33	33	36	35	34	35
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.013	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	0.0051	<0.004	0.0099	<0.004	<0.004	0.0079	<0.004	<0.004
Iron	0.37	<0.005	0.044	<0.005	0.017	<0.005	0.058	0.013	0.05	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	22	22	14	14	14	14	16	16	16	16
Manganese	0.01	0.0013	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0016	0.0016
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	0.71	0.63	1.1	1.4	1.1	1	1.2	1.4	1.2	1.3
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	0.78	0.75	0.89	0.58	0.69	0.63	0.6	0.64	0.59	0.67
Strontium	0.019	0.019	0.019	0.019	0.018	0.018	0.02	0.02	0.02	0.02
Thallium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.015	<0.015	<0.001	<0.001	0.001	0.003	<0.001	0.001	<0.015	<0.015
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0081	0.0058	0.0095	<0.002	0.037	0.056	0.0066	<0.002	0.015	0.004
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	181	.	137	.	134	.	143	.	144	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1.9	.	1.2	.	1	.	1.7	.	1.1	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.39	.	0.39	.	0.4	.	0.5	.	0.54	.
Ammonia-N	<0.2	.	<0.2	.	0.2	.	<0.2	.	<0.2	.
Sulfate	7.7	.	1.1	.	1	.	6.7	.	<1	.
TSS (mg/L)	4	.	<1	.	<1	.	<1	.	<1	.
Turbidity (NTU)	8	.	1	.	0.8	.	0.7	.	0.5	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

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Sampling Point . Unit . Location . Date Sampled . Type	GW-608								GW-609	
	AQF								AQF	
	CRSP								CRSP	
	02/21/94		05/18/94		08/08/94		11/29/94		02/24/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	<0.02	<0.02	<0.02	<0.02	0.022	<0.02	0.029	0.024	<0.02	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.011	0.011	0.012	0.011	0.012	0.012	0.013	0.012	0.012	0.011
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.02	0.0092	0.022	0.014	0.023	0.033	0.013	0.0097	0.011	0.0047
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	31	30	31	31	32	31	30	29	40	40
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	0.023	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	<0.004	<0.004	0.01	0.0044	<0.004	<0.004	<0.004
Iron	0.3	<0.005	0.19	<0.005	0.64	0.11	0.12	<0.005	0.011	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	18	18	17	17	19	19	18	17	24	25
Manganese	0.008	0.0019	0.0082	0.004	0.042	0.0064	0.0032	0.0023	<0.001	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	0.63	1.1	1.4	1.2	0.74	0.89	1.3	1.7	1.4	1.2
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	0.57	0.56	0.62	0.65	0.54	0.66	0.63	0.61	0.67	0.64
Strontium	0.013	0.013	0.013	0.013	0.014	0.015	0.013	0.013	0.014	0.013
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.001	<0.001	0.001	0.001	<0.001	<0.001	<0.015	<0.015	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0048	<0.002	<0.002	<0.002	0.012	0.017	0.0068	0.004	0.0064	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	152	.	149	.	144	.	146	.	198	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	2	.	2	.	1.8	.	2.2	.	2	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.4	.	0.4	.	0.4	.	0.58	.	1.1	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	2	.	2	.	2.6	.	3	.	2	.
TSS (mg/L)	<1	.	20	.	12	.	<1	.	<1	.
Turbidity (NTU)	3.3	.	2	.	5	.	1.5	.	0.7	.

(CONTINUED)

Sampling Point . Unit . Location . Date Sampled . Type	GW-609						GW-610			
	AQF						AQF			
	CRSP						CRSP			
	05/24/94		08/14/94		12/01/94		02/18/94		05/04/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	<0.02	<0.02	<0.02	0.034	0.026	0.027	<0.02	<0.02	0.075	0.033
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.012	0.012	0.012	0.013	0.013	0.013	0.11	0.11	0.16	0.16
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.014	0.018	0.032	0.026	0.019	0.013	0.0041	0.017	0.15	0.083
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	41	41	43	41	41	40	47	48	51	50
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	0.0046	0.006	<0.004	0.0078	<0.004	<0.004	<0.004	0.0071
Iron	<0.005	<0.005	0.011	0.011	0.099	0.0083	0.075	<0.005	0.083	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	25	25	27	25	25	24	29	29	31	31
Manganese	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	0.0014	0.0011
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	2.2	1.9	0.95	0.86	1.3	1.6	0.73	0.89	0.64	<0.6
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	0.84	0.79	0.78	0.76	0.86	0.92	0.82	0.86	1	0.87
Strontium	0.015	0.015	0.016	0.015	0.014	0.014	0.017	0.018	0.019	0.019
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	0.001	<0.001	<0.001	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0078	<0.002	0.014	0.0051	0.0085	<0.002	0.0032	<0.002	0.0081	0.0031
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	201	.	194	.	191	.	237	.	243	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1.8	.	1.7	.	2.1	.	3	.	2.4	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	1	.	1	.	1.2	.	0.8	.	0.6	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	3.3	.	2.2	.	2.6	.	<1	.	<1	.
TSS (mg/L)	<1	.	<1	.	<1	.	<1	.	2	.
Turbidity (NTU)	0.7	.	0.4	.	0.3	.	1.5	.	1.5	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

42

Sampling Point . Unit . Location . Date Sampled . Type	GW-610				GW-611					
	AQF				AQF					
	CRSP				CRSP					
	08/06/94		11/21/94		02/22/94		05/19/94		08/13/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.89	0.029	<0.02	<0.02	0.064	<0.02	<0.02	<0.02	<0.02	0.037
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.12	0.11	0.094	0.093	0.015	0.016	0.016	0.02	0.015	0.023
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.032	0.049	0.037	0.014	<0.004	<0.004	0.0066	<0.004	0.022	0.021
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	51	45	43	42	59	59	54	55	58	59
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	0.016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.017	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.015	<0.004	<0.004	<0.004	<0.004	<0.004	0.005	0.0065	0.0084	<0.004
Iron	1	0.016	0.14	<0.005	0.28	0.0068	0.032	<0.005	0.12	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	29	28	26	26	34	35	31	32	34	35
Manganese	0.026	0.0035	0.0034	0.0026	0.0062	0.0022	0.0029	0.0023	0.0026	0.0026
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	<0.6	<0.6	1.6	1.2	0.74	1.4	6.7	11	<0.6	<0.6
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	0.8	0.83	0.9	0.88	1.6	1.6	2.3	3.6	2.1	1.4
Strontium	0.022	0.018	0.016	0.016	0.019	0.019	0.019	0.02	0.019	0.02
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.001	0.001	<0.015	<0.015	<0.001	<0.001	0.001	<0.001	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.017	0.0086	<0.002	<0.002	0.022	0.005	<0.002	<0.002	0.052	0.039
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	200	.	218	.	274	.	267	.	258	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	2.2	.	2.4	.	2	.	2	.	1.9	.
Fluoride	<0.1	.	<0.1	.	0.2	.	<0.1	.	<0.1	.
Nitrate-N	0.54	.	0.76	.	3.8	.	3.7	.	4	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	<1	.	1.1	.	2	.	2	.	3	.
TSS (mg/L)	43	.	<1	.	6	.	3	.	<1	.
Turbidity (NTU)	17	.	0.6	.	3.1	.	2	.	0.5	.

(CONTINUED)

Sampling Point . Unit . Location . Date Sampled . Type	GW-611		GW-709							
	AQF		AQF							
	CRSP		LII							
	11/30/94		01/06/94		04/05/94		07/14/94		10/07/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.12	0.029	0.19	<0.02	0.14	<0.02	0.11	0.024	0.033	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.019	0.016	0.47	0.21	0.26	0.26	0.38	0.29	0.24	0.26
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.00061	0.00048
Boron	0.016	0.011	<0.004	0.0047	0.041	0.023	0.087	0.077	0.054	0.036
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	55	50	35	35	38	38	25	35	40	38
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0052	0.0088	<0.004	<0.004	0.013	0.0078	<0.004	<0.004	<0.004	<0.004
Iron	0.76	0.0075	0.38	<0.005	0.42	<0.005	0.29	<0.005	0.061	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	32	30	22	20	20	21	23	21	22	21
Manganese	0.011	0.0011	0.0044	<0.001	0.0016	<0.001	0.002	<0.001	0.002	0.0017
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1	1.2	0.88	0.63	0.81	1.1	1.2	1.1	0.75	0.67
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0066	0.0066	<0.006	<0.006
Sodium	2.1	3.2	0.56	0.55	0.66	0.59	0.74	0.76	0.53	0.58
Strontium	0.018	0.015	0.042	0.029	0.029	0.029	0.039	0.032	0.031	0.031
Thallium (AAS)	.	.	.	.	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.015	<0.015
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.053	0.016	0.014	0.0032	0.013	0.0024	0.0039	0.0045	0.0034	0.0035
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	252	.	173	.	177	.	174	.	170	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	2.4	.	1.7	.	1.3	.	1.9	.	1.9	.
Fluoride	<0.1	.	0.2	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	2.9	.	<0.2	.	<0.2	.	<0.2	.	0.26	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	3.4	.	1.4	.	1.2	.	7	.	7.6	.
TSS (mg/L)	10	.	8	.	8	.	<1	.	2	.
Turbidity (NTU)	7.8	.	1.5	.	4.5	.	1.1	.	3	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

44

Sampling Point . Unit . Location . Date Sampled . Type	GW-731								GW-732	
	AQF								AQF	
	CRSDB								CRSDB	
	02/11/94		04/04/94		07/09/94		10/18/94		02/12/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.046	<0.02	0.048	<0.02	<0.02	<0.02	0.21	<0.02	1.8	0.04
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.0064	0.0068	0.0042	0.0029	0.0035	0.0018	0.0066	0.0054	0.019	0.016
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	0.00038	<0.0003	<0.0003	<0.0003	0.00031	<0.0003
Boron	0.03	0.046	0.0065	0.0086	0.073	0.04	0.016	0.026	0.029	0.024
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	21	20	23	19	12	8.3	19	19	28	25
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0051	0.007	0.0057	<0.004
Iron	0.052	<0.005	0.099	<0.005	0.16	0.01	0.44	0.046	0.76	0.0052
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	16	16	19	20	19	18	17	16	16	15
Manganese	0.0019	<0.001	0.0022	<0.001	0.004	<0.001	0.011	0.0014	0.0093	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	7.7	7.3	10	16	28	28	21	13	2.2	2.4
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.052	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	3.4	3.2	3.1	4.3	6.1	6.3	5.6	4.8	1.4	1.4
Strontium	0.026	0.027	0.019	0.014	0.012	0.0066	0.019	0.016	0.047	0.044
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	<0.001	<0.001	0.004	0.003	<0.015	<0.015	0.002	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.006	<0.002	<0.002	<0.002	0.0026	<0.002	0.0078	<0.002	0.0076	0.0033
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	122	.	121	.	99	.	117	.	134	.
Alkalinity-CO3	8	.	14	.	42	.	10	.	<1	.
Chloride	1	.	1.1	.	1.1	.	1.1	.	1.1	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	0.23	.	<0.2	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	6	.	5.1	.	9.4	.	9.4	.	1.1	.
TSS (mg/L)	1	.	2	.	9	.	11	.	91	.
Turbidity (NTU)	2.1	.	2.5	.	4.7	.	18	.	22	.

(CONTINUED)

Sampling Point . Unit . Location . Date Sampled . Type	GW-732						GW-742			
	AQF						AQF			
	CRSDB						CRSP			
	04/06/94		07/09/94		10/19/94		02/20/94		05/02/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.69	<0.02	2.8	0.038	3.6	0.29	<0.02	<0.02	0.044	0.051
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.021	0.012	0.061	0.041	0.08	0.056	0.11	0.12	0.1	0.097
Beryllium	<0.0003	<0.0003	0.00057	<0.0003	0.00068	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.023	0.03	0.054	0.056	0.057	0.021	<0.004	0.01	0.11	0.07
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	26	24	36	28	31	25	38	38	40	40
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.005	<0.004	<0.004	<0.004	0.0085	<0.004	<0.004	<0.004	<0.004	<0.004
Iron	0.63	<0.005	1.9	0.015	2.3	0.13	0.91	<0.005	2.9	0.28
Lead (AAS)	<0.004	<0.004	0.013	<0.004	0.019	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	14	14	20	17	17	13	22	22	22	22
Manganese	0.0098	<0.001	0.032	<0.001	0.038	0.002	0.039	0.025	0.1	0.082
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	4.2	4.2	7.1	7.3	9.5	10	1.3	0.84	0.81	1.1
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	2	2	3.7	3.9	8.2	9.1	0.5	0.53	0.69	0.61
Strontium	0.049	0.024	0.17	0.13	0.21	0.18	0.014	0.014	0.019	0.018
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	0.005	0.001	<0.015	<0.015	0.003	<0.001	0.001	0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0069	<0.002	0.017	0.0054	0.021	<0.002	<0.002	<0.002	0.0039	0.0033
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	125	.	149	.	138	.	170	.	174	.
Alkalinity-CO3	<1	.	2	.	10	.	<1	.	<1	.
Chloride	1	.	<1	.	<1	.	<1	.	<1	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	<0.2	.	<0.2	.	0.26	.	<0.2	.	<0.2	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	2	.	6.7	.	7.1	.	12.2	.	11.8	.
TSS (mg/L)	39	.	290	.	421	.	23	.	7	.
Turbidity (NTU)	15	.	58	.	250	.	7.8	.	11	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

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Sampling Point . Unit . Location . Date Sampled . Type	GW-742				GW-743					
	AQF				AQF					
	CRSP				CRSP					
	08/04/94		11/17/94		02/18/94		05/03/94		08/06/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.039	0.037	0.028	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.12	0.11	0.12	0.12	0.01	0.01	0.012	0.012	0.012	0.011
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.00064	<0.0003
Boron	0.031	0.018	0.0074	<0.004	0.015	0.016	0.079	0.075	0.026	0.017
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	38	36	37	37	26	26	30	30	30	30
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	0.015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0053	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.04	0.01
Iron	6.6	1.3	0.63	0.29	0.026	<0.005	0.024	<0.005	0.12	0.031
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	23	23	22	22	15	16	18	18	18	18
Manganese	0.13	0.092	0.015	0.013	<0.001	<0.001	<0.001	<0.001	0.002	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1	0.96	1.3	1.3	1.2	1.3	0.92	0.84	1.2	0.98
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	0.53	0.53	0.56	0.53	0.78	0.8	0.88	0.87	1	0.94
Strontium	0.018	0.017	0.014	0.014	0.021	0.022	0.024	0.024	0.02	0.021
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0057	0.014	0.0025	<0.002	0.002	<0.002	0.004	0.013	0.0079	0.0079
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	160	.	177	.	120	.	171	.	141	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1.4	.	1.4	.	2	.	2	.	1.5	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	<0.2	.	<0.2	.	1.4	.	0.9	.	0.55	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	17	.	12	.	4	.	3.7	.	2.7	.
TSS (mg/L)	17	.	<1	.	<1	.	3	.	3	.
Turbidity (NTU)	17	.	3.6	.	1.1	.	1.5	.	3	.

(CONTINUED)

Sampling Point	GW-743		GW-757							
Unit	AQF		AQF							
Location	CRSP		LII							
Date Sampled	11/17/94		01/07/94		04/06/94		07/15/94		10/07/94	
Type	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.046	<0.02	0.53	<0.02	0.3	<0.02	0.068	<0.02	0.62	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.013	0.012	0.23	0.19	0.25	0.22	0.2	0.22	0.26	0.26
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.00039	0.00034
Boron	0.021	0.021	0.015	0.029	0.062	0.02	0.04	0.027	0.078	0.081
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	30	30	31	30	39	35	30	32	37	37
Chromium (AAS)	<0.01	<0.01	0.056	0.032	0.031	0.025	0.081	0.2	0.15	0.16
Chromium	<0.01	<0.01	0.05	0.027	0.02	0.016	0.058	0.14	0.15	0.15
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	<0.004	0.023	0.0096	<0.004	<0.004	<0.004	<0.004
Iron	0.14	<0.005	1.4	<0.005	0.86	<0.005	0.15	<0.005	0.73	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	18	18	18	16	20	19	17	19	21	21
Manganese	0.0024	<0.001	0.012	<0.001	0.018	<0.001	<0.001	<0.001	0.0054	0.0015
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1.4	1.5	1.3	1.7	3.3	3.7	2.1	2.5	1.6	1.7
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0065	<0.006	<0.006	<0.006
Sodium	0.97	0.99	6.6	2.8	2.1	2.1	2	4	2.9	3
Strontium	0.019	0.019	0.69	0.78	0.75	0.71	0.81	0.74	0.68	0.7
Thallium (AAS)	.	.	.	.	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.015	<0.015	0.003	0.005	0.004	0.003	0.004	0.005	<0.015	<0.015
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0036	<0.002	0.012	<0.002	0.076	<0.002	0.0026	<0.002	0.005	0.0036
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	146	.	133	.	158	.	138	.	154	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	2.2	.	1.5	.	1	.	1.8	.	2.3	.
Fluoride	<0.1	.	1.7	.	2	.	1.6	.	1.8	.
Nitrate-N	0.63	.	0.38	.	<0.2	.	<0.2	.	<0.2	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	3.9	.	9.4	.	9	.	14	.	14	.
TSS (mg/L)	<1	.	9	.	7	.	3	.	500	.
Turbidity (NTU)	2.3	.	1.5	.	2.5	.	3	.	200	.

(CONTINUED)

Sampling Point . Unit . Location . Date Sampled . Type	GW-796								GW-797	
	AQF								AQF	
	IV								IV	
	03/08/94		04/25/94		07/20/94		10/11/94		03/08/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.04	<0.02	0.028	0.028	<0.02	<0.02	0.071	<0.02	0.029	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.0099	0.0088	0.0088	0.0089	0.0098	0.0091	0.0091	0.0082	0.0076	0.0079
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.0076	0.017	0.038	0.016	0.02	0.065	0.04	0.036	0.014	0.016
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	21	21	23	22	23	22	24	25	32	32
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	0.011	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0042	<0.004	<0.004	<0.004	0.0054	0.0055	<0.004	<0.004	<0.004	<0.004
Iron	0.015	<0.005	<0.005	<0.005	0.0096	0.0052	0.0072	<0.005	0.017	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	13	13	15	14	14	13	14	15	19	19
Manganese	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	4.1	2.7	2.6	2.9	3.2	2.9	1.9	1.8	1.2	1.2
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	1.7	1.5	2.5	2.4	2.5	2.7	1.3	1.3	0.41	0.45
Strontium	0.019	0.014	0.021	0.02	0.018	0.017	0.014	0.014	0.02	0.019
Thallium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	0.001	<0.001	<0.001	0.001	<0.015	<0.015	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	<0.002	0.02	0.0069	0.0096	<0.002	<0.002	0.006	0.0099	0.0042	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	104	.	117	.	113	.	115	.	157	.
Alkalinity-CO3	10	.	<1	.	6	.	<1	.	<1	.
Chloride	1	.	1.3	.	1.3	.	1.9	.	1	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Ammonia-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Sulfate	2	.	2.1	.	6.4	.	7.6	.	<1	.
TSS (mg/L)	3	.	<1	.	2	.	<1	.	1	.
Turbidity (NTU)	2	.	1.1	.	2.6	.	1	.	1.7	.

(CONTINUED)

Sampling Point . Unit . Location . Date Sampled . Type	GW-797						GW-798			
	AQF						AQF			
	LV						CDLVII			
	04/25/94		07/19/94		10/10/94		03/08/94		04/22/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.11	0.021	<0.02	<0.02	9.2	0.062	0.033	0.022	0.049	0.052
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.0092	0.0078	0.0082	0.0082	0.034	0.0078	0.0097	0.01	0.01	0.011
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.0078	0.019	0.026	0.045	0.049	0.047	0.013	0.055	0.014	0.013
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	36	35	35	35	98	36	26	27	33	34
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	0.021	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	0.0056	0.0042	0.03	<0.004	<0.004	<0.004	<0.004	<0.004
Iron	0.083	<0.005	0.01	0.0072	8.2	<0.005	0.12	<0.005	0.0063	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	0.019	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	20	20	20	20	29	19	15	16	18	18
Manganese	0.0038	<0.001	<0.001	<0.001	0.3	0.0016	<0.001	<0.001	<0.001	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1.1	1	1.3	1.2	2	1.1	1.5	1.5	1.5	1.5
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	0.56	0.54	0.52	0.57	0.59	0.54	0.53	0.6	0.65	0.7
Strontium	0.026	0.019	0.02	0.019	0.051	0.019	0.017	0.017	0.018	0.018
Thallium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	0.001	0.001	0.002	<0.015	<0.015	<0.001	0.001	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	0.014	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.012	0.0058	<0.002	<0.002	0.13	0.0042	<0.002	<0.002	0.0071	0.015
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	158	.	157	.	154	.	129	.	132	.
Alkalinity-CO3	<1	.	<1	.	8	.	<1	.	<1	.
Chloride	1	.	1.1	.	1.7	.	1	.	<1	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	0.8	.	0.6	.
Ammonia-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Sulfate	<1	.	4.8	.	8	.	2	.	2	.
TSS (mg/L)	<1	.	<1	.	116	.	1	.	<1	.
Turbidity (NTU)	1.5	.	1.4	.	85	.	2	.	2	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

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Sampling Point Unit Location Date Sampled Type	GW-798				GW-799					
	AQF				AQF					
	CDL VII				CDL VII					
	07/19/94		10/10/94		03/07/94		04/21/94		07/18/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	<0.02	<0.02	0.029	<0.02	0.088	0.021	0.1	0.037	<0.02	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	0.054	<0.05	<0.05	<0.05	<0.05
Barium	0.0098	0.0089	0.0097	0.0098	0.006	0.0063	0.0055	0.0053	0.0062	0.0057
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.02	0.034	0.048	0.049	0.011	0.0067	0.024	0.076	0.028	0.026
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	29	27	29	28	27	27	33	33	30	30
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0042	0.0042	<0.004	<0.004	0.0055	0.0046	<0.004	<0.004	0.0044	0.0058
Iron	0.035	<0.005	0.026	0.15	0.074	0.015	0.11	<0.005	0.13	0.0079
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	16	15	16	16	16	16	18	18	16	16
Manganese	<0.001	<0.001	0.0024	0.0016	0.0023	<0.001	0.0032	<0.001	0.002	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1.5	1.4	1.5	1.6	0.88	1.1	0.78	0.92	1	0.79
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	0.62	0.62	0.65	0.66	0.49	0.49	0.82	0.88	0.58	0.55
Strontium	0.016	0.015	0.017	0.017	0.015	0.015	0.016	0.016	0.015	0.015
Thallium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	<0.015	<0.015	<0.001	<0.001	0.002	0.003	0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	<0.002	<0.002	0.0032	0.0091	<0.002	<0.002	0.029	0.0035	<0.002	<0.002
	.	.	.	.	.	.	.	.	.	.
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	126	.	126	.	132	.	130	.	132	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1.1	.	1.6	.	1	.	1	.	<1	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.55	.	0.7	.	0.8	.	0.9	.	0.82	.
Ammonia-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Sulfate	5.7	.	8.1	.	<1	.	1	.	1.2	.
	.	.	.	.	.	.	.	.	.	.
TSS (mg/L)	<1	.	1	.	<1	.	3	.	1	.
Turbidity (NTU)	1.7	.	1	.	2.2	.	3.2	.	2	.

(CONTINUED)

APPENDIX E.1
Trace Metals and Anions, 1994

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Sampling Point • Unit • Location • Date Sampled • Type	GW-799		GW-801							
	AQF		AQF							
	CDLVII		IV							
	10/10/94		03/08/94		04/27/94		07/21/94		10/11/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.29	0.022	0.039	<0.02	0.084	0.033	0.03	<0.02	0.12	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	0.063	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.0058	0.0052	0.0036	0.0028	0.0017	0.0023	0.0034	0.0025	0.0021	0.0024
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.084	0.017	0.014	0.047	0.011	0.01	0.023	0.023	0.087	0.03
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	29	29	28	28	34	35	32	31	32	32
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.013	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	0.0043	<0.004	<0.004	<0.004	0.0095	0.0041	<0.004	<0.004
Iron	0.25	<0.005	0.079	<0.005	0.063	<0.005	0.046	0.0063	0.062	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	16	16	18	18	19	19	18	18	18	19
Manganese	0.0059	0.0011	0.0014	<0.001	<0.001	<0.001	<0.001	<0.001	0.0016	0.0013
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1	0.93	2.1	1.9	0.78	1	1.5	1.3	0.82	0.97
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.053	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	0.76	0.7	0.82	0.86	0.77	0.83	0.81	0.78	0.78	0.76
Strontium	0.015	0.015	0.017	0.017	0.017	0.017	0.017	0.016	0.017	0.017
Thallium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.015	<0.015	<0.001	<0.001	<0.001	0.001	<0.001	0.005	<0.015	<0.015
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.027	0.0026	<0.002	<0.002	0.0076	0.013	<0.002	<0.002	0.004	0.0056
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	129	.	145	.	140	.	142	.	141	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1.7	.	2	.	2	.	1.5	.	1.9	.
Fluoride	0.1	.	0.3	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.89	.	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Ammonia-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Sulfate	7.4	.	2	.	2	.	6.6	.	8.5	.
TSS (mg/L)	2	.	2	.	3	.	<1	.	1	.
Turbidity (NTU)	4.5	.	2.5	.	3.5	.	3.1	.	2.2	.

Trace Metals and Anions, 1994

Sampling Point . Unit . Location . Date Sampled . Type	CBS-1			
	SPRING			
	CDLVII			
	02/14/94		09/07/94	
	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.
Aluminum	0.49	0.45	0.23	0.059
Antimony	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05
Barium	0.04	0.04	0.15	0.18
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.037	0.07	0.023	0.012
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003
Calcium	15	15	37	44
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	<0.004
Iron	0.36	0.36	0.16	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05
Magnesium	5.4	5.3	16	17
Manganese	0.0052	0.0051	0.0066	0.13
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01
Potassium	1.2	1.3	1.4	1.3
Selenium	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006
Sodium	0.62	0.76	0.83	1.7
Strontium	0.028	0.028	0.099	0.12
Thallium (AAS)	.	.	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	<0.015	0.002
Vanadium	<0.005	<0.005	<0.005	<0.005
Zinc	0.0099	0.0097	<0.002	<0.002
ANIONS (mg/L)	.	.	.	.
Alkalinity-HCO ₃	49	.	151	.
Alkalinity-CO ₃	<1	.	<1	.
Chloride	1.5	.	2.7	.
Fluoride	<0.1	.	0.1	.
Nitrate-N	0.43	.	0.42	.
Ammonia-N	<0.2	.	<0.2	.
Sulfate	4.3	.	12	.
TSS (mg/L)	6	.	1	.
Turbidity (NTU)	9.2	.	6.1	.

APPENDIX E.2
VOLATILE ORGANIC COMPOUNDS

APPENDIX E.2

Summary of VOCs Detected in Groundwater and Surface Water Samples

	Number of Samples				Total
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Total Samples	75	63	56	63	257
Samples without VOCs	49	48	37	45	179
Samples with VOCs	26	15	19	18	78
Compound					
Acetone	0	0	0	5	5
Benzene	0	0	0	0	0
Bromodichloromethane	0	0	0	0	0
Bromoform	0	0	0	0	0
Bromomethane	0	0	0	0	0
2-Butanone	0	0	0	5	5
Carbon disulfide	0	0	0	0	0
Carbon tetrachloride	0	1	0	0	1
Chlorobenzene	0	0	0	0	0
Chlorodibromomethane	0	0	0	0	0
Chloroethane	0	0	0	0	0
Chloroform	1	0	1	0	2
Chloromethane	0	0	0	0	0
1,1-Dichloroethane	2	2	3	3	10
1,2-Dichloroethane	0	0	0	0	0
1,1-Dichloroethene	0	0	2	2	4
1,2-Dichloroethene	1	1	1	1	4
1,2-Dichloropropane	0	0	0	0	0
cis-1,3-Dichloropropene	0	0	0	0	0
trans-1,3-Dichloropropene	0	0	0	0	0
Ethylbenzene	0	0	0	0	0
2-Hexanone	0	0	0	0	0
4-Methyl-2-pentanone	0	0	0	0	0
Methylene chloride	17	6	1	2	26
Styrene	0	0	0	0	0
1,1,2,2-Tetrachloroethane	0	0	0	0	0
Tetrachloroethene	3	3	3	4	13
Toluene	1	0	1	4	6
1,1,1-Trichloroethane	8	8	7	7	30
1,1,2-Trichloroethane	0	0	0	0	0
Trichloroethene	1	1	13	1	16
Vinyl acetate	1	0	0	0	1
Vinyl chloride	0	0	0	0	0
Xylenes	0	0	0	0	0

APPENDIX E.2
Volatile Organic Compounds, 1994

1

Sampling Point . Unit . Location . Date Sampled	1090				GW-141			
	AQF				AQF			
	UNCS				LIV			
	01/11/94	04/12/94	07/28/94	10/16/94	01/06/94	04/04/94	07/06/94	10/04/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	5U	5U	10U	10U	5U	5U	10U	10U
Bromodichloromethane	5U	5U	10U	10U	5U	5U	10U	10U
Bromoform	5U	5U	10U	10U	5U	5U	10U	10U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	5U	5U	10U	10U	5U	5U	10U	10U
Carbon tetrachloride	5U	5U	10U	10U	5U	5U	10U	10U
Chlorobenzene	5U	5U	10U	10U	5U	5U	10U	10U
Chlorodibromomethane	5U	5U	10U	10U	5U	5U	10U	10U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	5U	10U	10U	5U	5U	10U	10U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,1-Dichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloropropane	5U	5U	10U	10U	5U	5U	10U	10U
cis-1,3-Dichloropropene	5U	5U	10U	10U	5U	5U	10U	10U
trans-1,3-Dichloropropene	5U	5U	10U	10U	5U	5U	10U	10U
Ethylbenzene	5U	5U	10U	10U	5U	5U	10U	10U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	5U	10U	10U	5U	5U	10U	10U
Styrene	5U	5U	10U	10U	5U	5U	10U	10U
1,1,2,2-Tetrachloroethane	5U	5U	10U	10U	5U	5U	10U	10U
Tetrachloroethene	5U	5U	10U	10U	5U	5U	10U	10U
Toluene	5U	5U	10U	10U	5U	5U	10U	10U
1,1,1-Trichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,1,2-Trichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
Trichloroethene	5U	5U	10U	10U	5U	5U	1	10U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	5U	10U	10U	5U	5U	10U	10U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

2

Sampling Point . Unit . Location . Date Sampled	GW-142				GW-143			
	AQF				AQF			
	KHQ				KHQ			
	02/16/94	04/12/94	07/21/94	10/22/94	03/03/94	04/18/94	07/24/94	10/24/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	5U	5U	10U	10U	5U	5U	10U	10U
Bromodichloromethane	5U	5U	10U	10U	5U	5U	10U	10U
Bromoform	5U	5U	10U	10U	5U	5U	10U	10U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	5U	5U	10U	10U	5U	5U	10U	10U
Carbon tetrachloride	5U	5U	10U	10U	5U	5U	10U	10U
Chlorobenzene	5U	5U	10U	10U	5U	5U	10U	10U
Chlorodibromomethane	5U	5U	10U	10U	5U	5U	10U	10U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	5U	10U	10U	0.5	5U	10U	10U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,1-Dichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloropropane	5U	5U	10U	10U	5U	5U	10U	10U
cis-1,3-Dichloropropene	5U	5U	10U	10U	5U	5U	10U	10U
trans-1,3-Dichloropropene	5U	5U	10U	10U	5U	5U	10U	10U
Ethylbenzene	5U	5U	10U	10U	5U	5U	10U	10U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	1	10U	10U	5U	5U	10U	10U
Styrene	5U	5U	10U	10U	5U	5U	10U	10U
1,1,2,2-Tetrachloroethane	5U	5U	10U	10U	5U	5U	10U	10U
Tetrachloroethene	5U	5U	10U	10U	5U	5U	10U	10U
Toluene	5U	5U	10U	10U	5U	5U	10U	10U
1,1,1-Trichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,1,2-Trichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
Trichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	5U	10U	10U	5U	5U	10U	10U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

3

Sampling Point . Unit . Location . Date Sampled	GW-144				GW-145			
	AQF				AQF			
	KHQ				KHQ			
	03/10/94	04/19/94	07/26/94	10/25/94	03/11/94	04/20/94	07/26/94	10/26/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	5U	5U	10U	10U	5U	5U	10U	10U
Bromodichloromethane	5U	5U	10U	10U	5U	5U	10U	10U
Bromoform	5U	5U	10U	10U	5U	5U	10U	10U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	5U	5U	10U	10U	5U	5U	10U	10U
Carbon tetrachloride	5U	2	10U	10U	5U	5U	10U	10U
Chlorobenzene	5U	5U	10U	10U	5U	5U	10U	10U
Chlorodibromomethane	5U	5U	10U	10U	5U	5U	10U	10U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	5U	10U	10U	5U	5U	10U	10U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,1-Dichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloropropane	5U	5U	10U	10U	5U	5U	10U	10U
cis-1,3-Dichloropropene	5U	5U	10U	10U	5U	5U	10U	10U
trans-1,3-Dichloropropene	5U	5U	10U	10U	5U	5U	10U	10U
Ethylbenzene	5U	5U	10U	10U	5U	5U	10U	10U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	5U	10U	10U	5U	5U	10U	10U
Styrene	5U	5U	10U	10U	5U	5U	10U	10U
1,1,2,2-Tetrachloroethane	5U	5U	10U	10U	5U	5U	10U	10U
Tetrachloroethene	5U	5U	10U	10U	5U	5U	10U	10U
Toluene	5U	5U	10U	10U	5U	5U	10U	10U
1,1,1-Trichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,1,2-Trichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
Trichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	5U	10U	10U	5U	5U	10U	10U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

4

Sampling Point . Unit . Location . Date Sampled	GW-146				GW-147			
	AQF				AQF			
	KHQ				KHQ			
	03/03/94	04/18/94	07/25/94	10/28/94	02/28/94	04/13/94	07/22/94	10/23/94
Acetone	10U	10U	10U	6	10U	10U	10U	10U
Benzene	5U	5U	10U	10U	5U	5U	10U	10U
Bromodichloromethane	5U	5U	10U	10U	5U	5U	10U	10U
Bromoform	5U	5U	10U	10U	5U	5U	10U	10U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	13	10U	10U	10U	10U
Carbon disulfide	5U	5U	10U	10U	5U	5U	10U	10U
Carbon tetrachloride	5U	5U	10U	10U	5U	5U	10U	10U
Chlorobenzene	5U	5U	10U	10U	5U	5U	10U	10U
Chlorodibromomethane	5U	5U	10U	10U	5U	5U	10U	10U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	5U	10U	10U	5U	5U	10U	10U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,1-Dichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloropropane	5U	5U	10U	10U	5U	5U	10U	10U
cis-1,3-Dichloropropene	5U	5U	10U	10U	5U	5U	10U	10U
trans-1,3-Dichloropropene	5U	5U	10U	10U	5U	5U	10U	10U
Ethylbenzene	5U	5U	10U	10U	5U	5U	10U	10U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	5U	10U	1	5U	5U	10U	10U
Styrene	5U	5U	10U	10U	5U	5U	10U	10U
1,1,2,2-Tetrachloroethane	5U	5U	10U	10U	5U	5U	10U	10U
Tetrachloroethene	5U	5U	10U	10U	5U	5U	10U	10U
Toluene	5U	5U	10U	10U	5U	5U	10U	10U
1,1,1-Trichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,1,2-Trichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
Trichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	5U	10U	10U	5U	5U	10U	10U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

5

Sampling Point . Unit . Location . Date Sampled	GW-156				GW-158			
	AQF				AQF			
	CRSDB				CRSDB			
	02/12/94	04/07/94	07/09/94	10/20/94	02/14/94	04/15/94	07/11/94	10/26/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	5U	5U	10U	10U	5U	5U	10U	10U
Bromodichloromethane	5U	5U	10U	10U	5U	5U	10U	10U
Bromoform	5U	5U	10U	10U	5U	5U	10U	10U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	5U	5U	10U	10U	5U	5U	10U	10U
Carbon tetrachloride	5U	5U	10U	10U	5U	5U	10U	10U
Chlorobenzene	5U	5U	10U	10U	5U	5U	10U	10U
Chlorodibromomethane	5U	5U	10U	10U	5U	5U	10U	10U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	5U	10U	10U	5U	5U	10U	10U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,1-Dichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloropropane	5U	5U	10U	10U	5U	5U	10U	10U
cis-1,3-Dichloropropene	5U	5U	10U	10U	5U	5U	10U	10U
trans-1,3-Dichloropropene	5U	5U	10U	10U	5U	5U	10U	10U
Ethylbenzene	5U	5U	10U	10U	5U	5U	10U	10U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	5U	10U	10U	5U	5U	10U	10U
Styrene	5U	5U	10U	10U	5U	5U	10U	10U
1,1,2,2-Tetrachloroethane	5U	5U	10U	10U	5U	5U	10U	10U
Tetrachloroethene	5U	5U	10U	10U	5U	5U	10U	10U
Toluene	5U	5U	10U	10U	5U	5U	10U	4
1,1,1-Trichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,1,2-Trichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
Trichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	5U	10U	10U	5U	5U	10U	10U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

6

Sampling Point . Unit . Location . Date Sampled	GW-159				GW-160		GW-161	
	AQF				AQF		AQF	
	CRSDB				CRBAWP		CRBAWP	
	02/10/94	04/04/94	07/08/94	10/17/94	02/12/94	07/20/94	02/11/94	07/18/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	5U	5U	10U	10U	5U	10U	5U	10U
Bromodichloromethane	5U	5U	10U	10U	5U	10U	5U	10U
Bromoform	5U	5U	10U	10U	5U	10U	5U	10U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	5U	5U	10U	10U	5U	10U	5U	10U
Carbon tetrachloride	5U	5U	10U	10U	5U	10U	5U	10U
Chlorobenzene	5U	5U	10U	10U	5U	10U	5U	10U
Chlorodibromomethane	5U	5U	10U	10U	5U	10U	5U	10U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	5U	10U	10U	5U	10U	5U	10U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	5U	10U	10U	5U	10U	5U	10U
1,2-Dichloroethane	5U	5U	10U	10U	5U	10U	5U	10U
1,1-Dichloroethene	5U	5U	10U	10U	5U	10U	5U	10U
1,2-Dichloroethene	5U	5U	10U	10U	5U	10U	5U	10U
1,2-Dichloropropane	5U	5U	10U	10U	5U	10U	5U	10U
cis-1,3-Dichloropropene	5U	5U	10U	10U	5U	10U	5U	10U
trans-1,3-Dichloropropene	5U	5U	10U	10U	5U	10U	5U	10U
Ethylbenzene	5U	5U	10U	10U	5U	10U	5U	10U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	5U	10U	10U	1	10U	5U	10U
Styrene	5U	5U	10U	10U	5U	10U	5U	10U
1,1,2,2-Tetrachloroethane	5U	5U	10U	10U	5U	10U	5U	10U
Tetrachloroethene	5U	5U	10U	10U	5U	10U	5U	10U
Toluene	5U	5U	10U	10U	5U	10U	5U	10U
1,1,1-Trichloroethane	5U	5U	10U	10U	5U	10U	5U	10U
1,1,2-Trichloroethane	5U	5U	10U	10U	5U	10U	5U	10U
Trichloroethene	5U	5U	10U	10U	5U	10U	5U	10U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	5U	10U	10U	5U	10U	5U	10U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

7

Sampling Point . Unit . Location . Date Sampled	GW-175				GW-177			
	AQF				AQF			
	CRSP				CRSP			
	02/23/94	05/20/94	08/13/94	12/01/94	02/28/94	06/29/94	08/13/94	11/30/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	5U	10U	10U	10U	5U	10U	10U	10U
Bromodichloromethane	5U	10U	10U	10U	5U	10U	10U	10U
Bromoform	5U	10U	10U	10U	5U	10U	10U	10U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	5U	10U	10U	10U	5U	10U	10U	10U
Carbon tetrachloride	5U	10U	10U	10U	5U	10U	10U	10U
Chlorobenzene	5U	10U	10U	10U	5U	10U	10U	10U
Chlorodibromomethane	5U	10U	10U	10U	5U	10U	10U	10U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	10U	10U	10U	5U	10U	10U	10U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	10U	10U	10U	10	4	10	21
1,2-Dichloroethane	5U	10U	10U	10U	5U	10U	10U	10U
1,1-Dichloroethene	5U	10U	10U	10U	5U	10U	2	4
1,2-Dichloroethene	5U	10U	10U	10U	5U	10U	10U	10U
1,2-Dichloropropane	5U	10U	10U	10U	5U	10U	10U	10U
cis-1,3-Dichloropropene	5U	10U	10U	10U	5U	10U	10U	10U
trans-1,3-Dichloropropene	5U	10U	10U	10U	5U	10U	10U	10U
Ethylbenzene	5U	10U	10U	10U	5U	10U	10U	10U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	10U	10U	10U	5U	10U	10U	10U
Styrene	5U	10U	10U	10U	5U	10U	10U	10U
1,1,2,2-Tetrachloroethane	5U	10U	10U	10U	5U	10U	10U	10U
Tetrachloroethene	18	22	20	22	5U	10U	10U	10U
Toluene	5U	10U	10U	10U	5U	10U	10U	10U
1,1,1-Trichloroethane	4	5	4	6	20	4	13	25
1,1,2-Trichloroethane	5U	10U	10U	10U	5U	10U	10U	10U
Trichloroethene	5U	10U	10U	10U	5U	10U	10U	10U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	10U	10U	10U	5U	10U	10U	10U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

8

Sampling Point . Unit . Location . Date Sampled	GW-181				GW-184	GW-186	GW-187	GW-188
	AQF				AQT	AQT	AQT	AQT
	CRSP				RQ	RQ	RQ	RQ
	02/16/94	04/22/94	07/31/94	11/14/94	01/11/94	01/27/94	01/12/94	01/11/94
Acetone	10U	10U	10U	11	10U	10U	10U	10U
Benzene	5U	5U	10U	10U	5U	5U	5U	5U
Bromodichloromethane	5U	5U	10U	10U	5U	5U	5U	5U
Bromoform	5U	5U	10U	10U	5U	5U	5U	5U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10	10U	10U	10U	10U
Carbon disulfide	5U	5U	10U	10U	5U	5U	5U	5U
Carbon tetrachloride	5U	5U	10U	10U	5U	5U	5U	5U
Chlorobenzene	5U	5U	10U	10U	5U	5U	5U	5U
Chlorodibromomethane	5U	5U	10U	10U	5U	5U	5U	5U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	5U	10U	10U	5U	5U	5U	5U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	5U	10U	10U	5U	5U	5U	5U
1,2-Dichloroethane	5U	5U	10U	10U	5U	5U	5U	5U
1,1-Dichloroethene	5U	5U	10U	10U	5U	5U	5U	5U
1,2-Dichloroethene	5U	5U	10U	10U	5U	5U	5U	5U
1,2-Dichloropropane	5U	5U	10U	10U	5U	5U	5U	5U
cis-1,3-Dichloropropene	5U	5U	10U	10U	5U	5U	5U	5U
trans-1,3-Dichloropropene	5U	5U	10U	10U	5U	5U	5U	5U
Ethylbenzene	5U	5U	10U	10U	5U	5U	5U	5U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	5U	10U	10U	1	5U	1	1
Styrene	5U	5U	10U	10U	5U	5U	5U	5U
1,1,2,2-Tetrachloroethane	5U	5U	10U	10U	5U	5U	5U	5U
Tetrachloroethene	5U	5U	10U	10U	5U	5U	5U	5U
Toluene	5U	5U	10U	1	5U	5U	5U	5U
1,1,1-Trichloroethane	5U	5U	10U	10U	5U	5U	5U	5U
1,1,2-Trichloroethane	5U	5U	10U	10U	5U	5U	5U	5U
Trichloroethene	5U	5U	10U	10U	5U	5U	5U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	5U	10U	10U	5U	5U	5U	5U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

9

Sampling Point . Unit . Location . Date Sampled	GW-203				GW-205			
	AQF				AQF			
	UNCS				UNCS			
	01/06/94	04/07/94	07/26/94	10/12/94	01/07/94	04/07/94	07/26/94	10/12/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	5U	5U	10U	10U	5U	5U	10U	10U
Bromodichloromethane	5U	5U	10U	10U	5U	5U	10U	10U
Bromoform	5U	5U	10U	10U	5U	5U	10U	10U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	5U	5U	10U	10U	5U	5U	10U	10U
Carbon tetrachloride	5U	5U	10U	10U	5U	5U	10U	10U
Chlorobenzene	5U	5U	10U	10U	5U	5U	10U	10U
Chlorodibromomethane	5U	5U	10U	10U	5U	5U	10U	10U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	5U	10U	10U	5U	5U	10U	10U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,1-Dichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloropropane	5U	5U	10U	10U	5U	5U	10U	10U
cis-1,3-Dichloropropene	5U	5U	10U	10U	5U	5U	10U	10U
trans-1,3-Dichloropropene	5U	5U	10U	10U	5U	5U	10U	10U
Ethylbenzene	5U	5U	10U	10U	5U	5U	10U	10U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	5U	10U	10U	0.9	5U	10U	10U
Styrene	5U	5U	10U	10U	5U	5U	10U	10U
1,1,2,2-Tetrachloroethane	5U	5U	10U	10U	5U	5U	10U	10U
Tetrachloroethene	5U	5U	10U	10U	5U	5U	10U	10U
Toluene	5U	5U	10U	10U	5U	5U	10U	10U
1,1,1-Trichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,1,2-Trichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
Trichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	5U	10U	10U	5U	5U	10U	10U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

10

Sampling Point • Unit • Location • Date Sampled	GW-217				GW-221			
	AQF				AQF			
	LIV				UNCS			
	01/05/94	04/04/94	07/06/94	10/03/94	01/10/94	04/08/94	07/27/94	10/15/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	5U	5U	10U	10U	5U	5U	10U	10U
Bromodichloromethane	5U	5U	10U	10U	5U	5U	10U	10U
Bromoform	5U	5U	10U	10U	5U	5U	10U	10U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	5U	5U	10U	10U	5U	5U	10U	10U
Carbon tetrachloride	5U	5U	10U	10U	5U	5U	10U	10U
Chlorobenzene	5U	5U	10U	10U	5U	5U	10U	10U
Chlorodibromomethane	5U	5U	10U	10U	5U	5U	10U	10U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	5U	10U	10U	5U	5U	10U	10U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,1-Dichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloropropane	5U	5U	10U	10U	5U	5U	10U	10U
cis-1,3-Dichloropropene	5U	5U	10U	10U	5U	5U	10U	10U
trans-1,3-Dichloropropene	5U	5U	10U	10U	5U	5U	10U	10U
Ethylbenzene	5U	5U	10U	10U	5U	5U	10U	10U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	5U	1	10U	5U	1	10U	10U
Styrene	5U	5U	10U	10U	5U	5U	10U	10U
1,1,2,2-Tetrachloroethane	5U	5U	10U	10U	5U	5U	10U	10U
Tetrachloroethene	5U	5U	10U	10U	5U	5U	10U	10U
Toluene	5U	5U	10U	10U	5U	5U	10U	10U
1,1,1-Trichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,1,2-Trichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
Trichloroethene	5U	5U	2	10U	5U	5U	10U	10U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	5U	10U	10U	5U	5U	10U	10U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

11

Sampling Point . Unit . Location . Date Sampled	GW-231				GW-241			
	AQF				AQF			
	KHQ				CRSDB			
	02/28/94	04/13/94	07/23/94	10/23/94	02/15/94	04/12/94	07/12/94	10/23/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	5U	5U	10U	10U	5U	5U	10U	10U
Bromodichloromethane	5U	5U	10U	10U	5U	5U	10U	10U
Bromoform	5U	5U	10U	10U	5U	5U	10U	10U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	5U	5U	10U	10U	5U	5U	10U	10U
Carbon tetrachloride	5U	5U	10U	10U	5U	5U	10U	10U
Chlorobenzene	5U	5U	10U	10U	5U	5U	10U	10U
Chlorodibromomethane	5U	5U	10U	10U	5U	5U	10U	10U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	5U	10U	10U	5U	5U	10U	10U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,1-Dichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloroethene	5U	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloropropane	5U	5U	10U	10U	5U	5U	10U	10U
cis-1,3-Dichloropropene	5U	5U	10U	10U	5U	5U	10U	10U
trans-1,3-Dichloropropene	5U	5U	10U	10U	5U	5U	10U	10U
Ethylbenzene	5U	5U	10U	10U	5U	5U	10U	10U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	1	10U	10U	5U	5U	10U	10U
Styrene	5U	5U	10U	10U	5U	5U	10U	10U
1,1,2,2-Tetrachloroethane	5U	5U	10U	10U	5U	5U	10U	10U
Tetrachloroethene	5U	5U	10U	10U	5U	5U	10U	10U
Toluene	5U	5U	10U	10U	5U	5U	10U	10U
1,1,1-Trichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
1,1,2-Trichloroethane	5U	5U	10U	10U	5U	5U	10U	10U
Trichloroethene	5U	5U	10U	10U	5U	5U	0.8	10U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	5U	10U	10U	5U	5U	10U	10U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

12

Sampling Point . Unit . Location . Date Sampled	GW-292			GW-293			GW-294	
	AQF			AQF			AQF	
	ECRWP			ECRWP			ECRWP	
	01/14/94	04/12/94	10/16/94	01/13/94	04/12/94	10/15/94	01/12/94	04/08/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	5U	5U	10U	5U	5U	10U	5U	5U
Bromodichloromethane	5U	5U	10U	5U	5U	10U	5U	5U
Bromoform	5U	5U	10U	5U	5U	10U	5U	5U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	5U	5U	10U	5U	5U	10U	5U	5U
Carbon tetrachloride	5U	5U	10U	5U	5U	10U	5U	5U
Chlorobenzene	5U	5U	10U	5U	5U	10U	5U	5U
Chlorodibromomethane	5U	5U	10U	5U	5U	10U	5U	5U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	5U	10U	5U	5U	10U	5U	5U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	5U	10U	5U	5U	10U	5U	5U
1,2-Dichloroethane	5U	5U	10U	5U	5U	10U	5U	5U
1,1-Dichloroethene	5U	5U	10U	5U	5U	10U	5U	5U
1,2-Dichloroethene	5U	5U	10U	5U	5U	10U	5U	5U
1,2-Dichloropropane	5U	5U	10U	5U	5U	10U	5U	5U
cis-1,3-Dichloropropene	5U	5U	10U	5U	5U	10U	5U	5U
trans-1,3-Dichloropropene	5U	5U	10U	5U	5U	10U	5U	5U
Ethylbenzene	5U	5U	10U	5U	5U	10U	5U	5U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	5U	10U	5U	5U	10U	1	5U
Styrene	5U	5U	10U	5U	5U	10U	5U	5U
1,1,2,2-Tetrachloroethane	5U	5U	10U	5U	5U	10U	5U	5U
Tetrachloroethene	5U	5U	10U	5U	5U	10U	5U	5U
Toluene	5U	5U	10U	5U	5U	10U	5U	5U
1,1,1-Trichloroethane	5U	5U	10U	5U	5U	10U	5U	5U
1,1,2-Trichloroethane	5U	5U	10U	5U	5U	10U	5U	5U
Trichloroethene	5U	5U	10U	5U	5U	10U	5U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	5U	10U	5U	5U	10U	5U	5U

(CONTINUED)

APPENDIX B.2
Volatile Organic Compounds, 1994

13

Sampling Point	GW-294	GW-295		GW-296			GW-298	
Unit	AQF	AQF		AQF			AQF	
Location	ECRWP	CRBAWP		ECRWP			CRBAWP	
Date Sampled	10/15/94	02/15/94	07/18/94	01/10/94	04/08/94	10/15/94	02/14/94	07/21/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	10U	5U	10U	5U	5U	10U	5U	10U
Bromodichloromethane	10U	5U	10U	5U	5U	10U	5U	10U
Bromoform	10U	5U	10U	5U	5U	10U	5U	10U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	10U	5U	10U	5U	5U	10U	5U	10U
Carbon tetrachloride	10U	5U	10U	5U	5U	10U	5U	10U
Chlorobenzene	10U	5U	10U	5U	5U	10U	5U	10U
Chlorodibromomethane	10U	5U	10U	5U	5U	10U	5U	10U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	10U	5U	10U	5U	5U	10U	5U	10U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	10U	5U	10U	5U	5U	10U	5U	10U
1,2-Dichloroethane	10U	5U	10U	5U	5U	10U	5U	10U
1,1-Dichloroethene	10U	5U	10U	5U	5U	10U	5U	10U
1,2-Dichloroethene	10U	5U	10U	5U	5U	10U	5U	10U
1,2-Dichloropropane	10U	5U	10U	5U	5U	10U	5U	10U
cis-1,3-Dichloropropene	10U	5U	10U	5U	5U	10U	5U	10U
trans-1,3-Dichloropropene	10U	5U	10U	5U	5U	10U	5U	10U
Ethylbenzene	10U	5U	10U	5U	5U	10U	5U	10U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	10U	5U	10U	5U	5U	10U	5U	10U
Styrene	10U	5U	10U	5U	5U	10U	5U	10U
1,1,2,2-Tetrachloroethane	10U	5U	10U	5U	5U	10U	5U	10U
Tetrachloroethene	10U	5U	10U	5U	5U	10U	5U	10U
Toluene	10U	5U	10U	5U	5U	10U	5U	10U
1,1,1-Trichloroethane	10U	5U	10U	5U	5U	10U	5U	10U
1,1,2-Trichloroethane	10U	5U	10U	5U	5U	10U	5U	10U
Trichloroethene	10U	5U	10U	5U	5U	10U	5U	10U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	10U	5U	10U	5U	5U	10U	5U	10U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

14

Sampling Point . Unit . Location . Date Sampled	GW-299		GW-300		GW-301		GW-302	
	AQF		AQF		AQF		AQF	
	CRBAWP		CRBAWP		CRBAWP		UNCS	
	02/13/94	07/21/94	02/13/94	07/20/94	02/13/94	07/20/94	01/11/94	04/12/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	5U	10U	5U	10U	5U	10U	5U	5U
Bromodichloromethane	5U	10U	5U	10U	5U	10U	5U	5U
Bromoform	5U	10U	5U	10U	5U	10U	5U	5U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	5U	10U	5U	10U	5U	10U	5U	5U
Carbon tetrachloride	5U	10U	5U	10U	5U	10U	5U	5U
Chlorobenzene	5U	10U	5U	10U	5U	10U	5U	5U
Chlorodibromomethane	5U	10U	5U	10U	5U	10U	5U	5U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	10U	5U	10U	5U	10U	5U	5U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	10U	5U	10U	5U	10U	5U	5U
1,2-Dichloroethane	5U	10U	5U	10U	5U	10U	5U	5U
1,1-Dichloroethene	5U	10U	5U	10U	5U	10U	5U	5U
1,2-Dichloroethene	5U	10U	5U	10U	5U	10U	5U	5U
1,2-Dichloropropane	5U	10U	5U	10U	5U	10U	5U	5U
cis-1,3-Dichloropropene	5U	10U	5U	10U	5U	10U	5U	5U
trans-1,3-Dichloropropene	5U	10U	5U	10U	5U	10U	5U	5U
Ethylbenzene	5U	10U	5U	10U	5U	10U	5U	5U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	10U	5U	10U	5U	10U	5U	5U
Styrene	5U	10U	5U	10U	5U	10U	5U	5U
1,1,2,2-Tetrachloroethane	5U	10U	5U	10U	5U	10U	5U	5U
Tetrachloroethene	5U	10U	5U	10U	5U	10U	5U	5U
Toluene	5U	10U	5U	10U	5U	10U	5U	5U
1,1,1-Trichloroethane	5U	10U	5U	10U	5U	10U	5U	5U
1,1,2-Trichloroethane	5U	10U	5U	10U	5U	10U	5U	5U
Trichloroethene	5U	10U	5U	10U	5U	10U	5U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	10U	5U	10U	5U	10U	5U	5U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

15

Sampling Point . Unit . Location . Date Sampled	GW-302		GW-303				GW-304	
	AQF		AQF				AQF	
	UNCS		CRSDB				CRSDB	
	07/28/94	10/15/94	02/14/94	04/11/94	07/11/94	10/23/94	02/10/94	04/04/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	10U	10U	5U	5U	10U	10U	5U	5U
Bromodichloromethane	10U	10U	5U	5U	10U	10U	5U	5U
Bromoform	10U	10U	5U	5U	10U	10U	5U	5U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	10U	10U	5U	5U	10U	10U	5U	5U
Carbon tetrachloride	10U	10U	5U	5U	10U	10U	5U	5U
Chlorobenzene	10U	10U	5U	5U	10U	10U	5U	5U
Chlorodibromomethane	10U	10U	5U	5U	10U	10U	5U	5U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	10U	10U	5U	5U	10U	10U	5U	5U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	10U	10U	5U	5U	10U	10U	5U	5U
1,2-Dichloroethane	10U	10U	5U	5U	10U	10U	5U	5U
1,1-Dichloroethene	10U	10U	5U	5U	10U	10U	5U	5U
1,2-Dichloroethene	10U	10U	5U	5U	10U	10U	5U	5U
1,2-Dichloropropane	10U	10U	5U	5U	10U	10U	5U	5U
cis-1,3-Dichloropropene	10U	10U	5U	5U	10U	10U	5U	5U
trans-1,3-Dichloropropene	10U	10U	5U	5U	10U	10U	5U	5U
Ethylbenzene	10U	10U	5U	5U	10U	10U	5U	5U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	10U	10U	5U	5U	10U	10U	1	5U
Styrene	10U	10U	5U	5U	10U	10U	5U	5U
1,1,2,2-Tetrachloroethane	10U	10U	5U	5U	10U	10U	5U	5U
Tetrachloroethene	10U	10U	5U	5U	10U	10U	5U	5U
Toluene	10U	10U	5U	5U	10U	10U	5U	5U
1,1,1-Trichloroethane	10U	10U	5U	5U	10U	10U	5U	5U
1,1,2-Trichloroethane	10U	10U	5U	5U	10U	10U	5U	5U
Trichloroethene	10U	10U	5U	5U	10U	10U	5U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	10U	10U	5U	5U	10U	10U	5U	5U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

16

Sampling Point	GW-304		GW-305				GW-321	
Unit	AQF		AQF				AQF	
Location	CRSDB		LIV				ADB	
Date Sampled	07/08/94	10/18/94	01/10/94	04/06/94	07/07/94	10/05/94	01/11/94	04/13/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	10U	10U	5U	5U	10U	10U	5U	5U
Bromodichloromethane	10U	10U	5U	5U	10U	10U	5U	5U
Bromoform	10U	10U	5U	5U	10U	10U	5U	5U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	10U	10U	5U	5U	10U	10U	5U	5U
Carbon tetrachloride	10U	10U	5U	5U	10U	10U	5U	5U
Chlorobenzene	10U	10U	5U	5U	10U	10U	5U	5U
Chlorodibromomethane	10U	10U	5U	5U	10U	10U	5U	5U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	10U	10U	5U	5U	10U	10U	5U	5U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	10U	10U	5U	5U	10U	10U	5U	5U
1,2-Dichloroethane	10U	10U	5U	5U	10U	10U	5U	5U
1,1-Dichloroethene	10U	10U	5U	5U	10U	10U	5U	5U
1,2-Dichloroethene	10U	10U	5U	5U	10U	10U	5U	5U
1,2-Dichloropropane	10U	10U	5U	5U	10U	10U	5U	5U
cis-1,3-Dichloropropene	10U	10U	5U	5U	10U	10U	5U	5U
trans-1,3-Dichloropropene	10U	10U	5U	5U	10U	10U	5U	5U
Ethylbenzene	10U	10U	5U	5U	10U	10U	5U	5U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	10U	10U	5U	5U	10U	10U	5U	1
Styrene	10U	10U	5U	5U	10U	10U	5U	5U
1,1,2,2-Tetrachloroethane	10U	10U	5U	5U	10U	10U	5U	5U
Tetrachloroethene	10U	10U	5U	5U	10U	10U	5U	5U
Toluene	10U	10U	5U	5U	10U	10U	5U	5U
1,1,1-Trichloroethane	10U	10U	5	5	4	6	5U	5U
1,1,2-Trichloroethane	10U	10U	5U	5U	10U	10U	5U	5U
Trichloroethene	10U	10U	5U	5U	1	10U	5U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	10U	10U	5U	5U	10U	10U	5U	5U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

17

Sampling Point	GW-321	GW-339				GW-511		
Unit	AQF	AQF				AQF		
Location	ADB	UNCS				CRSP		
Date Sampled	10/18/94	01/11/94	04/08/94	07/27/94	10/15/94	02/17/94	04/25/94	07/31/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	10U	5U	5U	10U	10U	5U	5U	10U
Bromodichloromethane	10U	5U	5U	10U	10U	5U	5U	10U
Bromoform	10U	5U	5U	10U	10U	5U	5U	10U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	10U	5U	5U	10U	10U	5U	5U	10U
Carbon tetrachloride	10U	5U	5U	10U	10U	5U	5U	10U
Chlorobenzene	10U	5U	5U	10U	10U	5U	5U	10U
Chlorodibromomethane	10U	5U	5U	10U	10U	5U	5U	10U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	10U	5U	5U	0.7	10U	5U	5U	10U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	10U	5U	5U	10U	10U	5U	5U	10U
1,2-Dichloroethane	10U	5U	5U	10U	10U	5U	5U	10U
1,1-Dichloroethene	10U	5U	5U	10U	10U	5U	5U	10U
1,2-Dichloroethene	10U	5U	5U	10U	10U	5U	5U	10U
1,2-Dichloropropane	10U	5U	5U	10U	10U	5U	5U	10U
cis-1,3-Dichloropropene	10U	5U	5U	10U	10U	5U	5U	10U
trans-1,3-Dichloropropene	10U	5U	5U	10U	10U	5U	5U	10U
Ethylbenzene	10U	5U	5U	10U	10U	5U	5U	10U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	10U	5U	5U	10U	10U	5U	5U	10U
Styrene	10U	5U	5U	10U	10U	5U	5U	10U
1,1,2,2-Tetrachloroethane	10U	5U	5U	10U	10U	5U	5U	10U
Tetrachloroethene	10U	5U	5U	10U	10U	5U	5U	10U
Toluene	10U	5U	5U	10U	10U	5U	5U	10U
1,1,1-Trichloroethane	10U	5U	5U	10U	10U	5U	5U	10U
1,1,2-Trichloroethane	10U	5U	5U	10U	10U	5U	5U	10U
Trichloroethene	10U	5U	5U	10U	10U	5U	5U	10U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	10U	5U	5U	10U	10U	5U	5U	10U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

18

Sampling Point	GW-511	GW-512				GW-513			GW-514
Unit	AQF	AQF				AQF			AQF
Location	CRSP	ADB				ADB			ADB
Date Sampled	11/14/94	01/12/94	04/14/94	10/19/94	01/11/94	04/13/94	10/18/94	01/14/94	
Acetone	9	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	10U	5U	5U	10U	5U	5U	10U	5U	5U
Bromodichloromethane	10U	5U	5U	10U	5U	5U	10U	5U	5U
Bromoform	10U	5U	5U	10U	5U	5U	10U	5U	5U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	10U	5U	5U	10U	5U	5U	10U	5U	5U
Carbon tetrachloride	10U	5U	5U	10U	5U	5U	10U	5U	5U
Chlorobenzene	10U	5U	5U	10U	5U	5U	10U	5U	5U
Chlorodibromomethane	10U	5U	5U	10U	5U	5U	10U	5U	5U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	10U	5U	5U	10U	5U	5U	10U	5U	5U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	10U	5U	5U	10U	5U	5U	10U	5U	5U
1,2-Dichloroethane	10U	5U	5U	10U	5U	5U	10U	5U	5U
1,1-Dichloroethene	10U	5U	5U	10U	5U	5U	10U	5U	5U
1,2-Dichloroethene	10U	5U	5U	10U	5U	5U	10U	5U	5U
1,2-Dichloropropane	10U	5U	5U	10U	5U	5U	10U	5U	5U
cis-1,3-Dichloropropene	10U	5U	5U	10U	5U	5U	10U	5U	5U
trans-1,3-Dichloropropene	10U	5U	5U	10U	5U	5U	10U	5U	5U
Ethylbenzene	10U	5U	5U	10U	5U	5U	10U	5U	5U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	10U	1	5U	10U	5U	1	10U	5U	5U
Styrene	10U	5U	5U	10U	5U	5U	10U	5U	5U
1,1,2,2-Tetrachloroethane	10U	5U	5U	10U	5U	5U	10U	5U	5U
Tetrachloroethene	10U	5U	5U	10U	5U	5U	10U	5U	5U
Toluene	1	5U	5U	10U	5U	5U	10U	5U	5U
1,1,1-Trichloroethane	10U	5U	5U	10U	5U	5U	10U	1	5U
1,1,2-Trichloroethane	10U	5U	5U	10U	5U	5U	10U	5U	5U
Trichloroethene	10U	5U	5U	10U	5U	5U	10U	5U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	5	5U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	10U	5U	5U	10U	5U	5U	10U	5U	5U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

19

Sampling Point	GW-514		GW-521				GW-522	
Unit	AQF		AQF				AQF	
Location	ADB		LIV				LIV	
Date Sampled	04/18/94	10/20/94	01/06/94	04/05/94	07/07/94	10/04/94	01/07/94	04/05/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	5U	10U	5U	5U	10U	10U	5U	5U
Bromodichloromethane	5U	10U	5U	5U	10U	10U	5U	5U
Bromoform	5U	10U	5U	5U	10U	10U	5U	5U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	5U	10U	5U	5U	10U	10U	5U	5U
Carbon tetrachloride	5U	10U	5U	5U	10U	10U	5U	5U
Chlorobenzene	5U	10U	5U	5U	10U	10U	5U	5U
Chlorodibromomethane	5U	10U	5U	5U	10U	10U	5U	5U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	10U	5U	5U	10U	10U	5U	5U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	10U	5U	5U	10U	10U	5U	5U
1,2-Dichloroethane	5U	10U	5U	5U	10U	10U	5U	5U
1,1-Dichloroethene	5U	10U	5U	5U	10U	10U	5U	5U
1,2-Dichloroethene	5U	10U	5U	5U	10U	10U	5U	5U
1,2-Dichloropropane	5U	10U	5U	5U	10U	10U	5U	5U
cis-1,3-Dichloropropene	5U	10U	5U	5U	10U	10U	5U	5U
trans-1,3-Dichloropropene	5U	10U	5U	5U	10U	10U	5U	5U
Ethylbenzene	5U	10U	5U	5U	10U	10U	5U	5U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	10U	5U	5U	10U	10U	1	5U
Styrene	5U	10U	5U	5U	10U	10U	5U	5U
1,1,2,2-Tetrachloroethane	5U	10U	5U	5U	10U	10U	5U	5U
Tetrachloroethene	5U	10U	5U	5U	10U	10U	5U	5U
Toluene	5U	10U	5U	5U	10U	10U	5U	5U
1,1,1-Trichloroethane	2	1	5U	5U	10U	10U	5U	5U
1,1,2-Trichloroethane	5U	10U	5U	5U	10U	10U	5U	5U
Trichloroethene	5U	10U	5U	5U	2	10U	5U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	10U	5U	5U	10U	10U	5U	5U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

20

Sampling Point	GW-522		GW-539				GW-540	
Unit	AQF		AQF				AQF	
Location	LIV		LII				CDLVI	
Date Sampled	07/07/94	10/05/94	01/06/94	04/04/94	07/13/94	10/06/94	03/22/94	04/14/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	10U	10U	5U	10U	10U	10U	5U	5U
Bromodichloromethane	10U	10U	5U	10U	10U	10U	5U	5U
Bromoform	10U	10U	5U	10U	10U	10U	5U	5U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	10U	10U	5U	10U	10U	10U	5U	5U
Carbon tetrachloride	10U	10U	5U	10U	10U	10U	5U	5U
Chlorobenzene	10U	10U	5U	10U	10U	10U	5U	5U
Chlorodibromomethane	10U	10U	5U	10U	10U	10U	5U	5U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	10U	10U	5U	10U	10U	10U	5U	5U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	10U	10U	5U	10U	10U	10U	5U	5U
1,2-Dichloroethane	10U	10U	5U	10U	10U	10U	5U	5U
1,1-Dichloroethene	10U	10U	5U	10U	10U	10U	5U	5U
1,2-Dichloroethene	10U	10U	5U	10U	10U	10U	5U	5U
1,2-Dichloropropane	10U	10U	5U	10U	10U	10U	5U	5U
cis-1,3-Dichloropropene	10U	10U	5U	10U	10U	10U	5U	5U
trans-1,3-Dichloropropene	10U	10U	5U	10U	10U	10U	5U	5U
Ethylbenzene	10U	10U	5U	10U	10U	10U	5U	5U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	10U	10U	5U	10U	10U	10U	5U	5U
Styrene	10U	10U	5U	10U	10U	10U	5U	5U
1,1,2,2-Tetrachloroethane	10U	10U	5U	10U	10U	10U	5U	5U
Tetrachloroethene	10U	10U	5U	10U	10U	10U	5U	5U
Toluene	10U	10U	5U	10U	10U	10U	5U	5U
1,1,1-Trichloroethane	10U	10U	5U	10U	10U	10U	5U	5U
1,1,2-Trichloroethane	10U	10U	5U	10U	10U	10U	5U	5U
Trichloroethene	1	10U	5U	10U	1	10U	5U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	10U	10U	5U	10U	10U	10U	5U	5U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

21

Sampling Point	GW-540	GW-541			GW-542			GW-543
Unit	AQF	AQF			AQF			AQF
Location	CDLVI	CDLVI			CDLVI			CDLVI
Date Sampled	10/10/94	03/23/94	04/18/94	10/11/94	03/24/94	04/19/94	10/12/94	03/25/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	10U	5U	5U	10U	5U	5U	10U	5U
Bromodichloromethane	10U	5U	5U	10U	5U	5U	10U	5U
Bromoform	10U	5U	5U	10U	5U	5U	10U	5U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	10U	5U	5U	10U	5U	5U	10U	5U
Carbon tetrachloride	10U	5U	5U	10U	5U	5U	10U	5U
Chlorobenzene	10U	5U	5U	10U	5U	5U	10U	5U
Chlorodibromomethane	10U	5U	5U	10U	5U	5U	10U	5U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	10U	5U	5U	10U	5U	5U	10U	5U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	10U	5U	5U	10U	5U	5U	10U	5U
1,2-Dichloroethane	10U	5U	5U	10U	5U	5U	10U	5U
1,1-Dichloroethene	10U	5U	5U	10U	5U	5U	10U	5U
1,2-Dichloroethene	10U	5U	5U	10U	5U	5U	10U	5U
1,2-Dichloropropane	10U	5U	5U	10U	5U	5U	10U	5U
cis-1,3-Dichloropropene	10U	5U	5U	10U	5U	5U	10U	5U
trans-1,3-Dichloropropene	10U	5U	5U	10U	5U	5U	10U	5U
Ethylbenzene	10U	5U	5U	10U	5U	5U	10U	5U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	10U	1	5U	10U	5U	5U	10U	5U
Styrene	10U	5U	5U	10U	5U	5U	10U	5U
1,1,2,2-Tetrachloroethane	10U	5U	5U	10U	5U	5U	10U	5U
Tetrachloroethene	10U	5U	5U	10U	5U	5U	10U	5U
Toluene	10U	5U	5U	10U	5U	5U	10U	5U
1,1,1-Trichloroethane	10U	5U	5U	10U	5U	5U	10U	5U
1,1,2-Trichloroethane	10U	5U	5U	10U	5U	5U	10U	5U
Trichloroethene	10U	5U	5U	10U	5U	5U	10U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	10U	5U	5U	10U	5U	5U	10U	5U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

22

Sampling Point	GW-543		GW-544			GW-545		
Unit	AQF		AQF			AQF		
Location	CDLVI		CDLVI			CDLVI		
Date Sampled	04/20/94	10/13/94	03/25/94	04/21/94	10/13/94	03/25/94	04/19/94	10/12/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	5U	10U	5U	5U	10U	5U	5U	10U
Bromodichloromethane	5U	10U	5U	5U	10U	5U	5U	10U
Bromoform	5U	10U	5U	5U	10U	5U	5U	10U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	5U	10U	5U	5U	10U	5U	5U	10U
Carbon tetrachloride	5U	10U	5U	5U	10U	5U	5U	10U
Chlorobenzene	5U	10U	5U	5U	10U	5U	5U	10U
Chlorodibromomethane	5U	10U	5U	5U	10U	5U	5U	10U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	10U	5U	5U	10U	5U	5U	10U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	10U	5U	5U	10U	5U	5U	10U
1,2-Dichloroethane	5U	10U	5U	5U	10U	5U	5U	10U
1,1-Dichloroethene	5U	10U	5U	5U	10U	5U	5U	10U
1,2-Dichloroethene	5U	10U	5U	5U	10U	5U	5U	10U
1,2-Dichloropropane	5U	10U	5U	5U	10U	5U	5U	10U
cis-1,3-Dichloropropene	5U	10U	5U	5U	10U	5U	5U	10U
trans-1,3-Dichloropropene	5U	10U	5U	5U	10U	5U	5U	10U
Ethylbenzene	5U	10U	5U	5U	10U	5U	5U	10U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	10U	5U	5U	10U	5U	5U	10U
Styrene	5U	10U	5U	5U	10U	5U	5U	10U
1,1,2,2-Tetrachloroethane	5U	10U	5U	5U	10U	5U	5U	10U
Tetrachloroethene	5U	10U	5U	5U	10U	5U	5U	10U
Toluene	5U	10U	5U	5U	10U	5U	5U	10U
1,1,1-Trichloroethane	5U	10U	5U	5U	10U	5U	5U	10U
1,1,2-Trichloroethane	5U	10U	5U	5U	10U	5U	5U	10U
Trichloroethene	5U	10U	5U	5U	10U	5U	5U	10U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	10U	5U	5U	10U	5U	5U	10U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

23

Sampling Point . Unit . Location . Date Sampled	GW-546			GW-557				GW-560
	AQF			AQF				AQF
	CDLVI			LV				CDLVII
	03/23/94	04/14/94	10/11/94	03/07/94	04/21/94	07/15/94	10/09/94	03/07/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	5U	5U	10U	5U	5U	10U	10U	5U
Bromodichloromethane	5U	5U	10U	5U	5U	10U	10U	5U
Bromoform	5U	5U	10U	5U	5U	10U	10U	5U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	5U	5U	10U	5U	5U	10U	10U	5U
Carbon tetrachloride	5U	5U	10U	5U	5U	10U	10U	5U
Chlorobenzene	5U	5U	10U	5U	5U	10U	10U	5U
Chlorodibromomethane	5U	5U	10U	5U	5U	10U	10U	5U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	5U	10U	5U	5U	10U	10U	5U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	5U	10U	5U	5U	10U	10U	5U
1,2-Dichloroethane	5U	5U	10U	5U	5U	10U	10U	5U
1,1-Dichloroethene	5U	5U	10U	5U	5U	10U	10U	5U
1,2-Dichloroethene	5U	5U	10U	5U	5U	10U	10U	5U
1,2-Dichloropropane	5U	5U	10U	5U	5U	10U	10U	5U
cis-1,3-Dichloropropene	5U	5U	10U	5U	5U	10U	10U	5U
trans-1,3-Dichloropropene	5U	5U	10U	5U	5U	10U	10U	5U
Ethylbenzene	5U	5U	10U	5U	5U	10U	10U	5U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	1	5U	10U	5U	5U	10U	10U	2
Styrene	5U	5U	10U	5U	5U	10U	10U	5U
1,1,2,2-Tetrachloroethane	5U	5U	10U	5U	5U	10U	10U	5U
Tetrachloroethene	5U	5U	10U	5U	5U	10U	10U	5U
Toluene	5U	5U	10U	5U	5U	10U	10U	5U
1,1,1-Trichloroethane	5U	5U	10U	5U	5U	10U	10U	5U
1,1,2-Trichloroethane	5U	5U	10U	5U	5U	10U	10U	5U
Trichloroethene	5U	5U	10U	5U	5U	10U	10U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	5U	10U	5U	5U	10U	10U	5U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

24

Sampling Point	GW-560			GW-562				GW-564
Unit	AQF			AQF				AQF
Location	CDLVII			CDLVII				CDLVII
Date Sampled	04/19/94	07/12/94	10/08/94	03/07/94	04/19/94	07/13/94	10/08/94	03/07/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	5U	10U	10U	5U	5U	10U	10U	5U
Bromodichloromethane	5U	10U	10U	5U	5U	10U	10U	5U
Bromoform	5U	10U	10U	5U	5U	10U	10U	5U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	5U	10U	10U	5U	5U	10U	10U	5U
Carbon tetrachloride	5U	10U	10U	5U	5U	10U	10U	5U
Chlorobenzene	5U	10U	10U	5U	5U	10U	10U	5U
Chlorodibromomethane	5U	10U	10U	5U	5U	10U	10U	5U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	10U	10U	5U	5U	10U	10U	5U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	10U	10U	5U	5U	10U	10U	5U
1,2-Dichloroethane	5U	10U	10U	5U	5U	10U	10U	5U
1,1-Dichloroethene	5U	10U	10U	5U	5U	10U	10U	5U
1,2-Dichloroethene	5U	10U	10U	5U	5U	10U	10U	5U
1,2-Dichloropropane	5U	10U	10U	5U	5U	10U	10U	5U
cis-1,3-Dichloropropene	5U	10U	10U	5U	5U	10U	10U	5U
trans-1,3-Dichloropropene	5U	10U	10U	5U	5U	10U	10U	5U
Ethylbenzene	5U	10U	10U	5U	5U	10U	10U	5U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	10U	10U	1	5U	10U	10U	1
Styrene	5U	10U	10U	5U	5U	10U	10U	5U
1,1,2,2-Tetrachloroethane	5U	10U	10U	5U	5U	10U	10U	5U
Tetrachloroethene	5U	10U	10U	5U	5U	10U	10U	5U
Toluene	5U	10U	10U	5U	5U	10U	10U	5U
1,1,1-Trichloroethane	5U	10U	10U	5U	5U	10U	10U	5U
1,1,2-Trichloroethane	5U	10U	10U	5U	5U	10U	10U	5U
Trichloroethene	5U	0.8	10U	5U	5U	1	10U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	10U	10U	5U	5U	10U	10U	5U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

25

Sampling Point	GW-564			GW-608				GW-609
Unit	AQF			AQF				AQF
Location	CDLVII			CRSP				CRSP
Date Sampled	04/20/94	07/14/94	10/09/94	02/21/94	05/18/94	08/08/94	11/29/94	02/24/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	5U	10U	10U	5U	10U	10U	10U	5U
Bromodichloromethane	5U	10U	10U	5U	10U	10U	10U	5U
Bromoform	5U	10U	10U	5U	10U	10U	10U	5U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	5U	10U	10U	5U	10U	10U	10U	5U
Carbon tetrachloride	5U	10U	10U	5U	10U	10U	10U	5U
Chlorobenzene	5U	10U	10U	5U	10U	10U	10U	5U
Chlorodibromomethane	5U	10U	10U	5U	10U	10U	10U	5U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	10U	10U	5U	10U	10U	10U	5U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	10U	10U	5U	10U	10U	10U	2
1,2-Dichloroethane	5U	10U	10U	5U	10U	10U	10U	5U
1,1-Dichloroethene	5U	10U	10U	5U	10U	10U	1	5U
1,2-Dichloroethene	5U	10U	10U	5U	10U	10U	10U	24
1,2-Dichloropropane	5U	10U	10U	5U	10U	10U	10U	5U
cis-1,3-Dichloropropene	5U	10U	10U	5U	10U	10U	10U	5U
trans-1,3-Dichloropropene	5U	10U	10U	5U	10U	10U	10U	5U
Ethylbenzene	5U	10U	10U	5U	10U	10U	10U	5U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	10U	10U	5U	10U	10U	10U	5U
Styrene	5U	10U	10U	5U	10U	10U	10U	5U
1,1,2,2-Tetrachloroethane	5U	10U	10U	5U	10U	10U	10U	5U
Tetrachloroethene	5U	10U	10U	1	2	1	2	29
Toluene	5U	10U	10U	5U	10U	10U	10U	5U
1,1,1-Trichloroethane	5U	10U	10U	2	4	2	3	1
1,1,2-Trichloroethane	5U	10U	10U	5U	10U	10U	10U	5U
Trichloroethene	5U	1	10U	5U	10U	10U	10U	3
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	10U	10U	5U	10U	10U	10U	5U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

26

Sampling Point . Unit . Location . Date Sampled	GW-609			GW-610				GW-611
	AQF			AQF				AQF
	CRSP			CRSP				CRSP
	05/24/94	08/14/94	12/01/94	02/18/94	05/04/94	08/06/94	11/21/94	02/22/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	10U	10U	10U	5U	10U	10U	10U	5U
Bromodichloromethane	10U	10U	10U	5U	10U	10U	10U	5U
Bromoform	10U	10U	10U	5U	10U	10U	10U	5U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	10U	10U	10U	5U	10U	10U	10U	5U
Carbon tetrachloride	10U	10U	10U	5U	10U	10U	10U	5U
Chlorobenzene	10U	10U	10U	5U	10U	10U	10U	5U
Chlorodibromomethane	10U	10U	10U	5U	10U	10U	10U	5U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	10U	10U	10U	5U	10U	10U	10U	5U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	3	2	1	5U	10U	10U	10U	5U
1,2-Dichloroethane	10U	10U	10U	5U	10U	10U	10U	5U
1,1-Dichloroethene	10U	10U	10U	5U	10U	10U	10U	5U
1,2-Dichloroethene	33	17	12	5U	10U	10U	10U	5U
1,2-Dichloropropane	10U	10U	10U	5U	10U	10U	10U	5U
cis-1,3-Dichloropropene	10U	10U	10U	5U	10U	10U	10U	5U
trans-1,3-Dichloropropene	10U	10U	10U	5U	10U	10U	10U	5U
Ethylbenzene	10U	10U	10U	5U	10U	10U	10U	5U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	10U	10U	10U	5U	10U	10U	10U	5U
Styrene	10U	10U	10U	5U	10U	10U	10U	5U
1,1,2,2-Tetrachloroethane	10U	10U	10U	5U	10U	10U	10U	5U
Tetrachloroethene	39	25	17	5U	10U	10U	1	5U
Toluene	10U	10U	10U	5U	10U	10U	10U	5U
1,1,1-Trichloroethane	2	1	10U	5U	10U	10U	10U	8
1,1,2-Trichloroethane	10U	10U	10U	5U	10U	10U	10U	5U
Trichloroethene	3	2	2	5U	10U	10U	10U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	10U	10U	10U	5U	10U	10U	10U	5U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

27

Sampling Point . Unit . Location . Date Sampled	GW-611			GW-709				GW-731
	AQF			AQF				AQF
	CRSP			LII				CRSDB
	05/19/94	08/13/94	11/30/94	01/06/94	04/05/94	07/14/94	10/07/94	02/11/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	10U	10U	10U	5U	5U	10U	10U	5U
Bromodichloromethane	10U	10U	10U	5U	5U	10U	10U	5U
Bromoform	10U	10U	10U	5U	5U	10U	10U	5U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	10U	10U	10U	5U	5U	10U	10U	5U
Carbon tetrachloride	10U	10U	10U	5U	5U	10U	10U	5U
Chlorobenzene	10U	10U	10U	5U	5U	10U	10U	5U
Chlorodibromomethane	10U	10U	10U	5U	5U	10U	10U	5U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	10U	10U	10U	5U	5U	10U	10U	5U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	10U	2	3	5U	5U	10U	10U	5U
1,2-Dichloroethane	10U	10U	10U	5U	5U	10U	10U	5U
1,1-Dichloroethene	10U	3	10U	5U	5U	10U	10U	5U
1,2-Dichloroethene	10U	10U	10U	5U	5U	10U	10U	5U
1,2-Dichloropropane	10U	10U	10U	5U	5U	10U	10U	5U
cis-1,3-Dichloropropene	10U	10U	10U	5U	5U	10U	10U	5U
trans-1,3-Dichloropropene	10U	10U	10U	5U	5U	10U	10U	5U
Ethylbenzene	10U	10U	10U	5U	5U	10U	10U	5U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	10U	10U	10U	5U	5U	10U	10U	5U
Styrene	10U	10U	10U	5U	5U	10U	10U	5U
1,1,2,2-Tetrachloroethane	10U	10U	10U	5U	5U	10U	10U	5U
Tetrachloroethene	10U	10U	10U	5U	5U	10U	10U	5U
Toluene	10U	10U	10U	5U	5U	0.3	10U	5U
1,1,1-Trichloroethane	6	10	17	5U	5U	10U	10U	5U
1,1,2-Trichloroethane	10U	10U	10U	5U	5U	10U	10U	5U
Trichloroethene	10U	10U	10U	5U	5U	1	10U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	10U	10U	10U	5U	5U	10U	10U	5U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

28

Sampling Point . Unit . Location . Date Sampled	GW-731			GW-732				GW-742
	AQF			AQF				AQF
	CRSDB			CRSDB				CRSP
	04/04/94	07/09/94	10/18/94	02/12/94	04/06/94	07/09/94	10/19/94	02/20/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	5U	10U	10U	5U	5U	10U	10U	5U
Bromodichloromethane	5U	10U	10U	5U	5U	10U	10U	5U
Bromoform	5U	10U	10U	5U	5U	10U	10U	5U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	5U	10U	10U	5U	5U	10U	10U	5U
Carbon tetrachloride	5U	10U	10U	5U	5U	10U	10U	5U
Chlorobenzene	5U	10U	10U	5U	5U	10U	10U	5U
Chlorodibromomethane	5U	10U	10U	5U	5U	10U	10U	5U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	10U	10U	5U	5U	10U	10U	5U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	10U	10U	5U	5U	10U	10U	5U
1,2-Dichloroethane	5U	10U	10U	5U	5U	10U	10U	5U
1,1-Dichloroethene	5U	10U	10U	5U	5U	10U	10U	5U
1,2-Dichloroethene	5U	10U	10U	5U	5U	10U	10U	5U
1,2-Dichloropropane	5U	10U	10U	5U	5U	10U	10U	5U
cis-1,3-Dichloropropene	5U	10U	10U	5U	5U	10U	10U	5U
trans-1,3-Dichloropropene	5U	10U	10U	5U	5U	10U	10U	5U
Ethylbenzene	5U	10U	10U	5U	5U	10U	10U	5U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	10U	10U	5U	5U	10U	10U	5U
Styrene	5U	10U	10U	5U	5U	10U	10U	5U
1,1,2,2-Tetrachloroethane	5U	10U	10U	5U	5U	10U	10U	5U
Tetrachloroethene	5U	10U	10U	5U	5U	10U	10U	5U
Toluene	5U	10U	10U	5U	5U	10U	10U	5U
1,1,1-Trichloroethane	5U	10U	10U	5U	5U	10U	10U	5U
1,1,2-Trichloroethane	5U	10U	10U	5U	5U	10U	10U	5U
Trichloroethene	5U	10U	10U	5U	5U	10U	10U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	10U	10U	5U	5U	10U	10U	5U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

29

Sampling Point . Unit . Location . Date Sampled	GW-742			GW-743				GW-757
	AQF			AQF				AQF
	CRSP			CRSP				LII
	05/02/94	08/04/94	11/17/94	02/18/94	05/03/94	08/06/94	11/17/94	01/07/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	10U	10U	10U	5U	10U	10U	10U	5U
Bromodichloromethane	10U	10U	10U	5U	10U	10U	10U	5U
Bromoform	10U	10U	10U	5U	10U	10U	10U	5U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	10U	10U	10U	5U	10U	10U	10U	5U
Carbon tetrachloride	10U	10U	10U	5U	10U	10U	10U	5U
Chlorobenzene	10U	10U	10U	5U	10U	10U	10U	5U
Chlorodibromomethane	10U	10U	10U	5U	10U	10U	10U	5U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	10U	10U	10U	5U	10U	10U	10U	5U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	10U	10U	10U	5U	10U	10U	10U	5U
1,2-Dichloroethane	10U	10U	10U	5U	10U	10U	10U	5U
1,1-Dichloroethene	10U	10U	10U	5U	10U	10U	10U	5U
1,2-Dichloroethene	10U	10U	10U	5U	10U	10U	10U	5U
1,2-Dichloropropane	10U	10U	10U	5U	10U	10U	10U	5U
cis-1,3-Dichloropropene	10U	10U	10U	5U	10U	10U	10U	5U
trans-1,3-Dichloropropene	10U	10U	10U	5U	10U	10U	10U	5U
Ethylbenzene	10U	10U	10U	5U	10U	10U	10U	5U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	10U	10U	10U	5U	10U	10U	10U	1
Styrene	10U	10U	10U	5U	10U	10U	10U	5U
1,1,2,2-Tetrachloroethane	10U	10U	10U	5U	10U	10U	10U	5U
Tetrachloroethene	10U	10U	10U	5U	10U	10U	10U	5U
Toluene	10U	10U	1	5U	10U	10U	10U	5U
1,1,1-Trichloroethane	10U	10U	10U	5U	10U	10U	10U	5U
1,1,2-Trichloroethane	10U	10U	10U	5U	10U	10U	10U	5U
Trichloroethene	10U	10U	10U	5U	10U	10U	10U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	10U	10U	10U	5U	10U	10U	10U	5U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

30

Sampling Point • Unit • Location • Date Sampled	GW-757			GW-796				GW-797
	AQF			AQF				AQF
	LII			LV				LV
	04/06/94	07/15/94	10/07/94	03/08/94	04/25/94	07/20/94	10/11/94	03/08/94
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Benzene	5U	10U	10U	5U	5U	10U	10U	5U
Bromodichloromethane	5U	10U	10U	5U	5U	10U	10U	5U
Bromoform	5U	10U	10U	5U	5U	10U	10U	5U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Carbon disulfide	5U	10U	10U	5U	5U	10U	10U	5U
Carbon tetrachloride	5U	10U	10U	5U	5U	10U	10U	5U
Chlorobenzene	5U	10U	10U	5U	5U	10U	10U	5U
Chlorodibromomethane	5U	10U	10U	5U	5U	10U	10U	5U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	10U	10U	5U	5U	10U	10U	5U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	10U	10U	5U	5U	10U	10U	5U
1,2-Dichloroethane	5U	10U	10U	5U	5U	10U	10U	5U
1,1-Dichloroethene	5U	10U	10U	5U	5U	10U	10U	5U
1,2-Dichloroethene	5U	10U	10U	5U	5U	10U	10U	5U
1,2-Dichloropropane	5U	10U	10U	5U	5U	10U	10U	5U
cis-1,3-Dichloropropene	5U	10U	10U	5U	5U	10U	10U	5U
trans-1,3-Dichloropropene	5U	10U	10U	5U	5U	10U	10U	5U
Ethylbenzene	5U	10U	10U	5U	5U	10U	10U	5U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	10U	10U	1	5U	10U	10U	5U
Styrene	5U	10U	10U	5U	5U	10U	10U	5U
1,1,2,2-Tetrachloroethane	5U	10U	10U	5U	5U	10U	10U	5U
Tetrachloroethene	5U	10U	10U	5U	5U	10U	10U	5U
Toluene	5U	10U	10U	5U	5U	10U	10U	5U
1,1,1-Trichloroethane	5U	10U	10U	1	2	1	2	5U
1,1,2-Trichloroethane	5U	10U	10U	5U	5U	10U	10U	5U
Trichloroethene	5U	10U	10U	5U	5U	10U	10U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	10U	10U	5U	5U	10U	10U	5U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

31

Sampling Point . Unit . Location . Date Sampled	GW-797			GW-798				GW-799
	AQF			AQF				AQF
	LV			CDLVII				CDLVII
	04/25/94	07/19/94	10/10/94	03/08/94	04/22/94	07/19/94	10/10/94	03/07/94
Acetone	10U	10U	10U	10U	10U	10U	4	10U
Benzene	5U	10U	10U	5U	5U	10U	10U	5U
Bromodichloromethane	5U	10U	10U	5U	5U	10U	10U	5U
Bromoform	5U	10U	10U	5U	5U	10U	10U	5U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	9	10U	10U	10U	13	10U
Carbon disulfide	5U	10U	10U	5U	5U	10U	10U	5U
Carbon tetrachloride	5U	10U	10U	5U	5U	10U	10U	5U
Chlorobenzene	5U	10U	10U	5U	5U	10U	10U	5U
Chlorodibromomethane	5U	10U	10U	5U	5U	10U	10U	5U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	10U	10U	5U	5U	10U	10U	5U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	10U	10U	5U	5U	10U	10U	5U
1,2-Dichloroethane	5U	10U	10U	5U	5U	10U	10U	5U
1,1-Dichloroethene	5U	10U	10U	5U	5U	10U	10U	5U
1,2-Dichloroethene	5U	10U	10U	5U	5U	10U	10U	5U
1,2-Dichloropropane	5U	10U	10U	5U	5U	10U	10U	5U
cis-1,3-Dichloropropene	5U	10U	10U	5U	5U	10U	10U	5U
trans-1,3-Dichloropropene	5U	10U	10U	5U	5U	10U	10U	5U
Ethylbenzene	5U	10U	10U	5U	5U	10U	10U	5U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	10U	10U	5U	5U	10U	10U	5U
Styrene	5U	10U	10U	5U	5U	10U	10U	5U
1,1,2,2-Tetrachloroethane	5U	10U	10U	5U	5U	10U	10U	5U
Tetrachloroethene	5U	10U	10U	5U	5U	10U	10U	5U
Toluene	5U	10U	10U	5U	5U	10U	10U	0.6
1,1,1-Trichloroethane	5U	10U	10U	5U	5U	10U	10U	5U
1,1,2-Trichloroethane	5U	10U	10U	5U	5U	10U	10U	5U
Trichloroethene	5U	10U	10U	5U	5U	10U	10U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	10U	10U	5U	5U	10U	10U	5U

(CONTINUED)

APPENDIX E.2
Volatile Organic Compounds, 1994

32

Sampling Point • Unit • Location • Date Sampled	GW-799			GW-801			
	AQF			AQF			
	CDLVII			LV			
	04/21/94	07/18/94	10/10/94	03/08/94	04/27/94	07/21/94	10/11/94
Acetone	10U	10U	6	10U	10U	10U	10U
Benzene	5U	10U	10U	5U	5U	10U	10U
Bromodichloromethane	5U	10U	10U	5U	5U	10U	10U
Bromoform	5U	10U	10U	5U	5U	10U	10U
Bromomethane	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10	10U	10U	10U	10U
Carbon disulfide	5U	10U	10U	5U	5U	10U	10U
Carbon tetrachloride	5U	10U	10U	5U	5U	10U	10U
Chlorobenzene	5U	10U	10U	5U	5U	10U	10U
Chlorodibromomethane	5U	10U	10U	5U	5U	10U	10U
Chloroethane	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	10U	10U	5U	5U	10U	10U
Chloromethane	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloroethane	5U	10U	10U	5U	5U	10U	10U
1,1-Dichloroethene	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloroethene	5U	10U	10U	5U	5U	10U	10U
1,2-Dichloropropane	5U	10U	10U	5U	5U	10U	10U
cis-1,3-Dichloropropene	5U	10U	10U	5U	5U	10U	10U
trans-1,3-Dichloropropene	5U	10U	10U	5U	5U	10U	10U
Ethylbenzene	5U	10U	10U	5U	5U	10U	10U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	10U	10U	1	1	10U	2
Styrene	5U	10U	10U	5U	5U	10U	10U
1,1,2,2-Tetrachloroethane	5U	10U	10U	5U	5U	10U	10U
Tetrachloroethene	5U	10U	10U	5U	5U	10U	10U
Toluene	5U	10U	10U	5U	5U	10U	10U
1,1,1-Trichloroethane	5U	10U	10U	5U	5U	10U	10U
1,1,2-Trichloroethane	5U	10U	10U	5U	5U	10U	10U
Trichloroethene	5U	1	10U	5U	5U	10U	10U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	10U	10U	5U	5U	10U	10U

APPENDIX E.2

33

Volatile Organic Compounds, 1994

Sampling Point . Unit . Location . Date Sampled	CBS-1	
	SPRING	
	CDLVII	
	02/14/94	09/07/94
Acetone	10U	10U
Benzene	5U	10U
Bromodichloromethane	5U	10U
Bromoform	5U	10U
Bromomethane	10U	10U
2-Butanone	10U	10U
Carbon disulfide	5U	10U
Carbon tetrachloride	5U	10U
Chlorobenzene	5U	10U
Chlorodibromomethane	5U	10U
Chloroethane	10U	10U
Chloroform	5U	10U
Chloromethane	10U	10U
1,1-Dichloroethane	5U	10U
1,2-Dichloroethane	5U	10U
1,1-Dichloroethene	5U	10U
1,2-Dichloroethene	5U	10U
1,2-Dichloropropane	5U	10U
cis-1,3-Dichloropropene	5U	10U
trans-1,3-Dichloropropene	5U	10U
Ethylbenzene	5U	10U
2-Hexanone	10U	10U
4-Methyl-2-pentanone	10U	10U
Methylene chloride	5U	10U
Styrene	5U	10U
1,1,2,2-Tetrachloroethane	5U	10U
Tetrachloroethene	5U	10U
Toluene	5U	10U
1,1,1-Trichloroethane	5U	10U
1,1,2-Trichloroethane	5U	10U
Trichloroethene	5U	10U
Vinyl acetate	10U	10U
Vinyl chloride	10U	10U
Xylenes	5U	10U

APPENDIX E.3
ADDITIONAL ORGANIC COMPOUNDS

APPENDIX E.3
Additional Organic Compounds, 1994

1

Sampling Point . Unit . Location . Date Sampled	GW-141				GW-160		GW-161	
	AQF				AQF		AQF	
	LIV				CRBAWP		CRBAWP	
	01/06/94	04/04/94	07/06/94	10/04/94	02/12/94	07/20/94	02/11/94	07/18/94
Acrolein	50U	50U	50U	50U	50U	50U	50U	50U
Acrylonitrile	50U	50U	50U	50U	50U	50U	50U	50U
2-Chloroethyl vinyl ether	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	5U	5U	5U	5U	5U	5U	5U	5U
1,4-Dichloro-2-butene	5U	5U	5U	5U	5U	5U	5U	5U
Dichlorodifluoromethane	5U	5U	5U	5U	5U	5U	5U	5U
Ethanol	10000U	10000U	10000U	10000U	10000U	10000U	10000U	10000U
Ethyl methacrylate	5U	5U	5U	5U	5U	5U	5U	5U
Iodomethane	5U	5U	5U	5U	5U	5U	5U	5U
Trichlorofluoromethane	5U	5U	5U	5U	5U	5U	5U	5U
1,2,3-Trichloropropane	5U	5U	5U	5U	5U	5U	5U	5U

(CONTINUED)

Sampling Point . Unit . Location . Date Sampled	GW-217				GW-295		GW-298	
	AQF				AQF		AQF	
	LIV				CRBAWP		CRBAWP	
	01/05/94	04/04/94	07/06/94	10/03/94	02/15/94	07/18/94	02/14/94	07/21/94
Acrolein	50U	50U	50U	50U	50U	50U	50U	50U
Acrylonitrile	50U	50U	50U	50U	50U	50U	50U	50U
2-Chloroethyl vinyl ether	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	5U	5U	5U	5U	5U	5U	5U	5U
1,4-Dichloro-2-butene	5U	5U	5U	5U	5U	5U	5U	5U
Dichlorodifluoromethane	5U	5U	5U	5U	5U	5U	5U	5U
Ethanol	10000U	10000U	10000U	10000U	10000U	10000U	10000U	10000U
Ethyl methacrylate	5U	5U	5U	5U	5U	5U	5U	5U
Iodomethane	5U	5U	5U	5U	5U	5U	5U	5U
Trichlorofluoromethane	5U	5U	5U	5U	5U	5U	5U	44
1,2,3-Trichloropropane	5U	5U	5U	5U	5U	5U	5U	5U

(CONTINUED)

APPENDIX E.3
Additional Organic Compounds, 1994

2

Sampling Point	GW-299		GW-300		GW-301		GW-305	
Unit	AQF		AQF		AQF		AQF	
Location	CRBAWP		CRBAWP		CRBAWP		LIV	
Date Sampled	02/13/94	07/21/94	02/13/94	07/20/94	02/13/94	07/20/94	01/10/94	04/06/94
Acrolein	50U	50U	50U	50U	50U	50U	50U	50U
Acrylonitrile	50U	50U	50U	50U	50U	50U	50U	50U
2-Chloroethyl vinyl ether	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	5U	5U	5U	5U	5U	5U	5U	5U
1,4-Dichloro-2-butene	5U	5U	5U	5U	5U	5U	5U	5U
Dichlorodifluoromethane	5U	5U	5U	5U	5U	5U	5U	5U
Ethanol	10000U	10000U	10000U	10000U	10000U	10000U	10000U	10000U
Ethyl methacrylate	5U	5U	5U	5U	5U	5U	5U	5U
Iodomethane	5U	5U	5U	5U	5U	5U	5U	5U
Trichlorofluoromethane	5U	5U	5U	5U	5U	5U	5U	5U
1,2,3-Trichloropropane	5U	5U	5U	5U	5U	5U	5U	5U

(CONTINUED)

Sampling Point	GW-305		GW-521				GW-522	
Unit	AQF		AQF				AQF	
Location	LIV		LIV				LIV	
Date Sampled	07/07/94	10/05/94	01/06/94	04/05/94	07/07/94	10/04/94	01/07/94	04/05/94
Acrolein	50U	50U	50U	50U	50U	50U	50U	50U
Acrylonitrile	50U	50U	50U	50U	50U	50U	50U	50U
2-Chloroethyl vinyl ether	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	5U	5U	5U	5U	5U	5U	5U	5U
1,4-Dichloro-2-butene	5U	5U	5U	5U	5U	5U	5U	5U
Dichlorodifluoromethane	5U	5U	5U	5U	5U	5U	5U	5U
Ethanol	10000U	10000U	10000U	10000U	10000U	10000U	10000U	10000U
Ethyl methacrylate	5U	5U	5U	5U	5U	5U	5U	5U
Iodomethane	5U	5U	5U	5U	5U	5U	5U	5U
Trichlorofluoromethane	5U	5U	5U	5U	5U	5U	5U	5U
1,2,3-Trichloropropane	5U	5U	5U	5U	5U	5U	5U	5U

(CONTINUED)

APPENDIX E.3
Additional Organic Compounds, 1994

3

Sampling Point . Unit . Location . Date Sampled	GW-522		GW-539				GW-557	
	AQF		AQF				AQF	
	LIV		LII				LV	
	07/07/94	10/05/94	01/06/94	04/04/94	07/13/94	10/06/94	03/07/94	04/21/94
Acrolein	50U	50U	50U	50U	50U	50U	50U	50U
Acrylonitrile	50U	50U	50U	50U	50U	50U	50U	50U
2-Chloroethyl vinyl ether	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	5U	5U	5U	5U	5U	5U	5U	5U
1,4-Dichloro-2-butene	5U	5U	5U	5U	5U	5U	5U	5U
Dichlorodifluoromethane	5U	5U	5U	5U	5U	5U	5U	5U
Ethanol	10000U	10000U	10000U	10000U	10000U	10000U	10000U	10000U
Ethyl methacrylate	5U	5U	5U	5U	5U	5U	5U	5U
Iodomethane	5U	5U	5U	5U	5U	5U	5U	5U
Trichlorofluoromethane	5U	5U	5U	5U	5U	5U	5U	5U
1,2,3-Trichloropropane	5U	5U	5U	5U	5U	5U	5U	5U

(CONTINUED)

Sampling Point . Unit . Location . Date Sampled	GW-557		GW-560				GW-562	
	AQF		AQF				AQF	
	LV		CDLVII				CDLVII	
	07/15/94	10/09/94	03/07/94	04/19/94	07/12/94	10/08/94	03/07/94	04/19/94
Acrolein	50U	50U	50U	50U	50U	50U	50U	50U
Acrylonitrile	50U	50U	50U	50U	50U	50U	50U	50U
2-Chloroethyl vinyl ether	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	5U	5U	5U	5U	5U	5U	5U	5U
1,4-Dichloro-2-butene	5U	5U	5U	5U	5U	5U	5U	5U
Dichlorodifluoromethane	5U	5U	5U	5U	5U	5U	5U	5U
Ethanol	10000U	10000U	10000U	10000U	10000U	10000U	10000U	10000U
Ethyl methacrylate	5U	5U	5U	5U	5U	5U	5U	5U
Iodomethane	5U	5U	5U	5U	5U	5U	5U	5U
Trichlorofluoromethane	5U	5U	5U	5U	5U	5U	5U	5U
1,2,3-Trichloropropane	5U	5U	5U	5U	5U	5U	5U	5U

(CONTINUED)

APPENDIX E.3
Additional Organic Compounds, 1994

4

Sampling Point	GW-562		GW-564				GW-709	
Unit	AQF		AQF				AQF	
Location	CDLVII		CDLVII				LII	
Date Sampled	07/13/94	10/08/94	03/07/94	04/20/94	07/14/94	10/09/94	01/06/94	04/05/94
Acrolein	50U	50U	50U	50U	50U	50U	50U	50U
Acrylonitrile	50U	50U	50U	50U	50U	50U	50U	50U
2-Chloroethyl vinyl ether	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	5U	5U	5U	5U	5U	5U	5U	5U
1,4-Dichloro-2-butene	5U	5U	5U	5U	5U	5U	5U	5U
Dichlorodifluoromethane	5U	5U	5U	5U	5U	5U	5U	5U
Ethanol	10000U	10000U	10000U	10000U	10000U	10000U	10000U	10000U
Ethyl methacrylate	5U	5U	5U	5U	5U	5U	5U	5U
Iodomethane	5U	5U	5U	5U	5U	5U	5U	5U
Trichlorofluoromethane	5U	5U	5U	5U	5U	5U	5U	5U
1,2,3-Trichloropropane	5U	5U	5U	5U	5U	5U	5U	5U

(CONTINUED)

Sampling Point	GW-709		GW-757				GW-796	
Unit	AQF		AQF				AQF	
Location	LII		LII				LV	
Date Sampled	07/14/94	10/07/94	01/07/94	04/06/94	07/15/94	10/07/94	03/08/94	04/25/94
Acrolein	50U	50U	50U	50U	50U	50U	50U	50U
Acrylonitrile	50U	50U	50U	50U	50U	50U	50U	50U
2-Chloroethyl vinyl ether	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	5U	5U	5U	5U	5U	5U	5U	5U
1,4-Dichloro-2-butene	5U	5U	5U	5U	5U	5U	5U	5U
Dichlorodifluoromethane	5U	5U	5U	5U	5U	5U	5U	5U
Ethanol	10000U	10000U	10000U	10000U	10000U	10000U	10000U	10000U
Ethyl methacrylate	5U	5U	5U	5U	5U	5U	5U	5U
Iodomethane	5U	5U	5U	5U	5U	5U	5U	5U
Trichlorofluoromethane	5U	5U	5U	5U	5U	5U	5U	5U
1,2,3-Trichloropropane	5U	5U	5U	5U	5U	5U	5U	5U

(CONTINUED)

APPENDIX E.3
Additional Organic Compounds, 1994

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Sampling Point . Unit . Location . Date Sampled	GW-796		GW-797				GW-798	
	AQF		AQF				AQF	
	LV		LV				CDLVII	
	07/20/94	10/11/94	03/08/94	04/25/94	07/19/94	10/10/94	03/08/94	04/22/94
Acrolein	50U	50U	50U	50U	50U	50U	50U	50U
Acrylonitrile	50U	50U	50U	50U	50U	50U	50U	50U
2-Chloroethyl vinyl ether	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	5U	5U	5U	5U	5U	5U	5U	5U
1,4-Dichloro-2-butene	5U	5U	5U	5U	5U	5U	5U	5U
Dichlorodifluoromethane	5U	5U	5U	5U	5U	5U	5U	5U
Ethanol	10000U	10000U	10000U	10000U	10000U	10000U	10000U	10000U
Ethyl methacrylate	5U	5U	5U	5U	5U	5U	5U	5U
Iodomethane	5U	5U	5U	5U	5U	5U	5U	5U
Trichlorofluoromethane	5U	2	5U	5U	5U	5U	5U	5U
1,2,3-Trichloropropane	5U	5U	5U	5U	5U	5U	5U	5U

(CONTINUED)

Sampling Point . Unit . Location . Date Sampled	GW-798		GW-799				GW-801	
	AQF		AQF				AQF	
	CDLVII		CDLVII				LV	
	07/19/94	10/10/94	03/07/94	04/21/94	07/18/94	10/10/94	03/08/94	04/27/94
Acrolein	50U	50U	50U	50U	50U	50U	50U	50U
Acrylonitrile	50U	50U	50U	50U	50U	50U	50U	50U
2-Chloroethyl vinyl ether	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	5U	5U	5U	5U	5U	5U	5U	5U
1,4-Dichloro-2-butene	5U	5U	5U	5U	5U	5U	5U	5U
Dichlorodifluoromethane	5U	5U	5U	5U	5U	5U	5U	5U
Ethanol	10000U	10000U	10000U	10000U	10000U	10000U	10000U	10000U
Ethyl methacrylate	5U	5U	5U	5U	5U	5U	5U	5U
Iodomethane	5U	5U	5U	5U	5U	5U	5U	5U
Trichlorofluoromethane	5U	5U	5U	5U	5U	5U	5U	5U
1,2,3-Trichloropropane	5U	5U	5U	5U	5U	5U	5U	5U

(CONTINUED)

APPENDIX E.3
Additional Organic Compounds, 1994

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Sampling Point	GW-801	
Unit	AQF	
Location	LV	
Date Sampled	07/21/94	10/11/94
Acrolein	50U	50U
Acrylonitrile	50U	50U
2-Chloroethyl vinyl ether	10U	10U
Dibromomethane	5U	5U
1,4-Dichloro-2-butene	5U	5U
Dichlorodifluoromethane	5U	5U
Ethanol	10000U	10000U
Ethyl methacrylate	5U	5U
Iodomethane	5U	5U
Trichlorofluoromethane	5U	5U
1,2,3-Trichloropropane	5U	5U

APPENDIX E.3
Additional Organic Compounds, 1994

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Sampling Point	CBS-1
Unit	SPRING
Location	CDLVII
Date Sampled	02/14/94
Acrolein	50U
Acrylonitrile	50U
2-Chloroethyl vinyl ether	10U
Dibromomethane	5U
1,4-Dichloro-2-butene	5U
Dichlorodifluoromethane	5U
Ethanol	10000U
Ethyl methacrylate	5U
Iodomethane	5U
Trichlorofluoromethane	5U
1,2,3-Trichloropropane	5U

APPENDIX E.3
Other Organic Compounds, 1994

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Sampling Point . Unit . Location . Date Sampled	GW-141			GW-217			GW-305	
	AQF			AQF			AQF	
	LIV			LIV			LIV	
	04/04/94	07/06/94	10/04/94	04/04/94	07/06/94	10/03/94	04/06/94	07/07/94
Bromochloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dibromo-3-chloropropane	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U
1,4-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U
Cis-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
Trans-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
1,1,1,2-Tetrachloroethane	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

Sampling Point . Unit . Location . Date Sampled	GW-305	GW-521			GW-522			GW-539
	AQF	AQF			AQF			AQF
	LIV	LIV			LIV			LII
	10/05/94	04/05/94	07/07/94	10/04/94	04/05/94	07/07/94	10/05/94	04/04/94
Bromochloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dibromo-3-chloropropane	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U
1,4-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U
Cis-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
Trans-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
1,1,1,2-Tetrachloroethane	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

APPENDIX E.3
Other Organic Compounds, 1994

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Sampling Point . Unit . Location . Date Sampled	GW-539		GW-540			GW-541		
	AQF		AQF			AQF		
	LII		CDLVI			CDLVI		
	07/13/94	10/06/94	03/22/94	04/14/94	10/10/94	03/23/94	04/18/94	10/11/94
Bromochloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dibromo-3-chloropropane	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U
1,4-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U
Cis-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
Trans-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
1,1,1,2-Tetrachloroethane	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

Sampling Point . Unit . Location . Date Sampled	GW-542			GW-543			GW-544	
	AQF			AQF			AQF	
	CDLVI			CDLVI			CDLVI	
	03/24/94	04/19/94	10/12/94	03/25/94	04/20/94	10/13/94	03/25/94	04/21/94
Bromochloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dibromo-3-chloropropane	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U
1,4-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U
Cis-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
Trans-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
1,1,1,2-Tetrachloroethane	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

APPENDIX E.3
Other Organic Compounds, 1994

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Sampling Point	GW-544	GW-545				GW-546			GW-557
Unit	AQF	AQF				AQF			AQF
Location	CDLVI	CDIVI				CDLVI			LV
Date Sampled	10/13/94	03/25/94	04/19/94	10/12/94	03/23/94	04/14/94	10/11/94	03/07/94	
Bromochloromethane	10U	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dibromo-3-chloropropane	10U	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	10U	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U	10U
1,4-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U	10U
Cis-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U	10U
Trans-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U	10U
1,1,1,2-Tetrachloroethane	10U	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

Sampling Point	GW-557			GW-560				GW-562
Unit	AQF			AQF				AQF
Location	LV			CDLVII				CDLVII
Date Sampled	04/21/94	07/15/94	10/09/94	03/07/94	04/19/94	07/12/94	10/08/94	03/07/94
Bromochloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dibromo-3-chloropropane	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U
1,4-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U
Cis-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
Trans-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
1,1,1,2-Tetrachloroethane	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

APPENDIX E.3
Other Organic Compounds, 1994

11

Sampling Point	GW-562			GW-564				GW-709
Unit	AQF			AQF				AQF
Location	CDLVII			CDLVII				LII
Date Sampled	04/19/94	07/13/94	10/08/94	03/07/94	04/20/94	07/14/94	10/09/94	04/05/94
Bromochloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dibromo-3-chloropropane	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U
1,4-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U
Cis-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
Trans-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
1,1,1,2-Tetrachloroethane	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

Sampling Point	GW-709		GW-757			GW-796		
Unit	AQF		AQF			AQF		
Location	LII		LII			LV		
Date Sampled	07/14/94	10/07/94	04/06/94	07/15/94	10/07/94	03/08/94	04/25/94	07/20/94
Bromochloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dibromo-3-chloropropane	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U
1,4-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U
Cis-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
Trans-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
1,1,1,2-Tetrachloroethane	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

APPENDIX E.3
Other Organic Compounds, 1994

12

Sampling Point	GW-796	GW-797				GW-798		
Unit	AQF	AQF				AQF		
Location	LV	LV				CDLVII		
Date Sampled	10/11/94	03/08/94	04/25/94	07/19/94	10/10/94	03/08/94	04/22/94	07/19/94
Bromochloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dibromo-3-chloropropane	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U
1,4-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U
Cis-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
Trans-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
1,1,1,2-Tetrachloroethane	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

Sampling Point	GW-798	GW-799				GW-801		
Unit	AQF	AQF				AQF		
Location	CDLVII	CDLVII				LV		
Date Sampled	10/10/94	03/07/94	04/21/94	07/18/94	10/10/94	03/08/94	04/27/94	07/21/94
Bromochloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dibromo-3-chloropropane	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U
1,4-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U
Cis-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
Trans-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
1,1,1,2-Tetrachloroethane	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

APPENDIX E.3
Other Organic Compounds, 1994

13

Sampling Point	GW-801
.	
Unit	AQF
.	
Location	LV
.	
Date Sampled	10/11/94
Bromochloromethane	10U
1,2-Dibromo-3-chloropropane	10U
Dibromomethane	10U
1,2-Dichlorobenzene	10U
1,4-Dichlorobenzene	10U
Cis-1,2-Dichloroethene	10U
Trans-1,2-Dichloroethene	10U
1,1,1,2-Tetrachloroethane	10U

APPENDIX E.3
Other Organic Compounds, 1994

14

Sampling Point	CBS-1
.	
Unit	SPRING
.	
Location	CDLVII
.	
Date Sampled	09/07/94
Bromochloromethane	10U
1,2-Dibromo-3-chloropropane	10U
Dibromomethane	10U
1,2-Dichlorobenzene	10U
1,4-Dichlorobenzene	10U
Cis-1,2-Dichloroethene	10U
Trans-1,2-Dichloroethene	10U
1,1,1,2-Tetrachloroethane	10U

APPENDIX E.4

BASE, NEUTRAL, AND ACID EXTRACTABLE ORGANIC COMPOUNDS

APPENDIX E.4

1

Base, Neutral, and Acid Extractable Organic Compounds, 1994

Sampling Point . Unit . Location . Date Sampled	GW-156				GW-158			
	AQF				AQF			
	CRSDB				CRSDB			
	02/12/94	04/07/94	07/09/94	10/20/94	02/14/94	04/15/94	07/11/94	10/26/94
1,2,4-Trichlorobenzene	20U	10U	10U	12U	10U	10U	10U	10U
1,2-Dichlorobenzene	20U	10U	10U	12U	10U	10U	10U	10U
1,3-Dichlorobenzene	20U	10U	10U	12U	10U	10U	10U	10U
1,4-Dichlorobenzene	20U	10U	10U	12U	10U	10U	10U	10U
2,4,5-Trichlorophenol	100U	50U	25U	31U	50U	25U	25U	25U
2,4,6-Trichlorophenol	20U	10U	10U	12U	10U	10U	10U	10U
2,4-Dichlorophenol	20U	10U	10U	12U	10U	10U	10U	10U
2,4-Dimethylphenol	20U	10U	10U	12U	10U	10U	10U	10U
2,4-Dinitrophenol	100U	50U	25U	31U	50U	25U	25U	25U
2,4-Dinitrotoluene	20U	10U	10U	12U	10U	10U	10U	10U
2,6-Dinitrotoluene	20U	10U	10U	12U	10U	10U	10U	10U
2-Chloronaphthalene	20U	10U	10U	12U	10U	10U	10U	10U
2-Chlorophenol	20U	10U	10U	12U	10U	10U	10U	10U
2-Methylnaphthalene	20U	10U	10U	12U	10U	10U	10U	10U
2-Methylphenol	20U	10U	10U	12U	10U	10U	10U	10U
2-Nitroaniline	100U	50U	25U	31U	50U	25U	25U	25U
2-Nitrophenol	20U	10U	10U	12U	10U	10U	10U	10U
3,3-Dichlorobenzidine	40U	20U	10U	12U	20U	10U	10U	10U
3-Nitroaniline	100U	50U	25U	31U	50U	25U	25U	25U
4,6-Dinitro-2-methylphenol	100U	50U	25U	31U	50U	25U	25U	25U
4-Bromophenyl phenyl ether	20U	10U	10U	12U	10U	10U	10U	10U
4-Chloro-3-methylphenol	20U	10U	10U	12U	10U	10U	10U	10U
4-Chloroaniline	20U	10U	10U	12U	10U	10U	10U	10U
4-Chlorophenyl phenyl ether	20U	10U	10U	12U	10U	10U	10U	10U
4-Methylphenol	20U	10U	10U	12U	10U	10U	10U	10U
4-Nitroaniline	100U	50U	25U	31U	50U	25U	25U	25U
4-Nitrophenol	100U	50U	25U	31U	50U	25U	25U	25U
Acenaphthene	20U	10U	10U	12U	10U	10U	10U	10U
Acenaphthylene	20U	10U	10U	12U	10U	10U	10U	10U
Anthracene	20U	10U	10U	12U	10U	10U	10U	10U
Benzo(a)anthracene	20U	10U	10U	12U	10U	10U	10U	10U
Benzo(a)pyrene	20U	10U	10U	12U	10U	10U	10U	10U
Benzo(b)fluoranthene	20U	10U	10U	12U	10U	10U	10U	10U
Benzo(g,h,i)perylene	20U	10U	10U	12U	10U	10U	10U	10U
Benzo(k)fluoranthene	20U	10U	10U	12U	10U	10U	10U	10U

(CONTINUED)

Base, Neutral, and Acid Extractable Organic Compounds, 1994

Sampling Point . Unit . Location . Date Sampled	GW-156				GW-158			
	AQF				AQF			
	CRSDB				CRSDB			
	02/12/94	04/07/94	07/09/94	10/20/94	02/14/94	04/15/94	07/11/94	10/26/94
Benzoic acid	100U	50U	.	.	50U	.	.	.
Benzyl alcohol	20U	10U	10U	12U	10U	10U	10U	10U
bis(2-Chloroethoxy)methane	20U	10U	10U	12U	10U	10U	10U	10U
bis(2-Chloroethyl)ether	20U	10U	10U	12U	10U	10U	10U	10U
bis(2-Chloroisopropyl)ether	20U	10U	10U	12U	10U	10U	10U	10U
bis(2-Ethylhexyl)phthalate	20U	10U	10U	12U	10U	10U	10U	10U
Butyl benzyl phthalate	20U	10U	10U	12U	10U	10U	10U	10U
Carbazole	.	.	10U	12U	.	10U	10U	10U
Chrysene	20U	10U	10U	12U	10U	10U	10U	10U
di-n-Butylphthalate	17	10U	10U	2	12	2	10U	6
di-n-Octylphthalate	20U	10U	10U	12U	10U	10U	10U	10U
Dibenzo(a,h)anthracene	20U	10U	10U	12U	10U	10U	10U	10U
Dibenzofuran	20U	10U	10U	12U	10U	10U	10U	10U
Diethylphthalate	20U	10U	10U	12U	10U	10U	10U	10U
Dimethylphthalate	20U	10U	10U	12U	10U	10U	10U	10U
Fluoranthene	20U	10U	10U	12U	10U	10U	10U	10U
Fluorene	20U	10U	10U	12U	10U	10U	10U	10U
Hexachlorobenzene	20U	10U	10U	12U	10U	10U	10U	10U
Hexachlorobutadiene	20U	10U	10U	12U	10U	10U	10U	10U
Hexachlorocyclopentadiene	20U	10U	10U	12U	10U	10U	10U	10U
Hexachloroethane	20U	10U	10U	12U	10U	10U	10U	10U
Indeno(1,2,3-cd)pyrene	20U	10U	10U	12U	10U	10U	10U	10U
Isophorone	20U	10U	10U	12U	10U	10U	10U	10U
n-Nitrosodi-n-propylamine	20U	10U	10U	12U	10U	10U	10U	10U
n-Nitrosodiphenylamine	20U	10U	10U	12U	10U	10U	10U	10U
Naphthalene	20U	10U	10U	12U	10U	10U	10U	10U
Nitrobenzene	20U	10U	10U	12U	10U	10U	10U	10U
Pentachlorophenol	100U	50U	25U	31U	50U	25U	25U	25U
Phenanthrene	20U	10U	10U	12U	10U	10U	10U	10U
Phenol	20U	10U	10U	12U	10U	10U	10U	10U
Pyrene	20U	10U	10U	12U	10U	10U	10U	10U

(CONTINUED)

Base, Neutral, and Acid Extractable Organic Compounds, 1994

Sampling Point . Unit . Location . Date Sampled	GW-159				GW-184	GW-186	GW-187	GW-188
	AQF				AQT	AQT	AQT	AQT
	CRSDB				RQ	RQ	RQ	RQ
	02/10/94	04/04/94	07/08/94	10/17/94	01/11/94	01/27/94	01/12/94	01/11/94
1,2,4-Trichlorobenzene	20U	10U	10U	10U	10U	10U	10U	10U
1,2-Dichlorobenzene	20U	10U	10U	10U	10U	10U	10U	10U
1,3-Dichlorobenzene	20U	10U	10U	10U	10U	10U	10U	10U
1,4-Dichlorobenzene	20U	10U	10U	10U	10U	10U	10U	10U
2,4,5-Trichlorophenol	100U	50U	25U	25U	50U	50U	50U	50U
2,4,6-Trichlorophenol	20U	10U	10U	10U	10U	10U	10U	10U
2,4-Dichlorophenol	20U	10U	10U	10U	10U	10U	10U	10U
2,4-Dimethylphenol	20U	10U	10U	10U	10U	10U	10U	10U
2,4-Dinitrophenol	100U	50U	25U	25U	50U	50U	50U	50U
2,4-Dinitrotoluene	20U	10U	10U	10U	10U	10U	10U	10U
2,6-Dinitrotoluene	20U	10U	10U	10U	10U	10U	10U	10U
2-Chloronaphthalene	20U	10U	10U	10U	10U	10U	10U	10U
2-Chlorophenol	20U	10U	10U	10U	2	10U	10U	10U
2-Methylnaphthalene	20U	10U	10U	10U	10U	10U	10U	10U
2-Methylphenol	20U	10U	10U	10U	10U	10U	10U	10U
2-Nitroaniline	100U	50U	25U	25U	50U	50U	50U	50U
2-Nitrophenol	20U	10U	10U	10U	10U	10U	10U	10U
3,3-Dichlorobenzidine	40U	20U	10U	10U	20U	20U	20U	20U
3-Nitroaniline	100U	50U	25U	25U	50U	50U	50U	50U
4,6-Dinitro-2-methylphenol	100U	50U	25U	25U	50U	50U	50U	50U
4-Bromophenyl phenyl ether	20U	10U	10U	10U	10U	10U	10U	10U
4-Chloro-3-methylphenol	20U	10U	10U	10U	10U	10U	10U	10U
4-Chloroaniline	20U	10U	10U	10U	10U	10U	10U	10U
4-Chlorophenyl phenyl ether	20U	10U	10U	10U	10U	10U	10U	10U
4-Methylphenol	20U	10U	10U	10U	10U	10U	10U	10U
4-Nitroaniline	100U	50U	25U	25U	50U	50U	50U	50U
4-Nitrophenol	100U	50U	25U	25U	50U	50U	50U	50U
Acenaphthene	20U	10U	10U	10U	10U	10U	10U	10U
Acenaphthylene	20U	10U	10U	10U	10U	10U	10U	10U
Anthracene	20U	10U	10U	10U	10U	10U	10U	10U
Benzo(a)anthracene	20U	10U	10U	10U	10U	10U	10U	10U
Benzo(a)pyrene	20U	10U	10U	10U	10U	10U	10U	10U
Benzo(b)fluoranthene	20U	10U	10U	10U	10U	10U	10U	10U
Benzo(g,h,i)perylene	20U	10U	10U	10U	10U	10U	10U	10U
Benzo(k)fluoranthene	20U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

APPENDIX E.4

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Base, Neutral, and Acid Extractable Organic Compounds, 1994

Sampling Point	GW-159				GW-184	GW-186	GW-187	GW-188
Unit	AQF				AQT	AQT	AQT	AQT
Location	CRSDB				RQ	RQ	RQ	RQ
Date Sampled	02/10/94	04/04/94	07/08/94	10/17/94	01/11/94	01/27/94	01/12/94	01/11/94
Benzoic acid	100U	50U	.	.	50U	50U	50U	50U
Benzyl alcohol	20U	10U	10U	10U	10U	10U	10U	10U
bis(2-Chloroethoxy)methane	20U	10U	10U	10U	10U	10U	10U	10U
bis(2-Chloroethyl)ether	20U	10U	10U	10U	10U	10U	10U	10U
bis(2-Chloroisopropyl)ether	20U	10U	10U	10U	10U	10U	10U	10U
bis(2-Ethylhexyl)phthalate	20U	10U	10U	10U	1	2	10U	10U
Butyl benzyl phthalate	20U	10U	10U	10U	10U	10U	10U	10U
Carbazole	.	.	10U	10U	.	.	.	.
Chrysene	20U	10U	10U	10U	10U	10U	10U	10U
di-n-Butylphthalate	20U	10U	10U	10U	10U	15	10U	10U
di-n-Octylphthalate	20U	10U	10U	10U	10U	10U	10U	10U
Dibenzo(a,h)anthracene	20U	10U	10U	10U	10U	10U	10U	10U
Dibenzofuran	20U	10U	10U	10U	10U	10U	10U	10U
Diethylphthalate	20U	10U	10U	10U	10U	10U	10U	10U
Dimethylphthalate	20U	10U	10U	10U	10U	10U	10U	10U
Fluoranthene	20U	10U	10U	10U	10U	10U	10U	10U
Fluorene	20U	10U	10U	10U	10U	10U	10U	10U
Hexachlorobenzene	20U	10U	10U	10U	10U	10U	10U	10U
Hexachlorobutadiene	20U	10U	10U	10U	10U	10U	10U	10U
Hexachlorocyclopentadiene	20U	10U	10U	10U	10U	10U	10U	10U
Hexachloroethane	20U	10U	10U	10U	10U	10U	10U	10U
Indeno(1,2,3-cd)pyrene	20U	10U	10U	10U	10U	10U	10U	10U
Isophorone	20U	10U	10U	10U	10U	10U	10U	10U
n-Nitrosodi-n-propylamine	20U	10U	10U	10U	10U	10U	10U	10U
n-Nitrosodiphenylamine	20U	10U	10U	10U	10U	10U	10U	10U
Naphthalene	20U	10U	10U	10U	10U	10U	10U	10U
Nitrobenzene	20U	10U	10U	10U	10U	10U	10U	10U
Pentachlorophenol	100U	50U	25U	25U	50U	50U	50U	50U
Phenanthrene	20U	10U	10U	10U	10U	10U	10U	10U
Phenol	20U	10U	10U	10U	10U	10U	10U	10U
Pyrene	20U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

Base, Neutral, and Acid Extractable Organic Compounds, 1994

Sampling Point . Unit . Location . Date Sampled	GW-241				GW-303			
	AQF				AQF			
	CRSDB				CRSDB			
	02/15/94	04/12/94	07/25/94	10/23/94	02/14/94	04/11/94	07/24/94	10/23/94
1,2,4-Trichlorobenzene	10U	10U	13U	10U	10U	10U	13U	10U
1,2-Dichlorobenzene	10U	10U	13U	10U	10U	10U	13U	10U
1,3-Dichlorobenzene	10U	10U	13U	10U	10U	10U	13U	10U
1,4-Dichlorobenzene	10U	10U	13U	10U	10U	10U	13U	10U
2,4,5-Trichlorophenol	50U	50U	33U	25U	50U	25U	33U	25U
2,4,6-Trichlorophenol	10U	10U	13U	10U	10U	10U	13U	10U
2,4-Dichlorophenol	10U	10U	13U	10U	10U	10U	13U	10U
2,4-Dimethylphenol	10U	10U	13U	10U	10U	10U	13U	10U
2,4-Dinitrophenol	50U	50U	33U	25U	50U	25U	33U	25U
2,4-Dinitrotoluene	10U	10U	13U	10U	10U	10U	13U	10U
2,6-Dinitrotoluene	10U	10U	13U	10U	10U	10U	13U	10U
2-Chloronaphthalene	10U	10U	13U	10U	10U	10U	13U	10U
2-Chlorophenol	10U	10U	13U	10U	10U	10U	13U	10U
2-Methylnaphthalene	10U	10U	13U	10U	10U	10U	13U	10U
2-Methylphenol	10U	10U	13U	10U	10U	10U	13U	10U
2-Nitroaniline	50U	50U	33U	25U	50U	25U	33U	25U
2-Nitrophenol	10U	10U	13U	10U	10U	10U	13U	10U
3,3-Dichlorobenzidine	20U	20U	13U	10U	20U	10U	13U	10U
3-Nitroaniline	50U	50U	33U	25U	50U	25U	33U	25U
4,6-Dinitro-2-methylphenol	50U	50U	33U	25U	50U	25U	33U	25U
4-Bromophenyl phenyl ether	10U	10U	13U	10U	10U	10U	13U	10U
4-Chloro-3-methylphenol	10U	10U	13U	10U	10U	10U	13U	10U
4-Chloroaniline	10U	10U	13U	10U	10U	10U	13U	10U
4-Chlorophenyl phenyl ether	10U	10U	13U	10U	10U	10U	13U	10U
4-Methylphenol	10U	10U	13U	10U	10U	10U	13U	10U
4-Nitroaniline	50U	50U	33U	25U	50U	25U	33U	25U
4-Nitrophenol	50U	50U	33U	25U	50U	25U	33U	25U
Acenaphthene	10U	10U	13U	10U	10U	10U	13U	10U
Acenaphthylene	10U	10U	13U	10U	10U	10U	13U	10U
Anthracene	10U	10U	13U	10U	10U	10U	13U	10U
Benzo(a)anthracene	10U	10U	13U	10U	10U	10U	13U	10U
Benzo(a)pyrene	10U	10U	13U	10U	10U	10U	13U	10U
Benzo(b)fluoranthene	10U	10U	13U	10U	10U	10U	13U	10U
Benzo(g,h,i)perylene	10U	10U	13U	10U	10U	10U	13U	10U
Benzo(k)fluoranthene	10U	10U	13U	10U	10U	10U	13U	10U

(CONTINUED)

APPENDIX E.4

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Base, Neutral, and Acid Extractable Organic Compounds, 1994

Sampling Point . Unit . Location . Date Sampled	GW-241				GW-303			
	AQF				AQF			
	CRSDB				CRSDB			
	02/15/94	04/12/94	07/25/94	10/23/94	02/14/94	04/11/94	07/24/94	10/23/94
Benzoic acid	50U	50U	.	.	50U	.	.	.
Benzyl alcohol	10U	10U	13U	10U	10U	10U	13U	10U
bis(2-Chloroethoxy)methane	10U	10U	13U	10U	10U	10U	13U	10U
bis(2-Chloroethyl)ether	10U	10U	13U	10U	10U	10U	13U	10U
bis(2-Chloroisopropyl)ether	10U	10U	13U	10U	10U	10U	13U	10U
bis(2-Ethylhexyl)phthalate	10U	10U	13U	10U	10U	10U	13U	10U
Butyl benzyl phthalate	10U	10U	13U	10U	10U	10U	13U	10U
Carbazole	.	.	13U	10U	.	10U	13U	10U
Chrysene	10U	10U	13U	10U	10U	10U	13U	10U
di-n-Butylphthalate	5	10U	2	1	10U	10U	4	2
di-n-Octylphthalate	10U	10U	13U	10U	10U	10U	13U	10U
Dibenzo(a,h)anthracene	10U	10U	13U	10U	10U	10U	13U	10U
Dibenzofuran	10U	10U	13U	10U	10U	10U	13U	10U
Diethylphthalate	10U	10U	13U	10U	10U	10U	13U	10U
Dimethylphthalate	10U	10U	13U	10U	10U	10U	13U	10U
Fluoranthene	10U	10U	13U	10U	10U	10U	13U	10U
Fluorene	10U	10U	13U	10U	10U	10U	13U	10U
Hexachlorobenzene	10U	10U	13U	10U	10U	10U	13U	10U
Hexachlorobutadiene	10U	10U	13U	10U	10U	10U	13U	10U
Hexachlorocyclopentadiene	10U	10U	13U	10U	10U	10U	13U	10U
Hexachloroethane	10U	10U	13U	10U	10U	10U	13U	10U
Indeno(1,2,3-cd)pyrene	10U	10U	13U	10U	10U	10U	13U	10U
Isophorone	10U	10U	13U	10U	10U	10U	13U	10U
n-Nitrosodi-n-propylamine	10U	10U	13U	10U	10U	10U	13U	10U
n-Nitrosodiphenylamine	10U	10U	13U	10U	10U	10U	13U	10U
Naphthalene	10U	10U	13U	10U	10U	10U	13U	10U
Nitrobenzene	10U	10U	13U	10U	10U	10U	13U	10U
Pentachlorophenol	50U	50U	33U	25U	50U	25U	33U	25U
Phenanthrene	10U	10U	13U	10U	10U	10U	13U	10U
Phenol	10U	10U	13U	10U	10U	10U	13U	10U
Pyrene	10U	10U	13U	10U	10U	10U	13U	10U

(CONTINUED)

Base, Neutral, and Acid Extractable Organic Compounds, 1994

Sampling Point . Unit . Location . Date Sampled	GW-304				GW-731			
	AQF				AQF			
	CRSDB				CRSDB			
	03/11/94	04/04/94	07/08/94	10/18/94	02/11/94	04/04/94	07/09/94	10/18/94
1,2,4-Trichlorobenzene	20U	10U	10U	10U	20U	10U	10U	10U
1,2-Dichlorobenzene	20U	10U	10U	10U	20U	10U	10U	10U
1,3-Dichlorobenzene	20U	10U	10U	10U	20U	10U	10U	10U
1,4-Dichlorobenzene	20U	10U	10U	10U	20U	10U	10U	10U
2,4,5-Trichlorophenol	100U	50U	25U	25U	100U	50U	25U	25U
2,4,6-Trichlorophenol	20U	10U	10U	10U	20U	10U	10U	10U
2,4-Dichlorophenol	20U	10U	10U	10U	20U	10U	10U	10U
2,4-Dimethylphenol	20U	10U	10U	10U	20U	10U	10U	10U
2,4-Dinitrophenol	100U	50U	25U	25U	100U	50U	25U	25U
2,4-Dinitrotoluene	20U	10U	10U	10U	20U	10U	10U	10U
2,6-Dinitrotoluene	20U	10U	10U	10U	20U	10U	10U	10U
2-Chloronaphthalene	20U	10U	10U	10U	20U	10U	10U	10U
2-Chlorophenol	20U	10U	10U	10U	20U	10U	10U	10U
2-Methylnaphthalene	20U	10U	10U	10U	20U	10U	10U	10U
2-Methylphenol	20U	10U	10U	10U	20U	10U	10U	10U
2-Nitroaniline	100U	50U	25U	25U	100U	50U	25U	25U
2-Nitrophenol	20U	10U	10U	10U	20U	10U	10U	10U
3,3-Dichlorobenzidine	40U	20U	10U	10U	40U	20U	10U	10U
3-Nitroaniline	100U	50U	25U	25U	100U	50U	25U	25U
4,6-Dinitro-2-methylphenol	100U	50U	25U	25U	100U	50U	25U	25U
4-Bromophenyl phenyl ether	20U	10U	10U	10U	20U	10U	10U	10U
4-Chloro-3-methylphenol	20U	10U	10U	10U	20U	10U	10U	10U
4-Chloroaniline	20U	10U	10U	10U	20U	10U	10U	10U
4-Chlorophenyl phenyl ether	20U	10U	10U	10U	20U	10U	10U	10U
4-Methylphenol	20U	10U	10U	10U	20U	10U	10U	10U
4-Nitroaniline	100U	50U	25U	25U	100U	50U	25U	25U
4-Nitrophenol	100U	50U	25U	25U	100U	50U	25U	25U
Acenaphthene	20U	10U	10U	10U	20U	10U	10U	10U
Acenaphthylene	20U	10U	10U	10U	20U	10U	10U	10U
Anthracene	20U	10U	10U	10U	20U	10U	10U	10U
Benzo(a)anthracene	20U	10U	10U	10U	20U	10U	10U	10U
Benzo(a)pyrene	20U	10U	10U	10U	20U	10U	10U	10U
Benzo(b)fluoranthene	20U	10U	10U	10U	20U	10U	10U	10U
Benzo(g,h,i)perylene	20U	10U	10U	10U	20U	10U	10U	10U
Benzo(k)fluoranthene	20U	10U	10U	10U	20U	10U	10U	10U

(CONTINUED)

Base, Neutral, and Acid Extractable Organic Compounds, 1994

Sampling Point . Unit . Location . Date Sampled	GW-304				GW-731			
	AQF				AQF			
	CRSDB				CRSDB			
	03/11/94	04/04/94	07/08/94	10/18/94	02/11/94	04/04/94	07/09/94	10/18/94
Benzoic acid	100U	50U	.	.	100U	50U	.	.
Benzyl alcohol	20U	10U	10U	10U	20U	10U	10U	10U
bis(2-Chloroethoxy)methane	20U	10U	10U	10U	20U	10U	10U	10U
bis(2-Chloroethyl)ether	20U	10U	10U	10U	20U	10U	10U	10U
bis(2-Chloroisopropyl)ether	20U	10U	10U	10U	20U	10U	10U	10U
bis(2-Ethylhexyl)phthalate	20U	10U	10U	10U	20U	10U	10U	10U
Butyl benzyl phthalate	20U	10U	10U	10U	20U	10U	10U	10U
Carbazole	.	.	10U	10U	.	.	10U	10U
Chrysene	20U	10U	10U	10U	20U	10U	10U	10U
di-n-Butylphthalate	20U	10U	10U	10U	18	10U	10U	10U
di-n-Octylphthalate	20U	10U	10U	10U	20U	10U	10U	10U
Dibenzo(a,h)anthracene	20U	10U	10U	10U	20U	10U	10U	10U
Dibenzofuran	20U	10U	10U	10U	20U	10U	10U	10U
Diethylphthalate	20U	10U	10U	10U	20U	10U	10U	10U
Dimethylphthalate	20U	10U	10U	10U	20U	10U	10U	10U
Fluoranthene	20U	10U	10U	10U	20U	10U	10U	10U
Fluorene	20U	10U	10U	10U	20U	10U	10U	10U
Hexachlorobenzene	20U	10U	10U	10U	20U	10U	10U	10U
Hexachlorobutadiene	20U	10U	10U	10U	20U	10U	10U	10U
Hexachlorocyclopentadiene	20U	10U	10U	10U	20U	10U	10U	10U
Hexachloroethane	20U	10U	10U	10U	20U	10U	10U	10U
Indeno(1,2,3-cd)pyrene	20U	10U	10U	10U	20U	10U	10U	10U
Isophorone	20U	10U	10U	10U	20U	10U	10U	10U
n-Nitrosodi-n-propylamine	20U	10U	10U	10U	20U	10U	10U	10U
n-Nitrosodiphenylamine	20U	10U	10U	10U	20U	10U	10U	10U
Naphthalene	20U	10U	10U	10U	20U	10U	10U	10U
Nitrobenzene	20U	10U	10U	10U	20U	10U	10U	10U
Pentachlorophenol	100U	50U	25U	25U	100U	50U	25U	25U
Phenanthrene	20U	10U	10U	10U	20U	10U	10U	10U
Phenol	20U	10U	10U	10U	20U	10U	10U	10U
Pyrene	20U	10U	10U	10U	20U	10U	10U	10U

(CONTINUED)

Base, Neutral, and Acid Extractable Organic Compounds, 1994

Sampling Point . Unit . Location . Date Sampled	GW-732			
	AQF			
	CRSDB			
	02/12/94	04/06/94	07/09/94	10/19/94
1,2,4-Trichlorobenzene	20U	10U	10U	10U
1,2-Dichlorobenzene	20U	10U	10U	10U
1,3-Dichlorobenzene	20U	10U	10U	10U
1,4-Dichlorobenzene	20U	10U	10U	10U
2,4,5-Trichlorophenol	100U	50U	25U	25U
2,4,6-Trichlorophenol	20U	10U	10U	10U
2,4-Dichlorophenol	20U	10U	10U	10U
2,4-Dimethylphenol	20U	10U	10U	10U
2,4-Dinitrophenol	100U	50U	25U	25U
2,4-Dinitrotoluene	20U	10U	10U	10U
2,6-Dinitrotoluene	20U	10U	10U	10U
2-Chloronaphthalene	20U	10U	10U	10U
2-Chlorophenol	20U	10U	10U	10U
2-Methylnaphthalene	20U	10U	10U	10U
2-Methylphenol	20U	10U	10U	10U
2-Nitroaniline	100U	50U	25U	25U
2-Nitrophenol	20U	10U	10U	10U
3,3-Dichlorobenzidine	40U	20U	10U	10U
3-Nitroaniline	100U	50U	25U	25U
4,6-Dinitro-2-methylphenol	100U	50U	25U	25U
4-Bromophenyl phenyl ether	20U	10U	10U	10U
4-Chloro-3-methylphenol	20U	10U	10U	10U
4-Chloroaniline	20U	10U	10U	10U
4-Chlorophenyl phenyl ether	20U	10U	10U	10U
4-Methylphenol	20U	10U	10U	10U
4-Nitroaniline	100U	50U	25U	25U
4-Nitrophenol	100U	50U	25U	25U
Acenaphthene	20U	10U	10U	10U
Acenaphthylene	20U	10U	10U	10U
Anthracene	20U	10U	10U	10U
Benzo(a)anthracene	20U	10U	10U	10U
Benzo(a)pyrene	20U	10U	10U	10U
Benzo(b)fluoranthene	20U	10U	10U	10U
Benzo(g,h,i)perylene	20U	10U	10U	10U
Benzo(k)fluoranthene	20U	10U	10U	10U

(CONTINUED)

Base, Neutral, and Acid Extractable Organic Compounds, 1994

Sampling Point . Unit . Location . Date Sampled	GW-732			
	AQF			
	CRSDB			
	02/12/94	04/06/94	07/09/94	10/19/94
Benzoic acid	100U	50U	.	.
Benzyl alcohol	20U	10U	10U	10U
bis(2-Chloroethoxy)methane	20U	10U	10U	10U
bis(2-Chloroethyl)ether	20U	10U	10U	10U
bis(2-Chloroisopropyl)ether	20U	10U	10U	10U
bis(2-Ethylhexyl)phthalate	20U	10U	10U	10U
Butyl benzyl phthalate	20U	10U	10U	10U
Carbazole	.	.	10U	10U
Chrysene	20U	10U	10U	10U
di-n-Butylphthalate	20U	10U	10U	10U
di-n-Octylphthalate	20U	10U	10U	10U
Dibenzo(a,h)anthracene	20U	10U	10U	10U
Dibenzofuran	20U	10U	10U	10U
Diethylphthalate	20U	10U	10U	10U
Dimethylphthalate	20U	10U	10U	10U
Fluoranthene	20U	10U	10U	10U
Fluorene	20U	10U	10U	10U
Hexachlorobenzene	20U	10U	10U	10U
Hexachlorobutadiene	20U	10U	10U	10U
Hexachlorocyclopentadiene	20U	10U	10U	10U
Hexachloroethane	20U	10U	10U	10U
Indeno(1,2,3-cd)pyrene	20U	10U	10U	10U
Isophorone	20U	10U	10U	10U
n-Nitrosodi-n-propylamine	20U	10U	10U	10U
n-Nitrosodiphenylamine	20U	10U	10U	10U
Naphthalene	20U	10U	10U	10U
Nitrobenzene	20U	10U	10U	10U
Pentachlorophenol	100U	50U	25U	25U
Phenanthrene	20U	10U	10U	10U
Phenol	20U	10U	10U	10U
Pyrene	20U	10U	10U	10U

APPENDIX E.5

**FIELD, MISCELLANEOUS, AND
GROSS ALPHA AND GROSS BETA ACTIVITIES**

APPENDIX E.5

1

Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point . Unit . Location . Date Sampled	1090				GW-141			
	AQF				AQF			
	UNCS				LIV			
	01/11/94	04/12/94	07/28/94	10/16/94	01/06/94	04/04/94	07/06/94	10/04/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	46.15	27.52	53.82	58.4	92.27	90.7	95.25	97.18
Water Temp (degrees C)	13.6	16	17.7	15	12.4	15	16.6	16
pH (pH units)	7.3	7.2	7.2	7.3	6.9	7.4	7.3	7.5
Sp. Cond. (umho/cm)	517	507	570	516	408	444	415	433
Dissolved Oxygen (ppm)	0.9	1.4	1.2	1.7	6.7	6.3	6.4	7.6
Oxidation/Reduction (mV)	215	159	71	163	210	191	146	150
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	.	<5	<5	<5	<5
Cyanide (mg/L)	.	.	.	.	<0.1	<0.1	<0.1	<0.1
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	7.8	7.5	7.4	7.4	7.5	7.5	7.3	7.4
pH, 2 (pH units)	.	.	.	.	.	.	.	.
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	535	568	548	532	433	422	430	428
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	.	.	.	.	<1	1	1.2	<1
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	.	.	.	.	<10	<10	<10	<10
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	296	298	342	290	258	268	270	252
TSS (mg/L)	3	<1	<1	<1	12	19	7	15
Turbidity (NTU)	3	0.8	0.7	0.4	24	22	10	26
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	0.19	1.84	1.30	2.55	0.00	1.34	0.85	2.78
Gross Alpha (CE+/-)	1.40	1.60	1.70	3.40	1.80	1.50	1.10	1.10
Gross Beta (pCi/L)	-4.07	-0.17	2.34	9.22	1.21	-0.98	2.18	3.42
Gross Beta (CE+/-)	2.90	2.60	2.60	5.40	2.70	2.40	2.40	1.80

(CONTINUED)

APPENDIX E.5

2

Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point . Unit . Location . Date Sampled	GW-142				GW-143			
	AQF				AQF			
	KHQ				KHQ			
	02/16/94	04/12/94	07/21/94	10/22/94	03/03/94	04/18/94	07/24/94	10/24/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	130.7	131.35	134.8	131.4	76.72	76.2	78.85	79.55
Water Temp (degrees C)	15.5	15.6	16.6	14.8	13.5	16.5	16.1	16.3
pH (pH units)	7.1	7.9	7.9	7.7	7.8	7.8	7.9	7.8
Sp. Cond. (umho/cm)	478	410	432	408	429	503	473	437
Dissolved Oxygen (ppm)	3.6	2.8	5.6	2.2	1.9	1.9	2.3	7.3
Oxidation/Reduction (mV)	181	104	-114	-25	-20	80	51	13
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	.	.	.	.	.
Cyanide (mg/L)	.	.	.	.	.	.	.	.
Phenols (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
pH (pH units)	7.9	7.8	7.9	7.7	8.1	7.9	7.9	7.7
pH, 2 (pH units)	7.9	7.8	7.9	7.7	8.1	7.9	7.9	7.8
pH, 3 (pH units)	7.9	7.8	7.9	7.7	8.1	7.9	7.9	7.8
pH, 4 (pH units)	7.9	7.8	7.9	7.6	8.1	7.9	7.9	7.7
Sp. Cond. (umho/cm)	439	449	421	426	554	473	479	473
Sp. Cond., 2 (umho/cm)	440	448	421	429	554	463	470	475
Sp. Cond., 3 (umho/cm)	438	448	421	429	555	462	478	478
Sp. Cond., 4 (umho/cm)	438	449	423	429	557	471	480	478
TOC (mg/L)	<1	1	1.4	2	<1	<1	2.3	1.4
TOC, 2 (mg/L)	<1	<1	1.6	2.4	<1	1	2.3	2
TOC, 3 (mg/L)	1	1	<1	2	<1	<1	<1	1.7
TOC, 4 (mg/L)	<1	<1	3.3	1.8	8	<1	1	1.1
TOX (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TOX, 2 (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TOX, 3 (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TOX, 4 (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	244	230	240	234	280	284	282	268
TSS (mg/L)	3	18	4	4	2	3	<1	<1
Turbidity (NTU)	16	31	21	39	6.3	18	5	3.6
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	14.70	3.29	1.53	2.03	1.40	3.54	0.92	12.00
Gross Alpha (CE+/-)	3.40	1.60	1.80	1.60	2.20	1.80	1.90	3.50
Gross Beta (pCi/L)	-6.79	4.59	7.00	4.72	19.40	16.60	13.40	33.40
Gross Beta (CE+/-)	4.30	2.90	2.70	2.50	4.00	3.60	3.30	5.30

(CONTINUED)

Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point . Unit . Location . Date Sampled	GW-144				GW-145			
	AQF				AQF			
	KHQ				KHQ			
	03/10/94	04/19/94	07/26/94	10/25/94	03/11/94	04/20/94	07/26/94	10/26/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	77.45	77.2	79.6	79.95	2.65	2.15	4.95	5.62
Water Temp (degrees C)	13	16.6	15.6	15.1	14.1	17.2	16.2	15.2
pH (pH units)	7.9	7.8	7.7	7.6	7	7.9	7.7	7.8
Sp. Cond. (umho/cm)	284	352	275	272	483	518	495	504
Dissolved Oxygen (ppm)	6.5	5.5	4.7	6.5	8.3	11	8.5	12.2
Oxidation/Reduction (mV)	246	228	201	97	169	216	174	122
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	.	.	.	.	.
Cyanide (mg/L)	.	.	.	.	.	.	.	.
Phenols (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
pH (pH units)	8.2	7.8	7.9	7.8	8.3	8	8.1	8.1
pH, 2 (pH units)	8.2	7.8	7.9	7.8	8.3	8	8	8.1
pH, 3 (pH units)	8.2	7.8	7.9	7.8	8.3	8	8	8.1
pH, 4 (pH units)	8.2	7.8	7.9	7.9	8.3	8	8	8.1
Sp. Cond. (umho/cm)	307	353	280	301	512	513	506	524
Sp. Cond., 2 (umho/cm)	308	353	282	303	515	510	498	521
Sp. Cond., 3 (umho/cm)	308	353	278	303	514	516	504	526
Sp. Cond., 4 (umho/cm)	309	354	280	304	515	513	498	524
TOC (mg/L)	1	2	1	<1	<1	6	4.4	5.4
TOC, 2 (mg/L)	<1	2	1.6	<1	3	7	5.2	1.7
TOC, 3 (mg/L)	<1	2	<1	<1	1	4	3.9	3.5
TOC, 4 (mg/L)	<1	2	1.2	<1	<1	5	1.2	5.4
TOX (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TOX, 2 (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TOX, 3 (ug/L)	<10	<10	<10	<10	10.4	<10	<10	<10
TOX, 4 (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	192	190	166	174	292	302	298	278
TSS (mg/L)	1	<1	6	<1	10	11	293	24
Turbidity (NTU)	0.6	0.7	1	0.1	18	28	22	20
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	3.75	2.60	1.54	8.43	9.46	11.70	10.10	15.50
Gross Alpha (CE+/-)	2.10	1.50	1.90	2.80	3.60	3.20	3.70	4.00
Gross Beta (pCi/L)	2.44	2.97	2.11	7.49	17.60	14.30	15.50	23.50
Gross Beta (CE+/-)	2.50	2.40	2.40	3.10	3.80	3.40	3.50	4.40

(CONTINUED)

APPENDIX E.5

4

Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point . Unit . Location . Date Sampled	GW-146				GW-147			
	AQF				AQF			
	KHQ				KHQ			
	03/03/94	04/18/94	07/25/94	10/28/94	02/28/94	04/13/94	07/22/94	10/23/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	102.95	138.2	82.5	90.36	13.32	12.31	16.25	16
Water Temp (degrees C)	14.9	14	17.5	13.7	14.5	17.8	16.1	13.7
pH (pH units)	8	8.3	8.1	7.8	8.4	8.3	8.1	7.6
Sp. Cond. (umho/cm)	551	581	574	516	291	290	308	377
Dissolved Oxygen (ppm)	4.3	9.5	6.1	11.4	8.4	8.9	9.8	5.8
Oxidation/Reduction (mV)	-120	136	191	152	77	200	149	221
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	.	.	.	.	.
Cyanide (mg/L)	.	.	.	.	.	.	.	.
Phenols (mg/L)	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
pH (pH units)	7.9	7.9	8	7.9	8.2	7.9	8.1	7.9
pH, 2 (pH units)	7.9	7.9	8	7.9	8.2	7.9	8.1	7.9
pH, 3 (pH units)	8	7.9	8	7.9	8.2	7.9	8.1	7.9
pH, 4 (pH units)	8	7.9	8	8	8.2	7.9	8.1	7.9
Sp. Cond. (umho/cm)	480	541	531	550	332	313	281	336
Sp. Cond., 2 (umho/cm)	479	542	534	549	333	309	285	338
Sp. Cond., 3 (umho/cm)	478	541	534	547	332	309	283	336
Sp. Cond., 4 (umho/cm)	479	542	534	548	333	317	282	337
TOC (mg/L)	<1	<1	2.4	<1	<1	<1	1.1	1.9
TOC, 2 (mg/L)	<1	<1	<1	<1	<1	1	2	2.2
TOC, 3 (mg/L)	1	<1	2.1	<1	<1	1	2.1	2.2
TOC, 4 (mg/L)	<1	<1	<1	<1	<1	1	1.2	2
TOX (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TOX, 2 (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TOX, 3 (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TOX, 4 (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	326	338	300	316	192	164	168	182
TSS (mg/L)	3	4	69	4	3	<1	6	6
Turbidity (NTU)	5.7	2.6	25	1.6	2.9	2.3	13	5.4
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	2.68	4.50	6.33	7.33	1.19	3.31	1.63	2.14
Gross Alpha (CE+/-)	2.40	2.10	2.90	2.80	1.90	1.60	1.80	1.60
Gross Beta (pCi/L)	20.00	19.10	28.80	20.10	5.36	3.36	9.12	4.11
Gross Beta (CE+/-)	4.00	3.80	4.70	4.10	2.70	2.80	2.90	2.50

(CONTINUED)

Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point . Unit . Location . Date Sampled	GW-156				GW-158			
	AQF				AQF			
	CRSDB				CRSDB			
	02/12/94	04/07/94	07/09/94	10/20/94	02/14/94	04/15/94	07/11/94	10/26/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	121.75	133.35	143.2	143.54	44.75	37.8	45.25	48.34
Water Temp (degrees C)	12.7	10	17	15.1	14.1	16	16.5	16
pH (pH units)	7.3	7.3	7.2	7.6	7.6	8.8	7.3	7.6
Sp. Cond. (umho/cm)	614	586	600	643	302	324	369	400
Dissolved Oxygen (ppm)	6.6	7.1	6.9	9.8	2	0.5	6.3	3.3
Oxidation/Reduction (mV)	223	204	192	202	110	-40	199	50
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	.	.	.	.	.
Cyanide (mg/L)	.	.	.	.	.	.	.	.
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	7.6	7.5	7.4	7.5	8	7.8	7.6	7.5
pH, 2 (pH units)	7.6	7.4	7.4	7.5	8	7.9	7.6	7.8
pH, 3 (pH units)	7.6	7.5	7.4	7.5	8	7.9	7.6	7.7
pH, 4 (pH units)	7.5	7.5	7.4	7.5	8	7.9	7.7	7.8
Sp. Cond. (umho/cm)	628	689	628	625	343	349	314	341
Sp. Cond., 2 (umho/cm)	626	688	623	639	343	348	316	334
Sp. Cond., 3 (umho/cm)	629	688	627	640	343	348	317	337
Sp. Cond., 4 (umho/cm)	629	688	635	639	344	349	317	334
TOC (mg/L)	<1	<1	2.9	2.8	<1	<1	<1	1.2
TOC, 2 (mg/L)	7	2	2.5	1.8	<1	4	1.5	<1
TOC, 3 (mg/L)	2	<1	2.8	3.2	6	1	1.2	<1
TOC, 4 (mg/L)	15	1	1.9	1.8	<1	<1	2.3	<1
TOX (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TOX, 2 (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TOX, 3 (ug/L)	<10	<10	19.96	<10	<10	<10	<10	<10
TOX, 4 (ug/L)	<10	<10	11.32	<10	<10	<10	<10	<10
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	366	400	366	364	156	188	190	168
TSS (mg/L)	13	3	2	34	2	3	<1	<1
Turbidity (NTU)	2	5	3	46	3.8	16	4.1	3.5
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	2.96	3.59	4.27	3.13	3.80	3.17	1.48	9.55
Gross Alpha (CE+/-)	2.10	2.60	2.10	1.90	2.10	1.60	1.20	3.00
Gross Beta (pCi/L)	-16.10	13.70	10.80	4.47	-16.70	0.38	1.49	9.69
Gross Beta (CE+/-)	4.00	3.70	3.10	2.80	3.90	2.60	2.30	3.20

(CONTINUED)

APPENDIX E.5

6

Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point . Unit . Location . Date Sampled	GW-159					GW-160		GW-161
	AQF					AQF		AQF
	CRSDB					CRBAWP		CRBAWP
	02/10/94	04/04/94	04/05/94	07/08/94	10/17/94	02/12/94	07/20/94	02/11/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	116.3	116.2	139	117.4	118.6	117.8	146.55	157.7
Water Temp (degrees C)	11.5	11.5	.	16	15.4	13.4	16.1	13.1
pH (pH units)	7.6	7.8	.	7.6	7.9	7.1	7.2	7.5
Sp. Cond. (umho/cm)	341	326	.	353	359	350	450	372
Dissolved Oxygen (ppm)	8.2	11.4	.	5.6	4.2	8.3	6.4	3.9
Oxidation/Reduction (mV)	190	153	.	176	156	286	80	228
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	.	.	<5	<5	<5
Cyanide (mg/L)	.	.	.	.	.	<0.1	<0.1	<0.1
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	8	8	.	7.9	7.8	7.8	7.6	8
pH, 2 (pH units)	8	8	.	7.9	7.8	.	.	.
pH, 3 (pH units)	8	8	.	7.9	7.7	.	.	.
pH, 4 (pH units)	8	8	.	7.9	7.8	.	.	.
Sp. Cond. (umho/cm)	360	384	.	348	355	354	416	370
Sp. Cond., 2 (umho/cm)	365	384	.	342	357	.	.	.
Sp. Cond., 3 (umho/cm)	359	384	.	340	355	.	.	.
Sp. Cond., 4 (umho/cm)	369	386	.	352	354	.	.	.
TOC (mg/L)	2	1	.	<1	<1	7	<1	.
TOC, 2 (mg/L)	2	1	.	3.3	<1	.	.	.
TOC, 3 (mg/L)	8	2	.	2.4	<1	.	.	.
TOC, 4 (mg/L)	2	2	.	1.8	1	.	.	.
TOX (ug/L)	<10	.	<10	<10	<10	<10	<10	<10
TOX, 2 (ug/L)	<10	.	<10	<10	<10	.	.	.
TOX, 3 (ug/L)	<10	.	<10	<10	<10	.	.	.
TOX, 4 (ug/L)	<10	.	<10	<10	<10	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	204	220	.	204	198	282	354	202
TSS (mg/L)	20	4	.	2	2	82	238	<1
Turbidity (NTU)	5.4	5.5	.	1.6	1.6	230	260	3
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	1.23	1.63	.	1.98	0.99	2.06	6.62	1.18
Gross Alpha (CE+/-)	1.70	1.50	.	1.30	1.30	1.50	5.50	1.20
Gross Beta (pCi/L)	-19.00	0.64	.	5.93	1.84	3.49	7.43	4.79
Gross Beta (CE+/-)	3.80	2.50	.	2.60	2.60	2.50	5.80	2.60

(CONTINUED)

APPENDIX E.5

7

Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point	GW-161	GW-175				GW-177		
Unit	AQF	AQF				AQF		
Location	CRBAWP	CRSP				CRSP		
Date Sampled	07/18/94	02/23/94	05/20/94	08/13/94	12/01/94	02/28/94	06/29/94	08/13/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	160.6	105.1	115.75	122.2	125.3	116.95	109.25	118.2
Water Temp (degrees C)	16.1	15.4	14.5	16.3	12.9	14.6	17.3	17.7
pH (pH units)	7.5	7.9	7.5	7.7	8	7.6	7.6	7.6
Sp. Cond. (umho/cm)	371	395	388	408	386	404	366	397
Dissolved Oxygen (ppm)	3.3	9.6	9.5	4.5	9	4.6	5.4	9.6
Oxidation/Reduction (mV)	132	167	183	209	118	170	55	145
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	6	.	.	.	.	.	.	.
Cyanide (mg/L)	<0.1	.	.	.	.	.	.	.
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	7.7	8	7.8	7.9	7.7	7.8	7.6	8
pH, 2 (pH units)	.	.	.	.	.	.	.	.
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	372	382	438	394	398	404	386	406
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	<1	.	.	.	.	.	.	.
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	<10	.	.	.	.	.	.	.
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	214	198	238	286	224	236	198	260
TSS (mg/L)	1	7	<1	<1	2	<1	5	1
Turbidity (NTU)	6.5	2.2	1.5	1.4	1.5	2.7	16	4
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	0.00	0.00	1.55	1.17	1.37	0.89	3.38	3.04
Gross Alpha (CE+/-)	1.50	2.00	1.30	1.30	2.10	2.00	1.80	1.80
Gross Beta (pCi/L)	1.98	-3.31	0.41	1.78	1.82	5.71	3.14	3.30
Gross Beta (CE+/-)	2.50	2.50	2.40	2.60	2.80	2.80	2.50	2.70

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8

Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point	GW-177	GW-181				GW-184	GW-186	GW-187
Unit	AQF	AQF				AQT	AQT	AQT
Location	CRSP	CRSP				RQ	RQ	RQ
Date Sampled	11/30/94	02/16/94	04/22/94	07/31/94	11/14/94	01/11/94	01/27/94	01/12/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	119.5	87.74	60	101.55	111.7	109.19	13.6	15.55
Water Temp (degrees C)	14.9	13.9	14.5	17.4	17.9	12.7	13.6	14.9
pH (pH units)	8	7.2	7.7	7.8	7.8	7.4	7.1	7.7
Sp. Cond. (umho/cm)	416	309	255	299	320	361	845	850
Dissolved Oxygen (ppm)	9.1	6.3	7.8	6.5	7	9.2	7.6	2
Oxidation/Reduction (mV)	170	136	249	112	140	140	103	-251
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	.	.	.	.	.
Cyanide (mg/L)	.	.	.	.	.	.	.	.
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	7.8	8	7.7	7.8	7.8	8	7.5	7.9
pH, 2 (pH units)	.	.	.	.	.	.	.	.
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	424	307	276	293	314	479	883	968
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	.	.	.	.	.	.	.	.
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	.	.	.	.	.	.	.	.
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	230	160	150	202	166	250	514	564
TSS (mg/L)	4	1	<1	<1	1	<1	2	<1
Turbidity (NTU)	8.8	3	5	2.7	1.4	1.5	3.5	29
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	2.47	-0.60	1.19	0.89	2.55	-0.73	-2.69	-0.68
Gross Alpha (CE+/-)	2.30	1.80	1.00	1.80	1.40	1.20	2.50	1.60
Gross Beta (pCi/L)	3.56	-0.08	0.23	1.32	2.46	-0.40	1.25	-2.35
Gross Beta (CE+/-)	2.90	2.70	2.20	2.70	2.50	2.80	3.00	2.80

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Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point	GW-188	GW-203				GW-205		
Unit	AQT	AQF				AQF		
Location	RQ	UNCS				UNCS		
Date Sampled	01/11/94	01/06/94	04/07/94	07/26/94	10/12/94	01/07/94	04/07/94	07/26/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	20.01	82.35	64.27	68.35	76	78.75	62.77	68.65
Water Temp (degrees C)	12.1	12.2	13.6	16.6	15.2	14.6	13.7	16.5
pH (pH units)	7.9	8	7.8	7.9	8.3	7.5	8	8
Sp. Cond. (umho/cm)	390	243	250	272	251	281	273	339
Dissolved Oxygen (ppm)	10.2	5.2	5.9	6	6.4	4.1	4.9	2.8
Oxidation/Reduction (mV)	66	161	188	189	152	197	171	141
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	.	.	.	.	.
Cyanide (mg/L)	.	.	.	.	.	.	.	.
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	8.3	8.1	7.9	7.7	8.1	7.9	7.8	8
pH, 2 (pH units)	.	.	.	.	.	.	.	.
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	420	266	267	260	261	305	294	278
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	.	.	.	.	.	.	.	.
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	.	.	.	.	.	.	.	.
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	274	148	158	164	150	158	160	154
TSS (mg/L)	24	9	5	3	<1	3	<1	2
Turbidity (NTU)	30	13	5.5	4.2	0.5	4	2.5	4.4
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	-0.37	0.67	0.16	0.74	-0.50	3.18	1.26	2.22
Gross Alpha (CE+/-)	1.40	1.30	0.99	1.90	1.10	1.90	1.50	2.20
Gross Beta (pCi/L)	-2.53	-3.51	0.17	0.82	1.93	-4.94	1.66	0.17
Gross Beta (CE+/-)	2.70	3.00	2.60	2.80	2.40	2.90	2.30	2.70

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APPENDIX E.5

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Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point	GW-205	GW-217				GW-221		
Unit	AQF	AQF				AQF		
Location	UNCS	LIV				UNCS		
Date Sampled	10/12/94	01/05/94	04/04/94	07/06/94	10/03/94	01/10/94	04/08/94	07/27/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	74.8	108.45	95.9	110.25	114.93	84.41	67.3	69.8
Water Temp (degrees C)	15	12	12.8	17.7	16.8	13.3	13.8	15.8
pH (pH units)	8.8	8.2	8.1	8	8.1	7.8	7.8	7.5
Sp. Cond. (umho/cm)	269	264	291	306	320	491	268	318
Dissolved Oxygen (ppm)	3	9	10.3	9	9	6.9	6.8	7.2
Oxidation/Reduction (mV)	158	159	149	159	122	220	166	112
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	42	<5	<5	<5	.	.	.
Cyanide (mg/L)	.	<0.1	<0.1	<0.1	<0.1	.	.	.
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	8.5	8	8.1	8.1	7.7	8.1	7.9	7.8
pH, 2 (pH units)	.	.	.	.	.	.	.	.
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	276	298	295	291	292	280	279	290
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	.	<1	1	1.6	<1	.	.	.
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	.	<10	<10	<10	<10	.	.	.
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	168	160	186	194	162	154	156	158
TSS (mg/L)	4	6	3	5	12	<1	<1	<1
Turbidity (NTU)	0.7	3.8	4.4	3.9	26	1.2	1	3.5
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	0.50	-1.06	0.48	0.79	2.49	-0.17	0.33	2.96
Gross Alpha (CE+/-)	1.40	1.80	1.30	1.10	1.10	1.10	1.10	2.30
Gross Beta (pCi/L)	13.70	2.32	2.85	4.99	6.83	-4.09	-0.17	0.82
Gross Beta (CE+/-)	3.40	3.00	2.60	2.70	2.00	2.90	2.60	2.80

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APPENDIX E.5

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Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point	GW-221	GW-231				GW-241		
Unit	AQF	AQF				AQF		
Location	UNCS	KHQ				CRSDB		
Date Sampled	10/15/94	02/28/94	04/13/94	07/23/94	10/23/94	02/15/94	04/12/94	07/12/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	77.36	10.95	9.4	14.13	14.96	31.7	23.1	46
Water Temp (degrees C)	15.9	11.7	12.3	14.2	15	13.2	15.8	16.4
pH (pH units)	7.7	7.5	7.5	7.4	7.2	7	7.8	7.5
Sp. Cond. (umho/cm)	274	191	219	336	355	241	252	280
Dissolved Oxygen (ppm)	7.4	4.3	2.6	9	2.7	5.5	7.3	6.7
Oxidation/Reduction (mV)	179	114	205	168	162	191	132	171
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	.	.	.	.	.
Cyanide (mg/L)	.	.	.	.	.	.	.	.
Phenols (mg/L)	.	<0.05	<0.05	<0.05	<0.05	.	.	.
pH (pH units)	7.8	7.7	7.4	7.5	7.5	7.9	7.8	7.7
pH, 2 (pH units)	.	7.8	7.4	7.5	7.5	7.9	7.8	7.7
pH, 3 (pH units)	.	7.7	7.4	7.5	7.5	7.9	7.9	7.8
pH, 4 (pH units)	.	7.7	7.4	7.5	7.5	7.9	7.8	7.8
Sp. Cond. (umho/cm)	288	179	217	330	357	262	287	278
Sp. Cond., 2 (umho/cm)	.	179	216	326	358	262	285	277
Sp. Cond., 3 (umho/cm)	.	180	218	325	359	261	285	277
Sp. Cond., 4 (umho/cm)	.	180	217	327	357	262	286	278
TOC (mg/L)	.	<1	1	2.5	1.6	<1	<1	1.8
TOC, 2 (mg/L)	.	<1	1	2	1.6	<1	<1	1.8
TOC, 3 (mg/L)	.	<1	1	2.2	1.6	<1	<1	1.9
TOC, 4 (mg/L)	.	<1	1	<1	1.1	<1	<1	1.2
TOX (ug/L)	.	<10	<10	<10	<10	<10	<10	<10
TOX, 2 (ug/L)	.	<10	<10	<10	<10	<10	<10	<10
TOX, 3 (ug/L)	.	<10	<10	<10	<10	<10	<10	<10
TOX, 4 (ug/L)	.	<10	<10	<10	<10	<10	<10	<10
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	160	118	90	198	188	124	136	186
TSS (mg/L)	<1	1	<1	<1	<1	11	4	57
Turbidity (NTU)	0.4	1.4	2.2	0.9	0.1	17	6.3	70
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	4.52	0.49	0.80	-1.00	0.81	0.15	1.14	1.46
Gross Alpha (CE+/-)	3.60	1.40	0.86	1.20	1.30	1.50	0.99	1.20
Gross Beta (pCi/L)	10.50	5.18	-0.25	1.98	2.29	-16.40	-0.42	2.37
Gross Beta (CE+/-)	5.50	2.70	2.70	2.40	2.40	3.90	2.60	2.40

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Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point	GW-241	GW-292			GW-293			GW-294
Unit	AQF	AQF			AQF			AQF
Location	CRSDB	ECRWP			ECRWP			ECRWP
Date Sampled	10/23/94	01/14/94	04/12/94	10/16/94	01/13/94	04/12/94	10/15/94	01/12/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	51.15	109.15	104.42	117.4	112.2	108.25	118.45	93.7
Water Temp (degrees C)	15.2	12.4	15.3	16.6	12.2	15.7	15.1	13.6
pH (pH units)	7.9	7.7	7.3	7.5	7.4	5.9	7.6	7.4
Sp. Cond. (umho/cm)	260	411	474	441	470	471	464	386
Dissolved Oxygen (ppm)	8.4	9.5	6.4	6.7	6.6	3.2	4	10.4
Oxidation/Reduction (mV)	27	175	142	153	84	206	162	184
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	.	.	.	.	.
Cyanide (mg/L)	.	.	.	.	.	.	.	.
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	7.9	7.8	7.6	7.6	7.7	7.7	7.5	7.9
pH, 2 (pH units)	7.9	.	.	.	.	.	.	.
pH, 3 (pH units)	7.9	.	.	.	.	.	.	.
pH, 4 (pH units)	7.9	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	274	490	505	472	483	512	484	454
Sp. Cond., 2 (umho/cm)	275	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	275	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	275	.	.	.	.	.	.	.
TOC (mg/L)	1.5	.	.	.	.	.	.	.
TOC, 2 (mg/L)	1	.	.	.	.	.	.	.
TOC, 3 (mg/L)	1.4	.	.	.	.	.	.	.
TOC, 4 (mg/L)	1.4	.	.	.	.	.	.	.
TOX (ug/L)	<10	.	.	.	.	.	.	.
TOX, 2 (ug/L)	<10	.	.	.	.	.	.	.
TOX, 3 (ug/L)	<10	.	.	.	.	.	.	.
TOX, 4 (ug/L)	<10	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	198	266	250	258	290	262	262	258
TSS (mg/L)	64	<1	<1	<1	5	3	1	<1
Turbidity (NTU)	95	1	0.6	0.3	14	5	4.5	2
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	0.99	0.34	1.41	-0.01	-0.01	-0.54	2.37	-0.00
Gross Alpha (CE+/-)	1.30	1.50	1.10	1.40	1.40	1.60	1.90	1.40
Gross Beta (pCi/L)	2.01	-3.19	-0.73	4.29	-2.94	-2.14	8.24	-3.66
Gross Beta (CE+/-)	2.60	2.70	2.50	2.60	2.70	2.70	3.00	2.70

(CONTINUED)

APPENDIX E.5

13

Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point . Unit . Location . Date Sampled	GW-294		GW-295		GW-296			GW-298
	AQF		AQF		AQF			AQF
	ECRWP		CRBAWP		ECRWP			CRBAWP
	04/08/94	10/15/94	02/15/94	07/18/94	01/10/94	04/08/94	10/15/94	02/14/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
Depth to Water (ft)	92.47	100.2	133.9	143	117.2	116.28	119.51	92.11
Water Temp (degrees C)	14.7	15.7	13.2	16.5	13.3	13.5	14	15.1
pH (pH units)	7.6	7.9	7.6	8.2	7.3	7.4	7.6	8
Sp. Cond. (umho/cm)	411	430	449	433	426	382	369	298
Dissolved Oxygen (ppm)	5.8	9	9	2.5	10.6	5.6	7.6	6.5
Oxidation/Reduction (mV)	170	191	224	82	182	178	150	177
	.	.	.	.	.	.	.	.
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	<5	6	.	.	.	<5
Cyanide (mg/L)	.	.	<0.1	<0.1	.	.	.	<0.1
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	7.9	7.9	7.8	7.8	8	7.8	7.7	8.1
pH, 2 (pH units)	.	.	.	.	.	.	.	.
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	440	447	476	469	421	405	396	328
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	.	.	<1	1.1	.	.	.	<1
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	.	.	<10	<10	.	.	.	<10
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	246	258	264	240	222	222	220	156
TSS (mg/L)	6	<1	42	58	2	2	1	<1
Turbidity (NTU)	2.6	6	54	40	1.6	2	1	1.4
	.	.	.	.	.	.	.	.
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	-1.24	2.18	2.60	3.13	-0.01	-0.35	1.36	1.51
Gross Alpha (CE+/-)	1.40	1.80	1.60	2.10	1.40	1.60	1.70	1.30
Gross Beta (pCi/L)	-2.14	8.90	14.50	8.01	-3.11	-1.16	6.22	2.40
Gross Beta (CE+/-)	2.70	3.00	3.40	2.90	2.70	2.70	2.80	2.40

(CONTINUED)

APPENDIX E.5

14

Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point	GW-298	GW-299		GW-300		GW-301		GW-302
Unit	AQF	AQF		AQF		AQF		AQF
Location	CRBAWP	CRBAWP		CRBAWP		CRBAWP		UNCS
Date Sampled	07/21/94	02/13/94	07/21/94	02/13/94	07/20/94	02/13/94	07/20/94	01/11/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	107.6	89.8	95.2	99.9	107.85	120	132.7	100.55
Water Temp (degrees C)	17.4	12	16	13.1	16.2	12.9	16	13.9
pH (pH units)	8.2	7.8	7.8	7.4	7.4	8	7.9	7.1
Sp. Cond. (umho/cm)	334	259	269	202	292	304	312	499
Dissolved Oxygen (ppm)	2.8	7.8	6	9	6.5	9.1	7.9	4.4
Oxidation/Reduction (mV)	112	238	132	273	110	245	100	125
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	<5	<5	<5	<5	<5	<5	<5	.
Cyanide (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	.
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	8.2	8.2	7.8	7.8	7.7	8.2	8	7.8
pH, 2 (pH units)	.	.	.	.	.	.	.	.
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	320	267	263	205	271	307	286	529
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	1	<1	<1	1	1.8	7	2.6	.
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	<10	<10	<10	<10	<10	<10	<10	.
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	174	142	146	112	152	160	174	306
TSS (mg/L)	10	<1	<1	3	<1	10	8	3
Turbidity (NTU)	6.5	1.1	2.5	4.6	1	9.2	8.5	7.3
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	2.26	1.61	3.99	0.64	-0.15	1.15	2.77	-0.37
Gross Alpha (CE+/-)	2.60	1.30	2.80	1.00	2.30	1.20	2.70	1.20
Gross Beta (pCi/L)	1.98	3.18	1.32	1.96	0.00	2.65	3.15	-4.73
Gross Beta (CE+/-)	2.80	2.50	2.80	2.40	2.70	2.40	2.90	2.80

(CONTINUED)

Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point . Unit . Location . Date Sampled	GW-302			GW-303				
	AQF			AQF				
	UNCS			CRSDB				
	04/12/94	07/28/94	10/15/94	02/14/94	04/11/94	07/11/94	07/24/94	10/23/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	88.25	100.7	105.86	70.95	77.1	88.45	88.2	89.25
Water Temp (degrees C)	15.5	15.7	15.9	12.8	17.2	15.8	16.3	14.4
pH (pH units)	7.2	7.4	7.3	7.7	7.8	7.8	7.5	8
Sp. Cond. (umho/cm)	441	481	486	676	607	554	699	568
Dissolved Oxygen (ppm)	4.8	4.8	5.1	0.2	0.8	0.2	1.4	0.6
Oxidation/Reduction (mV)	144	128	68	-103	-111	-58	-77	-135
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	.	.	.	.	.
Cyanide (mg/L)	.	.	.	.	.	.	.	.
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	7.5	7.8	7.4	8	7.7	7.8	.	7.9
pH, 2 (pH units)	.	.	.	8	7.8	7.8	.	7.9
pH, 3 (pH units)	.	.	.	8	7.8	7.8	.	7.9
pH, 4 (pH units)	.	.	.	7.9	7.8	7.8	.	7.9
Sp. Cond. (umho/cm)	529	501	507	661	645	624	.	590
Sp. Cond., 2 (umho/cm)	.	.	.	660	648	626	.	595
Sp. Cond., 3 (umho/cm)	.	.	.	660	649	625	.	594
Sp. Cond., 4 (umho/cm)	.	.	.	660	650	623	.	594
TOC (mg/L)	.	.	.	<1	<1	1.4	.	1.5
TOC, 2 (mg/L)	.	.	.	<1	<1	1.3	.	1.4
TOC, 3 (mg/L)	.	.	.	<1	<1	3.7	.	1.6
TOC, 4 (mg/L)	.	.	.	<1	<1	2.3	.	<1
TOX (ug/L)	.	.	.	<10	<10	<10	.	<10
TOX, 2 (ug/L)	.	.	.	<10	<10	<10	.	<10
TOX, 3 (ug/L)	.	.	.	<10	<10	<10	.	<10
TOX, 4 (ug/L)	.	.	.	<10	<10	<10	.	<10
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	272	326	290	432	460	460	.	416
TSS (mg/L)	<1	<1	<1	1	2	<1	.	4
Turbidity (NTU)	2	3.9	7.2	3.9	12	3.4	.	16
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	1.45	2.04	6.65	3.84	1.45	2.93	.	1.17
Gross Alpha (CE+/-)	1.50	1.70	4.10	2.50	2.20	1.70	.	1.60
Gross Beta (pCi/L)	-0.34	1.90	19.60	-13.50	0.80	4.90	.	5.59
Gross Beta (CE+/-)	2.50	2.60	6.20	4.10	2.80	2.50	.	2.90

(CONTINUED)

APPENDIX E.5

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Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point . Unit . Location . Date Sampled	GW-304					GW-305		
	AQF					AQF		
	CRSDB					LIV		
	02/10/94	04/04/94	04/05/94	07/08/94	10/18/94	01/10/94	04/06/94	07/07/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	116.65	115.8	118.7	117.45	118.54	118.93	111.1	122
Water Temp (degrees C)	12	14.2	.	16	15.2	12.4	14.2	19
pH (pH units)	7.8	8	.	7.8	7.9	8.4	8.1	8.5
Sp. Cond. (umho/cm)	339	353	.	356	366	263	249	266
Dissolved Oxygen (ppm)	5.3	11.8	.	4.3	6.4	9.3	8.8	8.8
Oxidation/Reduction (mV)	190	169	.	168	171	184	171	137
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	.	.	<5	<5	<5
Cyanide (mg/L)	.	.	.	.	.	<0.1	<0.1	<0.1
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	8.1	8.2	.	8.1	8.1	8.2	8	8.5
pH, 2 (pH units)	8.1	8.2	.	8.1	8.1	.	.	.
pH, 3 (pH units)	8.1	8.2	.	8.1	8.1	.	.	.
pH, 4 (pH units)	8.1	8.2	.	8.1	8.1	.	.	.
Sp. Cond. (umho/cm)	379	365	.	374	378	256	254	252
Sp. Cond., 2 (umho/cm)	378	366	.	371	379	.	.	.
Sp. Cond., 3 (umho/cm)	377	367	.	370	382	.	.	.
Sp. Cond., 4 (umho/cm)	375	367	.	376	384	.	.	.
TOC (mg/L)	<1	6	.	2.8	1.5	<1	<1	1.4
TOC, 2 (mg/L)	<1	2	.	2.9	2.4	.	.	.
TOC, 3 (mg/L)	<1	2	.	2.8	2.3	.	.	.
TOC, 4 (mg/L)	3	2	.	3.7	2.2	.	.	.
TOX (ug/L)	<10	.	<10	10.295	<10	<10	<10	<10
TOX, 2 (ug/L)	<10	.	<10	<10	<10	.	.	.
TOX, 3 (ug/L)	<10	.	<10	<10	<10	.	.	.
TOX, 4 (ug/L)	<10	.	<10	<10	<10	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	186	232	.	220	210	156	150	168
TSS (mg/L)	5	13	.	23	26	<1	4	<1
Turbidity (NTU)	4.5	6.7	.	11	20	1	1.1	1.1
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	1.83	1.87	.	2.20	1.90	0.89	-0.32	12.40
Gross Alpha (CE+/-)	1.80	1.70	.	1.40	1.60	1.80	0.99	3.20
Gross Beta (pCi/L)	-16.40	2.82	.	4.56	1.81	0.94	-1.73	12.20
Gross Beta (CE+/-)	3.90	2.60	.	2.50	2.60	2.70	2.30	3.30

(CONTINUED)

Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point	GW-305	GW-321				GW-339		
Unit	AQF	AQF				AQF		
Location	LIV	ADB				UNCS		
Date Sampled	10/05/94	01/11/94	04/13/94	10/18/94	10/21/94	01/11/94	04/08/94	07/27/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	125.7	15.9	8.25	26.5	22.6	67.74	54.75	74.85
Water Temp (degrees C)	16.5	12.2	14.6	14.1	15.1	13	15.7	16.8
pH (pH units)	8.1	7.7	7.8	8.2	8.2	7.4	7.5	7.1
Sp. Cond. (umho/cm)	265	234	213	222	226	504	521	543
Dissolved Oxygen (ppm)	9.5	10.1	8.3	5.9	9.5	2.1	2.4	5.5
Oxidation/Reduction (mV)	122	165	168	152	167	192	132	113
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	<5	.	.	.	.	.	.	.
Cyanide (mg/L)	<0.1	.	.	.	.	.	.	.
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	7.8	8.2	7.9	7.9	.	7.9	7.6	7.5
pH, 2 (pH units)	.	.	.	.	.	.	.	.
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	255	227	232	233	.	540	544	551
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	2	<1	<1	.	<1	.	.	.
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	<10	<10	<10	<10	.	.	.	.
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	122	120	112	124	.	316	300	292
TSS (mg/L)	6	<1	<1	<1	.	6	2	<1
Turbidity (NTU)	17	2.5	0.7	0.5	.	4	5.3	1.3
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	1.22	0.44	0.97	4.66	.	0.19	0.55	1.73
Gross Alpha (CE+/-)	0.83	1.70	0.92	2.00	.	1.40	1.20	2.20
Gross Beta (pCi/L)	2.76	1.02	-2.95	4.66	.	-2.61	2.61	-0.50
Gross Beta (CE+/-)	1.70	2.70	2.50	3.10	.	2.90	2.70	2.70

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APPENDIX E.5

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Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point	GW-339	GW-511				GW-512		
Unit	AQF	AQF				AQF		
Location	UNCS	CRSP				ADB		
Date Sampled	10/15/94	02/17/94	04/25/94	07/31/94	11/14/94	01/12/94	04/14/94	10/19/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	78.98	88.35	63.1	103.58	111.8	23.1	6.1	27.6
Water Temp (degrees C)	16.3	13.1	15.3	17.1	14.7	13.6	14.6	14.6
pH (pH units)	7.3	7.3	8.3	8.2	8.2	7.2	7.2	7.2
Sp. Cond. (umho/cm)	516	304	269	257	268	274	309	261
Dissolved Oxygen (ppm)	2.3	6.7	6.6	6.1	9.4	4.1	6.1	4.8
Oxidation/Reduction (mV)	102	174	196	112	141	192	198	107
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	.	.	.	.	.
Cyanide (mg/L)	.	.	.	.	.	.	.	.
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	7.5	8.2	8.2	8.2	8.1	7.5	7.3	7.3
pH, 2 (pH units)	.	.	.	.	.	.	.	.
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	541	284	259	276	280	297	316	297
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	.	.	.	.	.	4	<1	.
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	.	.	.	.	.	<10	<10	<10
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	304	148	140	174	158	180	160	178
TSS (mg/L)	4	<1	<1	<1	2	19	<1	19
Turbidity (NTU)	6	0.6	4	1.2	0.4	24	1.9	28
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	7.91	0.15	0.32	1.90	1.90	-0.18	0.66	1.99
Gross Alpha (CE+/-)	4.50	2.00	0.66	2.00	1.20	1.30	0.82	1.40
Gross Beta (pCi/L)	15.00	1.57	2.62	3.78	3.50	1.27	1.20	3.67
Gross Beta (CE+/-)	5.80	2.80	2.40	2.80	2.50	3.00	2.70	3.00

(CONTINUED)

Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point	GW-512	GW-513			GW-514			GW-521
Unit	AQF	AQF			AQF			AQF
Location	ADB	ADB			ADB			LIV
Date Sampled	10/20/94	01/11/94	04/13/94	10/18/94	01/14/94	04/18/94	10/20/94	01/06/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	.	23.92	5.75	27.85	23.6	4.85	28	84.49
Water Temp (degrees C)	.	13.2	15.9	16	12.2	16.4	15.1	12.9
pH (pH units)	.	7.8	7.8	7.8	7.7	7.9	8	8
Sp. Cond. (umho/cm)	.	307	302	325	299	371	305	264
Dissolved Oxygen (ppm)	.	6.4	5.8	6.4	4	3.6	3.9	8.1
Oxidation/Reduction (mV)	.	165	157	128	183	116	82	137
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	.	.	.	.	7
Cyanide (mg/L)	.	.	.	.	.	.	.	<0.1
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	.	8.1	7.8	7.9	8	7.7	7.8	8.1
pH, 2 (pH units)	.	.	.	.	.	.	.	.
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	.	317	321	326	346	331	334	282
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	1.7	<1	<1	1.9	42	<1	2	<1
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	.	<10	<10	<10	<10	.	<10	<10
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	.	200	152	176	194	188	184	158
TSS (mg/L)	.	2	1	2	<1	<1	2	2
Turbidity (NTU)	.	5	3.2	2.6	3.7	3.4	3.5	6.8
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	.	1.08	0.33	3.50	-1.07	0.68	1.62	-2.00
Gross Alpha (CE+/-)	.	1.90	0.66	1.80	2.00	0.84	1.40	2.10
Gross Beta (pCi/L)	.	1.63	0.08	1.74	-0.09	1.10	1.14	-2.85
Gross Beta (CE+/-)	.	2.70	2.60	2.90	2.80	2.30	2.80	3.20

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Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point . Unit . Location . Date Sampled	GW-521			GW-522				GW-539
	AQF			AQF				AQF
	LIV			LIV				LII
	04/05/94	07/07/94	10/04/94	01/07/94	04/05/94	07/07/94	10/05/94	01/06/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	80.16	83	86.52	90.32	86.05	90.75	98.6	104.35
Water Temp (degrees C)	13.8	16.3	15.1	14	14.7	17.1	15	10.2
pH (pH units)	7.8	7.8	8.1	7.8	7.8	7.8	8	8
Sp. Cond. (umho/cm)	300	257	268	295	265	264	251	330
Dissolved Oxygen (ppm)	7.3	8.4	8.4	8.7	8	9	8.5	9.8
Oxidation/Reduction (mV)	176	162	143	186	156	149	161	167
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	<5	5	<5	<5	<5	<5	<5	<5
Cyanide (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	8	8.2	7.9	7.9	7.9	8	7.7	8.3
pH, 2 (pH units)	.	.	.	.	.	.	.	.
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	276	264	285	303	258	253	251	355
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	<1	1.6	<1	<1	1	1.5	<1	<1
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	170	174	230	160	160	178	118	202
TSS (mg/L)	10	4	<1	8	31	15	12	6
Turbidity (NTU)	2.4	6.7	2.6	7.7	26	7.5	14	4.8
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	-0.17	0.81	2.37	-0.45	0.48	0.47	1.15	-0.61
Gross Alpha (CE+/-)	1.30	1.30	1.70	1.60	1.20	0.95	0.82	1.60
Gross Beta (pCi/L)	-0.56	0.97	0.00	-1.03	-0.66	1.14	3.71	1.20
Gross Beta (CE+/-)	2.50	2.40	2.70	2.50	2.40	2.40	1.80	2.70

(CONTINUED)

Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point	GW-539			GW-540			GW-541	
Unit	AQF			AQF			AQF	
Location	LII			CDLVI			CDLVI	
Date Sampled	04/04/94	07/13/94	10/06/94	03/22/94	04/14/94	10/10/94	03/23/94	04/18/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	91	119.5	104.95	73.41	59.36	82	64.89	59.9
Water Temp (degrees C)	13	17.1	16.4	16	15.7	15.2	16.7	17
pH (pH units)	8.2	8	8.3	7.9	7.6	7.2	7.9	7.9
Sp. Cond. (umho/cm)	317	362	452	351	341	353	351	356
Dissolved Oxygen (ppm)	11.7	9	8.7	5.1	4.8	4.9	2.3	1.1
Oxidation/Reduction (mV)	151	147	128	163	135	100	142	76
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	<5	<5	<5	<5	<5	<5	<5	6
Cyanide (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH, 2 (pH units)	8.2	7.9	8	8	7.8	7.8	8	7.7
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	356	356	353	352	354	362	358	332
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	2	1.6	1.2	4	1	<1	<1	1
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	204	210	188	190	184	188	200	186
TSS (mg/L)	55	10	15	<1	<1	<1	5	2
Turbidity (NTU)	28	6.4	7	0.5	0.4	0.1	3.8	0.8
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	6.76	-0.18	3.31	0.16	-0.17	1.45	1.33	1.82
Gross Alpha (CE+/-)	2.80	0.78	2.70	1.30	0.90	1.80	1.60	1.70
Gross Beta (pCi/L)	7.69	-1.20	6.27	1.18	-2.08	3.48	0.93	-0.66
Gross Beta (CE+/-)	2.90	2.40	3.10	2.30	2.50	2.60	2.30	2.50

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Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point	GW-541	GW-542			GW-543			GW-544
Unit	AQF	AQF			AQF			AQF
Location	CDLVI	CDLVI			CDLVI			CDLVI
Date Sampled	10/11/94	03/24/94	04/19/94	10/12/94	03/25/94	04/20/94	10/13/94	03/25/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	65.6	68.88	67.25	70	62.53	61	64.55	59.1
Water Temp (degrees C)	15.3	14.5	16	14.1	13.3	16.5	14.2	13.6
pH (pH units)	7.8	7	7	6.8	7.4	7.6	7.5	7.9
Sp. Cond. (umho/cm)	386	225	260	203	385	432	392	390
Dissolved Oxygen (ppm)	6.3	6.5	5.8	5.3	7.1	6.6	6.5	6.8
Oxidation/Reduction (mV)	144	128	138	202	192	160	218	78
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	<5	<5	<5	6	<5	<5	6	<5
Cyanide (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	8.1	7.5	7	7	7.9	7.6	7.5	8.1
pH, 2 (pH units)	.	.	.	.	.	.	.	.
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	303	266	279	223	424	415	391	428
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	3	2	<1	2.9	1	<1	3.4	<1
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	170	138	166	128	224	228	236	226
TSS (mg/L)	8	3	<1	53	5	<1	<1	2
Turbidity (NTU)	4.3	2.3	1.2	17	3	1	2.5	2.1
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	1.72	-0.17	-0.01	-0.49	-0.17	0.16	-0.87	1.00
Gross Alpha (CE+/-)	1.70	1.20	1.30	1.10	1.20	1.40	1.00	1.50
Gross Beta (pCi/L)	1.81	5.50	0.15	2.20	1.42	-3.33	0.71	2.04
Gross Beta (CE+/-)	2.40	2.60	2.60	2.50	2.30	2.40	2.30	2.30

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Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point	GW-544		GW-545			GW-546		
Unit	AQF		AQF			AQF		
Location	CDLVI		CDLVI			CDLVI		
Date Sampled	04/21/94	10/13/94	03/25/94	04/19/94	10/12/94	03/23/94	04/14/94	10/11/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	56.92	63.3	63.62	57.75	66.45	74.45	67.26	82.25
Water Temp (degrees C)	15.1	14.7	13.2	17.1	13.9	13.8	15.3	13.1
pH (pH units)	7.8	7.8	9.6	10.1	10.9	7.9	7.7	8.2
Sp. Cond. (umho/cm)	382	425	203	196	202	285	286	326
Dissolved Oxygen (ppm)	6.2	5	9.6	8.8	7.6	3.8	3.7	5.4
Oxidation/Reduction (mV)	175	212	177	98	155	149	84	193
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	<5	9	<5	<5	7	<5	<5	<5
Cyanide (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH, 2 (pH units)	8	7.8	10.1	9.4	10.5	8	7.8	8.2
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	424	424	180	199	220	304	300	276
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	1	1.8	1	<1	3.8	2	1	1.4
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	224	252	118	130	134	166	154	228
TSS (mg/L)	6	12	70	20	1214	3	2	1574
Turbidity (NTU)	3.5	16	56	4.5	750	2.3	2.3	220
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	1.04	1.46	0.33	0.63	0.80	0.32	1.18	0.34
Gross Alpha (CE+/-)	1.20	1.70	1.40	1.40	1.40	1.30	1.30	1.40
Gross Beta (pCi/L)	0.78	5.19	23.30	17.40	8.89	1.98	-1.76	4.61
Gross Beta (CE+/-)	2.40	2.60	4.20	3.90	3.00	2.30	2.50	2.60

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Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point . Unit . Location . Date Sampled	GW-557				GW-560			
	AQF				AQF			
	LV				CDLVII			
	03/07/94	04/21/94	07/15/94	10/09/94	03/07/94	04/19/94	07/12/94	10/08/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	112.18	107.4	111.55	116.66	14.81	8.11	25.43	31.24
Water Temp (degrees C)	15.3	14.3	15.4	14.5	14.7	15.2	15.3	14.5
pH (pH units)	8.2	7.6	7.5	7.8	7.9	7.5	7.5	7.7
Sp. Cond. (umho/cm)	332	304	318	290	280	244	261	257
Dissolved Oxygen (ppm)	6.6	7.8	8.2	7.7	7.9	6.7	8	7.1
Oxidation/Reduction (mV)	135	197	195	133	147	198	165	167
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	<5	<5	<5	5	<5	<5	<5	<5
Cyanide (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	7.9	7.8	7.9	7.7	7.8	7.7	7.8	7.7
pH, 2 (pH units)	.	.	.	.	.	.	.	.
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	317	315	317	320	270	258	273	281
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	<1	<1	1.8	<1	3	<1	<1	<1
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	<0.1	0.007	<0.1	<0.1
TDS (mg/L)	168	172	182	182	138	138	180	152
TSS (mg/L)	10	2	3	2	<1	<1	<1	2
Turbidity (NTU)	6	2.8	2.7	1.1	1.5	1.1	1.8	1.6
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	-0.94	-0.82	-0.15	3.06	-0.76	0.63	0.66	3.01
Gross Alpha (CE+/-)	1.10	1.10	1.80	2.00	1.20	1.40	1.10	2.00
Gross Beta (pCi/L)	1.34	-2.47	2.97	6.66	-0.24	-1.53	-0.74	6.44
Gross Beta (CE+/-)	2.60	2.40	2.90	2.80	2.50	2.50	2.40	2.80

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APPENDIX E.5

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Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point . Unit . Location . Date Sampled	GW-562				GW-564			
	AQF				AQF			
	CDLVII				CDLVII			
	03/07/94	04/19/94	07/13/94	10/08/94	03/07/94	04/20/94	07/14/94	10/09/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	0	0	5.35	5.48	6.35	2.1	7.77	10.93
Water Temp (degrees C)	15.5	16.2	15.9	15.2	15.4	15.1	16.3	15
pH (pH units)	8.1	7.9	7.5	7.7	7.5	7.4	7.2	7.6
Sp. Cond. (umho/cm)	371	332	311	315	271	242	276	258
Dissolved Oxygen (ppm)	6.3	5.6	8.4	6.3	7.8	8.1	9.4	7.6
Oxidation/Reduction (mV)	129	194	187	151	215	195	202	200
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	<5	<5	<5	<5	<5	<5	<5	<5
Cyanide (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH, 2 (pH units)	7.9	7.9	8	7.8	7.6	7.3	7.7	7.6
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	338	348	332	342	259	248	237	278
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	<1	<1	13	1.3	<1	<1	<1	1.5
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TDS (mg/L)	168	186	176	178	138	142	162	140
TSS (mg/L)	7	3	14	4	<1	<1	<1	<1
Turbidity (NTU)	15	8	12	8	1	0.8	0.7	0.5
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	-0.57	-0.82	3.20	2.32	-0.39	-0.01	-0.01	0.47
Gross Alpha (CE+/-)	1.20	1.10	2.60	2.00	1.30	1.30	0.81	1.50
Gross Beta (pCi/L)	0.07	-1.36	2.27	6.47	0.31	-1.05	1.13	1.27
Gross Beta (CE+/-)	2.50	2.50	5.20	2.80	2.50	2.50	2.60	2.40

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APPENDIX E.5

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Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point . Unit . Location . Date Sampled	GW-608				GW-609			
	AQF				AQF			
	CRSP				CRSP			
	02/21/94	05/18/94	08/08/94	11/29/94	02/24/94	05/24/94	08/14/94	12/01/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	105.6	112.2	132.44	137.05	157.95	165.35	170.1	171.6
Water Temp (degrees C)	14.7	15.8	18.3	13.5	13.2	16.5	15.8	13.6
pH (pH units)	8	7.9	7.6	7.9	7.9	7.6	7.6	7.7
Sp. Cond. (umho/cm)	309	341	304	270	384	368	386	328
Dissolved Oxygen (ppm)	7.8	9.5	6.2	8.1	6.4	5.8	6.3	6.1
Oxidation/Reduction (mV)	164	148	127	182	189	139	167	140
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	.	.	.	.	.
Cyanide (mg/L)	.	.	.	.	.	.	.	.
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	7.9	7.7	8	7.9	7.9	7.5	7.9	7.8
pH, 2 (pH units)	.	.	.	.	.	.	.	.
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	298	278	275	284	377	361	371	372
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	.	.	.	.	.	.	.	.
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	.	.	.	.	.	.	.	.
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	166	152	172	158	180	212	232	204
TSS (mg/L)	<1	20	12	<1	<1	<1	<1	<1
Turbidity (NTU)	3.3	2	5	1.5	0.7	0.7	0.4	0.3
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	-0.15	0.99	1.04	1.19	0.61	0.68	-0.01	1.49
Gross Alpha (CE+/-)	1.90	1.00	1.80	2.10	2.10	0.96	0.93	2.10
Gross Beta (pCi/L)	-1.40	5.70	2.14	1.24	0.74	0.41	0.57	2.22
Gross Beta (CE+/-)	2.60	2.80	2.70	2.80	2.80	2.40	2.50	2.80

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Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point . Unit . Location . Date Sampled	GW-610				GW-611			
	AQF				AQF			
	CRSP				CRSP			
	02/18/94	05/04/94	08/06/94	11/21/94	02/22/94	05/19/94	08/13/94	11/30/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
Depth to Water (ft)	75.55	80.6	85.4	94.4	97.95	98.4	105.2	109.45
Water Temp (degrees C)	14.6	13.6	15.7	14.9	13.8	14.8	21.9	12
pH (pH units)	6.7	7.5	7.4	7	7.4	7.5	7.4	8.1
Sp. Cond. (umho/cm)	456	397	382	412	512	498	483	453
Dissolved Oxygen (ppm)	6.5	7.3	6	5.9	10	8.4	12.3	11.1
Oxidation/Reduction (mV)	146	258	113	210	173	176	192	111
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	.	.	.	.	.
Cyanide (mg/L)	.	.	.	.	.	.	.	.
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	7.7	7.6	7.6	7.6	7.7	7.6	7.7	7.8
pH, 2 (pH units)	.	.	.	.	.	.	.	.
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	453	438	403	401	513	484	488	495
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	.	.	.	.	.	.	.	.
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	.	.	.	.	.	.	.	.
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	254	254	216	226	290	278	280	270
TSS (mg/L)	<1	2	43	<1	6	3	<1	10
Turbidity (NTU)	1.5	1.5	17	0.6	3.1	2	0.5	7.8
	.	.	.	.	.	.	.	.
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	0.47	0.85	2.90	1.15	1.29	0.53	0.17	2.06
Gross Alpha (CE+/-)	2.10	1.00	2.20	1.00	2.30	0.94	1.00	2.30
Gross Beta (pCi/L)	0.91	1.66	0.41	2.93	-0.42	7.73	-0.73	2.25
Gross Beta (CE+/-)	2.80	2.50	2.60	2.50	2.70	2.90	2.40	2.80

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Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point . Unit . Location . Date Sampled	GW-709				GW-731			
	AQF				AQF			
	LII				CRSDB			
	01/06/94	04/05/94	07/14/94	10/07/94	02/11/94	04/04/94	07/09/94	10/18/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	28.2	27.88	49.9	29.68	122.1	121.8	124.6	124.35
Water Temp (degrees C)	10.5	13.7	18.8	13.8	13.1	16.4	17.3	15.5
pH (pH units)	7.9	7.9	8	9.1	8.9	9.3	9.4	9
Sp. Cond. (umho/cm)	290	305	339	260	268	261	269	254
Dissolved Oxygen (ppm)	10.2	5.6	5.8	3.5	4.6	4.8	4.2	4.5
Oxidation/Reduction (mV)	159	202	142	151	120	140	160	112
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	<5	<5	<5	<5	.	.	.	.
Cyanide (mg/L)	<0.1	<0.1	<0.1	<0.1	.	.	.	.
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	8.1	7.6	8.2	8	8.6	8.8	9.5	9.2
pH, 2 (pH units)	.	.	.	.	8.7	8.8	9.4	9.2
pH, 3 (pH units)	.	.	.	.	8.8	8.8	9.5	9
pH, 4 (pH units)	.	.	.	.	8.7	8.8	9.4	9
Sp. Cond. (umho/cm)	322	333	318	321	250	256	264	263
Sp. Cond., 2 (umho/cm)	.	.	.	.	248	258	262	244
Sp. Cond., 3 (umho/cm)	.	.	.	.	249	256	262	243
Sp. Cond., 4 (umho/cm)	.	.	.	.	249	259	266	253
TOC (mg/L)	<1	6	<1	<1	<1	<1	<1	<1
TOC, 2 (mg/L)	.	.	.	.	<1	1	1.4	1.1
TOC, 3 (mg/L)	.	.	.	.	<1	5	1.5	1.7
TOC, 4 (mg/L)	.	.	.	.	<1	<1	1.6	1.6
TOX (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TOX, 2 (ug/L)	.	.	.	.	<10	<10	<10	<10
TOX, 3 (ug/L)	.	.	.	.	<10	<10	17.49	<10
TOX, 4 (ug/L)	.	.	.	.	<10	<10	12.59	<10
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	186	198	180	146	152	160	140	148
TSS (mg/L)	8	8	<1	2	1	2	9	11
Turbidity (NTU)	1.5	4.5	1.1	3	2.1	2.5	4.7	18
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	0.92	1.14	2.71	2.58	0.75	0.47	0.49	0.50
Gross Alpha (CE+/-)	1.90	1.40	1.90	2.60	1.60	1.20	1.00	1.20
Gross Beta (pCi/L)	0.86	0.72	5.14	6.03	-8.39	7.43	21.00	12.90
Gross Beta (CE+/-)	2.70	2.50	2.70	3.10	4.20	3.00	4.00	3.50

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Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point . Unit . Location . Date Sampled	GW-732				GW-742			
	AQF				AQF			
	CRSDB				CRSP			
	02/12/94	04/06/94	07/09/94	10/19/94	02/20/94	05/02/94	08/04/94	11/17/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	133.6	146	157.5	157.9	115.12	94.62	127.8	133.5
Water Temp (degrees C)	12.8	14.2	15.9	14.2	14.2	14.3	18.1	16.7
pH (pH units)	7.1	7.5	8	9.2	7.1	7.9	7.7	7.8
Sp. Cond. (umho/cm)	242	212	256	248	369	306	332	419
Dissolved Oxygen (ppm)	7.6	6.7	7.2	6	2.8	0.9	0.4	0.3
Oxidation/Reduction (mV)	197	178	162	130	224	101	-163	195
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	.	.	.	.	.
Cyanide (mg/L)	.	.	.	.	.	.	.	.
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	7.6	7.8	8.2	8.7	7.9	8.2	7.9	7.8
pH, 2 (pH units)	7.6	7.9	8.3	8.8	.	.	.	.
pH, 3 (pH units)	7.6	7.8	8.3	8.8	.	.	.	.
pH, 4 (pH units)	7.6	7.8	8.3	8.8	.	.	.	.
Sp. Cond. (umho/cm)	247	234	273	272	354	327	316	344
Sp. Cond., 2 (umho/cm)	247	234	270	274	.	.	.	.
Sp. Cond., 3 (umho/cm)	247	233	271	274	.	.	.	.
Sp. Cond., 4 (umho/cm)	247	232	272	275	.	.	.	.
TOC (mg/L)	<1	1	1.1	1.3	.	.	.	.
TOC, 2 (mg/L)	<1	4	3.1	1.3	.	.	.	.
TOC, 3 (mg/L)	28	2	1.3	1.2	.	.	.	.
TOC, 4 (mg/L)	<1	1	1.5	<1	.	.	.	.
TOX (ug/L)	<10	<10	<10	<10	.	.	.	.
TOX, 2 (ug/L)	<10	<10	<10	<10	.	.	.	.
TOX, 3 (ug/L)	<10	<10	19.64	<10	.	.	.	.
TOX, 4 (ug/L)	<10	<10	<10	<10	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	152	164	192	194	198	192	136	182
TSS (mg/L)	91	39	290	421	23	7	17	<1
Turbidity (NTU)	22	15	58	250	7.8	11	17	3.6
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	7.38	2.50	2.67	7.10	9.09	3.63	4.18	5.90
Gross Alpha (CE+/-)	2.60	2.00	2.50	2.40	3.10	1.80	2.30	2.10
Gross Beta (pCi/L)	-13.60	5.08	0.15	9.06	4.38	1.73	4.29	5.12
Gross Beta (CE+/-)	4.00	3.20	4.50	3.30	3.00	2.50	2.90	2.70

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APPENDIX E.5

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Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point . Unit . Location . Date Sampled	GW-743				GW-757			
	AQF				AQF			
	CRSP				LII			
	02/18/94	05/03/94	08/06/94	11/17/94	01/07/94	04/06/94	07/15/94	10/07/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	104.87	85	121.35	130.2	83.6	83.79	103.5	84.7
Water Temp (degrees C)	14	14	15.5	14.8	13.9	15	16.3	15
pH (pH units)	6.7	7.5	7.5	7.7	8	8.3	7.9	8.5
Sp. Cond. (umho/cm)	248	252	267	293	284	366	276	361
Dissolved Oxygen (ppm)	8.7	10.6	7.7	7.9	8.5	4.6	3.4	8.8
Oxidation/Reduction (mV)	177	242	156	75	123	178	133	164
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	.	<5	<5	<5	<5
Cyanide (mg/L)	.	.	.	.	<0.1	<0.1	<0.1	<0.1
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	7.6	7.7	7.8	7.8	8.2	8.2	8.2	8.1
pH, 2 (pH units)	.	.	.	.	.	.	.	.
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	259	285	279	291	289	311	283	315
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	.	.	.	.	<1	<1	<1	<1
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	.	.	.	.	<10	<10	<10	<10
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	150	156	144	164	164	200	166	292
TSS (mg/L)	<1	3	3	<1	9	7	3	500
Turbidity (NTU)	1.1	1.5	3	2.3	1.5	2.5	3	200
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	-0.30	1.16	0.89	2.51	6.73	3.73	3.46	5.44
Gross Alpha (CE+/-)	1.90	1.10	1.80	1.40	2.70	2.40	2.10	3.00
Gross Beta (pCi/L)	1.56	2.09	1.32	3.75	4.74	10.20	5.57	10.00
Gross Beta (CE+/-)	2.80	2.50	2.70	2.60	2.90	3.50	2.70	3.30

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Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point . Unit . Location . Date Sampled	GW-796				GW-797			
	AQF				AQF			
	LV				LV			
	03/08/94	04/25/94	07/20/94	10/11/94	03/08/94	04/25/94	07/19/94	10/10/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	45.9	33.29	66.95	79.75	57.9	56.45	80.13	65.8
Water Temp (degrees C)	13	15.7	18	14.4	13.4	17	18.4	13.5
pH (pH units)	8.8	8.7	8.2	8.5	7.9	7.8	8	7.8
Sp. Cond. (umho/cm)	208	204	208	201	272	281	291	276
Dissolved Oxygen (ppm)	8.3	12.7	9.3	9.3	8.6	10.6	8.1	8.6
Oxidation/Reduction (mV)	132	151	192	138	165	169	164	207
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	<5	<5	<5	<5	<5	<5	<5	<5
Cyanide (mg/L)	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	8.7	8.5	8.5	8.3	7.9	7.9	7.9	8.5
pH, 2 (pH units)	.	.	.	.	.	.	.	.
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	220	213	207	215	300	296	297	291
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	1	3	<1	1.8	<1	1	<1	1.4
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	128	122	120	128	162	156	154	152
TSS (mg/L)	3	<1	2	<1	1	<1	<1	116
Turbidity (NTU)	2	1.1	2.6	1	1.7	1.5	1.4	85
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	1.93	0.82	-0.58	-0.17	2.65	0.49	1.47	1.19
Gross Alpha (CE+/-)	1.70	1.10	1.70	1.20	1.80	0.98	2.00	1.80
Gross Beta (pCi/L)	3.61	2.58	1.31	2.52	4.17	0.89	0.82	2.74
Gross Beta (CE+/-)	3.10	2.60	2.80	2.50	3.10	2.50	2.80	2.50

(CONTINUED)

APPENDIX E.5

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Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point . Unit . Location . Date Sampled	GW-798				GW-799			
	AQF				AQF			
	CDLVII				CDLVII			
	03/08/94	04/22/94	07/19/94	10/10/94	03/07/94	04/21/94	07/18/94	10/10/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	48.75	43.24	69.15	77.85	0	0	7.5	13.4
Water Temp (degrees C)	14	14.8	16.2	15.6	14.6	15.2	17.1	13.4
pH (pH units)	7.8	7.9	6.6	7.8	7.9	7.9	7.6	7.8
Sp. Cond. (umho/cm)	235	237	243	245	254	254	255	249
Dissolved Oxygen (ppm)	7.8	7.8	7.9	7.5	8.1	7.2	7.7	8.6
Oxidation/Reduction (mV)	260	109	197	194	156	167	94	62
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	<5	<5	<5	<5	<5	<5	<5	<5
Cyanide (mg/L)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	7.9	7.8	7.7	7.8	8	7.9	7.9	7.8
pH, 2 (pH units)	.	.	.	.	.	.	.	.
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	257	260	248	243	249	246	249	243
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	<1	1	1.8	<1	<1	<1	1.4	1.2
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	0.002	0.011	0.01	0.01	.	.	.	.
TDS (mg/L)	136	144	130	136	134	132	118	134
TSS (mg/L)	1	<1	<1	1	<1	3	1	2
Turbidity (NTU)	2	2	1.7	1	2.2	3.2	2	4.5
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	3.76	0.16	1.76	1.11	-0.35	0.15	1.91	-0.32
Gross Alpha (CE+/-)	2.00	0.88	2.10	1.70	1.20	1.30	2.10	1.30
Gross Beta (pCi/L)	3.93	1.29	0.00	3.34	-1.20	-2.01	1.73	0.31
Gross Beta (CE+/-)	3.10	2.50	2.70	2.60	2.50	2.50	2.80	2.40

(CONTINUED)

Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point . Unit . Location . Date Sampled	GW-801			
	AQF			
	LV			
	03/08/94	04/27/94	07/21/94	10/11/94
FIELD MEASUREMENTS	.	.	.	.
	.	.	.	.
Depth to Water (ft)	88.75	86.4	103.75	103.9
Water Temp (degrees C)	13.1	15.6	15.6	14.3
pH (pH units)	8.1	7.9	7.4	8.1
Sp. Cond. (umho/cm)	240	258	260	246
Dissolved Oxygen (ppm)	8.1	8.4	7.2	7.8
Oxidation/Reduction (mV)	259	140	224	167
	.	.	.	.
MISCELLANEOUS PARAMETERS	.	.	.	.
	.	.	.	.
COD (mg/L)	<5	<5	<5	<5
Cyanide (mg/L)	<0.1	<0.1	<0.1	<0.1
Phenols (mg/L)	.	.	.	.
pH (pH units)	8.1	8.1	8	8.1
pH, 2 (pH units)	.	.	.	.
pH, 3 (pH units)	.	.	.	.
pH, 4 (pH units)	.	.	.	.
Sp. Cond. (umho/cm)	279	273	265	268
Sp. Cond., 2 (umho/cm)	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.
TOC (mg/L)	4	1	1.1	2
TOC, 2 (mg/L)	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.
TOX (ug/L)	<10	<10	<10	<10
TOX, 2 (ug/L)	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.
TDS (mg/L)	154	164	160	152
TSS (mg/L)	2	3	<1	1
Turbidity (NTU)	2.5	3.5	3.1	2.2
	.	.	.	.
RADIOCHEMICAL PARAMETERS	.	.	.	.
	.	.	.	.
Gross Alpha (pCi/L)	2.30	-0.17	1.32	-0.66
Gross Alpha (CE+/-)	1.80	0.74	2.00	1.00
Gross Beta (pCi/L)	4.18	1.30	1.56	2.75
Gross Beta (CE+/-)	3.10	2.50	2.80	2.50

APPENDIX E.5

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Field Measurements, Miscellaneous Parameters, and Radiochemistry, 1994

Sampling Point	CBS-1	
Unit	SPRING	
Location	CDLVII	
Date Sampled	02/14/94	09/07/94
FIELD MEASUREMENTS	.	.
Depth to Water (ft)	.	.
Water Temp (degrees C)	9.8	16.4
pH (pH units)	6.5	7.7
Sp. Cond. (umho/cm)	90	250
Dissolved Oxygen (ppm)	8.7	6.6
Oxidation/Reduction (mV)	.	.
MISCELLANEOUS PARAMETERS	.	.
COD (mg/L)	<5	<5
Cyanide (mg/L)	<0.1	<0.1
Phenols (mg/L)	.	.
pH (pH units)	7.1	7.5
pH, 2 (pH units)	.	.
pH, 3 (pH units)	.	.
pH, 4 (pH units)	.	.
Sp. Cond. (umho/cm)	117	295
Sp. Cond., 2 (umho/cm)	.	.
Sp. Cond., 3 (umho/cm)	.	.
Sp. Cond., 4 (umho/cm)	.	.
TOC (mg/L)	<1	<1
TOC, 2 (mg/L)	.	.
TOC, 3 (mg/L)	.	.
TOC, 4 (mg/L)	.	.
TOX (ug/L)	<10	<10
TOX, 2 (ug/L)	.	.
TOX, 3 (ug/L)	.	.
TOX, 4 (ug/L)	.	.
TPH - DRO (mg/L)	.	.
TDS (mg/L)	74	204
TSS (mg/L)	6	1
Turbidity (NTU)	9.2	6.1
RADIOCHEMICAL PARAMETERS	.	.
Gross Alpha (pCi/L)	0.59	0.47
Gross Alpha (CE+/-)	1.80	1.10
Gross Beta (pCi/L)	0.98	2.39
Gross Beta (CE+/-)	3.00	2.60

APPENDIX E.6
RADIONUCLIDES

APPENDIX E.6
Radionuclides, 1994

1

Sampling Point . Unit . Location . Date Sampled	1090				GW-160	GW-161	GW-203	
	AQF				AQF	AQF	AQF	
	UNCS				CRBAWP	CRBAWP	UNCS	
	01/11/94	04/12/94	07/28/94	10/16/94	02/12/94	02/11/94	01/06/94	04/07/94
Gross Alpha (pCi/L)	0.19	1.84	1.30	2.55	2.06	1.18	0.67	0.16
Gross Alpha (CE+/-)	1.40	1.60	1.70	3.40	1.50	1.20	1.30	0.99
Gross Beta (pCi/L)	-4.07	-0.17	2.34	9.22	3.49	4.79	-3.51	0.17
Gross Beta (CE+/-)	2.90	2.60	2.60	5.40	2.50	2.60	3.00	2.60
RADIONUCLIDES	.	.	.	.	.	.	.	.
Cesium 137 (pCi/l)	.	14.30	-1.28	6.22	.	.	.	-3.67
Cesium 137 (CE +/-)	.	33.00	20.00	15.00	.	.	.	20.00
Potassium 40 (pCi/L)	.	.	.	.	.	.	.	.
Potassium 40 (CE+/-)	.	.	.	.	.	.	.	.
Protactinium (pCi/L)	.	177.00	883.00	-1670.00	.	.	.	126.00
Protactinium (CE+/-)	.	5800.00	3000.00	2400.00	.	.	.	3100.00
Radium (Bq/L)	0.03	0.15	0.06	0.09	.	.	0.08	0.03
Radium (CE+/-)	0.04	0.10	0.06	0.08	.	.	0.05	0.04
Ruthenium 106 (pCi/L)	.	.	.	.	.	.	.	.
Ruthenium 106 (CE +/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	23.60	21.60	.	.
Strontium (CE+/-)	.	.	.	.	22.00	21.00	.	.
Technetium 99 (pCi/L)	.	.	.	.	192.00	91.50	.	.
Technetium 99 (CE+/-)	.	.	.	.	65.00	62.00	.	.
Thorium 234 (pCi/l)	.	-68.60	107.00	-152.00	.	.	.	-109.00
Thorium 234 (CE +/-)	.	570.00	290.00	170.00	.	.	.	310.00
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	0.30	0.11	0.87	0.43	1.21	0.71	0.38	0.30
Uranium 234 (CE+/-)	0.61	0.22	0.66	0.49	0.76	0.64	0.56	0.34
Uranium 235 (pCi/L)	-11.20	-12.50	8.33	14.90	-8.10	22.20	-13.00	-6.31
Uranium 235 (CE+/-)	68.00	68.00	18.00	19.00	19.00	75.00	68.00	19.00
Uranium 238 (pCi/L)	0.15	0.00	0.25	0.14	1.21	0.57	0.00	0.00
Uranium 238 (CE+/-)	0.30	0.38	0.35	0.29	0.76	0.57	0.44	0.34

(CONTINUED)

APPENDIX E.6
Radionuclides, 1994

2

Sampling Point	GW-203		GW-205				GW-221	
Unit	AQF		AQF				AQF	
Location	UNCS		UNCS				UNCS	
Date Sampled	07/26/94	10/12/94	01/07/94	04/07/94	07/26/94	10/12/94	01/10/94	04/08/94
Gross Alpha (pCi/L)	0.74	-0.50	3.18	1.26	2.22	0.50	-0.17	0.33
Gross Alpha (CE+/-)	1.90	1.10	1.90	1.50	2.20	1.40	1.10	1.10
Gross Beta (pCi/L)	0.82	1.93	-4.94	1.66	0.17	13.70	-4.09	-0.17
Gross Beta (CE+/-)	2.80	2.40	2.90	2.30	2.70	3.40	2.90	2.60
RADIONUCLIDES	.	.	.	.	.	.	.	.
Cesium 137 (pCi/l)	-120.00	-4.41	.	-30.10	8.43	3.78	.	-1.26
Cesium 137 (CE +/-)	200.00	16.00	.	38.00	34.00	5.30	.	35.00
Potassium 40 (pCi/L)	.	.	.	9410.00	.	.	.	.
Potassium 40 (CE+/-)	.	.	.	1100.00	.	.	.	.
Protactinium (pCi/L)	32000.00	167.00	.	6490.00	4880.00	515.00	.	2470.00
Protactinium (CE+/-)	25000.00	2400.00	.	6700.00	5900.00	880.00	.	6100.00
Radium (Bq/L)	0.02	0.04	0.06	0.02	0.09	0.14	0.01	0.04
Radium (CE+/-)	0.05	0.05	0.05	0.03	0.08	0.09	0.03	0.04
Ruthenium 106 (pCi/L)	.	.	.	.	.	.	184.00	.
Ruthenium 106 (CE +/-)	.	.	.	.	.	.	360.00	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Thorium 234 (pCi/l)	1640.00	25.30	.	-40.10	34.30	-27.40	.	33.20
Thorium 234 (CE +/-)	810.00	160.00	.	580.00	570.00	66.00	.	570.00
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	-0.80	0.65	0.52	0.64	0.00	1.36	0.16	0.32
Uranium 234 (CE+/-)	0.68	0.58	0.64	0.73	1.00	0.86	0.54	0.37
Uranium 235 (pCi/L)	2.85	-8.79	18.50	-11.50	-1.41	-2.95	-7.06	-28.10
Uranium 235 (CE+/-)	160.00	19.00	71.00	68.00	67.00	7.20	68.00	67.00
Uranium 238 (pCi/L)	-0.57	0.13	0.13	0.00	-0.13	0.82	0.00	0.00
Uranium 238 (CE+/-)	0.64	0.26	0.26	0.73	0.76	0.67	0.54	0.37

(CONTINUED)

APPENDIX E.6
Radionuclides, 1994

3

Sampling Point	GW-221		GW-295	GW-298	GW-299	GW-300	GW-301	GW-302
Unit	AQF		AQF	AQF	AQF	AQF	AQF	AQF
Location	UNCS		CRBAWP	CRBAWP	CRBAWP	CRBAWP	CRBAWP	UNCS
Date Sampled	07/27/94	10/15/94	02/15/94	02/14/94	02/13/94	02/13/94	02/13/94	01/11/94
Gross Alpha (pCi/L)	2.96	4.52	2.60	1.51	1.61	0.64	1.15	-0.37
Gross Alpha (CE+/-)	2.30	3.60	1.60	1.30	1.30	1.00	1.20	1.20
Gross Beta (pCi/L)	0.82	10.50	14.50	2.40	3.18	1.96	2.65	-4.73
Gross Beta (CE+/-)	2.80	5.50	3.40	2.40	2.50	2.40	2.40	2.80
	.	.	.	.	.	.	.	.
RADIONUCLIDES	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
Cesium 137 (pCi/L)	41.70	6.22	.	.	.	.	.	.
Cesium 137 (CE +/-)	76.00	15.00	.	.	.	.	.	.
Potassium 40 (pCi/L)	.	.	.	.	.	.	.	.
Potassium 40 (CE+/-)	.	.	.	.	.	.	.	.
Protactinium (pCi/L)	7700.00	1000.00	.	.	.	.	.	.
Protactinium (CE+/-)	13000.00	2500.00	.	.	.	.	.	.
Radium (Bq/L)	0.04	0.09	.	.	.	.	.	-0.01
Radium (CE+/-)	0.05	0.07	.	.	.	.	.	0.02
Ruthenium 106 (pCi/L)	.	.	.	.	.	.	.	258.00
Ruthenium 106 (CE +/-)	.	.	.	.	.	.	.	360.00
Strontium (pCi/L)	.	.	8.68	55.30	41.50	20.70	41.50	.
Strontium (CE+/-)	.	.	20.00	25.00	23.00	21.00	23.00	.
Technetium 99 (pCi/L)	.	.	205.00	302.00	155.00	160.00	157.00	.
Technetium 99 (CE+/-)	.	.	65.00	68.00	64.00	64.00	64.00	.
Thorium 234 (pCi/L)	-46.70	-1.04	.	.	.	.	.	.
Thorium 234 (CE +/-)	770.00	160.00	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	-0.98	0.00	0.96	0.89	0.58	1.12	0.33	1.14
Uranium 234 (CE+/-)	1.00	0.50	0.72	0.67	0.58	0.85	0.47	0.98
Uranium 235 (pCi/L)	26.90	-8.08	7.69	-6.08	2.57	12.60	-65.10	-10.70
Uranium 235 (CE+/-)	92.00	19.00	75.00	68.00	18.00	67.00	74.00	68.00
Uranium 238 (pCi/L)	-0.82	0.00	0.00	0.64	0.14	0.00	0.00	0.16
Uranium 238 (CE+/-)	0.93	0.50	0.47	0.57	0.29	0.56	0.58	0.33

(CONTINUED)

APPENDIX E.6
Radionuclides, 1994

4

Sampling Point	GW-302			GW-339				GW-521
Unit	AQF			AQF				AQF
Location	UNCS			UNCS				LIV
Date Sampled	04/12/94	07/28/94	10/15/94	01/11/94	04/08/94	07/27/94	10/15/94	01/06/94
Gross Alpha (pCi/L)	1.45	2.04	6.65	0.19	0.55	1.73	7.91	-2.00
Gross Alpha (CE+/-)	1.50	1.70	4.10	1.40	1.20	2.20	4.50	2.10
Gross Beta (pCi/L)	-0.34	1.90	19.60	-2.61	2.61	-0.50	15.00	-2.85
Gross Beta (CE+/-)	2.50	2.60	6.20	2.90	2.70	2.70	5.80	3.20
RADIONUCLIDES	.	.	.	.	.	.	.	.
Cesium 137 (pCi/l)	11.90	27.30	-0.11	.	23.00	1.84	7.42	.
Cesium 137 (CE +/-)	19.00	79.00	5.20	.	28.00	19.00	14.00	.
Potassium 40 (pCi/L)	.	.	.	301.00	.	665.00	.	475.00
Potassium 40 (CE+/-)	.	.	.	820.00	.	260.00	.	840.00
Protactinium (pCi/L)	-189.00	-7870.00	83.10	.	3270.00	-315.00	-666.00	.
Protactinium (CE+/-)	2900.00	14000.00	960.00	.	4600.00	3000.00	2400.00	.
Radium (Bq/L)	0.04	0.10	0.01	0.01	0.03	0.11	0.07	0.07
Radium (CE+/-)	0.04	0.08	0.05	0.03	0.03	0.08	0.07	0.05
Ruthenium 106 (pCi/L)	.	.	.	.	.	.	.	.
Ruthenium 106 (CE +/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	-2.49
Strontium (CE+/-)	.	.	.	.	.	.	.	22.00
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	148.00
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	63.00
Thorium 234 (pCi/l)	-24.90	-62.40	-73.70	.	-61.20	-87.30	-10.50	.
Thorium 234 (CE +/-)	290.00	780.00	66.00	.	480.00	290.00	170.00	.
Tritium (Bq/L)	.	.	.	.	.	.	.	3.00
Tritium (CE+/-)	.	.	.	.	.	.	.	24.00
Uranium 234 (pCi/L)	0.39	0.68	0.37	0.70	0.11	-0.55	2.18	0.97
Uranium 234 (CE+/-)	0.39	0.61	0.74	0.74	0.23	0.73	1.90	0.87
Uranium 235 (pCi/L)	2.41	-11.30	4.66	-8.85	7.24	-15.50	-2.81	101.00
Uranium 235 (CE+/-)	18.00	92.00	7.30	72.00	75.00	18.00	20.00	68.00
Uranium 238 (pCi/L)	0.20	0.00	0.00	0.14	0.11	-0.55	0.44	-0.19
Uranium 238 (CE+/-)	0.28	0.47	1.30	0.28	0.23	0.62	0.87	0.77

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APPENDIX E.6
Radionuclides, 1994

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Sampling Point	GW-521			GW-539				GW-540
Unit	AQF			AQF				AQF
Location	LIV			LII				CDLVI
Date Sampled	04/05/94	07/07/94	10/04/94	01/06/94	04/04/94	07/13/94	10/06/94	03/22/94
Gross Alpha (pCi/L)	-0.17	0.81	2.37	-0.61	6.76	-0.18	3.31	0.16
Gross Alpha (CE+/-)	1.30	1.30	1.70	1.60	2.80	0.78	2.70	1.30
Gross Beta (pCi/L)	-0.56	0.97	0.00	1.20	7.69	-1.20	6.27	1.18
Gross Beta (CE+/-)	2.50	2.40	2.70	2.70	2.90	2.40	3.10	2.30
	.	.	.	.	.	.	.	.
RADIONUCLIDES	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
Cesium 137 (pCi/l)	18.20	-16.80	.	19.50	-4.85	17.40	-2.54	11.80
Cesium 137 (CE +/-)	79.00	20.00	.	29.00	31.00	78.00	5.40	34.00
Potassium 40 (pCi/L)	1620.00	.	.	.	.	.	.	.
Potassium 40 (CE+/-)	550.00	.	.	.	.	.	.	.
Protactinium (pCi/L)	-5190.00	-1200.00	.	4130.00	-1660.00	7030.00	415.00	3440.00
Protactinium (CE+/-)	14000.00	3000.00	.	4600.00	4700.00	13000.00	930.00	5700.00
Radium (Bq/L)	0.06	0.04	0.01	.	.	.	.	.
Radium (CE+/-)	0.04	0.03	0.02	.	.	.	.	.
Ruthenium 106 (pCi/L)	.	.	.	.	.	.	.	.
Ruthenium 106 (CE +/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	37.80	-0.96	-45.70	.	.	.	.	.
Strontium (CE+/-)	22.00	20.00	26.00	.	.	.	.	.
Technetium 99 (pCi/L)	56.70	121.00	38.20	.	.	.	.	.
Technetium 99 (CE+/-)	61.00	62.00	38.00	.	.	.	.	.
Thorium 234 (pCi/l)	1480.00	72.00	.	-128.00	135.00	112.00	4.55	26.60
Thorium 234 (CE +/-)	470.00	290.00	.	480.00	480.00	770.00	66.00	570.00
Tritium (Bq/L)	10.00	7.00	100.00	.	.	.	.	.
Tritium (CE+/-)	23.00	24.00	20.00	.	.	.	.	.
Uranium 234 (pCi/L)	0.23	-0.15	0.23	0.40	0.36	0.00	0.97	0.00
Uranium 234 (CE+/-)	1.00	0.60	0.33	0.57	0.72	1.60	0.91	0.97
Uranium 235 (pCi/L)	70.40	-4.36	58.70	31.20	37.60	7.91	1.71	-22.60
Uranium 235 (CE+/-)	72.00	17.00	110.00	75.00	78.00	93.00	7.20	68.00
Uranium 238 (pCi/L)	0.00	0.00	0.12	0.64	0.18	0.32	0.32	0.00
Uranium 238 (CE+/-)	0.79	0.52	0.23	0.55	0.62	1.10	0.46	0.97

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APPENDIX E.6
Radionuclides, 1994

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Sampling Point	GW-540		GW-541			GW-542		
Unit	AQF		AQF			AQF		
Location	CDLVI		CDLVI			CDLVI		
Date Sampled	04/14/94	10/10/94	03/23/94	04/18/94	10/11/94	03/24/94	04/19/94	10/12/94
Gross Alpha (pCi/L)	-0.17	1.45	1.33	1.82	1.72	-0.17	-0.01	-0.49
Gross Alpha (CE+/-)	0.90	1.80	1.60	1.70	1.70	1.20	1.30	1.10
Gross Beta (pCi/L)	-2.08	3.48	0.93	-0.66	1.81	5.50	0.15	2.20
Gross Beta (CE+/-)	2.50	2.60	2.30	2.50	2.40	2.60	2.60	2.50
RADIONUCLIDES	.	.	.	.	.	.	.	.
Cesium 137 (pCi/l)	-3.67	1.88	11.20	17.30	0.05	-3.45	20.70	-0.11
Cesium 137 (CE +/-)	20.00	29.00	33.00	33.00	5.20	19.00	29.00	5.20
Potassium 40 (pCi/L)	.	348.00	.	.	.	.	.	.
Potassium 40 (CE+/-)	.	520.00	.	.	.	.	.	.
Protactinium (pCi/L)	-3850.00	1900.00	5250.00	5560.00	0.00	757.00	2790.00	415.00
Protactinium (CE+/-)	5600.00	5100.00	5900.00	6000.00	960.00	3000.00	4800.00	820.00
Radium (Bq/L)	.	.	.	.	.	.	.	.
Radium (CE+/-)	.	.	.	.	.	.	.	.
Ruthenium 106 (pCi/L)	.	.	.	.	.	.	.	.
Ruthenium 106 (CE +/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Thorium 234 (pCi/l)	169.00	-168.00	80.60	118.00	-38.60	12.50	254.00	-65.00
Thorium 234 (CE +/-)	290.00	380.00	570.00	570.00	65.00	280.00	510.00	66.00
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	0.00	0.93	0.60	0.63	0.90	0.89	0.00	0.63
Uranium 234 (CE+/-)	0.34	0.70	0.59	0.60	0.63	0.89	0.41	0.51
Uranium 235 (pCi/L)	-7.08	14.60	-11.20	0.11	-1.15	3.58	0.45	3.88
Uranium 235 (CE+/-)	18.00	44.00	68.00	68.00	7.20	18.00	75.00	7.30
Uranium 238 (pCi/L)	0.10	0.00	0.89	0.32	1.57	0.44	0.00	0.11
Uranium 238 (CE+/-)	0.20	0.37	0.73	0.37	0.84	0.63	0.51	0.21

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APPENDIX E.6
Radionuclides, 1994

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Sampling Point . Unit . Location . Date Sampled	GW-543			GW-544			GW-545	
	AQF			AQF			AQF	
	CDLVI			CDLVI			CDLVI	
	03/25/94	04/20/94	10/13/94	03/25/94	04/21/94	10/13/94	03/25/94	04/19/94
Gross Alpha (pCi/L)	-0.17	0.16	-0.87	1.00	1.04	1.46	0.33	0.63
Gross Alpha (CE+/-)	1.20	1.40	1.00	1.50	1.20	1.70	1.40	1.40
Gross Beta (pCi/L)	1.42	-3.33	0.71	2.04	0.78	5.19	23.30	17.40
Gross Beta (CE+/-)	2.30	2.40	2.30	2.30	2.40	2.60	4.20	3.90
	.	.	.	.	.	.	.	.
RADIONUCLIDES	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
Cesium 137 (pCi/l)	-3.34	16.40	2.41	16.40	-0.63	1.41	19.40	-8.18
Cesium 137 (CE +/-)	19.00	33.00	15.00	35.00	35.00	5.10	29.00	19.00
Potassium 40 (pCi/L)	.	.	.	.	.	58.30	.	.
Potassium 40 (CE+/-)	.	.	.	.	.	58.00	.	.
Protactinium (pCi/L)	0.00	2890.00	-1210.00	-1660.00	5160.00	449.00	805.00	631.00
Protactinium (CE+/-)	2900.00	6200.00	2500.00	6300.00	6000.00	1000.00	4800.00	2900.00
Radium (Bq/L)	.	.	.	.	.	.	.	.
Radium (CE+/-)	.	.	.	.	.	.	.	.
Ruthenium 106 (pCi/L)	.	.	.	.	.	.	.	.
Ruthenium 106 (CE +/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Thorium 234 (pCi/l)	-52.60	306.00	120.00	144.00	-77.30	-13.00	46.60	134.00
Thorium 234 (CE +/-)	290.00	590.00	160.00	570.00	570.00	67.00	480.00	280.00
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	0.33	0.48	0.43	0.22	0.22	0.41	0.83	0.14
Uranium 234 (CE+/-)	0.46	0.71	0.49	0.44	0.45	0.41	0.75	0.48
Uranium 235 (pCi/L)	-7.32	-7.82	1.55	-10.60	-7.49	0.26	13.10	1.40
Uranium 235 (CE+/-)	18.00	68.00	19.00	67.00	68.00	7.30	75.00	17.00
Uranium 238 (pCi/L)	0.33	0.16	0.00	0.00	0.22	0.41	0.00	0.83
Uranium 238 (CE+/-)	0.46	0.32	0.49	0.75	0.45	0.41	0.58	0.68

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APPENDIX E.6
Radionuclides, 1994

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Sampling Point	GW-545	GW-546			GW-557			
Unit	AQF	AQF			AQF			
Location	CDLVI	CDLVI			LV			
Date Sampled	10/12/94	03/23/94	04/14/94	10/11/94	03/07/94	04/21/94	07/15/94	10/09/94
Gross Alpha (pCi/L)	0.80	0.32	1.18	0.34	-0.94	-0.82	-0.15	3.06
Gross Alpha (CE+/-)	1.40	1.30	1.30	1.40	1.10	1.10	1.80	2.00
Gross Beta (pCi/L)	8.89	1.98	-1.76	4.61	1.34	-2.47	2.97	6.66
Gross Beta (CE+/-)	3.00	2.30	2.50	2.60	2.60	2.40	2.90	2.80
RADIONUCLIDES	.	.	.	.	.	.	.	.
Cesium 137 (pCi/l)	6.02	-17.70	-13.10	20.00	13.70	-3.62	7.60	-9.60
Cesium 137 (CE +/-)	15.00	19.00	35.00	90.00	35.00	19.00	35.00	29.00
Potassium 40 (pCi/L)	.	.	.	517.00	.	.	.	.
Potassium 40 (CE+/-)	.	.	.	770.00	.	.	.	.
Protactinium (pCi/L)	-666.00	-2460.00	375.00	1500.00	4210.00	189.00	1020.00	1310.00
Protactinium (CE+/-)	2500.00	3000.00	5900.00	14000.00	5900.00	3000.00	6100.00	4700.00
Radium (Bq/L)	.	.	.	.	.	.	.	.
Radium (CE+/-)	.	.	.	.	.	.	.	.
Ruthenium 106 (pCi/L)	.	.	.	.	.	.	.	.
Ruthenium 106 (CE +/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Thorium 234 (pCi/l)	-73.80	23.50	-80.60	-440.00	-163.00	-209.00	277.00	-344.00
Thorium 234 (CE +/-)	170.00	300.00	570.00	740.00	570.00	300.00	570.00	370.00
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	0.58	0.19	0.53	0.22	0.34	0.43	-0.49	0.47
Uranium 234 (CE+/-)	0.52	0.38	0.47	0.30	0.48	0.64	0.85	0.47
Uranium 235 (pCi/L)	-13.60	-2.80	6.73	84.20	-22.00	-0.70	-9.88	43.70
Uranium 235 (CE+/-)	20.00	18.00	67.00	120.00	68.00	18.00	68.00	44.00
Uranium 238 (pCi/L)	0.12	0.00	0.00	0.11	-0.51	0.43	0.00	0.00
Uranium 238 (CE+/-)	0.23	0.66	0.36	0.22	0.83	0.49	0.77	0.33

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APPENDIX E.6
Radionuclides, 1994

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Sampling Point . Unit . Location . Date Sampled	GW-560				GW-562			
	AQF				AQF			
	CDLVII				CDLVII			
	03/07/94	04/19/94	07/12/94	10/08/94	03/07/94	04/19/94	07/13/94	10/08/94
Gross Alpha (pCi/L)	-0.76	0.63	0.66	3.01	-0.57	-0.82	3.20	2.32
Gross Alpha (CE+/-)	1.20	1.40	1.10	2.00	1.20	1.10	2.60	2.00
Gross Beta (pCi/L)	-0.24	-1.53	-0.74	6.44	0.07	-1.36	2.27	6.47
Gross Beta (CE+/-)	2.50	2.50	2.40	2.80	2.50	2.50	5.20	2.80
RADIONUCLIDES	.	.	.	.	.	.	.	.
Cesium 137 (pCi/l)	20.20	-10.20	-5.40	44.70	-4.12	34.10	-4.22	-3.79
Cesium 137 (CE +/-)	29.00	29.00	19.00	78.00	20.00	28.00	35.00	82.00
Potassium 40 (pCi/L)	.	.	614.00	.	.	.	.	527.00
Potassium 40 (CE+/-)	.	.	230.00	.	.	.	.	890.00
Protactinium (pCi/L)	1720.00	-2090.00	-126.00	335.00	3090.00	4990.00	5010.00	8530.00
Protactinium (CE+/-)	4700.00	5100.00	3100.00	14000.00	2800.00	4400.00	6100.00	12000.00
Radium (Bq/L)	.	.	.	.	.	.	.	.
Radium (CE+/-)	.	.	.	.	.	.	.	.
Ruthenium 106 (pCi/L)	.	.	.	.	.	.	.	.
Ruthenium 106 (CE +/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Thorium 234 (pCi/l)	161.00	77.60	-229.00	-132.00	-270.00	114.00	1.46	124.00
Thorium 234 (CE +/-)	480.00	480.00	280.00	770.00	290.00	480.00	570.00	770.00
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	0.29	0.00	-0.37	0.69	0.14	0.00	-0.95	0.38
Uranium 234 (CE+/-)	0.40	0.34	1.70	0.69	0.28	0.38	1.50	0.44
Uranium 235 (pCi/L)	26.20	25.80	0.86	27.20	-16.70	27.10	-6.84	-6.99
Uranium 235 (CE+/-)	75.00	75.00	18.00	91.00	18.00	75.00	68.00	92.00
Uranium 238 (pCi/L)	-0.29	0.12	-0.37	0.00	-0.42	0.54	-0.63	-0.13
Uranium 238 (CE+/-)	0.57	0.24	1.30	0.49	0.69	0.54	1.40	0.51

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APPENDIX E.6
Radionuclides, 1994

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Sampling Point	GW-564				GW-796			
Unit	AQF				AQF			
Location	CDLVII				LV			
Date Sampled	03/07/94	04/20/94	07/14/94	10/09/94	03/08/94	04/25/94	07/20/94	10/11/94
Gross Alpha (pCi/L)	-0.39	-0.01	-0.01	0.47	1.93	0.82	-0.58	-0.17
Gross Alpha (CE+/-)	1.30	1.30	0.81	1.50	1.70	1.10	1.70	1.20
Gross Beta (pCi/L)	0.31	-1.05	1.13	1.27	3.61	2.58	1.31	2.52
Gross Beta (CE+/-)	2.50	2.50	2.60	2.40	3.10	2.60	2.80	2.50
RADIONUCLIDES	.	.	.	.	.	.	.	.
Cesium 137 (pCi/l)	39.10	-4.68	4.90	1.04	3.50	-1.39	-5.46	0.40
Cesium 137 (CE +/-)	27.00	19.00	19.00	29.00	29.00	19.00	19.00	15.00
Potassium 40 (pCi/L)	.	.	517.00	.	.	494.00	374.00	.
Potassium 40 (CE+/-)	.	.	240.00	.	.	350.00	360.00	.
Protactinium (pCi/L)	2250.00	-3410.00	-189.00	3070.00	1290.00	2150.00	1770.00	3170.00
Protactinium (CE+/-)	4600.00	3100.00	3100.00	5000.00	4700.00	3100.00	3000.00	2000.00
Radium (Bq/L)	.	.	.	.	.	.	.	.
Radium (CE+/-)	.	.	.	.	.	.	.	.
Ruthenium 106 (pCi/L)	.	.	.	.	.	.	.	.
Ruthenium 106 (CE +/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Thorium 234 (pCi/l)	119.00	94.20	-116.00	-176.00	192.00	-127.00	83.10	55.10
Thorium 234 (CE +/-)	480.00	290.00	290.00	380.00	490.00	290.00	290.00	160.00
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	0.38	0.52	-0.36	0.22	0.00	0.52	-0.12	0.24
Uranium 234 (CE+/-)	0.44	0.78	1.60	0.31	0.42	0.73	0.96	0.33
Uranium 235 (pCi/L)	48.80	-7.86	-13.00	-31.70	15.40	6.85	-5.22	-12.70
Uranium 235 (CE+/-)	78.00	18.00	18.00	44.00	75.00	18.00	18.00	20.00
Uranium 238 (pCi/L)	-0.26	0.35	-0.72	0.11	0.00	0.26	-0.62	0.12
Uranium 238 (CE+/-)	0.51	0.49	1.60	0.39	0.42	0.52	0.70	0.24

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APPENDIX E.6
Radionuclides, 1994

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Sampling Point . Unit . Location . Date Sampled	GW-797				GW-798			
	AQF				AQF			
	LV				CDLVII			
	03/08/94	04/25/94	07/19/94	10/10/94	03/08/94	04/22/94	07/19/94	10/10/94
Gross Alpha (pCi/L)	2.65	0.49	1.47	1.19	3.76	0.16	1.76	1.11
Gross Alpha (CE+/-)	1.80	0.98	2.00	1.80	2.00	0.88	2.10	1.70
Gross Beta (pCi/L)	4.17	0.89	0.82	2.74	3.93	1.29	0.00	3.34
Gross Beta (CE+/-)	3.10	2.50	2.80	2.50	3.10	2.50	2.70	2.60
RADIONUCLIDES	.	.	.	.	.	.	.	.
Cesium 137 (pCi/L)	-6.33	-4.64	-2.27	9.60	0.33	-9.16	19.40	9.86
Cesium 137 (CE +/-)	33.00	36.00	84.00	29.00	19.00	29.00	33.00	81.00
Potassium 40 (pCi/L)	.	.	.	.	.	.	.	.
Potassium 40 (CE+/-)	.	.	.	.	.	.	.	.
Protactinium (pCi/L)	4810.00	6750.00	4180.00	1240.00	3970.00	4180.00	1390.00	-2840.00
Protactinium (CE+/-)	5600.00	5900.00	14000.00	5300.00	2800.00	4500.00	5900.00	14000.00
Radium (Bq/L)	.	.	.	.	.	.	.	.
Radium (CE+/-)	.	.	.	.	.	.	.	.
Ruthenium 106 (pCi/L)	.	.	.	.	.	.	.	.
Ruthenium 106 (CE +/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Thorium 234 (pCi/L)	-181.00	-49.60	24.00	-525.00	77.60	-90.80	638.00	-537.00
Thorium 234 (CE +/-)	570.00	570.00	780.00	380.00	280.00	480.00	390.00	780.00
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	0.00	0.24	-0.85	1.00	0.00	0.24	-0.45	0.13
Uranium 234 (CE+/-)	0.38	0.49	0.89	1.20	0.45	0.48	0.77	0.27
Uranium 235 (pCi/L)	-3.04	-22.50	50.90	-11.70	-9.26	37.10	-16.10	71.40
Uranium 235 (CE+/-)	68.00	68.00	77.00	44.00	18.00	75.00	68.00	91.00
Uranium 238 (pCi/L)	0.11	0.24	-0.56	0.33	0.13	0.00	-0.45	0.00
Uranium 238 (CE+/-)	0.22	0.49	0.69	1.20	0.26	0.84	0.55	0.38

(CONTINUED)

APPENDIX E.6
Radionuclides, 1994

12

Sampling Point	GW-799				GW-801			
Unit	AQF				AQF			
Location	CDLVII				LV			
Date Sampled	03/07/94	04/21/94	07/18/94	10/10/94	03/08/94	04/27/94	07/21/94	10/11/94
Gross Alpha (pCi/L)	-0.35	0.15	1.91	-0.32	2.30	-0.17	1.32	-0.66
Gross Alpha (CE+/-)	1.20	1.30	2.10	1.30	1.80	0.74	2.00	1.00
Gross Beta (pCi/L)	-1.20	-2.01	1.73	0.31	4.18	1.30	1.56	2.75
Gross Beta (CE+/-)	2.50	2.50	2.80	2.40	3.10	2.50	2.80	2.50
RADIONUCLIDES	.	.	.	.	.	.	.	.
Cesium 137 (pCi/L)	-8.65	0.14	-4.07	-0.42	9.91	7.17	-6.13	-2.27
Cesium 137 (CE +/-)	35.00	29.00	20.00	30.00	33.00	33.00	19.00	5.40
Potassium 40 (pCi/L)	.	.	443.00	277.00	.	1040.00	416.00	.
Potassium 40 (CE+/-)	.	.	290.00	530.00	.	660.00	300.00	.
Protactinium (pCi/L)	-485.00	-3380.00	946.00	3460.00	3070.00	-154.00	-442.00	582.00
Protactinium (CE+/-)	6100.00	4700.00	3000.00	5000.00	6100.00	6100.00	2900.00	960.00
Radium (Bq/L)	.	.	.	.	.	.	.	.
Radium (CE+/-)	.	.	.	.	.	.	.	.
Ruthenium 106 (pCi/L)	.	.	.	.	.	.	.	.
Ruthenium 106 (CE +/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Thorium 234 (pCi/L)	-35.00	71.00	119.00	-212.00	-154.00	-35.40	20.80	-49.80
Thorium 234 (CE +/-)	570.00	480.00	280.00	380.00	570.00	570.00	280.00	66.00
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	0.43	0.61	-0.51	0.40	0.00	0.25	-0.36	0.28
Uranium 234 (CE+/-)	0.60	0.75	0.88	0.46	0.43	0.50	0.85	0.39
Uranium 235 (pCi/L)	-13.50	27.60	3.43	16.80	3.80	-3.47	-2.18	4.15
Uranium 235 (CE+/-)	68.00	75.00	18.00	44.00	68.00	67.00	18.00	7.30
Uranium 238 (pCi/L)	-0.21	0.76	-0.51	0.00	0.13	0.50	-0.59	0.00
Uranium 238 (CE+/-)	0.95	0.68	0.62	0.38	0.25	0.70	0.67	0.48

APPENDIX E.6
Radionuclides, 1994

13

Sampling Point	CBS-1	
Unit	SPRING	
Location	CDLVII	
Date Sampled	02/14/94	09/07/94
Gross Alpha (pCi/L)	0.59	0.47
Gross Alpha (CE+/-)	1.80	1.10
Gross Beta (pCi/L)	0.98	2.39
Gross Beta (CE+/-)	3.00	2.60
	.	.
RADIONUCLIDES	.	.
	.	.
Cesium 137 (pCi/l)	14.60	13.60
Cesium 137 (CE +/-)	41.00	80.00
Potassium 40 (pCi/L)	.	.
Potassium 40 (CE+/-)	.	.
Protactinium (pCi/L)	2470.00	1340.00
Protactinium (CE+/-)	6200.00	13000.00
Radium (Bq/L)	.	.
Radium (CE+/-)	.	.
Ruthenium 106 (pCi/L)	.	.
Ruthenium 106 (CE +/-)	.	.
Strontium (pCi/L)	.	.
Strontium (CE+/-)	.	.
Technetium 99 (pCi/L)	.	.
Technetium 99 (CE+/-)	.	.
Thorium 234 (pCi/l)	-201.00	101.00
Thorium 234 (CE +/-)	560.00	770.00
Tritium (Bq/L)	.	.
Tritium (CE+/-)	.	.
Uranium 234 (pCi/L)	0.15	0.43
Uranium 234 (CE+/-)	0.29	0.86
Uranium 235 (pCi/L)	19.10	-64.10
Uranium 235 (CE+/-)	71.00	94.00
Uranium 238 (pCi/L)	-0.29	0.00
Uranium 238 (CE+/-)	0.58	1.50

APPENDIX E.6
Radionuclides, 1994

14

Sampling Point . Unit . Location . Date Sampled	GW-521			
	AQF			
	LIV			
	01/06/94	04/05/94	07/07/94	10/04/94
Gross Alpha (pCi/L)	-2.00	-0.17	0.81	2.37
Gross Alpha (CE+/-)	2.10	1.30	1.30	1.70
Gross Beta (pCi/L)	-2.85	-0.56	0.97	0.00
Gross Beta (CE+/-)	3.20	2.50	2.40	2.70
	.	.	.	.
RADIONUCLIDES	.	.	.	.
	.	.	.	.
Americium 241 (pCi/L)	0.31	0.95	8.13	0.00
Americium 241 (CE+/-)	0.61	1.30	6.60	1.90
Iodine 129 (Bq/L)	0.10	0.01	0.01	0.10
Iodine 129 (CE +/-)	1.10	0.83	0.85	1.00
Iodine 131 (Bq/L)	-0.02	-0.02	.	.
Iodine 131 (CE +/-)	0.15	0.11	.	.
Iodine 133 (Bq/L)	0.01	.	.	.
Iodine 133 (CE +/-)	0.19	.	.	.
Iodine 135 (Bq/L)	0.70	.	.	.
Iodine 135 (CE +/-)	0.27	.	.	.
Neptunium 237 (pCi/L)	0.00	0.00	0.52	0.00
Neptunium 237 (CE+/-)	0.49	0.51	0.60	0.67
Plutonium 238 (pCi/L)	-0.22	0.00	0.00	-0.63
Plutonium 238 (CE+/-)	0.86	0.68	0.66	1.00
Plutonium 239 (pCi/L)	0.00	0.00	0.00	0.21
Plutonium 239 (CE+/-)	0.75	0.68	0.66	0.42

APPENDIX F
FIELD DUPLICATE DATA

EXPLANATION

UNIT:

AQF	-	Knox Aquifer
AQT	-	ORR Aquitards
SPRING	-	Spring Sampling Station

LOCATION:

ADB	-	Ash Disposal Basin
CDLVI	-	Construction/Demolition Landfill VI
CDLVII	-	Construction/Demolition Landfill VII
CRBAWP	-	Chestnut Ridge Borrow Area Waste Pile
CRSDB	-	Chestnut Ridge Sediment Disposal Basin
CRSP	-	Chestnut Ridge Security Pits
ECRWP	-	East Chestnut Ridge Waste Pile
KHQ	-	Kerr Hollow Quarry
LII	-	Industrial Landfill II
LIV	-	Industrial Landfill IV
LV	-	Industrial Landfill V
RQ	-	Rogers Quarry
UNCS	-	United Nuclear Corporation Site

ALL DATA:

- Not analyzed or not reported.

ORGANIC COMPOUNDS:

All results in micrograms per liter (ug/L).

U - Compound not detected at the reported minimum attainable detection limit.

"Additional Organic Compounds" and "Other Organic Compounds" (Appendix E.3) are parameter suites required by permits at landfill sites. The additional organics analyses are performed by Ecotek and the other organics analyses are performed by the K-25 ASO.

EXPLANATION (cont'd)

METALS, ANIONS, MISCELLANEOUS, AND RADIOCHEMICAL PARAMETERS:

All analyses are by Inductively Coupled Plasma (ICP) Spectroscopy unless otherwise noted.

Bicarbonate and carbonate alkalinity reported as CaCO_3 .

<	-	Compound analyzed but not detected at the reported minimum attainable detection limit
mg/L	-	milligrams per liter
AAS	-	Atomic Absorption Spectroscopy
CVAA	-	Cold Vapor Atomic Absorption
Fluor	-	Fluorometric
DIS	-	Dissolved Concentration (Filtered Sample)
TOT	-	Total Concentration (Unfiltered Sample)
COD	-	Chemical Oxygen Demand
TOC	-	Total Organic Carbon
TOX	-	Total Organic Halogens
TDS	-	Total Dissolved Solids
TSS	-	Total Suspended Solids
Sp. Cond.	-	Specific Conductance
ppm	-	parts per million
umho/cm	-	micromhos per centimeter
NTU	-	Nephelometric Turbidity Unit
mV	-	millivolts
pCi/L	-	picoCuries per liter
Bq/L	-	Becquerels per liter
CE +/-	-	Counting Error (two standard deviations)

APPENDIX F.1
TRACE METALS AND ANIONS

Field Duplicate Data: Trace Metals and Anions, 1994

Sampling Point Unit Location Date Sampled Type	1090		GW-141							
	AQF		AQF							
	UNCS		LIV							
	07/28/94		01/06/94		04/04/94		07/06/94		10/04/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	<0.02	<0.02	0.81	0.026	0.79	<0.02	0.1	<0.02	0.93	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.028	0.027	0.021	0.019	0.02	0.018	0.019	0.019	0.019	0.018
Beryllium	<0.0003	<0.0003	0.00037	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.046	0.029	0.016	0.031	0.011	0.0058	0.023	0.023	0.036	0.06
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	58	56	47	47	45	45	49	49	47	47
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.023	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	<0.004	0.0044	<0.004	0.0075	<0.004	<0.004	<0.004
Iron	0.021	<0.005	0.89	<0.005	0.73	<0.005	0.21	0.0097	0.63	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	35	34	28	28	28	28	31	32	29	28
Manganese	<0.001	<0.001	0.016	<0.001	0.012	<0.001	0.011	0.0011	0.01	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.029	<0.01	<0.01	<0.01
Potassium	1	0.77	1.4	1.1	0.98	<0.6	0.72	0.72	<0.6	<0.6
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	10	9.6	0.84	0.81	0.98	0.93	0.91	0.9	0.78	0.81
Strontium	0.026	0.024	0.018	0.017	0.018	0.017	0.018	0.018	0.017	0.016
Thallium (AAS)	.	.	.	.	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.001	0.001	<0.001	<0.001	0.002	0.001	<0.001	<0.001	<0.015	<0.015
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.005	0.0025	0.026	0.0061	0.02	0.0047	0.017	0.0051	0.028	0.017
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	260	.	229	.	230	.	243	.	231	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	20	.	2.1	.	1.8	.	1.4	.	1.9	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.84	.	0.66	.	0.72	.	0.52	.	0.54	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	11	.	2.5	.	2.1	.	2.3	.	8.2	.
TSS (mg/L)	<1	.	13	.	18	.	8	.	17	.
Turbidity (NTU)	0.8	.	26	.	20	.	10	.	26	.

(CONTINUED)

Field Duplicate Data: Trace Metals and Anions, 1994

Sampling Point . Unit . Location . Date Sampled . Type	GW-144								GW-181	
	AQF								AQF	
	KHQ								CRSP	
	03/10/94		04/19/94		07/26/94		10/25/94		02/16/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	<0.02	<0.02	<0.02	<0.02	<0.02	0.029	<0.02	<0.02	<0.02	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.042	0.043	0.048	0.048	0.041	0.042	0.045	0.043	0.0076	0.0073
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.019	0.014	0.02	0.024	0.029	0.035	0.025	0.022	0.0063	0.022
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	43	43	43	45	38	38	40	39	33	32
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	0.0058	0.0065	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Iron	0.011	<0.005	0.017	0.015	0.01	<0.005	<0.005	<0.005	0.78	0.012
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	14	14	15	16	14	14	15	15	21	20
Manganese	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0071	0.0032
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	2.1	1.9	2.3	2.2	1.5	1.7	1.7	2.3	1.7	1.3
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	1.1	1.1	1.3	1.4	0.98	1	1.1	1.2	0.61	0.64
Strontium	0.087	0.088	0.094	0.094	0.075	0.077	0.083	0.079	0.016	0.016
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.003	0.003	0.002	0.005	0.002	0.002	<0.015	<0.015	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	<0.002	<0.002	0.0025	0.0057	0.0025	0.0045	<0.002	0.011	<0.002	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	147	.	165	.	141	.	152	.	167	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	2	.	2	.	2	.	1.9	.	2	.
Fluoride	0.1	.	0.1	.	0.1	.	0.1	.	<0.1	.
Nitrate-N	2	.	2.1	.	1.3	.	1.1	.	<0.2	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	6	.	7	.	9.5	.	4.3	.	1	.
TSS (mg/L)	1	.	<1	.	<1	.	<1	.	<1	.
Turbidity (NTU)	0.8	.	0.6	.	1	.	0.1	.	2.5	.

(CONTINUED)

Field Duplicate Data: Trace Metals and Anions, 1994

Sampling Point Unit Location Date Sampled Type	GW-181				GW-186		GW-203		GW-221	
	AQF				AQT		AQF		AQF	
	CRSP				RQ		UNCS		UNCS	
	04/22/94		07/31/94		01/27/94		04/07/94		01/10/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.051	0.048	0.035	0.037	<0.02	<0.02	0.18	0.025	<0.02	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	0.053	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.0064	0.0052	0.0092	0.0066	0.12	0.12	0.009	0.0085	0.0075	0.0078
Beryllium	0.0011	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.093	0.2	0.035	0.066	0.14	0.14	0.011	0.022	0.02	0.035
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	30	29	33	34	100	100	30	29	31	30
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	0.0074	0.0074	0.0044	<0.004	0.0079	0.0071	<0.004	<0.004
Iron	0.64	0.014	2.7	<0.005	0.73	0.72	0.32	0.016	0.021	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	19	18	22	22	30	31	17	17	19	18
Manganese	0.02	0.011	0.013	0.0049	0.15	0.15	0.0087	<0.001	<0.001	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.00021	<0.00021	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1	1.1	1.3	1.1	3.6	3.2	0.88	1.4	<0.6	0.94
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0064	<0.006	<0.006
Sodium	0.62	1	0.66	0.64	41	41	0.56	0.55	0.57	0.6
Strontium	0.014	0.012	0.016	0.017	1.6	1.6	0.011	0.011	0.0097	0.0096
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0056	0.0065	0.0099	0.004	<0.002	<0.002	0.0056	<0.002	<0.002	0.0021
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	145	.	164	.	413	.	141	.	150	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1	.	1.3	.	18	.	1	.	1.3	.
Fluoride	<0.1	.	<0.1	.	0.16	.	<0.1	.	<0.1	.
Nitrate-N	<0.2	.	<0.2	.	<0.12	.	1.1	.	0.57	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	1	.	1.1	.	69	.	<1	.	<1	.
TSS (mg/L)	2	.	4	.	1	.	5	.	<1	.
Turbidity (NTU)	4.5	.	2.9	.	3.4	.	6	.	1.6	.

(CONTINUED)

Field Duplicate Data: Trace Metals and Anions, 1994

Sampling Point	GW-221		GW-292		GW-293				GW-299	
Unit	AQF		AQF		AQF				AQF	
Location	UNCS		ECRWP		ECRWP				CRBAWP	
Date Sampled	10/15/94		10/16/94		01/13/94		04/12/94		02/13/94	
Type	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.021	<0.02	0.046	0.14	0.03	<0.02	0.026	<0.02	<0.02	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.0075	0.0076	0.1	0.099	0.19	0.19	0.19	0.22	0.0089	0.009
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.03	0.022	0.04	0.019	0.016	0.0045	0.041	0.032	0.0045	0.017
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	32	30	50	47	49	46	59	66	31	31
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	0.0076	<0.004	0.0053	<0.004	0.018	<0.004	<0.004
Iron	<0.005	<0.005	0.023	0.046	1.7	0.0073	1.4	0.011	<0.005	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	18	18	30	29	31	29	33	38	18	18
Manganese	<0.001	<0.001	0.0019	0.0016	0.012	0.0083	0.022	0.02	<0.001	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	0.84	1.3	0.89	0.78	1.6	1.6	1.5	1.6	0.8	0.78
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	0.0065	<0.006	<0.006	<0.006	<0.006
Sodium	0.72	0.74	4.3	4.2	3.9	3.9	5.1	5.9	0.68	0.73
Strontium	0.0098	0.0098	0.017	0.017	0.016	0.016	0.019	0.021	0.015	0.015
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.015	<0.015	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	<0.002	<0.002	<0.002	0.0087	0.0093	0.0074	0.0033	<0.002	0.0038	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	154	.	250	.	243	.	256	.	142	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1.2	.	9.3	.	11	.	11	.	1.1	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	0.7	.	0.6	.	0.4	.	0.38	.	<0.2	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	<1	.	2.5	.	3	.	3.1	.	2.7	.
TSS (mg/L)	<1	.	<1	.	4	.	4	.	<1	.
Turbidity (NTU)	0.4	.	0.3	.	11	.	5.5	.	1	.

(CONTINUED)

Field Duplicate Data: Trace Metals and Anions, 1994

Sampling Point	GW-299		GW-303				GW-321		GW-512	
Unit	AQF		AQF				AQF		AQF	
Location	CRBAWP		CRSDB				ADB		ADB	
Date Sampled	07/21/94		02/14/94		04/11/94		10/18/94	10/21/94	01/12/94	
Type	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.041	0.058	<0.02	0.063	0.031	<0.02	<0.02	<0.02	0.7	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.01	0.01	0.017	0.019	0.018	0.018	0.057	0.055	0.028	0.025
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.00044	<0.0003
Boron	0.13	0.06	0.019	0.021	0.014	0.015	0.14	0.016	0.014	0.015
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	30	30	71	76	74	74	27	27	32	30
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Iron	0.08	0.063	1.1	0.44	1.2	0.94	<0.005	<0.005	1.1	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	18	18	38	41	41	42	15	15	18	17
Manganese	0.0026	0.0017	0.012	0.012	0.023	0.023	0.0066	0.0044	0.04	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	0.6	0.69	3.9	4.2	4.5	4.6	0.94	0.81	4.9	4.6
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	0.94	0.83	1.1	1.2	1.2	1.2	0.76	0.57	1.3	1.3
Strontium	0.016	0.015	3	3.2	3.1	3.1	0.018	0.018	0.022	0.021
Thallium (AAS)	.	.	.	.	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.015	<0.015	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.02	0.0067	<0.002	<0.002	<0.002	<0.002	0.0083	<0.002	0.029	0.0052
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	143	.	184	.	182	.	126	.	147	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1.2	.	1.6	.	1.5	.	1.1	.	1	.
Fluoride	<0.1	.	1	.	1	.	<0.1	.	0.1	.
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	0.23	.	<0.2	.
Ammonia-N	.	.	.	.	.	.	.	.	.	.
Sulfate	7.3	.	156	.	167	.	6.6	.	7	.
TSS (mg/L)	<1	.	1	.	2	.	<1	.	27	.
Turbidity (NTU)	1.8	.	4.9	.	14	.	0.5	.	27	.

(CONTINUED)

Field Duplicate Data: Trace Metals and Anions, 1994

Sampling Point	GW-513		GW-540						GW-560	
Unit	AQF		AQF						AQF	
Location	ADB		CDLVI						CDLVII	
Date Sampled	04/13/94		03/22/94		04/14/94		10/10/94		04/19/94	
Type	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.1	0.044	<0.02	<0.02	<0.02	<0.02	0.027	<0.02	0.063	0.094
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.0061	0.0058	0.0091	0.0094	0.0085	0.0088	0.011	0.011	0.21	0.2
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.13	0.04	0.026	0.022	0.013	0.014	0.038	0.034	0.013	0.029
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	40	40	38	39	41	41	39	39	36	36
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Iron	0.077	0.0062	0.013	<0.005	0.01	0.0051	<0.005	<0.005	0.019	0.011
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	24	24	22	23	24	24	24	24	14	13
Manganese	0.0057	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.0017	0.0016	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1.5	1.5	0.68	0.83	1	0.94	1.4	1.3	1	0.92
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	1.1	0.96	1.8	1.9	1.3	1.3	2.4	2.5	0.51	0.82
Strontium	0.023	0.023	0.025	0.026	0.025	0.025	0.026	0.026	0.023	0.022
Thallium (AAS)	.	.	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.001	<0.001	0.001	0.001	<0.001	<0.001	<0.015	<0.015	0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.013	<0.002	0.0032	<0.002	0.0052	<0.002	0.0076	<0.002	0.034	0.2
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	178	.	189	.	193	.	197	.	132	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1	.	2	.	2	.	2	.	1	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	0.25	.	<0.2	.
Ammonia-N	.	.	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Sulfate	2	.	4	.	4	.	9.7	.	2	.
TSS (mg/L)	3	.	<1	.	1	.	<1	.	<1	.
Turbidity (NTU)	3.4	.	0.4	.	0.3	.	0.1	.	1.1	.

(CONTINUED)

Field Duplicate Data: Trace Metals and Anions, 1994

Sampling Point	GW-560		GW-564		GW-732				GW-743	
Unit	AQF		AQF		AQF				AQF	
Location	CDLVII		CDLVII		CRSDB				CRSP	
Date Sampled	07/12/94		03/07/94		07/09/94		10/19/94		11/17/94	
Type	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	<0.02	<0.02	0.038	<0.02	3	0.12	4.1	<0.02	0.061	<0.02
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	0.051	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.25	0.24	0.013	0.012	0.078	0.04	0.086	0.05	0.012	0.012
Beryllium	0.00034	<0.0003	<0.0003	<0.0003	0.00064	<0.0003	0.00074	<0.0003	<0.0003	<0.0003
Boron	0.024	0.025	0.013	0.02	0.082	0.035	0.019	0.017	0.016	0.024
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	38	38	30	30	36	29	31	24	30	30
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0078	0.0081	<0.004	<0.004	0.0095	<0.004	0.007	0.0048	<0.004	<0.004
Iron	0.016	0.0097	0.077	<0.005	2.3	0.05	2.7	0.0092	0.25	0.01
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	0.015	<0.004	0.023	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	14	14	14	14	20	17	17	13	18	18
Manganese	<0.001	<0.001	<0.001	<0.001	0.041	<0.001	0.044	<0.001	0.0023	<0.001
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1.4	1.2	1.2	1.1	10	6.3	10	10	1.3	1.7
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	0.52	0.52	0.55	0.51	5.2	3.4	8.8	8.9	0.95	0.99
Strontium	0.026	0.026	0.019	0.018	0.21	0.12	0.23	0.17	0.019	0.019
Thallium (AAS)	<0.01	<0.01	<0.01	<0.01	.	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	0.001	<0.001	0.007	0.001	<0.015	<0.015	<0.015	<0.015
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.015	<0.002	0.017	0.0068	0.023	<0.002	0.018	<0.002	0.0021	<0.002
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	147	.	137	.	148	.	133	.	148	.
Alkalinity-CO3	<1	.	<1	.	2	.	12	.	<1	.
Chloride	1.7	.	1.2	.	<1	.	<1	.	2.2	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Nitrate-N	<0.2	.	0.38	.	<0.2	.	0.26	.	0.63	.
Ammonia-N	<0.2	.	<0.2	.	.	.	.	.	.	.
Sulfate	8.2	.	<1	.	6.7	.	7	.	3.9	.
TSS (mg/L)	<1	.	<1	.	344	.	541	.	<1	.
Turbidity (NTU)	1.7	.	1	.	68	.	290	.	2.4	.

(CONTINUED)

Field Duplicate Data: Trace Metals and Anions, 1994

Sampling Point . Unit . Location . Date Sampled . Type	GW-757								GW-799	
	AQF								AQF	
	LII								CDLVII	
	01/07/94		04/06/94		07/15/94		10/07/94		10/10/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.	.	.
Aluminum	0.033	<0.02	0.35	0.032	0.056	<0.02	0.22	0.028	<0.02	0.32
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.19	0.19	0.25	0.23	0.2	0.22	0.29	0.24	0.0052	0.0058
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.00052	0.0003	<0.0003	<0.0003
Boron	0.019	<0.004	0.039	0.034	0.051	0.032	0.037	0.11	0.0095	0.019
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Calcium	29	29	39	37	29	32	38	35	29	29
Chromium (AAS)	0.03	0.032	0.037	0.031	0.079	0.22	0.14	0.15	<0.01	<0.01
Chromium	0.027	0.028	0.026	0.022	0.05	0.14	0.13	0.15	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	0.034	0.0055	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Iron	0.032	<0.005	0.58	0.008	0.21	<0.005	0.54	<0.005	0.011	0.24
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Magnesium	16	16	20	21	17	19	22	20	17	16
Manganese	<0.001	<0.001	0.0091	<0.001	<0.001	<0.001	0.005	<0.001	<0.001	0.0059
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Potassium	1.5	1.5	5.3	7.5	2	2.6	1.6	1.6	0.93	0.91
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Sodium	2.8	2.7	2.2	2.6	1.9	4.1	4.3	2.9	0.7	0.9
Strontium	0.78	0.77	0.75	0.75	0.79	0.74	0.68	0.67	0.015	0.015
Thallium (AAS)	.	.	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.005	0.004	0.004	0.004	0.008	0.005	<0.015	<0.015	<0.015	<0.015
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.012	<0.002	0.006	<0.002	0.012	0.0057	0.0077	0.0048	<0.002	0.067
ANIONS (mg/L)	.	.	.	.	.	.	.	.	.	.
Alkalinity-HCO3	132	.	157	.	139	.	152	.	126	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.	<1	.
Chloride	1.7	.	1	.	1.9	.	2.1	.	1.7	.
Fluoride	1.8	.	2	.	1.7	.	1.8	.	0.1	.
Nitrate-N	0.31	.	<0.2	.	<0.2	.	<0.2	.	0.9	.
Ammonia-N	.	.	.	.	.	.	.	.	<0.2	.
Sulfate	10	.	9	.	14	.	14	.	7.4	.
TSS (mg/L)	11	.	31	.	4	.	145	.	3	.
Turbidity (NTU)	1.4	.	2.2	.	3.5	.	480	.	4.7	.

APPENDIX F.2
VOLATILE ORGANIC COMPOUNDS

APPENDIX F.2
Field Duplicate Data, 1993

1

Sampling Point	GW-044	GW-069	GW-115		GW-315	GW-324	GW-371	GW-373
Location	OLF	BG	S3		SPI	S3	BG	BG
Date Sampled	09/11/93	10/10/93	05/25/93	09/11/93	10/27/93	01/29/93	10/13/93	02/11/93
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	10U	10U	10U	10U	2	10U	10U	10U
Benzene	5U	5U	5U	5U	5U	5U	5U	5U
Bromodichloromethane	5U	5U	5U	5U	1	5U	5U	5U
Bromoform	5U	5U	5U	5U	5U	5U	5U	5U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	6	10U	10U	10U
Carbon disulfide	5U	5U	5U	5U	5U	5U	5U	5U
Carbon tetrachloride	5U	5U	5U	5U	5U	5U	5U	5U
Chlorobenzene	5U	5U	5U	5U	5U	5U	5U	5U
Chlorodibromomethane	5U	5U	5U	5U	5U	5U	5U	5U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	5U	5U	5U	6	5U	5U	5U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	5U	5U	5U	5U	5U	5U	5U
1,2-Dichloroethane	5U	5U	5U	5U	5U	5U	5U	5U
1,1-Dichloroethene	5U	5U	5U	5U	5U	5U	5U	5U
1,2-Dichloroethene	5U	5U	5U	5U	5	5U	5U	5U
1,2-Dichloropropane	5U	5U	5U	5U	5U	5U	5U	5U
cis-1,3-Dichloropropene	5U	5U	5U	5U	5U	5U	5U	5U
trans-1,3-Dichloropropene	5U	5U	5U	5U	5U	5U	5U	5U
Ethylbenzene	5U	5U	5U	5U	5U	5U	5U	5U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	10U	10U	10U	10U	10U	2
Methylene chloride	1	5U	5U	1	2	5U	5U	2
Styrene	5U	5U	5U	5U	5U	5U	5U	5U
1,1,2,2-Tetrachloroethane	5U	5U	5U	5U	5U	5U	5U	5U
Tetrachloroethene	5U	5U	5U	5U	8	5U	5U	5U
Toluene	5U	5U	5U	5U	5U	5U	5U	5U
1,1,1-Trichloroethane	5U	5U	5U	5U	5U	5U	5U	5U
1,1,2-Trichloroethane	5U	5U	5U	5U	5U	5U	5U	5U
Trichloroethene	5U	5U	5U	5U	4	5U	5U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	5U	5U	5U	5U	5U	5U	5U

(CONTINUED)

APPENDIX F.2
Field Duplicate Data, 1993

2

Sampling Point	GW-537		GW-626		GW-627	GW-636		
Location	OLF		BG		BG	OLF		
Date Sampled	02/11/93	05/12/93	03/10/93	08/02/93	04/23/93	03/26/93	06/27/93	09/18/93
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	10U	10U	100U	20U	10U	10U	10U	10U
Benzene	5U	5U	50U	10U	5U	5U	5U	5U
Bromodichloromethane	5U	5U	50U	10U	5U	5U	5U	5U
Bromoform	5U	5U	50U	10U	5U	5U	5U	5U
Bromomethane	10U	10U	100U	20U	10U	10U	10U	10U
2-Butanone	10U	10U	100U	20U	10U	10U	10U	10U
Carbon disulfide	5U	5U	50U	10U	5U	5U	5U	5U
Carbon tetrachloride	5U	5U	50U	10U	5U	5U	5U	5U
Chlorobenzene	5U	5U	50U	10U	5U	5U	5U	5U
Chlorodibromomethane	5U	5U	50U	10U	5U	5U	5U	5U
Chloroethane	10U	10U	100U	20U	10U	10U	10U	10U
Chloroform	1	0.8	50U	10U	5U	5U	5U	5U
Chloromethane	10U	10U	100U	20U	10U	10U	10U	10U
1,1-Dichloroethane	5U	5U	51	19	5	5U	5U	5U
1,2-Dichloroethane	5U	5U	50U	10U	5U	5U	5U	5U
1,1-Dichloroethene	5U	5U	28	8	5U	5U	5U	5U
1,2-Dichloroethene	5U	5U	1300	240	5U	5U	5U	5U
1,2-Dichloropropane	5U	5U	50U	10U	5U	5U	5U	5U
cis-1,3-Dichloropropene	5U	5U	50U	10U	5U	5U	5U	5U
trans-1,3-Dichloropropene	5U	5U	50U	10U	5U	5U	5U	5U
Ethylbenzene	5U	5U	50U	10U	5U	5U	5U	5U
2-Hexanone	10U	10U	100U	20U	10U	10U	10U	10U
4-Methyl-2-pentanone	10U	10U	100U	20U	10U	10U	10U	10U
Methylene chloride	2	1	14	10U	5U	5U	5U	0.8
Styrene	5U	5U	50U	10U	5U	5U	5U	5U
1,1,2,2-Tetrachloroethane	5U	5U	50U	10U	5U	5U	5U	5U
Tetrachloroethene	5U	5U	130	28	52	5U	5U	5U
Toluene	5U	5U	50U	10U	5U	5U	5U	5U
1,1,1-Trichloroethane	5U	5U	17	6	5U	5U	5U	5U
1,1,2-Trichloroethane	5U	5U	50U	10U	5U	5U	5U	5U
Trichloroethene	5U	5U	120	33	7	5U	5U	5U
Vinyl acetate	10U	10U	100U	20U	10U	10U	10U	10U
Vinyl chloride	10U	10U	71	20U	10U	10U	10U	10U
Xylenes	5U	5U	50U	10U	5U	5U	5U	5U

(CONTINUED)

APPENDIX F.2
Field Duplicate Data, 1993

3

Sampling Point	GW-636	GW-639				GW-684		GW-685	
Location	OLF	BG				EXP		EXP	
Date Sampled	12/18/93	02/24/93	05/24/93	07/11/93	07/11/93	10/12/93	03/02/93	04/21/93	
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
Acetone	10U	10U	10U	10U	10U	3	10U	10U	
Benzene	5U	5U	5U	5U	5U	5U	5U	5U	
Bromodichloromethane	5U	5U	5U	5U	5U	5U	5U	5U	
Bromoform	5U	5U	5U	5U	5U	5U	5U	5U	
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U	
2-Butanone	8	10U	5	10U	10U	9	10U	10U	
Carbon disulfide	5U	5U	5U	5U	5U	5U	5U	5U	
Carbon tetrachloride	5U	5U	5U	5U	5U	5U	5U	5U	
Chlorobenzene	5U	5U	5U	5U	5U	5U	5U	5U	
Chlorodibromomethane	5U	5U	5U	5U	5U	5U	5U	5U	
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U	
Chloroform	5U	5U	5U	5U	5U	5U	5U	5U	
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U	
1,1-Dichloroethane	5U	5U	5U	5U	5U	5U	5U	5U	
1,2-Dichloroethane	5U	5U	5U	5U	5U	5U	5U	5U	
1,1-Dichloroethene	5U	5U	5U	5U	5U	5U	5U	5U	
1,2-Dichloroethene	5U	5U	5U	5U	5U	5U	2	1	
1,2-Dichloropropane	5U	5U	5U	5U	5U	5U	5U	5U	
cis-1,3-Dichloropropene	5U	5U	5U	5U	5U	5U	5U	5U	
trans-1,3-Dichloropropene	5U	5U	5U	5U	5U	5U	5U	5U	
Ethylbenzene	5U	5U	5U	5U	5U	5U	5U	5U	
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U	
4-Methyl-2-pentanone	10U	10U	1	10U	10U	10U	10U	10U	
Methylene chloride	0.6	2	5U	5U	0.8	3	5U	5U	
Styrene	5U	5U	5U	5U	5U	5U	5U	5U	
1,1,2,2-Tetrachloroethane	5U	5U	5U	5U	5U	5U	5U	5U	
Tetrachloroethene	5U	5U	5U	5U	5U	5U	5U	5U	
Toluene	5U	5U	5U	5U	5U	5U	5U	5U	
1,1,1-Trichloroethane	5U	5U	5U	5U	5U	5U	5U	5U	
1,1,2-Trichloroethane	5U	5U	5U	5U	5U	5U	5U	5U	
Trichloroethene	5U	5U	5U	5U	5U	5U	5U	5U	
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U	
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U	
Xylenes	5U	5U	5U	5U	5U	5U	5U	5U	

(CONTINUED)

APPENDIX F.2
Field Duplicate Data, 1993

4

Sampling Point . Location . Date Sampled	GW-704				GW-712		GW-713	GW-714
	EXP				EXP		EXP	EXP
	03/22/93	06/04/93	09/22/93	12/22/93	03/18/93	04/28/93	07/31/93	11/09/93
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
Acetone	10U	10U	10U	4	10U	10U	10U	10U
Benzene	5U	5U	5U	5U	5U	5U	5U	5U
Bromodichloromethane	5U	5U	5U	5U	5U	5U	5U	5U
Bromoform	5U	5U	5U	5U	5U	5U	5U	5U
Bromomethane	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	3	10U	10U	10U	10U
Carbon disulfide	5U	5U	5U	5U	5U	5U	5U	5U
Carbon tetrachloride	2	2	5U	5U	5U	5U	5U	5U
Chlorobenzene	5U	5U	5U	5U	5U	5U	5U	5U
Chlorodibromomethane	5U	5U	5U	5U	5U	5U	5U	5U
Chloroethane	10U	10U	10U	10U	10U	10U	10U	10U
Chloroform	5U	0.5	5U	5U	5U	5U	5U	5U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,1-Dichloroethane	1	5U	5U	5U	5U	5U	5U	5U
1,2-Dichloroethane	5U	5U	5U	5U	5U	5U	5U	5U
1,1-Dichloroethene	6	7	6	6	5U	5U	5U	5U
1,2-Dichloroethene	3	3	4	2	5U	5U	5U	5U
1,2-Dichloropropane	5U	5U	5U	5U	5U	5U	5U	5U
cis-1,3-Dichloropropene	5U	5U	5U	5U	5U	5U	5U	5U
trans-1,3-Dichloropropene	5U	5U	5U	5U	5U	5U	5U	5U
Ethylbenzene	5U	5U	5U	5U	5U	5U	5U	5U
2-Hexanone	10U	10U	10U	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	5	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	1	1	5U	5U	5U	5U	5U	1
Styrene	5U	5U	5U	5U	5U	5U	5U	5U
1,1,2,2-Tetrachloroethane	5U	5U	5U	5U	5U	5U	5U	5U
Tetrachloroethene	5U	0.5	5U	1	5U	5U	5U	5U
Toluene	5U	5U	5U	5U	5U	5U	5U	5U
1,1,1-Trichloroethane	2	2	2	5U	5U	5U	5U	5U
1,1,2-Trichloroethane	5U	5U	5U	5U	5U	5U	5U	5U
Trichloroethene	120	100	86	56	5U	5U	5U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U	10U	10U	10U
Xylenes	5U	5U	5U	5U	5U	5U	5U	5U

(CONTINUED)

APPENDIX F.2
Field Duplicate Data, 1993

5

Sampling Point	GW-725		GW-736	GW-740	GW-800
Location	EXP		EXP	EXP	OLF
Date Sampled	02/12/93	05/19/93	12/15/93	09/27/93	10/22/93
VOLATILE ORGANICS (ug/L)	.	.	.	.	.
	.	.	.	.	.
Acetone	10U	10U	3	10U	10U
Benzene	5U	5U	5U	5U	5U
Bromodichloromethane	5U	5U	5U	5U	5U
Bromoform	5U	5U	5U	5U	5U
Bromomethane	10U	10U	10U	10U	10U
2-Butanone	10U	10U	8	10U	10U
Carbon disulfide	5U	5U	5U	5U	5U
Carbon tetrachloride	5U	5U	5U	5U	5U
Chlorobenzene	5U	5U	5U	5U	5U
Chlorodibromomethane	5U	5U	5U	5U	5U
Chloroethane	10U	10U	10U	10U	10U
Chloroform	5U	5U	5U	1	5U
Chloromethane	10U	10U	10U	10U	10U
1,1-Dichloroethane	5U	5U	5U	5U	5U
1,2-Dichloroethane	5U	5U	5U	5U	5U
1,1-Dichloroethene	5U	5U	5U	5U	5U
1,2-Dichloroethene	2	3	5	2	5U
1,2-Dichloropropane	5U	5U	5U	5U	5U
cis-1,3-Dichloropropene	5U	5U	5U	5U	5U
trans-1,3-Dichloropropene	5U	5U	5U	5U	5U
Ethylbenzene	5U	5U	5U	5U	5U
2-Hexanone	10U	10U	10U	10U	10U
4-Methyl-2-pentanone	2	10U	1	10U	10U
Methylene chloride	2	5U	1	5U	5U
Styrene	5U	5U	5U	5U	5U
1,1,2,2-Tetrachloroethane	5U	5U	5U	5U	5U
Tetrachloroethene	5U	5U	3	5U	5U
Toluene	5U	5U	5U	5U	5U
1,1,1-Trichloroethane	5U	5U	5U	5U	5U
1,1,2-Trichloroethane	5U	5U	5U	5U	5U
Trichloroethene	19	53	13	32	5U
Vinyl acetate	10U	10U	10U	10U	10U
Vinyl chloride	10U	10U	10U	10U	10U
Xylenes	5U	5U	5U	5U	5U

APPENDIX F.3
ADDITIONAL ORGANICS

APPENDIX F.3

1

Field Duplicate Data: Additional Organic Compounds, 1994

Sampling Point . Unit . Location . Date Sampled	GW-141				GW-299		GW-560	
	AQF				AQF		AQF	
	LIV				CRBAWP		CDLVII	
	01/06/94	04/04/94	07/06/94	10/04/94	02/13/94	07/21/94	04/19/94	07/12/94
Acrolein	50U	50U	50U	50U	50U	50U	50U	50U
Acrylonitrile	50U	50U	50U	50U	50U	50U	50U	50U
2-Chloroethyl vinyl ether	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	5U	5U	5U	5U	5U	5U	5U	5U
1,4-Dichloro-2-butene	5U	5U	5U	5U	5U	5U	5U	5U
Dichlorodifluoromethane	5U	5U	5U	5U	5U	5U	5U	5U
Ethanol	10000U	10000U	10000U	10000U	10000U	10000U	10000U	10000U
Ethyl methacrylate	5U	5U	5U	5U	5U	5U	5U	5U
Iodomethane	5U	5U	5U	5U	5U	5U	5U	5U
Trichlorofluoromethane	5U	5U	5U	5U	5U	5U	5U	5U
1,2,3-Trichloropropane	5U	5U	5U	5U	5U	5U	5U	5U

(CONTINUED)

Sampling Point . Unit . Location . Date Sampled	GW-564	GW-757				GW-799
	AQF	AQF				AQF
	CDLVII	LII				CDLVII
	03/07/94	01/07/94	04/06/94	07/15/94	10/07/94	10/10/94
Acrolein	50U	50U	50U	50U	50U	50U
Acrylonitrile	50U	50U	50U	50U	50U	50U
2-Chloroethyl vinyl ether	10U	10U	10U	10U	10U	10U
Dibromomethane	5U	5U	5U	5U	5U	5U
1,4-Dichloro-2-butene	5U	5U	5U	5U	5U	5U
Dichlorodifluoromethane	5U	5U	5U	5U	5U	5U
Ethanol	10000U	10000U	10000U	10000U	10000U	10000U
Ethyl methacrylate	5U	5U	5U	5U	5U	5U
Iodomethane	5U	5U	5U	5U	5U	5U
Trichlorofluoromethane	5U	5U	5U	5U	5U	5U
1,2,3-Trichloropropane	5U	5U	5U	5U	5U	5U

APPENDIX F.3

2

Field Duplicate Data: Other Organic Compounds, 1994

Sampling Point . Unit . Location . Date Sampled	GW-141			GW-540			GW-560	
	AQF			AQF			AQF	
	LIV			CDLVI			CDLVII	
	04/04/94	07/06/94	10/04/94	03/22/94	04/14/94	10/10/94	04/19/94	07/12/94
Bromochloromethane	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dibromo-3-chloropropane	10U	10U	10U	10U	10U	10U	10U	10U
Dibromomethane	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U
1,4-Dichlorobenzene	10U	10U	10U	10U	10U	10U	10U	10U
Cis-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
Trans-1,2-Dichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
1,1,1,2-Tetrachloroethane	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

Sampling Point . Unit . Location . Date Sampled	GW-564	GW-757			GW-799
	AQF	AQF			AQF
	CDLVII	LII			CDLVII
	03/07/94	04/06/94	07/15/94	10/07/94	10/10/94
Bromochloromethane	10U	10U	10U	10U	10U
1,2-Dibromo-3-chloropropane	10U	10U	10U	10U	10U
Dibromomethane	10U	10U	10U	10U	10U
1,2-Dichlorobenzene	10U	10U	10U	10U	10U
1,4-Dichlorobenzene	10U	10U	10U	10U	10U
Cis-1,2-Dichloroethene	10U	10U	10U	10U	10U
Trans-1,2-Dichloroethene	10U	10U	10U	10U	10U
1,1,1,2-Tetrachloroethane	10U	10U	10U	10U	10U

APPENDIX F.4

BASE, NEUTRAL, AND ACID EXTRACTABLE ORGANIC COMPOUNDS

APPENDIX F.4

1

Field Duplicate Data: BNAs, 1994

Sampling Point	GW-186	GW-303		GW-732	
Unit	AQT	AQF		AQF	
Location	RQ	CRSDB		CRSDB	
Date Sampled	01/27/94	02/14/94	04/11/94	07/09/94	10/19/94
1,2,4-Trichlorobenzene	10U	10U	10U	10U	10U
1,2-Dichlorobenzene	10U	10U	10U	10U	10U
1,3-Dichlorobenzene	10U	10U	10U	10U	10U
1,4-Dichlorobenzene	10U	10U	10U	10U	10U
2,4,5-Trichlorophenol	50U	50U	25U	25U	25U
2,4,6-Trichlorophenol	10U	10U	10U	10U	10U
2,4-Dichlorophenol	10U	10U	10U	10U	10U
2,4-Dimethylphenol	10U	10U	10U	10U	10U
2,4-Dinitrophenol	50U	50U	25U	25U	25U
2,4-Dinitrotoluene	10U	10U	10U	10U	10U
2,6-Dinitrotoluene	10U	10U	10U	10U	10U
2-Chloronaphthalene	10U	10U	10U	10U	10U
2-Chlorophenol	10U	10U	10U	10U	10U
2-Methylnaphthalene	10U	10U	10U	10U	10U
2-Methylphenol	10U	10U	10U	10U	10U
2-Nitroaniline	50U	50U	25U	25U	25U
2-Nitrophenol	10U	10U	10U	10U	10U
3,3-Dichlorobenzidine	20U	20U	10U	10U	10U
3-Nitroaniline	50U	50U	25U	25U	25U
4,6-Dinitro-2-methylphenol	50U	50U	25U	25U	25U
4-Bromophenyl phenyl ether	10U	10U	10U	10U	10U
4-Chloro-3-methylphenol	10U	10U	10U	10U	10U
4-Chloroaniline	10U	10U	10U	10U	10U
4-Chlorophenyl phenyl ether	10U	10U	10U	10U	10U
4-Methylphenol	10U	10U	10U	10U	10U
4-Nitroaniline	50U	50U	25U	25U	25U
4-Nitrophenol	50U	50U	25U	25U	25U
Acenaphthene	10U	10U	10U	10U	10U
Acenaphthylene	10U	10U	10U	10U	10U
Anthracene	10U	10U	10U	10U	10U
Benzo(a)anthracene	10U	10U	10U	10U	10U
Benzo(a)pyrene	10U	10U	10U	10U	10U
Benzo(b)fluoranthene	10U	10U	10U	10U	10U
Benzo(g,h,i)perylene	10U	10U	10U	10U	10U
Benzo(k)fluoranthene	10U	10U	10U	10U	10U

(CONTINUED)

APPENDIX F.4

2

Field Duplicate Data: BNAs, 1994

Sampling Point	GW-186	GW-303		GW-732	
Unit	AQT	AQF		AQF	
Location	RQ	CRSDB		CRSDB	
Date Sampled	01/27/94	02/14/94	04/11/94	07/09/94	10/19/94
Benzoic acid	50U	50U	.	.	.
Benzyl alcohol	10U	10U	10U	10U	10U
bis(2-Chloroethoxy)methane	10U	10U	10U	10U	10U
bis(2-Chloroethyl)ether	10U	10U	10U	10U	10U
bis(2-Chloroisopropyl)ether	10U	10U	10U	10U	10U
bis(2-Ethylhexyl)phthalate	10U	10U	10U	10U	10U
Butyl benzyl phthalate	10U	10U	10U	10U	10U
Carbazole	.	.	10U	10U	10U
Chrysene	10U	10U	10U	10U	10U
di-n-Butylphthalate	11	10U	10U	10U	10U
di-n-Octylphthalate	10U	10U	10U	10U	10U
Dibenzo(a,h)anthracene	10U	10U	10U	10U	10U
Dibenzofuran	10U	10U	10U	10U	10U
Diethylphthalate	10U	10U	10U	10U	10U
Dimethylphthalate	10U	10U	10U	10U	10U
Fluoranthene	10U	10U	10U	10U	10U
Fluorene	10U	10U	10U	10U	10U
Hexachlorobenzene	10U	10U	10U	10U	10U
Hexachlorobutadiene	10U	10U	10U	10U	10U
Hexachlorocyclopentadiene	10U	10U	10U	10U	10U
Hexachloroethane	10U	10U	10U	10U	10U
Indeno(1,2,3-cd)pyrene	10U	10U	10U	10U	10U
Isophorone	10U	10U	10U	10U	10U
n-Nitrosodi-n-propylamine	10U	10U	10U	10U	10U
n-Nitrosodiphenylamine	10U	10U	10U	10U	10U
Naphthalene	10U	10U	10U	10U	10U
Nitrobenzene	10U	10U	10U	10U	10U
Pentachlorophenol	50U	50U	25U	25U	25U
Phenanthrene	10U	10U	10U	10U	10U
Phenol	10U	10U	10U	10U	10U
Pyrene	10U	10U	10U	10U	10U

APPENDIX F.5

**FIELD, MISCELLANEOUS, AND
GROSS ALPHA AND GROSS BETA ACTIVITIES**

APPENDIX F.5

1

Field Duplicate Data: Field, Miscellaneous, and Radiochemistry, 1994

Sampling Point	1090	GW-141				GW-144		
Unit	AQF	AQF				AQF		
Location	UNCS	LIV				KHQ		
Date Sampled	07/28/94	01/06/94	04/04/94	07/06/94	10/04/94	03/10/94	04/19/94	07/26/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	.	.	.	.	.	.	.	.
Water Temp (degrees C)	16.6	13	14.6	17.6	15.9	13.2	16.2	15.7
pH (pH units)	7.2	7	7.3	7.4	7.5	7.9	7.7	7.6
Sp. Cond. (umho/cm)	541	420	425	550	432	295	346	285
Dissolved Oxygen (ppm)	1.3	6.7	6.2	6.3	7.5	6.4	5.6	4.9
Oxidation/Reduction (mV)	74	210	191	150	199	249	235	201
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	<5	<5	<5	<5	.	.	.
Cyanide (mg/L)	.	<0.1	<0.1	<0.1	<0.1	.	.	.
Phenols (mg/L)	.	.	.	.	.	<0.05	<0.05	<0.05
pH (pH units)	7.4	7.5	7.4	7.3	7.4	8.2	7.8	8
pH, 2 (pH units)	.	.	.	.	.	8.2	7.8	7.9
pH, 3 (pH units)	.	.	.	.	.	8.2	7.8	7.9
pH, 4 (pH units)	.	.	.	.	.	8.2	7.8	7.9
Sp. Cond. (umho/cm)	552	439	422	435	427	307	355	280
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	309	354	281
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	309	355	282
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	309	355	281
TOC (mg/L)	.	<1	1	2.5	<1	<1	2	1.3
TOC, 2 (mg/L)	.	.	.	.	.	1	2	1.3
TOC, 3 (mg/L)	.	.	.	.	.	<1	2	1.8
TOC, 4 (mg/L)	.	.	.	.	.	1	2	1.3
TOX (ug/L)	.	<10	<10	<10	<10	<10	15	<10
TOX, 2 (ug/L)	.	.	.	.	.	<10	<10	<10
TOX, 3 (ug/L)	.	.	.	.	.	<10	<10	<10
TOX, 4 (ug/L)	.	.	.	.	.	<10	<10	<10
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	336	250	256	254	268	186	194	164
TSS (mg/L)	<1	13	18	8	17	1	<1	<1
Turbidity (NTU)	0.8	26	20	10	26	0.8	0.6	1
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	0.97	0.63	0.84	0.85	1.54	1.00	1.87	0.49
Gross Alpha (CE+/-)	1.60	1.90	1.40	1.10	0.92	1.80	1.30	1.60
Gross Beta (pCi/L)	3.29	1.21	1.86	4.04	3.13	2.52	0.77	2.21
Gross Beta (CE+/-)	2.70	2.70	2.50	2.60	1.70	2.50	2.20	2.40

(CONTINUED)

APPENDIX F.5

2

Field Duplicate Data: Field, Miscellaneous, and Radiochemistry, 1994

Sampling Point	GW-144	GW-181			GW-186	GW-203	GW-221	
Unit	AQF	AQF			AQT	AQF	AQF	
Location	KHQ	CRSP			RQ	UNCS	UNCS	
Date Sampled	10/25/94	02/16/94	04/22/94	07/31/94	01/27/94	04/07/94	01/10/94	10/15/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	.	.	.	.	.	.	.	.
Water Temp (degrees C)	15	13.8	14.3	16.7	13.8	13.7	13.8	15.9
pH (pH units)	7.6	7.2	7.7	7.7	7.1	7.8	7.8	7.6
Sp. Cond. (umho/cm)	283	320	252	290	855	254	513	274
Dissolved Oxygen (ppm)	6.6	6.4	8	6.6	7.5	6	6.7	7.5
Oxidation/Reduction (mV)	104	132	238	116	97	185	194	174
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	.	.	.	.	.
Cyanide (mg/L)	.	.	.	.	.	.	.	.
Phenols (mg/L)	<0.05	.	.	.	.	.	.	.
pH, 2 (pH units)	7.8	8	7.7	7.9	7.4	7.9	8.1	7.8
pH, 3 (pH units)	7.8	.	.	.	.	.	.	.
pH, 4 (pH units)	7.8	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	304	306	278	291	880	268	272	288
Sp. Cond., 2 (umho/cm)	304	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	304	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	304	.	.	.	.	.	.	.
TOC (mg/L)	<1	.	.	.	.	.	.	.
TOC, 2 (mg/L)	<1	.	.	.	.	.	.	.
TOC, 3 (mg/L)	<1	.	.	.	.	.	.	.
TOC, 4 (mg/L)	<1	.	.	.	.	.	.	.
TOX (ug/L)	<10	.	.	.	.	.	.	.
TOX, 2 (ug/L)	<10	.	.	.	.	.	.	.
TOX, 3 (ug/L)	<10	.	.	.	.	.	.	.
TOX, 4 (ug/L)	<10	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	164	166	152	186	514	156	156	160
TSS (mg/L)	<1	<1	2	4	1	5	<1	<1
Turbidity (NTU)	0.1	2.5	4.5	2.9	3.4	6	1.6	0.4
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	5.68	1.06	1.90	0.45	-2.50	-0.17	0.32	3.00
Gross Alpha (CE+/-)	2.30	2.10	1.20	1.80	2.60	0.87	1.20	3.30
Gross Beta (pCi/L)	8.15	0.66	2.14	1.98	2.14	1.26	-4.55	10.20
Gross Beta (CE+/-)	3.10	2.80	2.40	2.70	3.10	2.70	3.00	5.50

(CONTINUED)

APPENDIX F.5

3

Field Duplicate Data: Field, Miscellaneous, and Radiochemistry, 1994

Sampling Point	GW-292	GW-293		GW-299		GW-303		GW-321
Unit	AQF	AQF		AQF		AQF		AQF
Location	ECRWP	ECRWP		CRBAWP		CRSDB		ADB
Date Sampled	10/16/94	01/13/94	04/12/94	02/13/94	07/21/94	02/14/94	04/11/94	10/18/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	.	.	.	.	.	.	.	.
Water Temp (degrees C)	16.2	12.6	15.1	12	16	13.2	16.7	14.2
pH (pH units)	7.5	7.5	5.9	7.8	7.8	7.8	7.9	8.2
Sp. Cond. (umho/cm)	432	484	465	254	273	683	583	222
Dissolved Oxygen (ppm)	6.9	6.8	3.2	7.8	6	0.4	0.8	5.9
Oxidation/Reduction (mV)	154	82	202	205	135	-129	-110	152
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	<5	<5	.	.	.
Cyanide (mg/L)	.	.	.	<0.1	<0.1	.	.	.
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	7.6	7.7	7.6	8.2	7.9	8	7.8	7.9
pH, 2 (pH units)	.	.	.	.	.	7.9	7.8	.
pH, 3 (pH units)	.	.	.	.	.	7.9	7.8	.
pH, 4 (pH units)	.	.	.	.	.	8	7.8	.
Sp. Cond. (umho/cm)	473	485	510	267	264	662	649	238
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	663	649	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	662	648	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	661	647	.
TOC (mg/L)	.	.	.	<1	1.2	<1	<1	.
TOC, 2 (mg/L)	.	.	.	.	.	<1	<1	.
TOC, 3 (mg/L)	.	.	.	.	.	7	<1	.
TOC, 4 (mg/L)	.	.	.	.	.	<1	<1	.
TOX (ug/L)	.	.	.	<10	<10	<10	<10	<10
TOX, 2 (ug/L)	.	.	.	.	.	<10	<10	.
TOX, 3 (ug/L)	.	.	.	.	.	<10	<10	.
TOX, 4 (ug/L)	.	.	.	.	.	<10	<10	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	260	278	266	140	144	432	466	122
TSS (mg/L)	<1	4	4	<1	<1	1	2	<1
Turbidity (NTU)	0.3	11	5.5	1	1.8	4.9	14	0.5
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	0.68	-0.18	-0.72	0.48	-1.18	1.98	0.83	2.72
Gross Alpha (CE+/-)	1.50	1.40	1.50	0.98	2.10	2.30	2.10	1.60
Gross Beta (pCi/L)	1.77	-2.63	-0.00	1.62	0.58	-16.40	2.74	2.65
Gross Beta (CE+/-)	2.50	2.70	2.80	2.40	2.70	4.00	2.90	2.90

(CONTINUED)

APPENDIX F.5

4

Field Duplicate Data: Field, Miscellaneous, and Radiochemistry, 1994

Sampling Point	GW-512	GW-513	GW-540			GW-560		GW-564
Unit	AQF	AQF	AQF			AQF		AQF
Location	ADB	ADB	CDLVI			CDLVII		CDLVII
Date Sampled	01/12/94	04/13/94	03/22/94	04/14/94	10/10/94	04/19/94	07/12/94	03/07/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	.	.	.	.	.	.	.	.
Water Temp (degrees C)	13.5	16.2	16	15.4	15.2	14.8	15.1	15.3
pH (pH units)	7.3	7.8	7.9	7.6	7.6	7.5	7.5	7.5
Sp. Cond. (umho/cm)	277	317	342	331	349	240	250	259
Dissolved Oxygen (ppm)	4.2	5.6	5.4	5	5.5	7	8.1	7.9
Oxidation/Reduction (mV)	189	161	161	125	94	200	168	218
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	<5	<5	<5	<5	<5	<5
Cyanide (mg/L)	.	.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	7.5	7.8	8	7.8	7.7	7.7	7.8	7.6
pH, 2 (pH units)	.	.	.	.	.	.	.	.
pH, 3 (pH units)	.	.	.	.	.	.	.	.
pH, 4 (pH units)	.	.	.	.	.	.	.	.
Sp. Cond. (umho/cm)	294	321	352	355	364	259	273	260
Sp. Cond., 2 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	.	.	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	.	.	.	.	.	.	.	.
TOC (mg/L)	<1	<1	8	1	<1	<1	<1	<1
TOC, 2 (mg/L)	.	.	.	.	.	.	.	.
TOC, 3 (mg/L)	.	.	.	.	.	.	.	.
TOC, 4 (mg/L)	.	.	.	.	.	.	.	.
TOX (ug/L)	<10	<10	<10	<10	<10	<10	<10	<10
TOX, 2 (ug/L)	.	.	.	.	.	.	.	.
TOX, 3 (ug/L)	.	.	.	.	.	.	.	.
TOX, 4 (ug/L)	.	.	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	<0.1	<0.1	<0.1
TDS (mg/L)	210	152	192	184	184	144	166	136
TSS (mg/L)	27	3	<1	1	<1	<1	<1	<1
Turbidity (NTU)	27	3.4	0.4	0.3	0.1	1.1	1.7	1
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	0.33	0.98	0.32	-0.00	2.09	-0.64	-0.17	0.37
Gross Alpha (CE+/-)	1.40	0.93	1.30	0.96	1.90	1.10	0.74	1.50
Gross Beta (pCi/L)	0.87	0.97	2.06	-1.08	5.15	-1.84	-0.49	-0.96
Gross Beta (CE+/-)	3.00	2.70	2.30	2.50	2.70	2.50	2.50	2.50

(CONTINUED)

APPENDIX F.5

5

Field Duplicate Data: Field, Miscellaneous, and Radiochemistry, 1994

Sampling Point	GW-732		GW-743	GW-757				GW-799
Unit	AQF		AQF	AQF				AQF
Location	CRSDB		CRSP	LII				CDLVII
Date Sampled	07/09/94	10/19/94	11/17/94	01/07/94	04/06/94	07/15/94	10/07/94	10/10/94
FIELD MEASUREMENTS	.	.	.	.	.	.	.	.
Depth to Water (ft)	.	.	.	.	.	.	.	.
Water Temp (degrees C)	15.6	14	14.8	13.8	14.8	16.3	15.1	13.3
pH (pH units)	8.1	9.1	7.7	8	8.2	8	8.7	7.7
Sp. Cond. (umho/cm)	251	244	293	301	313	286	351	247
Dissolved Oxygen (ppm)	7.3	6.1	7.9	8.6	4.9	3.9	8.7	8.5
Oxidation/Reduction (mV)	161	136	74	116	170	131	169	64
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
COD (mg/L)	.	.	.	<5	<5	<5	<5	<5
Cyanide (mg/L)	.	.	.	<0.1	<0.1	<0.1	<0.1	<0.1
Phenols (mg/L)	.	.	.	.	.	.	.	.
pH (pH units)	8.4	8.9	7.8	8.2	8.2	8.2	8.2	7.8
pH, 2 (pH units)	8.3	8.8	.	.	.	.	.	.
pH, 3 (pH units)	8.3	8.9	.	.	.	.	.	.
pH, 4 (pH units)	8.3	8.8	.	.	.	.	.	.
Sp. Cond. (umho/cm)	272	265	291	292	310	288	316	245
Sp. Cond., 2 (umho/cm)	272	273	.	.	.	.	.	.
Sp. Cond., 3 (umho/cm)	273	267	.	.	.	.	.	.
Sp. Cond., 4 (umho/cm)	274	275	.	.	.	.	.	.
TOC (mg/L)	1.5	1.6	.	<1	<1	1.3	<1	1.3
TOC, 2 (mg/L)	9	1.1	.	.	.	.	.	.
TOC, 3 (mg/L)	<1	<1	.	.	.	.	.	.
TOC, 4 (mg/L)	6.6	1.4	.	.	.	.	.	.
TOX (ug/L)	<10	<10	.	<10	<10	<10	<10	<10
TOX, 2 (ug/L)	<10	<10	.	.	.	.	.	.
TOX, 3 (ug/L)	17	<10	.	.	.	.	.	.
TOX, 4 (ug/L)	<10	<10	.	.	.	.	.	.
TPH - DRO (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	186	184	154	162	212	166	280	130
TSS (mg/L)	344	541	<1	11	31	4	145	3
Turbidity (NTU)	68	290	2.4	1.4	2.2	3.5	480	4.7
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	16.70	18.30	1.58	3.16	3.00	3.61	7.63	0.62
Gross Alpha (CE+/-)	5.20	4.10	1.10	2.20	2.20	2.10	3.10	1.50
Gross Beta (pCi/L)	17.70	19.90	2.71	5.65	7.15	5.82	6.35	1.03
Gross Beta (CE+/-)	5.90	4.10	2.50	2.90	3.30	2.70	3.10	2.40

APPENDIX F.6
RADIONUCLIDES

APPENDIX F.6

1

Field Duplicate Data: Radionuclides, 1994

Sampling Point	1090	GW-203	GW-221		GW-299	GW-540		
Unit	AQF	AQF	AQF		AQF	AQF		
Location	UNCS	UNCS	UNCS		CRBAWP	CDLVI		
Date Sampled	07/28/94	04/07/94	01/10/94	10/15/94	02/13/94	03/22/94	04/14/94	10/10/94
Gross Alpha (pCi/L)	0.97	-0.17	0.32	3.00	0.48	0.32	-0.00	2.09
Gross Alpha (CE+/-)	1.60	0.87	1.20	3.30	0.98	1.30	0.96	1.90
Gross Beta (pCi/L)	3.29	1.26	-4.55	10.20	1.62	2.06	-1.08	5.15
Gross Beta (CE+/-)	2.70	2.70	3.00	5.50	2.40	2.30	2.50	2.70
	.	.	.	.	.	.	.	.
RADIONUCLIDES	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
Cesium 137 (pCi/l)	3.96	5.69	.	0.76	.	-2.43	12.40	46.20
Cesium 137 (CE +/-)	19.00	34.00	.	5.30	.	29.00	29.00	77.00
Potassium 40 (pCi/L)	.	.	.	.	.	.	.	.
Potassium 40 (CE+/-)	.	.	.	.	.	.	.	.
Protactinium (pCi/L)	-568.00	2740.00	.	299.00	.	-2900.00	3590.00	0.00
Protactinium (CE+/-)	3200.00	5800.00	.	860.00	.	4800.00	4800.00	14000.00
Radium (Bq/L)	0.06	0.05	0.01	0.02	.	.	.	.
Radium (CE+/-)	0.06	0.06	0.02	0.01	.	.	.	.
Strontium (pCi/L)	.	.	.	.	14.60	.	.	.
Strontium (CE+/-)	.	.	.	.	21.00	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	153.00	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	63.00	.	.	.
Thorium 234 (pCi/l)	66.50	-262.00	.	-34.30	.	-26.80	-73.90	464.00
Thorium 234 (CE +/-)	300.00	570.00	.	65.00	.	480.00	480.00	680.00
Uranium 234 (pCi/L)	0.59	0.00	0.27	0.14	1.85	0.58	0.93	0.82
Uranium 234 (CE+/-)	0.59	0.38	0.55	0.28	1.20	0.83	0.62	0.58
Uranium 235 (pCi/L)	4.28	-9.12	-3.94	8.01	-8.36	28.50	23.50	69.90
Uranium 235 (CE+/-)	18.00	68.00	71.00	7.30	68.00	75.00	75.00	92.00
Uranium 238 (pCi/L)	0.15	0.00	0.14	0.14	0.00	0.00	0.00	0.21
Uranium 238 (CE+/-)	0.30	0.38	0.27	0.28	0.64	1.00	0.36	0.41

(CONTINUED)

APPENDIX F.6

2

Field Duplicate Data: Radionuclides, 1994

Sampling Point	GW-560		GW-564	GW-799
Unit	AQF		AQF	AQF
Location	CDLVII		CDLVII	CDLVII
Date Sampled	04/19/94	07/12/94	03/07/94	10/10/94
Gross Alpha (pCi/L)	-0.64	-0.17	0.37	0.62
Gross Alpha (CE+/-)	1.10	0.74	1.50	1.50
Gross Beta (pCi/L)	-1.84	-0.49	-0.96	1.03
Gross Beta (CE+/-)	2.50	2.50	2.50	2.40
	.	.	.	.
RADIONUCLIDES	.	.	.	.
	.	.	.	.
Cesium 137 (pCi/L)	1.51	-7.97	-11.90	97.80
Cesium 137 (CE +/-)	82.00	19.00	19.00	78.00
Potassium 40 (pCi/L)	.	508.00	.	.
Potassium 40 (CE+/-)	.	240.00	.	.
Protactinium (pCi/L)	-3350.00	-631.00	820.00	14600.00
Protactinium (CE+/-)	13000.00	3000.00	3000.00	13000.00
Radium (Bq/L)	.	.	.	.
Radium (CE+/-)	.	.	.	.
Strontium (pCi/L)	.	.	.	.
Strontium (CE+/-)	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.
Thorium 234 (pCi/L)	188.00	11.10	-289.00	679.00
Thorium 234 (CE +/-)	770.00	280.00	280.00	760.00
Uranium 234 (pCi/L)	0.00	-1.00	0.24	0.25
Uranium 234 (CE+/-)	0.43	1.60	0.34	0.35
Uranium 235 (pCi/L)	127.00	7.79	4.59	41.40
Uranium 235 (CE+/-)	67.00	17.00	18.00	92.00
Uranium 238 (pCi/L)	0.15	-0.67	-0.36	0.00
Uranium 238 (CE+/-)	0.30	1.50	0.58	0.35

APPENDIX G

ION-CHARGE BALANCE CALCULATIONS

EXPLANATION

UNIT:

AQF	-	Knox Aquifer
AQT	-	ORR Aquitards
SPRING	-	Spring Sampling Station

LOCATION:

ADB	-	Ash Disposal Basin
CDLVI	-	Construction/Demolition Landfill VI
CDLVII	-	Construction/Demolition Landfill VII
CRBAWP	-	Chestnut Ridge Borrow Area Waste Pile
CRSDB	-	Chestnut Ridge Sediment Disposal Basin
CRSP	-	Chestnut Ridge Security Pits
ECRWP	-	East Chestnut Ridge Waste Pile
KHQ	-	Kerr Hollow Quarry
LII	-	Industrial Landfill II
LIV	-	Industrial Landfill IV
LV	-	Industrial Landfill V
RQ	-	Rogers Quarry
UNCS	-	United Nuclear Corporation Site

NOTES:

mg/L	-	milligrams per liter
meq/L	-	milliequivalents per liter
TDS	-	Total Dissolved Solids
TSS	-	Total Suspended Solids

Bicarbonate and carbonate alkalinities (reported as CaCO_3) were converted to HCO_3 and CO_3 as described in Martin Marietta Energy Systems (1993).

EXPLANATION (cont'd)

Charge balances for each sample were evaluated by computing a relative percent difference (RPD) between the summed milliequivalent concentrations of the principal cations and anions using the following formula:

$$RPD = \left(\frac{\sum cations - \sum anions}{\sum cations + \sum anions} \right) \times 100$$

Using this formula, the RPD calculated for the following samples exceeded 10%:

Monitoring Well	Location	Sampling Date	RPD
GW-145	KHQ	07/26/94	17.3
GW-562	CDLVII	04/19/94	10.1

APPENDIX G
Ion-Charge Balance Calculations, 1994

Sampling Point	1090				GW-141				GW-142				GW-143	
Unit	AQF				AQF				AQF				AQF	
Location	UNCS				LIV				KHQ				KHQ	
Date Sampled	01/11/94	04/12/94	07/28/94	10/16/94	01/06/94	04/04/94	07/06/94	10/04/94	02/16/94	04/12/94	07/21/94	10/22/94	03/03/94	04/18/94
CATIONS (meq/L)														
Calcium	2.79	2.74	2.79	2.69	2.15	2.25	2.40	2.35	2.30	2.10	2.20	2.20	1.45	1.55
Magnesium	2.71	2.71	2.71	2.55	2.06	2.30	2.55	2.30	2.55	2.47	2.63	2.63	1.89	2.06
Potassium	0.02	0.04	0.02	0.02	0.02	0.03	0.02	0.00	0.10	0.11	0.09	0.10	0.43	0.43
Sodium	0.48	0.41	0.42	0.39	0.03	0.04	0.04	0.04	0.04	0.05	0.04	0.04	1.04	1.00
Hydrogen Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ammonia Nitrogen														
Total Cations	6.01	5.90	5.95	5.66	4.25	4.62	5.00	4.69	4.99	4.72	4.96	4.97	4.82	5.04
ANIONS (meq/L)														
Alkalinity-CO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Alkalinity-HCO3	5.26	5.28	5.14	5.16	4.56	4.58	4.82	4.60	4.76	4.74	4.64	4.64	4.04	4.10
Chloride	0.68	0.53	0.56	0.54	0.06	0.05	0.04	0.05	0.06	0.04	0.04	0.04	0.20	0.18
Fluoride	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.03	0.03	0.04	0.03	0.16	0.15
Nitrate Nitrogen	0.05	0.06	0.06	0.06	0.05	0.05	0.04	0.04	0.01	0.00	0.00	0.00	0.00	0.00
Sulfate	0.10	0.09	0.23	0.09	0.05	0.04	0.04	0.17	0.08	0.10	0.18	0.10	0.71	0.75
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Anions	6.08	5.96	5.99	5.84	4.72	4.72	4.94	4.86	4.94	4.91	4.90	4.80	5.10	5.18
CHARGE BALANCE (%)	-1	-0	-0	-2	-5	-1	1	-2	1	-2	1	2	-3	-1
TDS (mg/L)	296	298	342	290	258	268	270	252	244	230	240	234	280	284
TSS (mg/L)	3	<1	<1	<1	12	19	7	15	3	18	4	4	2	3
Turbidity (NTU)	3	0.8	0.7	0.4	24	22	10	26	16	31	21	39	6.3	18

(CONTINUED)

APPENDIX G

Ion-Charge Balance Calculations, 1994

Sampling Point . Unit . Location . Date Sampled	GW-143						GW-144						GW-145						GW-146																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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	07/24/94	10/24/94	03/10/94	04/19/94	07/26/94	10/25/94	03/11/94	04/20/94	07/26/94	10/26/94	03/03/94	04/18/94	07/25/94	10/28/94																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
CATIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, 1994

Sampling Point • Unit • Location • Date Sampled	GW-147					GW-156					GW-158					GW-159	
	AQF					AQF					AQF					AQF	
	KHQ					CRSDB					CRSDB					CRSDB	
	02/28/94	04/13/94	07/22/94	10/23/94	02/12/94	04/07/94	07/09/94	10/20/94	02/14/94	04/15/94	07/11/94	10/26/94	02/10/94	07/08/94			
CATIONS (meq/L)																	
Calcium	1.60	1.45	1.20	1.95	3.44	3.59	3.64	3.39	2.10	1.90	1.90	1.95	1.95	2.05			
Magnesium	1.56	1.48	1.32	1.56	3.29	3.45	3.54	3.37	1.81	1.81	1.81	1.73	1.97	1.97			
Potassium	0.13	0.17	0.31	0.10	0.09	0.36	0.22	0.14	0.02	0.02	0.02	0.03	0.04	0.04			
Sodium	0.14	0.13	0.15	0.12	0.14	0.37	0.24	0.16	0.03	0.03	0.03	0.03	0.19	0.03			
Hydrogen Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Ammonia Nitrogen																	
Total Cations	3.43	3.23	2.97	3.74	6.97	7.78	7.64	7.07	3.95	3.75	3.76	3.73	4.15	4.09			
ANIONS (meq/L)																	
Alkalinity-CO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Alkalinity-HCO3	3.18	3.22	2.94	3.22	7.07	7.39	7.09	6.85	3.56	3.60	3.42	3.46	3.82	3.88			
Chloride	0.05	0.06	0.06	0.05	0.05	0.08	0.06	0.06	0.00	0.00	0.00	0.04	0.03	0.03			
Fluoride	0.02	0.04	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00			
Nitrate Nitrogen	0.09	0.09	0.10	0.06	0.02	0.04	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00			
Sulfate	0.07	0.10	0.08	0.06	0.11	0.21	0.25	0.25	0.16	0.19	0.20	0.27	0.17	0.31			
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Total Anions	3.40	3.50	3.19	3.38	7.26	7.72	7.43	7.18	3.72	3.79	3.62	3.77	4.01	4.22			
CHARGE BALANCE (%)																	
	1	-4	-4	5	-2	0	1	-1	3	-0	2	-0	2	-2			
TDS (mg/L)	192	164	168	182	366	400	366	364	156	188	190	168	204	204			
TSS (mg/L)	3	<1	6	6	13	3	2	34	2	3	<1	<1	20	2			
Turbidity (NTU)	2.9	2.3	1.3	5.4	2	5	3	46	3.8	16	4.1	3.5	5.4	1.6			

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, 1994

Sampling Point . Unit . Location . Date Sampled	GW-159	GW-160		GW-161		GW-175						GW-177				GW-181
	AQF	AQF		AQF		AQF						AQF				AQF
	CRSDB	CRBWP		CRBWP		CRSP						CRSP				CRSP
	10/17/94	02/12/94	07/20/94	02/11/94	07/18/94	02/23/94	05/20/94	08/13/94	12/01/94	02/28/94	06/29/94	08/13/94	11/30/94	02/16/94		
CATIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
Calcium	1.90	2.05	2.40	2.15	2.15	2.10	2.54	2.30	2.10	2.10	2.30	2.10	2.20	1.60		
Magnesium	1.81	1.89	2.30	2.06	2.06	2.14	2.39	2.30	2.14	2.14	2.22	2.06	2.22	1.65		
Potassium	0.04	0.02	0.02	0.02	0.02	0.02	0.03	0.04	0.03	0.05	0.06	0.04	0.05	0.04		
Sodium	0.03	0.16	0.08	0.03	0.03	0.04	0.04	0.05	0.06	0.05	0.04	0.05	0.07	0.03		
Hydrogen Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Ammonia Nitrogen	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
Total Cations	3.78	4.12	4.80	4.26	4.25	4.30	4.99	4.69	4.32	4.34	4.62	4.24	4.54	3.32		
ANIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
Alkalinity-CO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Alkalinity-HCO3	3.78	3.80	4.48	4.08	4.14	4.24	4.78	4.32	4.24	4.30	4.16	4.36	4.44	3.36		
Chloride	0.03	0.10	0.08	0.06	0.05	0.06	0.06	0.05	0.07	0.06	0.06	0.08	0.09	0.06		
Fluoride	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Nitrate Nitrogen	0.02	0.00	0.02	0.01	0.00	0.02	0.01	0.07	0.03	0.00	0.00	0.02	0.04	0.00		
Sulfate	0.15	0.07	0.16	0.02	0.13	0.00	0.00	0.02	0.03	0.16	0.29	0.12	0.15	0.02		
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Total Anions	3.98	3.97	4.74	4.17	4.31	4.32	4.85	4.46	4.37	4.52	4.51	4.59	4.72	3.44		
CHARGE BALANCE (%)	-3	2	1	1	-1	-0	1	2	-1	-2	1	-4	-2	-2		
TDS (mg/L)	198	282	354	202	214	198	238	286	224	236	198	260	230	160		
TSS (mg/L)	2	82	238	<1	1	7	<1	<1	2	<1	5	1	4	1		
Turbidity (NTU)	1.6	230	260	3	6.5	2.2	1.5	1.4	1.5	2.7	16	4	8.8	3		

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, 1994

Sampling Point .	GW-181			GW-184	GW-186	GW-187	GW-188	GW-203					GW-205		
	AQF			AQT	AQT	AQT	AQT	AQF					AQF		
	CRSP			RQ	RQ	RQ	RQ	UNCS					UNCS		
Date Sampled	04/22/94	07/31/94	11/14/94	01/11/94	01/27/94	01/12/94	01/11/94	01/06/94	04/07/94	07/26/94	10/12/94	01/07/94	04/07/94	07/26/94	
CATIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Calcium	1.45	1.65	1.60	3.19	4.99	2.50	1.75	1.40	1.50	1.50	1.40	1.75	1.60	1.50	.
Magnesium	1.48	1.73	1.73	0.53	2.55	1.73	2.06	1.32	1.40	1.40	1.32	1.81	1.56	1.56	.
Potassium	0.03	0.03	0.04	0.03	0.07	0.05	0.05	0.02	0.03	0.02	0.03	0.02	0.02	0.03	.
Sodium	0.03	0.02	0.03	0.07	1.83	5.22	0.83	0.02	0.02	0.02	0.03	0.04	0.03	0.04	.
Hydrogen Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.
Ammonia Nitrogen	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Total Cations	2.99	3.43	3.39	3.82	9.44	9.50	4.68	2.75	2.95	2.94	2.77	3.62	3.21	3.13	.
ANIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Alkalinity-CO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.
Alkalinity-HCO3	2.92	3.30	3.32	3.10	8.23	5.96	4.06	2.72	2.84	2.72	2.56	3.04	3.10	2.94	.
Chloride	0.06	0.04	0.05	0.05	0.45	3.61	0.14	0.04	0.03	0.04	0.04	0.07	0.06	0.06	.
Fluoride	0.00	0.00	0.00	0.00	0.01	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.
Nitrate Nitrogen	0.00	0.00	0.03	0.53	0.00	0.00	0.00	0.07	0.07	0.09	0.12	0.02	0.02	0.02	.
Sulfate	0.02	0.04	0.04	0.42	1.37	0.65	0.48	0.02	0.00	0.13	0.00	0.06	0.06	0.16	.
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.
Total Anions	3.00	3.37	3.43	4.11	10.07	10.26	4.71	2.86	2.94	2.98	2.72	3.19	3.24	3.19	.
CHARGE BALANCE (%)	-0	1	-1	-4	-3	-4	-0	-2	0	-1	1	6	-0	-1	.
TDS (mg/L)	150	202	166	250	514	564	274	148	158	164	150	158	160	154	.
TSS (mg/L)	<1	<1	1	<1	2	<1	24	9	5	3	<1	3	<1	2	.
Turbidity (NTU)	5	2.7	1.4	1.5	3.5	29	30	13	5.5	4.2	0.5	4	2.5	4.4	.

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, 1994

Sampling Point Unit Location Date Sampled	GW-205	GW-217				GW-221				GW-231				GW-241
	AQF	AQF				AQF				AQF				AQF
	UNCS	LIV				UNCS				KHQ				CRSDB
	10/12/94	01/05/94	04/04/94	07/06/94	10/03/94	01/10/94	04/08/94	07/27/94	10/15/94	02/28/94	04/13/94	07/23/94	10/23/94	02/15/94
CATIONS (meq/L)														
Calcium	0.90	1.40	1.35	1.45	1.45	1.35	1.50	1.55	1.55	1.05	1.20	1.95	2.10	1.50
Magnesium	1.48	1.40	1.40	1.56	1.40	1.40	1.48	1.56	1.48	0.80	1.07	1.65	1.73	1.32
Potassium	0.49	0.13	0.13	0.13	0.08	0.02	0.03	0.02	0.03	0.03	0.04	0.03	0.04	0.06
Sodium	0.13	0.19	0.19	0.20	0.23	0.02	0.03	0.03	0.03	0.06	0.04	0.04	0.04	0.08
Hydrogen Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ammonia Nitrogen														
Total Cations	2.99	3.11	3.07	3.35	3.16	2.79	3.03	3.16	3.09	1.93	2.35	3.66	3.91	2.95
ANIONS (meq/L)														
Alkalinity-CO3	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Alkalinity-HCO3	2.72	2.86	3.10	3.22	3.04	2.98	2.96	3.04	3.06	1.92	2.12	3.44	3.86	2.78
Chloride	0.06	0.05	0.04	0.04	0.05	0.04	0.03	0.04	0.03	0.07	0.06	0.04	0.05	0.00
Fluoride	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nitrate Nitrogen	0.00	0.03	0.03	0.02	0.03	0.04	0.04	0.05	0.05	0.11	0.08	0.04	0.02	0.00
Sulfate	0.05	0.11	0.08	0.11	0.13	0.02	0.02	0.13	0.00	0.07	0.06	0.07	0.06	0.02
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Anions	2.90	3.05	3.25	3.39	3.24	3.08	3.05	3.25	3.14	2.16	2.32	3.59	3.98	2.80
CHARGE BALANCE (%)														
TDS (mg/L)	168	160	186	194	162	154	156	158	160	118	90	198	188	124
TSS (mg/L)	4	6	3	5	12	<1	<1	<1	<1	1	<1	<1	<1	11
Turbidity (NTU)	0.7	3.8	4.4	3.9	26	1.2	1	3.5	0.4	1.4	2.2	0.9	0.1	17

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, 1994

Sampling Point • Unit • Location • Date Sampled	GW-241				GW-292				GW-293				GW-294				GW-295	
	AQF				AQF				AQF				AQF				AQF	
	CRSDB				ECRWP				ECRWP				ECRWP				CRBAWP	
	04/12/94	07/12/94	10/23/94	01/14/94	04/12/94	10/16/94	01/13/94	04/12/94	10/15/94	01/12/94	04/08/94	10/15/94	02/15/94	07/18/94				
CATIONS (meq/L)																		
Calcium	1.50	1.60	1.45	2.50	2.69	2.54	2.40	2.69	2.54	2.20	2.50	2.40	2.64	2.10				
Magnesium	1.48	1.48	1.40	2.55	2.63	2.47	2.47	2.55	2.39	2.30	2.47	2.39	2.06	2.63				
Potassium	0.07	0.05	0.08	0.03	0.03	0.02	0.04	0.03	0.03	0.05	0.02	0.03	0.05	0.10				
Sodium	0.03	0.03	0.03	0.18	0.22	0.20	0.18	0.21	0.20	0.15	0.10	0.16	0.20	0.29				
Hydrogen Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Ammonia Nitrogen																		
Total Cations	3.08	3.16	2.95	5.25	5.57	5.23	5.09	5.49	5.16	4.70	5.09	4.97	4.95	5.11				
ANIONS (meq/L)																		
Alkalinity-CO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Alkalinity-HCO3	3.00	3.00	2.96	5.00	4.98	4.90	4.82	5.08	5.02	4.36	4.48	4.48	3.78	3.32				
Chloride	0.00	0.05	0.00	0.25	0.27	0.27	0.31	0.32	0.34	0.23	0.23	0.34	0.99	1.35				
Fluoride	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Nitrate Nitrogen	0.00	0.00	0.00	0.04	0.04	0.04	0.03	0.03	0.03	0.26	0.19	0.21	0.11	0.06				
Sulfate	0.02	0.16	0.00	0.08	0.06	0.05	0.10	0.06	0.06	0.06	0.04	0.06	0.10	0.31				
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Total Anions	3.02	3.21	2.96	5.37	5.35	5.25	5.26	5.49	5.44	4.91	4.94	5.09	4.98	5.04				
CHARGE BALANCE (%)	1	-1	-0	-1	2	-0	-2	-0	-3	-2	1	-1	-0	1				
TDS (mg/L)	136	186	198	266	250	258	290	262	262	258	246	258	264	240				
TSS (mg/L)	4	57	64	<1	<1	<1	5	3	1	<1	6	<1	42	58				
Turbidity (NTU)	6.3	70	95	1	0.6	0.3	14	5	4.5	2	2.6	6	54	40				

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, 1994

Sampling Point	GW-296			GW-298		GW-299		GW-300		GW-301		GW-302		
	AQF			AQF		AQF		AQF		AQF		AQF		
	ECRWP			CRBWP		CRBWP		CRBWP		CRBWP		UNCS		
	01/10/94	04/08/94	10/15/94	02/14/94	07/21/94	02/13/94	07/21/94	02/13/94	07/20/94	02/13/94	07/20/94	01/11/94	04/12/94	07/28/94
CATIONS (meq/L)														
Calcium	2.15	2.25	2.15	1.90	1.80	1.50	1.50	1.05	1.50	1.70	1.65	2.69	2.54	2.59
Magnesium	2.22	2.22	2.14	1.81	1.73	1.40	1.40	1.07	1.48	1.73	1.73	2.71	2.63	2.63
Potassium	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.02	0.00	0.03	0.03	0.03
Sodium	0.07	0.10	0.06	0.04	0.18	0.03	0.03	0.02	0.02	0.04	0.04	0.52	0.40	0.37
Hydrogen Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ammonia Nitrogen														
Total Cations	4.46	4.59	4.36	3.76	3.72	2.94	2.95	2.14	3.00	3.48	3.42	5.96	5.60	5.62
ANIONS (meq/L)														
Alkalinity-CO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Alkalinity-HCO3	4.58	4.48	4.36	3.40	2.94	2.86	2.84	2.10	2.88	3.36	3.12	4.62	4.80	4.82
Chloride	0.06	0.08	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	1.10	0.62	0.56
Fluoride	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nitrate Nitrogen	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.08	0.07	0.07
Sulfate	0.03	0.02	0.03	0.12	0.25	0.05	0.15	0.07	0.14	0.05	0.14	0.07	0.06	0.21
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Anions	4.69	4.60	4.47	3.55	3.22	2.94	3.02	2.20	3.05	3.46	3.33	5.87	5.54	5.66
CHARGE BALANCE (%)	-3	-0	-1	3	7	-0	-1	-1	-1	0	1	1	1	-0
TDS (mg/L)	222	222	220	156	174	142	146	112	152	160	174	306	272	326
TSS (mg/L)	2	2	1	<1	10	<1	<1	3	<1	10	8	3	<1	<1
Turbidity (NTU)	1.6	2	1	1.4	6.5	1.1	2.5	4.6	1	9.2	8.5	7.3	2	3.9

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, 1994

Sampling Point	GW-302			GW-303			GW-304			GW-305				GW-321	
	AQF			AQF			AQF			AQF				AQF	
Location	UNCS			CRSDB			CRSDB			IIV				ADB	
	10/15/94	02/14/94	04/11/94	07/11/94	10/23/94	02/10/94	07/08/94	10/18/94	01/10/94	04/06/94	07/07/94	10/05/94	01/11/94	04/13/94	
CATIONS (meq/L)															
Calcium	2.64	3.54	3.64	3.94	2.99	1.95	2.05	1.85	1.35	1.35	1.35	1.35	1.20	1.40	
Magnesium	2.55	3.13	3.37	3.62	3.13	1.89	2.06	1.97	1.32	1.40	1.48	1.32	1.15	1.23	
Potassium	0.03	0.10	0.12	0.11	0.14	0.06	0.05	0.06	0.02	0.02	0.02	0.00	0.00	0.02	
Sodium	0.35	0.05	0.05	0.05	0.07	0.03	0.18	0.20	0.05	0.04	0.09	0.05	0.02	0.03	
Hydrogen Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Ammonia Nitrogen															
Total Cations	5.58	6.82	7.19	7.72	6.33	3.93	4.33	4.08	2.74	2.81	2.94	2.72	2.37	2.68	
ANIONS (meq/L)															
Alkalinity-CO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	
Alkalinity-HCO3	4.84	3.66	3.66	3.62	3.06	3.88	3.86	3.82	2.72	2.80	2.72	2.62	2.50	2.48	
Chloride	0.54	0.05	0.04	0.03	0.07	0.06	0.05	0.05	0.05	0.06	0.05	0.06	0.03	0.03	
Fluoride	0.00	0.05	0.05	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Nitrate Nitrogen	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.02	0.02	0.01	
Sulfate	0.07	3.27	3.44	3.71	4.37	0.37	0.52	0.44	0.00	0.00	0.21	0.16	0.05	0.04	
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total Anions	5.52	7.03	7.19	7.41	7.55	4.31	4.43	4.31	2.77	2.87	3.07	2.86	2.60	2.56	
CHARGE BALANCE (%)															
	1	-1	-0	2	-9	-5	-1	-3	-1	-1	-2	-3	-5	2	
TDS (mg/L)	290	432	460	460	416	186	220	210	156	150	168	122	120	112	
TSS (mg/L)	<1	1	2	<1	4	5	23	26	<1	4	<1	6	<1	<1	
Turbidity (NTU)	7.2	3.9	12	3.4	16	4.5	11	20	1	1.1	1.1	17	2.5	0.7	

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, 1994

Sampling Point Unit Location	GW-339				GW-511				GW-512			GW-513			GW-514
	AQF				AQF				AQF			AQF			AQF
	UNCS				CRSP				ADB			ADB			ADB
Date Sampled	01/11/94	04/08/94	07/27/94	10/15/94	02/17/94	04/25/94	07/31/94	11/14/94	01/12/94	04/14/94	01/11/94	04/13/94	10/18/94	01/14/94	
CATIONS (meq/L)															
Calcium	2.74	2.74	2.84	2.84	1.40	1.40	1.50	1.40	1.55	1.75	1.75	1.90	1.80	1.90	
Magnesium	2.63	2.71	2.80	2.63	1.40	1.40	1.48	1.40	1.48	1.65	1.65	1.81	1.73	1.81	
Potassium	0.03	0.04	0.03	0.04	0.08	0.08	0.07	0.10	0.12	0.10	0.04	0.04	0.05	0.02	
Sodium	0.39	0.44	0.42	0.40	0.05	0.06	0.05	0.05	0.06	0.04	0.09	0.04	0.07	0.02	
Hydrogen Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Ammonia Nitrogen															
Total Cations	5.80	5.94	6.09	5.92	2.93	2.94	3.10	2.95	3.21	3.53	3.52	3.78	3.64	3.74	
ANIONS (meq/L)															
Alkalinity-CO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Alkalinity-HCO3	5.26	5.16	5.08	5.18	2.98	2.74	2.88	2.86	2.92	3.36	3.48	3.50	3.58	3.60	
Chloride	0.61	0.65	0.54	0.56	0.08	0.07	0.06	0.10	0.03	0.00	0.04	0.03	0.03	0.06	
Fluoride	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	
Nitrate Nitrogen	0.05	0.06	0.06	0.06	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
Sulfate	0.09	0.08	0.19	0.08	0.02	0.03	0.03	0.04	0.17	0.08	0.08	0.04	0.14	0.10	
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total Anions	6.01	5.95	5.86	5.89	3.08	2.84	2.97	3.03	3.12	3.44	3.59	3.57	3.75	3.76	
CHARGE BALANCE (%)	-2	-0	2	0	-3	2	2	-1	1	1	-1	3	-2	-0	
TDS (mg/L)	316	300	292	304	148	140	174	158	180	160	200	152	176	194	
TSS (mg/L)	6	2	<1	4	<1	<1	<1	2	19	<1	2	1	2	<1	
Turbidity (NTU)	4	5.3	1.3	6	0.6	4	1.2	0.4	24	1.9	5	3.2	2.6	3.7	

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, 1994

Sampling Point Unit Location Date Sampled	GW-514		GW-521				GW-522				GW-539			
	AQF		AQF				AQF				AQF			
	ADB		LIV				LIV				LII			
	04/18/94	10/20/94	01/06/94	04/05/94	07/07/94	10/04/94	01/07/94	04/05/94	07/07/94	10/05/94	01/06/94	04/04/94	07/13/94	10/06/94
CATIONS (meq/L)														
Calcium	2.00	1.90	1.45	1.40	1.45	1.50	1.60	1.30	1.45	1.30	1.70	1.90	1.70	1.75
Magnesium	1.89	1.81	1.48	1.56	1.65	1.56	1.56	1.32	1.48	1.32	1.65	1.81	1.73	1.73
Potassium	0.02	0.04	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.04	0.03	0.02
Sodium	0.02	0.02	0.03	0.03	0.04	0.03	0.02	0.03	0.03	0.02	0.08	0.12	0.13	0.11
Hydrogen Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ammonia Nitrogen	.	.	.	.	.	.	.	.	.	.	0.00	0.05	0.00	0.00
Total Cations	3.93	3.76	2.98	3.01	3.14	3.11	3.21	2.66	2.98	2.65	3.45	3.91	3.58	3.61
ANIONS (meq/L)														
Alkalinity-CO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Alkalinity-HCO3	3.66	3.56	2.94	2.98	2.90	3.02	3.12	2.78	2.82	2.72	2.84	2.96	2.92	3.00
Chloride	0.03	0.03	0.04	0.03	0.03	0.05	0.05	0.05	0.04	0.05	0.96	0.65	0.54	0.51
Fluoride	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nitrate Nitrogen	0.00	0.00	0.02	0.00	0.00	0.02	0.03	0.03	0.03	0.03	0.02	0.02	0.03	0.02
Sulfate	0.08	0.17	0.05	0.00	0.20	0.16	0.05	0.00	0.19	0.15	0.14	0.14	0.27	0.25
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Anions	3.77	3.76	3.05	3.01	3.13	3.24	3.26	2.86	3.08	2.95	3.96	3.77	3.75	3.78
CHARGE BALANCE (%)	2	0	-1	-0	0	-2	-1	-4	-2	-5	-7	2	-2	-2
TDS (mg/L)	188	184	158	170	174	230	160	160	178	118	202	204	210	188
TSS (mg/L)	<1	2	2	10	4	<1	8	31	15	12	6	55	10	15
Turbidity (NTU)	3.4	3.5	6.8	2.4	6.7	2.6	7.7	26	7.5	14	4.8	28	6.4	7

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, 1994

Sampling Point . Unit . Location . Date Sampled	GW-540				GW-541				GW-542				GW-543				GW-544	
	AQF				AQF				AQF				AQF				AQF	
	CDLVI				CDLVI				CDLVI				CDLVI				CDLVI	
	03/22/94	04/14/94	10/10/94	03/23/94	04/18/94	10/11/94	03/24/94	04/19/94	10/12/94	03/25/94	04/20/94	10/13/94	03/25/94	04/21/94				
CATIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
Calcium	2.05	2.05	1.95	2.05	2.00	1.65	1.50	1.65	1.15	2.40	2.50	2.20	2.30	2.35				
Magnesium	1.89	1.97	1.97	1.81	1.89	1.56	1.07	1.56	1.07	2.30	2.47	2.22	2.22	2.30				
Potassium	0.02	0.03	0.03	0.02	0.04	0.04	0.06	0.05	0.05	0.03	0.04	0.04	0.03	0.04				
Sodium	0.08	0.06	0.10	0.03	0.02	0.04	0.07	0.06	0.05	0.05	0.04	0.05	0.20	0.19				
Hydrogen Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Ammonia Nitrogen	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00				
Total Cations	4.04	4.10	4.06	3.91	3.98	3.29	2.70	3.31	2.32	4.78	5.06	4.50	4.74	4.88				
ANIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.		
Alkalinity-CO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Alkalinity-HCO3	3.82	3.86	3.96	3.60	3.52	3.04	2.80	3.00	2.16	4.62	4.58	4.38	4.30	4.20				
Chloride	0.06	0.06	0.06	0.03	0.00	0.05	0.06	0.06	0.05	0.06	0.06	0.07	0.28	0.28				
Fluoride	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Nitrate Nitrogen	0.00	0.00	0.02	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.02	0.02	0.04	0.04				
Sulfate	0.08	0.08	0.20	0.23	0.21	0.33	0.10	0.12	0.17	0.06	0.04	0.06	0.17	0.19				
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Total Anions	3.96	4.00	4.24	3.86	3.73	3.42	2.99	3.21	2.41	4.76	4.70	4.53	4.79	4.70				
CHARGE BALANCE (%)	1	1	-2	1	3	-2	-5	2	-2	0	4	-0	-1	2				
TDS (mg/L)	190	184	188	200	186	170	138	166	128	224	228	236	226	224				
TSS (mg/L)	<1	<1	<1	5	2	8	3	<1	53	5	<1	<1	2	6				
Turbidity (NTU)	0.5	0.4	0.1	3.8	0.8	4.3	2.3	1.2	17	3	1	2.5	2.1	3.5				

(CONTINUED)

APPENDIX G

Ion-Charge Balance Calculations, 1994

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Sampling Point • Unit • Location • Date Sampled	GW-544	GW-545			GW-546			GW-557				GW-560		
	AQF	AQF			AQF			AQF				AQF		
	CDLVI	CDLVI			CDLVI			IV				CDLVII		
	10/13/94	03/25/94	04/19/94	10/12/94	03/23/94	04/14/94	10/11/94	03/07/94	04/21/94	07/15/94	10/09/94	03/07/94	04/19/94	07/12/94
CATIONS (meq/L)	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Calcium	2.25	0.34	0.50	0.90	1.70	1.70	1.50	1.70	2.05	1.90	1.85	1.55	1.65	1.90
Magnesium	2.22	0.32	0.42	0.18	1.56	1.65	1.48	1.65	1.89	1.81	1.73	1.07	0.99	1.23
Potassium	0.04	0.56	0.59	0.31	0.04	0.05	0.06	0.03	0.04	0.04	0.04	0.03	0.02	0.03
Sodium	0.24	0.29	0.34	0.20	0.08	0.08	0.10	0.02	0.04	0.03	0.03	0.02	0.02	0.03
Hydrogen Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ammonia Nitrogen	0.00	0.00	0.00	•	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
• Total Cations	4.75	1.51	1.85	1.58	3.38	3.47	3.14	3.40	4.01	3.77	3.64	2.67	2.68	3.19
ANIONS (meq/L)	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Alkalinity-CO3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Alkalinity-HCO3	0.00	1.00	0.76	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chloride	4.24	0.00	0.72	0.00	3.22	3.24	2.78	3.38	3.42	3.36	3.34	2.86	2.64	2.94
Fluoride	0.37	0.06	0.06	0.07	0.06	0.06	0.06	0.03	0.03	0.05	0.04	0.03	0.03	0.05
Nitrate Nitrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sulfate	0.05	0.06	0.06	0.06	0.00	0.00	0.02	0.06	0.06	0.06	0.07	0.00	0.00	0.00
Hydroxyl Ion	0.14	0.40	0.21	0.52	0.06	0.06	0.20	0.02	0.02	0.14	0.04	0.04	0.04	0.17
• Total Anions	0.00	0.13	0.03	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
•	4.79	1.63	1.83	1.53	3.34	3.36	3.07	3.49	3.53	3.61	3.48	2.93	2.71	3.16
CHARGE BALANCE (%)	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	-0	-4	0	2	1	2	1	-1	6	2	2	-5	-1	1
TDS (mg/L)	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TSS (mg/L)	252	118	130	134	166	154	228	168	172	182	182	138	138	180
Turbidity (NTU)	12	70	20	1214	3	2	1574	10	2	3	2	<1	<1	<1
	16	56	4.5	750	2.3	2.3	220	6	2.8	2.7	1.1	1.5	1.1	1.8

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, 1994

Sampling Point Unit Location Date Sampled	GW-560					GW-562					GW-564					GW-608					GW-609	
	AQF					AQF					AQF					AQF					AQF	
	CDLVII					CDLVII					CDLVII					CRSP					CRSP	
	10/08/94	03/07/94	04/19/94	07/13/94	10/08/94	03/07/94	04/20/94	07/14/94	10/09/94	02/21/94	05/18/94	08/08/94	11/29/94	02/24/94								
CATIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Calcium	1.90	1.85	2.40	2.05	1.95	1.50	1.65	1.75	1.75	1.50	1.55	1.55	1.45	2.00	.	.	.	.	.	.	.	.
Magnesium	1.23	1.81	2.14	1.89	1.81	1.15	1.15	1.32	1.32	1.48	1.40	1.56	1.40	2.06	.	.	.	.	.	.	.	.
Potassium	0.03	0.02	0.00	0.00	0.02	0.04	0.03	0.04	0.03	0.03	0.03	0.02	0.04	0.03	.	.	.	.	.	.	.	.
Sodium	0.02	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.03	0.03	.	.	.	.	.	.	.	.
Hydrogen Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.	.	.	.	.	.	.	.
Ammonia Nitrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	.	.	.	.	.	.	.	.	.	.	.	.	.
Total Cations	3.19	3.73	4.57	3.97	3.80	2.71	2.87	3.13	3.13	3.03	3.00	3.16	2.92	4.11	.	.	.	.	.	.	.	.
ANIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Alkalinity-CO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.	.	.	.	.	.	.	.
Alkalinity-HCO3	2.98	3.62	3.66	3.68	3.62	2.74	2.68	2.86	2.88	3.04	2.98	2.88	2.92	3.96	.	.	.	.	.	.	.	.
Chloride	0.05	0.06	0.03	0.06	0.05	0.03	0.03	0.05	0.03	0.06	0.06	0.05	0.06	0.06	.	.	.	.	.	.	.	.
Fluoride	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.	.	.	.	.	.	.	.
Nitrate Nitrogen	0.00	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.03	0.03	0.03	0.04	0.08	.	.	.	.	.	.	.	.
Sulfate	0.16	0.02	0.02	0.17	0.16	0.02	0.02	0.14	0.00	0.04	0.04	0.05	0.06	0.04	.	.	.	.	.	.	.	.
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.	.	.	.	.	.	.	.
Total Anions	3.18	3.72	3.73	3.93	3.86	2.82	2.76	3.08	2.95	3.16	3.10	3.01	3.08	4.13	.	.	.	.	.	.	.	.
CHARGE BALANCE (%)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
TDS (mg/L)	152	168	186	176	178	138	142	162	140	166	152	172	158	180	.	.	.	.	.	.	.	.
TSS (mg/L)	2	7	3	14	4	<1	<1	<1	<1	<1	20	12	<1	<1	.	.	.	.	.	.	.	.
Turbidity (NTU)	1.6	15	8	12	8	1	0.8	0.7	0.5	3.3	2	5	1.5	0.7	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, 1994

Sampling Point	GW-609				GW-610				GW-611				GW-709			
	AQF				AQF				AQF				AQF			
	CRSP				CRSP				CRSP				CRSP			
	05/24/94	08/14/94	12/01/94	02/18/94	05/04/94	08/06/94	11/21/94	02/22/94	05/19/94	08/13/94	11/30/94	01/06/94	04/05/94	07/14/94		
CATIONS (meq/L)																
Calcium	2.05	2.05	2.00	2.40	2.50	2.25	2.10	2.94	2.74	2.94	2.50	1.75	1.90	1.75		
Magnesium	2.06	2.06	1.97	2.39	2.55	2.30	2.14	2.88	2.63	2.88	2.47	1.65	1.73	1.73		
Potassium	0.05	0.02	0.04	0.02	0.00	0.00	0.03	0.04	0.28	0.00	0.03	0.02	0.03	0.03		
Sodium	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.07	0.16	0.06	0.14	0.02	0.03	0.03		
Hydrogen Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Ammonia Nitrogen																
Total Cations	4.19	4.16	4.05	4.84	5.08	4.58	4.30	5.93	5.81	5.88	5.13	3.43	3.68	3.54		
ANIONS (meq/L)																
Alkalinity-CO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Alkalinity-HCO3	4.02	3.88	3.82	4.74	4.86	4.00	4.36	5.48	5.34	5.16	5.04	3.46	3.54	3.48		
Chloride	0.05	0.05	0.06	0.08	0.07	0.06	0.07	0.06	0.06	0.05	0.07	0.05	0.04	0.05		
Fluoride	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00		
Nitrate Nitrogen	0.07	0.07	0.09	0.06	0.04	0.04	0.05	0.27	0.26	0.29	0.21	0.00	0.00	0.00		
Sulfate	0.07	0.05	0.05	0.00	0.00	0.00	0.02	0.04	0.04	0.06	0.07	0.03	0.02	0.15		
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Total Anions	4.21	4.04	4.02	4.88	4.97	4.10	4.50	5.86	5.70	5.56	5.38	3.55	3.60	3.68		
CHARGE BALANCE (%)	-0	1	0	-0	1	6	-2	1	1	3	-2	-2	1	-2		
TDS (mg/L)	212	232	204	254	254	216	226	290	278	280	270	186	198	180		
TSS (mg/L)	<1	<1	<1	<1	2	43	<1	6	3	<1	10	8	8	<1		
Turbidity (NTU)	0.7	0.4	0.3	1.5	1.5	17	0.6	3.1	2	0.5	7.8	1.5	4.5	1.1		

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, 1994

Sampling Point	GW-709	GW-731				GW-732				GW-742				GW-743
Unit	AQF	AQF				AQF				AQF				AQF
Location	LI	CRSDB				CRSDB				CRSP				CRSP
Date Sampled	10/07/94	02/11/94	04/04/94	07/09/94	10/18/94	02/12/94	04/06/94	07/09/94	10/19/94	02/20/94	05/02/94	08/04/94	11/17/94	02/18/94
CATIONS (meq/L)														
Calcium														
Magnesium	1.90	1.00	0.95	0.41	0.95	1.25	1.20	1.40	1.25	1.90	2.00	1.80	1.85	1.30
Potassium	1.73	1.32	1.65	1.48	1.32	1.23	1.15	1.40	1.07	1.81	1.81	1.89	1.81	1.32
Sodium	0.02	0.19	0.41	0.72	0.33	0.06	0.11	0.19	0.26	0.02	0.03	0.02	0.03	0.03
Hydrogen Ion	0.03	0.14	0.19	0.27	0.21	0.06	0.09	0.17	0.40	0.02	0.03	0.02	0.02	0.03
Ammonia Nitrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Cations	3.67	2.64	3.19	2.88	2.81	2.60	2.54	3.15	2.97	3.75	3.86	3.74	3.71	2.68
ANIONS (meq/L)														
Alkalinity-CO3	0.00	0.16	0.28	0.84	0.20	0.00	0.00	0.04	0.20	0.00	0.00	0.00	0.00	0.00
Alkalinity-HCO3	3.40	2.44	2.42	1.98	2.34	2.68	2.50	2.98	2.76	3.40	3.48	3.20	3.54	2.40
Chloride	0.05	0.03	0.03	0.03	0.03	0.03	0.03	0.00	0.00	0.00	0.00	0.04	0.04	0.06
Fluoride	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nitrate Nitrogen	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.10
Sulfate	0.16	0.12	0.11	0.20	0.20	0.02	0.04	0.14	0.15	0.25	0.25	0.35	0.25	0.08
Hydroxyl Ion	0.00	0.00	0.01	0.03	0.02	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Total Anions	3.63	2.76	2.84	3.08	2.80	2.73	2.57	3.16	3.13	3.65	3.72	3.59	3.83	2.64
CHARGE BALANCE (%)														
	1	-2	6	-3	0	-2	-0	-0	-3	1	2	2	-2	1
TDS (mg/L)														
TSS (mg/L)	146	152	160	140	148	152	164	192	194	198	192	136	182	150
Turbidity (NTU)	2	1	2	9	11	91	39	290	421	23	7	17	<1	<1
	3	2.1	2.5	4.7	18	22	15	58	250	7.8	11	17	3.6	1.1

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, 1994

Sampling Point Unit Location Date Sampled	GW-743				GW-757				GW-796				GW-797			
	AQF				AQF				AQF				AQF			
	CRSP				LII				IV				IV			
	05/03/94	08/06/94	11/17/94	01/07/94	04/06/94	07/15/94	10/07/94	03/08/94	04/25/94	07/20/94	10/11/94	03/08/94	04/25/94	07/19/94		
CATIONS (meq/L)																
Calcium	1.50	1.50	1.50	1.50	1.75	1.60	1.85	1.05	1.10	1.10	1.25	1.60	1.75	1.75		
Magnesium	1.48	1.48	1.48	1.32	1.56	1.56	1.73	1.07	1.15	1.07	1.23	1.56	1.65	1.65		
Potassium	0.02	0.03	0.04	0.04	0.09	0.06	0.04	0.07	0.07	0.07	0.05	0.03	0.03	0.03		
Sodium	0.04	0.04	0.04	0.12	0.09	0.17	0.13	0.07	0.10	0.12	0.06	0.02	0.02	0.02		
Hydrogen Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Ammonia Nitrogen																
Total Cations	3.04	3.04	3.06	2.98	3.50	3.40	3.75	2.25	2.43	2.36	2.58	3.21	3.44	3.45		
ANIONS (meq/L)																
Alkalinity-CO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.12	0.00	0.00	0.00	0.00		
Alkalinity-HCO3	3.42	2.82	2.92	2.66	3.16	2.76	3.08	2.08	2.34	2.26	2.30	3.14	3.16	3.14		
Chloride	0.06	0.04	0.06	0.04	0.03	0.05	0.06	0.03	0.04	0.04	0.05	0.03	0.03	0.03		
Fluoride	0.00	0.00	0.00	0.09	0.11	0.08	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Nitrate Nitrogen	0.06	0.04	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Sulfate	0.08	0.06	0.08	0.20	0.19	0.29	0.29	0.04	0.04	0.13	0.16	0.00	0.00	0.10		
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00		
Total Anions	3.62	2.96	3.11	3.01	3.48	3.19	3.53	2.35	2.42	2.55	2.51	3.17	3.19	3.27		
CHARGE BALANCE (%)	-9	1	-1	-1	0	3	3	-2	0	-4	1	1	4	3		
TDS (mg/L)	156	144	164	164	200	166	292	128	122	120	128	162	156	154		
TSS (mg/L)	3	3	<1	9	7	3	500	3	<1	2	<1	1	<1	<1		
Turbidity (NTU)	1.5	3	2.3	1.5	2.5	3	200	2	1.1	2.6	1	1.7	1.5	1.4		

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, 1994

Sampling Point	GW-797	GW-798					GW-799					GW-801				
Unit	AQF	AQF					AQF					AQF				
Location	LV	CDLVII					CDLVII					LV				
Date Sampled	10/10/94	03/08/94	04/22/94	07/19/94	10/10/94	03/07/94	04/21/94	07/18/94	10/10/94	03/08/94	04/27/94	07/21/94	10/11/94			
CATIONS (meq/L)																
Calcium	1.80	1.35	1.70	1.35	1.40	1.35	1.65	1.50	1.45	1.40	1.75	1.55	1.60			
Magnesium	1.56	1.32	1.48	1.23	1.32	1.32	1.48	1.32	1.32	1.48	1.56	1.48	1.56			
Potassium	0.03	0.04	0.04	0.04	0.04	0.03	0.02	0.02	0.02	0.05	0.03	0.03	0.02			
Sodium	0.02	0.03	0.03	0.03	0.03	0.02	0.04	0.02	0.03	0.04	0.04	0.03	0.03			
Hydrogen Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Ammonia Nitrogen	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Total Cations	3.41	2.73	3.25	2.64	2.78	2.71	3.19	2.86	2.82	2.96	3.37	3.09	3.22			
ANIONS (meq/L)																
Alkalinity-CO3	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Alkalinity-HCO3	3.08	2.58	2.64	2.52	2.52	2.64	2.60	2.64	2.58	2.90	2.80	2.84	2.82			
Chloride	0.05	0.03	0.00	0.03	0.05	0.03	0.03	0.00	0.05	0.06	0.06	0.04	0.05			
Fluoride	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00			
Nitrate Nitrogen	0.00	0.06	0.04	0.04	0.05	0.06	0.06	0.06	0.06	0.00	0.00	0.00	0.00			
Sulfate	0.17	0.04	0.04	0.12	0.17	0.00	0.02	0.02	0.15	0.04	0.04	0.14	0.18			
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Total Anions	3.46	2.71	2.72	2.71	2.78	2.72	2.71	2.72	2.85	3.01	2.90	3.02	3.05			
CHARGE BALANCE (%)																
	-1	0	9	-1	0	-0	8	2	-1	-1	8	1	3			
TDS (mg/L)	152	136	144	130	136	134	132	118	134	154	164	160	152			
TSS (mg/L)	116	1	<1	<1	1	<1	3	1	2	2	3	<1	1			
Turbidity (NTU)	85	2	2	1.7	1	2.2	3.2	2	4.5	2.5	3.5	3.1	2.2			

APPENDIX G
Ion-Charge Balance Calculations, 1994

Sampling Point .	CBS-1	
	SPRING	
	CDLIVII	
	02/14/94	09/07/94
Date Sampled		
CATIONS (meq/L)	.	.
Calcium	0.75	2.20
Magnesium	0.44	1.40
Potassium	0.03	0.03
Sodium	0.03	0.07
Hydrogen Ion	0.00	0.00
Ammonia Nitrogen	0.00	0.00
.	.	.
Total Cations	1.25	3.70
ANIONS (meq/L)	.	.
Alkalinity-CO3	.	.
Alkalinity-HCO3	0.00	0.00
Chloride	0.98	3.02
Fluoride	0.04	0.08
Nitrate Nitrogen	0.00	0.01
Sulfate	0.03	0.03
Hydroxyl Ion	0.09	0.25
.	0.00	0.00
Total Anions	1.14	3.38
CHARGE BALANCE (%)	.	.
	5	5
TDS (mg/L)	.	.
TSS (mg/L)	74	204
Turbidity (NTU)	6	1
	9.2	6.1

APPENDIX H

TRACE METAL CONCENTRATIONS THAT EXCEED MAXIMUM CONTAMINANT LEVELS

EXPLANATION

UNIT:

AQF - Knox Aquifer
AQT - ORR Aquitards
SPRING - Spring Sampling Station

LOCATION:

ADB - Ash Disposal Basin
CDLVI - Construction/Demolition Landfill VI
CDLVII - Construction/Demolition Landfill VII
CRBAWP - Chestnut Ridge Borrow Area Waste Pile
CRSDB - Chestnut Ridge Sediment Disposal Basin
CRSP - Chestnut Ridge Security Pits
ECRWP - East Chestnut Ridge Waste Pile
KHQ - Kerr Hollow Quarry
LII - Industrial Landfill II
LIV - Industrial Landfill IV
LV - Industrial Landfill V
RQ - Rogers Quarry
UNCS - United Nuclear Corporation Site

NOTES:

mg/L - milligrams per liter
- Total Metal Concentration less than the
Maximum Contaminant Level (MCL)
TOT - Total Concentration (Unfiltered Sample)
DIS - Dissolved Concentration (Filtered Sample)
TSS - Total Suspended Solids

MCLS:

<u>Metal</u>	<u>Maximum Contaminant Level (mg/L)</u>
Barium (ICP)	2.0
Cadmium (AAS)	0.005
Chromium (AAS)	0.10
Lead (AAS)	0.05
Mercury (CVAA)	0.002

Because of inherent analytical interferences, ICP results for arsenic, selenium, and silver were not evaluated with respect to MCLs. Historical AAS results for these metals have shown only isolated and sporadic occurrences where concentrations exceeded MCLs.

APPENDIX H

1

Trace Metal Concentrations That Exceed
Maximum Contaminant Levels, 1994

Sampling Point . Unit . Location . Date Sampled . Type	GW-295				GW-302		GW-539			
	AQF				AQF		AQF			
	CRBAWP				UNCS		LII			
	02/15/94		07/18/94		10/15/94		04/04/94		07/13/94	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
Barium	.	.	.	.	.	.	.	.	.	.
Cadmium (AAS)	.	.	.	.	.	.	.	.	.	.
Cadmium	.	.	.	.	.	.	.	.	.	.
Chromium (AAS)	0.32	0.034	0.25	0.013	0.12	<0.01	1.8	<0.01	0.14	<0.01
Chromium	0.34	0.014	0.18	0.013	.	.	1.9	<0.01	0.11	<0.01
Lead (AAS)	.	.	.	.	.	.	.	.	.	.
Lead	.	.	.	.	.	.	.	.	.	.
Mercury (CVAA)	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.
TSS (mg/L)	42	0	58	0	<1	0	55	0	10	0
Turbidity (NTU)	54	54	40	40	7.2	7.2	28	28	6.4	6.4

(CONTINUED)

Sampling Point . Unit . Location . Date Sampled . Type	GW-545		GW-757	
	AQF		AQF	
	CDLVI		LII	
	10/12/94		10/07/94	
	TOT	DIS	TOT	DIS
Barium	.	.	.	.
Cadmium (AAS)	.	.	.	.
Cadmium	0.0071	<0.003	.	.
Chromium (AAS)	0.13	0.011	0.15	0.16
Chromium	.	.	0.15	0.15
Lead (AAS)	0.25	<0.004	.	.
Lead	0.25	<0.05	.	.
Mercury (CVAA)	.	.	.	.
.	.	.	.	.
TSS (mg/L)	1214	0	500	0
Turbidity (NTU)	750	750	200	200

APPENDIX I
QA/QC DATA SUMMARIES

EXPLANATION

LOCATION:

ADB	-	Ash Disposal Basin
CDLVI	-	Construction/Demolition Landfill VI
CDLVII	-	Construction/Demolition Landfill VII
CRBAWP	-	Chestnut Ridge Borrow Area Waste Pile
CRSDB	-	Chestnut Ridge Sediment Disposal Basin
CRSP	-	Chestnut Ridge Security Pits
ECRWP	-	East Chestnut Ridge Waste Pile
KHQ	-	Kerr Hollow Quarry
LII	-	Industrial Landfill II
LIV	-	Industrial Landfill IV
LV	-	Industrial Landfill V
RQ	-	Rogers Quarry
UNCS	-	United Nuclear Corporation Site

NOTES:

- . - Not analyzed
- U - Compound not detected at the reported minimum attainable detection limit.

UNITS:

- ug/L - micrograms per liter
- mg/L - milligrams per liter
- pCi/L - picoCuries per liter
- Bq/L - Becquerels per liter
- CE +/- - Counting Error (two standard deviations)

APPENDIX I.1

**CORRELATION OF GROUNDWATER AND SURFACE WATER
SAMPLES TO ASSOCIATED BLANKS**

APPENDIX I.1
Correlation of Samples to Associated Blanks
First Quarter 1994

Sampling Point	Location	Date Sampled	Sample No.	Trip Blank No.	Lab Blank No.
1090	UNCS	01/11/94	940112-005	940112-007	940112-058
CBS-1	LV	02/14/94	940214-106	940214-109	940217-056
GW-141	LIV	01/06/94	940106-105	940106-109	940107-036
GW-142	KHQ	02/16/94	940217-013	940217-015	940221-005
GW-143	KHQ	03/03/94	940303-088	940303-090	940307-001
GW-144	KHQ	03/10/94	940310-137	940310-141	940314-026
GW-145	KHQ	03/11/94	940311-071	940311-073	940315-007
GW-146	KHQ	03/03/94	940303-086	940303-090	940307-001
GW-147	KHQ	02/28/94	940301-016	940301-020	940302-060
GW-156	CRSDB	02/12/94	940214-001	940214-005	940216-014
GW-158	CRSDB	02/14/94	940215-020	940215-022	940216-072
GW-159	CRSDB	02/10/94	940210-114	940210-116	940215-029
GW-160	LIII	02/12/94	940214-062	940214-064	940216-014
GW-161	LIII	02/11/94	940211-086	940211-088	940211-089
GW-175	CRSP	02/23/94	940223-101	940223-103	940223-080
GW-177	CRSP	02/28/94	940228-082	940228-084	940302-060
GW-181	CRSP	02/16/94	940217-008	940217-012	940221-005
GW-184	RQ	01/11/94	940112-014	940112-018	940113-008
GW-186	RQ	01/27/94	940127-666	940127-670	940201-051
GW-187	RQ	01/12/94	940112-074	940112-076	940114-010
GW-188	RQ	01/11/94	940112-016	940112-018	940113-008
GW-203	UNCS	01/06/94	940106-090	940106-064	940107-036
GW-205	UNCS	01/07/94	940107-181	940107-183	940110-001
GW-217	LIV	01/05/94	940105-052	940105-054	940106-014
GW-221	UNCS	01/10/94	940111-011	940111-015	940111-020
GW-231	KHQ	02/28/94	940301-018	940301-020	940303-047
GW-241	CRSDB	02/15/94	940215-074	940215-076	940218-001
GW-292	ECRWP	01/14/94	940114-062	940114-064	940114-093
GW-293	ECRWP	01/13/94	940113-102	940113-106	940114-093
GW-294	ECRWP	01/12/94	940112-071	940112-073	940113-008
GW-295	LIII	02/15/94	940215-091	940215-093	940217-056
GW-296	ECRWP	01/10/94	940111-008	940111-010	940111-020
GW-298	LIII	02/14/94	940215-007	940215-009	940217-016
GW-299	LIII	02/13/94	940214-053	940214-061	940216-014
GW-300	LIII	02/13/94	940214-057	940214-061	940216-014
GW-301	LIII	02/13/94	940214-059	940214-061	940216-014
GW-302	UNCS	01/11/94	940112-001	940112-007	940112-058
GW-303	CRSDB	02/14/94	940215-010	940215-014	940217-056
GW-304	CRSDB	02/10/94	940210-112	940210-116	940215-029
GW-304	CRSDB	02/10/94	940311-070		
GW-305	LIV	01/10/94	940111-004	940111-006	940111-020
GW-321	ADB	01/11/94	940112-009	940112-013	940112-058
GW-339	UNCS	01/11/94	940112-003	940112-007	940112-058
GW-511	CRSP	02/17/94	940217-122	940217-124	940221-165
GW-512	ADB	01/12/94	940112-063	940112-067	940113-008
GW-513	ADB	01/11/94	940112-011	940112-013	940113-008

APPENDIX I.1
Correlation of Samples to Associated Blanks
First Quarter 1994

Sampling Point	Location	Date Sampled	Sample No.	Trip Blank No.	Lab Blank No.
GW-514	ADB	01/14/94	940114-085	940114-087	940120-001
GW-521	LIV	01/06/94	940106-111	940106-109	940107-036
GW-522	LIV	01/07/94	940107-080	940107-082	940110-001
GW-539	LII	01/06/94	940106-117	940106-121	940107-036
GW-540	CDLVI	03/22/94	940322-055	940322-059	940325-003
GW-540	CDLVI	03/22/94	940323-010	940323-011	940405-056
GW-541	CDLVI	03/23/94	940324-014	940324-018	940325-003
GW-541	CDLVI	03/23/94	940324-021	940324-022	940405-056
GW-542	CDLVI	03/24/94	940324-085	940324-087	940328-002
GW-542	CDLVI	03/24/94	940324-088	940324-089	940406-071
GW-543	CDLVI	03/25/94	940325-105	940325-110	940328-002
GW-543	CDLVI	03/25/94	940325-107	940325-112	940405-056
GW-544	CDLVI	03/25/94	940325-108	940325-110	940329-002
GW-544	CDLVI	03/25/94	940325-111	940325-112	940405-056
GW-545	CDLVI	03/25/94	940328-067	940325-110	940331-001
GW-545	CDLVI	03/25/94	940328-069	940325-110	940405-056
GW-546	CDLVI	03/23/94	940324-016	940324-018	940325-003
GW-546	CDLVI	03/23/94	940324-020	940324-022	940405-056
GW-557	LV	03/07/94	940308-010	940308-014	940308-001
GW-557	LV	03/07/94	940308-017	940308-019	940311-032
GW-560	CDLVII	03/07/94	940308-006	940308-014	940308-001
GW-560	CDLVII	03/07/94	940308-015	940308-019	940311-032
GW-562	CDLVII	03/07/94	940308-008	940308-014	940308-001
GW-562	CDLVII	03/07/94	940308-016	940308-019	940311-032
GW-564	CDLVII	03/07/94	940307-126	940307-128	940308-001
GW-564	CDLVII	03/07/94	940308-003	940308-005	940311-032
GW-608	CRSP	02/21/94	940221-202	940221-204	940223-080
GW-609	CRSP	02/24/94	940224-065	940224-067	940228-011
GW-610	CRSP	02/18/94	940218-048	940218-052	940222-049
GW-611	CRSP	02/22/94	940222-059	940222-061	940223-080
GW-709	LII	01/06/94	940106-119	940106-121	940107-036
GW-731	CRSDB	02/11/94	940211-057	940211-059	940211-089
GW-732	CRSDB	02/12/94	940214-003	940214-005	940216-014
GW-742	CRSP	02/20/94	940221-001	940221-003	940222-049
GW-743	CRSP	02/18/94	940218-050	940218-052	940222-049
GW-757	LII	01/07/94	940107-184	940107-188	940110-001
GW-796	LV	03/08/94	940309-008	940309-010	940310-001
GW-796	LV	03/08/94	940309-012	940309-013	940318-034
GW-797	LV	03/08/94	940309-006	940309-010	940309-056
GW-797	LV	03/08/94	940309-011	940309-013	940311-032
GW-798	CDLVII	03/08/94	940309-015	940309-019	940310-001
GW-798	CDLVII	03/08/94	940309-020	940309-022	940311-032
GW-799	CDLVII	03/07/94	940308-012	940308-014	940308-001
GW-799	CDLVII	03/07/94	940308-018	940308-019	940311-032
GW-801	LV	03/08/94	940309-017	940309-019	940310-001
GW-801	LV	03/08/94	940309-021	940309-022	940311-032

APPENDIX I.1
Correlation of Samples to Associated Blanks
Second Quarter 1994

Sampling Point	Location	Date Sampled	Sample No.	Trip Blank No.	Lab Blank No.
1090	UNCS	04/12/94	940412-099	940412-101	940413-055
GW-141	LIV	04/04/94	940404-130	940404-138	940405-042
GW-141	LIV	04/04/94	940404-132	940404-140	940415-039
GW-142	KHQ	04/12/94	940412-094	940412-096	940413-001
GW-143	KHQ	04/18/94	940418-078	940418-082	940419-056
GW-144	KHQ	04/19/94	940419-091	940419-095	940420-033
GW-145	KHQ	04/20/94	940421-001	940421-003	940420-004
GW-146	KHQ	04/18/94	940418-080	940418-082	940419-056
GW-147	KHQ	04/13/94	940413-076	940413-078	940414-004
GW-156	CRSDB	04/07/94	940408-018	940408-020	940411-001
GW-158	CRSDB	04/15/94	940415-084	940415-086	940418-001
GW-159	CRSDB	04/04/94	940405-004	940405-010	940405-042
GW-159	CRSDB	04/05/94	940405-086	940405-088	
GW-175	CRSP	05/20/94	940520-057	940520-059	940524-113
GW-177	CRSP	06/29/94	940630-014	940630-016	940630-001
GW-181	CRSP	04/22/94	940422-088	940422-092	940422-085
GW-203	UNCS	04/07/94	940408-008	940408-012	940411-013
GW-205	UNCS	04/07/94	940408-006	940408-012	940411-013
GW-217	LIV	04/04/94	940404-136	940404-138	940405-042
GW-217	LIV	04/04/94	940404-139	940404-140	940415-039
GW-221	UNCS	04/08/94	940408-053	940408-057	940412-002
GW-231	KHQ	04/13/94	940413-074	940413-078	940414-004
GW-241	CRSDB	04/12/94	940413-039	940413-041	940414-004
GW-292	ECRWP	04/12/94	940412-090	940412-092	940413-001
GW-293	ECRWP	04/12/94	940412-086	940412-092	940413-001
GW-294	ECRWP	04/08/94	940408-065	940408-067	940411-013
GW-296	ECRWP	04/08/94	940408-063	940408-067	940411-013
GW-302	UNCS	04/12/94	940412-097	940412-101	940413-055
GW-303	CRSDB	04/11/94	940412-032	940412-036	940413-001
GW-304	CRSDB	04/04/94	940405-006	940405-010	940405-042
GW-304	CRSDB	04/05/94	940405-087	940405-088	
GW-305	LIV	04/06/94	940406-045	940406-048	940407-052
GW-305	LIV	04/06/94	940406-047	940406-049	940418-041
GW-321	ADB	04/13/94	940414-009	940414-011	940414-004
GW-339	UNCS	04/08/94	940408-055	940408-057	940411-013
GW-511	CRSP	04/25/94	940425-077	940425-079	940426-088
GW-512	ADB	04/14/94	940414-067	940414--69	940415-038
GW-513	ADB	04/13/94	940414-005	940414-011	940414-004
GW-514	ADB	04/18/94	940418-064	940418-066	940419-056
GW-521	LIV	04/05/94	940405-092	940405-096	940407-052
GW-521	LIV	04/05/94	940405-095	940405-097	940415-039
GW-522	LIV	04/05/94	940405-090	940405-096	940407-052
GW-522	LIV	04/05/94	940405-094	940405-097	940415-039
GW-539	LII	04/04/94	940404-064	940404-066	940405-042
GW-539	LII	04/04/94	940404-067	940404-068	940415-039
GW-540	CDLVI	04/14/94	940414-070	940414-078	940415-038

APPENDIX I.1
Correlation of Samples to Associated Blanks
Second Quarter 1994

Sampling Point	Location	Date Sampled	Sample No.	Trip Blank No.	Lab Blank No.
GW-540	CDLVI	04/14/94	940414-072	940414-080	940418-041
GW-541	CDLVI	04/18/94	940418-073	940418-076	940419-039
GW-541	CDLVI	04/18/94	940418-075	940418-077	940420-057
GW-542	CDLVI	04/19/94	940419-083	940419-088	940420-033
GW-542	CDLVI	04/19/94	940419-085	940419-090	940420-057
GW-543	CDLVI	04/20/94	940421-005	940421-008	940420-004
GW-543	CDLVI	04/20/94	940421-007	940421-009	940426-103
GW-544	CDLVI	04/21/94	940421-115	940421-117	940422-067
GW-544	CDLVI	04/21/94	940421-118	940421-119	940426-103
GW-545	CDLVI	04/19/94	940419-086	940419-088	940420-033
GW-545	CDLVI	04/19/94	940419-089	940419-090	940420-057
GW-546	CDLVI	04/14/94	940414-076	940414-078	940415-038
GW-546	CDLVI	04/14/94	940414-079	940414-080	940420-057
GW-557	LV	04/21/94	940421-091	940421-094	940422-067
GW-557	LV	04/21/94	940421-093	940421-095	940426-103
GW-560	CDLVII	04/19/94	940419-096	940419-104	940420-033
GW-560	CDLVII	04/19/94	940419-098	940419-106	940420-057
GW-562	CDLVII	04/19/94	940419-102	940419-104	940420-033
GW-562	CDLVII	04/19/94	940419-105	940419-106	940426-103
GW-564	CDLVII	04/20/94	940420-061	940420-064	940420-004
GW-564	CDLVII	04/20/94	940420-063	940420-065	940426-103
GW-608	CRSP	05/18/94	940519-001	940519-003	940520-009
GW-609	CRSP	05/24/94	940524-123	940524-125	940526-027
GW-610	CRSP	05/04/94	940504-063	940504-065	940505-070
GW-611	CRSP	05/19/94	940519-057	940519-059	940524-113
GW-709	LII	04/05/94	940405-098	940405-101	940407-052
GW-709	LII	04/05/94	940405-100	940405-102	940415-039
GW-731	CRSDB	04/04/94	940405-008	940405-010	940405-042
GW-732	CRSDB	04/06/94	940406-052	940406-052	940407-052
GW-742	CRSP	05/02/94	940503-046	940503-048	940504-050
GW-743	CRSP	05/03/94	940503-115	940503-117	940505-070
GW-757	LII	04/06/94	940406-058	940406-063	940407-052
GW-757	LII	04/06/94	940406-060	940406-065	940415-039
GW-796	LV	04/25/94	940425-082	940425-087	940426-088
GW-796	LV	04/25/94	940425-084	940425-089	940504-160
GW-797	LV	04/25/94	940425-085	940425-087	940426-088
GW-797	LV	04/25/94	940425-088	940425-089	940504-160
GW-798	CDLVII	04/22/94	940422-093	940422-095	940422-085
GW-798	CDLVII	04/22/94	940422-096	940422-097	940504-160
GW-799	CDLVII	04/21/94	940421-088	940421-094	940422-067
GW-799	CDLVII	04/21/94	940421-090	940421-095	940426-103
GW-801	LV	04/27/94	940428-027	940428-029	940429-001
GW-801	LV	04/27/94	940428-030	940428-031	940504-160

APPENDIX I.1
Correlation of Samples to Associated Blanks
Third Quarter 1994

Sampling Point	Location	Date Sampled	Sample No.	Trip Blank No.	Lab Blank No.
1090	UNCS	07/28/94	940728-062	940728-068	940801-003
CBS-1	LV	09/07/94	940908-085	940908-087	940912-076
CBS-1	LV	09/07/94	940909-038	940909-039	940928-053
GW-141	LIV	07/06/94	940706-081	940706-089	940708-001
GW-141	LIV	07/06/94	940706-083	940706-091	940720-034
GW-142	KHQ	07/21/94	940721-086	940721-088	940722-011
GW-143	KHQ	07/24/94	940725-053	940725-055	940727-001
GW-144	KHQ	07/26/94	940727-005	940727-036	940728-004
GW-145	KHQ	07/26/94	940727-004	940727-036	940728-004
GW-146	KHQ	07/25/94	940725-076	940725-078	940727-001
GW-147	KHQ	07/22/94	940722-080	940722-082	940727-001
GW-156	CRSDB	07/09/94	940711-003	940711-011	940711-026
GW-158	CRSDB	07/11/94	940711-081	940711-083	940712-001
GW-159	CRSDB	07/08/94	940711-015	940711-019	940712-001
GW-160	LIII	07/20/94	940721-014	940721-016	940721-001
GW-161	LIII	07/18/94	940718-103	940718-105	940720-040
GW-175	CRSP	08/13/94	940815-008	940815-012	940818-003
GW-177	CRSP	08/13/94	940815-010	940815-012	940818-003
GW-181	CRSP	07/31/94	940801-008	940801-012	940802-002
GW-203	UNCS	07/26/94	940726-049	940726-051	940728-004
GW-205	UNCS	07/26/94	940726-052	940726-051	940728-004
GW-217	LIV	07/06/94	940706-087	940706-089	940708-001
GW-217	LIV	07/06/94	940706-090	940706-091	940720-034
GW-221	UNCS	07/27/94	940727-088	940727-090	940728-004
GW-231	KHQ	07/23/94	940725-046	940725-052	940727-001
GW-241	CRSDB	07/12/94	940712-163	940712-165	940715-001
GW-241	CRSDB	07/25/94	940725-059		
GW-295	LIII	07/18/94	940718-101	940718-105	940720-040
GW-298	LIII	07/21/94	940721-076	940721-078	940722-032
GW-299	LIII	07/21/94	940721-072	940721-078	940722-032
GW-300	LIII	07/20/94	940721-012	940721-016	940721-001
GW-301	LIII	07/20/94	940721-010	940721-016	940721-001
GW-302	UNCS	07/28/94	940728-061	940728-068	940729-001
GW-303	CRSDB	07/11/94	940712-038	940712-040	940712-001
GW-303	CRSDB	07/24/94	940725-002		
GW-304	CRSDB	07/08/94	940711-017	940711-019	940712-001
GW-305	LIV	07/07/94	940708-007	940708-013	940708-001
GW-305	LIV	07/07/94	940708-009	940708-014	940720-034
GW-339	UNCS	07/27/94	940727-086	940727-090	940728-004
GW-511	CRSP	07/31/94	940801-006	940801-012	940802-002
GW-521	LIV	07/07/94	940708-010	940708-013	940708-001
GW-521	LIV	07/07/94	940708-012	940708-014	940720-034
GW-522	LIV	07/07/94	940708-004	940708-013	940708-001
GW-522	LIV	07/07/94	940708-006	940708-014	940720-034
GW-539	LII	07/13/94	940713-189	940713-192	940719-001
GW-539	LII	07/13/94	940713-191	940713-193	940720-035

APPENDIX I.1
Correlation of Samples to Associated Blanks
Third Quarter 1994

Sampling Point	Location	Date Sampled	Sample No.	Trip Blank No.	Lab Blank No.
GW-557	LV	07/15/94	940718-003	940718-006	940720-040
GW-557	LV	07/15/94	940718-005	940718-007	940725-001
GW-560	CDLVII	07/12/94	940713-033	940713-039	940715-001
GW-560	CDLVII	07/12/94	940713-035	940713-050	940720-035
GW-562	CDLVII	07/13/94	940713-109	940713-112	940719-001
GW-562	CDLVII	07/13/94	940713-111	940713-113	940720-035
GW-564	CDLVII	07/14/94	940714-105	940714-108	940719-001
GW-564	CDLVII	07/14/94	940714-107	940714-109	940720-035
GW-608	CRSP	08/08/94	940809-021	940809-023	940810-113
GW-609	CRSP	08/14/94	940815-016	940815-018	940818-106
GW-610	CRSP	08/06/94	940808-031	940808-035	940810-113
GW-611	CRSP	08/13/94	940815-014	940815-012	940818-003
GW-709	LII	07/14/94	940714-061	940714-063	940719-001
GW-709	LII	07/14/94	940714-064	940714-065	940720-035
GW-731	CRSDB	07/09/94	940711-005	940711-011	940711-026
GW-732	CRSDB	07/09/94	940711-007	940711-011	940711-026
GW-742	CRSP	08/04/94	940804-145	940804-151	940809-001
GW-743	CRSP	08/06/94	940808-033	940808-035	940810-113
GW-757	LII	07/15/94	940718-008	940718-014	940720-040
GW-757	LII	07/15/94	940718-010	940718-015	940728-079
GW-796	LV	07/20/94	940720-068	940720-071	940721-001
GW-796	LV	07/20/94	940720-070	940720-072	940725-001
GW-797	LV	07/19/94	940720-018	940720-021	940721-001
GW-797	LV	07/19/94	940720-020	940720-022	940725-001
GW-798	CDLVII	07/19/94	940720-015	940720-021	940721-001
GW-798	CDLVII	07/19/94	940720-017	940720-022	940725-001
GW-799	CDLVII	07/18/94	940719-004	940719-007	940720-027
GW-799	CDLVII	07/18/94	940719-006	940719-008	940725-001
GW-801	LV	07/21/94	940721-080	940721-083	940722-032
GW-801	LV	07/21/94	940721-082	940721-084	940725-001

APPENDIX I.1
Correlation of Samples to Associated Blanks
Fourth Quarter 1994

Sampling Point	Location	Date Sampled	Sample No.	Trip Blank No.	Lab Blank No.
1090	UNCS	10/16/94	941017-012	941017-014	941018-001
GW-141	LIV	10/04/94	941005-020	941005-024	941008-008
GW-141	LIV	10/04/94	941005-022	941005-023	941010-053
GW-142	KHQ	10/22/94	941024-024	941024-026	941024-022
GW-143	KHQ	10/24/94	941025-010	941025-012	941025-009
GW-144	KHQ	10/25/94	941025-062	941025-066	941026-001
GW-145	KHQ	10/26/94	941026-110	941026-112	941027-015
GW-146	KHQ	10/28/94	941031-003	941026-112	941101-012
GW-147	KHQ	10/23/94	941024-029	941024-031	941024-057
GW-156	CRSDB	10/20/94	941020-186	941020-188	941021-033
GW-158	CRSDB	10/26/94	941026-106	941026-108	941101-015
GW-159	CRSDB	10/17/94	941017-132	941017-134	941019-001
GW-175	CRSP	12/01/94	941202-021	941202-027	941205-085
GW-177	CRSP	11/30/94	941201-032	941201-034	941205-139
GW-181	CRSP	11/14/94	941115-011	941115-013	941118-025
GW-203	UNCS	10/12/94	941013-034	941013-038	941013-066
GW-205	UNCS	10/12/94	941013-036	941013-038	941013-066
GW-217	LIV	10/03/94	941004-011	941004-013	941008-008
GW-217	LIV	10/03/94	941004-015	941004-016	941010-053
GW-221	UNCS	10/15/94	941017-009	941017-011	941017-038
GW-231	KHQ	10/23/94	941024-027	941024-031	941024-022
GW-241	CRSDB	10/23/94	941024-032	941024-038	941024-057
GW-292	ECRWP	10/16/94	941017-023	941017-027	941018-001
GW-293	ECRWP	10/15/94	941017-016	941017-022	941017-038
GW-294	ECRWP	10/15/94	941017-018	941017-022	941018-001
GW-296	ECRWP	10/15/94	941017-020	941017-022	941018-001
GW-302	UNCS	10/15/94	941017-003	941017-011	941017-038
GW-303	CRSDB	10/23/94	941024-034	941024-038	941024-057
GW-304	CRSDB	10/18/94	941019-021	941019-025	941021-033
GW-305	LIV	10/05/94	941006-031	941006-038	941008-008
GW-305	LIV	10/05/94	941006-033	941006-043	941010-053
GW-321	ADB	10/18/94	941019-012	941019-018	941020-001
GW-321	ADB	10/21/94	941021-104	941021-105	
GW-339	UNCS	10/15/94	941017-005	941017-011	941017-038
GW-511	CRSP	11/14/94	941115-014	941115-013	941118-025
GW-512	ADB	10/19/94	941020-086	941020-088	941021-033
GW-512	ADB	10/20/94	941021-103	941021-101	
GW-513	ADB	10/18/94	941019-016	941019-018	941020-001
GW-513	ADB	10/18/94	941024-228		
GW-514	ADB	10/20/94	941021-099	941021-101	941024-022
GW-521	LIV	10/04/94	941005-017	941005-024	941008-008
GW-521	LIV	10/04/94	941005-019	941005-023	941010-053
GW-522	LIV	10/05/94	941006-036	941006-038	941010-001
GW-522	LIV	10/05/94	941006-039	941006-043	941010-053
GW-539	LII	10/06/94	941006-055	941006-058	941010-001
GW-539	LII	10/06/94	941006-057	941006-059	941011-071

APPENDIX I.1
Correlation of Samples to Associated Blanks
Fourth Quarter 1994

Sampling Point	Location	Date Sampled	Sample No.	Trip Blank No.	Lab Blank No.
GW-540	CDLVI	10/10/94	941010-152	941010-155	941011-002
GW-540	CDLVI	10/10/94	941010-154	941010-156	941017-092
GW-541	CDLVI	10/11/94	941011-137	941011-135	941013-066
GW-541	CDLVI	10/11/94	941011-139	941011-136	941021-067
GW-542	CDLVI	10/12/94	941012-048	941012-051	941013-066
GW-542	CDLVI	10/12/94	941012-050	941012-052	941021-067
GW-543	CDLVI	10/13/94	941013-079	941013-084	941017-038
GW-543	CDLVI	10/13/94	941013-085	941013-087	941021-067
GW-544	CDLVI	10/13/94	941013-081	941013-084	941017-038
GW-544	CDLVI	10/13/94	941013-086	941013-087	941021-067
GW-545	CDLVI	10/12/94	941018-082	941012-051	941019-001
GW-545	CDLVI	10/12/94	941018-084	941012-052	941021-067
GW-545	CDLVI	10/12/94	941021-076		
GW-546	CDLVI	10/11/94	941011-132	941011-135	941013-066
GW-546	CDLVI	10/11/94	941011-134	941011-136	941021-067
GW-557	LV	10/09/94	941010-017	941010-051	941011-002
GW-557	LV	10/09/94	941010-026	941010-025	941011-071
GW-560	CDLVII	10/08/94	941010-019	941010-052	941011-002
GW-560	CDLVII	10/08/94	941010-027	941010-030	941011-071
GW-562	CDLVII	10/08/94	941010-021	941010-052	941011-002
GW-562	CDLVII	10/08/94	941010-028	941010-030	941017-092
GW-564	CDLVII	10/09/94	941010-023	941010-051	941011-002
GW-564	CDLVII	10/09/94	941010-029	941010-025	941017-092
GW-608	CRSP	11/29/94	941130-035	941130-037	941201-001
GW-609	CRSP	12/01/94	941202-023	941202-027	941205-085
GW-610	CRSP	11/21/94	941121-204	941121-206	941122-010
GW-611	CRSP	11/30/94	941201-030	941201-034	941205-139
GW-709	LII	10/07/94	941010-003	941010-006	941010-001
GW-709	LII	10/07/94	941010-005	941010-007	941011-071
GW-731	CRSDB	10/18/94	941019-023	941019-025	941020-001
GW-732	CRSDB	10/19/94	941019-081	941019-085	941020-001
GW-742	CRSP	11/17/94	941117-141	941117-143	941121-012
GW-743	CRSP	11/17/94	941117-137	941117-143	941121-011
GW-757	LII	10/07/94	941010-008	941010-006	941010-001
GW-757	LII	10/07/94	941010-010	941010-007	941011-071
GW-796	LV	10/11/94	941011-154	941011-157	941013-066
GW-796	LV	10/11/94	941011-158	941011-159	941021-067
GW-797	LV	10/10/94	941011-018	941011-026	941012-016
GW-797	LV	10/10/94	941011-027	941011-031	941017-092
GW-798	CDLVII	10/10/94	941011-020	941011-026	941012-016
GW-798	CDLVII	10/10/94	941011-028	941011-031	941017-092
GW-799	CDLVII	10/10/94	941011-022	941011-026	941012-016
GW-799	CDLVII	10/10/94	941011-029	941011-031	941017-092
GW-801	LV	10/11/94	941011-151	941011-157	941012-016
GW-801	LV	10/11/94	941011-153	941011-159	941021-067

APPENDIX I.2
TRIP BLANK DATA SUMMARY

APPENDIX L2
VOCs Detected in Trip Blank Samples, CY 1994

	1st Quarter		2nd Quarter		3rd Quarter		4th Quarter		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Total Samples	54		44		37		38		173	
Samples without VOCs	35	65	38	86	21	57	30	79	124	72
Samples with VOCs	19	35	6	14	16	43	8	21	49	28
Compound										
Acetone	2	4	1	2	2	5	6	16	11	6
Benzene		-		-		-		-	0	-
Bromodichloromethane		-		-		-		-	0	-
Bromoform		-		-		-		-	0	-
Bromomethane		-		-		-		-	0	-
2-Butanone		-		-		-	1	3	1	1
Carbon disulfide		-		-		-		-	0	-
Carbon tetrachloride		-		-		-		-	0	-
Chlorobenzene		-		-		-		-	0	-
Chlorodibromomethane		-		-		-		-	0	-
Chloroethane		-		-		-		-	0	-
Chloroform		-		-		-		-	0	-
Chloromethane		-		-		-	1	3	1	1
1,1-Dichloroethane		-		-		-		-	0	-
1,2-Dichloroethane	1	2		-		-		-	1	1
1,1-Dichloroethene		-		-		-		-	0	-
1,2-Dichloroethene		-		-		-		-	0	-
1,2-Dichloropropane		-		-		-		-	0	-
cis-1,3-Dichloropropene		-		-		-		-	0	-
trans-1,3-Dichloropropene		-		-		-		-	0	-
Ethylbenzene		-		-		-		-	0	-
2-Hexanone		-		-		-		-	0	-
4-Methyl-2-pentanone		-		-		-		-	0	-
Methylene chloride	18	33	5	11	11	30		-	34	20
Styrene		-		-		-		-	0	-
1,1,2,2-Tetrachloroethane		-		-		-		-	0	-
Tetrachloroethene		-		-		-		-	0	-
Toluene	1	2	1	2		-	2	5	4	2
1,1,1-Trichloroethane		-		-		-		-	0	-
1,1,2-Trichloroethane		-		-		-		-	0	-
Trichloroethene		-		-	9	24		-	9	5
Vinyl acetate		-		-		-		-	0	-
Vinyl chloride		-		-		-		-	0	-
Xylenes		-		-		-		-	0	-

APPENDIX I.2

1

VOCs Detected in Trip Blank Samples, First Quarter 1994

Sample No.	940105- 054	940106- 064	940106- 109	940106- 121	940107- 082	940107- 183	940107- 188	940111- 006
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dichloroethane	5U	5U	5U	5U	5U	5U	5U	5U
Methylene chloride	5U	5U	5U	5U	1	1	1	5U
Toluene	5U	5U	5U	5U	5U	5U	5U	5U
Total Organic Halide	10U	.	10U	10U	10U	.	10U	10U

(CONTINUED)

Sample No.	940111- 010	940111- 015	940112- 007	940112- 013	940112- 018	940112- 067	940112- 073	940112- 076
Acetone	10U	10U	10U	5	10U	10U	10U	10U
1,2-Dichloroethane	5U	5U	5U	5U	5U	5U	5U	5U
Methylene chloride	5U	5U	5U	1	1	5U	0.9	1
Toluene	5U	5U	5U	5U	5U	5U	5U	5U
Total Organic Halide	.	.	.	10U	.	10U	.	.

(CONTINUED)

Sample No.	940113- 106	940114- 064	940114- 087	940127- 670	940210- 116	940211- 059	940211- 088	940214- 005
Acetone	10U	10U	10U	9	10U	10U	10U	10U
1,2-Dichloroethane	5U	5U	5U	3	5U	5U	5U	5U
Methylene chloride	5U	5U	1	5U	5U	5U	5U	5U
Toluene	5U	5U	5U	5U	5U	5U	5U	5U
Total Organic Halide	.	.	10U	.	10U	10U	10U	10U

(CONTINUED)

Sample No.	940214- 061	940214- 064	940214- 109	940215- 009	940215- 014	940215- 022	940215- 076	940215- 093
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dichloroethane	5U	5U	5U	5U	5U	5U	5U	5U
Methylene chloride	0.8	5U	5U	5U	5U	5U	5U	5U
Toluene	5U	5U	5U	5U	5U	5U	5U	5U
Total Organic Halide	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

APPENDIX I.2

2

VOCs Detected in Trip Blank Samples, First Quarter 1994

Sample No.	940217- 012	940217- 015	940217- 124	940218- 052	940221- 003	940221- 204	940222- 061	940223- 103
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dichloroethane	5U	5U	5U	5U	5U	5U	5U	5U
Methylene chloride	5U	5U	5U	5U	5U	5U	5U	5U
Toluene	5U	5U	5U	5U	5U	5U	5U	5U
Total Organic Halide	.	10U	.	.	.	.	.	.

(CONTINUED)

Sample No.	940224- 067	940228- 084	940301- 020	940303- 090	940307- 128	940308- 014	940309- 010	940309- 019
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
1,2-Dichloroethane	5U	5U	5U	5U	5U	5U	5U	5U
Methylene chloride	2	5U	5U	2	1	1	1	1
Toluene	5U	5U	5U	5U	5U	0.6	5U	5U
Total Organic Halide	.	.	16.97	10U	10U	10U	10U	10U

(CONTINUED)

Sample No.	940310- 141	940311- 073	940322- 059	940324- 018	940324- 087	940325- 110
Acetone	10U	10U	10U	10U	10U	10U
1,2-Dichloroethane	5U	5U	5U	5U	5U	5U
Methylene chloride	1	2	5U	1	5U	5U
Toluene	5U	5U	5U	5U	5U	5U
Total Organic Halide	10U	10U	10U	16	13	21

APPENDIX I.2

3

VOCs Detected in Trip Blank Samples, Second Quarter 1994

Sample No.	940404- 066	940404- 138	940405- 010	940405- 096	940405- 101	940406- 048	940406- 063	940408- 012
Acetone	10U	15	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	5U	5U	5U	5U	1	5U	5U
Toluene	5U	5U	5U	5U	5U	1	5U	5U
Total Organic Halide	10U	10U	10U	10U	10U	10U	10U	.

(CONTINUED)

Sample No.	940408- 020	940408- 057	940408- 067	940412- 036	940412- 092	940412- 096	940412- 101	940413- 041
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	5U	5U	5U	5U	5U	5U	1
Toluene	5U	5U	5U	5U	5U	5U	5U	5U
Total Organic Halide	10U	.	.	10U	.	10U	.	10U

(CONTINUED)

Sample No.	940413- 078	940414- 011	940414- 078	940415- 086	940418- 066	940418- 076	940418- 082	940419- 088
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	1	5U	1	5U	5U	5U	5U
Toluene	5U	5U	5U	5U	5U	5U	5U	5U
Total Organic Halide	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

Sample No.	940419- 095	940419- 104	940420- 064	940421- 003	940421- 008	940421- 094	940421- 117	940422- 092
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	5U	5U	5U	5U	1	5U	5U
Toluene	5U	5U	5U	5U	5U	5U	5U	5U
Total Organic Halide	10U	10U	10U	10U	10U	10U	10U	.

(CONTINUED)

APPENDIX I.2

4

VOCs Detected in Trip Blank Samples, Second Quarter 1994

Sample No.	940422- 095	940425- 079	940425- 087	940428- 029	940503- 048	940503- 117	940504- 065	940519- 003
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	5U	5U	5U	10U	10U	10U	10U
Toluene	5U	5U	5U	5U	10U	10U	10U	10U
Total Organic Halide	10U	.	10U	10U	.	.	.	.

(CONTINUED)

Sample No.	940519- 059	940520- 059	940524- 125	940630- 016
Acetone	10U	10U	10U	10U
Methylene chloride	10U	10U	10U	10U
Toluene	10U	10U	10U	10U
Total Organic Halide	.	.	.	.

APPENDIX I.2

5

VOCs Detected in Trip Blank Samples, Third Quarter 1994

Sample No.	940706- 089	940708- 013	940711- 011	940711- 019	940711- 083	940712- 040	940712- 165	940713- 039
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	2	10U	10U	1	10U	1	1	10U
Trichloroethene	2	2	10U	10U	10U	10U	1	0.8
Total Organic Halide	10U	10U	15.17	10U	30.58	-23.52	10U	10U

(CONTINUED)

Sample No.	940713- 112	940713- 192	940714- 063	940714- 108	940718- 006	940718- 014	940718- 105	940719- 007
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	1	10U	10U	10U	10U	10U	10U	2
Trichloroethene	1	1	1	1	10U	10U	10U	1
Total Organic Halide	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

Sample No.	940720- 021	940720- 071	940721- 016	940721- 078	940721- 083	940721- 088	940722- 082	940725- 052
Acetone	10U	9	10	10U	10U	10U	10U	10U
Methylene chloride	1	2	2	10U	10U	1	10U	10U
Trichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
Total Organic Halide	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

Sample No.	940725- 055	940725- 078	940726- 051	940727- 036	940727- 090	940728- 068	940801- 012	940804- 151
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	10U	10U	10U	10U	1	10U	10U	10U
Trichloroethene	10U	10U	10U	10U	10U	10U	10U	10U
Total Organic Halide	10U	10U	.	10U	.	.	.	.

(CONTINUED)

APPENDIX I.2

6

VOCs Detected in Trip Blank Samples, Third Quarter 1994

Sample No.	940808- 035	940809- 023	940815- 012	940815- 018	940908- 087
Acetone	10U	10U	10U	10U	10U
Methylene chloride	10U	10U	10U	10U	10U
Trichloroethene	10U	10U	10U	10U	10U
Total Organic Halide	.	.	.	.	10U

APPENDIX I.2

7

VOCs Detected in Trip Blank Samples, Fourth Quarter 1994

Sample No.	941004- 013	941005- 024	941006- 038	941006- 058	941010- 006	941010- 051	941010- 052	941010- 155
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Chloromethane	10U	10U	10U	10U	10U	10U	2	10U
Toluene	10U	10U	10U	10U	10U	10U	10U	10U
Total Organic Halide	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

Sample No.	941011- 026	941011- 135	941011- 157	941012- 051	941013- 038	941013- 084	941017- 011	941017- 014
Acetone	6	10U	10U	10U	10U	10U	10U	11
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
Toluene	10U	10U	10U	10U	10U	10U	10U	10U
Total Organic Halide	10U	10U	10U	10U	.	10U	.	.

(CONTINUED)

Sample No.	941017- 022	941017- 027	941017- 134	941019- 018	941019- 025	941019- 085	941020- 088	941020- 188
Acetone	12	14	10U	10U	7	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
Toluene	10U	10U	10U	10U	10U	10U	10U	10U
Total Organic Halide	.	.	10U	10U	10U	10U	10U	10U

(CONTINUED)

Sample No.	941021- 101	941024- 026	941024- 031	941024- 038	941025- 012	941025- 066	941026- 108	941026- 112
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
2-Butanone	10U	10U	10U	10U	10U	10U	10U	10U
Chloromethane	10U	10U	10U	10U	10U	10U	10U	10U
Toluene	10U	10U	10U	10U	10U	10U	10U	10U
Total Organic Halide	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

APPENDIX I.2

8

VOCs Detected in Trip Blank Samples, Fourth Quarter 1994

Sample No.	941115- 013	941117- 143	941121- 206	941130- 037	941201- 034	941202- 027
Acetone	11	10U	10U	10U	10U	10U
2-Butanone	6	10U	10U	10U	10U	10U
Chloromethane	10U	10U	10U	10U	10U	10U
Toluene	2	1	10U	10U	10U	10U
Total Organic Halide	.	.	.	.	.	.

APPENDIX I.3

LABORATORY BLANK DATA SUMMARY

APPENDIX I.3
VOCs Detected in Laboratory Blank Samples, CY 1994

	1st Quarter		2nd Quarter		3rd Quarter		4th Quarter		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Total Samples	34		24		20		24		102	
Samples without VOCs	17	50	16	67	13	65	19	79	65	64
Samples with VOCs	17	50	8	33	7	35	5	21	37	36
Compound										
Acetone	1	3	-	-	-	-	3	13	4	4
Benzene	-	-	-	-	-	-	-	-	0	-
Bromodichloromethane	-	-	-	-	-	-	-	-	0	-
Bromoform	-	-	-	-	-	-	-	-	0	-
Bromomethane	-	-	-	-	-	-	-	-	0	-
2-Butanone	-	-	-	-	-	-	3	13	3	3
Carbon disulfide	-	-	-	-	-	-	-	-	0	-
Carbon tetrachloride	-	-	-	-	-	-	-	-	0	-
Chlorobenzene	-	-	-	-	-	-	-	-	0	-
Chlorodibromomethane	-	-	-	-	-	-	-	-	0	-
Chloroethane	-	-	-	-	-	-	-	-	0	-
Chloroform	-	-	-	-	-	-	-	-	0	-
Chloromethane	-	-	-	-	-	-	-	-	0	-
1,1-Dichloroethane	-	-	-	-	-	-	-	-	0	-
1,2-Dichloroethane	-	-	-	-	-	-	-	-	0	-
1,1-Dichloroethene	-	-	-	-	-	-	-	-	0	-
1,2-Dichloroethene	-	-	-	-	-	-	-	-	0	-
1,2-Dichloropropane	-	-	-	-	-	-	-	-	0	-
cis-1,3-Dichloropropene	-	-	-	-	-	-	-	-	0	-
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	0	-
Ethylbenzene	-	-	-	-	-	-	-	-	0	-
2-Hexanone	-	-	-	-	-	-	-	-	0	-
4-Methyl-2-pentanone	-	-	-	-	-	-	-	-	0	-
Methylene chloride	16	47	8	33	4	20	2	8	30	29
Styrene	-	-	-	-	-	-	-	-	0	-
1,1,2,2-Tetrachloroethane	1	3	-	-	-	-	-	-	1	1
Tetrachloroethene	-	-	-	-	-	-	-	-	0	-
Toluene	2	6	-	-	-	-	3	13	5	5
1,1,1-Trichloroethane	-	-	-	-	-	-	-	-	0	-
1,1,2-Trichloroethane	-	-	-	-	-	-	-	-	0	-
Trichloroethene	-	-	-	-	4	20	-	-	4	4
Vinyl acetate	1	3	-	-	-	-	-	-	1	1
Vinyl chloride	-	-	-	-	-	-	-	-	0	-
Xylenes	-	-	-	-	-	-	-	-	0	-

APPENDIX I.3

1

VOCs Detected in Laboratory Blank Samples, First Quarter 1994

Sample No.	940106- 014	940107- 036	940110- 001	940111- 020	940112- 058	940113- 008	940114- 010	940114- 093
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	5U	5U	1	5U	5U	1	1	5U
1,1,2,2-Tetrachloroethane	5U	5U	5U	5U	5U	5U	5U	5U
Toluene	5U	5U	5U	5U	5U	5U	5U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

Sample No.	940120- 001	940201- 051	940211- 089	940215- 029	940216- 014	940216- 072	940217- 016	940217- 056
Acetone	10U	12	10U	10U	10U	10U	10U	10U
Methylene chloride	1	5U	5U	5U	5U	5U	1	5U
1,1,2,2-Tetrachloroethane	5U	5U	5U	5U	5U	5U	5U	5U
Toluene	5U	5U	5U	5U	5U	5U	5U	5U
Vinyl acetate	5	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

Sample No.	940218- 001	940221- 005	940221- 165	940222- 049	940223- 080	940228- 011	940302- 060	940303- 047
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	1	1	5U	5U	5U	2	5U	5U
1,1,2,2-Tetrachloroethane	5U	5U	5U	5U	5U	5U	5U	5U
Toluene	5U	5U	5U	5U	5U	5U	5U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

Sample No.	940307- 001	940308- 001	940309- 056	940310- 001	940314- 026	940315- 007	940325- 003	940328- 002
Acetone	10U	10U	10U	10U	10U	10U	10U	10U
Methylene chloride	1	2	5U	2	5U	2	2	2
1,1,2,2-Tetrachloroethane	5U	5U	5U	5U	5U	5U	5U	5U
Toluene	5U	0.5	5U	5U	5U	5U	5U	5U
Vinyl acetate	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

APPENDIX I.3

2

VOCs Detected in Laboratory Blank Samples, First Quarter 1994

Sample No.	940329- 002	940331- 001
Acetone	10U	10U
Methylene chloride	1	2
1,1,2,2-Tetrachloroethane	5	5U
Toluene	5U	0.7
Vinyl acetate	10U	10U

APPENDIX I.3

3

VOCs Detected in Laboratory Blank Samples, Second Quarter 1994

Sample No.	940405- 042	940407- 052	940411- 001	940411- 013	940412- 002	940413- 001	940413- 055	940414- 004
Methylene chloride	5U	5U	2	5U	2	2	5U	1

(CONTINUED)

Sample No.	940415- 038	940418- 001	940419- 039	940419- 056	940420- 004	940420- 033	940422- 067	940422- 085
Methylene chloride	5U	2	5U	5U	5U	5U	1	5U

(CONTINUED)

Sample No.	940426- 088	940429- 001	940504- 050	940505- 070	940520- 009	940524- 113	940526- 027	940630- 001
Methylene chloride	5	2	10U	10U	10U	10U	10U	10U

APPENDIX I.3

4

VOCs Detected in Laboratory Blank Samples, Third Quarter 1994

Sample No.	940708- 001	940711- 026	940712- 001	940715- 001	940719- 001	940720- 027	940720- 040	940721- 001
Methylene chloride	0.7	10U	10U	10U	10U	10U	10U	10U
Trichloroethene	2	10U	10U	0.8	1	1	10U	10U

(CONTINUED)

Sample No.	940722- 011	940722- 032	940727- 001	940728- 004	940729- 001	940801- 003	940802- 002	940809- 001
Methylene chloride	10U	10U	1	1	10U	10U	10U	10U
Trichloroethene	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

Sample No.	940810- 113	940818- 003	940818- 106	940912- 076
Methylene chloride	10U	1	10U	10U
Trichloroethene	10U	10U	10U	10U

APPENDIX I.3

5

VOCs Detected in Laboratory Blank Samples, Fourth Quarter 1994

Sample No.	941008- 008	941010- 001	941011- 002	941012- 016	941013- 066	941017- 038	941018- 001	941019- 001
Acetone	10U	10U	10U	6	10U	10U	10U	10U
2-Butanone	10U	10U	10U	12	10U	10U	10U	10U
Methylene chloride	10U	10U	10U	1	10U	10U	10U	10U
Toluene	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

Sample No.	941020- 001	941021- 033	941024- 022	941024- 057	941025- 009	941026- 001	941027- 015	941101- 012
Acetone	10U	10U	10U	10U	10U	10U	10U	7
2-Butanone	10U	10U	10U	10U	10U	10U	10U	8
Methylene chloride	10U	10U	10U	10U	10U	10U	10U	2
Toluene	10U	10U	10U	10U	10U	10U	10U	10U

(CONTINUED)

Sample No.	941101- 015	941118- 025	941121- 011	941121- 012	941122- 010	941201- 001	941205- 085	941205- 139
Acetone	10U	8	10U	10U	10U	10U	10U	10U
2-Butanone	10U	6	10U	10U	10U	10U	10U	10U
Methylene chloride	10U	10U	10U	10U	10U	10U	10U	10U
Toluene	4	2	10U	1	10U	10U	10U	10U

APPENDIX I.4

EQUIPMENT RINSATE DATA SUMMARY

APPENDIX I.4

1

Equipment Rinsate Data Summary, First Quarter 1994

Sampling Group	ER CR 1	ER CR 2	ER CR 3			ER CR 4	ER CR 5	ER CR 6
Associated Well	GW-305	1090	GW-177	GW-609	GW-742	GW-292	GW-298	GW-158
Pump Number	6	8	11	11	2	7	8	2
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
Methylene chloride	5U	5U	5U	1	5U	5U	5U	5U
	.	.	.	.	.	.	.	.
METALS (mg/L)	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
Aluminum	.	.	0.034	<0.02	<0.02	.	<0.02	.
Antimony	.	.	<0.05	<0.05	<0.05	.	<0.05	.
Arsenic	.	.	<0.05	<0.05	<0.05	.	<0.05	.
Barium	.	.	<0.001	<0.001	0.028	.	<0.001	.
Beryllium	.	.	<0.0003	<0.0003	<0.0003	.	<0.0003	.
Boron	.	.	0.051	0.024	0.047	.	0.014	.
Cadmium	.	.	<0.003	<0.003	<0.003	.	<0.003	.
Calcium	.	.	0.042	0.037	14	.	0.12	.
Chromium	.	.	<0.01	<0.01	<0.01	.	<0.01	.
Cobalt	.	.	<0.005	<0.005	<0.005	.	<0.005	.
Copper	.	.	<0.004	<0.004	<0.004	.	<0.004	.
Iron	.	.	<0.005	<0.005	1.2	.	0.0093	.
Magnesium	.	.	0.014	0.0083	3.8	.	0.018	.
Manganese	.	.	<0.001	<0.001	0.0075	.	<0.001	.
Molybdenum	.	.	<0.01	<0.01	<0.01	.	<0.01	.
Nickel	.	.	<0.01	<0.01	<0.01	.	<0.01	.
Potassium	.	.	<0.6	<0.6	<0.6	.	<0.6	.
Selenium	.	.	<0.05	<0.05	<0.05	.	<0.05	.
Silver	.	.	0.0061	<0.006	<0.006	.	<0.006	.
Sodium	.	.	0.15	0.17	2	.	0.13	.
Strontium	.	.	<0.0004	<0.0004	0.03	.	<0.0004	.
Thorium	.	.	<0.2	<0.2	<0.2	.	<0.2	.
Vanadium	.	.	<0.005	<0.005	<0.005	.	<0.005	.
Zinc	.	.	0.0052	0.0045	0.12	.	0.0031	.
	.	.	.	.	.	.	.	.
RADIOCHEMISTRY (pCi/L)	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	.	.	.	.	.	.	.	.
Gross Alpha (CE+/-)	.	.	.	.	.	.	.	.
Gross Beta (pCi/L)	.	.	.	.	.	.	.	.
Gross Beta (CE+/-)	.	.	.	.	.	.	.	.

(CONTINUED)

2

Equipment Rinsate Data Summary, First Quarter 1994

[illegible]

Equipment Rinsate Data Summary, Second Quarter 1994

Sampling Group	ER CR 1	ER CR 2	ER CR 3			ER CR 4	ER CR 6	ER CR 7
Associated Well	GW-305	1090	GW-177	GW-609	GW-610	GW-292	GW-158	GW-145
Pump Number	11	11	10	8	2	6	2	10
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Methylene chloride	5U	1	10U	10U	10U	5U	5U	5U
Toluene	1	5U	10U	10U	10U	5U	5U	5U
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	.	.	0.044	<0.02	<0.02	.	.	.
Antimony	.	.	<0.05	<0.05	<0.05	.	.	.
Arsenic	.	.	<0.05	<0.05	<0.05	.	.	.
Barium	.	.	0.028	0.0017	0.0023	.	.	.
Beryllium	.	.	0.00045	<0.0003	<0.0003	.	.	.
Boron	.	.	0.032	0.0081	0.0065	.	.	.
Cadmium	.	.	<0.003	<0.003	<0.003	.	.	.
Calcium	.	.	30	2.3	1.1	.	.	.
Chromium	.	.	<0.01	<0.01	<0.01	.	.	.
Cobalt	.	.	<0.005	<0.005	<0.005	.	.	.
Copper	.	.	<0.004	<0.004	<0.004	.	.	.
Iron	.	.	<0.005	<0.005	0.38	.	.	.
Magnesium	.	.	8.1	0.59	0.29	.	.	.
Manganese	.	.	<0.001	<0.001	<0.001	.	.	.
Molybdenum	.	.	<0.01	<0.01	<0.01	.	.	.
Nickel	.	.	<0.01	<0.01	<0.01	.	.	.
Potassium	.	.	1.1	<0.6	<0.6	.	.	.
Selenium	.	.	<0.05	<0.05	<0.05	.	.	.
Silver	.	.	<0.006	<0.006	<0.006	.	.	.
Sodium	.	.	4.2	0.4	0.12	.	.	.
Strontium	.	.	0.078	0.0057	0.00096	.	.	.
Thorium	.	.	<0.2	<0.2	<0.2	.	.	.
Vanadium	.	.	<0.005	<0.005	<0.005	.	.	.
Zinc	.	.	0.47	0.088	0.0067	.	.	.
RADIOCHEMISTRY (pCi/L)	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	.	.	.	.	.	.	.	.
Gross Alpha (CE+/-)	.	.	.	.	.	.	.	.
Gross Beta (pCi/L)	.	.	.	.	.	.	.	.
Gross Beta (CE+/-)	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX I.4

4

Equipment Rinsate Data Summary, Second Quarter 1994

Sampling Group	ER CR 8	ER CR 10	ER CR 11	ER CR 12
Associated Well	GW-514	GW-757	GW-544	GW-801
Pump Number	11	6	8	11
VOLATILE ORGANICS (ug/L)	.	.	.	.
Methylene chloride	5U	5U	5U	5U
Toluene	5U	5U	5U	5U
METALS (mg/L)	.	.	.	.
Aluminum	.	.	.	0.024
Antimony	.	.	.	<0.05
Arsenic	.	.	.	<0.05
Barium	.	.	.	<0.001
Beryllium	.	.	.	<0.0003
Boron	.	.	.	0.081
Cadmium	.	.	.	<0.003
Calcium	.	.	.	0.1
Chromium	.	.	.	<0.01
Cobalt	.	.	.	<0.005
Copper	.	.	.	<0.004
Iron	.	.	.	0.02
Magnesium	.	.	.	0.03
Manganese	.	.	.	<0.001
Molybdenum	.	.	.	<0.01
Nickel	.	.	.	<0.01
Potassium	.	.	.	<0.6
Selenium	.	.	.	<0.05
Silver	.	.	.	<0.006
Sodium	.	.	.	0.25
Strontium	.	.	.	0.00041
Thorium	.	.	.	<0.2
Vanadium	.	.	.	<0.005
Zinc	.	.	.	0.01
RADIOCHEMISTRY (pCi/L)	.	.	.	.
Gross Alpha (pCi/L)	.	.	.	1.5
Gross Alpha (CE+/-)	.	.	.	1
Gross Beta (pCi/L)	.	.	.	1.07
Gross Beta (CE+/-)	.	.	.	2.4

Equipment Rinsate Data Summary, Third Quarter 1994

Sampling Group	ER CR 1	ER CR 2	ER CR 3	ER CR 5	ER CR 6		ER CR 7	ER CR 10
Associated Well	GW-305	1090	GW-609	GW-298	GW-158	GW-303	GW-145	GW-757
Pump Number	10	8	8	10	2	10	6	10
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Trichloroethene	2	10U	10U	10U	10U	1	10U	10U
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	.	.	0.044	0.05	.	.	.	.
Antimony	.	.	<0.05	<0.05	.	.	.	.
Arsenic	.	.	<0.05	<0.05	.	.	.	.
Barium	.	.	0.026	0.027	.	.	.	.
Beryllium	.	.	0.0003	<0.0003	.	.	.	.
Boron	.	.	0.038	0.034	.	.	.	.
Cadmium	.	.	<0.003	<0.003	.	.	.	.
Calcium	.	.	31	30	.	.	.	.
Chromium	.	.	<0.01	<0.01	.	.	.	.
Cobalt	.	.	<0.005	<0.005	.	.	.	.
Copper	.	.	0.009	<0.004	.	.	.	.
Iron	.	.	0.06	0.043	.	.	.	.
Magnesium	.	.	8.4	8	.	.	.	.
Manganese	.	.	0.002	0.0012	.	.	.	.
Molybdenum	.	.	<0.01	<0.01	.	.	.	.
Nickel	.	.	<0.01	<0.01	.	.	.	.
Potassium	.	.	1.4	1.3	.	.	.	.
Selenium	.	.	<0.05	<0.05	.	.	.	.
Silver	.	.	<0.006	<0.006	.	.	.	.
Sodium	.	.	3.9	4	.	.	.	.
Strontium	.	.	0.08	0.076	.	.	.	.
Thorium	.	.	<0.2	<0.2	.	.	.	.
Vanadium	.	.	<0.005	<0.005	.	.	.	.
Zinc	.	.	0.47	0.39	.	.	.	.
RADIOCHEMISTRY (pCi/L)	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	.	.	.	.	.	.	.	.
Gross Alpha (CE+/-)	.	.	.	.	.	.	.	.
Gross Beta (pCi/L)	.	.	.	.	.	.	.	.
Gross Beta (CE+/-)	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX I.4

6

Equipment Rinsate Data Summary, Third Quarter 1994

Sampling Group	ER CR 12
Associated Well	GW-801
Pump Number	8
VOLATILE ORGANICS (ug/L)	.
Trichloroethene	10U
METALS (mg/L)	.
Aluminum	<0.02
Antimony	<0.05
Arsenic	<0.05
Barium	<0.001
Beryllium	<0.0003
Boron	0.03
Cadmium	<0.003
Calcium	0.31
Chromium	<0.01
Cobalt	<0.005
Copper	<0.004
Iron	<0.005
Magnesium	0.02
Manganese	<0.001
Molybdenum	<0.01
Nickel	<0.01
Potassium	0.62
Selenium	<0.05
Silver	0.0083
Sodium	0.25
Strontium	<0.0004
Thorium	<0.2
Vanadium	<0.005
Zinc	0.0058
RADIOCHEMISTRY (pCi/L)	.
Gross Alpha (pCi/L)	-0.973
Gross Alpha (CE+/-)	2
Gross Beta (pCi/L)	0.245
Gross Beta (CE+/-)	2.7

Equipment Rinsate Data Summary, Fourth Quarter 1994

Sampling Group	ER CR 1	ER CR 2	ER CR 3	ER CR 4	ER CR 6		ER CR 7	ER CR 8
Associated Well	GW-305	1090	GW-609	GW-292	GW-158	GW-241	GW-145	GW-513
Pump Number	5	8	2	5	2	8	11	5
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Methylene chloride	10U	10U	10U	10U	10U	10U	10U	10U
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	.	.	0.04	.	.	.	.	.
Antimony	.	.	<0.05	.	.	.	.	.
Arsenic	.	.	<0.05	.	.	.	.	.
Barium	.	.	<0.001	.	.	.	.	.
Beryllium	.	.	<0.0003	.	.	.	.	.
Boron	.	.	0.025	.	.	.	.	.
Cadmium	.	.	<0.003	.	.	.	.	.
Calcium	.	.	0.13	.	.	.	.	.
Chromium	.	.	<0.01	.	.	.	.	.
Cobalt	.	.	<0.005	.	.	.	.	.
Copper	.	.	<0.004	.	.	.	.	.
Iron	.	.	0.024	.	.	.	.	.
Magnesium	.	.	0.024	.	.	.	.	.
Manganese	.	.	<0.001	.	.	.	.	.
Molybdenum	.	.	<0.01	.	.	.	.	.
Nickel	.	.	<0.01	.	.	.	.	.
Potassium	.	.	0.62	.	.	.	.	.
Selenium	.	.	<0.05	.	.	.	.	.
Silver	.	.	<0.006	.	.	.	.	.
Sodium	.	.	0.19	.	.	.	.	.
Strontium	.	.	0.00042	.	.	.	.	.
Thorium	.	.	<0.2	.	.	.	.	.
Vanadium	.	.	<0.005	.	.	.	.	.
Zinc	.	.	0.0083	.	.	.	.	.
RADIOCHEMISTRY (pCi/L)	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	.	.	.	.	.	.	.	.
Gross Alpha (CE+/-)	.	.	.	.	.	.	.	.
Gross Beta (pCi/L)	.	.	.	.	.	.	.	.
Gross Beta (CE+/-)	.	.	.	.	.	.	.	.

(CONTINUED)

Equipment Rinsate Data Summary, Fourth Quarter 1994

Sampling Group	ER CR 8	ER CR 10	ER CR 11	ER CR 12
Associated Well	GW-514	GW-757	GW-544	GW-801
Pump Number	7	8	5	7
VOLATILE ORGANICS (ug/L)	.	.	.	.
Methylene chloride	10U	10U	10U	2
METALS (mg/L)	.	.	.	.
Aluminum	.	.	.	<0.02
Antimony	.	.	.	<0.05
Arsenic	.	.	.	<0.05
Barium	.	.	.	<0.001
Beryllium	.	.	.	<0.0003
Boron	.	.	.	0.009
Cadmium	.	.	.	<0.003
Calcium	.	.	.	0.026
Chromium	.	.	.	<0.01
Cobalt	.	.	.	<0.005
Copper	.	.	.	<0.004
Iron	.	.	.	<0.005
Magnesium	.	.	.	0.004
Manganese	.	.	.	<0.001
Molybdenum	.	.	.	<0.01
Nickel	.	.	.	<0.01
Potassium	.	.	.	<0.6
Selenium	.	.	.	<0.05
Silver	.	.	.	<0.006
Sodium	.	.	.	0.053
Strontium	.	.	.	<0.0004
Thorium	.	.	.	<0.2
Vanadium	.	.	.	<0.005
Zinc	.	.	.	0.0029
RADIOCHEMISTRY (pCi/L)	.	.	.	.
Gross Alpha (pCi/L)	.	.	.	-0.00461
Gross Alpha (CE+/-)	.	.	.	1.1
Gross Beta (pCi/L)	.	.	.	0.909
Gross Beta (CE+/-)	.	.	.	2.5

APPENDIX I.5
FIELD BLANK DATA SUMMARY

APPENDIX I.5
Field Blank Data Summary, 1994

1

Sampling Group .	FB CR 3				FB CR 6				
	Date Sampled	02/24/94	05/24/94	08/15/94	12/02/94	02/15/94	03/11/94	04/15/94	07/11/94
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
Acetone	10U	10U	25	10U	10U	10U	10U	10U	10U
Bromodichloromethane	5U	10U	3	10U	5U	5U	5U	5U	10U
Chloroform	5U	10U	34	10U	5U	5U	5U	5U	10U
1,2-Dichloropropane	5U	10U	5	10U	5U	5U	5U	5U	10U
Methylene chloride	5U	10U	10U	10U	5U	2	5U	5U	10U
	.	.	.	.	.	.	.	.	.
METALS (mg/L)	.	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.
Aluminum	<0.02	<0.02	<0.02	0.033	.	.	.	.	.
Antimony	<0.05	<0.05	<0.05	<0.05	.	.	.	.	.
Arsenic	<0.05	<0.05	<0.05	<0.05	.	.	.	.	.
Barium	<0.001	<0.001	0.027	<0.001	.	.	.	.	.
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	.	.	.	.	.
Boron	0.022	0.0059	0.027	0.043	.	.	.	.	.
Cadmium	<0.003	<0.003	<0.003	<0.003	.	.	.	.	.
Calcium	0.038	0.091	30	0.22	.	.	.	.	.
Chromium	<0.01	<0.01	<0.01	<0.01	.	.	.	.	.
Cobalt	<0.005	<0.005	<0.005	<0.005	.	.	.	.	.
Copper	<0.004	<0.004	<0.004	<0.004	.	.	.	.	.
Iron	0.014	<0.005	0.0082	0.0068	.	.	.	.	.
Magnesium	0.0086	0.028	8.1	0.019	.	.	.	.	.
Manganese	<0.001	<0.001	0.0012	<0.001	.	.	.	.	.
Molybdenum	<0.01	<0.01	<0.01	<0.01	.	.	.	.	.
Nickel	<0.01	<0.01	<0.01	<0.01	.	.	.	.	.
Potassium	<0.6	<0.6	1.4	0.63	.	.	.	.	.
Selenium	<0.05	<0.05	<0.05	<0.05	.	.	.	.	.
Silver	<0.006	<0.006	<0.006	<0.006	.	.	.	.	.
Sodium	0.18	0.052	3.8	0.17	.	.	.	.	.
Strontium	<0.0004	<0.0004	0.078	0.0012	.	.	.	.	.
Thorium	<0.2	<0.2	<0.2	<0.2	.	.	.	.	.
Vanadium	<0.005	<0.005	<0.005	<0.005	.	.	.	.	.
Zinc	0.0024	0.006	1	0.0065	.	.	.	.	.

(CONTINUED)

APPENDIX I.5
Field Blank Data Summary, 1994

2

Sampling Group	FB CR 6
.	
Date Sampled	10/24/94
VOLATILE ORGANICS (ug/L)	.
	.
Acetone	10U
Bromodichloromethane	10U
Chloroform	10U
1,2-Dichloropropane	10U
Methylene chloride	10U
	.
METALS (mg/L)	.
	.
Aluminum	.
Antimony	.
Arsenic	.
Barium	.
Beryllium	.
Boron	.
Cadmium	.
Calcium	.
Chromium	.
Cobalt	.
Copper	.
Iron	.
Magnesium	.
Manganese	.
Molybdenum	.
Nickel	.
Potassium	.
Selenium	.
Silver	.
Sodium	.
Strontium	.
Thorium	.
Vanadium	.
Zinc	.

APPENDIX J

VALIDATED RESULTS OF VOLATILE ORGANIC COMPOUND ANALYSES

EXPLANATION

UNIT:

AQF	-	Knox Aquifer
AQT	-	ORR Aquitards
SPRING	-	Spring Sampling Station

LOCATION:

ADB	-	Ash Disposal Basin
CDLVI	-	Construction/Demolition Landfill VI
CDLVII	-	Construction/Demolition Landfill VII
CRBAWP	-	Chestnut Ridge Borrow Area Waste Pile
CRSDB	-	Chestnut Ridge Sediment Disposal Basin
CRSP	-	Chestnut Ridge Security Pits
ECRWP	-	East Chestnut Ridge Waste Pile
KHQ	-	Kerr Hollow Quarry
LII	-	Industrial Landfill II
LIV	-	Industrial Landfill IV
LV	-	Industrial Landfill V
RQ	-	Rogers Quarry
UNCS	-	United Nuclear Corporation Site

NOTES:

All results in micrograms per liter (ug/L).

FP1	-	False Positive result, screened by laboratory blank
FP2	-	False Positive result, screened by trip blank
.	-	Compound not detected at the reported minimum attainable detection limit.

Results of VOC analyses reported for each groundwater sample were evaluated using results for each associated laboratory and trip blank sample to identify false positives (i.e., results that are probable artifacts of the groundwater sampling or analysis procedures). To identify the false positives, the maximum concentration of each VOC detected in either blank sample (Appendix I) is multiplied by a qualification factor to determine the blank qualification result (BQR) for the compound. A factor of 5 is used for most compounds and a factor of 10 is used for the common laboratory reagents methylene chloride, acetone, 2-butanone, and toluene (U.S. Environmental Protection Agency 1988b). If a compound detected in the blank samples is also detected in an associated groundwater sample, the concentration reported for the groundwater sample (Appendix E) is compared to the corresponding BQR. If the concentration of the compound in the groundwater sample is at or below the BQR, the result is considered a false positive and is excluded from the summed VOC concentration determined for the sample.

Anomalous VOC results were not identified for this report. In the Part 1 GWQR for CY 1993, a result was assumed to be anomalous if a compound was detected in only one of at least four consecutive samples collected at a sampling point. For CY 1994, anomalous VOC results will be identified in part 2 of the GWQR.

APPENDIX J
Validated VOC Results, 1994

1

Sampling Point . Unit . Location . Date Sampled	1090				GW-141			
	AQF				AQF			
	UNCS				LIV			
	01/11/94	04/12/94	07/28/94	10/16/94	01/06/94	04/04/94	07/06/94	10/04/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	.	.	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	FPI	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

2

Sampling Point . Unit . Location . Date Sampled	GW-142				GW-143			
	AQF				AQF			
	KHQ				KHQ			
	02/16/94	04/12/94	07/21/94	10/22/94	03/03/94	04/18/94	07/24/94	10/24/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	0.5	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	FP1	.	.	.	.	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

3

Sampling Point . Unit . Location . Date Sampled	GW-144				GW-145			
	AQF				AQF			
	KHQ				KHQ			
	03/10/94	04/19/94	07/26/94	10/25/94	03/11/94	04/20/94	07/26/94	10/26/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	2	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	.	.	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

4

Sampling Point . Unit . Location . Date Sampled	GW-146				GW-147			
	AQF				AQF			
	KHQ				KHQ			
	03/03/94	04/18/94	07/25/94	10/28/94	02/28/94	04/13/94	07/22/94	10/23/94
Acetone	.	.	.	FP1	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	FP1	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	FP1	.	.	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

5

Sampling Point . Unit . Location . Date Sampled	GW-156				GW-158			
	AQF				AQF			
	CRSDB				CRSDB			
	02/12/94	04/07/94	07/09/94	10/20/94	02/14/94	04/15/94	07/11/94	10/26/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	.	.	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	FP1
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

6

Sampling Point . Unit . Location . Date Sampled	GW-159				GW-160		GW-161	
	AQF				AQF		AQF	
	CRSDB				CRBAWP		CRBAWP	
	02/10/94	04/04/94	07/08/94	10/17/94	02/12/94	07/20/94	02/11/94	07/18/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	1	.	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

7

Sampling Point . Unit . Location . Date Sampled	GW-175				GW-177			
	AQF				AQF			
	CRSP				CRSP			
	02/23/94	05/20/94	08/13/94	12/01/94	02/28/94	06/29/94	08/13/94	11/30/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	10	4	10	21
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	2	4
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	.	.	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	18	22	20	22	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	4	5	4	6	20	4	13	25
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

8

Sampling Point . Unit . Location . Date Sampled	GW-181				GW-184	GW-186	GW-187	GW-188
	AQF				AQT	AQT	AQT	AQT
	CRSP				RQ	RQ	RQ	RQ
	02/16/94	04/22/94	07/31/94	11/14/94	01/11/94	01/27/94	01/12/94	01/11/94
Acetone	.	.	.	FP1	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	FP1	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	FP1	.	FP1	FP1
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	FP1	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

9

Sampling Point . Unit . Location . Date Sampled	GW-203				GW-205			
	AQF				AQF			
	UNCS				UNCS			
	01/06/94	04/07/94	07/26/94	10/12/94	01/07/94	04/07/94	07/26/94	10/12/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	FPI	.	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

10

Sampling Point . Unit . Location . Date Sampled	GW-217				GW-221			
	AQF				AQF			
	LIV				UNCS			
	01/05/94	04/04/94	07/06/94	10/03/94	01/10/94	04/08/94	07/27/94	10/15/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	FP1	.	.	FP1	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	FP1	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

11

Sampling Point . Unit . Location . Date Sampled	GW-231				GW-241			
	AQF				AQF			
	KHQ				CRSDB			
	02/28/94	04/13/94	07/23/94	10/23/94	02/15/94	04/12/94	07/12/94	10/23/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	FP1	.	.	.	.	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	FP1	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

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APPENDIX J
Validated VOC Results, 1994

12

Sampling Point	GW-292			GW-293			GW-294	
Unit	AQF			AQF			AQF	
Location	ECRWP			ECRWP			ECRWP	
Date Sampled	01/14/94	04/12/94	10/16/94	01/13/94	04/12/94	10/15/94	01/12/94	04/08/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	.	.	FP1	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

13

Sampling Point	GW-294	GW-295		GW-296			GW-298	
Unit	AQF	AQF		AQF			AQF	
Location	ECRWP	CRBAWP		ECRWP			CRBAWP	
Date Sampled	10/15/94	02/15/94	07/18/94	01/10/94	04/08/94	10/15/94	02/14/94	07/21/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	.	.	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

14

Sampling Point . Unit . Location . Date Sampled	GW-299		GW-300		GW-301		GW-302	
	AQF		AQF		AQF		AQF	
	CRBAWP		CRBAWP		CRBAWP		UNCS	
	02/13/94	07/21/94	02/13/94	07/20/94	02/13/94	07/20/94	01/11/94	04/12/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	.	.	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

15

Sampling Point . Unit . Location . Date Sampled	GW-302		GW-303				GW-304	
	AQF		AQF				AQF	
	UNCS		CRSDB				CRSDB	
	07/28/94	10/15/94	02/14/94	04/11/94	07/11/94	10/23/94	02/10/94	04/04/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	.	.	1	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

16

Sampling Point	GW-304		GW-305				GW-321	
Unit	AQF		AQF				AQF	
Location	CRSDB		LIV				ADB	
Date Sampled	07/08/94	10/18/94	01/10/94	04/06/94	07/07/94	10/05/94	01/11/94	04/13/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	.	.	.	FP1
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	5	5	4	6	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	FP1	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

17

Sampling Point	GW-321	GW-339				GW-511		
Unit	AQF	AQF				AQF		
Location	ADB	UNCS				CRSP		
Date Sampled	10/18/94	01/11/94	04/08/94	07/27/94	10/15/94	02/17/94	04/25/94	07/31/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	0.7	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	.	.	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

18

Sampling Point	GW-511	GW-512			GW-513			GW-514
Unit	AQF	AQF			AQF			AQF
Location	CRSP	ADB			ADB			ADB
Date Sampled	11/14/94	01/12/94	04/14/94	10/19/94	01/11/94	04/13/94	10/18/94	01/14/94
Acetone	FP1	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	FP1	.	.	.	FP1	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	FP1	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	1
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	FP1
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

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APPENDIX J
Validated VOC Results, 1994

19

Sampling Point	GW-514		GW-521				GW-522	
Unit	AQF		AQF				AQF	
Location	ADB		LIV				LIV	
Date Sampled	04/18/94	10/20/94	01/06/94	04/05/94	07/07/94	10/04/94	01/07/94	04/05/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	.	.	FP1	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	2	1	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	FP1	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

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APPENDIX J
Validated VOC Results, 1994

20

Sampling Point	GW-522		GW-539				GW-540	
Unit	AQF		AQF				AQF	
Location	LIV		LII				CDLVI	
Date Sampled	07/07/94	10/05/94	01/06/94	04/04/94	07/13/94	10/06/94	03/22/94	04/14/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	.	.	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	FP1	.	.	.	FP1	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

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APPENDIX J
Validated VOC Results, 1994

21

Sampling Point	GW-540	GW-541				GW-542			GW-543
Unit	AQF	AQF				AQF			AQF
Location	CDLVI	CDLVI				CDLVI			CDLVI
Date Sampled	10/10/94	03/23/94	04/18/94	10/11/94	03/24/94	04/19/94	10/12/94	03/25/94	
Acetone	.	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.	.
Methylene chloride	.	FPI	.	.	.	.	.	.	.
Styrene	.	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

22

Sampling Point . Unit . Location . Date Sampled	GW-543		GW-544			GW-545		
	AQF		AQF			AQF		
	CDLVI		CDLVI			CDLVI		
	04/20/94	10/13/94	03/25/94	04/21/94	10/13/94	03/25/94	04/19/94	10/12/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	.	.	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

23

Sampling Point	GW-546			GW-557				GW-560
Unit	AQF			AQF				AQF
Location	CDLVI			LV				CDLVII
Date Sampled	03/23/94	04/14/94	10/11/94	03/07/94	04/21/94	07/15/94	10/09/94	03/07/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	FP1	.	.	.	.	.	.	FP1
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

24

Sampling Point . Unit . Location . Date Sampled	GW-560			GW-562				GW-564
	AQF			AQF				AQF
	CDLVII			CDLVII				CDLVII
	04/19/94	07/12/94	10/08/94	03/07/94	04/19/94	07/13/94	10/08/94	03/07/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	FP1	.	.	.	FP1
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	FP1	.	.	.	FP1	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

25

Sampling Point . Unit . Location . Date Sampled	GW-564			GW-608				GW-609
	AQF			AQF				AQF
	CDLVII			CRSP				CRSP
	04/20/94	07/14/94	10/09/94	02/21/94	05/18/94	08/08/94	11/29/94	02/24/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	2
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	1	.
1,2-Dichloroethene	.	.	.	.	.	.	.	24
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	.	.	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	1	2	1	2	29
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	2	4	2	3	1
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	FP1	.	.	.	.	.	3
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

26

Sampling Point	GW-609			GW-610				GW-611
Unit	AQF			AQF				AQF
Location	CRSP			CRSP				CRSP
Date Sampled	05/24/94	08/14/94	12/01/94	02/18/94	05/04/94	08/06/94	11/21/94	02/22/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	3	2	1	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	33	17	12	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	.	.	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	39	25	17	.	.	.	1	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	2	1	.	.	.	.	.	8
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	3	2	2	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

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APPENDIX J
Validated VOC Results, 1994

27

Sampling Point . Unit . Location . Date Sampled	GW-611			GW-709				GW-731
	AQF			AQF				AQF
	CRSP			LII				CRSDB
	05/19/94	08/13/94	11/30/94	01/06/94	04/05/94	07/14/94	10/07/94	02/11/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	2	3	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	3	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	.	.	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	0.3	.	.
1,1,1-Trichloroethane	6	10	17	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	FP1	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

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APPENDIX J
Validated VOC Results, 1994

28

Sampling Point . Unit . Location . Date Sampled	GW-731			GW-732				GW-742
	AQF			AQF				AQF
	CRSDB			CRSDB				CRSP
	04/04/94	07/09/94	10/18/94	02/12/94	04/06/94	07/09/94	10/19/94	02/20/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	.	.	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

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APPENDIX J
Validated VOC Results, 1994

29

Sampling Point . Unit . Location . Date Sampled	GW-742			GW-743				GW-757
	AQF			AQF				AQF
	CRSP			CRSP				LII
	05/02/94	08/04/94	11/17/94	02/18/94	05/03/94	08/06/94	11/17/94	01/07/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	.	.	.	FP1
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	FP1	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

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APPENDIX J
Validated VOC Results, 1994

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Sampling Point	GW-757			GW-796				GW-797
Unit	AQF			AQF				AQF
Location	LII			LV				IV
Date Sampled	04/06/94	07/15/94	10/07/94	03/08/94	04/25/94	07/20/94	10/11/94	03/08/94
Acetone	.	.	.	.	.	.	.	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	FP1	.	.	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	1	2	1	2	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

31

Sampling Point . Unit . Location . Date Sampled	GW-797			GW-798				GW-799
	AQF			AQF				AQF
	LV			CDLVII				CDLVII
	04/25/94	07/19/94	10/10/94	03/08/94	04/22/94	07/19/94	10/10/94	03/07/94
Acetone	.	.	.	.	.	.	FP1	.
Benzene	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.	.
2-Butanone	.	.	FP1	.	.	.	FP1	.
Carbon disulfide	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	.	.	.	.
Styrene	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.	FP1
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.
Trichloroethene	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX J
Validated VOC Results, 1994

32

Sampling Point . Unit . Location . Date Sampled	GW-799			GW-801			
	AQF			AQF			
	CDLVII			LV			
	04/21/94	07/18/94	10/10/94	03/08/94	04/27/94	07/21/94	10/11/94
Acetone	.	.	FP1	.	.	.	.
Benzene	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.
Bromomethane	.	.	.	.	.	.	.
2-Butanone	.	.	FP1	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.
Chlorobenzene	.	.	.	.	.	.	.
Chlorodibromomethane	.	.	.	.	.	.	.
Chloroethane	.	.	.	.	.	.	.
Chloroform	.	.	.	.	.	.	.
Chloromethane	.	.	.	.	.	.	.
1,1-Dichloroethane	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.
1,1-Dichloroethene	.	.	.	.	.	.	.
1,2-Dichloroethene	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.
cis-1,3-Dichloropropene	.	.	.	.	.	.	.
trans-1,3-Dichloropropene	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.
Methylene chloride	.	.	.	FP1	FP1	.	FP1
Styrene	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.
Tetrachloroethene	.	.	.	.	.	.	.
Toluene	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.
Trichloroethene	.	FP1	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.
Vinyl chloride	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.

APPENDIX J
Validated VOC Results, 1994

33

Sampling Point . Unit . Location . Date Sampled	CBS-1	
	SPRING	
	CDLVII	
	02/14/94	09/07/94
Acetone	.	.
Benzene	.	.
Bromodichloromethane	.	.
Bromoform	.	.
Bromomethane	.	.
2-Butanone	.	.
Carbon disulfide	.	.
Carbon tetrachloride	.	.
Chlorobenzene	.	.
Chlorodibromomethane	.	.
Chloroethane	.	.
Chloroform	.	.
Chloromethane	.	.
1,1-Dichloroethane	.	.
1,2-Dichloroethane	.	.
1,1-Dichloroethene	.	.
1,2-Dichloroethene	.	.
1,2-Dichloropropane	.	.
cis-1,3-Dichloropropene	.	.
trans-1,3-Dichloropropene	.	.
Ethylbenzene	.	.
2-Hexanone	.	.
4-Methyl-2-pentanone	.	.
Methylene chloride	.	.
Styrene	.	.
1,1,2,2-Tetrachloroethane	.	.
Tetrachloroethene	.	.
Toluene	.	.
1,1,1-Trichloroethane	.	.
1,1,2-Trichloroethane	.	.
Trichloroethene	.	.
Vinyl acetate	.	.
Vinyl chloride	.	.
Xylenes	.	.

APPENDIX K
RADIOCHEMICAL DATA SUMMARY

EXPLANATION

UNIT:

AQF	-	Knox Aquifer
AQT	-	ORR Aquitards
SPRING	-	Spring Sampling Station

LOCATION:

ADB	-	Ash Disposal Basin
CDLVI	-	Construction/Demolition Landfill VI
CDLVII	-	Construction/Demolition Landfill VII
CRBAWP	-	Chestnut Ridge Borrow Area Waste Pile
CRSDB	-	Chestnut Ridge Sediment Disposal Basin
CRSP	-	Chestnut Ridge Security Pits
ECRWP	-	East Chestnut Ridge Waste Pile
KHQ	-	Kerr Hollow Quarry
LII	-	Industrial Landfill II
LIV	-	Industrial Landfill IV
LV	-	Industrial Landfill V
RQ	-	Rogers Quarry
UNCS	-	United Nuclear Corporation Site

NOTES:

pCi/L	-	picoCuries per liter
CE+/-	-	Counting Error (two standard deviations)
.	-	Not sampled

Mean counting error (e) calculated using the following formula from Evans (1955):

$$e = \sqrt{\frac{E_1^2}{n^2} + \frac{E_2^2}{n^2} + \frac{E_3^2}{n^2} + \dots}$$

where $E_1, E_2, \dots E_x$ are the individual errors, and n is the number of observations.

APPENDIX K

1

Gross Alpha and Gross Beta Activity Data Summary, 1994

Sampling Point	1090		GW-141		GW-142		GW-143		GW-144	
Unit	AQF		AQF		AQF		AQF		AQF	
Location	UNCS		LIV		KHQ		KHQ		KHQ	
Type	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-
GROSS ALPHA MEAN ACTIVITY	1.47	1.10	1.24	0.70	5.39	1.10	4.46	1.20	4.08	1.10
	.	.	.	.	.	.	.	.	.	.
First Quarter	0.19	1.40	0.00	1.80	14.70	3.40	1.40	2.20	3.75	2.10
Second Quarter	1.84	1.60	1.34	1.50	3.29	1.60	3.54	1.80	2.60	1.50
Third Quarter	1.30	1.70	0.85	1.10	1.53	1.80	0.92	1.90	1.54	1.90
Fourth Quarter	2.55	3.40	2.78	1.10	2.03	1.60	12.00	3.50	8.43	2.80
	.	.	.	.	.	.	.	.	.	.
GROSS BETA MEAN ACTIVITY	1.83	1.80	1.46	1.20	2.38	1.60	20.70	2.10	3.75	1.30
	.	.	.	.	.	.	.	.	.	.
First Quarter	-4.07	2.90	1.21	2.70	-6.79	4.30	19.40	4.00	2.44	2.50
Second Quarter	-0.17	2.60	-0.98	2.40	4.59	2.90	16.60	3.60	2.97	2.40
Third Quarter	2.34	2.60	2.18	2.40	7.00	2.70	13.40	3.30	2.11	2.40
Fourth Quarter	9.22	5.40	3.42	1.80	4.72	2.50	33.40	5.30	7.49	3.10

(CONTINUED)

Sampling Point	GW-145		GW-146		GW-147		GW-156		GW-158	
Unit	AQF		AQF		AQF		AQF		AQF	
Location	KHQ		KHQ		KHQ		CRSDB		CRSDB	
Type	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-
GROSS ALPHA MEAN ACTIVITY	11.69	1.80	5.21	1.30	2.07	0.90	3.49	1.10	4.50	1.00
	.	.	.	.	.	.	.	.	.	.
First Quarter	9.46	3.60	2.68	2.40	1.19	1.90	2.96	2.10	3.80	2.10
Second Quarter	11.70	3.20	4.50	2.10	3.31	1.60	3.59	2.60	3.17	1.60
Third Quarter	10.10	3.70	6.33	2.90	1.63	1.80	4.27	2.10	1.48	1.20
Fourth Quarter	15.50	4.00	7.33	2.80	2.14	1.60	3.13	1.90	9.55	3.00
	.	.	.	.	.	.	.	.	.	.
GROSS BETA MEAN ACTIVITY	17.73	1.90	22.00	2.10	5.49	1.40	3.22	1.70	-1.29	1.50
	.	.	.	.	.	.	.	.	.	.
First Quarter	17.60	3.80	20.00	4.00	5.36	2.70	-16.10	4.00	-16.70	3.90
Second Quarter	14.30	3.40	19.10	3.80	3.36	2.80	13.70	3.70	0.38	2.60
Third Quarter	15.50	3.50	28.80	4.70	9.12	2.90	10.80	3.10	1.49	2.30
Fourth Quarter	23.50	4.40	20.10	4.10	4.11	2.50	4.47	2.80	9.69	3.20

(CONTINUED)

APPENDIX K

2

Gross Alpha and Gross Beta Activity Data Summary, 1994

Sampling Point	GW-159		GW-160		GW-161		GW-175		GW-177	
Unit	AQF		AQF		AQF		AQF		AQF	
Location	CRSDB		CRBAWP		CRBAWP		CRSP		CRSP	
Type	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-
GROSS ALPHA										
MEAN ACTIVITY	1.46	0.70	4.34	2.90	0.59	1.00	1.02	0.90	2.44	1.00
	.	.	.	.	.	.	.	.	.	.
First Quarter	1.23	1.70	2.06	1.50	1.18	1.20	0.00	2.00	0.89	2.00
Second Quarter	1.63	1.50	.	.	.	.	1.55	1.30	3.38	1.80
Third Quarter	1.98	1.30	6.62	5.50	0.00	1.50	1.17	1.30	3.04	1.80
Fourth Quarter	0.99	1.30	.	.	.	.	1.37	2.10	2.47	2.30
	.	.	.	.	.	.	.	.	.	.
GROSS BETA										
MEAN ACTIVITY	-2.65	1.50	5.46	3.20	3.39	1.80	0.17	1.30	3.93	1.40
	.	.	.	.	.	.	.	.	.	.
First Quarter	-19.00	3.80	3.49	2.50	4.79	2.60	-3.31	2.50	5.71	2.80
Second Quarter	0.64	2.50	.	.	.	.	0.41	2.40	3.14	2.50
Third Quarter	5.93	2.60	7.43	5.80	1.98	2.50	1.78	2.60	3.30	2.70
Fourth Quarter	1.84	2.60	.	.	.	.	1.82	2.80	3.56	2.90

(CONTINUED)

Sampling Point	GW-181		GW-184		GW-186		GW-187		GW-188	
Unit	AQF		AQT		AQT		AQT		AQT	
Location	CRSP		RQ		RQ		RQ		RQ	
Type	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-
GROSS ALPHA										
MEAN ACTIVITY	1.01	0.80	-0.73	1.20	-2.69	2.50	-0.68	1.60	-0.37	1.40
	.	.	.	.	.	.	.	.	.	.
First Quarter	-0.60	1.80	-0.73	1.20	-2.69	2.50	-0.68	1.60	-0.37	1.40
Second Quarter	1.19	1.00	.	.	.	.	.	.	.	.
Third Quarter	0.89	1.80	.	.	.	.	.	.	.	.
Fourth Quarter	2.55	1.40	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.	.	.
GROSS BETA										
MEAN ACTIVITY	0.98	1.30	-0.40	2.80	1.25	3.00	-2.35	2.80	-2.53	2.70
	.	.	.	.	.	.	.	.	.	.
First Quarter	-0.08	2.70	-0.40	2.80	1.25	3.00	-2.35	2.80	-2.53	2.70
Second Quarter	0.23	2.20	.	.	.	.	.	.	.	.
Third Quarter	1.32	2.70	.	.	.	.	.	.	.	.
Fourth Quarter	2.46	2.50	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX K

3

Gross Alpha and Gross Beta Activity Data Summary, 1994

Sampling Point	GW-203		GW-205		GW-217		GW-221		GW-231	
Unit	AQF		AQF		AQF		AQF		AQF	
Location	UNCS		UNCS		LIV		UNCS		KHQ	
Type	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-
GROSS ALPHA MEAN ACTIVITY	0.27	0.70	1.79	0.90	0.68	0.70	1.91	1.10	0.28	0.60
	.	.	.	.	.	.	.	.	.	.
First Quarter	0.67	1.30	3.18	1.90	-1.06	1.80	-0.17	1.10	0.49	1.40
Second Quarter	0.16	0.99	1.26	1.50	0.48	1.30	0.33	1.10	0.80	0.86
Third Quarter	0.74	1.90	2.22	2.20	0.79	1.10	2.96	2.30	-1.00	1.20
Fourth Quarter	-0.50	1.10	0.50	1.40	2.49	1.10	4.52	3.60	0.81	1.30
	.	.	.	.	.	.	.	.	.	.
GROSS BETA MEAN ACTIVITY	-0.15	1.40	2.65	1.40	4.25	1.30	1.77	1.80	2.30	1.30
	.	.	.	.	.	.	.	.	.	.
First Quarter	-3.51	3.00	-4.94	2.90	2.32	3.00	-4.09	2.90	5.18	2.70
Second Quarter	0.17	2.60	1.66	2.30	2.85	2.60	-0.17	2.60	-0.25	2.70
Third Quarter	0.82	2.80	0.17	2.70	4.99	2.70	0.82	2.80	1.98	2.40
Fourth Quarter	1.93	2.40	13.70	3.40	6.83	2.00	10.50	5.50	2.29	2.40

(CONTINUED)

Sampling Point	GW-241		GW-292		GW-293		GW-294		GW-295	
Unit	AQF		AQF		AQF		AQF		AQF	
Location	CRSDB		ECRWP		ECRWP		ECRWP		CRBAWP	
Type	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-
GROSS ALPHA MEAN ACTIVITY	0.93	0.60	0.58	0.80	0.61	1.00	0.31	0.90	2.87	1.30
	.	.	.	.	.	.	.	.	.	.
First Quarter	0.15	1.50	0.34	1.50	-0.01	1.40	-0.00	1.40	2.60	1.60
Second Quarter	1.14	0.99	1.41	1.10	-0.54	1.60	-1.24	1.40	.	.
Third Quarter	1.46	1.20	.	.	.	.	.	.	3.13	2.10
Fourth Quarter	0.99	1.30	-0.01	1.40	2.37	1.90	2.18	1.80	.	.
	.	.	.	.	.	.	.	.	.	.
GROSS BETA MEAN ACTIVITY	-3.11	1.50	0.13	1.50	1.05	1.60	1.03	1.60	11.26	2.20
	.	.	.	.	.	.	.	.	.	.
First Quarter	-16.40	3.90	-3.19	2.70	-2.94	2.70	-3.66	2.70	14.50	3.40
Second Quarter	-0.42	2.60	-0.73	2.50	-2.14	2.70	-2.14	2.70	.	.
Third Quarter	2.37	2.40	.	.	.	.	.	.	8.01	2.90
Fourth Quarter	2.01	2.60	4.29	2.60	8.24	3.00	8.90	3.00	.	.

(CONTINUED)

APPENDIX K

4

Gross Alpha and Gross Beta Activity Data Summary, 1994

Sampling Point	GW-296		GW-298		GW-299		GW-300		GW-301	
Unit	AQF		AQF		AQF		AQF		AQF	
Location	ECRWP		CRBAWP		CRBAWP		CRBAWP		CRBAWP	
Type	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-
GROSS ALPHA MEAN ACTIVITY	0.33	0.90	1.89	1.50	2.80	1.50	0.25	1.30	1.96	1.50
First Quarter	-0.01	1.40	1.51	1.30	1.61	1.30	0.64	1.00	1.15	1.20
Second Quarter	-0.35	1.60	.	.	.	.	.	.	.	.
Third Quarter	.	.	2.26	2.60	3.99	2.80	-0.15	2.30	2.77	2.70
Fourth Quarter	1.36	1.70	.	.	.	.	.	.	.	.
GROSS BETA MEAN ACTIVITY	0.65	1.60	2.19	1.80	2.25	1.90	0.98	1.80	2.90	1.90
First Quarter	-3.11	2.70	2.40	2.40	3.18	2.50	1.96	2.40	2.65	2.40
Second Quarter	-1.16	2.70	.	.	.	.	.	.	.	.
Third Quarter	.	.	1.98	2.80	1.32	2.80	0.00	2.70	3.15	2.90
Fourth Quarter	6.22	2.80	.	.	.	.	.	.	.	.

(CONTINUED)

Sampling Point	GW-302		GW-303		GW-304		GW-305		GW-321	
Unit	AQF		AQF		AQF		AQF		AQF	
Location	UNCS		CRSDB		CRSDB		LIV		ADB	
Type	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-
GROSS ALPHA MEAN ACTIVITY	2.44	1.20	2.35	1.00	1.95	0.80	3.55	1.00	2.02	0.90
First Quarter	-0.37	1.20	3.84	2.50	1.83	1.80	0.89	1.80	0.44	1.70
Second Quarter	1.45	1.50	1.45	2.20	1.87	1.70	-0.32	0.99	0.97	0.92
Third Quarter	2.04	1.70	2.93	1.70	2.20	1.40	12.40	3.20	.	.
Fourth Quarter	6.65	4.10	1.17	1.60	1.90	1.60	1.22	0.83	4.66	2.00
GROSS BETA MEAN ACTIVITY	4.11	1.90	-0.55	1.60	-1.80	1.50	3.54	1.30	0.91	1.60
First Quarter	-4.73	2.80	-13.50	4.10	-16.40	3.90	0.94	2.70	1.02	2.70
Second Quarter	-0.34	2.50	0.80	2.80	2.82	2.60	-1.73	2.30	-2.95	2.50
Third Quarter	1.90	2.60	4.90	2.50	4.56	2.50	12.20	3.30	.	.
Fourth Quarter	19.60	6.20	5.59	2.90	1.81	2.60	2.76	1.70	4.66	3.10

(CONTINUED)

APPENDIX K

5

Gross Alpha and Gross Beta Activity Data Summary, 1994

Sampling Point	GW-339		GW-511		GW-512		GW-513		GW-514	
Unit	AQF		AQF		AQF		AQF		AQF	
Location	UNCS		CRSP		ADB		ADB		ADB	
Type	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-
GROSS ALPHA MEAN ACTIVITY	2.60	1.30	1.07	0.80	0.82	0.70	1.64	0.90	0.41	0.90
First Quarter	0.19	1.40	0.15	2.00	-0.18	1.30	1.08	1.90	-1.07	2.00
Second Quarter	0.55	1.20	0.32	0.66	0.66	0.82	0.33	0.66	0.68	0.84
Third Quarter	1.73	2.20	1.90	2.00	.	.	.	.	.	.
Fourth Quarter	7.91	4.50	1.90	1.20	1.99	1.40	3.50	1.80	1.62	1.40
GROSS BETA MEAN ACTIVITY	3.63	1.90	2.87	1.30	2.05	1.70	1.15	1.60	0.72	1.50
First Quarter	-2.61	2.90	1.57	2.80	1.27	3.00	1.63	2.70	-0.09	2.80
Second Quarter	2.61	2.70	2.62	2.40	1.20	2.70	0.08	2.60	1.10	2.30
Third Quarter	-0.50	2.70	3.78	2.80	.	.	.	.	.	.
Fourth Quarter	15.00	5.80	3.50	2.50	3.67	3.00	1.74	2.90	1.14	2.80

(CONTINUED)

Sampling Point	GW-521		GW-522		GW-539		GW-540		GW-541	
Unit	AQF		AQF		AQF		AQF		AQF	
Location	LIV		LIV		LII		CDLVI		CDLVI	
Type	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-
GROSS ALPHA MEAN ACTIVITY	0.25	0.80	0.41	0.60	2.32	1.10	0.48	0.80	1.62	1.00
First Quarter	-2.00	2.10	-0.45	1.60	-0.61	1.60	0.16	1.30	1.33	1.60
Second Quarter	-0.17	1.30	0.48	1.20	6.76	2.80	-0.17	0.90	1.82	1.70
Third Quarter	0.81	1.30	0.47	0.95	-0.18	0.78	.	.	.	.
Fourth Quarter	2.37	1.70	1.15	0.82	3.31	2.70	1.45	1.80	1.72	1.70
GROSS BETA MEAN ACTIVITY	-0.61	1.40	0.79	1.10	3.49	1.40	0.86	1.40	0.70	1.40
First Quarter	-2.85	3.20	-1.03	2.50	1.20	2.70	1.18	2.30	0.93	2.30
Second Quarter	-0.56	2.50	-0.66	2.40	7.69	2.90	-2.08	2.50	-0.66	2.50
Third Quarter	0.97	2.40	1.14	2.40	-1.20	2.40	.	.	.	.
Fourth Quarter	0.00	2.70	3.71	1.80	6.27	3.10	3.48	2.60	1.81	2.40

(CONTINUED)

APPENDIX K

6

Gross Alpha and Gross Beta Activity Data Summary, 1994

Sampling Point	GW-542		GW-543		GW-544		GW-545		GW-546	
Unit	AQF		AQF		AQF		AQF		AQF	
Location	CDLVI		CDLVI		CDLVI		CDLVI		CDLVI	
Type	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-
GROSS ALPHA MEAN ACTIVITY	-0.22	0.70	-0.29	0.70	1.17	0.90	0.59	0.80	0.61	0.80
First Quarter	-0.17	1.20	-0.17	1.20	1.00	1.50	0.33	1.40	0.32	1.30
Second Quarter	-0.01	1.30	0.16	1.40	1.04	1.20	0.63	1.40	1.18	1.30
Third Quarter	.	.	.	.	.	.	.	.	.	.
Fourth Quarter	-0.49	1.10	-0.87	1.00	1.46	1.70	0.80	1.40	0.34	1.40
GROSS BETA MEAN ACTIVITY	2.62	1.50	-0.40	1.30	2.67	1.40	16.53	2.20	1.61	1.40
First Quarter	5.50	2.60	1.42	2.30	2.04	2.30	23.30	4.20	1.98	2.30
Second Quarter	0.15	2.60	-3.33	2.40	0.78	2.40	17.40	3.90	-1.76	2.50
Third Quarter	.	.	.	.	.	.	.	.	.	.
Fourth Quarter	2.20	2.50	0.71	2.30	5.19	2.60	8.89	3.00	4.61	2.60

(CONTINUED)

Sampling Point	GW-557		GW-560		GW-562		GW-564		GW-608	
Unit	AQF		AQF		AQF		AQF		AQF	
Location	LV		CDLVII		CDLVII		CDLVII		CRSP	
Type	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-
GROSS ALPHA MEAN ACTIVITY	0.29	0.80	0.89	0.70	1.03	0.90	0.02	0.60	0.77	0.90
First Quarter	-0.94	1.10	-0.76	1.20	-0.57	1.20	-0.39	1.30	-0.15	1.90
Second Quarter	-0.82	1.10	0.63	1.40	-0.82	1.10	-0.01	1.30	0.99	1.00
Third Quarter	-0.15	1.80	0.66	1.10	3.20	2.60	-0.01	0.81	1.04	1.80
Fourth Quarter	3.06	2.00	3.01	2.00	2.32	2.00	0.47	1.50	1.19	2.10
GROSS BETA MEAN ACTIVITY	2.13	1.30	0.98	1.30	1.86	1.70	0.41	1.30	1.92	1.40
First Quarter	1.34	2.60	-0.24	2.50	0.07	2.50	0.31	2.50	-1.40	2.60
Second Quarter	-2.47	2.40	-1.53	2.50	-1.36	2.50	-1.05	2.50	5.70	2.80
Third Quarter	2.97	2.90	-0.74	2.40	2.27	5.20	1.13	2.60	2.14	2.70
Fourth Quarter	6.66	2.80	6.44	2.80	6.47	2.80	1.27	2.40	1.24	2.80

(CONTINUED)

APPENDIX K

7

Gross Alpha and Gross Beta Activity Data Summary, 1994

Sampling Point	GW-609		GW-610		GW-611		GW-709		GW-731	
Unit	AQF		AQF		AQF		AQF		AQF	
Location	CRSP		CRSP		CRSP		LII		CRSDB	
Type	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-
GROSS ALPHA MEAN ACTIVITY	0.69	0.80	1.34	0.80	1.01	0.90	1.84	1.00	0.55	0.60
First Quarter	0.61	2.10	0.47	2.10	1.29	2.30	0.92	1.90	0.75	1.60
Second Quarter	0.68	0.96	0.85	1.00	0.53	0.94	1.14	1.40	0.47	1.20
Third Quarter	-0.01	0.93	2.90	2.20	0.17	1.00	2.71	1.90	0.49	1.00
Fourth Quarter	1.49	2.10	1.15	1.00	2.06	2.30	2.58	2.60	0.50	1.20
GROSS BETA MEAN ACTIVITY	0.99	1.30	1.48	1.30	2.21	1.40	3.19	1.40	8.24	1.90
First Quarter	0.74	2.80	0.91	2.80	-0.42	2.70	0.86	2.70	-8.39	4.20
Second Quarter	0.41	2.40	1.66	2.50	7.73	2.90	0.72	2.50	7.43	3.00
Third Quarter	0.57	2.50	0.41	2.60	-0.73	2.40	5.14	2.70	21.00	4.00
Fourth Quarter	2.22	2.80	2.93	2.50	2.25	2.80	6.03	3.10	12.90	3.50

(CONTINUED)

Sampling Point	GW-732		GW-742		GW-743		GW-757		GW-796	
Unit	AQF		AQF		AQF		AQF		AQF	
Location	CRSDB		CRSP		CRSP		LII		LV	
Type	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-
GROSS ALPHA MEAN ACTIVITY	4.91	1.20	5.70	1.20	1.07	0.80	4.84	1.30	0.50	0.70
First Quarter	7.38	2.60	9.09	3.10	-0.30	1.90	6.73	2.70	1.93	1.70
Second Quarter	2.50	2.00	3.63	1.80	1.16	1.10	3.73	2.40	0.82	1.10
Third Quarter	2.67	2.50	4.18	2.30	0.89	1.80	3.46	2.10	-0.58	1.70
Fourth Quarter	7.10	2.40	5.90	2.10	2.51	1.40	5.44	3.00	-0.17	1.20
GROSS BETA MEAN ACTIVITY	0.17	1.90	3.88	1.40	2.18	1.30	7.63	1.60	2.51	1.40
First Quarter	-13.60	4.00	4.38	3.00	1.56	2.80	4.74	2.90	3.61	3.10
Second Quarter	5.08	3.20	1.73	2.50	2.09	2.50	10.20	3.50	2.58	2.60
Third Quarter	0.15	4.50	4.29	2.90	1.32	2.70	5.57	2.70	1.31	2.80
Fourth Quarter	9.06	3.30	5.12	2.70	3.75	2.60	10.00	3.30	2.52	2.50

(CONTINUED)

APPENDIX K

8

Gross Alpha and Gross Beta Activity Data Summary, 1994

Sampling Point . Unit . Location . Type	GW-797		GW-798		GW-799		GW-801		CBS-1	
	AQF		AQF		AQF		AQF		SPRING	
	LV		CDLVII		CDLVII		LV		CDLVII	
	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-	pCi/L	CE +/-
GROSS ALPHA										
MEAN ACTIVITY	1.45	0.80	1.70	0.90	0.35	0.80	0.70	0.70	0.53	1.10
	.	.	.	.	.	.	.	.	.	.
First Quarter	2.65	1.80	3.76	2.00	-0.35	1.20	2.30	1.80	0.59	1.80
Second Quarter	0.49	0.98	0.16	0.88	0.15	1.30	-0.17	0.74	.	.
Third Quarter	1.47	2.00	1.76	2.10	1.91	2.10	1.32	2.00	0.47	1.10
Fourth Quarter	1.19	1.80	1.11	1.70	-0.32	1.30	-0.66	1.00	.	.
	.	.	.	.	.	.	.	.	.	.
GROSS BETA										
MEAN ACTIVITY	2.15	1.40	2.14	1.40	-0.29	1.30	2.45	1.40	1.68	2.00
	.	.	.	.	.	.	.	.	.	.
First Quarter	4.17	3.10	3.93	3.10	-1.20	2.50	4.18	3.10	0.98	3.00
Second Quarter	0.89	2.50	1.29	2.50	-2.01	2.50	1.30	2.50	.	.
Third Quarter	0.82	2.80	0.00	2.70	1.73	2.80	1.56	2.80	2.39	2.60
Fourth Quarter	2.74	2.50	3.34	2.60	0.31	2.40	2.75	2.50	.	.

APPENDIX L
GROUNDWATER ELEVATIONS

EXPLANATION

LOCATION:

ADB	-	Ash Disposal Basin
CDLVI	-	Construction/Demolition Landfill VI
CDLVII	-	Construction/Demolition Landfill VII
CRBAWP	-	Chestnut Ridge Borrow Area Waste Pile
CRDT	-	Chestnut Ridge Deer Trap #10
CRSDB	-	Chestnut Ridge Sediment Disposal Basin
CRSP	-	Chestnut Ridge Security Pits
ECRWP	-	East Chestnut Ridge Waste Pile
KHQ	-	Kerr Hollow Quarry
LII	-	Industrial Landfill II
LIV	-	Industrial Landfill IV
LV	-	Industrial Landfill V
ORSF	-	Oak Ridge Sludge Farm
RQ	-	Rogers Quarry
SSCR	-	South Side Chestnut Ridge
UNCS	-	United Nuclear Corporation Site

SAMPLED IN 94:

Y	-	Wells included in the 1994 groundwater monitoring program.
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NOTES:

CTP Elev.	-	The elevation of the centerpoint of the monitored interval.
January	-	Measuring event from January 11 to 24, 1994.
August	-	Measuring event from August 22 to 31, 1994.
Depth	-	The distance in ft from the top-of-casing measuring point to the static water level.
Elev.	-	The groundwater elevation in ft above mean sea level.
+/- Ft	-	The calculated drop in water-level from the January to the August measuring events. Negative results show a rise in water level.
.	-	No information available.

APPENDIX L
Groundwater Elevations, 1994

Sampling Pt.	Location	Sampled in 94	CTP Elev.	January Depth	January Elev.	August Depth	August Elev.	+/- Ft
Water Table Interval								
1082-	ORSF		789.44	.	.	25.7	811.58	.
1090	UNCS	Y	1101.58	46.5	1057.35	55.0	1048.88	8.5
1095	CRSDB		885.14	67.5	937.24	.	.	.
1096	CRSDB		983.44	68.4	979.34	66.4	981.34	-2.0
1101	ADB		931.30	19.6	937.85	.	.	.
1102	ADB		884.40	54.6	902.35	.	.	.
1104	ADB		903.62	55.0	901.97	.	.	.
1105	ADB		871.49	14.9	909.34	.	.	.
1106	ADB		891.72	14.4	910.17	.	.	.
1107	ADB		874.52	1.9	901.47	.	.	.
1108	ADB		894.67	2.9	900.72	.	.	.
1109	ADB		924.34	14.4	942.04	.	.	.
1110	ADB		949.96	6.8	948.46	.	.	.
GW-145	KHQ	Y	739.29	2.4	837.64	5.2	834.84	2.8
GW-160	CRBAWP	Y	870.66	133.9	959.19	148.6	944.49	14.7
GW-179	CRSP		1012.83	110.9	1017.10	115.1	1012.90	4.2
GW-241	CRSDB	Y	890.30	42.5	940.14	49.2	933.44	6.7
GW-512	ADB	Y	944.49	22.1	979.44	24.1	977.44	2.0
GW-542	CDLVI	Y	981.28	68.6	983.00	69.7	981.90	1.1
GW-545	CDLVI	Y	994.33	65.8	992.22	66.3	991.72	0.5
GW-546	CDLVI	Y	994.34	80.1	992.11	80.2	992.01	0.1
GW-557	LV	Y	953.18	.	.	114.1	967.06	.
GW-558	SSCR		907.31	.	.	48.7	935.27	.
GW-559	SSCR		927.20	.	.	134.8	967.99	.
GW-560	CDLVII	Y	879.07	.	.	28.6	910.32	.
GW-562	CDLVII	Y	883.86	.	.	2.9	931.59	.
GW-564	CDLVII	Y	868.62	.	.	9.5	928.27	.
GW-674	ADB		868.48	.	.	8.7	875.09	.
GW-676	ADB		832.02	.	.	5.9	840.60	.
Bedrock Interval								
1084	ORSF		823.74	60.1	905.31	61.9	903.50	1.8
GW-141	LIV	Y	1034.95	93.6	1092.43	97.4	1088.66	3.8
GW-142	KHQ	Y	696.54	132.3	838.05	135.4	834.95	3.1
GW-143	KHQ	Y	682.04	76.8	836.38	79.1	834.08	2.3
GW-144	KHQ	Y	738.98	77.4	835.94	79.6	833.74	2.2
GW-146	KHQ	Y	632.00	163.4	674.76	151.9	686.26	-11.5
GW-147	KHQ	Y	787.91	13.5	838.12	16.7	834.92	3.2
GW-156	CRSDB	Y	895.44	141.8	907.33	143.4	905.73	1.6
GW-158	CRSDB	Y	582.74	46.6	936.45	47.1	935.95	0.5
GW-159	CRSDB	Y	897.29	117.3	933.85	117.8	933.35	0.5
GW-161	CRBAWP	Y	715.91	157.9	935.64	161.3	932.24	3.4
GW-165	CRDT		789.89	87.5	1003.87	97.1	994.27	9.6
GW-166	CRDT		709.51	90.2	1003.09	99.2	994.09	9.0

APPENDIX L
Groundwater Elevations, 1994

Sampling Pt.	Location	Sampled in 94	CTP Elev.	January Depth	January Elev.	August Depth	August Elev.	+/- Ft
GW-173	CRSP		953.47	126.2	988.80	148.1	966.90	21.9
GW-174	CRSP		974.56	104.5	1012.02	117.5	999.02	13.0
GW-175	CRSP	Y	924.39	115.2	968.80	122.8	961.20	7.6
GW-176	CRSP		982.63	115.0	1010.27	116.5	1008.77	1.5
GW-177	CRSP	Y	1017.02	116.9	1041.05	118.4	1039.55	1.5
GW-178	CRSP		1015.81	87.5	1055.99	94.6	1048.89	7.1
GW-180	CRSP		966.43	97.3	1006.67	118.9	985.07	21.6
GW-181	CRSP	Y	929.05	106.2	986.83	.	.	.
GW-182	CRSP		882.81	116.3	1031.05	.	.	.
GW-184	RQ	Y	808.90	.	.	110.9	816.73	.
GW-186	RQ	Y	671.81	.	.	14.9	816.42	.
GW-203	UNCS	Y	952.34	80.6	1024.65	71.1	1034.16	-9.5
GW-205	UNCS	Y	942.46	77.2	1026.79	69.7	1034.27	-7.5
GW-217	LIV	Y	1001.69	105.8	1071.04	112.9	1063.96	7.1
GW-221	UNCS	Y	950.86	82.8	1023.18	72.4	1033.60	-10.4
GW-231	KHQ	Y	818.00	11.1	838.37	14.6	834.87	3.5
GW-292	ECRWP	Y	891.06	111.1	961.90	114.7	958.30	3.6
GW-293	ECRWP	Y	856.20	113.6	950.30	117.1	946.80	3.5
GW-294	ECRWP	Y	961.24	93.7	989.87	.	.	.
GW-295	CRBAWP	Y	952.22	137.8	954.91	.	.	.
GW-296	ECRWP	Y	947.59	117.2	973.79	.	.	.
GW-298	CRBAWP	Y	865.85	105.8	943.21	109.6	939.41	3.8
GW-299	CRBAWP	Y	890.83	98.8	955.06	98.0	955.86	-0.8
GW-300	CRBAWP	Y	931.19	110.0	963.12	110.9	962.22	0.9
GW-301	CRBAWP	Y	927.94	130.5	955.88	134.1	952.28	3.6
GW-302	UNCS	Y	1011.44	99.2	1042.45	102.4	1039.27	3.2
GW-303	CRSDB	Y	693.94	84.6	922.56	88.8	918.36	4.2
GW-304	CRSDB	Y	885.07	117.1	928.39	117.8	927.69	0.7
GW-305	LIV	Y	1008.62	118.7	1064.83	123.6	1059.95	4.9
GW-320	ADB		816.16	14.1	911.22	.	.	.
GW-321	ADB	Y	831.80	13.3	912.28	21.1	904.48	7.8
GW-322	CRSP		971.31	151.5	982.75	156.4	977.85	4.9
GW-339	UNCS	Y	1014.68	67.9	1056.70	75.6	1048.99	7.7
GW-511	CRSP	Y	943.85	106.3	986.91	107.3	985.91	1.0
GW-513	ADB	Y	880.84	22.0	979.41	.	.	.
GW-514	ADB	Y	814.16	22.1	979.12	24.4	976.82	2.3
GW-521	LIV	Y	1049.86	82.3	1100.36	84.4	1098.28	2.1
GW-522	LIV	Y	982.89	88.7	1086.64	91.2	1084.11	2.5
GW-539	LII	Y	944.19	102.6	990.40	103.4	989.60	0.8
GW-540	CDLVI	Y	904.38	77.8	994.32	80.3	991.82	2.5
GW-541	CDLVI	Y	960.19	64.6	993.80	65.2	993.20	0.6
GW-543	CDLVI	Y	936.29	60.4	963.40	63.7	960.10	3.3
GW-544	CDLVI	Y	942.38	62.4	982.59	62.4	982.59	0.0
GW-608	CRSP	Y	887.00	121.8	952.15	135.2	938.75	13.4
GW-609	CRSP	Y	847.00	162.6	949.51	170.6	941.51	8.0
GW-610	CRSP	Y	945.53	77.5	981.94	88.6	970.84	11.1
GW-611	CRSP	Y	933.88	98.8	949.58	106.1	942.28	7.3

APPENDIX L
Groundwater Elevations, 1994

Sampling Pt.	Location	Sampled in 94	CTP Elev.	January Depth	January Elev.	August Depth	August Elev.	+/- Ft
GW-612	CRSP		884.15	118.8	1012.23	126.1	1004.93	7.3
GW-673	ADB		757.70	.	.	10.3	871.71	.
GW-677	ADB		873.30	.	.	28.9	1001.50	.
GW-679	ADB		899.70	.	.	52.8	974.10	.
GW-709	LII	Y	829.19	.	.	29.8	876.80	.
GW-731	CRSDB	Y	874.40	123.6	925.58	123.9	925.28	0.3
GW-732	CRSDB	Y	876.50	154.4	909.69	157.6	906.49	3.2
GW-743	CRSP	Y	943.12	.	.	125.9	974.46	.
GW-757	LII	Y	808.30	84.1	877.35	84.7	876.73	0.6
GW-796	LV	Y	919.10	.	.	75.1	977.32	.
GW-797	LV	Y	930.05	.	.	64.9	994.90	.
GW-798	CDLVII	Y	857.90	.	.	73.6	926.70	.
GW-799	CDLVII	Y	892.75	.	.	9.4	971.69	.
GW-801	LV	Y	911.70	.	.	103.4	993.56	.

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