1 of 5

GROUNDWATER QUALITY ASSESSMENT
FOR THE UPPER EAST FORK POPLAR CREEK
HYDROGEOLOGIC REGIME
AT THE Y-12 PLANT

1991 Groundwater Quality Data
and Calculated Rate
of Contaminant Migration

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Prepared by

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for

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Health, Safety, Environment, and Accountability Division
Oak Ridge Y-12 Plant
Oak Ridge, Tennessee 37831

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ACRONYMS

ANAP	Abandoned Nitric Acid Pipeline
ARAR	Applicable, Relevant, and Appropriate Requirement
BCHR	Bear Creek Hydrogeologic Regime
BCV	Bear Creek Valley
BQR	Blank Qualification Result
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CRSDB	Chestnut Ridge Sediment Disposal Basin
DOE	U.S. Department of Energy
EMD	Environmental Monitoring Database
EPA	U.S. Environmental Protection Agency
FFA	Federal Facility Agreement
GWPP	Groundwater Protection Program
GWQAR	Groundwater Quality Assessment Report
H&R	H&R Technical Associates, Inc.
HSEA	Health, Safety, Environment, and Accountability (Division)
K-25	Oak Ridge K-25 Site
MCL	Maximum Contaminant Level
NHP	New Hope Pond
NPDES	National Pollutant Discharge Elimination System

ACRONYMS (cont'd)

NPL	National Priority List
ORNL	Oak Ridge National Laboratory
ORR	Oak Ridge Reservation
PCB	Polychlorinated biphenyl
PIDAS	Perimeter Intrusion Detection and Alarm System
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
RI/FS	Remedial Investigation/Feasibility Study
SOP	Standard Operating Procedure
SWMU	Solid Waste Management Unit
TDEC	Tennessee Department of Environment and Conservation
T/S/D	Treatment, Storage, or Disposal (Unit)
UEFPC	Upper East Fork Poplar Creek
UEFPCHR	Upper East Fork Poplar Creek Hydrogeologic Regime
UST	Underground Storage Tank
VOC	Volatile Organic Compound
WCPF	Waste Coolant Processing Facility
WMCBF	Waste Machine Coolant Biodegradation Facility

1.0 INTRODUCTION

This report contains groundwater quality data obtained during the 1991 calendar year at several waste management facilities and petroleum fuel underground storage tank (UST) sites associated with the U.S. Department of Energy (DOE) Y-12 Plant (Figure 1). These sites are within the Upper East Fork Poplar Creek Hydrogeologic Regime (UEFPCHR), which is one of three regimes defined for the purposes of groundwater and surface-water quality monitoring and remediation (Figure 2). The Environmental Management Department of the Y-12 Plant Health, Safety, Environment, and Accountability (HSEA) Division manages the groundwater monitoring activities in each regime as part of the Y-12 Plant Groundwater Protection Program (GWPP).

1.1 Purpose

This report was prepared for informational purposes. Included are the analytical data for groundwater samples collected from selected monitoring wells during 1991 and the results for quality assurance/quality control (QA/QC) samples associated with each groundwater sample. This report also contains summaries of selected data, including ion-charge balances for each groundwater sample, a summary of analytical results for nitrate (a principle contaminant in the UEFPCHR), results of volatile organic compounds (VOCs) analyses validated using the associated QA/QC sample data, a summary of trace metal concentrations which exceeded drinking-water standards, and a summary of radiochemical analyses and associated counting errors.

1.2 Background

Investigations of contaminant releases from waste management sites in the UEFPCHR have been in progress since the early 1980s. In 1987, groundwater monitoring under the Resource Conservation and Recovery Act (RCRA) was initiated at New Hope Pond (NHP) and has been performed in accordance with the RCRA regulations for interim status hazardous waste treatment, storage, and disposal (T/S/D) facilities. Other waste management sites in the

UEFPCHR were identified in 1987 as RCRA solid waste management units (SWMUs) (Welch et al. 1987), and groundwater monitoring in support of RCRA Facility Investigations (RFIs) at these sites was initiated in 1988. Groundwater monitoring at petroleum fuel USTs has been performed as required under the Tennessee Department of Environment and Conservation (TDEC) UST management regulations. In 1989, groundwater monitoring activities at the waste sites and USTs in the UEFPCR were combined into a single program that has been performed and reported in accordance with RCRA interim status assessment monitoring requirements.

In November 1989 the Oak Ridge Reservation (ORR) was included on the National Priority List (NPL) for environmental restoration under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). A Federal Facility Agreement (FFA) between the DOE, the U.S. Environmental Protection Agency (EPA), and the TDEC negotiated in response to the NPL listing of the ORR changed the regulatory status of the hazardous waste sites in the UEFPCR from RCRA to CERCLA, with RCRA as an applicable, relevant, and appropriate requirement (ARAR) (U.S. Department of Energy 1991). Future groundwater quality monitoring at these sites will be performed in support of a CERCLA remedial investigation/feasibility study (RI/FS) and in accordance with the requirements of the FFA.

Because of the change in regulatory status of the hazardous-waste sites in the UEFPCR, this document may be the last formal groundwater quality assessment report (GWQAR) prepared for the regime. Consistent with past years, the GWQAR is completed in two parts. Part I (this report) contains the groundwater quality data and a calculated rate of contaminant migration; reporting requirements under RCRA interim status assessment monitoring. Part II will contain a detailed evaluation of the data and proposed modifications for continued monitoring based on the data evaluation.

2.0 SITE DESCRIPTIONS

The Y-12 Plant is located in Bear Creek Valley (BCV) which is flanked on the north by Pine Ridge and on the south by Chestnut Ridge (directions in this report are in reference to the Y-12 Plant grid systems). The UEFPCHR encompasses the Y-12 Plant complex, extending west from NHP to a topographic and hydrologic divide located near the west end of the plant which separates the UEFPCHR from the Bear Creek Hydrogeologic Regime (BCHR) (Figure 2). Waste-management sites and petroleum fuel USTs in the UEFPCHR that are addressed in this document are listed in Table 1. The locations of these sites are shown on Figure 3.

2.1 New Hope Pond

Constructed in 1963 at the east end of the Y-12 Plant (Figure 3), NHP regulated the flow and quality of water in Upper East Fork Poplar Creek (UEFPC) before exiting the Y-12 Plant, and provided a contingency for control of accidental spills of oils or other substances (PEER Consultants 1989). While in operation, discharge from the pond averaged approximately 8 million gallons per day (mgd). Water-quality sampling was performed in accordance with the conditions set forth in a National Pollutant Discharge Elimination System (NPDES) permit (Permit No. TN002968). Operation of NHP ceased on November 8, 1988.

In 1973, sediment removed from NHP was placed in the Chestnut Ridge Sediment Disposal Basin (CRSDB). Since then, sediments from the inlet diversion ditch were periodically removed and disposed in the CRSDB. These sediments contained polychlorinated biphenyls (PCBs), mercury, and uranium, but Extraction Procedure Toxicity analyses indicated that they did not exhibit the characteristics of a hazardous waste (Saunders 1983; Kimbrough and McMahon 1988a and 1988b). Approximately 25,000 cubic yards of sediment remained in NHP when it was closed in 1988. Closure was completed in accordance with the standards defined for RCRA regulated landfills. Sediments in the pond were stabilized by the addition of coarse aggregate and the site was covered with a multi-layer low-permeability cap (Martin Marietta Energy Systems, Inc. 1988). Final closure of NHP was certified by the TDEC on December 11, 1990.

Lake Reality was constructed immediately downstream of NHP (Figure 3) and began operation on November 8, 1988. Water in UEFPC enters Lake Reality from an extension of the NHP inlet diversion ditch and exits through a weir in the west berm. The total surface area of Lake Reality is about 2.5 acres, and the average water depth is approximately 7 feet (ft). During normal operations, Lake Reality contains approximately 6 million gallons of water (Lee Wan & Associates 1989).

2.2 Beta-4 Security Pits

The Beta-4 Security Pits are near the northwestern boundary of the UEFPCHR (Figure 3). The site was used from 1968 to 1972 for classified disposals of uranium and uranium alloys, scrap metal containing depleted and enriched uranium, organic compounds, acids, and miscellaneous debris (Welch *et al.* 1987).

2.3 Waste Coolant Processing Area

The Waste Coolant Processing Area is in the west-central portion of the Y-12 Plant (Figure 3) and is an area used to treat waste coolants collected from various shops within the plant complex. The site originally consisted of the Waste Machine Coolant Biodegradation Facility (WMCBF), an unloading/storage area, and a treatment basin/effluent drain field (Murphy 1989). Operation of the WMCBF ceased in 1985 when it was replaced with a new treatment unit, the Waste Coolant Processing Facility (WCPF) (Murphy 1989). The original unloading/storage area was retained as part of the WCPF, but the WMCBF and the treatment basin/effluent drain field were closed in accordance with a RCRA closure plan (Stone and McMahon 1988); the TDEC certified final closure of the WMCBF on November 23, 1988.

2.4 S-2 Site

The S-2 Site is in the southwestern portion of the UEFPCR on the northern flank of Chestnut Ridge (Figure 3). The site was an unlined earthen reservoir used from 1945 to 1951 for percolation, evaporation, or neutralization of an unknown quantity of liquid wastes. Waste materials reportedly included nitrates of copper, nickel, and chromium; diethyl ether and pentaethers; nitric, hydrochloric, and sulfuric acids; sulfates; dibutyl carbinol and tributyl phosphates; aluminum nitrate; hydrogen fluoride; cadmium; natural and enriched uranium; and cyanide compounds (Kimbrough 1986). The site was closed in 1951, the remaining liquids were neutralized, and the reservoir was filled with soil and seeded with grass (Haase 1987).

2.5 Y-12 Salvage Yard

The Y-12 Salvage Yard is in the northwestern portion of the UEFPCR (Figure 3). Waste-management sites in the Y-12 Salvage Yard include the Scrap Metal Storage Area, the Oil/Solvent Drum Storage Area, the Oil Storage Tanks, the Drum Deheader, and three concrete sumps designated as tanks 2063-U, 2328-U, and 2329-U (Figure 3).

The Salvage Yard Scrap Metal Storage Area has been used from 1950 to the present for the storage of scrap metal, some of which contains low levels of depleted or enriched uranium. Some minor contamination of surficial soils at the site has been reported (Welch *et al.* 1987).

Before being closed, the Salvage Yard Oil/Solvent Drum Storage Area consisted of two storage areas: the east drum storage area and the west drum storage area. Each area was closed as described in respective RCRA closure plans (Welch 1986; Lind and Welch 1989). The combined total storage capacity of both areas was approximately 175,000 gallons. Waste oils containing chlorinated organics, uranium and/or beryllium, chlorinated organic solvents, and non-chlorinated flammable solvents were stored in drums on site, and leaking drums and spills have been documented. Although a dike is present around the downslope side of the site, the gravel/soil base of the dike may have permitted infiltration of spilled material into the subsurface (Welch *et al.* 1987).

Operation of the Salvage Yard Oil Storage Tanks began in 1978 when a 6,000 gallon tank was installed to store PCB-contaminated oil. A 5,000 gallon tank was added to the site in 1980. Both tanks were surrounded by an earthen dike and were emptied in 1986 (Welch 1986). Spills and leaks have occurred but were contained within the diked area (Welch et al. 1987).

The Salvage Yard Drum Deheader operated from 1959 to 1989 and was used to cut off the tops and crush empty drums collected from various locations throughout the Y-12 Plant. The deheader is in a small shed with a concrete floor. Before deheading, the drum contents were emptied into other drums contained within a small sump (Tank 2063-U). Tank 2063-U was about 2 ft wide, 4 ft long, 2 ft deep, and had a total capacity of about 130 gallons. Spills and overflows that occurred when the liquids were poured into the storage drums were contained in Tank 2063-U, and transferred through a connecting drain pipe to other sumps designated Tanks 2328-U and 2329-U. Liquids still present when the drums were deheaded flowed into a floor drain connected to Tanks 2328-U and 2329-U (Stone 1989a).

Located adjacent to each other, Tanks 2328-U and 2329-U were separated by a rubber baffle. Each tank was about 8 ft long, 4 ft wide, 4 ft deep, and had a total capacity of about 950 gallons. The tops of the tanks were open at the ground surface. Consequently, rainwater and surface runoff would occasionally collect in the tanks. The baffle between the tanks helped to separate the oils and solvents from the rainwater and runoff. Once separated, the water was released through a drainpipe to the Y-12 Plant stormwater drainage system. The remaining oils and solvents were periodically pumped out, as necessary, and treated or disposed in the Bear Creek Burial Grounds Waste-Management Area (Stone 1989a).

Leak tests were performed for tanks 2063-U, 2328-U, and 2329-U in March 1989 and respective leak rates of 0.46, 0.14, and 0.14 gallons per hour (gal/hr) were determined. All of these rates exceeded the maximum allowable leak rate established under the TDEC UST regulations and the tanks were subsequently excavated. Soils near the tanks contained elevated concentrations of cadmium, lead, and mercury, and detectable levels of volatile organics and PCBs (Stone 1989a).

2.6 Interim Drum Yard

The Interim Drum Yard is located in the southwestern portion of the UEFPCHR (Figure 3). The site is currently a graveled, covered, and diked outdoor storage area used to store drums containing various hazardous, mixed, and non-hazardous wastes including sludge containing chromium, mercury contaminated wastes, chlorinated and non-chlorinated organics, and plating solutions. Materials contaminated with PCBs are not currently stored at the site but have been in the past. The site presently contains approximately 700 drums of waste, all in over packs. The southern portion of the site has been closed in accordance with a TDEC approved RCRA closure plan (Willoughby *et al.* 1988).

2.7 Abandoned Nitric Acid Pipeline

The Abandoned Nitric Acid Pipeline (ANAP) is located in the northwestern portion of the UEFPCHR within the Y-12 Plant compound (Figure 3). Used between 1951 and 1983, the pipeline originally transported effluent derived from operations in Buildings 9212 and 9206 to the S-3 Ponds. Subsequently, the pipeline was connected to the uranium recovery process lines from the H-1 Foundry (Building 9998). During its operation, an estimated 5,500 gallons per day of effluent, which generally consisted of nitric acid with uranium in solution, was pumped through the pipeline to the S-3 Ponds. An RFI Plan prepared for the ANAP contains a detailed discussion of its operational history (Geraghty & Miller, Inc. 1989a).

Available construction drawings indicate that the ANAP was constructed of 1.5 to 3-inch diameter No. 347 stainless-steel pipe. Some sections of the pipeline may have been constructed of 6-inch diameter stainless steel. The pipeline was buried up to 14 ft below ground level and sections that passed over water or sewer lines were encased in concrete. According to drawings generated during the construction of the Y-12 Plant Perimeter Intrusion Detection and Alarm System (PIDAS), sections of the pipeline may have been abandoned and rerouted during its operational period (Geraghty & Miller, Inc. 1989a).

2.8 Mercury Process Spill Areas

The Mercury Process Spill Areas are near the west end of the Y-12 Plant (Figure 3). These are areas where large quantities of elemental mercury were routinely handled during the extraction process for lithium isotopes at the Y-12 Plant between 1955 and 1962. The potential for spills or leaks of mercury existed at these sites, and an RFI Plan for the sites was submitted to the EPA in December 1989 (Turner *et al.* 1989).

2.9 Underground Storage Tanks

Several petroleum fuel USTs are located within the UEFPCR. Investigations to assess product releases from these tanks are performed in accordance with the Rules of the Tennessee Department of Environment and Conservation, Division of Underground Storage Tanks, Chapter 1200-1-15, Underground Storage Tank Program. Descriptions of the USTs are provided in the following sections.

2.9.1 9754-2 Fuel Facility

The Building 9754-2 Fuel Facility, located in the eastern portion of the UEFPCR (Figure 3), was used from 1978 to 1989 to dispense gasoline and diesel fuel. The site had two USTs: a 20,000 gallon unleaded gasoline tank (Tank 0439-U) and a 10,000 gallon diesel tank (Tank 0440-U). Both tanks were in an unlined gravel-filled pit about 12 ft deep. The top of the tank pit was open to precipitation, and water that entered the pit was drained to a nearby collection basin through a 12-inch diameter concrete pipe (Welch 1989a).

In June 1989, free product was observed in the collection basin connected to the tank pit. A sump was subsequently excavated adjacent to the tank pit to facilitate free product recovery and removal of contaminated groundwater. Free product and contaminated water were regularly pumped from the sump for several weeks (Stone 1989b). A recovery well was then installed downgradient of the tank pit, but no free product was observed in the well (Stone 1989c).

Gasoline and diesel fuel spills and leaks at the site have been documented. Spills typically occurred when the tanks were overfilled. Gasoline leaks from the fill pipe for Tank 0439-U and the discharge line were confirmed during leak testing and subsequent tank excavation. During excavation of Tank 0440-U, it was noted that leaks from an associated discharge line had occurred (Welch 1989a). Both tanks were excavated in September 1989. Two additional monitoring wells were installed in September 1990 as part of an on-going UST site investigation (Eaton and Ingram 1991).

2.9.2 Garage Underground Tanks

The Garage Underground Tanks were located about 100 ft north of the old Building 9754 Fuel Facility (Figure 3), which went into service in 1944. The site originally contained a 10,000 gallon diesel fuel tank and a 10,000 gallon leaded gasoline tank. A 20,000 gallon unleaded gasoline tank was installed at the site in 1975. The tanks gravity fed three 1,000 gallon tanks at dispenser islands in front of former Building 9754. Individual diesel fuel and gasoline dispensers were installed west of Building 9754 for emergency purposes. Product releases from overfilling the gravity-feed system have occurred.

The three large USTs at the site were converted to waste oil storage in 1978. These tanks were subsequently removed in October 1989 and the tank site is currently undergoing RCRA closure. Also in 1978, the three 1,000 gallon dispenser tanks were emptied and the emergency dispensers were removed. The dispenser tanks are being closed under UST regulations in conjunction with closure of the Building 9754-2 Fuel Facility (Stone 1989b).

2.9.3 Tank 2331-U

Tank 2331-U was a 560 gallon steel tank used to store gasoline. The tank and its associated piping were installed in 1973 to serve gasoline-powered equipment in Building 9201-1 (Figure 3). A leak test performed in September 1988 indicated that the tank was leaking. The tank was subsequently emptied and service was discontinued until its removal in December 1988. Soils near the tank pit reportedly contain detectable levels of toluene and xylenes (Welch 1989b).

In August 1989 a monitoring well was installed downgradient of the tank pit to facilitate detection and recovery of free product. Although petroleum odors in the well were noted, no free product was observed (Stone 1989d). Three additional monitoring wells were installed in October 1990 as part of an on-going UST site investigation (pers. comm., D. Bohrman, February 1992).

2.9.4 Tank 0134-U

Tank 0134-U was a steel tank with a capacity of 117 gallons that was used to store gasoline for emergency electrical power generation at Building 9204-2 (Figure 3). The tank was installed in the mid-1960s and was removed from service in 1982. When the tank was excavated in August 1989, several holes were observed in the sides of the tank. Follow-up investigations at the site indicated that volatile organics were present in soils and groundwater in the area (Stone 1989e). A monitoring well was subsequently installed within the tank pit to facilitate free-product detection and recovery. No free product was observed, but petroleum odors in the well were noted (Stone 1989f). An additional well was installed in 1990 as part of an on-going UST site investigation.

2.9.5 Rust Garage Area

The Rust Garage Area is located in the northwestern portion of the UEFPCHR about 650 ft east of the S-3 Site (Figure 3). Building 9720-15, which houses the Rust Garage, was used as a vehicle and equipment maintenance shop and is currently used as a paint shop. Industrial products containing hazardous constituents which are stored on-site include lubricating oil, gasoline, diesel fuel, hydraulic fluid, anti-freeze, battery acid, and mineral spirits. A bulk-oil storage platform and an elevated gasoline tank are located south of the garage, and a wash pad is located on the east side of the building.

Building 9754-1 at the Rust Garage Area was originally a fueling station for DOE fleet vehicles. Four petroleum fuel USTs with associated piping were located at the site: a 12,000 gallon gasoline tank (Tank 1222-U), an 8,000 gallon gasoline tank (Tank 2082-U), a 12,000 gallon diesel fuel tank (Tank 1219-U), and a 1,000 gallon gasoline tank (Tank 2068-U) located

about 150 ft east of the three larger USTs. Tank 2068-U was connected to tanks 1222-U and 2028-U via a transfer line encased in concrete. All four tanks at the site were excavated in December 1989.

Gasoline and diesel fuel releases associated with operation of the USTs have been reported. Because of their proximity and similar operational history, product releases have been evaluated under a single investigation for the site which started in September 1987. Temporary piezometers were installed during early 1988 to facilitate detection of the leaks, and free product was observed in at least one of these piezometers (Geraghty & Miller, Inc. 1988). Monitoring wells were installed at the site in 1990 as part of a UST site investigation (Eaton and Van Ryn 1991).

3.0 HYDROLOGIC FRAMEWORK

The following discussion of the hydrology in the UEFPCHR provides a basic overview of the geology and groundwater system in the area. The hydrogeologic system in the UEFPCHR is highly complex and this overview is not comprehensive. A detailed discussion of the hydrogeologic framework for the ORR is provided in Solomon *et al.* (1991).

3.1 Groundwater System

The groundwater system in the UEFPCHR generally behaves as a single aquifer consisting of two zones; (1) an upper zone of unconsolidated material, and (2) a lower bedrock zone consisting of the fractured limestone and shale formations of the Conasauga Group (Figure 4). Groundwater occurs under water-table conditions, but is increasingly confined with depth in the bedrock zone. Pine Ridge and Chestnut Ridge are believed to be the primary recharge areas for the groundwater system in the UEFPCHR. Groundwater generally flows from the recharge areas toward the axis of BCV and discharges into UEFPC. Flow in BCV in this regime is generally to the east along geologic strike.

3.1.1 Unconsolidated Zone

Groundwater in the unconsolidated zone is present under unconfined (water-table) conditions. In the UEFPCHR, this zone ranges from 10 to 40 ft in thickness and consists predominately of man-made fill emplaced during construction of the Y-12 Plant and the rerouting of the original UEFPC channel. Investigations conducted by the U.S. Army Corps of Engineers (1954) showed that two different layers of fill were emplaced during two episodes of plant construction, and that the fill contains many voids and is largely composed of building debris. The non-uniform properties and varying thickness of the fill probably create widely varying hydraulic conditions in the near-surface. Data obtained in 1990 and 1991 indicate that buried stream channels and subsurface drains have significantly affected contaminant movement in the western portion of the UEFPCHR (HSW Environmental Consultants, Inc. 1991a).

3.1.2 Bedrock Zone

Groundwater in the bedrock zone occurs in bedding planes, fractures, joints, and solution cavities within the formations of the Conasauga Group. Enlarged fractures and cavities form the primary water-producing intervals. These intervals are fed by seepage through smaller fractures in the rock matrix, which are more numerous than the enlarged fractures and cavities, are interconnected, and provide the continuity for groundwater flow paths (Moore 1989).

The formations that comprise the Conasauga Group are, from youngest to oldest, the Maynardville Limestone, Nolichucky Shale, Maryville Limestone, Rogersville Shale, Rutledge Limestone, and Pumpkin Valley Shale (Figure 4). Estimates of the hydraulic conductivity of the Conasauga Group formations have been derived from field tests performed by Golder Associates (1987), Kettele (1988), Rothschild *et al.* (1984), Bechtel National, Inc. (1984), Law Engineering Testing Company (1983), and Geraghty & Miller, Inc. (1986); these test results are summarized in Geraghty & Miller, Inc. (1989b).

The Maynardville Limestone consists of between 418 and 450 ft of fine to coarse grained, thin-bedded to massive limestones and dolostones (King and Haase 1987). The average hydraulic conductivity of the Maynardville Limestone, determined from data reported in Geraghty & Miller, Inc. (1989b), is 21.9 feet per day (ft/day) which is higher than that of any other Conasauga Group formation. For this reason, the Maynardville Limestone is considered to be a hydrologic drain for the UEFPCR and may be the primary conduit for solute transport.

The Nolichucky Shale, which underlies the Maynardville Limestone, consists of 422 to 550 ft of predominately massive to thin-bedded siltstones with interbedded limestones (King and Haase 1987). In comparison with the Maynardville Limestone, the hydraulic conductivity of the Nolichucky Shale is very low, averaging about 1.2 ft/day (Geraghty & Miller, Inc. 1989b). The Nolichucky Shale directly underlies many of the waste sites in the UEFPCR (Figure 4) and its low hydraulic conductivity has generally restricted the extent of plume migration at these sites.

The lithologic composition of the Maryville Limestone in the UEFPCR differs very little from that of the overlying Nolichucky Shale, and consists of 346 to 445 ft of thin to medium-bedded limestones interbedded with calcareous mudstones and siltstones (King and Haase 1987).

The average hydraulic conductivity of the Maryville Limestone is about 0.4 ft/day (Geraghty & Miller, Inc. 1989b).

Beneath the Maryville Limestone are the massive mudstones of the Rogersville Shale and the interbedded limestones and shales of the Rutledge Limestone. The thickness of each of these formations ranges from 90 to 120 ft (King and Haase 1987). The hydraulic conductivity of these formations ranges from 0.0046 to 0.55 ft/day (Connell and Bailey 1989).

The oldest Conasauga Group formation, the Pumpkin Valley Shale, consists of 260 to 320 ft of massive shale and mudstone with thin beds of siltstone and sandstone (King and Haase 1987). The hydraulic conductivity of this formation ranges from 0.0046 to 0.81 ft/day (Geraghty & Miller, Inc. 1989b).

The distribution and orientation of bedding planes, fractures, joints, and solution cavities generally control the movement of groundwater in the Conasauga Group formations and impart a high degree of anisotropy to the bedrock zone. Ellipsoidal water-level drawdown patterns observed during aquifer pumping tests, elongated parallel to geologic strike, have been interpreted to represent preferred strike-parallel flow paths (Law Engineering Testing Company 1983; Geraghty and Miller, Inc. 1986).

Strike and dip of bedding in the UEFPCHR is generally N 55° E and 45° SE, respectively; however, small scale folds produce a variety of local bedding orientations (King and Haase 1987). One major joint set roughly parallels strike and dip of bedding, a second steeply dipping set parallels geologic strike, and a third steeply dipping set trends perpendicular to strike (Dreier *et al.* 1987). Solution cavities have been produced by dissolution of carbonates, particularly in the Maynardville Limestone. These features range from less than an inch to tens of feet in thickness and commonly occur in the upper part of the saturated zone (Geraghty & Miller, Inc. 1985; pers. comm. R. Dreier, February 1992).

Groundwater elevations in the unconsolidated zone and at shallow bedrock depths (generally less than 100 ft below ground surface) are illustrated on Figure 5. Although well coverage in the central portion of the UEFPCHR regime is limited and there are few bedrock wells, the water-table surface is reasonably defined and indicates southerly and southeasterly groundwater flow from Pine Ridge towards the axis of BCV. In the zone underlying UEFPC, the groundwater flow is east towards Lake Reality. The horizontal hydraulic gradient averages

about 0.036 across BCV (strike-normal) and about 0.01 along the axis of BCV (strike-parallel). However, because of the presence of subsurface storm drains and buried drainage channels in the unconsolidated zone, and the anisotropy of the bedrock zone, the groundwater elevation contours only show the general direction of groundwater movement.

Water-level information from the limited number of monitoring-well pairs in the UEFPCR indicate upward and downward hydraulic gradients. Upward hydraulic gradients from the bedrock to the unconsolidated zone are evident in monitoring-well pairs in the western part of the UEFPCR, and range from 0.005 to 0.014. In bedrock, upward hydraulic gradients range from 0.058 in the western portion of the regime to 0.084 in the eastern portion of the regime.

Groundwater chemistry in bedrock formations of the BCHR changes significantly with depth. Haase and King (1990) interpreted these changes to represent a natural chemical evolution of groundwater from a calcium-magnesium-bicarbonate type at shallow depths (less than 80 ft below ground surface), through a sodium-bicarbonate type at intermediate depths (80 to 300 ft), to a sodium-chloride type at depths greater than 500 ft. Although an insufficient number of wells are available to perform a thorough geochemical analysis of groundwater in the UEFPCR, similar geochemical changes are postulated.

3.2 Surface-Water System

Upper East Fork Poplar Creek originates near the western edge of the Y-12 Plant as a surface water drainage system. The headwaters are contained in a network of underground collection pipes that extend to near the central area of the Plant, where the above ground portion of the creek emerges. The creek then flows along the southern boundary of the Plant complex and enters Lake Reality. From the outfall at Lake Reality, UEFPC passes north through a gap in Pine Ridge and enters the City of Oak Ridge.

During construction of the Y-12 Plant, all the north-south tributaries to UEFPC were backfilled or replaced with storm drains. Additionally, UEFPC was altered by construction of the storm sewer system at its headwaters and straightening of the original channel along the southeastern portion of the Plant complex (PEER Consultants 1989).

Surface-water runoff from the Y-12 Plant is discharged to UEFPC through an extensive array of storm drains. Flow monitoring data indicates that over 78 percent of dry weather flow in UEFPC is attributable to once-through noncontact cooling water, condensate, and cooling tower blowdown, and over 21 percent can be attributed to groundwater infiltration (Camp, Dresser & McKee 1987). Surface-water quality in UEFPC is monitored at Station 17 located downstream of Lake Reality (Figure 3) for the purposes of best-management practices.

4.0 1991 ASSESSMENT PROGRAM

The following sections describe the groundwater quality monitoring activities performed during the 1991 assessment program. Included are descriptions of the monitoring-well network, groundwater sampling procedures, analytical parameters, and data management.

4.1 Monitoring-Well Network

Groundwater samples were collected from selected monitoring wells to delineate contaminant plume boundaries and for exit-pathway monitoring, which was initiated in 1989 to provide data on the quality of groundwater moving through and exiting the UEFPCHR. Locations of the monitoring wells sampled during 1991 are shown on Figure 6. The depth of the screened or open-hole interval, the aquifer zone, and the bedrock formation monitored by each well are provided in Table 2. Detailed well construction information is contained in Appendix C.

The 1991 monitoring-well network was changed from that used during 1990, as proposed in Part II of the 1990 GWQAR for the UEFPCHR (HSW Environmental Consultants, Inc. 1991a). Several "internal plume" wells that had been sampled for at least four consecutive quarters were dropped from the network, and several exit-pathway wells installed during 1990 and 1991 were added. Sampling of the wells included in the revised network was initiated in the third quarter of 1991. Consequently, the 1991 groundwater quality data were obtained from wells included in the 1990 monitoring-well network (first and second quarter 1991) and wells included in the 1991 monitoring-well network (third and fourth quarter 1991).

4.2 Sample Collection and Analysis

Groundwater samples were collected quarterly by personnel from the Oak Ridge K-25 Site (K-25) Sampling and Environmental Support Department. To minimize the potential for cross-contamination, the monitoring wells were sampled during each quarterly event in the sequences listed in Appendix D, which generally reflect sampling from least contaminated to most

contaminated wells at a given site or in a sampling group (a series of monitoring wells grouped for sampling and data-tracking purposes). The depth to water in each monitoring well was determined before samples were collected.

Groundwater sampling was performed in accordance with the most recent version of the Standard Operating Procedure (SOP) 8102 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).

Groundwater samples were analyzed for the parameters and constituents listed in Table 3. Included are the primary groundwater contaminants; suspected groundwater contaminants which warrant further monitoring; water-quality parameters, such as major ions, which are needed for a complete analyses of groundwater chemistry; and field measurements. The K-25 Analytical Chemistry Department performed most laboratory analyses of the groundwater samples; the Oak Ridge National Laboratory (ORNL) Analytical Chemistry Division performed selected radiochemical analyses.

4.3 Quality Assurance/Quality Control Sampling

The QA/QC samples included laboratory blanks, trip blanks, equipment rinsates, and duplicate groundwater samples. The QA procedures followed by the K-25 Analytical Chemistry Department for the VOC analyses are those associated with the EPA Contract Laboratory Program for the analysis of the Target Compound List of parameters.

Laboratory blank samples were samples of organic-free deionized water that were analyzed along with the groundwater samples. Trip blank samples were samples of organic-free deionized water transported unopened in coolers containing groundwater samples for VOC analyses. Equipment rinsates were samples of the organic-free deionized water that was used to decontaminate the groundwater sampling equipment, and were collected after sampling the last (i.e. most contaminated) well at a site or in a sampling group. Duplicate groundwater samples

were collected at a frequency of at least one per sampling group, or one for every ten monitoring wells, whichever was greater.

4.4 Data Management

After completion of each quarterly sampling and analysis event, the K-25 and ORNL laboratories transmitted the field and laboratory data to H&R Technical Associates, Inc. (H&R) for entry into the Y-12 Plant Environmental Monitoring Database (EMD). A series of computer-based procedures verified the data transfer, and evaluated the data for errors and questionable or suspect results. A summary of these procedures follows. Detailed descriptions are provided in Mercier and Turner (1990).

H&R used a two-step procedure to verify that the data received from each laboratory matched the backup documentation (laboratory reports and field data sheets). The first step in this procedure depended on how the analytical laboratories transferred the data. If the data were transferred electronically, a computer program verified that the parameter names were correct, correct units were reported, and the values reported for each parameter were within an expected range or were valid numeric values. If transferred via hardcopy, the data were manually input into the EMD. A double-entry procedure was used to verify the data input; the data were input by one person into one data file and by a second person into a second data file. A computer program then compared the two input data files and identified any discrepancies, which were then accounted for and corrected. The second step of the data verification procedure involved visually checking the data against the laboratory reports and field data sheets for completeness and obvious data outliers. H&R contacted the appropriate laboratory to resolve incomplete data transfers and questions regarding data outliers.

Upon completion of the data verification procedures, a computer program scanned the monitoring data, flagged questionable or suspect data based on pre-defined criteria, and prepared 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, validated analytical results for VOCs using the QA/QC sample data in accordance with an EPA validation procedure (U.S. Environmental Protection Agency 1988b), summarized VOC sample holding

times, and performed comparisons of: (1) calculated specific conductance and field and laboratory conductivity measurements; (2) sample alkalinities (carbonate and bicarbonate) and pH; (3) field replicate measurements; (4) filtered and unfiltered elemental (i.e., trace metal) analyses; and (5) analytical results obtained by Inductively Coupled Plasma (ICP) Spectroscopy and corresponding results obtained by Atomic Absorption Spectroscopy (AAS). Questionable or suspect data were reported to the appropriate analytical laboratory (Mercier 1991a, 1991b, and 1991c). Errors in the data were corrected, and questionable results which were not resolved by the appropriate laboratory were flagged.

The groundwater quality data obtained during 1991 is presented in appendices E through K. Analytical results for the groundwater and QA/QC samples are contained in Appendix E and Appendix F, respectively. Ion-charge balances for each groundwater sample are presented in Appendix G. Results of analyses for nitrate (a primary groundwater contaminant in the western portion of the UEFPCHR) are summarized in Appendix H. A summary of the validated analytical results for VOCs is provided in Appendix I. Trace metal results which exceeded Maximum Contaminant Levels (MCLs) are summarized in Appendix J, and radiochemical data are summarized in Appendix K.

5.0 CALCULATED RATE OF CONTAMINANT MIGRATION

Quantitative and qualitative methods were used to calculate contaminant migration rates. The quantitative calculations were based on the assumption that contaminants move with the groundwater unimpeded by various retardation processes. Factors which would reduce transport rates, such as matrix diffusion, degradation, sorption, and chemical precipitation, or factors that may increase transport, such as dispersion, were not explicitly considered. Free product migration, which may occur independent of groundwater flow rates and directions, also was not considered. Qualitative transport rates were determined based on the extent of nitrate in the BCHR (where plume boundaries are more completely defined) assuming a constant input rate from a single source area. Migration rates were determined only for the groundwater at shallow depths (generally less than 100 ft below ground surface) in the Maryville Limestone, Nolichucky Shale, and Maynardville Limestone. Migration rates were not determined for the unconsolidated zone because it was extensively re-worked during construction of the Y-12 Plant which may preclude determination of representative value.

Assuming that saturated bedrock in the UEFPCHR can be treated as an equivalent porous medium, average groundwater flow rates can be estimated using the modified Darcy equation:

$$v = Ki/n$$

where v is the average linear velocity of the groundwater, K is the hydraulic conductivity of the medium, i is the hydraulic gradient, and n is the effective porosity. Although the modified Darcy equation can be used to calculate average flow velocities in fractured rock, the velocities in individual fractures many vary over orders of magnitude, depending on the fracture aperture and wall roughness (Freeze and Cherry 1979).

Hydraulic conductivities determined from tests performed in wells less than 100 ft deep in the Maryville Limestone range from 0.01 to 2.1 ft/day and average about 0.4 ft/day. For wells screened at similar depths in the Nolichucky Shale, the hydraulic conductivities range from 0.038 to 4.9 ft/day and average about 1.2 ft/day. The hydraulic conductivity test results for

wells less than 100 ft deep in the Maynardville Limestone range from 0.13 to 99.0 ft/day and average about 21.9 ft/day.

Results of tracer tests performed in the BCHR and calculations of the fracture porosity in bedrock provide estimates of the effective porosity of the Conasauga Group formations. Tracer tests have yielded effective porosity values ranging from 0.002 to 0.004 (Law Engineering Testing Company 1983; Lozier *et al.* 1987). Moore (1989) calculated a fracture porosity ranging from 0.001 to 0.002, based on estimates of fracture density and average fracture aperture for water producing zones at shallow depths in the Conasauga Group formations.

As discussed in Section 3.2, horizontal hydraulic gradients in the UEFPCR were determined using water-level data obtained primarily from wells screened in the unconsolidated zone. Assuming that these gradients also represent conditions in the bedrock, strike-normal (across-valley) hydraulic gradients in the Maryville Limestone and Nolichucky Shale average about 0.036 and strike-parallel (along valley) hydraulic gradients average about 0.01 in the Nolichucky Shale and Maynardville Limestone.

Using the average hydraulic conductivity of each formation, effective porosity values of 0.001 and 0.004, and assumed average strike-normal and strike-parallel hydraulic gradients in each formation, the calculated rates of solute transport range from about 4 to 14 ft/day in the Maryville Limestone, about 3 to 43 ft/day in the Nolichucky Shale, and about 54 to 219 ft/day in the Maynardville Limestone (Table 4). The transport rates in the Maynardville Limestone can be relatively high as indicated by results of a dye-tracer study performed in the BCHR which yielded a transport rate of approximately 200 ft/day (Geraghty & Miller, Inc. 1989c).

Contaminant migration rates can also be estimated based on the extent of the nitrate plume originating from the S-3 Site located just west of the groundwater divide which separates the UEFPCR from the BCHR. Unlike most of the other groundwater contaminants in the BCHR, many of which have multiple source areas, nitrate has only one significant source area (the S-3 Site). Moreover, nitrate salts are highly soluble and generally move with no significant sorption or decay during transport (Geraghty & Miller, Inc. 1989d).

Based on information presented in the 1990 GWQAR for the BCHR, the nitrate plume originating from the S-3 Site extends about 3,650 ft to the west in the unconsolidated zone, approximately 2,000 ft to the west (along strike) at shallow depths in the Nolichucky Shale, and

about 9,500 ft west at shallow depths in the Maynardville Limestone (HSW Environmental Consultants, Inc. 1991b). Given the 39 years between initial waste disposal in the S-3 Site in 1951 and the horizontal extent of the nitrate plume observed in 1990, the rate of nitrate transport ($v = \text{distance/time}$) is about 0.3 ft/day in the unconsolidated zone, about 0.1 ft/day in the Nolichucky Shale, and about 0.7 ft/day in the Maynardville Limestone.

The wide range of potential contaminant migration rates reported in this section 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 and chemical process that is not fully explained by calculations using the modified Darcy equation or qualitative estimates based on distances from source areas to plume boundaries. It is probable that at various times and under various conditions, migration rates throughout the given range occur; some contaminants such as nitrate move relatively rapidly through the flow system, while other more highly attenuated constituents move much more slowly. Moreover, even highly mobile compounds such as nitrate will diffuse into smaller pores from the large conduits and later, under a reverse concentration gradient, will slowly bleed back out. Thus, although the actual transport rates may vary over several orders of magnitude, the relatively limited extent of the contaminant plumes in the UEFPCHR suggests that slower transport rates may dominate and that processes such as matrix diffusion are an important controlling factor.

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APPENDIX A
FIGURES

FIGURE 1
REGIONAL LOCATION
OF THE Y-12 PLANT

NGRAT-12P, NC

FIGURE 2
HYDROGEOLOGIC REGIMES
AT THE Y-12 PLANT

E 58,000

E 60,000

BLDG
9212

TANK
0134-U

TANK
2331-U

BUILDING
9754-2
FUEL
FACILITY

UPPER EAST FORK POPL

0 600
SCALE (ft)

FIGURE 3
Location of Waste-Management Sites
and USTs Included in the
1991 Assessment Program

SCALE 1" = 100'

SYSTEM GROUP		FORMATION	MAP SYMBOL	THICKNESS (ft)
CAMBRIAN	UPPER	KNOX COPPER RIDGE DOLOMITE	Ock	NOT DETERMINED
		MAYNARDVILLE LIMESTONE	Emn	418-450
	MIDDLE	CONASAUGA NOLICHUCKY SHALE	En	422-550
		MARYVILLE LIMESTONE	Em	346-445
		ROGERSVILLE SHALE	Erg	90-120
		RUTLEDGE LIMESTONE	Eri	90-120
		PUMPKIN VALLEY SHALE	Epv	260-320
	LOWER	ROME	Er	NOT DETERMINED

FIGURE 4
BEDROCK GEOLOGY IN THE
UPPER EAST FORK POPLAR CREEK
HYDROGEOLOGIC REGIME

000'08 3

000'08 3

EW HOPE POND
SED AND CAPPED)

W-150
198.76

900 GW-167
899.56

EXPLANATION

- GW-150 Unconsolidated Zone Monitoring Well
and Water-Level Elevation (ft msl)
898.76
- GW-115 Shallow Bedrock Monitoring Well
and Water-Level Elevation (ft msl)
1043.64
- 900 Water Level Isopleth (ft msl)
(dashed where inferred)
- Surface Drainage Feature

FIGURE 5
GROUNDWATER ELEVATIONS IN THE
UNCONSOLIDATED ZONE AND THE SHALLOW BEDROCK,
APRIL 29 TO MAY 3, 1991

EXPLANATION

GW-167 ■	Unconsolidated Zone Monitoring Well
GW-222 ●	Shallow Bedrock Monitoring Well
GW-168 ▲	Intermediate Bedrock Monitoring Well
GW-232 ▼	Deep Bedrock Monitoring Well
—	Boundary of Site
—1100—	Topographic Contours
- - -	Surface Drainage Feature
- - -	Approximate Location of Geologic Contact
Oek	Knox Group
Emn	Maynardville Limestone
En	Nolichucky Shale
Em	Maryville Limestone
Erg	Rogersville Shale
Ert	Rutledge Limestone
Epv	Pumpkin Valley Shale
Er	Rome Formation

Note: Exit-pathway monitoring wells GW-169, GW-170, and GW-232 are located approximately 2,800 ft east of New Hope Pond.

FIGURE 6
MONITORING-WELL NETWORK
FOR THE 1991 GROUNDWATER
QUALITY ASSESSMENT PROGRAM

APPENDIX B
TABLES

Table 1. Waste-Management Sites and Underground Storage Tanks Included in the 1991 Assessment Program

Site Name	Historical Regulatory Classification¹
New Hope Pond	T/S/D Unit
Y-12 Salvage Yard	
Scrap Metal Storage Area	SWMU
Oil/Solvent Storage Area	SWMU
Oil Storage Tanks	SWMU
Drum Deheader	SWMU
Tanks 2063-U, 2328-U, and 2329-U	SWMUs
Interim Drum Yard	SWMU
S-2 Site	SWMU
Mercury Process Spill Areas	SWMU
Abandoned Nitric Acid Pipeline	SWMU
Beta-4 Security Pits	SWMU
Waste Coolant Processing Area	SWMU
Tank 2331-U	UST
Tank 0134-U	UST
Building 9754-2 Fuel Facility	UST
Garage Underground Tanks	SWMU/UST
Rust Garage Area	SWMU/UST

Notes:

- 1 T/S/D Unit - RCRA regulated land-based treatment, storage, or disposal unit.
 SWMU - RCRA Solid Waste Management Unit.
 UST - Non-RCRA Underground Storage Tank.

The regulatory classification of the T/S/D units and SWMUs has been changed to CERCLA operable units.

Table 2. Screened and Open Interval Depths, and Aquifer Zones Monitored by the 1991 Assessment Wells¹

WELL NO.	LOCATION ²	AQUIFER ZONE ³	BEDROCK UNIT ⁴	SCREENED OR OPEN ⁵	MONITORED INTERVAL ⁶
GW-149	NHP	S	Cmn	S	36.0 - 50.5
GW-150	NHP	U	-	S	5.0 - 11.7
GW-151	NHP	I	Cmn	S	85.0 - 96.5
GW-152	NHP	U	-	S	10.8 - 17.3
GW-153	NHP	S	Cmn	S	45.0 - 60.0
GW-154	NHP	U	-	S	4.7 - 11.2
GW-167	EXP	U	-	S	25.0 - 30.1
GW-168	EXP	I	Cn	O	104.0 - 135.4
GW-169	EXP	U	-	S	28.7 - 34.7
GW-170	EXP	I	Cmn	O	104.0 - 156.9
GW-172	EXP	I	Cmn	O	105.0 - 133.8
GW-183	FF	U	-	S	5.0 - 30.6
GW-190	RG	U	-	S	8.0 - 26.2
GW-191 ^a	B4	S	Cm	S	45.0 - 60.5
GW-192 ^a	B4	U	-	S	6.5 - 17.5
GW-193	T2331	U	-	S	5.5 - 18.4
GW-194	B4	U	-	S	6.5 - 12.6
GW-195	B4	U	-	S	7.0 - 23.0
GW-204	T0134	U	-	S	6.5 - 17.3
GW-206	EXP	U	-	S	10.0 - 16.9
GW-207	EXP	I	Rome	O	100.0 - 109.6
GW-208	EXP	D	Rome	O	404.0 - 412.8
GW-220	NHP	S	Cmn	S	31.0 - 45.2
GW-222	NHP	S	Cmn	S	18.0 - 25.0
GW-223	NHP	I	Cmn	S	79.0 - 90.5
GW-230	EXP	D	Cmn	O	341.0 - 406.4
GW-232	EXP	D	Cmn	O	401.0 - 411.7
GW-239	EXP	D	Cn	O	404.0 - 433.3
GW-240	NHP	S	Cmn	S	21.0 - 29.5
GW-251	S2	U	-	S	35.0 - 51.0
GW-252	S2	U	-	S	40.2 - 49.0
GW-253	S2	U	-	S	36.2 - 50.0
GW-255	S2	S	Cmn	S	66.3 - 81.5
GW-261	SY	U	-	S	16.7 - 23.7
GW-262	SY	S	Cm	S	57.7 - 70.6
GW-263	SY	U	-	S	23.0 - 30.8

Table 2 (cont'd)

WELL NO.	LOCATION ²	AQUIFER ZONE ³	BEDROCK UNIT ⁴	SCREENED OR OPEN ⁵	MONITORED INTERVAL ⁶
GW-264	SY	S	Cm	S	58.5 - 71.0
GW-281 ^a	FF	U	-	S	4.0 - 14.0
GW-282	FF	U	-	S	3.0 - 14.0
GW-283	FF	U	-	S	4.0 - 20.0
GW-284	FF	U	-	S	3.0 - 18.0
GW-285	FF	U	-	S	3.5 - 21.0
GW-331	WC	U	-	S	23.0 - 30.1
GW-332	WC	U	-	S	16.8 - 24.1
GW-333	WC	U	-	S	13.7 - 25.1
GW-334	WC	U	-	S	19.8 - 27.2
GW-335	WC	U	-	S	7.6 - 15.7
GW-336	WC	U	-	S	13.2 - 21.4
GW-337	WC	U	-	S	15.0 - 22.1
GW-338	WC	U	-	S	11.2 - 17.6
GW-380	NHP	U	-	S	2.8 - 15.5
GW-381	NHP	S	Cmn	O	49.3 - 60.4
GW-382	NHP	I	Cmn	O	125.0 - 173.0
GW-383	NHP	U	-	S	16.6 - 23.6
GW-384	NHP	S	Cn	O	35.5 - 55.7
GW-385	NHP	I	Cn	O	123.7 - 178.7
GW-505	RG	U	-	S	1.5 - 13.5
GW-508	RG	U	-	S	1.3 - 15.0
GW-603	NHP	S	Cmn	S	63.4 - 75.2
GW-604	NHP	I	Cmn	S	100.2 - 112.4
GW-605	NHP	S	Cmn	S	28.2 - 39.9
GW-606	NHP	I	Cmn	O	155.0 - 171.7
GW-617	Y12	U	-	S	6.8 - 18.0
GW-618	Y12	S	Cmn	S	26.0 - 37.0
GW-619	FTF	U	-	S	26.8 - 40.8
GW-620	FTF	S	Cmn	S	61.7 - 75.0
GW-631	RG	U	-	S	4.0 - 16.0
GW-632	RG	U	-	S	3.5 - 15.0
GW-633	RG	U	-	S	3.5 - 15.0
GW-634	RG	U	-	S	3.5 - 15.0
GW-656	T0134	U	-	S	8.3 - 21.5
GW-657	T2331	U	-	S	4.0 - 17.1

Table 2 (cont'd)

WELL NO.	LOCATION ²	AQUIFER ZONE ³	BEDROCK UNIT ⁴	SCREENED OR OPEN ⁵	MONITORED INTERVAL ⁶
GW-658	FF	U	-	S	6.9 - 19.1
GW-659	FF	U	-	S	4.6 - 16.7
GW-707	T2331	U	-	S	5.5 - 26.0
GW-708	T2331	U	-	S	2.7 - 13.7

Notes:

- 1 Compiled from: King *et al.* 1991.
- 2
 - B4 - Beta-4 Security Pits
 - EXP - Exit-Pathway Monitoring Well
 - FF - Building 9754-2 Fuel Facility
 - FTF - Fire Training Facility
 - NHP - New Hope Pond
 - RG - Rust Garage Area
 - S2 - S-2 Site
 - SY - Y-12 Salvage Yard
 - T0134 - Tank 0134-U
 - T2331 - Tank 2331-U
 - Y12 - Y-12 Plant
 - WC - Waste Coolant Processing Area
- 3
 - U - Unconsolidated Zone
 - S - Shallow Bedrock
 - I - Intermediate Depth Bedrock
 - D - Deep Bedrock
- 4
 - Cmn - Maynardville Limestone
 - Cn - Nolichucky Shale
 - Cm - Maryville Limestone
 - Rome - Rome Formation
- 5
 - S - Screened
 - O - Open
- 6 Depth (in feet) below ground surface.
- a Background monitoring well.

Table 3. Analytical Parameters for the 1991 Groundwater Quality Assessment Program

TRACE METALS¹

ICP ANALYSIS

Aluminum
Antimony
Arsenic
Barium
Beryllium
Boron
Calcium

Cadmium
Chromium
Cobalt
Copper
Iron
Magnesium

Molybdenum
Nickel
Manganese
Potassium
Selenium
Silicon

Silver
Sodium
Strontium
Thorium
Vanadium
Zinc

AAS ANALYSIS

Cadmium

Chromium

Lead

OTHER

Mercury (CVAA)

Uranium (Fluor)

VOLATILE ORGANIC COMPOUNDS

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 acetone
Vinyl chloride
Xylenes

Table 3. (cont'd)

MAJOR IONS

Alkalinity - Carbonate	Chloride	Nitrate (as N)
Alkalinity - Bicarbonate	Fluoride	Sulfate

RADIOLOGICAL PARAMETERS²

Tritium	Isotopic Uranium (²³⁴ U, ²³⁵ U, ²³⁸ U)
Technetium 99	Gross Alpha Activity
Strontium	Gross Beta Activity

MISCELLANEOUS PARAMETERS

pH	Phenols ³
Specific Conductance	Total Organic Carbon (TOC) ³
Total Suspended Solids (TSS)	Total Organic Halogen (TOX) ³
Total Dissolved Solids (TDS)	Total Petroleum Hydrocarbons (TPH) ³
Turbidity	

FIELD MEASUREMENTS

pH	Dissolved Oxygen
Specific Conductance	Static Water Level
Temperature	Oxidation - Reduction Potential (REDOX)

Notes:

- 1 ICP - Inductively Coupled Plasma Spectroscopy
AAS - Atomic Absorption Spectroscopy
CVAA - Cold Vapor Atomic Absorption
- 2 Gross alpha activity and gross beta activity determined for all wells; selected radionuclide analyses performed for selected wells only.
- 3 Analysis performed only if specified by Y-12 Plant GWPP Manager.

Table 4. Calculated Transport Rates Using the Modified Darcy Equation

FORMATION	AVERAGE HYDRAULIC CONDUCTIVITY (ft/day)	AVERAGE HYDRAULIC GRADIENT	EFFECTIVE POROSITY	TRANSPORT RATE (ft/day)
Across Strike Flow				
Maryville Limestone	0.4	0.036	0.001	14.4
	0.4	0.036	0.004	3.6
Nolichucky Shale	1.2	0.036	0.001	43.2
	1.2	0.036	0.004	10.8
Along Strike Flow				
Nolichucky Shale	1.2	0.01	0.001	12.0
	1.2	0.01	0.004	3.0
Maynardville Limestone	21.9	0.01	0.001	219.0
	21.9	0.01	0.004	54.7

APPENDIX C
MONITORING-WELL CONSTRUCTION DETAILS

EXPLANATION

LOCATION:

B4	-	Beta-4 Security Pits
EXP	-	Exit-Pathway Monitoring Well
FF	-	Building 9754-2 Fuel Facility
FTF	-	Fire Training Facility
NHP	-	New Hope Pond
RG	-	Rust Garage Area
S2	-	S-2 Site
SY	-	Y-12 Salvage Yard
T0134	-	Underground Storage Tank 0134-U
T2331	-	Underground Storage Tank 2331-U
WC	-	Waste Coolant Processing Area
Y12	-	Y-12 Plant

CASING MATERIAL:

PVC	-	Polyvinyl chloride
SS	-	Stainless Steel
Steel/gal	-	Galvanized Steel
Black St	-	Black Steel

MONITORED INTERVAL:

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

NOTES:

Coordinates	-	Y-12 Plant grid system
Elevations	-	Feet above mean sea level
Depths	-	Feet below ground surface
Casing Diameter	-	Outside diameter, in inches
Borehole Diameter	-	Nominal diameter, in inches
Length	-	Feet
.	-	Not applicable or not available

APPENDIX C
Monitoring-Well Construction Details

Well No.	GW-149	GW-150	GW-151	GW-152	GW-153	GW-154	GW-167	GW-168	GW-169	GW-170
Location	NIP	NIP	NIP	NIP	NIP	NIP	KIP	KIP	KIP	KIP
North Coordinate	29201	28959	28958	28614	28613	28987	28661	28699	28545	28545
East Coordinate	63824	64222	64232	63718	63728	63346	65146	65167	66855	66843
Surface Elevation	904.76	912.88	913.06	918.36	918.53	908.6	929.67	929.45	929.95	930.7
Measuring Point Elevation	907.72	915.56	915.97	921.18	921.44	911.5	931.38	930.95	931.87	932.44
BOREHOLE	.	.	.	.	.	.	.	.	.	.
Borehole Depth	50.5	11.7	96.5	17.3	60	11.2	30.1	104	42	104
Borehole Diameter	11	8	11	8	11	8	6.62	6.62	8	6.62
Weathered Rock - Depth	9	11.7	12	17.3	.	11.2	.	.	.	.
Fresh Rock - Depth	12	.	12	.	14	.	.	29	.	30
SURFACE CASING	.	.	.	.	.	.	.	.	.	.
Surface Casing Depth	.	.	12	.	14	.	0.1	30	.	30
Surface Casing Diameter	.	.	12.5	.	12.5	.	8.63	8.63	.	8.63
Surface Casing Material	.	.	PVC/ø40	.	PVC/ø40	.	PVC/ø40	PVC/ø40	.	PVC/ø40
WELL CASING	.	.	.	.	.	.	.	.	.	.
Well Casing Depth	47.5	11.7	96.5	17.3	59.5	11.2	30.1	104	34.8	104
Well Casing Diameter	4.5	4.5	4.5	4.5	4.5	4.5	2.37	4.38	2.37	4.38
Well Casing Material	PVC/ø40	PVC/ø40	PVC/ø40	PVC/ø40	PVC/ø40	PVC/ø40	PVC/ø40	Steel	PVC/ø40	Steel
MONITORED INTERVAL	.	.	.	.	.	.	.	.	.	.
Screened or Open	Screen	Screen	Screen	Screen	Screen	Screen	Screen	Open	Screen	Open
Top - Depth	36	5	85	10.8	45	4.7	25	104	28.7	104
Bottom - Depth	50.5	11.7	96.5	17.3	60	11.2	30.1	135.4	34.7	156.9
Screen Material	PVC/ø1/.01	PVC/ø1/.01	PVC/ø1/.01	PVC/ø1/.01	PVC/ø1/.01	PVC/ø1/.01	PVC/ø1	.	PVC/ø1	.
Screen Length	10.8	5.0	10.8	5.0	10.8	5.0	4.1	.	5.0	.
Open-Hole Length	.	.	.	.	.	.	.	31.4	.	52.9
Open-Hole Diameter	.	.	.	.	.	.	.	3.88	.	3.88

(CONTINUED)

APPENDIX C
Monitoring-Well Construction Details

Well No.	GW-172	GW-183	GW-190	GW-191	GW-192	GW-193	GW-194	GW-195	GW-204	GW-206
Location	KIP	FF	NG	B4	B4	T2331	B4	B4	T0134	KIP
North Coordinate	28359	29659	30776	30780	30772	29344	30583	30573	29956	31603
East Coordinate	69579	61955	53254	54279	54277	59536	54218	54009	57411	64019
Surface Elevation	923.07	943.01	1030.19	1007.1	1006.04	931.11	992.47	1000.23	955.47	894.65
Measuring Point Elevation	924.79	946.02	1033.69	1011.14	1000.63	934	995.36	1002.94	958.57	984.97
BOREHOLE	.	.	.	.	.	.	.	.	.	.
Borehole Depth	105	30.6	26.2	60.5	17.5	18.4	12.6	23	17.5	16.9
Borehole Diameter	6.62	8	8.5	11	6	8	8	6	6	8
Weathered Rock - Depth	15	1.5	8	.	17.5	2.5	12.6	23	10	.
Fresh Rock - Depth	19	.	.	.	.	.	.	.	.	.
SURFACE CASING	.	.	.	.	.	.	.	.	.	.
Surface Casing Depth	35	.	.	17	.	.	.	.	.	.
Surface Casing Diameter	8.63	.	.	12.5	.	.	.	.	.	.
Surface Casing Material	Steel/F25	.	.	PVC/840	.	.	.	.	.	.
WELL CASING	.	.	.	.	.	.	.	.	.	.
Well Casing Depth	105	29.8	26.2	60	17.5	18.4	12.5	23	17.3	16.9
Well Casing Diameter	4.38	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	2.37
Well Casing Material	Steel	SS/8304	SS/8304	PVC/840	PVC/840	SS/8304	PVC/840	PVC/840	SS/8304	PVC/840
MONITORED INTERVAL	.	.	.	.	.	.	.	.	.	.
Screened or Open	Open	Screen	Screen	Screen	Screen	Screen	Screen	Screen	Screen	Screen
Top - Depth	105	5	8	45	6.5	5.5	6.5	17	6.5	10
Bottom - Depth	133.8	30.6	26.2	60.5	17.5	18.4	12.6	23	17.3	16.9
Screen Material	.	SS/840/.01	SS/840/.01	PVC/840/.01	PVC/840/.01	SS/840/.01	PVC/840/.01	PVC/840/.01	SS/840/.01	PVC/840/.01
Screen Length	.	20.0	16.1	10.0	10.0	10.2	5.0	6.0	10.0	5.1
Open-Hole Length	28.8	.	.	.	.	.	.	.	.	.
Open-Hole Diameter	3.63	.	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX C
Monitoring-Well Construction Details

Well No.	CW-207	CW-208	CW-220	CW-222	CW-223	CW-230	CW-232	CW-239	CW-240	CW-251
Location	EXP	EXP	NEP	NEP	NEP	EXP	EXP	EXP	NEP	SZ
North Coordinate	31596	31612	28949	28954	28938	28389	28546	28715	28604	29467
East Coordinate	64023	64007	64225	63324	63311	69617	66863	65089	63726	53843
Surface Elevation	894.66	894.52	912.74	908.82	908.97	919.81	929.52	928.77	919.5	1001.6
Measuring Point Elevation	901.81	901.3	915.64	911.82	911.62	920.85	931.22	930.52	922.9	1003.6
BOREHOLE	.	.	.	.	.	.	.	.	.	.
Borehole Depth	100	404	45.2	25	90.5	341	401	404	29.5	51
Borehole Diameter	7.87	6.62	11	11	11	5.5	6.62	6.62	11	8.25
Weathered Rock - Depth	.	.	.	.	.	19	.	.	.	.
Fresh Rock - Depth	.	12	11	10	10	30	.	.	14	32.5
SURFACE CASING	.	.	.	.	.	.	.	.	.	.
Surface Casing Depth	17	24	13	11	11	31	33	33.5	14	.
Surface Casing Diameter	8.63	8.63	12.5	12.5	12.5	8.63	8.63	8.5	12.5	.
Surface Casing Material	PVC/840	PVC/840	PVC/840	PVC/840	PVC/840	Steel	PVC/840	PVC/840	PVC/840	.
WELL CASING	.	.	.	.	.	.	.	.	.	.
Well Casing Depth	100	404	45.2	25	90.5	341	401	404	29	47.1
Well Casing Diameter	4.38	4.38	4.5	4.5	4.5	4.38	4.38	4.38	4.5	4.5
Well Casing Material	PVC/840	Steel	PVC/840	PVC/840	PVC/840	Steel	Steel	Steel	PVC/840	PVC/840
MONITORED INTERVAL	.	.	.	.	.	.	.	.	.	.
Screened or Open	Open	Open	Screen	Screen	Screen	Open	Open	Open	Screen	Screen
Top - Depth	100	404	31	18	79	341	401	404	21	35
Bottom - Depth	109.6	412.8	45.2	25	90.5	406.4	411.7	433.3	29.5	51
Screen Material	.	.	PVC/840/.01	PVC/840/.01	PVC/840/.01	.	.	.	PVC/840/.01	PVC/840/.01
Screen Length	.	.	10.0	5.0	10.0	.	.	.	5.0	9.6
Open-Hole Length	9.6	8.8	.	.	.	65.4	10.7	29.3	.	.
Open-Hole Diameter	3.88	3.63	.	.	.	3.63	3.88	3.88	.	.

(CONTINUED)

APPENDIX C
Monitoring-Well Construction Details

Well No.	GW-252	GW-253	GW-255	GW-261	GW-262	GW-263	GW-264	GW-281	GW-282	GW-283
Location	S2	S2	S2	SY	SY	SY	SY	FF	FF	FF
North Coordinate	29326	29404	29330	30914	30913	30885	30872	29771	29747	29570
East Coordinate	53920	54057	53906	53094	53106	53674	53670	61907	62002	61990
Surface Elevation	1022.66	1001.6	1024.27	1047.57	1047.32	1055.13	1055.54	946.51	944.69	939.22
Measuring Point Elevation	1024.21	1003.99	1027.13	1049.99	1049.67	1057.73	1058.3	946.00	943.94	930.62
BOREHOLE	.	.	.	.	.	.	.	.	.	.
Borehole Depth	49	50	81.5	23.7	70.6	30.8	71	17.5	16	20
Borehole Diameter	8.25	8.25	9.62	10	10	10	10	6	6	6
Weathered Rock - Depth	.	.	.	0	0	0	0	17.5	16	20
Fresh Rock - Depth	.	.	.	23	20	30	33	.	.	.
SURFACE CASING	.	.	.	.	.	.	.	.	.	.
Surface Casing Depth	.	.	43	.	37.8	.	35	.	.	.
Surface Casing Diameter	.	.	10.5	.	10.63	.	10.63	.	.	.
Surface Casing Material	.	.	PVC/#40	.	PVC/#40	.	PVC/#40	.	.	.
WELL CASING	.	.	.	.	.	.	.	.	.	.
Well Casing Depth	48.8	46.7	81.3	23.7	70.6	30.8	70.7	15	14	20
Well Casing Diameter	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Well Casing Material	PVC/#40	PVC/#40	SS/#304	SS/#304	SS/#304	SS/#304	SS/#304	SS/#304	SS/#304	SS/#304
MONITORED INTERVAL	.	.	.	.	.	.	.	.	.	.
Screened or Open	Screen	Screen	Screen	Screen	Screen	Screen	Screen	Screen	Screen	Screen
Top - Depth	40.2	36.2	66.3	16.7	57.7	23	58.5	4	3	4
Bottom - Depth	49	50	81.5	23.7	70.6	30.8	71	15	14	20
Screen Material	PVC/sw/.01	PVC/sw/.01	SS/sw/.01	SS/sw/.01	SS/sw/.01	SS/sw/.01	SS/sw/.01	SS/sl/.01	SS/sl/.01	SS/sl/.01
Screen Length	5.0	9.6	10.0	5.4	10.4	5.3	10.2	10.0	10.0	15.0
Open-Hole Length	.	.	.	.	.	.	.	.	.	.
Open-Hole Diameter	.	.	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX C
Monitoring-Well Construction Details

Well No.	CW-284	CW-285	CW-331	CW-332	CW-333	CW-334	CW-335	CW-336	CW-337	CW-338
Location	FF	FF	WC	WC	WC	WC	WC	WC	WC	WC
North Coordinate	29590	29595	30054	30058	30090	30117	30123	30057	30057	30134
East Coordinate	61925	61856	54827	54882	54878	54829	54692	54694	54519	54430
Surface Elevation	942.3	942.88	980.79	979.55	980.12	980.23	981.1	981.56	984.12	984.02
Measuring Point Elevation	941.61	942.46	981.5	981.07	983.83	983.73	981.88	985.92	987.31	987.27
BOREHOLE	.	.	.	.	.	.	.	.	.	.
Borehole Depth	18	21	30.1	24.1	25.1	27.2	15.7	21.4	22.1	17.6
Borehole Diameter	6	6	10	10	10	10	10	10	10	10
Weathered Rock - Depth	18	21	11	6	14	.	6	4	.	6
Fresh Rock - Depth	.	.	.	.	.	.	.	.	.	.
SURFACE CASING	.	.	.	.	.	.	.	.	.	.
Surface Casing Depth	.	.	.	.	.	.	.	.	.	.
Surface Casing Diameter	.	.	.	.	.	.	.	.	.	.
Surface Casing Material	.	.	.	.	.	.	.	.	.	.
WELL CASING	.	.	.	.	.	.	.	.	.	.
Well Casing Depth	18	21	30.1	24.1	25.1	27.2	15.7	21.4	22.1	17.6
Well Casing Diameter	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Well Casing Material	SS/#304	SS/#304	SS/#304	SS/#304	SS/#304	SS/#304	SS/#304	SS/#304	SS/#304	SS/#304
MONITORED INTERVAL	.	.	.	.	.	.	.	.	.	.
Screened or Open	Screen	Screen	Screen	Screen	Screen	Screen	Screen	Screen	Screen	Screen
Top - Depth	.	3.5	23	16.8	13.7	19.8	7.6	13.2	15	11.2
Bottom - Depth	.	21	30.1	24.1	25.1	27.2	15.7	21.4	22.1	17.6
Screen Material	SS/sl/.01	SS/sl/.01	SS/sw/.01	SS/sw/.01	SS/sw/.01	SS/sw/.01	SS/sw/.01	SS/sw/.01	SS/sw/.01	SS/sw/.01
Screen Length	15.0	15.0	5.6	5.4	10.7	5.4	5.7	5.6	5.4	5.5
Open-Hole Length	.	.	.	.	.	.	.	.	.	.
Open-Hole Diameter	.	.	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX C
Monitoring-Well Construction Details

Well No.	GW-380	GW-381	GW-382	GW-383	GW-384	GW-385	GW-505	GW-508	GW-603	GW-604
Location	NHP	NHP	NHP	NHP	NHP	NHP	RG	RG	NHP	NHP
North Coordinate	28714	28715	28716	29201	29216	29208	30400	30281	28430	28437
East Coordinate	62938	62947	62956	63522	63530	63526	53037	53148	64803	64837
Surface Elevation	913.66	913.4	913.16	906	905.38	905.87	1011.6	1009.56	959.41	959.53
Measuring Point Elevation	913.55	913.36	913.17	908.5	908.38	908.87	1014.78	1012.5	961.32	960.86
BOREHOLE	.	.	.	.	.	.	.	.	.	.
Borehole Depth	15.5	49.3	125	24.1	35.5	123.7	13.5	15	75.2	112.4
Borehole Diameter	10	9.5	9.5	8.75	9.5	9.5	7	7	9.5	9.5
Weathered Rock - Depth	15.5	13.5	12.7	11.5	12	11	.	.	24	31
Fresh Rock - Depth	.	26	17	.	.	.	.	.	60	55
SURFACE CASING	.	.	.	.	.	.	.	.	.	.
Surface Casing Depth	.	13.5	12.7	5	16	13	.	.	31.9	95.2
Surface Casing Diameter	.	13	10.75	10.75	10.75	13	.	.	10.75	10.75
Surface Casing Material	.	unknown	unknown	unknown	unknown	unknown	.	.	Steel	Steel
WELL CASING	.	.	.	.	.	.	.	.	.	.
Well Casing Depth	15.5	49.3	125	23.6	35.5	123.7	13.3	13.7	75.2	112.4
Well Casing Diameter	4.5	6.62	6.62	4.5	6.62	6.62	2.37	2.37	4.5	4.5
Well Casing Material	SS/#304	Steel/F25	Steel/F25	SS/#304	Steel/F25	Steel/F25	SS/#304	SS/#304	SS/#304	SS/#304
MONITORED INTERVAL	.	.	.	.	.	.	.	.	.	.
Screened or Open	Screen	Open	Open	Screen	Open	Open	Screen	Screen	Screen	Screen
Top - Depth	2.8	49.3	125	16.6	35.5	123.7	1.5	1.3	63.4	100.2
Bottom - Depth	15.5	60.4	173	23.6	55.7	178.7	13.5	15	75.2	112.4
Screen Material	SS/sw/.01	.	.	SS/sw/.01	.	.	SS/sw/.01	SS/sw/.01	SS/sw/.01	SS/sw/.01
Screen Length	5.4	.	.	5.0	.	.	10.4	10.3	10.3	9.9
Open-Hole Length	.	11.1	48	.	20.2	55	.	.	.	.
Open-Hole Diameter	.	6.1	6.13	.	6	6	.	.	.	.

(CONTINUED)

APPENDIX C
Monitoring-Well Construction Details

Well No.	GW-605	GW-606	GW-617	GW-618	GW-619	GW-620	GW-631	GW-632	GW-633	GW-634
Location	NHP	NHP	Y12	Y12	FTF	FTF	RG	RG	RG	RG
North Coordinate	28707	28708	29806	29798	29563	29565	30203	30237	30144	30222
East Coordinate	62002	61951	54756	54738	52906	52895	53145	53078	53101	53257
Surface Elevation	916.97	916.98	982.61	982.64	1012.74	1012.84	1004.11	1005.95	996.52	1007.31
Measuring Point Elevation	918.88	919.39	985.11	984.94	1015.24	1015.34	1003.99	1005.73	996.5	1007.15
BOREHOLE	.	.	.	.	.	.	.	.	.	.
Borehole Depth	40.5	175	18	37	40.8	75	16	15	15	15
Borehole Diameter	10.6	6.75	9.5	9.5	9.5	9.5	10.5	10.5	10.5	10.5
Weathered Rock - Depth	.	.	.	27	40	41	.	8.5	8.5	5
Fresh Rock - Depth	.	.	.	.	40.8	70	.	.	.	.
SURFACE CASING	.	.	.	.	.	.	.	.	.	.
Surface Casing Depth	9.5	66	.	27.5	.	42.5	.	.	.	.
Surface Casing Diameter	11	7	.	10.75	.	10.75	.	.	.	.
Surface Casing Material	.	.	.	Steel	.	Steel	.	.	.	.
WELL CASING	.	.	.	.	.	.	.	.	.	.
Well Casing Depth	29.7	160	18	37	40.8	75	15.5	14.5	15	15
Well Casing Diameter	4.25	4.25	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Well Casing Material	0	0	SS/#304	SS/#304	SS/#304	SS/#304	PVC	PVC	PVC	PVC
MONITORED INTERVAL	.	.	.	.	.	.	.	.	.	.
Screened or Open	Screen	Screen	Screen	Screen	Screen	Screen	Screen	Screen	Screen	Screen
Top - Depth	28.2	155	6.8	26	26.8	61.7	4	3.5	3.5	3.5
Bottom - Depth	.	171.7	18	37	40.8	75	16	15	15	15
Screen Material	SS/sw/.01	SS/sw/.01	SS/sw/.01	SS/sw/.01	SS/sw/.01	SS/sw/.01	PVC/sl/.01	PVC/sl/.01	PVC/sl/.01	PVC/sl/.01
Screen Length	10.0	10.7	10.3	10.3	10.8	10.8	10.0	10.0	10.0	10.0
Open-Hole Length	.	.	.	.	.	.	.	.	.	.
Open-Hole Diameter	.	.	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX C
Monitoring-Well Construction Details

Well No.	GW-656	GW-657	GW-658	GW-659	GW-707	GW-708
Location	T0134	T2331	FF	FF	T2331	T2331
North Coordinate	29895	29287	29638	29615	29319	29335
East Coordinate	57439	59599	62146	62100	59579	59530
Surface Elevation	954.9	930.8	942.04	941.79	931.16	931.03
Measuring Point Elevation	954.79	930.53	944.81	941.16	930.91	930.87
BOREHOLE	.	.	.	.	.	.
Borehole Depth	21.5	17.1	19.1	16.7	26	13.9
Borehole Diameter	9.5	9.5	9.5	9.5	9.5	9.5
Weathered Rock - Depth	12	.	3.5	3.4	20	.
Fresh Rock - Depth	.	.	.	.	.	.
SURFACE CASING	.	.	.	.	.	.
Surface Casing Depth	.	3	8.8	2.9	3	3
Surface Casing Diameter	.	11.75	10.75	10.75	11.75	11.75
Surface Casing Material	.	Steel	Steel	Steel	Steel	Steel
WELL CASING	.	.	.	.	.	.
Well Casing Depth	20.9	15.6	19.1	16.7	17.2	13.7
Well Casing Diameter	4.5	4.5	4.5	4.5	4.5	4.5
Well Casing Material	SS/#304	SS/#304	SS/#304	SS/#304	SS/#304	SS/#304
MONITORED INTERVAL	.	.	.	.	.	.
Screened or Open	Screen	Screen	Screen	Screen	Screen	Screen
Top - Depth	8.3	4	6.9	4.6	5.5	2.7
Bottom - Depth	21.5	17.1	19.1	16.7	26	13.7
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	11.0	10.0	10.0
Open-Hole Length	.	.	.	.	.	.
Open-Hole Diameter	.	.	.	.	.	.

EXPLANATION

LOCATION:

B4	-	Beta-4 Security Pits
EXP	-	Exit-Pathway Monitoring Well
FF	-	Building 9754-2 Fuel Facility
FTF	-	Fire Training Facility
NHP	-	New Hope Pond
RG	-	Rust Garage Area
S2	-	S-2 Site
SY	-	Y-12 Salvage Yard
T0134	-	Underground Storage Tank 0134-U
T2331	-	Underground Storage Tank 2331-U
WC	-	Waste Coolant Processing Area
Y12	-	Y-12 Plant

PARAMETERS (See Table 3 for the list of individual analytes):

STD	-	Standard Suite of Analytical Parameters
		• Trace Metals
		• Volatile Organic Compounds
		• Major Ions
		• Gross Alpha and Gross Beta Activity
		• Miscellaneous Parameters
		• Field Measurements
H3	-	Tritium
Sr	-	Strontium
Tc	-	Technetium 99
U	-	Isotopic Uranium (^{234}U , ^{235}U , and ^{238}U)
TPH	-	Total Petroleum Hydrocarbons

APPENDIX D
MONITORING-WELL SAMPLING SEQUENCE

APPENDIX D
Monitoring-Well Sampling Sequence

WELL NO.	LOCATION	DATE	TIME	PARAMETERS
First Quarter 1991				
GW-261	SY	01/10/91	9:45	STD,U
GW-262	SY	01/10/91	12:16	STD,U
GW-263	SY	01/10/91	14:30	STD,U
GW-264	SY	01/11/91	10:50	STD,U
GW-619	FTF	01/12/91	10:10	STD
GW-620	FTF	01/12/91	12:15	STD
GW-252	S2	01/12/91	14:07	STD,Tc
GW-255	S2	01/13/91	11:50	STD,Tc,U
GW-617	Y12	01/13/91	13:10	STD
GW-618	Y12	01/13/91	14:23	STD
GW-251	S2	01/14/91	10:05	STD
GW-253	S2	01/14/91	12:25	STD
GW-191	B4	01/15/91	11:00	STD,U
GW-192	B4	01/15/91	13:05	STD,U
GW-338	WC	01/16/91	11:25	STD
GW-335	WC	01/21/91	10:05	STD
GW-334	WC	01/21/91	12:40	STD
GW-333	WC	01/21/91	14:25	STD
GW-332	WC	01/23/91	11:29	STD
GW-336	WC	01/23/91	12:50	STD
GW-331	WC	01/23/91	13:35	STD
GW-337	WC	01/23/91	14:50	STD
GW-283	FF	01/24/91	11:30	STD,TPH
GW-284	FF	01/24/91	13:05	STD,TPH
GW-281	FF	01/24/91	13:50	STD,TPH,U
GW-282	FF	01/25/91	14:10	STD,TPH
GW-285	FF	01/25/91	14:30	STD,TPH
GW-603	NHP	01/26/91	11:10	STD
GW-604	NHP	01/26/91	13:37	STD
GW-385	NHP	01/27/91	13:40	STD,Tc,U
GW-384	NHP	01/28/91	13:00	STD,Tc,U
GW-149	NHP	01/28/91	14:30	STD
GW-240	NHP	01/29/91	10:23	STD
GW-380	NHP	01/29/91	11:40	STD,Tc,U
GW-383	NHP	01/29/91	12:33	STD,Tc,U
GW-220	NHP	01/29/91	14:10	STD
GW-154	NHP	01/29/91	15:33	STD,U,Tc,Sr
GW-151	NHP	01/31/91	12:15	STD
GW-153	NHP	01/31/91	14:24	STD
GW-222	NHP	02/01/91	11:20	STD,Tc,U
GW-223	NHP	02/01/91	13:29	STD,Tc,U
GW-382	NHP	02/04/91	12:43	STD,Tc,U
GW-381	NHP	02/04/91	15:16	STD,Tc,U
GW-167	EXP	02/14/91	9:55	STD,U
GW-168	EXP	02/14/91	13:25	STD,U

APPENDIX D
Monitoring-Well Sampling Sequence

WELL NO.	LOCATION	DATE	TIME	PARAMETERS
GW-206	EXP	02/20/91	14:15	STD,U
GW-207	EXP	02/20/91	16:30	STD,U
GW-208	EXP	02/22/91	15:18	STD,U
GW-239	EXP	02/25/91	13:50	STD,U
GW-169	EXP	03/01/91	11:05	STD,U
GW-170	EXP	03/01/91	15:15	STD,U
GW-193	T2331	03/06/91	13:15	STD,TPH
GW-657	T2331	03/06/91	14:30	STD,TPH
GW-707	T2331	03/06/91	15:20	STD,TPH
GW-708	T2331	03/07/91	11:49	STD,TPH
GW-656	T0134	03/07/91	14:20	STD,TPH
GW-204	T0134	03/07/91	14:30	STD,TPH
GW-183	FF	03/08/91	13:45	STD,TPH
GW-659	FF	03/08/91	15:20	STD,TPH
GW-658	FF	03/09/91	11:30	STD,TPH
GW-634	RG	03/09/91	13:55	STD,TPH
GW-631	RG	03/11/91	12:25	STD,TPH
GW-632	RG	03/11/91	13:50	STD,TPH
GW-633	RG	03/11/91	15:45	STD,TPH
GW-232	EXP	03/12/91	8:41	STD,U
GW-505	RG	03/12/91	9:25	STD,TPH
GW-190	RG	03/12/91	10:50	STD,TPH

Second Quarter 1991

GW-261	SY	04/03/91	10:30	STD,U
GW-262	SY	04/03/91	12:30	STD,U
GW-263	SY	04/03/91	14:25	STD,U
GW-264	SY	04/06/91	10:25	STD,U
GW-619	FTF	04/06/91	12:45	STD
GW-620	FTF	04/06/91	14:40	STD
GW-252	S2	04/06/91	16:20	STD,Tc
GW-255	S2	04/08/91	11:20	STD,Tc,U
GW-617	Y12	04/08/91	13:15	STD
GW-618	Y12	04/09/91	10:00	STD
GW-251	S2	04/09/91	11:35	STD
GW-253	S2	04/09/91	13:00	STD
GW-191	B4	04/10/91	12:38	STD,U
GW-192	B4	04/10/91	13:20	STD,U
GW-338	WC	04/10/91	14:52	STD
GW-335	WC	04/10/91	16:14	STD
GW-334	WC	04/13/91	10:20	STD
GW-333	WC	04/13/91	13:30	STD
GW-332	WC	04/13/91	14:37	STD
GW-336	WC	04/14/91	9:57	STD
GW-331	WC	04/14/91	12:00	STD
GW-337	WC	04/14/91	13:30	STD

APPENDIX D
Monitoring-Well Sampling Sequence

WELL NO.	LOCATION	DATE	TIME	PARAMETERS
GW-281	FF	04/19/91	12:30	STD, TPH, U
GW-282	FF	04/19/91	12:59	STD, TPH
GW-283	FF	04/19/91	13:26	STD, TPH
GW-284	FF	04/19/91	14:13	STD, TPH
GW-285	FF	04/19/91	14:47	STD, TPH
GW-603	NHP	04/22/91	11:12	STD
GW-604	NHP	04/22/91	14:23	STD
GW-385	NHP	04/23/91	17:05	STD, Tc, U
GW-384	NHP	04/24/91	12:21	STD, Tc, U
GW-149	NHP	04/24/91	14:05	STD
GW-240	NHP	04/25/91	10:45	STD
GW-380	NHP	04/25/91	12:30	STD, Tc, U
GW-383	NHP	04/25/91	14:27	STD, Tc, U
GW-220	NHP	04/26/91	12:35	STD
GW-154	NHP	04/26/91	13:45	STD, U, Tc, Sr
GW-151	NHP	05/01/91	14:25	STD
GW-153	NHP	05/02/91	13:23	STD
GW-222	NHP	05/02/91	15:04	STD, Tc, U
GW-223	NHP	05/03/91	14:30	STD, Tc, U
GW-382	NHP	05/07/91	18:39	STD, Tc, U
GW-381	NHP	05/08/91	12:37	STD, Tc, U
GW-167	EXP	05/08/91	19:20	STD, U
GW-168	EXP	05/08/91	19:52	STD, U
GW-206	EXP	05/10/91	13:38	STD, U
GW-207	EXP	05/10/91	14:18	STD, U
GW-208	EXP	05/11/91	13:15	STD, U
GW-169	EXP	05/12/91	10:45	STD, U
GW-170	EXP	05/12/91	15:15	STD, U
GW-232	EXP	05/16/91	10:56	STD, U
GW-239	EXP	05/17/91	10:45	STD, U
GW-193	T2331	06/17/91	13:20	STD, TPH
GW-657	T2331	06/17/91	14:20	STD, TPH
GW-707	T2331	06/17/91	15:10	STD, TPH
GW-708	T2331	06/17/91	16:20	STD, TPH
GW-658	FF	06/18/91	11:17	STD, TPH
GW-183	FF	06/18/91	13:40	STD, TPH
GW-634	RG	06/19/91	11:10	STD, TPH
GW-631	RG	06/19/91	12:30	STD, TPH
GW-190	RG	06/19/91	14:45	STD, TPH
GW-633	RG	06/20/91	10:03	STD, TPH
GW-632	RG	06/20/91	11:15	STD, TPH
GW-656	T0134	06/20/91	12:45	STD, TPH
GW-659	FF	06/20/91	14:00	STD, TPH
GW-204	T0134	06/21/91	11:30	STD, TPH
GW-505	RG	06/21/91	12:00	STD, TPH

APPENDIX D
Monitoring-Well Sampling Sequence

WELL NO.	LOCATION	DATE	TIME	PARAMETERS
Third Quarter 1991				
GW-261	SY	07/11/91	12:02	STD
GW-262	SY	07/11/91	13:50	STD
GW-263	SY	07/11/91	14:53	STD
GW-264	SY	07/12/91	10:55	STD
GW-617	Y12	07/12/91	13:20	STD
GW-618	Y12	07/12/91	14:20	STD
GW-252	S2	07/13/91	11:05	STD
GW-255	S2	07/13/91	12:31	STD
GW-338	WC	07/13/91	14:20	STD
GW-251	S2	07/14/91	9:20	STD
GW-619	FTF	07/14/91	10:45	STD
GW-620	FTF	07/14/91	12:45	STD
GW-337	WC	07/14/91	14:35	STD
GW-191	B4	07/20/91	10:30	STD
GW-194	B4	07/22/91	13:25	STD
GW-195	B4	07/22/91	14:46	STD
GW-192	B4	07/26/91	13:00	STD
GW-281	FF	07/29/91	13:33	STD, TPH
GW-285	FF	07/29/91	14:19	STD, TPH
GW-284	FF	07/29/91	15:00	STD, TPH
GW-283	FF	07/29/91	15:52	STD, TPH
GW-282	FF	07/30/91	10:45	STD, TPH
GW-281	FF	08/12/91	13:00	STD, TPH
GW-285	FF	08/12/91	13:30	STD, TPH
GW-284	FF	08/12/91	13:55	STD, TPH
GW-282	FF	08/12/91	14:55	STD, TPH
GW-283	FF	08/12/91	15:52	STD, TPH
GW-385	NHP	08/21/91	15:02	STD
GW-384	NHP	08/21/91	18:05	STD
GW-380	NHP	08/23/91	14:05	STD
GW-240	NHP	08/24/91	9:55	STD
GW-220	NHP	08/24/91	10:45	STD
GW-151	NHP	08/24/91	13:30	STD
GW-605	NHP	08/26/91	13:39	STD
GW-606	NHP	08/26/91	19:03	STD
GW-383	NHP	08/27/91	9:36	STD
GW-382	NHP	08/27/91	17:25	STD
GW-381	NHP	08/28/91	10:58	STD
GW-207	EXP	08/28/91	15:31	STD
GW-206	EXP	08/29/91	13:00	STD
GW-208	EXP	08/29/91	17:00	STD
GW-167	EXP	08/31/91	15:30	STD
GW-239	EXP	09/01/91	9:30	STD
GW-168	EXP	09/01/91	11:00	STD

APPENDIX D
Monitoring-Well Sampling Sequence

WELL NO.	LOCATION	DATE	TIME	PARAMETERS
GW-603	NHP	09/01/91	11:46	STD
GW-604	NHP	09/01/91	14:08	STD
GW-170	EXP	09/02/91	11:30	STD
GW-169	EXP	09/02/91	12:00	STD
GW-232	EXP	09/02/91	17:00	STD
GW-631	RG	09/19/91	13:15	STD, TPH
GW-633	RG	09/19/91	15:00	STD, TPH, U, Am, Np, Tc, Sr, H3
GW-505	RG	09/20/91	10:15	STD, TPH
GW-190	RG	09/20/91	12:20	STD, TPH
GW-634	RG	09/20/91	14:00	STD, TPH
GW-632	RG	09/20/91	15:05	STD, TPH
GW-657	T2331	09/24/91	10:20	STD, TPH
GW-659	FF	09/25/91	13:10	STD, TPH
GW-183	FF	09/25/91	14:40	STD, TPH
GW-204	T0134	09/26/91	9:45	STD, TPH
GW-656	T0134	09/26/91	11:00	STD, TPH
GW-193	T2331	09/26/91	12:45	STD, TPH
GW-708	T2331	09/26/91	13:25	STD, TPH
GW-707	T2331	09/26/91	17:00	STD, TPH
GW-658	FF	09/26/91	18:30	STD, TPH

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GW-261	SY	10/01/91	10:30	STD
GW-262	SY	10/01/91	13:30	STD
GW-263	SY	10/01/91	15:00	STD
GW-264	SY	10/01/91	17:00	STD
GW-617	Y12	10/02/91	10:30	STD
GW-618	Y12	10/02/91	12:30	STD
GW-252	S2	10/03/91	10:30	STD
GW-255	S2	10/03/91	12:22	STD
GW-338	WC	10/03/91	14:30	STD
GW-251	S2	10/03/91	15:42	STD
GW-619	FTF	10/04/91	10:30	STD
GW-620	FTF	10/04/91	13:00	STD
GW-337	WC	10/04/91	14:30	STD
GW-191	B4	10/05/91	12:00	STD
GW-194	B4	10/05/91	14:00	STD
GW-195	B4	10/05/91	15:15	STD
GW-192	B4	10/05/91	16:30	STD
GW-281	FF	10/09/91	13:00	STD, TPH
GW-285	FF	10/09/91	13:25	STD, TPH
GW-284	FF	10/09/91	14:18	STD, TPH
GW-283	FF	10/09/91	14:30	STD, TPH
GW-282	FF	10/09/91	15:10	STD, TPH
GW-385	NHP	10/14/91	13:20	STD
GW-384	NHP	10/15/91	11:45	STD

APPENDIX D
Monitoring-Well Sampling Sequence

WELL NO.	LOCATION	DATE	TIME	PARAMETERS
GW-380	NHP	10/22/91	12:15	STD
GW-240	NHP	10/22/91	13:20	STD
GW-220	NHP	10/22/91	14:30	STD
GW-151	NHP	10/23/91	11:33	STD
GW-605	NHP	10/23/91	13:40	STD
GW-606	NHP	10/24/91	12:03	STD
GW-383	NHP	10/26/91	10:30	STD
GW-382	NHP	10/27/91	11:28	STD
GW-381	NHP	10/27/91	13:55	STD
GW-207	EXP	10/28/91	13:27	STD
GW-208	EXP	10/30/91	17:15	STD
GW-239	EXP	11/02/91	14:20	STD
GW-168	EXP	11/03/91	11:00	STD
GW-603	NHP	11/03/91	12:20	STD
GW-604	NHP	11/03/91	13:54	STD
GW-232	EXP	11/05/91	15:00	STD
GW-170	EXP	11/06/91	13:51	STD
GW-206	EXP	11/07/91	14:28	STD
GW-169	EXP	11/12/91	10:45	STD
GW-634	RG	12/14/91	10:15	STD,TPH,U,Am,Np,Tc,Sr,
GW-631	RG	12/14/91	11:30	STD,TPH,U,Am,Np,Tc,Sr,
GW-632	RG	12/14/91	12:45	STD,TPH,U,Am,Np,Tc,Sr,
GW-633	RG	12/14/91	14:10	STD,TPH,U,Am,Np,Tc,Sr,H3
GW-658	FF	12/15/91	9:50	STD,TPH
GW-190	RG	12/15/91	10:30	STD,TPH
GW-183	FF	12/15/91	11:20	STD,TPH
GW-505	RG	12/15/91	13:00	STD,TPH
GW-508	RG	12/15/91	13:45	STD,TPH
GW-659	FF	12/15/91	15:05	STD,TPH
GW-707	T2331	12/19/91	10:40	STD,TPH
GW-657	T2331	12/19/91	11:50	STD,TPH
GW-708	T2331	12/19/91	13:55	STD,TPH
GW-193	T2331	12/19/91	14:50	STD,TPH
GW-656	T0134	12/20/91	11:00	STD,TPH
GW-204	T0134	12/26/91	11:05	STD,TPH

APPENDIX E
GROUNDWATER QUALITY DATA

EXPLANATION

LOCATION:

B4 - Beta-4 Security Pits
EXP - Exit-Pathway Monitoring Well
FF - Building 9754-2 Fuel Facility
FTF - Fire Training Facility
NHP - New Hope Pond
RG - Rust Garage Area
S2 - S-2 Site
SY - Y-12 Salvage Yard
T0134 - Underground Storage Tank 0134-U
T2331 - Underground Storage Tank 2331-U
WC - Waste Coolant Processing Area
Y12 - Y-12 Plant

ALL DATA:

. - Not Analyzed

VOLATILE ORGANIC COMPOUNDS:

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

Compound not detected at the following minimum attainable detection limits (ug/L):

G =	5	T =	250
N =	10	F =	300
V =	20	E =	400
Z =	25	W =	500
D =	30	L =	1000
A =	40	P =	2000
M =	50	H =	4000
X =	80	J =	5000
Y =	90	S =	10000
K =	100	U =	20000
B =	130	C =	40000
R =	. 200		

EXPLANATION (cont'd)

METALS, MAJOR IONS, MISCELLANEOUS, AND RADIOLOGICAL 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 given minimum attainable detection limit
mg/L	- milligrams per Liter
AAS	- Atomic Absorption Spectroscopy
CVAA	- Cold Vapor Atomic Absorption
DIS	- Dissolved Concentration (Filtered Sample)
TOT	- Total Concentration (Unfiltered Sample)
Fluor	- Fluorometric
DO	- Dissolved Oxygen
TOC	- Total Organic Carbon
TOX	- Total Organic Halogens
TDS	- Total Dissolved Solids
TSS	- Total Suspended Solids
Temp.	- Water Temperature
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)
111111	- None Found
999999	- Off Scale
888888	- Flowing Artesian Well

TRACE METALS AND MAJOR IONS

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-149				GW-151			
	NHP				NHP			
	01/28/91		04/24/91		01/31/91		05/01/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.23	<0.02	0.81	<0.02	0.064	<0.02	<0.02	0.038
Antimony	<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
Barium	0.44	0.35	0.47	0.41	0.19	0.19	0.19	0.19
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.46	0.48	0.45	0.46	0.075	0.082	0.067	0.088
Cadmium (AAS)	<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	0.0033	<0.003	<0.003	<0.003
Chromium (AAS)	<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	0.082	0.052	<0.01	<0.01
Cobalt	<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
Iron	0.29	0.023	1	0.14	0.012	0.15	0.024	0.0077
Lead (AAS)	<0.004	<0.004	0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	<0.01	<0.01	<0.01	0.012	<0.01	<0.01	0.011
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	5.2	6.8	9.2	7.4	5.6	5.5	5.5	5.6
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.93	0.82	0.98	0.93	0.55	0.55	0.6	0.6
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0062	0.0078	0.0082	0.0027	0.0034	0.0097	<0.002	0.0046
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	270	.	260	.	224	.	223	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	29	27	39	34	57	57	60	60
Chloride	12	.	12	.	13	.	12	.
Fluoride	0.4	.	0.3	.	<0.1	.	<0.1	.
Magnesium	8.4	7.4	10	9	25	25	24	25
Manganese	0.11	0.16	0.095	0.067	<0.001	<0.001	<0.001	<0.001
Nitrate-N	<0.2	.	<0.5	.	0.6	.	0.8	.
Potassium	6.3	5.4	6.3	5.9	2	2	2.1	2.1
Sodium	79	81	67	69	5.2	5.4	5.3	5.4
Sulfate	6	.	6	.	16	.	17	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-151				GW-153			
	NHP				NHP			
	08/24/91		10/23/91		01/31/91		05/02/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	<0.02	<0.02	<0.02	0.025	0.58	0.025	0.41	<0.02
Antimony	<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	0.069
Barium	0.17	0.17	0.0012	0.18	0.053	0.049	0.046	0.041
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.098	0.083	<0.004	0.095	0.036	<0.004	0.012	0.01
Cadmium (AAS)	<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
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	0.014	<0.01	0.032	0.017	<0.01	<0.01
Cobalt	<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	<0.004	<0.004
Iron	<0.005	<0.005	0.011	0.085	0.76	0.0097	0.49	0.0099
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0049	<0.004
Mercury (CVAA)	<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	0.012	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	0.011	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	.	.	4.6	3.8	4.8	4.2
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.53	0.54	0.003	0.5	0.17	0.18	0.19	0.19
Thorium	<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	0.002	0.002	0.002
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.006	0.0046	<0.002	0.014	0.0053	<0.001	0.0071	<0.002
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	209	.	214	.	157	.	150	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	58	58	1.7	57	38	38	35	34
Chloride	12	.	9	.	46	.	29	.
Fluoride	<0.1	.	<0.1	.	0.2	.	0.18	.
Magnesium	25	25	0.53	25	18	18	16	15
Manganese	<0.001	<0.001	0.018	<0.001	0.047	<0.001	0.027	<0.001
Nitrate-N	0.7	.	0.61	.	1.2	.	1	.
Potassium	1.9	2.1	<0.6	1.9	3.4	3.3	3.6	3.4
Sodium	6.3	6.3	<0.02	7.2	27	28	16	16
Sulfate	18	.	18	.	18	.	13	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-154				GW-167			
	NHP				EXP			
	01/29/91		04/26/91		02/14/91		05/08/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.45	0.058	1.3	0.032	0.8	0.31	4.1	<0.02
Antimony	<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
Barium	0.068	0.065	0.086	0.057	0.043	0.045	0.094	0.051
Beryllium	<0.0003	<0.0003	0.00063	<0.0003	0.0005	<0.0003	0.0045	<0.0003
Boron	0.052	0.059	0.089	0.051	0.013	0.027	<0.004	0.24
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	0.0048	<0.003	<0.003	<0.003	<0.003
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.021	<0.01
Chromium	<0.01	0.011	0.038	0.24	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.026	<0.005
Copper	<0.004	<0.004	<0.004	<0.004	0.0062	<0.004	0.025	<0.004
Iron	0.46	0.014	1.4	0.026	1	0.018	5.7	0.0059
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	0.0045	<0.004	0.081	<0.004
Mercury (CVAA)	0.00028	<0.0002	0.00083	<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
Nickel	<0.01	0.014	<0.01	0.01	<0.01	<0.01	0.033	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	3.4	2.8	4.2	2.5	2	3.3	8.3	3.6
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.46	0.48	0.37	0.35	0.12	0.12	0.19	0.16
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.81	0.813	0.386	0.36	0.001	<0.001	0.001	<0.001
Vanadium	<0.005	<0.005	0.0053	<0.005	<0.005	<0.005	0.01	<0.005
Zinc	0.004	0.0069	0.02	0.0029	0.049	0.023	0.11	0.0051
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	187	.	171	.	186	.	273	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	88	91	61	57	74	69	130	110
Chloride	3	.	4	.	14	.	19	.
Fluoride	0.4	.	0.3	.	0.1	.	<0.1	.
Magnesium	17	18	15	14	4.2	3.9	9.2	5.4
Manganese	0.19	0.0062	1.1	0.0084	0.26	0.022	1.8	0.47
Nitrate-N	0.2	.	0.49	.	0.6	.	0.91	.
Potassium	5.5	5.9	6.9	6.4	2.5	2.5	3.1	2.6
Sodium	6.7	7.2	7.7	7.3	7.5	8.9	9.9	10
Sulfate	121	.	74	.	8	.	12	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-167		GW-168					
	EXP		EXP					
	08/31/91		02/14/91		05/08/91		09/01/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	3.2	0.08	0.064	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
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.08	0.047	0.13	0.13	0.13	0.13	0.14	0.14
Beryllium	0.0025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.96	0.98	0.074	0.082	0.071	0.061	0.068	0.067
Cadmium (AAS)	<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
Chromium (AAS)	0.023	<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
Cobalt	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	0.0046	<0.004	<0.004	<0.004	<0.004	<0.004
Iron	5.6	0.038	0.28	0.16	0.38	0.34	0.45	0.48
Lead (AAS)	<0.008	<0.008	<0.004	<0.004	<0.004	<0.004	0.025	<0.008
Mercury (CVAA)	<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
Nickel	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	2.6	3.9	5.4	5.2	.	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.21	0.19	0.6	0.63	0.55	0.55	0.65	0.64
Thorium	<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
Vanadium	0.0094	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.068	0.03	0.0071	0.0048	<0.002	<0.002	0.0043	0.0049
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO ₃	255	.	294	.	301	.	286	.
Alkalinity-CO ₃	<1	.	<1	.	<1	.	<1	.
Calcium	130	110	87	88	83	82	99	97
Chloride	17.7	.	21	.	15	.	16.4	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	0.1	.
Magnesium	9.8	5.6	23	23	24	24	27	27
Manganese	0.82	0.046	0.0025	0.0017	0.0029	0.0028	0.0019	0.003
Nitrate-N	0.7	.	0.5	.	<2	.	0.5	.
Potassium	3.2	2.5	2.5	2.5	2.2	2.1	2.6	2.9
Sodium	13	13	8.5	9.2	5.7	6	7.2	7.8
Sulfate	11.9	.	11	.	<10	.	10.6	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-168		GW-169					
	EXP		EXP					
	11/03/91		03/01/91		05/12/91		09/02/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.035	<0.02	7.9	0.041	2.6	0.038	6	0.26
Antimony	<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
Barium	0.13	0.13	0.055	0.03	0.054	0.029	0.06	0.039
Beryllium	<0.0003	<0.0003	0.00067	<0.0003	0.00075	<0.0003	0.00086	<0.0003
Boron	0.11	0.088	0.016	0.015	0.023	0.022	0.01	0.0086
Cadmium (AAS)	<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
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	0.012	<0.01	0.014	<0.01
Chromium	<0.01	<0.01	0.011	<0.01	<0.01	<0.01	0.011	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0066	<0.005
Copper	0.0049	<0.004	0.01	<0.004	0.0084	0.0051	<0.004	<0.004
Iron	0.24	0.19	6.1	<0.005	3.3	0.0068	7.7	0.17
Lead (AAS)	<0.004	<0.004	0.0089	<0.004	0.018	<0.004	0.02	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	16	4.7	8.5	4.8	.	.
Silver	0.0068	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.58	0.58	0.079	0.076	0.1	0.097	0.091	0.086
Thorium	<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
Vanadium	<0.005	<0.005	0.011	<0.005	0.0058	<0.005	0.013	<0.005
Zinc	0.014	0.0039	0.034	0.0057	0.16	0.083	0.046	0.014
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	285	.	161	.	175	.	159	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	85	85	57	57	69	64	65	60
Chloride	17	.	2	.	2	.	1	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Magnesium	24	24	3.7	3.1	4.2	3.6	4.1	3.4
Manganese	<0.001	<0.001	0.24	0.0037	0.34	0.002	0.37	0.033
Nitrate-N	0.5	.	0.9	.	0.97	.	0.69	.
Potassium	2.7	2.6	4.6	2.6	3.4	2.8	3.8	2.6
Sodium	9.5	9.6	1.4	2	1.6	1.7	1.2	1.4
Sulfate	11	.	5	.	7	.	6	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-169		GW-170					
	EXP		EXP					
	11/12/91		03/01/91		05/12/91		09/02/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	17	0.038	0.036	0.033	0.052	0.022	0.05	0.033
Antimony	<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
Barium	0.39	0.032	0.098	0.097	0.086	0.086	0.094	0.094
Beryllium	0.012	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.015	0.032	0.11	0.1	0.1	0.097	0.15	0.12
Cadmium (AAS)	0.0029	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	0.0051	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Chromium (AAS)	0.049	<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
Cobalt	0.042	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.045	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Iron	15	0.034	0.098	0.046	0.37	0.0087	0.098	0.027
Lead (AAS)	0.3	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	0.00055	<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
Nickel	0.081	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	4.5	4.5	4.6	4.6	.	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.14	0.091	0.56	0.56	0.52	0.53	0.61	0.61
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.002	<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
Zinc	0.23	0.011	0.0086	0.0074	0.011	0.0092	0.013	0.0065
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	187	.	216	.	208	.	211	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	100	70	43	43	34	34	49	49
Chloride	1	.	16	.	15	.	15	.
Fluoride	0.1	.	0.1	.	0.14	.	0.1	.
Magnesium	9.2	4.5	24	24	23	23	26	26
Manganese	4	0.0049	0.0025	0.0033	<0.001	<0.001	<0.001	<0.001
Nitrate-N	0.73	.	0.5	.	0.61	.	<0.2	.
Potassium	4.5	2.2	1.9	1.9	2.3	2.1	2	1.7
Sodium	1.6	1.7	19	18	16	17	19	19
Sulfate	7	.	24	.	22	.	24	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-170		GW-183					
	EXP		FF					
	11/06/91		03/08/91		06/18/91		09/25/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	<0.02	0.025	1.1	0.041	0.53	0.036	9.9	0.036
Antimony	<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
Barium	0.091	0.09	0.22	0.22	0.22	0.22	0.27	0.21
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.00043	<0.0003
Boron	0.11	0.1	0.032	0.031	0.044	0.048	0.052	0.039
Cadmium (AAS)	<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
Chromium (AAS)	<0.01	<0.01	0.011	<0.01	<0.01	<0.01	<0.05	<0.05
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.018	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	0.0051	0.0056	0.0051	<0.004	0.01	<0.004
Iron	0.04	<0.005	2.1	0.47	1	0.39	7.9	0.28
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.007	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	<0.01	<0.01	<0.01	0.017	<0.01	0.012	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	7.2	6.1	6.6	6	.	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.52	0.51	0.65	0.67	0.68	0.68	0.7	0.68
Thorium	<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	<0.001	<0.001	0.002	0.002
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.012	<0.005
Zinc	0.02	0.015	0.02	0.012	0.0078	0.0058	0.032	0.0083
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	217	.	319	.	409	.	452	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	48	48	140	150	150	150	160	150
Chloride	18	.	30	.	32	.	27	.
Fluoride	0.2	.	<0.1	.	<0.1	.	<0.1	.
Magnesium	25	24	18	18	22	23	27	25
Manganese	<0.001	<0.001	0.73	0.48	0.38	0.31	0.29	0.2
Nitrate-N	0.56	.	<0.2	.	<0.2	.	<0.2	.
Potassium	1.6	1.8	2.1	2.1	2.1	1.7	5.1	2.2
Sodium	18	18	22	24	24	23	25	25
Sulfate	26	.	31	.	32	.	28.7	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-183		GW-190					
	FF		RG					
	12/15/91		03/12/91		06/19/91		09/20/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.076	0.041	0.077	<0.02	0.089	0.06	0.32	<0.02
Antimony	<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
Barium	0.22	0.24	0.11	0.11	0.098	0.089	0.12	0.13
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.042	0.049	0.18	0.0045	0.025	0.03	0.024	0.015
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	0.0038	<0.003	<0.003	<0.003	<0.003
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	0.046	0.051	<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
Copper	<0.004	<0.004	<0.004	0.0076	0.0062	<0.004	<0.004	<0.004
Iron	0.57	0.54	0.35	0.024	0.11	0.0073	0.45	0.27
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<0.0002	0.00024	<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
Nickel	<0.01	<0.01	0.022	0.053	<0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	10	10	11	11	.	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.66	0.67	0.12	0.12	0.12	0.13	0.11	0.099
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.002	0.002	<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
Zinc	0.0047	0.0094	0.005	0.0044	0.011	0.0062	0.013	0.0087
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO ₃	421	.	111	.	106	.	110	.
Alkalinity-CO ₃	<1	.	<1	.	<1	.	<1	.
Calcium	140	150	34	34	34	34	35	28
Chloride	26.1	.	5	.	4	.	5	.
Fluoride	<0.1	.	<0.1	.	0.1	.	0.1	.
Magnesium	24	25	5.8	6.2	5.5	5.7	5.8	5.2
Manganese	0.22	0.3	0.13	0.036	0.21	0.046	0.33	1
Nitrate-N	<0.2	.	0.2	.	<0.2	.	<0.2	.
Potassium	2	2.3	1.2	1.3	1.2	1	1.2	1.2
Sodium	23	25	8.7	7.9	8.2	7.5	7.8	7
Sulfate	27.4	.	17	.	15	.	14	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-190		GW-191					
	RG		B4					
	12/15/91		01/15/91		04/10/91		07/20/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.12	0.024	3.7	0.045	2.2	<0.02	3.5	0.026
Antimony	<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
Barium	0.13	0.12	0.36	0.29	0.31	0.29	0.37	0.32
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.014	0.027	0.015	0.019	0.033	0.022	<0.004	<0.004
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.0021	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Chromium (AAS)	<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
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	0.0042	0.032	0.023	0.022	0.011	0.018	<0.004
Iron	0.32	0.027	4.1	<0.004	1.6	<0.005	4.6	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.0042	<0.004	<0.004	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	16	10	14	10	13	11
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.1	0.11	0.68	0.59	0.5	0.41	0.47	0.46
Thorium	<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
Vanadium	<0.005	<0.005	0.0058	<0.005	<0.005	<0.005	0.0052	<0.005
Zinc	0.013	0.01	0.013	0.0071	0.018	0.0061	0.029	0.0058
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	111	.	241	.	244	.	253	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	32	32	82	74	78	72	85	76
Chloride	4.8	.	3	.	3	.	3	.
Fluoride	0.2	.	<0.1	.	<0.1	.	<0.1	.
Magnesium	6.1	6.3	12	10	11	9.2	11	9.7
Manganese	0.4	0.31	0.13	0.048	0.053	0.016	0.12	0.011
Nitrate-N	<0.2	.	<0.2	.	<0.23	.	<0.2	.
Potassium	1.2	1.1	3.9	2.7	3.3	2.7	3.9	2.5
Sodium	7.4	7.5	9.6	11	12	13	13	12
Sulfate	12.9	.	15	.	17	.	11	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-191		GW-192					
	B4		B4					
	10/05/91		01/15/91		04/10/91		07/26/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)								
Aluminum	0.11	0.024	0.16	0.042	0.12	<0.02	0.099	<0.02
Antimony	<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
Barium	0.32	0.28	0.17	0.16	0.16	0.15	0.16	0.15
Beryllium	<0.0003	0.00038	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.014	0.033	0.018	0.02	0.015	0.03	0.013	0.037
Cadmium (AAS)	<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
Chromium (AAS)	<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
Cobalt	<0.005	<0.005	<0.005	<0.005	0.0058	<0.005	<0.005	<0.005
Copper	<0.004	0.01	0.05	0.04	0.024	0.029	<0.004	<0.004
Iron	0.11	0.099	2.9	2.6	3.6	2.7	3.4	1
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<0.0002	<0.0002	0.0011	0.00059	0.00022	<0.0002	<0.0002	<0.0002
Molybdenum	<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
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	10	10	9.9	10	9.4	10
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.45	0.43	0.22	0.22	0.2	0.19	0.19	0.17
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.015	0.016	0.017	0.014	0.0083	0.018	0.049	0.056
MAJOR IONS (mg/L)								
Alkalinity-HCO3	257	.	359	.	378	.	372	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	81	74	110	110	110	110	110	100
Chloride	3	.	8	.	10	.	8	.
Fluoride	<0.1	.	0.2	.	0.2	.	0.2	.
Magnesium	10	9.7	12	12	13	12	11	9.8
Manganese	0.016	0.0093	2.1	2.1	2.1	2	1.9	1.6
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	<0.45	.
Potassium	2.1	2.7	1.4	1.4	1.3	1.5	1.4	1.6
Sodium	9.6	15	7	7	7.1	7.3	7.4	7.5
Sulfate	10	.	2	.	2	.	<2	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-192		GW-193					
	B4		T2331					
	10/05/91		03/06/91		06/17/91		09/26/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.19	0.095	1	0.022	0.077	<0.02	2.8	<0.02
Antimony	<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
Barium	0.15	0.16	0.096	0.078	0.16	0.17	0.11	0.094
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	1.1	1.1	0.1	0.077	0.11	0.12	0.11	0.12
Cadmium (AAS)	<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
Chromium (AAS)	<0.01	<0.01	0.023	<0.01	<0.01	<0.01	<0.05	<0.05
Chromium	<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
Copper	<0.004	0.012	<0.004	<0.004	<0.004	<0.004	0.0057	<0.004
Iron	2.6	2.6	4.9	0.3	2.6	1.4	3.5	0.077
Lead (AAS)	<0.004	<0.004	0.0098	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	4.5	4.1	2.2	6	.	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.006
Strontium	0.18	0.2	0.39	0.38	0.61	0.63	0.5	0.5
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	0.002	0.001	0.002	0.002	0.002	0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0052	<0.005
Zinc	0.024	0.034	0.0094	0.0085	0.039	0.029	0.012	0.006
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	313	.	239	.	332	.	303	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	110	110	83	73	110	110	110	100
Chloride	9	.	7	.	5	.	4.4	.
Fluoride	0.1	.	0.5	.	0.42	.	0.6	.
Magnesium	9.7	11	12	12	16	15	17	16
Manganese	1.7	1.8	0.39	0.35	0.52	0.61	0.57	0.5
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Potassium	1.1	2.6	5.3	5.3	7	6.8	7.5	6.7
Sodium	9.1	10	6.1	6.4	6	5.9	5	5.2
Sulfate	3	.	23	.	7	.	23	.

(CONTINUED)

APPENDIX B
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-193		GW-194				GW-195	
	T2331		B4				B4	
	12/19/91		07/22/91		10/05/91		07/22/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	1.4	0.02	5.1	<0.02	5.1	0.037	30	0.022
Antimony	<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
Barium	0.13	0.12	0.63	0.27	0.39	0.2	0.94	0.19
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	0.00042	<0.0003	0.0016	<0.0003
Boron	0.079	0.078	<0.004	<0.004	0.044	0.043	<0.004	<0.004
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	0.0049	<0.003	<0.003	<0.003	<0.003
Chromium (AAS)	<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	0.06	<0.01
Cobalt	<0.005	<0.005	0.011	<0.005	<0.005	<0.005	0.037	<0.005
Copper	<0.004	<0.004	0.011	0.0067	0.015	0.01	0.11	<0.004
Iron	2.3	0.44	6.6	0.0065	6.5	0.016	48	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	0.0051	<0.004	0.0099	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	<0.01	0.016	<0.01	<0.01	<0.01	0.062	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.16	<0.05
Silicon	.	.	17	9.2	.	.	49	10
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.43	0.43	0.17	0.17	0.15	0.15	0.17	0.14
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.027	0.031	0.001	0.001	0.003	0.001	0.001	<0.001
Vanadium	0.0061	<0.005	0.0058	<0.005	0.0058	<0.005	0.037	<0.005
Zinc	0.014	0.012	0.1	0.033	0.031	0.014	0.2	0.038
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	312	.	217	.	218	.	190	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	98	97	76	77	82	72	70	63
Chloride	9.2	.	3	.	3	.	4	.
Fluoride	0.7	.	<0.1	.	<0.1	.	<0.1	.
Magnesium	15	15	6.6	5.7	7.6	5.6	13	5.7
Manganese	0.47	0.44	15	0.038	2.5	0.088	4.5	0.03
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Potassium	8	7.2	3.1	1	2.3	1.6	8.3	1
Sodium	9.6	9.6	7.3	7.2	6.8	7.4	6.2	6.2
Sulfate	13.1	.	12	.	11	.	15	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-195		GW-204					
	B4		T0134					
	10/05/91		03/07/91		06/21/91		09/26/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	8	<0.02	6.2	<0.02	0.39	0.042	1.5	0.024
Antimony	<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
Barium	0.32	0.16	0.17	0.14	0.21	0.16	0.18	0.2
Beryllium	0.00034	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.026	0.034	0.069	0.068	0.067	0.066	0.13	0.1
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0021	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	0.0034	0.0039	<0.003	<0.003
Chromium (AAS)	<0.01	<0.01	0.023	<0.01	<0.01	<0.01	<0.05	<0.05
Chromium	0.014	<0.01	0.012	<0.01	<0.01	<0.01	0.016	<0.01
Cobalt	0.0095	<0.005	0.0055	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.028	<0.004	0.005	<0.004	0.011	0.0083	0.0043	<0.004
Iron	12	0.094	6.1	<0.005	0.97	0.78	2.6	3.6
Lead (AAS)	0.0067	<0.004	0.017	<0.004	0.0044	<0.0042	0.0052	0.0043
Mercury (CVAA)	<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
Nickel	0.015	<0.01	<0.01	<0.01	0.012	<0.01	0.011	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	11	5	7.8	6.8	.	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.12	0.11	0.17	0.16	0.24	0.25	0.25	0.28
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	0.051	0.055	0.71	0.017	0.07	0.01
Vanadium	0.0098	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.045	0.034	0.083	0.0067	0.033	0.026	0.019	0.0092
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	182	.	204	.	294	.	340	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	59	51	44	43	72	64	72	73
Chloride	3	.	8	.	11	.	6.5	.
Fluoride	0.1	.	1	.	1.1	.	1.3	.
Magnesium	7.3	5.4	8.2	6.8	11	11	11	11
Manganese	1	0.26	1.7	1.6	3.6	2.5	3.8	4.4
Nitrate-N	<5	.	<0.2	.	<0.2	.	<0.2	.
Potassium	3.1	1.1	4.7	2.3	3.8	3.6	4	3.1
Sodium	6.2	5.6	33	32	44	48	55	59
Sulfate	10	.	16	.	9	.	2.3	.

(CONTINUED)

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APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-204		GW-206					
	T0134		EXP					
	12/26/91		02/20/91		05/10/91		08/29/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	18	0.13	6.3	0.026	16	0.22	0.19	0.33
Antimony	<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
Barium	0.28	0.19	0.37	0.25	0.61	0.27	0.35	0.4
Beryllium	0.007	<0.0003	0.0005	<0.0003	0.0012	<0.0003	<0.0003	<0.0003
Boron	0.11	0.087	0.043	0.029	0.037	0.045	0.045	0.044
Cadmium (AAS)	0.0026	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	0.0077	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Chromium (AAS)	0.034	<0.01	<0.004	<0.01	0.047	<0.01	<0.01	<0.01
Chromium	0.057	<0.01	0.016	<0.01	0.034	<0.01	<0.01	<0.01
Cobalt	0.025	<0.005	0.014	<0.005	0.031	<0.005	<0.005	<0.005
Copper	0.04	0.0047	0.017	<0.004	0.045	0.0093	0.0045	0.0078
Iron	16	0.088	32	7.1	49	0.27	13	15
Lead (AAS)	0.035	<0.004	0.08	<0.004	0.067	<0.004	0.0098	0.014
Mercury (CVAA)	<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
Nickel	0.055	0.012	0.015	<0.01	0.033	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	6	3.3	3.5	7.1	.	.
Silver	0.008	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.21	0.2	0.14	0.12	0.18	0.14	0.14	0.15
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.132	0.231	<0.001	<0.001	0.006	0.013	<0.001	0.001
Vanadium	0.028	<0.005	0.011	<0.005	0.037	<0.005	<0.005	<0.005
Zinc	0.2	0.012	0.034	0.0069	0.059	0.018	0.014	0.037
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	291	.	214	.	225	.	245	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	62	64	70	56	110	56	60	61
Chloride	7	.	12	.	5	.	5	.
Fluoride	1.2	.	0.1	.	0.12	.	<0.1	.
Magnesium	13	9.1	28	19	51	23	25	26
Manganese	2.7	3.2	1.8	1.1	3.9	0.6	0.75	1
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Potassium	11	3.4	8.4	5.8	9.1	5	5.1	5
Sodium	54	50	12	11	4.8	6	5	5.4
Sulfate	6	.	33	.	30	.	16	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-206		GW-207					
	EXP		EXP					
	11/07/91		02/20/91		05/10/91		08/28/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.41	<0.02	0.046	0.074	0.042	0.049	<0.02	<0.02
Antimony	<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
Barium	0.44	0.41	0.045	0.046	0.049	0.048	0.044	0.044
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.17	0.044	0.11	0.088	0.2	0.12	0.13	0.11
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	0.0033	<0.003	<0.003	<0.003	<0.003
Chromium (AAS)	0.012	<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
Cobalt	0.0071	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0049	<0.004	<0.004	<0.004	0.014	0.012	<0.004	<0.004
Iron	21	0.21	0.21	0.22	0.22	0.21	0.22	0.22
Lead (AAS)	0.034	<0.004	<0.004	<0.004	<0.004	<0.004	<0.008	<0.008
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0	<0.0002
Molybdenum	0.17	<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
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	10	3.1	12	11	.	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.14	0.16	0.5	0.52	0.55	0.54	0.51	0.51
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.025	0.021	0.0025	0.0036	0.015	0.0047	0.0026	<0.002
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO ₃	279	.	268	.	269	.	262	.
Alkalinity-CO ₃	<1	.	<1	.	<1	.	<1	.
Calcium	71	71	55	58	60	59	58	60
Chloride	7	.	1	.	1	.	1	.
Fluoride	0.1	.	0.2	.	0.15	.	0.2	.
Magnesium	25	23	37	38	37	36	38	39
Manganese	1.6	1.2	0.0078	0.0078	0.011	0.0098	0.0093	0.0092
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Potassium	6.5	6	3.1	3.1	2.8	2.7	2.9	2.7
Sodium	6.9	6.2	10	11	9	8.7	9.7	9.8
Sulfate	3	.	53	.	53	.	52	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-207		GW-208					
	EXP		EXP					
	10/28/91		02/22/91		05/11/91		08/29/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
Aluminum	<0.02	0.093	0.053	0.034	<0.02	0.024	<0.02	<0.02
Antimony	<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
Barium	0.047	0.045	0.044	0.043	0.04	0.039	0.042	0.04
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.1	0.061	0.22	0.22	0.2	0.19	0.22	0.22
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	0.0082	<0.003	<0.003	<0.003	<0.003
Chromium (AAS)	<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
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	0.011	0.0047	<0.004	<0.004	<0.004	<0.004
Iron	0.5	0.22	0.55	0.47	0.62	0.44	0.59	0.45
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.008	<0.008
Mercury (CVAA)	<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
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	12	12	12	12	.	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.52	0.5	1.4	1.4	1.4	1.4	1.5	1.5
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.02	0.005	1.2	0.85	1.4	1.1	1.2	0.83
	.	.	.	.	.	.	.	.
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
Alkalinity-HCO3	266	.	225	.	223	.	219	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	55	56	73	74	76	76	76	75
Chloride	<1	.	<1	.	1	.	1	.
Fluoride	0.2	.	0.2	.	0.24	.	0.2	.
Magnesium	38	37	23	23	23	23	24	24
Manganese	0.0082	0.0081	0.017	0.016	0.013	0.013	0.015	0.013
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Potassium	2	2	2.8	2.7	3.2	2.8	2.4	2.5
Sodium	10	9.8	15	14	14	13	15	15
Sulfate	49	.	105	.	244	.	103	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-208		GW-220					
	EXP		NHP					
	10/30/91		01/29/91		04/26/91		08/24/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.021	0.025	1	0.03	4.9	0.038	0.46	<0.02
Antimony	<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
Barium	0.039	0.04	0.098	0.1	0.12	0.084	0.085	0.082
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	0.00086	<0.0003	<0.0003	<0.0003
Boron	0.22	0.22	0.036	0.034	0.033	0.03	0.037	0.035
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	0.0038	<0.003	<0.003	<0.003	<0.003	<0.003
Chromium (AAS)	<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	0.1	0.15	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	0.0063	<0.005	<0.005	<0.005
Copper	<0.004	0.0046	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Iron	0.6	0.5	0.94	0.006	6.7	0.0052	0.46	0.017
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	0.01	<0.004	<0.004	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	0.015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	7.1	5.7	12	5	.	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	1.3	1.3	0.45	0.48	0.43	0.41	0.4	0.4
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	0.0082	<0.005	<0.005	<0.005
Zinc	1.3	1.1	0.0016	0.0052	0.019	0.011	0.0061	0.0036
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	217	.	257	.	245	.	221	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	71	74	65	75	72	59	65	62
Chloride	1	.	6	.	7	.	7	.
Fluoride	0.3	.	<0.1	.	<0.1	.	<0.1	.
Magnesium	24	24	23	22	24	22	23	22
Manganese	0.014	0.014	0.037	0.015	0.16	0.0084	0.022	0.0095
Nitrate-N	<0.2	.	0.8	.	0.59	.	0.7	.
Potassium	3	2.9	2.8	2.6	3.6	2.3	2.4	2.5
Sodium	16	16	3.1	3.1	3	3.2	3.3	3.4
Sulfate	68	.	14	.	14	.	14	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-220		GW-222				GW-223	
	NHP		NHP				NHP	
	10/22/91		02/01/91		05/02/91		02/01/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	5.3	<0.02	0.041	0.048	0.042	0.039	0.083	0.044
Antimony	<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	0.052	<0.05	<0.05
Barium	0.13	0.08	0.17	0.17	0.22	0.21	0.32	0.33
Beryllium	0.0008	<0.0003	<0.0003	<0.0003	0.0003	<0.0003	0.0016	0.00059
Boron	0.039	0.034	0.066	0.052	0.069	0.066	0.052	0.054
Cadmium (AAS)	<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	0.004
Chromium (AAS)	0.016	<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	0.015	<0.01	<0.01
Cobalt	0.0055	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0046	<0.004	0.0098	0.0089	0.007	0.0077	0.0079	0.0092
Iron	7.7	<0.005	0.24	0.24	0.78	0.74	0.33	0.35
Lead (AAS)	0.012	<0.004	<0.004	<0.004	0.0055	<0.004	<0.004	<0.004
Mercury (CVAA)	<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	0.015	0.012	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.015	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	3	2.9	3.8	3.6	4.9	5.2
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.41	0.38	0.41	0.4	0.4	0.4	0.31	0.32
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	0.141	0.133	0.115	0.117	0.005	0.005
Vanadium	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.018	0.0074	0.018	0.014	0.019	0.019	0.0024	0.0076
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	215	.	214	.	271	.	309	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	77	56	85	83	110	110	110	110
Chloride	7	.	179	.	46	.	41	.
Fluoride	<0.1	.	0.4	.	0.28	.	<0.1	.
Magnesium	25	22	15	15	15	15	15	15
Manganese	0.2	0.0055	0.79	0.78	1.1	1	0.65	0.69
Nitrate-N	0.45	.	<10	.	<2	.	<0.2	.
Potassium	3.5	2.3	4.7	4.6	5.5	4.3	1.9	1.9
Sodium	3.2	3	12	12	21	18	10	10
Sulfate	12	.	831	.	49	.	34	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-223		GW-232					
	NHP		EXP					
	05/03/91		03/12/91		05/16/91		09/02/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.028	0.025	0.21	<0.02	0.051	<0.02	0.22	0.026
Antimony	<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
Barium	0.3	0.3	0.019	0.016	0.011	0.0088	0.038	0.016
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	0.00064	<0.0003	<0.0003	<0.0003
Boron	0.039	0.022	2.9	1.4	1.1	1.4	1.5	1.5
Cadmium (AAS)	<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
Chromium (AAS)	<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	0.028	0.13	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	0.016	0.013	<0.004	<0.004	0.04	<0.004
Iron	0.49	0.47	1.1	0.0098	4.2	0.035	15	0.014
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.023	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	<0.01	0.012	0.012	<0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	4.8	4.8	5.2	3.5	2.9	3	.	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.28	0.28	0.44	0.39	0.27	0.29	0.64	0.42
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.008	0.007	<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
Zinc	<0.002	<0.002	0.15	0.009	0.16	0.0024	0.76	0.0047
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	297	.	365	.	178	.	379	.
Alkalinity-CO3	<1	.	90	.	194	.	62	.
Calcium	110	110	5.2	2.1	9.6	2.1	11	1.5
Chloride	36	.	4	.	4	.	4	.
Fluoride	0.12	.	2.1	.	1.53	.	1.9	.
Magnesium	15	14	0.94	0.92	0.68	0.87	1.4	1.1
Manganese	0.63	0.63	0.0076	0.0015	0.029	<0.001	0.081	0.0012
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Potassium	1.8	1.7	4.3	4.4	31	6.8	5.1	4.2
Sodium	10	11	220	230	140	200	230	220
Sulfate	34	.	30	.	31	.	33	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-232		GW-239					
	EXP		EXP					
	11/05/91		02/25/91		05/17/91		09/01/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.035	<0.02	<0.02	<0.02	0.082	0.05	<0.02	0.1
Antimony	<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
Barium	0.015	0.013	0.058	0.036	0.063	0.035	0.057	0.043
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	1.2	1.3	1.5	1.5	1.6	1.6	1.7	2.7
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.0022	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.003
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.011	<0.01	<0.01	<0.01
Chromium	<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
Copper	<0.004	0.021	0.0068	0.0074	0.0063	<0.004	<0.004	<0.004
Iron	2.6	0.022	2.6	0.18	14	0.13	5.5	0.16
Lead (AAS)	0.0041	<0.004	<0.004	<0.004	<0.0043	<0.004	<0.008	<0.008
Mercury (CVAA)	<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
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	3.4	2.9	4.3	3.3	.	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.3	0.3	0.2	0.18	0.21	0.19	0.21	0.21
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.058	0.0094	0.0071	0.0077	0.036	0.0081	0.0076	0.0086
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	357	.	468	.	475	.	472	.
Alkalinity-CO3	74	.	42	.	36	.	32	.
Calcium	2	1.1	1.8	1.8	1.9	2	1.7	1.9
Chloride	3.7	.	517	.	330	.	369	.
Fluoride	2.2	.	1.9	.	1.87	.	2.6	.
Magnesium	0.95	0.97	0.5	0.48	0.49	0.5	0.56	0.5
Manganese	0.013	0.0019	0.02	0.0078	0.054	0.0044	0.024	0.0067
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Potassium	2.9	2.4	3.9	3.8	3.4	2.4	3.7	3.7
Sodium	210	220	450	440	390	340	470	450
Sulfate	32	.	49	.	49	.	48.9	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-239		GW-240					
	EXP		NHP					
	11/02/91		01/29/91		04/25/91		08/24/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.061	<0.02	0.044	0.039	0.07	<0.02	0.044	<0.02
Antimony	<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
Barium	0.066	0.052	0.036	0.038	0.028	0.038	0.039	0.038
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.00043	<0.0003	<0.0003
Boron	1.5	1.5	0.021	0.013	0.042	0.034	0.029	0.027
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	0.01	0.0051	<0.003	<0.003	<0.003
Chromium (AAS)	<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	0.13	0.1	<0.01	<0.01
Cobalt	<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
Iron	5.4	0.093	0.029	0.0097	0.021	0.0059	0.051	<0.005
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.00023
Molybdenum	<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
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	3.4	3.4	3.5	3.4	.	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.21	0.2	0.052	0.053	0.038	0.046	0.058	0.057
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	0.003	0.003	0.002	0.001	0.003	0.004
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.009	0.014	0.0019	0.005	0.014	0.0079	0.0074	0.0049
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	474	.	184	.	190	.	158	.
Alkalinity-CO3	36	.	<1	.	<1	.	<1	.
Calcium	2.1	1.8	37	33	33	40	48	48
Chloride	310	.	105	.	28	.	111	.
Fluoride	2.6	.	0.2	.	0.2	.	0.2	.
Magnesium	0.63	0.55	16	17	17	17	18	18
Manganese	0.016	0.0032	0.0036	0.0017	0.0026	0.007	0.0034	<0.001
Nitrate-N	<2	.	1	.	<2.3	.	3	.
Potassium	3.6	3.6	10	23	20	5	3.7	4.1
Sodium	420	420	62	56	23	23	72	73
Sulfate	58	.	17	.	<10	.	27	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-240		GW-251					
	NHP		S2					
	10/22/91		01/14/91		04/09/91		07/14/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	<0.02	<0.02	0.85	0.14	0.26	0.75	0.89	0.2
Antimony	<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	0.071	<0.05	<0.05	<0.05
Barium	0.047	0.045	0.11	0.11	0.13	0.13	0.13	0.13
Beryllium	<0.0003	<0.0003	0.00055	0.00057	0.0006	0.00094	0.00093	0.0007
Boron	0.017	0.022	0.027	0.025	<0.004	0.047	0.15	0.047
Cadmium (AAS)	<0.002	<0.002	0.16	0.15	0.24	0.24	0.21	0.21
Cadmium	<0.003	<0.003	0.15	0.14	0.23	0.21	0.22	0.22
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	0.027	<0.01	<0.01
Chromium	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	0.024	0.023	0.051	0.047	0.044	0.044
Copper	<0.004	<0.004	0.52	0.4	0.61	0.9	0.71	0.66
Iron	<0.005	<0.005	0.63	0.012	<0.005	0.31	0.64	<0.005
Lead (AAS)	<0.004	<0.004	0.0091	<0.004	<0.004	0.019	0.0044	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	<0.01	0.042	0.045	0.085	0.079	0.23	0.2
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	3.1	2.7	2.9	3.8	4.6	3
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.068	0.065	0.2	0.2	0.24	0.22	0.25	0.24
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.005	<0.001	0.005	0.004	0.003	0.005	0.005	0.004
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0072	0.0073	0.07	0.069	0.12	0.13	0.12	0.12
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	158	.	15	.	142	.	140	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	50	49	110	110	110	110	130	130
Chloride	9	.	24	.	11.4	.	<10	.
Fluoride	0.3	.	1.6	.	1.3	.	1.3	.
Magnesium	17	17	19	18	19	19	20	20
Manganese	0.0013	<0.001	4.1	3.9	5.8	5.6	5.6	5.6
Nitrate-N	2.1	.	92	.	35.7	.	21	.
Potassium	3.2	3.2	3.4	3	3.4	3.8	3.6	3.7
Sodium	76	74	19	18	16	22	20	22
Sulfate	34	.	30	.	23.7	.	22	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-251		GW-252					
	S2		S2					
	10/03/91		01/12/91		04/06/91		07/13/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	1.8	0.056	0.089	0.038	0.11	0.13	0.76	<0.02
Antimony	<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
Barium	0.094	0.09	0.016	0.032	0.018	0.03	0.015	0.013
Beryllium	0.00071	0.00033	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.037	0.019	0.0096	0.062	<0.004	0.026	0.025	0.013
Cadmium (AAS)	0.14	0.11	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0021
Cadmium	0.11	0.11	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	<0.011
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.013	<0.01
Cobalt	0.015	0.014	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.47	0.32	0.0047	0.042	0.02	<0.004	0.007	<0.004
Iron	1.4	<0.005	0.064	0.015	0.054	0.011	0.85	<0.005
Lead (AAS)	0.015	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.0042
Mercury (CVAA)	<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
Nickel	0.033	0.032	<0.01	0.026	0.013	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	0.053	<0.05	<0.05	<0.05
Silicon	.	.	3.7	3.6	1.8	3.7	5.3	4.1
Silver	<0.006	<0.006	<0.006	<0.006	0.0072	<0.006	<0.006	<0.006
Strontium	0.18	0.18	0.019	0.056	0.016	0.03	0.016	0.018
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.006	0.004	<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
Zinc	0.059	0.053	0.016	0.022	0.0069	<0.002	0.013	0.0079
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	158	.	44	.	103	.	68	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	100	100	16	35	21	31	29	34
Chloride	8	.	1	.	1	.	2	.
Fluoride	1.5	.	<0.1	.	0.1	.	<0.1	.
Magnesium	19	19	8.1	19	13	22	17	21
Manganese	3	2.8	0.0056	0.007	0.0055	0.0076	0.021	<0.001
Nitrate-N	65	.	0.2	.	0.8	.	0.74	.
Potassium	3.4	2.6	1.1	1.8	1.5	1.4	1.7	1.5
Sodium	15	15	9.5	8.7	16	6.2	9.3	8.5
Sulfate	9	.	2	.	6	.	5	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-252		GW-253				GW-255	
	S2		S2				S2	
	10/03/91		01/14/91		04/09/91		01/13/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.22	0.032	9	8.7	4	7.7	0.42	0.038
Antimony	<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
Barium	0.019	0.024	0.38	0.37	0.38	0.32	0.038	0.031
Beryllium	<0.0003	<0.0003	0.015	0.015	0.013	0.013	<0.0003	<0.0003
Boron	0.0064	0.0071	0.29	0.3	0.31	0.3	0.017	0.048
Cadmium (AAS)	<0.01	<0.01	5	4.9	4.5	4.4	<0.002	<0.002
Cadmium	<0.003	<0.003	4.3	4.2	4.1	3.7	<0.003	<0.003
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	0.022	<0.01	<0.01
Chromium	<0.01	<0.01	0.011	0.013	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	0.37	0.36	0.37	0.33	<0.005	<0.005
Copper	<0.004	0.0042	130	130	100	100	0.011	0.12
Iron	0.19	0.0055	0.029	<0.004	<0.005	<0.005	0.48	<0.004
Lead (AAS)	<0.004	<0.004	0.046	0.055	0.055	0.05	0.0043	<0.004
Mercury (CVAA)	<0.0002	<0.0002	0.009	0.012	0.0064	0.008	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	2.7	2.7	2.6	2.3	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	5.7	6	6.3	6.9	5.2	4.9
Silver	<0.006	<0.006	0.0083	0.011	0.0087	0.007	<0.006	<0.006
Strontium	0.019	0.024	1	1	1	0.89	0.027	0.028
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	0.01	0.01	0.001	0.009	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.031	0.073	7.1	6.7	6.6	5.8	0.011	<0.001
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	180	.	5	.	53	.	230	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	36	34	420	410	370	350	55	56
Chloride	3	.	355	.	103	.	7	.
Fluoride	0.2	.	2.2	.	3.8	.	<0.1	.
Magnesium	22	21	100	100	95	88	30	30
Manganese	0.016	0.02	40	40	39	37	0.036	0.013
Nitrate-N	1.64	.	1007	.	170	.	0.4	.
Potassium	1.9	1.6	8.6	8	7	6.3	1.4	1.4
Sodium	9.3	5	120	120	78	120	3.8	3.8
Sulfate	8	.	654	.	61.1	.	10	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-255						GW-261	
	S2						SY	
	04/08/91		07/13/91		10/03/91		01/10/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	3.5	<0.02	1.5	0.02	0.28	0.022	0.38	0.02
Antimony	<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	0.059
Barium	0.041	0.027	0.036	0.03	0.035	0.031	0.087	0.062
Beryllium	0.00032	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.014	0.009	0.052	0.024	0.014	<0.004	0.021	0.022
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.01	<0.01	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	0.012	0.02	<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
Copper	0.0086	<0.004	0.0082	<0.004	0.014	<0.004	0.0085	<0.004
Iron	2.7	<0.005	1.3	0.058	0.28	0.0059	0.36	0.0043
Lead (AAS)	0.0045	<0.004	<0.004	<0.004	0.006	<0.004	<0.004	<0.004
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	0.00025	<0.0002	<0.0002	0.00025
Molybdenum	<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
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	11	5	7.6	0.53	.	.	7.7	6.8
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.011	<0.006
Strontium	0.027	0.026	0.031	0.031	0.03	0.029	0.09	0.089
Thorium	<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
Vanadium	0.0065	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.03	0.06	0.018	0.0096	0.016	0.0087	0.033	0.021
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	233	.	219	.	233	.	153	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	40	40	54	58	54	53	42	43
Chloride	6	.	6	.	6	.	3	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	0.2	.
Magnesium	31	30	28	30	29	29	12	12
Manganese	0.19	<0.001	0.062	<0.001	0.045	<0.001	0.021	0.011
Nitrate-N	3	.	2	.	2.72	.	<0.2	.
Potassium	2	1.2	1.8	1.5	1.1	0.69	2.2	2.1
Sodium	3.6	3.5	3.9	3.8	4	3.6	12	11
Sulfate	9	.	11	.	10	.	37	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-261						GW-262	
	SY						SY	
	04/03/91		07/11/91		10/01/91		01/10/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.072	<0.02	0.29	0.042	0.081	<0.02	0.82	0.11
Antimony	<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
Barium	0.069	0.08	0.084	0.08	0.067	0.056	0.26	0.22
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.022	0.0071	0.039	0.043	0.03	0.021	0.015	0.099
Cadmium (AAS)	<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
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	0.01	0.069	<0.01	<0.01	<0.01	<0.01	0.024	0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	0.0071	<0.004	<0.004	<0.004	<0.004	0.0085	0.006
Iron	0.052	<0.005	0.54	0.044	0.063	<0.005	0.96	0.014
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0043	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	0.018	0.011
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	6.5	6.6	6.9	6.9	.	.	14	12
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.077	0.097	0.092	0.093	0.093	0.091	0.16	0.16
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0043	<0.002	0.027	0.028	0.022	0.0039	0.0095	0.0074
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	153	.	142	.	141	.	201	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	38	42	42	41	48	45	62	62
Chloride	2.81	.	3	.	3	.	<1	.
Fluoride	0.21	.	0.2	.	0.2	.	0.1	.
Magnesium	11	12	12	11	12	11	5.9	5.8
Manganese	0.0023	0.023	0.011	0.0025	0.014	0.0066	0.062	0.036
Nitrate-N	<0.3	.	<0.2	.	<0.2	.	<0.2	.
Potassium	1.4	1.7	1.5	1.3	1.9	1.8	2.2	2.3
Sodium	7.9	5.7	7.9	7.7	9	9.4	17	17
Sulfate	38.5	.	38	.	35	.	16	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-262						GW-263	
	SY						SY	
	04/03/91		07/11/91		10/01/91		01/10/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.058	<0.02	0.96	0.037	0.068	0.023	0.41	0.065
Antimony	<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
Barium	0.23	0.25	0.28	0.27	0.24	0.19	0.18	0.19
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.0072	0.03	0.026	0.035	0.013	0.016	0.016	0.016
Cadmium (AAS)	<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
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	0.047	<0.01	<0.01	<0.01	<0.01	0.018	0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0083	0.0054	0.0054	0.0047	<0.004	<0.004	0.018	<0.004
Iron	0.048	<0.005	1.5	0.013	0.065	0.049	0.51	0.011
Lead (AAS)	0.0044	<0.004	0.0043	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.071	0.062
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	12	13	14	8.2	.	.	10	9.7
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.14	0.16	0.16	0.16	0.15	0.15	0.16	0.16
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	<0.002	<0.002	0.015	0.042	0.0068	0.0062	0.062	0.0099
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	205	.	194	.	202	.	217	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	57	62	65	62	64	60	61	63
Chloride	1.01	.	<1	.	<1	.	31	.
Fluoride	0.12	.	0.2	.	0.1	.	0.2	.
Magnesium	5.7	6.2	6.2	5.9	6.1	5.8	15	15
Manganese	0.033	0.025	0.052	0.016	0.017	0.0057	0.023	0.018
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	0.5	.
Potassium	1.7	2	2	1.9	1.9	1.9	1.8	1.7
Sodium	12	9	14	14	16	18	18	17
Sulfate	17.9	.	18	.	15	.	12	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-263						GW-264	
	SY						SY	
	04/03/91		07/11/91		10/01/91		01/11/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.11	0.022	0.48	0.036	1.5	<0.02	0.3	0.023
Antimony	<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
Barium	0.15	0.12	0.14	0.13	0.18	0.22	0.034	0.026
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.0066	0.01	0.018	0.035	0.023	0.018	0.033	0.077
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	0.0037	<0.003	<0.003	<0.003	<0.003
Chromium (AAS)	0.4	<0.01	0.071	<0.01	0.37	<0.01	<0.01	<0.01
Chromium	0.27	0.028	0.057	<0.01	0.18	<0.01	<0.01	0.019
Cobalt	<0.005	0.0058	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.017	0.014	0.024	0.011	0.012	<0.004	<0.004	0.0062
Iron	2.2	<0.005	1.2	0.039	2.4	0.01	0.8	0.43
Lead (AAS)	0.0064	<0.004	<0.004	<0.004	0.005	<0.004	<0.004	<0.004
Mercury (CVAA)	<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
Nickel	0.19	0.15	0.19	0.19	0.12	0.058	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	9.9	10	12	12	.	.	3.2	11
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.14	0.12	0.13	0.12	0.15	0.14	0.34	0.33
Thorium	<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	0.003	0.001	0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	<0.002	0.011	0.02	0.026	0.022	0.0062	0.0099	0.007
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	165	.	149	.	185	.	429	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	59	38	46	41	60	56	150	150
Chloride	59.9	.	66	.	38	.	14	.
Fluoride	0.2	.	0.3	.	0.2	.	<0.1	.
Magnesium	14	12	13	12	15	13	42	40
Manganese	0.029	0.029	0.04	0.019	0.048	0.02	0.043	0.039
Nitrate-N	0.67	.	0.51	.	0.51	.	<0.2	.
Potassium	1.6	1.5	1.8	1.8	1.6	1.6	4.6	3.7
Sodium	11	13	19	20	18	17	30	26
Sulfate	10.3	.	10	.	11	.	148	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-264						GW-281	
	SY						FF	
	04/06/91		07/12/91		10/01/91		01/24/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.074	0.036	0.061	0.022	0.04	0.021	4	<0.02
Antimony	<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
Barium	0.038	0.034	0.046	0.047	0.038	0.051	0.14	0.1
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	<0.004	0.022	0.042	0.047	0.033	0.036	0.026	0.028
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0024	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Chromium (AAS)	<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	0.011	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0055	<0.005
Copper	0.0082	<0.004	<0.004	<0.004	<0.004	<0.004	0.007	<0.004
Iron	0.19	<0.005	1.1	1.2	0.34	<0.005	6.1	0.019
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.00045	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	0.012	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	2	8.8	9.8	9.6	.	.	9.4	5.5
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.33	0.3	0.28	0.28	0.34	0.34	0.36	0.34
Thorium	<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	0.002	0.002
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0051	<0.005
Zinc	<0.002	0.0098	0.013	0.013	0.0063	0.0034	0.011	<0.001
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	419	.	358	.	404	.	198	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	130	120	110	110	150	140	65	60
Chloride	19	.	16	.	15	.	6	.
Fluoride	<0.1	.	0.1	.	<0.1	.	0.1	.
Magnesium	39	37	34	33	41	41	12	11
Manganese	0.037	0.032	0.038	0.036	0.042	0.031	0.7	0.59
Nitrate-N	<0.2	.	<1	.	<2.26	.	<0.2	.
Potassium	3.1	3.1	3.4	3.2	3	3.7	2.7	1.5
Sodium	19	20	26	25	25	26	9.6	10
Sulfate	136	.	100	.	118	.	20	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-281							GW-282
	FF							FF
	04/19/91		07/29/91		08/12/91	10/09/91		01/25/91
	TOT	DIS	TOT	DIS	TOT	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	7.8	<0.02	15	7.8	.	0.61	0.034	0.99
Antimony	<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
Barium	0.15	0.099	0.35	0.16	.	0.15	0.12	0.085
Beryllium	0.00034	<0.0003	0.00086	0.00051	.	<0.0003	<0.0003	<0.0003
Boron	0.08	0.052	0.032	0.039	.	0.052	0.051	0.0073
Cadmium (AAS)	<0.0023	<0.002	0.0035	<0.002	.	<0.002	0.0023	0.0096
Cadmium	<0.003	<0.003	<0.003	<0.003	.	<0.003	<0.003	0.0099
Chromium (AAS)	0.03	<0.01	0.068	0.013	.	<0.01	<0.01	0.022
Chromium	0.019	<0.01	0.024	0.015	.	<0.01	<0.01	0.045
Cobalt	0.012	0.0069	0.017	0.0091	.	<0.005	<0.005	<0.005
Copper	0.016	<0.004	0.035	0.0091	.	0.0067	0.0045	<0.004
Iron	15	1.9	18	8.7	.	0.77	0.01	1.8
Lead (AAS)	0.0078	<0.004	0.02	0.0044	.	<0.004	<0.004	<0.004
Mercury (CVAA)	0.00074	<0.0002	0.0048	0.00075	.	0.00053	<0.0002	0.00038
Molybdenum	<0.01	<0.01	<0.01	<0.01	.	<0.01	<0.01	<0.01
Nickel	0.018	<0.01	0.029	0.017	.	<0.01	<0.01	0.021
Selenium	<0.05	<0.05	<0.05	<0.05	.	<0.05	<0.05	<0.05
Silicon	17	4.4	28	17	.	.	.	5.8
Silver	<0.006	<0.006	<0.006	<0.006	.	<0.006	<0.006	<0.006
Strontium	0.24	0.24	0.36	0.32	.	0.35	0.35	0.036
Thorium	<0.2	<0.2	<0.2	<0.2	.	<0.2	<0.2	<0.2
Uranium (Fluor)	0.001	0.002	0.003	0.002	.	0.001	0.004	<0.001
Vanadium	0.0077	<0.005	0.017	0.0069	.	<0.005	<0.005	<0.005
Zinc	0.028	0.0047	0.033	<0.002	.	0.011	0.044	0.007
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	180	.	.	.	184	201	.	32
Alkalinity-CO3	<1	.	.	.	<1	<1	.	<1
Calcium	54	54	62	55	.	61	63	13
Chloride	9	.	.	.	<1	5	.	7
Fluoride	0.1	.	.	.	0.1	0.2	.	<0.1
Magnesium	13	11	14	12	.	12	12	3.6
Manganese	3.4	3.4	1.8	1.5	.	1.3	1.4	0.089
Nitrate-N	<0.2	.	.	.	<0.2	<0.2	.	0.4
Potassium	3.9	1.7	5.9	4.3	.	1.8	1.7	2.7
Sodium	11	10	9.9	9.7	.	10	12	5.7
Sulfate	17	.	.	.	9	11	.	17

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-282							
	FF							
	01/25/91	04/19/91		07/30/91		08/12/91	10/09/91	
	DIS	TOT	DIS	TOT	DIS	TOT	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	<0.02	0.22	0.032	0.13	0.1	.	0.8	0.035
Antimony	<0.05	<0.05	<0.05	0.34	<0.05	.	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	.	<0.05	<0.05
Barium	0.074	0.038	0.037	0.064	0.068	.	0.11	0.072
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	.	<0.0003	<0.0003
Boron	0.0074	0.029	0.027	0.05	0.033	.	0.034	0.026
Cadmium (AAS)	<0.002	0.012	0.011	0.04	0.037	.	0.036	0.016
Cadmium	0.0056	0.012	0.011	0.034	0.033	.	0.026	0.013
Chromium (AAS)	<0.01	0.017	<0.01	0.01	<0.01	.	0.29	<0.01
Chromium	<0.01	0.01	<0.01	<0.01	<0.01	.	0.052	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	.	<0.005	<0.005
Copper	<0.004	0.0057	0.0092	0.0094	0.0082	.	0.0098	0.0057
Iron	0.008	0.48	0.068	0.36	0.41	.	1.7	0.053
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	.	0.0067	<0.004
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	0.00021	.	0.0015	<0.0002
Molybdenum	<0.01	<0.01	<0.01	0.015	<0.01	.	<0.01	<0.01
Nickel	0.015	<0.01	<0.01	0.037	0.043	.	0.025	0.015
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	.	<0.05	<0.05
Silicon	4.6	3.3	3	5.4	4.7	.	.	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	.	<0.006	<0.006
Strontium	0.035	0.044	0.043	0.061	0.067	.	0.071	0.056
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	.	<0.005	<0.005
Zinc	0.0051	0.012	0.011	<0.002	<0.002	.	0.017	0.012
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	56	.	.	.	70	48	.
Alkalinity-CO3	.	<1	.	.	.	<1	<1	.
Calcium	13	20	20	23	26	.	26	21
Chloride	.	2	.	.	.	5	7	.
Fluoride	.	<0.1	.	.	.	<0.1	<0.1	.
Magnesium	3.4	2.4	2.3	4.1	4.5	.	5	4.2
Manganese	0.038	0.021	0.011	0.31	0.33	.	0.27	0.17
Nitrate-N	.	0.5	.	.	.	0.71	2.87	.
Potassium	2.5	4	3.7	9.3	9.9	.	5.9	6.7
Sodium	5.7	3	3.2	3.8	3.9	.	3.4	4.2
Sulfate	.	10	.	.	.	11	17	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-283							
	FF							
	01/24/91		04/19/91		07/29/91		08/12/91	10/09/91
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	28	0.044	1.9	0.022	0.83	0.28	.	0.62
Antimony	<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
Barium	0.97	0.45	0.49	0.44	0.51	0.44	.	0.53
Beryllium	0.0016	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	.	<0.0003
Boron	0.021	0.02	0.04	0.032	0.023	0.033	.	0.043
Cadmium (AAS)	0.0025	<0.002	<0.002	<0.002	<0.002	<0.002	.	<0.002
Cadmium	0.0038	<0.003	<0.003	<0.003	<0.003	<0.003	.	<0.003
Chromium (AAS)	0.06	<0.01	0.408	<0.01	2.3	0.019	.	2
Chromium	0.16	<0.01	0.11	<0.01	0.097	<0.01	.	0.087
Cobalt	0.022	<0.005	0.0062	<0.005	0.0054	<0.005	.	0.0058
Copper	0.052	0.0099	<0.004	<0.004	0.0049	<0.004	.	<0.004
Iron	36	0.021	3.1	0.011	3	0.28	.	3
Lead (AAS)	0.012	<0.004	<0.004	<0.004	<0.004	<0.004	.	0.0046
Mercury (CVAA)	<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
Nickel	0.29	0.21	0.24	0.22	0.28	0.22	.	0.27
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	.	<0.05
Silicon	45	12	16	13	14	13	.	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	.	<0.006
Strontium	0.58	0.53	0.5	0.5	0.54	0.52	.	0.54
Thorium	<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
Vanadium	0.033	<0.005	<0.005	<0.005	<0.005	<0.005	.	<0.005
Zinc	0.085	0.0075	0.011	0.0058	<0.002	<0.002	.	0.0056
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	371	.	350	.	.	.	363	355
Alkalinity-CO3	<1	.	<1	.	.	.	<1	<1
Calcium	170	160	160	160	160	150	.	170
Chloride	99	.	121	.	.	.	74	77
Fluoride	<0.1	.	<0.1	.	.	.	<0.1	<0.1
Magnesium	23	17	18	17	17	16	.	16
Manganese	2.7	2	1.6	1.4	1.7	1.3	.	1.4
Nitrate-N	6	.	<0.2	.	.	.	0.3	<0.2
Potassium	12	3.7	3.6	3	2.8	2.4	.	2.6
Sodium	17	19	13	13	13	12	.	10
Sulfate	10	.	10	.	.	.	9	9

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-283	GW-284						
	FF	FF						
	10/09/91	01/24/91		04/19/91		07/29/91		08/12/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.038	0.88	0.073	0.66	0.023	2.3	0.48	.
Antimony	<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	.
Barium	0.47	0.5	0.28	0.41	0.4	0.59	0.44	.
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	.
Boron	0.049	0.0069	0.014	0.021	0.019	0.02	0.022	.
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0021	<0.002	.
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	.
Chromium (AAS)	<0.01	0.022	<0.01	0.285	<0.01	6.8	0.17	.
Chromium	<0.01	0.033	<0.01	0.23	<0.01	1.2	0.13	.
Cobalt	<0.005	<0.005	0.0075	0.0066	<0.005	0.039	0.028	.
Copper	<0.004	0.027	0.0057	0.0046	0.0043	0.039	<0.004	.
Iron	0.044	1.4	0.018	2.8	<0.005	19	1.4	.
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	0.015	<0.004	.
Mercury (CVAA)	<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	.
Nickel	0.22	0.52	1.1	0.89	0.84	1.6	1.3	.
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	.
Silicon	.	9	5	7.8	6.7	12	7.8	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	.
Strontium	0.54	0.67	0.53	0.57	0.57	0.69	0.65	.
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	.
Uranium (Fluor)	<0.001	0.005	0.009	0.006	0.006	0.01	0.007	.
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	0.0076	<0.005	.
Zinc	0.0058	0.048	<0.001	0.0064	<0.002	<0.002	<0.002	.
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	277	.	247	.	.	.	283
Alkalinity-CO3	.	<1	.	<1	.	.	.	<1
Calcium	170	220	150	200	190	220	210	.
Chloride	.	229	.	279	.	.	.	296
Fluoride	.	<0.1	.	<0.1	.	.	.	<0.1
Magnesium	16	19	18	21	20	20	19	.
Manganese	1.3	1.5	0.39	0.99	0.89	2.3	2	.
Nitrate-N	.	<0.2	.	<0.2	.	.	.	<0.1
Potassium	2.2	2.8	2.3	2.2	1.8	2.8	2	.
Sodium	8.6	29	26	24	24	27	26	.
Sulfate	.	17	.	21	.	.	.	27

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-284		GW-285					
	FF		FF					
	10/09/91		01/25/91		04/19/91		07/29/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	1	0.043	25	0.027	1.2	<0.02	0.34	0.89
Antimony	<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
Barium	0.7	0.5	0.52	0.11	0.1	0.091	0.12	0.13
Beryllium	<0.0003	<0.0003	0.002	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.013	0.029	<0.004	0.0074	0.019	0.014	0.014	0.028
Cadmium (AAS)	<0.002	<0.002	0.011	<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
Chromium (AAS)	7.2	<0.01	1.8	<0.01	0.202	<0.01	0.78	0.089
Chromium	0.67	<0.01	3.8	<0.01	0.15	<0.01	0.12	0.065
Cobalt	0.031	0.017	0.095	<0.005	0.0065	<0.005	0.0053	0.0051
Copper	0.051	<0.004	0.22	<0.004	0.0098	<0.004	0.0067	0.0079
Iron	15	0.014	110	0.03	3.7	<0.005	2.3	2.1
Lead (AAS)	0.028	<0.004	0.061	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<0.0002	<0.0002	0.00021	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	0.019	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	1.4	1	2.4	0.39	0.47	0.46	0.58	0.52
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	41	6.8	7.8	6.6	7.7	8.2
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.72	0.71	0.19	0.16	0.14	0.15	0.16	0.17
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.01	0.004	0.013	0.005	0.004	0.004	0.004	0.003
Vanadium	<0.005	<0.005	0.047	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0097	0.005	0.081	<0.001	0.0081	0.0042	<0.002	<0.002
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	284	.	178	.	176	.	.	.
Alkalinity-CO3	<1	.	<1	.	<1	.	.	.
Calcium	270	250	69	64	40	41	63	64
Chloride	332	.	11	.	12	.	.	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	.	.
Magnesium	23	23	9.8	5.2	4.9	5.2	5.4	5.5
Manganese	2.5	1.9	1.8	0.17	0.13	0.042	0.19	0.25
Nitrate-N	<0.2	.	0.2	.	0.3	.	.	.
Potassium	2.5	2.4	7.2	2	1.8	1.7	1.8	2.3
Sodium	29	31	8.6	8.7	7.4	7.6	8.9	9
Sulfate	27	.	8	.	7	.	.	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-285			GW-331				GW-332
	FF			WC				WC
	08/12/91	10/09/91		01/23/91		04/14/91		01/23/91
	TOT	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	.	1.5	0.038	<0.02	<0.02	0.034	0.026	0.63
Antimony	.	<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
Barium	.	0.32	0.16	0.21	0.21	0.2	0.2	0.14
Beryllium	.	0.00041	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	.	0.017	0.022	0.038	0.055	0.05	0.048	0.022
Cadmium (AAS)	.	<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
Chromium (AAS)	.	4.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	.	0.31	<0.01	0.021	<0.01	<0.01	<0.01	<0.01
Cobalt	.	0.034	0.0098	0.029	0.032	0.027	0.025	0.0069
Copper	.	0.084	<0.004	<0.004	0.0061	0.0054	<0.004	0.011
Iron	.	16	0.013	0.036	0.0059	0.011	<0.005	1.1
Lead (AAS)	.	0.07	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	.	<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
Nickel	.	1.4	0.68	0.038	0.016	0.012	<0.01	0.011
Selenium	.	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	.	6.3	4.6	7.6	7.6	7.5
Silver	.	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	.	0.2	0.17	0.33	0.34	0.32	0.32	0.15
Thorium	.	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	.	0.007	0.003	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	.	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	.	0.019	0.0088	0.0022	0.0031	0.0078	0.006	0.01
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	178	180	.	153	.	152	.	111
Alkalinity-CO3	<1	<1	.	<1	.	<1	.	<1
Calcium	.	75	70	63	65	43	42	33
Chloride	16	20	.	19	.	17	.	20
Fluoride	<0.1	0.1	.	<0.1	.	<0.1	.	<0.1
Magnesium	.	6.4	5.7	7.2	7.4	7.3	7.4	4.9
Manganese	.	0.95	0.7	0.024	0.024	0.023	0.023	0.089
Nitrate-N	<0.2	0.27	.	2	.	2	.	2
Potassium	.	2	1.7	2.3	2.2	2.2	1.9	1.7
Sodium	.	7.9	8.3	8.9	8.6	9.8	9.7	6
Sulfate	8	8	.	23	.	21	.	18

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-332			GW-333				GW-334
	WC			WC				WC
	01/23/91	04/13/91		01/21/91		04/13/91		01/21/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.022	0.37	0.055	0.7	0.089	0.61	0.025	0.5
Antimony	<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
Barium	0.14	0.18	0.13	0.19	0.086	0.16	0.088	0.16
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.00032	<0.0003	<0.0003
Boron	0.018	0.018	0.022	0.11	0.13	0.12	0.12	0.024
Cadmium (AAS)	<0.002	<0.002	<0.002	0.0028	<0.002	<0.002	<0.002	<0.002
Cadmium	0.0041	<0.003	<0.003	<0.003	0.0038	<0.003	<0.003	<0.003
Chromium (AAS)	<0.01	0.017	<0.01	0.016	<0.01	0.017	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	0.0071	<0.005	0.0069	0.088	0.089	0.07	0.075	<0.005
Copper	0.0061	0.0064	0.0058	0.05	0.022	0.042	0.042	0.026
Iron	0.0077	0.57	0.012	0.6	0.13	0.63	0.041	0.47
Lead (AAS)	<0.004	<0.004	<0.004	0.0049	<0.004	0.026	<0.004	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	<0.01	<0.01	0.043	0.034	0.029	0.029	0.015
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	5.9	8.7	8.2	2.5	6.8	8.9	7.8	8.3
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.16	0.17	0.14	0.12	0.077	0.089	0.079	0.19
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0078	0.0079	0.016	0.035	0.035	0.018	0.026	0.016
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	94	.	45	.	35	.	134
Alkalinity-CO3	.	<1	.	<1	.	<1	.	<1
Calcium	34	38	32	31	17	22	18	58
Chloride	.	18	.	14	.	13	.	8
Fluoride	.	<0.1	.	<0.1	.	<0.1	.	<0.1
Magnesium	4.8	5.5	4.3	5.7	4.5	5	4.6	5
Manganese	0.042	0.094	0.022	0.91	0.56	0.5	0.41	0.068
Nitrate-N	.	2	.	0.4	.	0.31	.	4
Potassium	1.7	1.8	1.8	3.5	2.4	2.9	2.4	1.7
Sodium	6.4	7.2	7.9	13	10	14	14	4.1
Sulfate	.	15	.	48	.	47	.	17

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-334			GW-335				GW-336
	WC			WC				WC
	01/21/91	04/13/91		01/21/91		04/10/91		01/23/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)								
Aluminum	0.04	0.06	0.038	0.25	0.04	4.2	0.035	0.77
Antimony	<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
Barium	0.12	0.13	0.13	0.059	0.062	0.062	0.054	0.14
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.02	0.032	0.015	0.0097	0.051	0.045	0.059	0.0066
Cadmium (AAS)	<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
Chromium (AAS)	<0.01	<0.01	<0.01	0.16	<0.01	0.57	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	0.077	<0.01	0.41	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	0.0056	<0.005	<0.005
Copper	0.0096	0.0059	0.0063	0.011	0.0082	0.015	<0.004	0.013
Iron	0.0077	0.048	0.0069	0.91	0.0057	6.6	0.02	0.99
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	0.00021	<0.0002	0.00043	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	0.079	0.072	0.086	0.072	<0.01
Nickel	<0.01	<0.01	<0.01	0.17	0.17	0.25	0.13	0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	7.8	9.4	9.3	1	0.78	7.7	1	6.6
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.18	0.19	0.18	0.12	0.13	0.094	0.1	0.14
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	0.0059	<0.005	<0.005
Zinc	0.007	0.0062	0.007	0.022	0.012	0.05	0.0049	0.0083
MAJOR IONS (mg/L)								
Alkalinity-HCO ₃	.	145	.	63	.	67	.	127
Alkalinity-CO ₃	.	<1	.	<1	.	<1	.	<1
Calcium	58	42	42	40	44	35	44	43
Chloride	.	5	.	32	.	2	.	11
Fluoride	.	<0.1	.	0.6	.	0.5	.	<0.1
Magnesium	5	5.1	5.2	12	14	12	12	4.3
Manganese	0.0049	0.0031	0.0019	0.027	0.012	0.19	0.015	0.059
Nitrate-N	.	3	.	1	.	2	.	3
Potassium	1.5	2.2	1.9	2	2.3	4	2.3	1.8
Sodium	4	5	5.1	19	21	20	21	7.4
Sulfate	.	16	.	116	.	110	.	14

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-336			GW-337				
	WC			WC				
	01/23/91	04/14/91		01/23/91		04/14/91		07/14/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.024	0.4	0.033	0.89	0.022	0.14	0.028	0.32
Antimony	<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
Barium	0.12	0.17	0.13	0.22	0.2	0.21	0.18	0.22
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.0065	0.029	0.014	0.017	0.014	0.025	0.025	0.046
Cadmium (AAS)	<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	0.0033
Chromium (AAS)	<0.01	0.011	<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
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0054	0.0063	0.0068	0.012	<0.004	<0.004	<0.004	0.015
Iron	0.0068	0.51	0.008	1.7	<0.004	0.25	<0.005	0.47
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.21
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	5.5	7.1	6.5	5.6	5.5	6.8	6.5	7.0
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.13	0.15	0.13	0.25	0.26	0.24	0.23	0.26
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	0.004	<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
Zinc	0.005	0.0076	0.011	0.016	0.0023	0.0057	0.005	0.025
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	134	.	254	.	252	.	227
Alkalinity-CO3	.	<1	.	<1	.	<1	.	<1
Calcium	41	41	40	99	100	90	87	110
Chloride	.	10	.	21	.	26	.	49
Fluoride	.	<0.1	.	<0.1	.	<0.1	.	<0.1
Magnesium	4.1	4.4	4.1	9.2	9.1	9.4	9.1	10
Manganese	0.026	0.1	0.032	0.24	0.11	0.15	0.095	0.17
Nitrate-N	.	3	.	<0.2	.	<0.2	.	<0.2
Potassium	1.6	1.8	1.7	2.3	2	1.7	1.8	2.2
Sodium	7.8	8.2	8.5	3.5	3.7	4.5	4.4	4.4
Sulfate	.	12	.	7	.	6	.	6

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-337			GW-338				
	WC			WC				
	07/14/91	10/04/91		01/16/91		04/10/91		07/13/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.048	0.12	<0.02	0.84	0.061	0.28	0.024	0.55
Antimony	<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
Barium	0.2	0.18	0.19	0.31	0.24	0.29	0.0081	0.33
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.038	0.054	0.019	0.017	0.02	0.054	0.038	0.021
Cadmium (AAS)	<0.002	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	0.0031	<0.003	0.0046	0.0036	<0.003	<0.003	<0.003	<0.003
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	0.012	<0.01	<0.01	<0.01	0.011
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.012	0.0077	0.008	0.036	0.021	0.0088	0.014	0.0082
Iron	<0.005	0.21	<0.005	0.89	0.0078	0.26	0.025	0.46
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<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
Nickel	0.17	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	7.5	.	.	9.4	7.9	8.3	3.8	9.3
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.28	0.21	0.23	0.25	0.24	0.21	0.019	0.25
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.004	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
Zinc	0.011	0.0079	0.0043	0.03	0.0054	0.0072	0.025	0.0082
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO ₃	.	246	.	238	.	234	.	217
Alkalinity-CO ₃	.	<1	.	<1	.	<1	.	<1
Calcium	110	83	88	77	76	82	74	87
Chloride	.	21	.	7	.	7	.	6
Fluoride	.	<0.1	.	<0.1	.	<0.1	.	<0.1
Magnesium	11	8.4	13	8.9	8.7	8.8	24	9.6
Manganese	0.12	0.12	0.15	0.074	0.043	0.078	<0.001	0.24
Nitrate-N	.	<0.2	.	0.4	.	0.5	.	0.47
Potassium	2.1	1.4	2	3.1	3.5	2.4	1.4	2.3
Sodium	4.4	3.6	3.8	5	5.4	5.4	1.1	5.3
Sulfate	.	6	.	15	.	15	.	13

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-338			GW-380				
	WC			NHP				
	07/13/91	10/03/91		01/29/91		04/25/91		08/23/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.024	0.046	<0.02	3	0.03	0.72	<0.02	6.9
Antimony	<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
Barium	0.3	0.3	0.19	0.066	0.074	0.028	0.034	0.055
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.00034
Boron	0.02	0.022	0.026	0.0095	0.013	0.014	0.015	0.048
Cadmium (AAS)	<0.002	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	0.0044
Cadmium	<0.003	<0.003	<0.003	0.005	<0.003	<0.003	<0.003	<0.003
Chromium (AAS)	<0.01	<0.01	<0.01	0.065	<0.01	0.14	<0.01	1.1
Chromium	0.019	<0.01	<0.01	0.15	<0.01	0.18	0.04	0.81
Cobalt	<0.005	<0.005	<0.005	0.0089	0.0059	0.0069	0.012	0.018
Copper	0.011	<0.004	<0.004	0.022	<0.004	0.0097	<0.004	0.029
Iron	0.054	0.044	<0.005	6.5	0.031	1.5	0.23	13
Lead (AAS)	<0.004	<0.004	<0.004	0.005	<0.004	<0.004	<0.004	0.019
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.00032
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	0.02	<0.01	<0.01	0.36	0.49	0.23	0.53	0.72
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	8	.	.	5.5	0.54	3.4	2.5	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.25	0.26	0.23	0.056	0.069	0.03	0.035	0.035
Thorium	<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	0.002
Vanadium	<0.005	<0.005	<0.005	0.008	<0.005	0.0056	<0.005	0.014
Zinc	0.014	0.0064	0.0037	0.049	0.0038	0.037	0.014	0.051
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	236	.	187	.	153	.	159
Alkalinity-CO3	.	<1	.	<1	.	<1	.	<1
Calcium	89	87	81	43	56	26	31	28
Chloride	.	7	.	272	.	131	.	754
Fluoride	.	0.1	.	0.2	.	0.1	.	0.2
Magnesium	9.7	9.5	8.9	17	19	12	13	12
Manganese	0.17	0.18	0.11	0.18	0.13	0.08	0.28	0.45
Nitrate-N	.	0.36	.	1	.	0.9	.	1.35
Potassium	2.2	1.7	2.5	1.6	1.6	1.1	1.1	2.5
Sodium	5.2	5	5.6	190	210	120	120	93
Sulfate	.	13	.	13	.	5	.	40

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-380			GW-381				
	NHP			NHP				
	08/23/91	10/22/91		02/04/91		05/08/91		08/28/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	<0.02	1	<0.02	0.16	<0.02	8.1	0.021	14
Antimony	<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
Barium	0.033	0.045	0.026	0.21	0.2	0.3	0.16	0.38
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.00075	<0.0003	0.0013
Boron	0.039	0.035	0.03	0.029	0.03	0.019	0.054	0.026
Cadmium (AAS)	<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
Chromium (AAS)	0.3	0.4	<0.01	<0.01	<0.01	0.025	<0.01	0.022
Chromium	0.27	0.051	<0.01	<0.01	<0.01	0.01	<0.01	0.019
Cobalt	0.026	0.0055	<0.005	<0.005	<0.005	<0.005	<0.005	0.012
Copper	<0.004	0.013	<0.004	<0.004	<0.004	0.01	<0.004	0.016
Iron	9.7	2.2	<0.005	0.98	0.56	8.6	0.13	19
Lead (AAS)	<0.004	0.03	<0.004	<0.004	<0.004	0.023	<0.004	0.02
Mercury (CVAA)	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.00026
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	1.8	0.22	0.11	<0.01	<0.01	<0.01	<0.01	0.027
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	.	4.3	4.1	14	4.2	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.037	0.035	0.032	0.15	0.15	0.16	0.13	0.16
Thorium	<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
Vanadium	<0.005	0.0069	<0.005	<0.005	<0.005	0.013	<0.005	0.027
Zinc	0.014	0.014	0.008	0.0027	<0.002	0.05	<0.002	0.11
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO ₃	.	208	.	223	.	212	.	227
Alkalinity-CO ₃	.	<1	.	<1	.	<1	.	<1
Calcium	33	30	27	76	76	90	70	96
Chloride	.	46	.	94	.	96	.	9
Fluoride	.	0.2	.	<0.1	.	<0.1	.	<0.1
Magnesium	12	11	10	21	21	22	21	24
Manganese	0.51	0.22	0.1	0.23	0.2	0.71	0.22	1.5
Nitrate-N	.	1.4	.	0.4	.	0.47	.	<0.2
Potassium	0.78	1.4	1.4	1.9	1.9	3.3	1.8	4
Sodium	97	77	75	29	29	33	31	24
Sulfate	.	39	.	6	.	5	.	6

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-381			GW-382				
	NHP			NHP				
	08/28/91	10/27/91		02/04/91		05/07/91		08/27/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	<0.02	0.36	0.12	<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
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.19	0.22	0.22	0.11	0.11	0.1	0.1	0.1
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.026	0.028	0.022	0.057	0.063	0.027	0.079	0.057
Cadmium (AAS)	<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
Chromium (AAS)	<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
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	0.0049	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Iron	0.24	0.87	0.51	0.25	0.14	0.21	0.15	0.27
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	.	4	4.1	4	4.1	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.15	0.14	0.15	0.4	0.41	0.37	0.37	0.39
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0029	0.014	0.0065	0.0046	0.0022	<0.002	<0.002	0.034
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	245	.	204	.	209	.	198
Alkalinity-CO3	.	<1	.	<1	.	<1	.	<1
Calcium	80	76	80	51	51	36	36	53
Chloride	.	71	.	16	.	15	.	19
Fluoride	.	<0.1	.	0.1	.	0.15	.	0.1
Magnesium	21	20	21	25	25	26	26	26
Manganese	0.32	0.35	0.32	0.0031	0.0031	0.0025	0.0022	0.0032
Nitrate-N	.	<0.2	.	2	.	2	.	2.03
Potassium	2	2.2	2.5	1.6	1.4	1.4	1.3	1.1
Sodium	24	24	24	6.4	6.4	6	6.2	5.7
Sulfate	.	7	.	14	.	16	.	15.7

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-382			GW-383				
	NHP			NHP				
	08/27/91	10/27/91		01/29/91		04/25/91		08/27/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	<0.02	0.034	<0.02	0.067	0.03	<0.02	0.051	<0.02
Antimony	<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
Barium	0.1	0.1	0.1	0.51	0.52	0.46	0.45	0.5
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.057	0.09	0.049	0.17	0.13	0.15	0.13	0.12
Cadmium (AAS)	<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	0.0041	<0.003
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	0.012	<0.01	0.027	0.041	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	0.0054	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Iron	0.18	0.32	0.14	1.1	0.69	0.62	0.26	0.82
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.00023
Molybdenum	<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	0.016	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	.	6.8	6.9	6.3	6.2	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.39	0.38	0.38	0.38	0.39	0.37	0.36	0.39
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0061	0.16	0.051	0.0064	0.0059	0.012	0.0099	<0.002
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	205	.	215	.	216	.	211
Alkalinity-CO3	.	<1	.	<1	.	<1	.	<1
Calcium	54	52	52	78	78	65	64	80
Chloride	.	17	.	23	.	22	.	27
Fluoride	.	0.1	.	0.1	.	<0.1	.	0.2
Magnesium	26	25	25	9.5	9.6	9.5	9.4	10
Manganese	0.0034	0.0025	0.0019	0.15	0.16	0.15	0.14	0.16
Nitrate-N	.	2.67	.	<0.2	.	<0.2	.	<0.2
Potassium	1	1.7	1.7	2.7	2.8	2.6	2.4	2.3
Sodium	5.8	6.4	6.3	16	17	16	15	16
Sulfate	.	17	.	20	.	20	.	20

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-383			GW-384				
	NHP			NHP				
	08/27/91	10/26/91		01/28/91		04/24/91		08/21/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.022	<0.02	<0.02	0.039	0.042	<0.02	<0.02	<0.02
Antimony	<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
Barium	0.5	0.52	0.51	0.43	0.42	0.42	0.43	0.4
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.13	0.12	0.13	0.097	0.13	0.085	0.077	0.082
Cadmium (AAS)	<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
Chromium (AAS)	<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
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	0.0046	<0.004	<0.004	<0.004	<0.004	<0.004
Iron	0.77	0.81	0.77	0.9	0.92	0.92	0.88	1.1
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.00023
Molybdenum	<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	0.027
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	.	8.8	7.7	9.2	9	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0088
Strontium	0.39	0.37	0.37	0.47	0.47	0.46	0.47	0.48
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0024	0.0095	0.042	0.0028	0.0047	0.0034	0.0037	0.0046
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	216	.	284	.	289	.	273
Alkalinity-CO3	.	<1	.	<1	.	<1	.	<1
Calcium	80	76	75	92	94	95	95	90
Chloride	.	24	.	17	.	19	.	18
Fluoride	.	0.2	.	0.1	.	<0.1	.	0.2
Magnesium	10	9.5	9.4	11	11	12	12	11
Manganese	0.16	0.15	0.15	0.4	0.41	0.42	0.42	0.41
Nitrate-N	.	<0.02	.	<0.2	.	<0.2	.	<0.2
Potassium	2.6	2.8	3.2	2.7	2.6	2.4	2.5	3.2
Sodium	16	17	18	16	15	14	14	15
Sulfate	.	19	.	14	.	14	.	14

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-384			GW-385				
	NHP			NHP				
	08/21/91	10/15/91		01/27/91		04/23/91		08/21/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.031	0.05	0.049	0.067	0.084	0.16	0.043	0.17
Antimony	<0.05	0.12	0.11	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	0.1	0.13	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.4	0.069	0.071	0.045	0.04	0.043	0.04	0.045
Beryllium	<0.0003	0.096	0.098	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.09	0.082	0.083	0.8	0.85	0.86	0.86	0.76
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	0.15	0.15	<0.003	<0.003	<0.003	<0.003	0.0032
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	0.11	0.11	<0.01	0.021	<0.01	<0.01	0.018
Cobalt	<0.005	0.12	0.12	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0054	0.072	0.073	0.0045	0.0058	<0.004	<0.004	0.0048
Iron	1	0.094	0.096	0.098	0.036	0.13	0.013	0.41
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	0.00025	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	0.12	0.12	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	0.03	0.12	0.12	<0.01	0.023	<0.01	<0.01	0.038
Selenium	<0.05	0.096	0.087	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	.	2.6	3.1	3.9	3.5	.
Silver	<0.006	0.078	0.086	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.48	0.074	0.076	0.084	0.08	0.087	0.086	0.089
Thorium	<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	0.008
Vanadium	<0.005	0.1	0.11	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0068	0.11	0.11	0.013	0.011	0.0061	0.0055	0.0063
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	282	.	283	.	325	.	282
Alkalinity-CO3	.	<1	.	104	.	54	.	50
Calcium	90	0.058	0.061	1.6	1.1	1.7	1	1.3
Chloride	.	9	.	3	.	2	.	2
Fluoride	.	<0.1	.	2.8	.	2.3	.	1.9
Magnesium	12	0.11	0.11	0.26	0.25	0.25	0.22	0.31
Manganese	0.41	0.11	0.12	0.0037	<0.001	0.0027	<0.001	0.0038
Nitrate-N	.	<0.2	.	<0.2	.	<0.2	.	<0.2
Potassium	2.9	0.82	1	2.2	2.2	2.4	2.3	2.5
Sodium	14	0.09	0.082	180	180	190	190	160
Sulfate	.	14	.	21	.	19	.	17

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-385			GW-505				
	NHP			RG				
	08/21/91	10/14/91		03/12/91		06/21/91		09/30/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	<0.02	0.026	<0.02	4	0.037	6.6	0.28	5.3
Antimony	<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
Barium	0.04	0.047	0.046	0.13	0.078	0.16	0.077	0.085
Beryllium	<0.0003	<0.0003	<0.0003	0.00033	<0.0003	0.00059	<0.0003	0.00047
Boron	0.75	0.9	0.88	0.078	<0.004	0.064	0.042	0.084
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	0.0039	0.0037	0.02	0.0093	<0.003
Chromium (AAS)	<0.01	<0.01	<0.01	0.166	<0.01	0.21	<0.01	0.024
Chromium	0.011	<0.01	<0.01	0.064	0.035	0.13	0.013	0.025
Cobalt	<0.005	<0.005	<0.005	0.022	<0.005	0.0098	<0.005	0.0072
Copper	0.0042	<0.004	<0.004	0.013	0.01	0.04	0.014	0.0072
Iron	0.021	0.12	0.0055	4	<0.005	5.9	0.23	3.7
Lead (AAS)	<0.004	<0.004	<0.004	0.008	<0.004	0.0041	<0.004	<0.004
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	0.00024
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	0.029	<0.01	<0.01	0.085	0.077	0.073	0.04	0.023
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	.	2.5	3	12	4.1	.
Silver	0.014	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.085	0.097	0.096	0.083	0.084	0.11	0.096	0.087
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.001	<0.001	<0.001	0.016	0.004	0.015	0.006	0.012
Vanadium	<0.005	<0.005	<0.005	0.0053	<0.005	0.005	<0.005	0.0073
Zinc	0.0052	0.0033	0.0032	0.031	0.019	0.067	0.023	0.032
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	308	.	29	.	50	.	71
Alkalinity-CO3	.	54	.	<1	.	<1	.	<1
Calcium	1	1.3	1.1	20	21	32	29	28
Chloride	.	2	.	32	.	20	.	15
Fluoride	.	2.2	.	0.1	.	0.3	.	0.2
Magnesium	0.23	0.28	0.25	6.3	5.3	7.5	5.7	6
Manganese	<0.001	0.0029	0.0014	0.74	0.19	0.97	0.27	0.37
Nitrate-N	.	<0.2	.	2.9	.	1.45	.	1.14
Potassium	2.6	1.9	1.9	2.2	1.9	3.7	2.2	3.4
Sodium	170	190	180	14	14	11	11	8.5
Sulfate	.	18	.	21	.	25	.	25

(CONTINUED)

APPENDIX B
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-505		GW-508		GW-603			
	NQ		NQ		NMP			
	09/20/91	12/15/91	12/15/91	12/15/91	01/26/91	04/22/91		
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)								
Aluminum	0.38	0.26	0.08	0.66	0.22	0.5	0.022	0.079
Antimony	<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	0.051
Barium	0.072	0.065	0.054	0.29	0.28	0.14	0.13	0.12
Beryllium	0.00031	<0.0003	<0.0003	0.0011	0.00088	<0.0003	<0.0003	<0.0003
Boron	0.066	0.063	0.26	0.074	0.095	0.052	0.011	0.05
Cadmium (AAS)	<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
Chromium (AAS)	<0.01	0.015	<0.01	<0.01	<0.01	<0.01	<0.01	0.037
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	0.009	0.005	<0.005	<0.005	<0.005
Copper	0.0058	0.0051	0.0046	0.0091	0.006	0.014	0.0052	<0.004
Iron	0.2	0.16	0.028	0.11	0.016	0.41	<0.004	0.11
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	0.0068	<0.004	<0.004
Mercury (CVAA)	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
Nickel	0.02	<0.01	<0.01	0.056	0.051	0.027	0.032	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	.	.	.	3.3	2.1	4.9
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.092	0.078	0.078	0.038	0.039	0.082	0.08	0.088
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.014	0.007	0.004	<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
Zinc	0.022	0.015	0.024	0.063	0.086	0.016	0.0026	0.017
MAJOR IONS (mg/L)								
Alkalinity-HCO3	.	41	.	16	.	256	.	269
Alkalinity-CO3	.	<1	.	<1	.	<1	.	<1
Calcium	31	23	24	8.7	9.9	72	71	66
Chloride	.	23	.	76	.	6	.	6
Fluoride	.	0.2	.	0.1	.	0.2	.	0.2
Magnesium	5.9	5.2	5.4	6.9	7.1	22	21	20
Manganese	0.21	0.086	0.054	3.6	3.8	0.036	0.0038	<0.001
Nitrate-N	.	1.19	.	<2.26	.	0.8	.	0.7
Potassium	2.2	1.7	1.7	0.9	0.73	7.2	7.3	7
Sodium	8.3	8.9	8.9	23	26	4.4	4.4	3.9
Sulfate	.	25	.	<10	.	15	.	19

(CONTINUED)

APPENDIX B
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-603					GW-604		
	NMP					NMP		
	04/22/91	09/01/91		11/03/91		01/26/91		04/22/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.069	0.41	0.036	0.19	<0.02	1.2	0.03	1.8
Antimony	<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
Barium	0.12	0.13	0.12	0.12	0.12	0.069	0.029	0.038
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.0034	<0.0003	0.00034
Boron	0.036	<0.004	0.95	0.016	0.019	<0.004	<0.004	0.01
Cadmium (AAS)	<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
Chromium (AAS)	<0.01	0.08	<0.01	0.035	<0.01	<0.01	<0.01	0.011
Chromium	<0.01	0.05	<0.01	0.016	<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
Copper	<0.004	0.0058	<0.004	0.009	0.0053	0.009	<0.004	<0.004
Iron	0.0076	0.51	0.022	0.27	<0.005	0.52	0.01	1.3
Lead (AAS)	<0.004	<0.005	<0.005	<0.004	<0.004	0.063	<0.004	0.026
Mercury (CVAA)	<0.0004	<0.0002	<0.0002	<0.0002	<0.0002	0.00088	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	0.018	0.12	0.11	0.6	0.78	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	3.9	.	.	.	.	5.6	4.8	7
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.092	0.093	0.096	0.076	0.078	0.036	0.032	0.042
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	0.0063	<0.005	<0.005
Zinc	0.017	0.012	0.024	0.011	0.0085	0.22	0.006	0.057
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	241	.	231	.	178	.	208
Alkalinity-CO3	.	41	.	41	.	41	.	41
Calcium	78	76	89	86	89	44	41	49
Chloride	.	5.7	.	6	.	2	.	3
Fluoride	.	0.1	.	0.2	.	0.2	.	0.1
Magnesium	21	23	22	21	21	17	16	17
Manganese	<0.001	0.038	0.021	0.092	0.11	0.038	<0.001	0.0096
Nitrate-N	.	0.8	.	0.9	.	0.6	.	0.8
Potassium	7.3	8	8	6.7	6.6	1.5	1.4	1.6
Sodium	4.1	4.1	5.5	3.5	3.7	1.5	1.6	1.9
Sulfate	.	10.4	.	9	.	5	.	6

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-604					GW-605		
	NHP					NHP		
	04/22/91	09/01/91		11/03/91		08/26/91		10/23/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)								
Aluminum	0.022	0.49	0.088	0.87	<0.02	0.91	0.046	0.081
Antimony	<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
Barium	0.028	0.03	0.029	0.029	0.026	0.065	0.06	0.068
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.011	<0.004	1.1	0.018	0.014	0.24	0.25	0.24
Cadmium (AAS)	<0.002	0.0024	<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
Chromium (AAS)	<0.01	0.014	<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
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	0.0041	<0.004	<0.004	<0.004	0.0042	<0.004	<0.004
Iron	0.011	0.43	0.027	0.83	0.02	1	0.0087	0.073
Lead (AAS)	<0.004	0.015	<0.005	0.0066	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	0.016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	3.2	.	.	.	.	.	.	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.042	0.038	0.039	0.031	0.03	0.16	0.17	0.16
Thorium	<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	0.12	0.16	0.152
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.017	0.023	0.018	0.042	0.0091	0.034	0.012	0.0088
MAJOR IONS (mg/L)								
Alkalinity-HCO ₃	.	160	.	155	.	209	.	249
Alkalinity-CO ₃	.	<1	.	<1	.	<1	.	<1
Calcium	80	47	43	43	40	76	77	86
Chloride	.	2	.	2	.	23	.	24
Fluoride	.	0.1	.	0.1	.	<0.1	.	<0.1
Magnesium	17	17	16	16	15	14	14	16
Manganese	<0.001	0.014	0.0013	0.013	<0.001	0.54	0.53	0.54
Nitrate-N	.	0.5	.	0.5	.	0.69	.	<0.2
Potassium	1.5	1.4	1.7	1.3	1.1	2.9	2.5	3.5
Sodium	2	2.3	4.1	1.3	1.5	15	15	16
Sulfate	.	5.3	.	5	.	26	.	27

(CONTINUED)

APPENDIX B
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-605	GW-606				GW-617		
	WHP	NHP				Y12		
	10/23/91	08/26/91		10/24/91		01/13/91		04/08/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.043	0.051	0.026	0.033	0.036	0.13	0.029	0.78
Antimony	<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
Barium	0.067	0.075	0.072	0.083	0.08	0.045	0.06	0.043
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.22	0.037	0.029	0.028	0.04	0.099	0.1	0.089
Cadmium (AAS)	<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
Chromium (AAS)	<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
Cobalt	<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	0.03	<0.004
Iron	0.052	0.026	0.0086	0.0088	0.0092	0.37	<0.004	1
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<0.0002	0.00024	<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
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	.	.	.	1.7	1.6	2.7
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.16	0.4	0.4	0.41	0.4	0.047	0.074	0.048
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.154	0.004	0.004	0.003	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
Zinc	0.0097	0.0033	0.0022	0.01	0.0031	0.011	<0.001	0.023
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO ₃	.	193	.	181	.	37	.	41
Alkalinity-CO ₃	.	<1	.	<1	.	<1	.	<1
Calcium	85	63	62	59	57	24	39	26
Chloride	.	39	.	9	.	5	.	6
Fluoride	.	0.1	.	0.1	.	<0.1	.	<0.1
Magnesium	16	27	27	28	27	4.9	5	5.2
Manganese	0.54	0.03	0.029	0.021	0.02	0.69	0.71	0.85
Nitrate-N	.	1.32	.	0.78	.	2	.	2
Potassium	4	5.3	5.5	6.1	6.2	1.3	1.2	1.4
Sodium	16	6.7	6.7	6.4	6.5	5.7	4.5	5.9
Sulfate	.	26	.	27	.	39	.	41

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-617					GW-618		
	Y12					Y12		
	04/08/91	07/12/91		10/02/91		01/13/91		04/09/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.027	0.66	0.025	<0.02	<0.02	0.047	0.022	0.071
Antimony	<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
Barium	0.054	0.059	0.061	0.052	0.093	0.064	0.064	0.061
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.11	0.13	0.13	0.13	0.14	0.12	0.11	0.064
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	0.027	0.0072	0.021
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	0.024	0.0051	0.021
Chromium (AAS)	<0.01	0.018	<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
Cobalt	<0.005	<0.005	<0.005	<0.005	0.0052	<0.005	<0.005	<0.005
Copper	0.014	0.0058	0.0041	<0.004	<0.004	<0.004	<0.004	<0.004
Iron	0.01	0.86	0.29	3.2	1.8	0.47	0.43	0.6
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<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
Nickel	0.019	0.012	0.012	0.011	0.021	<0.01	<0.01	0.012
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	2	2.8	2.3	.	.	2.2	2.5	2
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.053	0.034	0.036	0.033	0.048	0.18	0.18	0.18
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.028	0.054	0.05	0.17	0.6	0.0096	0.005	<0.002
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	26	.	30	.	282	.	283
Alkalinity-CO3	.	<1	.	<1	.	<1	.	<1
Calcium	27	17	15	14	16	100	100	93
Chloride	.	3	.	5	.	36	.	30.6
Fluoride	.	<0.1	.	<0.1	.	0.3	.	0.2
Magnesium	4.8	4.3	4	3.8	4.1	8.7	8.5	8.7
Manganese	0.45	0.61	0.8	1.8	1.5	2	2	1.9
Nitrate-N	.	2	.	0.9	.	1	.	4.43
Potassium	1.1	1	1.2	0.85	1.3	4.1	3.9	3.9
Sodium	4.9	3.8	4.3	3.1	3	23	24	17
Sulfate	.	37	.	22	.	28	.	29.4

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-618					GW-619		
	Y12					FTF		
	04/09/91	07/12/91		10/02/91		01/12/91		04/06/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.032	0.07	0.027	<0.02	<0.02	0.74	4.3	2.6
Antimony	<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
Barium	0.058	0.061	0.058	0.058	0.058	0.011	0.0089	0.0078
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.11	0.14	0.048	0.11	0.12	0.06	0.039	0.038
Cadmium (AAS)	0.01	0.017	0.0081	0.016	0.003	<0.002	<0.002	<0.002
Cadmium	0.0092	0.015	0.0078	0.014	<0.003	<0.003	<0.003	<0.003
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.054
Chromium	<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
Copper	<0.004	0.0042	<0.004	<0.004	<0.004	<0.004	0.0054	0.0093
Iron	0.49	1.5	0.9	1.2	1.3	0.032	0.0049	0.008
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	2.2	2.9	0.9	.	.	3.1	3.4	3.1
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.16	0.18	0.17	0.18	0.18	0.15	0.36	0.27
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0076	0.072	0.0079	0.0084	0.0093	0.0029	0.0038	<0.002
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO ₃	.	269	.	288	.	82	.	42
Alkalinity-CO ₃	.	<1	.	<1	.	16	.	8
Calcium	94	100	110	99	100	37	78	57
Chloride	.	28	.	32	.	3	.	2
Fluoride	.	0.2	.	0.3	.	<0.1	.	<0.1
Magnesium	8.1	8.8	9.1	8.5	8.6	1.8	0.71	1.3
Manganese	1.8	1.8	1.9	1.8	1.8	0.014	0.0012	0.0022
Nitrate-N	.	0.57	.	0.43	.	0.8	.	0.8
Potassium	3.7	4.1	3.6	4	3.9	13	36	23
Sodium	22	22	21	20	21	3.8	8.4	4.3
Sulfate	.	27	.	23	.	2	.	3

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-619					GW-620		
	PTF					PTF		
	04/06/91	07/14/91		10/04/91		01/12/91		04/06/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	1.2	2	2.2	2	5.7	0.11	0.068	0.37
Antimony	<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
Barium	0.007	0.0083	0.0037	0.0069	0.0065	0.087	0.061	0.041
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.029	0.04	0.035	0.038	0.026	0.079	0.078	0.051
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.01	<0.01	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	0.015	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	0.015	<0.01	<0.01	0.017
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	0.009	0.012	0.0046	0.0081	0.0079	<0.004	<0.004
Iron	<0.005	0.047	<0.005	0.052	<0.005	0.041	0.0076	0.02
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	<0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	2.7	2.8	2.9	.	.	4.4	4.3	2.8
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.16	0.23	0.15	0.22	0.41	0.27	0.2	0.16
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	0.002	0.001	0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	<0.005	0.0052	0.006	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0038	0.0098	0.01	<0.002	0.0021	0.0063	0.0034	<0.002
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	35	.	29	.	89	.	3
Alkalinity-CO3	.	6	.	22	.	<1	.	28
Calcium	26	56	16	53	77	42	34	43
Chloride	.	3	.	2	.	3	.	3
Fluoride	.	<0.1	.	<0.1	.	<0.1	.	<0.1
Magnesium	1.6	1.7	1.5	1.6	0.43	8.1	7.8	3.7
Manganese	0.0011	0.0052	<0.001	0.0051	<0.001	<0.001	<0.001	0.0022
Nitrate-N	.	1	.	1.4	.	1.2	.	1
Potassium	17	21	23	21	44	17	16	13
Sodium	3.5	5.5	5.3	5.3	8.8	3.1	3.1	3
Sulfate	.	4	.	4	.	6	.	7

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-620					GW-631		
	FTF					RG		
	04/06/91	07/14/91		10/04/91		03/11/91		06/19/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
Aluminum	0.1	1.4	0.28	0.17	<0.02	0.46	0.41	3.2
Antimony	<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
Barium	0.038	0.18	0.19	0.038	0.03	0.44	0.42	0.38
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.0012	0.0012	0.0017
Boron	0.089	0.077	0.051	0.088	0.065	0.041	0.035	0.068
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.01	<0.01	<0.002	<0.002	<0.002
Cadmium	<0.003	0.0036	<0.003	<0.003	<0.003	0.0077	0.0053	<0.003
Chromium (AAS)	<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	0.021	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	0.043	0.043	0.047
Copper	<0.004	0.029	0.033	<0.004	<0.004	0.01	0.013	0.016
Iron	<0.005	1.3	<0.005	0.16	<0.005	0.13	0.13	2.9
Lead (AAS)	<0.004	<0.004	<0.004	0.0071	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	0.33	0.22	<0.01	<0.01	0.047	0.046	0.021
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	2.3	4.1	2.1	.	.	12	12	16
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.2	0.92	0.92	0.14	0.14	0.13	0.13	0.11
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0031	0.11	0.019	<0.002	<0.002	0.044	0.045	0.084
	.	.	.	.	.	.	.	.
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	77	.	140	.	17	.	11
Alkalinity-CO3	.	<1	.	<1	.	<1	.	2
Calcium	39	400	370	49	43	19	20	15
Chloride	.	3	.	3	.	72	.	57
Fluoride	.	<0.1	.	<0.1	.	<0.1	.	0.1
Magnesium	0.21	5.1	0.028	8	10	13	13	10
Manganese	0.0011	0.021	<0.001	0.0012	<0.001	1.4	1.3	1.4
Nitrate-N	.	1	.	1.19	.	9	.	9
Potassium	21	57	71	7.7	5.9	3	2.7	3.5
Sodium	4.6	12	15	2.8	2.5	20	19	17
Sulfate	.	8	.	7	.	2	.	2

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-631					GW-632		
	RG					RG		
	06/19/91	09/19/91		12/14/91		03/11/91		06/20/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.42	0.33	0.052	0.42	0.24	5.7	0.06	2.2
Antimony	<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
Barium	0.35	0.54	0.28	0.18	0.12	0.51	0.16	0.52
Beryllium	0.0017	0.0013	0.00033	0.00082	0.00057	0.0021	<0.0003	0.0012
Boron	0.068	0.058	0.046	0.07	0.089	0.027	0.057	0.047
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	0.0021	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	0.0059	0.0034	<0.003
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	0.155	<0.01	0.3
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	0.014	<0.01	<0.01
Cobalt	0.049	0.035	0.029	0.05	0.044	0.12	0.089	0.083
Copper	0.011	0.01	0.0086	0.011	0.0064	0.018	0.008	0.013
Iron	0.1	0.087	0.011	0.24	0.22	3.2	2.5	1.3
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	0.104	<0.004	0.044
Mercury (CVAA)	<0.0002	<0.0002	0.0002	<0.0002	0.00027	0.00075	<0.0002	0.0014
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	0.064	0.059	0.04	0.022	0.011	0.028	0.016	0.041
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	12	.	.	.	.	5.6	2.9	3.9
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.095	0.19	0.21	0.041	0.042	0.1	0.07	0.12
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	0.0071	<0.005	<0.005
Zinc	0.071	0.11	0.065	0.065	0.066	0.09	0.04	0.05
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	18	.	6	.	117	.	139
Alkalinity-CO3	.	<1	.	<1	.	<1	.	<1
Calcium	13	30	40	7.4	10	59	29	65
Chloride	.	53	.	49	.	17	.	13
Fluoride	.	<0.1	.	<0.1	.	<0.1	.	0.2
Magnesium	8.6	16	11	5.3	4.4	10	7.3	11
Manganese	1.4	0.85	0.87	1.5	1.7	7.7	7.5	6.7
Nitrate-N	.	6.7	.	1.3	.	12	.	13
Potassium	3.3	3.8	3.4	2.8	2.5	2.7	2.5	2.8
Sodium	22	20	19	16	16	4.6	4.3	4.8
Sulfate	.	3	.	6.7	.	1	.	1

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-632					GW-633		
	RG					RG		
	06/20/91	09/20/91		12/14/91		03/11/91		06/20/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.052	8.2	0.068	2.4	0.061	9	<2	0.94
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<1.3	<5	0.054
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<1.3	<5	<0.05
Barium	0.18	0.2	0.17	0.26	0.17	34	36	18
Beryllium	<0.0003	0.00058	<0.0003	0.00065	<0.0003	<0.0075	<0.03	0.00074
Boron	0.03	0.098	0.078	0.03	0.033	0.14	<0.4	0.015
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	0.0022	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.075	<0.3	<0.003
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	0.047	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.25	<1	<0.01
Cobalt	0.095	0.056	0.06	0.14	0.11	<0.13	<0.5	0.058
Copper	<0.004	0.005	0.0048	0.0063	<0.004	<0.1	<0.4	0.013
Iron	3.3	5.5	1.3	4.9	4	8.9	2	6.1
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	0.042	<0.004	0.0042
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	0.00032	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01	<0.25	<1	<0.01
Nickel	0.023	0.023	0.015	0.034	0.021	0.39	<1	0.23
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<1.3	<5	<0.05
Silicon	2.8	.	.	.	.	13	23	19
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.15	<0.6	<0.006
Strontium	0.07	0.12	0.12	0.094	0.08	17	18	8.9
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<5	<20	<0.2
Uranium (Fluor)	<0.001	<0.001	<0.001	<0.001	<0.001	0.004	0.003	0.005
Vanadium	<0.005	0.0069	<0.005	<0.005	<0.005	<0.13	<0.5	<0.005
Zinc	0.062	0.048	0.065	0.043	0.044	0.21	<0.2	0.04
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	126	.	58	.	289	.	270
Alkalinity-CO3	.	<1	.	<1	.	<1	.	<1
Calcium	28	65	72	41	41	7800	7700	26
Chloride	.	19.3	.	13.4	.	<100	.	<100
Fluoride	.	0.1	.	<0.1	.	<0.1	.	0.1
Magnesium	7.5	12	10	10	8.3	460	530	300
Manganese	7.3	4.7	5.8	7.9	7.6	5.2	6.5	11
Nitrate-N	.	7.4	.	14.3	.	5380	.	14566
Potassium	2.2	3.9	2.4	2.7	2.1	15	<60	10
Sodium	4.6	4.7	4.9	4.4	4.6	65	73	41
Sulfate	.	1	.	<10	.	<100	.	<100

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-633					GW-634		
	RG					RG		
	06/20/91	09/19/91		12/14/91		03/09/91		06/19/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.057	2.9	2.2	34	<2	0.23	0.046	0.37
Antimony	0.055	<5	<5	<5	<5	<0.05	<0.05	<0.05
Arsenic	<0.05	<5	<5	<5	<5	<0.05	<0.05	<0.05
Barium	30	29	31	39	37	0.08	0.075	0.13
Beryllium	0.0009	<0.03	<0.03	<0.03	<0.03	<0.0003	<0.0003	<0.0003
Boron	0.018	1.1	5.4	<0.4	<0.4	0.031	0.034	0.074
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.3	<0.3	<0.3	<0.3	<0.003	<0.003	<0.003
Chromium (AAS)	<0.01	<0.01	<0.01	0.038	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<1	<1	<1	<1	<0.01	0.011	<0.01
Cobalt	0.024	<0.5	<0.5	<0.5	<0.5	0.045	0.046	0.044
Copper	0.011	<0.4	<0.4	<0.4	<0.4	<0.004	<0.004	0.0045
Iron	0.34	2.9	0.57	54	<0.5	3.3	2.2	1.8
Lead (AAS)	<0.004	<0.004	<0.004	0.017	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<1	<1	<1	<1	<0.01	<0.01	<0.01
Nickel	0.27	<1	<1	<1	<1	0.013	0.014	0.032
Selenium	<0.05	<5	<5	<5	<5	<0.05	<0.05	<0.05
Silicon	19	.	.	.	.	3.3	3.2	4.2
Silver	<0.006	<0.6	<0.6	<0.6	<0.6	<0.006	<0.006	<0.006
Strontium	14	14	15	18	17	0.011	0.012	0.023
Thorium	<0.2	<2	<2	<2	<2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.003	0.003	0.005	0.004	0.004	<0.001	<0.001	0.001
Vanadium	<0.005	<0.5	<0.5	<0.5	<0.5	<0.005	<0.005	<0.005
Zinc	0.025	0.2	0.89	0.5	0.51	0.017	0.021	0.1
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	275	.	245	.	16	.	15
Alkalinity-CO3	.	<1	.	<1	.	<1	.	<1
Calcium	21	6500	7800	9300	8800	2	2.2	2.5
Chloride	.	<100	.	<50	.	11	.	8
Fluoride	.	<0.1	.	<0.1	.	<0.1	.	<0.1
Magnesium	460	430	480	570	540	2	2	2
Manganese	1.9	12	4	3.7	3.6	3	2.9	2.9
Nitrate-N	.	3686.66	.	5470	.	<0.2	.	<0.2
Potassium	13	84	71	83	<6	1.2	1.2	1.4
Sodium	64	56	64	68	63	3.8	3.7	4.2
Sulfate	.	<100	.	<50	.	1	.	2

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-634					GW-656		
	RG					T0134		
	06/19/91	09/20/91		12/14/91		03/07/91		06/20/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.065	0.39	<0.02	0.2	0.057	27	0.042	1
Antimony	<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
Barium	0.13	0.064	0.08	0.095	0.088	0.53	0.23	0.28
Beryllium	<0.0003	<0.0003	<0.0003	0.00038	0.00032	0.0027	<0.0003	0.00038
Boron	0.062	0.076	0.061	0.11	0.084	0.029	0.014	<0.004
Cadmium (AAS)	<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	0.0065	<0.003	0.012
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	0.079	<0.01	0.044
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	0.1	0.014	0.015
Cobalt	0.032	0.038	0.039	0.045	0.046	0.048	<0.005	<0.005
Copper	0.006	0.0043	<0.004	0.0052	<0.004	0.08	<0.004	0.029
Iron	2.8	1.7	1.4	3.8	2.5	85	0.057	4.4
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	0.029	<0.004	0.011
Mercury (CVAA)	<0.0002	<0.0002	0.00027	0.00022	<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
Nickel	0.03	0.018	0.013	0.018	<0.01	0.15	0.04	0.024
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	5.9	.	.	.	.	41	6.6	7.6
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.021	0.018	0.041	0.013	0.013	0.28	0.26	0.24
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	0.05	<0.005	<0.005
Zinc	0.1	0.048	0.043	0.16	0.12	0.12	0.0023	0.044
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	142	.	13	.	181	.	165
Alkalinity-CO3	.	<1	.	<1	.	<1	.	<1
Calcium	1.9	3.1	9.4	1.6	1.6	120	120	120
Chloride	.	9	.	7.2	.	77	.	76
Fluoride	.	<0.1	.	<0.1	.	<0.1	.	0.2
Magnesium	1.8	1.8	1.8	1.8	1.8	15	7.1	7.3
Manganese	2	2.4	2.6	2.6	2.8	3.1	0.77	1.2
Nitrate-N	.	<0.2	.	<0.2	.	<0.2	.	<0.2
Potassium	0.8	1.1	1.5	1.3	0.96	13	4.4	3.5
Sodium	2.9	3.5	3.6	3.5	3.6	9	9.7	9.1
Sulfate	.	2	.	2.4	.	68	.	67

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-656					GW-657		
	T0134					T2331		
	06/20/91	09/26/91		12/20/91		03/06/91		06/17/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.032	7.8	0.02	2.7	0.042	0.27	0.032	<0.02
Antimony	<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
Barium	0.21	0.32	0.2	0.23	0.21	0.07	0.063	0.074
Beryllium	<0.0003	0.00066	<0.0003	0.00035	<0.0003	<0.0003	<0.0003	<0.0003
Boron	<0.004	0.028	0.02	0.027	0.04	0.039	0.042	0.037
Cadmium (AAS)	<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	0.0038	<0.003
Chromium (AAS)	<0.01	<0.05	<0.05	<0.01	<0.01	0.035	<0.01	<0.01
Chromium	<0.01	0.02	<0.01	<0.01	<0.01	0.011	<0.01	<0.01
Cobalt	<0.005	0.011	<0.005	0.0058	<0.005	<0.005	<0.005	<0.005
Copper	0.014	0.025	0.005	0.0073	<0.004	0.0066	<0.004	<0.004
Iron	0.38	14	0.079	7.8	1.6	0.84	0.11	1
Lead (AAS)	<0.004	0.013	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<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	0.025	0.017	<0.01
Nickel	0.014	0.029	0.012	0.033	0.032	0.014	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	6.7	.	.	.	.	4.2	4.1	3.3
Silver	<0.006	<0.006	<0.006	0.011	<0.006	<0.006	<0.006	<0.006
Strontium	0.25	0.24	0.23	0.21	0.2	0.26	0.25	0.23
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	0.001	0.002	<0.001	<0.001	0.002	0.002	0.003
Vanadium	<0.005	0.0096	<0.005	0.0058	<0.005	<0.005	<0.005	<0.005
Zinc	0.0073	0.026	0.0084	0.017	0.027	0.0056	<0.002	0.0028
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	167	.	163	.	198	.	224
Alkalinity-CO3	.	<1	.	<1	.	<1	.	<1
Calcium	120	120	110	110	100	80	71	78
Chloride	.	70	.	72	.	33	.	40
Fluoride	.	0.1	.	0.1	.	0.5	.	0.38
Magnesium	7.1	8.1	6.3	6.8	6.1	13	13	8.8
Manganese	0.78	1.4	0.75	1	0.89	0.66	0.62	0.48
Nitrate-N	.	<0.2	.	0.24	.	0.8	.	<0.2
Potassium	3.2	7.1	3.7	4.7	3	15	15	6.3
Sodium	10	7.7	8.2	7.9	7.9	21	21	11
Sulfate	.	60	.	59.4	.	60	.	37

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-657					GW-658		
	T2331					FP		
	06/17/91	09/24/91		12/19/91		03/09/91		06/18/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	<0.02	0.074	0.051	0.024	<0.02	0.23	0.16	0.5
Antimony	<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
Barium	0.072	0.065	0.065	0.057	0.055	0.12	0.12	0.12
Beryllium	0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.033	0.057	0.056	0.041	0.047	0.01	0.0078	0.025
Cadmium (AAS)	<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
Chromium (AAS)	<0.01	<0.05	<0.05	<0.01	<0.01	0.012	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.032	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	0.014	0.013	0.023
Copper	<0.004	<0.004	<0.004	<0.004	0.0077	<0.004	<0.004	0.0063
Iron	0.71	1.4	1.3	0.12	0.19	1.5	1.3	7.9
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	0.02	0.021	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	0.028	0.044	0.02
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	3.3	.	.	.	.	4.2	4.2	4.9
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.25	0.17	0.18	0.18	0.18	0.13	0.13	0.12
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.002	0.001	0.001	0.01	0.011	<0.001	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0037	0.017	0.0065	0.017	0.02	0.0069	0.0044	0.033
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	244	.	210	.	128	.	158
Alkalinity-CO3	.	<1	.	<1	.	<1	.	<1
Calcium	76	82	82	86	84	36	37	33
Chloride	.	21	.	17.5	.	13	.	13
Fluoride	.	0.6	.	0.6	.	<0.1	.	<0.1
Magnesium	8.7	9.4	9.4	9	8.8	8.1	8.3	8.2
Manganese	0.45	0.96	0.95	0.61	0.61	6.8	6.6	11
Nitrate-N	.	<0.2	.	<0.2	.	<0.2	.	<0.2
Potassium	6.6	5.8	6.2	5.1	5	1.2	1.4	1.2
Sodium	12	12	13	12	11	23	23	20
Sulfate	.	27	.	48.6	.	14	.	13

(CONTINUED)

APPENDIX B
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-498					GW-499		
	77					77		
	06/18/91	09/26/91		12/15/91		03/06/91		06/20/91
	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.027	0.36	0.035	0.068	0.03	5.1	0.039	0.39
Antimony	<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
Barium	0.12	0.12	0.085	0.13	0.15	0.14	0.1	0.14
Beryllium	<0.0003	<0.0003	<0.0003	0.0043	<0.0003	0.00037	<0.0003	<0.0003
Boron	0.015	0.017	0.19	0.05	0.023	0.019	0.03	0.048
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	0.0022	<0.002
Cadmium	<0.003	<0.003	<0.003	0.0038	<0.003	0.01	0.014	<0.003
Chromium (AAS)	<0.01	<0.05	<0.05	<0.01	<0.01	0.014	<0.01	0.026
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	0.054	0.026	<0.01
Cobalt	0.022	0.012	0.019	0.019	0.017	0.012	0.0056	0.017
Copper	<0.004	0.0044	<0.004	0.0052	<0.004	0.016	0.0084	0.0044
Iron	7.5	11	1.7	6.7	6.9	6.3	0.12	6.3
Lead (AAS)	<0.004	0.019	<0.004	<0.004	<0.004	0.0044	<0.004	0.0054
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	0.012	<0.01	<0.01	<0.01	<0.01
Nickel	0.017	<0.01	0.012	0.014	<0.01	0.03	<0.01	0.023
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	4.3	.	.	.	.	12	3.8	4.7
Silver	<0.006	<0.006	<0.006	0.0043	<0.006	<0.006	<0.006	<0.006
Strontium	0.12	0.13	0.11	0.13	0.13	0.09	0.087	0.089
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	0.0055	<0.005	<0.005
Zinc	0.026	0.011	0.012	0.018	0.03	0.038	0.017	0.024
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO ₃	.	185	.	166	.	78	.	131
Alkalinity-CO ₃	.	41	.	41	.	41	.	41
Calcium	33	43	33	41	35	28	29	33
Chloride	.	10	.	15.9	.	25	.	64
Fluoride	.	0.1	.	0.1	.	<0.1	.	0.1
Magnesium	8.5	10	10	9.5	8.8	4.9	4	6.3
Manganese	12	13	13	9.9	11	2.5	2.4	14
Nitrate-N	.	<0.2	.	<0.2	.	0.2	.	<0.2
Potassium	1	1.4	1	1.4	1.2	8.5	7.7	4.9
Sodium	19	19	19	19	18	13	13	26
Sulfate	.	4	.	1.9	.	12	.	4

(CONTINUED)

APPENDIX B
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-619					GW-707		
	77					72331		
	06/20/91	09/29/91		12/19/91		03/06/91		06/17/91
	D18	TOT	D18	TOT	D18	TOT	D18	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.03	0.30	<0.02	2.5	0.07	0.1	0.029	0.041
Antimony	<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
Barium	0.13	0.13	0.12	0.24	0.015	0.19	0.19	0.067
Beryllium	0.0052	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.00033
Boron	0.044	0.02	0.022	0.020	0.030	0.041	0.04	0.054
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	0.0035	<0.003	<0.003	<0.003	0.0040	<0.003	0.0079	<0.003
Chromium (AAS)	<0.01	<0.05	<0.05	0.11	<0.01	<0.01	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	0.012	0.027	<0.01	0.025	<0.01
Cobalt	0.024	0.021	0.029	0.023	0.0055	<0.005	<0.005	<0.005
Copper	0.013	<0.004	<0.004	0.012	0.076	<0.004	<0.004	0.0041
Iron	6.2	0.0	0.3	7.5	2	2.7	2.4	0.32
Lead (AAS)	<0.004	<0.004	<0.004	0.017	0.0051	<0.004	<0.004	<0.004
Mercury (CVAA)	<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	0.019
Nickel	0.020	0.015	0.025	0.029	<0.01	<0.01	0.014	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	4.4	.	.	.	.	3.2	2.9	4.4
Silver	0.0099	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.096	0.1	0.000	0.1	0.0079	0.29	0.20	0.35
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.003	<0.001	<0.001	0.001	<0.001	0.002	0.002	0.004
Vanadium	<0.005	<0.005	<0.005	0.0067	<0.005	<0.005	<0.005	<0.005
Zinc	0.019	0.043	0.056	0.020	0.14	0.0085	0.0093	<0.002
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	.	131	.	110	.	245	.	275
Alkalinity-CO3	.	41	.	41	.	41	.	41
Calcium	34	48	37	42	1.0	79	77	83
Chloride	.	61	.	74.5	.	2	.	13
Fluoride	.	0.1	.	<0.1	.	0.2	.	0.54
Magnesium	6.3	7	5.7	7.0	0.3	0.3	0.3	15
Manganese	14	14	9.0	11	0.03	0.35	0.34	0.67
Nitrate-N	.	<0.1	.	<2.2	.	<0.2	.	<0.2
Potassium	6.2	4.	5.6	5.3	<0.6	7.6	5.9	10
Sodium	27	20	22	26	250	2.7	2.2	32
Sulfate	.	2.7	.	<10	.	0	.	54

(CONTINUED)

APPENDIX B
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-707					GW-708		
	T2331					T2331		
	06/17/91	09/26/91		12/19/91		03/07/91		06/17/91
	DIB	TOT	DIB	TOT	DIB	TOT	DIB	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	<0.02	0.1	0.047	0.042	0.025	0.035	<0.02	5.3
Antimony	<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
Barium	0.042	0.053	0.05	0.054	0.049	0.055	0.052	0.36
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.00098
Boron	0.059	0.046	0.15	0.048	0.063	0.031	0.027	0.081
Cadmium (AAS)	<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
Chromium (AAS)	<0.01	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	0.031
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.023
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0069
Copper	<0.004	0.0055	0.0042	0.0044	<0.004	<0.004	<0.004	0.022
Iron	0.13	0.16	0.046	0.31	0.038	0.36	0.035	18
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0099
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	0.018	0.016	0.014	0.048	0.041	0.016	0.011	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.017
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.091
Silicon	4.3	.	.	.	.	3.2	2.7	12
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.3	0.24	0.44	0.2	0.2	0.17	0.17	0.7
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.002	0.003	0.003	0.002	0.002	0.009	0.011	0.002
Vanadium	<0.005	<0.005	<0.005	0.0057	<0.005	<0.005	<0.005	0.012
Zinc	<0.002	0.0049	0.009	0.014	0.011	0.0075	0.0048	0.051
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO ₃	.	246	.	192	.	176	.	382
Alkalinity-CO ₃	.	<1	.	<1	.	<1	.	<1
Calcium	88	76	88	88	88	71	71	260
Chloride	.	24	.	16.9	.	17	.	5
Fluoride	.	0.8	.	0.9	.	0.3	.	0.26
Magnesium	14	13	16	11	11	7.9	8	19
Manganese	0.74	0.43	0.34	0.29	0.29	0.52	0.54	1.2
Nitrate-N	.	0.57	.	0.74	.	0.5	.	<0.2
Potassium	9.9	9.9	12	12	11	4.5	4.6	12
Sodium	33	21	27	22	19	11	11	3.5
Sulfate	.	45	.	69.8	.	38	.	<1

(CONTINUED)

APPENDIX B
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-708				
	T2331				
	06/17/91	09/26/91		12/19/91	
	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.
Aluminum	<0.02	0.038	0.045	0.31	0.032
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.26	0.27	0.27	0.24	0.22
Beryllium	0.00034	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.078	0.12	0.11	0.081	0.062
Cadmium (AAS)	<0.002	0.0024	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003
Chromium (AAS)	<0.01	<0.05	<0.05	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	<0.004	<0.004	<0.004
Iron	9.8	8.4	8.8	8.2	6.6
Lead (AAS)	<0.004	0.014	<0.004	<0.004	<0.004
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	<0.01
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	0.067	<0.05	<0.05	<0.05	<0.05
Silicon	3.7	.	.	.	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.44	0.46	0.46	0.37	0.35
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	<0.002	0.0097	0.013	0.011	0.011
MAJOR IONS (mg/L)	.	.	.	.	.
Alkalinity-HCO3	.	389	.	336	.
Alkalinity-CO3	.	<1	.	<1	.
Calcium	120	130	130	120	110
Chloride	.	3.8	.	2.4	.
Fluoride	.	0.4	.	0.5	.
Magnesium	13	14	14	13	12
Manganese	0.97	0.66	0.69	0.78	0.68
Nitrate-N	.	<0.2	.	<0.2	.
Potassium	10	8.6	8.6	6.5	6.3
Sodium	3.4	3.6	3.6	3	2.8
Sulfate	.	1.9	.	<1	.

VOLATILE ORGANIC COMPOUNDS

APPENDIX B
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-149		GW-151				GW-153	
	NHP		NHP				NHP	
	01/28/91	04/24/91	01/31/91	05/01/91	08/24/91	10/23/91	01/31/91	05/02/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	N	N	A	V	40	A	N	N
Benzene	G	G	V	N	G	V	G	G
Bromodichloromethane	G	G	V	N	G	V	G	G
Bromoform	G	G	V	N	G	V	G	G
Bromomethane	N	N	A	V	N	A	N	N
2-Butanone	N	N	A	V	N	A	N	N
Carbon disulfide	G	G	V	N	G	V	G	G
Carbon tetrachloride	G	G	270	160	250	410	42	120
Chlorobenzene	G	G	V	N	G	V	G	G
Chlorodibromomethane	G	G	V	N	G	V	G	G
Chloroethane	N	N	A	V	N	A	N	N
Chloroform	G	G	13	9	15	16	3	7
Chloromethane	N	N	A	V	N	A	N	N
1,1-Dichloroethane	G	G	V	N	G	V	G	G
1,2-Dichloroethane	G	G	V	N	G	V	G	G
1,1-Dichloroethene	G	G	V	N	G	V	G	G
1,2-Dichloroethene	G	G	V	N	1	V	G	G
1,2-Dichloropropane	G	G	V	N	G	V	G	G
cis-1,3-Dichloropropene	G	G	V	N	G	V	G	G
trans-1,3-Dichloropropene	G	G	V	N	G	V	G	G
Ethylbenzene	G	G	V	N	G	V	G	G
2-Hexanone	N	N	A	V	N	A	N	N
4-Methyl-2-pentanone	N	N	A	V	N	A	N	N
Methylene chloride	G	G	V	N	G	5	G	G
Styrene	G	G	V	N	G	V	G	G
1,1,2,2-Tetrachloroethane	G	G	V	N	G	V	G	G
Tetrachloroethene	G	G	15	10	17	18	G	5
Toluene	G	G	1	N	G	V	G	G
1,1,1-Trichloroethane	G	G	V	N	G	V	G	G
1,1,2-Trichloroethane	G	G	V	N	G	V	G	G
Trichloroethene	G	G	V	N	3	V	G	1
Vinyl acetate	N	N	A	V	N	A	N	N
Vinyl chloride	N	N	A	V	N	A	N	N
Xylenes	G	G	V	N	G	V	G	G

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-154		GW-167			GW-168		
	NHP		EXP			EXP		
	01/29/91	04/26/91	02/14/91	05/08/91	08/31/91	02/14/91	05/08/91	09/01/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	N	N	N	N	N	N	N	N
Benzene	G	G	G	G	G	G	G	G
Bromodichloromethane	G	G	G	G	G	G	G	G
Bromoform	G	G	G	G	G	G	G	G
Bromomethane	N	N	N	N	N	N	N	N
2-Butanone	N	N	N	N	N	N	N	N
Carbon disulfide	G	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	G	G	G
Chlorobenzene	G	G	G	G	G	G	G	G
Chlorodibromomethane	G	G	G	G	G	G	G	G
Chloroethane	N	N	N	N	N	N	N	N
Chloroform	G	G	0.8	G	G	0.8	G	G
Chloromethane	N	N	N	N	N	N	N	N
1,1-Dichloroethane	G	G	G	G	G	G	G	G
1,2-Dichloroethane	G	G	G	G	G	G	G	G
1,1-Dichloroethene	G	G	G	G	G	G	G	G
1,2-Dichloroethene	G	G	G	G	G	G	G	G
1,2-Dichloropropane	G	G	G	G	G	G	G	G
cis-1,3-Dichloropropene	G	G	G	G	G	G	G	G
trans-1,3-Dichloropropene	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N
Methylene chloride	G	G	G	G	G	G	G	G
Styrene	G	G	G	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G
Tetrachloroethene	G	G	G	G	G	G	G	G
Toluene	G	G	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G
Trichloroethene	G	G	G	G	G	G	G	G
Vinyl acetate	N	N	N	N	N	N	N	N
Vinyl chloride	N	N	N	N	N	N	N	N
Xylenes	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-168	GW-169				GW-170		
Location	EXP	EXP				EXP		
Date Sampled	11/03/91	03/01/91	05/12/91	09/02/91	11/12/91	03/01/91	05/12/91	09/02/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	N	N	N	N	N	7	N	N
Benzene	G	G	G	G	G	G	G	G
Bromodichloromethane	G	G	G	G	G	G	G	G
Bromoform	G	G	G	G	G	G	G	G
Bromomethane	N	N	N	N	N	N	N	N
2-Butanone	N	N	N	N	N	N	N	N
Carbon disulfide	G	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	99	6	100
Chlorobenzene	G	G	G	G	G	G	G	G
Chlorodibromomethane	G	G	G	G	G	G	G	G
Chloroethane	N	N	N	N	N	N	N	N
Chloroform	G	0.9	G	G	G	8	28	7
Chloromethane	N	N	N	N	N	N	N	N
1,1-Dichloroethane	G	G	G	G	G	G	G	G
1,2-Dichloroethane	G	G	G	G	G	G	G	G
1,1-Dichloroethene	G	G	G	G	G	G	G	G
1,2-Dichloroethene	G	G	G	G	G	G	G	G
1,2-Dichloropropane	G	G	G	G	G	G	G	G
cis-1,3-Dichloropropene	G	G	G	G	G	G	G	G
trans-1,3-Dichloropropene	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N
Methylene chloride	0.8	G	G	G	G	2	4	G
Styrene	G	G	G	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G
Tetrachloroethene	G	4	4	3	3	7	3	8
Toluene	1	G	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G
Trichloroethene	G	6	5	2	2	3	G	3
Vinyl acetate	N	N	N	N	N	N	N	N
Vinyl chloride	N	N	N	N	N	N	N	N
Xylenes	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-170	GW-183				GW-190		
Location	EXP	FF				RG		
Date Sampled	11/06/91	03/08/91	06/18/91	09/25/91	12/15/91	03/12/91	06/19/91	09/20/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	N	V	V	N	N	N	N	N
Benzene	G	380	12	140	83	G	G	G
Bromodichloromethane	G	N	N	G	G	G	G	G
Bromoform	G	N	N	G	G	G	G	G
Bromomethane	N	V	V	N	N	N	N	N
2-Butanone	N	V	V	N	N	N	N	N
Carbon disulfide	G	N	N	G	G	G	G	G
Carbon tetrachloride	91	N	N	G	G	G	G	G
Chlorobenzene	G	N	N	G	G	G	G	G
Chlorodibromomethane	G	N	N	G	G	G	G	G
Chloroethane	N	V	V	N	N	N	N	N
Chloroform	7	N	N	G	G	0.9	G	G
Chloromethane	N	V	39	N	27	N	N	N
1,1-Dichloroethane	G	N	N	G	G	G	G	G
1,2-Dichloroethane	G	N	N	G	G	G	G	G
1,1-Dichloroethene	G	N	N	G	G	G	G	G
1,2-Dichloroethene	G	N	N	G	G	23	54	50
1,2-Dichloropropane	G	N	N	G	G	G	G	G
cis-1,3-Dichloropropene	G	N	N	G	G	G	G	G
trans-1,3-Dichloropropene	G	N	N	G	G	G	G	G
Ethylbenzene	G	22	N	7	8	G	G	G
2-Hexanone	N	V	V	N	N	N	N	N
4-Methyl-2-pentanone	N	V	6	N	N	N	N	N
Methylene chloride	G	N	33	G	G	G	16	G
Styrene	G	N	N	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	N	N	G	G	G	G	G
Tetrachloroethene	10	N	N	G	G	34	38	43
Toluene	1	280	5	56	72	G	G	G
1,1,1-Trichloroethane	G	N	N	G	G	G	G	G
1,1,2-Trichloroethane	G	N	N	G	G	G	G	G
Trichloroethene	3	N	N	G	G	12	18	14
Vinyl acetate	N	V	V	N	N	N	N	N
Vinyl chloride	N	V	V	N	N	N	5	2
Xylenes	G	130	N	32	48	G	G	G

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-190	GW-191				GW-192		
Location	RG	B4				B4		
Date Sampled	12/15/91	01/15/91	04/10/91	07/20/91	10/05/91	01/15/91	04/10/91	07/26/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	N	N	N	N	N	N	N	N
Benzene	G	G	G	G	G	G	G	G
Bromodichloromethane	G	G	G	G	G	G	G	G
Bromoform	G	G	G	G	G	G	G	G
Bromomethane	N	N	N	N	N	N	N	N
2-Butanone	N	N	N	N	N	N	N	N
Carbon disulfide	G	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	G	G	G
Chlorobenzene	G	G	G	G	G	G	G	G
Chlorodibromomethane	G	G	G	G	G	G	G	G
Chloroethane	N	N	N	N	N	N	N	N
Chloroform	G	G	G	G	G	G	G	G
Chloromethane	N	N	N	N	N	N	N	N
1,1-Dichloroethane	14	G	G	G	G	2	2	1
1,2-Dichloroethane	G	G	G	G	G	G	G	G
1,1-Dichloroethene	1	G	G	G	G	G	G	G
1,2-Dichloroethene	1100	G	G	G	G	21	30	12
1,2-Dichloropropane	G	G	G	G	G	G	G	G
cis-1,3-Dichloropropene	G	G	G	G	G	G	G	G
trans-1,3-Dichloropropene	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N
Methylene chloride	0.6	G	G	17	G	G	G	16
Styrene	G	G	G	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G
Tetrachloroethene	170	G	G	G	G	3	3	G
Toluene	0.3	G	G	G	1	G	G	G
1,1,1-Trichloroethane	5	G	G	G	G	G	G	G
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G
Trichloroethene	230	G	G	G	G	4	4	1
Vinyl acetate	N	N	N	N	N	N	N	N
Vinyl chloride	38	N	N	N	N	N	N	N
Xylenes	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-192	GW-193				GW-194		GW-195
Location	B4	T2331				B4		B4
Date Sampled	10/05/91	03/06/91	06/17/91	09/26/91	12/19/91	07/22/91	10/05/91	07/22/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	N	R	R	R	R	N	N	N
Benzene	G	2200	2300	2000	2400	G	G	G
Bromodichloromethane	G	K	K	K	K	G	G	G
Bromoform	G	K	K	K	K	G	G	G
Bromomethane	N	R	R	R	R	N	N	N
2-Butanone	N	R	R	R	R	N	N	N
Carbon disulfide	G	K	K	K	K	G	G	G
Carbon tetrachloride	G	K	K	K	K	G	G	G
Chlorobenzene	G	K	K	K	K	G	G	G
Chlorodibromomethane	G	K	K	K	K	G	G	G
Chloroethane	N	R	R	R	R	N	N	N
Chloroform	G	K	K	K	K	G	G	G
Chloromethane	N	R	R	R	R	N	N	N
1,1-Dichloroethane	2	K	K	K	K	G	G	G
1,2-Dichloroethane	G	K	K	K	K	G	G	G
1,1-Dichloroethene	0.9	K	K	K	K	G	G	G
1,2-Dichloroethene	36	K	K	K	K	G	G	G
1,2-Dichloropropane	G	K	K	K	K	G	G	G
cis-1,3-Dichloropropene	G	K	K	K	K	G	G	G
trans-1,3-Dichloropropene	G	K	K	K	K	G	G	G
Ethylbenzene	G	690	920	1000	420	G	G	G
2-Hexanone	N	R	R	R	R	N	N	N
4-Methyl-2-pentanone	N	R	R	R	R	N	N	N
Methylene chloride	G	K	350	K	K	16	G	15
Styrene	G	K	K	K	K	G	G	G
1,1,2,2-Tetrachloroethane	G	K	K	K	K	G	G	G
Tetrachloroethene	5	K	K	K	K	G	G	G
Toluene	1	870	600	860	760	G	2	G
1,1,1-Trichloroethane	G	K	K	K	K	G	G	G
1,1,2-Trichloroethane	G	K	K	K	K	G	G	G
Trichloroethene	5	K	K	K	K	G	G	G
Vinyl acetate	N	R	R	R	R	N	N	N
Vinyl chloride	2	R	R	R	R	N	N	N
Xylenes	G	1100	1100	900	770	G	G	G

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-195	GW-204				GW-206		
Location	B4	T0134				EXP		
Date Sampled	10/05/91	03/07/91	06/21/91	09/26/91	12/26/91	02/20/91	05/10/91	08/29/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	N	N	N	N	4	N	N	N
Benzene	G	65	120	110	G	G	G	G
Bromodichloromethane	G	G	G	G	G	G	G	G
Bromoform	G	G	G	G	G	G	G	G
Bromomethane	N	N	N	N	N	N	N	N
2-Butanone	N	N	N	N	N	N	N	N
Carbon disulfide	G	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	G	G	G
Chlorobenzene	G	G	G	G	G	G	G	G
Chlorodibromomethane	G	G	G	G	G	G	G	G
Chloroethane	N	N	N	N	N	N	N	N
Chloroform	G	2	G	G	G	0.8	G	G
Chloromethane	N	3	N	N	N	N	N	N
1,1-Dichloroethane	G	G	G	G	G	G	G	G
1,2-Dichloroethane	G	G	G	G	G	G	G	G
1,1-Dichloroethene	G	G	G	G	G	G	G	G
1,2-Dichloroethene	G	G	G	G	G	G	G	G
1,2-Dichloropropane	G	G	G	G	G	G	G	G
cis-1,3-Dichloropropene	G	G	G	G	G	G	G	G
trans-1,3-Dichloropropene	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	130	G	G	G	0.7
2-Hexanone	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	N	N	N	5
Methylene chloride	G	G	G	G	11	G	G	G
Styrene	G	G	G	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G
Tetrachloroethene	0.8	G	G	G	G	G	G	G
Toluene	2	15	30	56	G	G	G	7
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G
Trichloroethene	G	G	G	G	G	G	G	G
Vinyl acetate	N	N	N	N	N	N	N	N
Vinyl chloride	N	N	N	N	N	N	N	N
Xylenes	G	150	390	520	G	G	G	4

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-206	GW-207				GW-208		
Location	EXP	EXP				EXP		
Date Sampled	11/07/91	02/20/91	05/10/91	08/28/91	10/28/91	02/22/91	05/11/91	08/29/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	N	N	N	N	N	N	N	N
Benzene	G	G	G	G	G	G	G	G
Bromodichloromethane	G	G	G	G	G	G	G	G
Bromoform	G	G	G	G	G	G	G	G
Bromomethane	N	N	N	N	N	N	N	N
2-Butanone	N	N	N	N	N	N	N	N
Carbon disulfide	G	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	G	G	G
Chlorobenzene	G	G	G	G	G	G	G	G
Chlorodibromomethane	G	G	G	G	G	G	G	G
Chloroethane	N	N	N	N	N	N	N	N
Chloroform	G	0.8	G	G	G	G	G	G
Chloromethane	N	N	N	N	N	N	N	N
1,1-Dichloroethane	G	G	G	G	G	G	G	G
1,2-Dichloroethane	G	G	G	G	G	G	G	G
1,1-Dichloroethene	G	G	G	G	G	G	G	G
1,2-Dichloroethene	G	G	G	G	G	G	G	G
1,2-Dichloropropane	G	G	G	G	G	G	G	G
cis-1,3-Dichloropropene	G	G	G	G	G	G	G	G
trans-1,3-Dichloropropene	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	0.8
2-Hexanone	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	N	N	N	5
Methylene chloride	G	G	G	G	G	G	G	G
Styrene	G	G	G	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G
Tetrachloroethene	G	G	G	G	G	G	G	G
Toluene	2	G	G	G	1	G	G	4
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G
Trichloroethene	G	G	G	G	G	G	G	G
Vinyl acetate	N	N	N	N	N	N	N	N
Vinyl chloride	N	N	N	N	N	N	N	N
Xylenes	G	G	G	G	G	G	G	4

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-208	GW-220				GW-222		GW-223
Location	EXP	NHP				NHP		NHP
Date Sampled	10/30/91	01/29/91	04/26/91	08/24/91	10/22/91	02/01/91	05/02/91	02/01/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	N	N	N	N	V	N	N	N
Benzene	G	G	G	G	N	G	G	G
Bromodichloromethane	G	G	G	G	N	G	G	G
Bromoform	G	G	G	G	N	G	G	G
Bromomethane	N	N	N	N	V	N	N	N
2-Butanone	N	N	N	N	V	N	N	N
Carbon disulfide	G	G	G	G	N	G	G	G
Carbon tetrachloride	G	150	160	280	270	G	G	26
Chlorobenzene	G	G	G	G	N	G	G	G
Chlorodibromomethane	G	G	G	G	N	G	G	G
Chloroethane	N	N	N	N	V	N	N	N
Chloroform	G	8	8	19	20	G	G	4
Chloromethane	N	N	N	N	V	N	N	N
1,1-Dichloroethane	G	G	G	G	N	G	G	G
1,2-Dichloroethane	G	G	G	G	N	G	G	G
1,1-Dichloroethene	G	G	G	G	N	G	G	G
1,2-Dichloroethene	G	G	G	G	N	8	8	30
1,2-Dichloropropane	G	G	G	G	N	G	G	G
cis-1,3-Dichloropropene	G	G	G	G	N	G	G	G
trans-1,3-Dichloropropene	G	G	G	G	N	G	G	G
Ethylbenzene	G	G	G	G	N	G	G	G
2-Hexanone	N	N	N	N	V	N	N	N
4-Methyl-2-pentanone	N	N	N	N	V	N	N	N
Methylene chloride	1	G	G	G	2	G	G	G
Styrene	G	G	G	G	N	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	N	G	G	G
Tetrachloroethene	G	7	10	15	16	11	18	190
Toluene	G	G	G	G	1	G	G	G
1,1,1-Trichloroethane	G	G	G	G	N	G	G	G
1,1,2-Trichloroethane	G	G	G	G	N	G	G	G
Trichloroethene	G	G	2	3	3	3	3	42
Vinyl acetate	N	N	N	N	V	N	N	N
Vinyl chloride	N	N	N	N	V	N	N	N
Xylenes	G	G	G	G	N	G	G	G

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-223	GW-227					GW-239		
	NHP	RHP					RHP		
	08/03/91	03/12/91	05/16/91	09/02/91	11/05/91	02/25/91	05/17/91	09/01/91	
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.	.
Acetone	N	14	45	N	N	10	N	N	
Benzene	G	G	G	G	G	G	G	G	
Bromodichloromethane	G	G	G	G	G	G	G	G	
Bromoform	G	G	G	G	G	G	G	G	
Bromomethane	N	N	N	N	N	N	N	N	
2-Butanone	N	N	N	N	N	N	N	N	
Carbon disulfide	G	G	G	G	G	G	G	G	
Carbon tetrachloride	30	G	G	G	G	G	G	G	
Chlorobenzene	G	G	G	G	G	G	G	G	
Chlorodibromomethane	G	G	G	G	G	G	G	G	
Chloroethane	N	N	N	N	N	N	N	N	
Chloroform	3	0.8	G	G	G	0.8	G	G	
Chloromethane	N	N	N	N	N	N	N	N	
1,1-Dichloroethane	G	G	G	G	G	G	G	G	
1,2-Dichloroethane	G	G	G	G	G	G	G	G	
1,1-Dichloroethene	G	G	G	G	G	G	G	G	
1,2-Dichloroethene	26	G	G	G	G	G	G	G	
1,2-Dichloropropane	G	G	G	G	G	G	G	G	
cis-1,3-Dichloropropene	G	G	G	G	G	G	G	G	
trans-1,3-Dichloropropene	G	G	G	G	G	G	G	G	
Ethylbenzene	G	G	G	G	G	G	G	G	
2-Heptanone	N	N	N	N	N	N	N	N	
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	
Methylene chloride	G	G	G	G	0.9	G	G	G	
Styrene	G	G	G	G	G	G	G	G	
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G	
Tetrachloroethane	160	G	G	G	G	G	G	G	
Toluene	G	G	G	G	1	G	G	G	
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G	
Trichloroethane	35	G	G	G	G	G	G	G	
Vinyl acetate	N	N	N	N	N	N	N	N	
Vinyl chloride	N	N	N	N	N	N	N	N	
Xylenes	G	G	G	G	G	G	G	G	

(CONTINUED)

APPENDIX B
Groundwater Quality Data, 1991

Well No.	GW-239	GW-240				GW-251		
Location	ESP	SNP				B2		
Date Sampled	11/02/91	01/29/91	04/25/91	08/24/91	10/22/91	01/14/91	04/09/91	07/14/91
VOLATILE ORGANICS (ug/L)								
Acetone	N	N	N	N	N	V	V	V
Benzene	G	G	G	G	G	N	N	N
Bromodichloromethane	G	G	G	G	G	N	N	N
Bromoform	G	G	G	G	G	N	N	N
Bromomethane	N	N	N	N	N	V	V	V
2-Butanone	N	N	N	N	N	V	V	V
Carbon disulfide	G	G	G	G	G	N	N	N
Carbon tetrachloride	G	11	G	13	7	13	15	10
Chlorobenzene	G	G	G	G	G	N	N	N
Chlorodibromomethane	G	G	G	G	G	N	N	N
Chloroethane	N	N	N	N	N	V	V	V
Chloroform	G	1	G	1	1	G	9	G
Chloromethane	N	N	N	N	N	V	V	V
1,1-Dichloroethane	G	G	G	G	G	N	N	N
1,2-Dichloroethane	G	G	G	G	G	N	N	N
1,1-Dichloroethene	G	G	G	G	G	N	N	N
1,2-Dichloroethene	G	G	G	G	G	N	11	7
1,2-Dichloropropane	G	G	G	G	G	N	N	N
cis-1,2-Dichloropropene	G	G	G	G	G	N	N	N
trans-1,2-Dichloropropene	G	G	G	G	G	N	N	N
Ethylbenzene	G	G	G	G	G	N	N	N
2-Hexanone	N	N	N	N	N	V	V	V
4-Methyl-2-pentanone	N	N	N	N	N	V	V	V
Methylene chloride	G	G	G	1	G	N	N	N
Styrene	G	G	G	G	G	N	N	N
1,1,2,2-Tetrachloroethane	G	G	G	G	G	N	N	N
Tetrachloroethane	G	G	G	G	G	150	450	270
Toluene	1	G	G	G	0.6	N	N	N
1,1,1-Trichloroethane	G	G	G	G	G	N	N	N
1,1,2-Trichloroethane	G	G	G	G	G	N	N	N
Trichloroethane	G	G	G	G	G	81	160	94
Vinyl acetate	N	N	N	N	N	V	V	V
Vinyl chloride	N	N	N	N	N	V	V	V
Xylenes	G	G	G	G	G	N	N	N

(CONTINUED)

APPENDIX B
Groundwater Quality Data, 1991

Well No.	GW-251	GW-252				GW-253		GW-255
Location	82	82				82		82
Date Sampled	10/03/91	01/12/91	04/06/91	07/13/91	10/03/91	01/14/91	04/09/91	01/13/91
VOLATILE ORGANICS (ug/L)								
Acetone	.	.	.	.	.	.	.	.
Benzene	N	0	0	0	0	2	2	0
Bromodichloromethane	N	0	0	0	0	2	2	0
Bromoform	N	0	0	0	0	2	2	0
Bromomethane	V	N	N	N	N	M	M	N
2-Butanone	V	N	N	N	N	M	M	N
Carbon disulfide	N	0	0	0	0	2	2	0
Carbon tetrachloride	6	0	0	0	0	20	20	0
Chlorobenzene	N	0	0	0	0	2	2	0
Chlorodibromomethane	N	0	0	0	0	2	2	0
Chloroethane	V	2	N	N	N	M	M	N
Chloroform	6	0	0	0.6	1	35	32	4
Chloromethane	V	N	N	N	N	M	M	N
1,1-Dichloroethane	N	0	0	0	0	2	2	0
1,2-Dichloroethane	N	0	0	0	0	2	2	0
1,1-Dichloroethene	N	0	0	0	0	2	2	0
1,2-Dichloroethene	2	0	0	0	0	85	80	0
1,2-Dichloropropene	N	0	0	0	0	2	2	0
cis-1,2-Dichloropropene	N	0	0	0	0	2	2	0
trans-1,2-Dichloropropene	N	0	0	0	0	2	2	0
Ethylbenzene	N	0	0	0	0	2	2	0
2-Hexanone	V	N	N	N	N	M	M	N
4-Methyl-2-pentanone	V	N	N	N	N	16	M	N
Methylene chloride	N	0	0	15	0	2	2	0
Styrene	N	0	0	0	0	2	2	0
1,1,2,2-Tetrachloroethane	N	0	0	0	0	2	2	0
Tetrachloroethane	150	3	4	0	0	540	660	0
Toluene	1	0	0	0	0	2	2	0
1,1,1-Trichloroethane	N	0	0	0	0	2	2	0
1,1,2-Trichloroethane	N	0	0	0	0	2	2	0
Trichloroethane	53	0	0	0	0	350	360	0
Vinyl acetate	V	N	N	N	N	M	M	N
Vinyl chloride	V	N	N	N	N	M	M	N
Xylenes	N	0	0	0	0	2	2	0

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-255			GW-261				GW-262
	82			8Y				8Y
	04/08/91	07/13/91	10/03/91	01/10/91	04/03/91	07/11/91	10/01/91	01/10/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	N	N	N	N	N	N	N	N
Benzene	G	G	G	G	G	G	G	G
Bromodichloromethane	G	G	G	G	G	G	G	G
Bromoform	G	G	G	G	G	G	G	G
Bromomethane	N	N	N	N	N	N	N	N
2-Butanone	N	N	N	N	N	N	N	N
Carbon disulfide	G	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	G	G	G
Chlorobenzene	G	G	G	G	G	G	G	G
Chlorodibromomethane	G	G	G	G	G	G	G	G
Chloroethane	N	N	N	N	N	N	N	N
Chloroform	J	J	J	G	G	G	G	G
Chloromethane	N	N	N	N	N	N	N	N
1,1-Dichloroethane	G	G	G	G	G	G	G	G
1,2-Dichloroethane	G	G	G	G	G	G	G	G
1,1-Dichloroethene	G	G	G	G	G	G	G	G
1,2-Dichloroethene	G	G	G	G	G	G	G	46
1,2-Dichloropropane	G	G	G	G	G	G	G	G
cis-1,3-Dichloropropene	G	G	G	G	G	G	G	G
trans-1,3-Dichloropropene	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G
2-Heptanone	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	N	N	N	7
Methylene chloride	G	16	G	G	G	15	G	G
Styrene	G	G	G	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G
Tetrachloroethene	0.8	G	G	G	G	G	G	2
Toluene	G	G	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G
Trichloroethene	G	G	G	G	G	G	G	1
Vinyl acetate	N	N	N	N	N	N	N	N
Vinyl chloride	N	N	N	N	N	N	N	N
Xylenes	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX B
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-262			GW-263				GW-264
	SY			SY				SY
	04/03/91	07/11/91	10/01/91	01/10/91	04/03/91	07/11/91	10/01/91	01/11/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	N	N	N	N	N	N	N	N
Benzene	G	G	G	G	G	G	G	G
Bromodichloromethane	G	G	G	G	G	G	G	G
Bromoform	G	G	G	G	G	G	G	G
Bromomethane	N	N	N	N	N	N	N	N
2-Butanone	N	N	N	N	N	N	N	N
Carbon disulfide	G	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	G	G	G
Chlorobenzene	G	G	G	G	G	G	G	G
Chlorodibromomethane	G	G	G	G	G	G	G	G
Chloroethane	N	N	N	N	N	N	N	N
Chloroform	G	G	G	G	G	G	G	G
Chloromethane	N	N	N	N	N	N	N	N
1,1-Dichloroethane	G	G	G	G	G	G	G	G
1,2-Dichloroethane	G	G	G	G	G	G	G	G
1,1-Dichloroethene	G	G	G	G	G	G	G	G
1,2-Dichloroethene	G	G	G	G	G	G	G	G
1,2-Dichloropropane	G	G	G	G	G	G	G	G
cis-1,3-Dichloropropene	G	G	G	G	G	G	G	G
trans-1,3-Dichloropropene	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N
Methylene chloride	G	15	G	G	G	G	G	G
Styrene	G	G	G	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G
Tetrachloroethene	G	G	G	G	G	G	G	G
Toluene	G	G	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G
Trichloroethene	G	G	G	G	G	G	G	G
Vinyl acetate	N	N	N	N	N	N	N	N
Vinyl chloride	N	N	N	N	N	N	N	N
Xylenes	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-264			GW-281				
	SY			FF				
	04/06/91	07/12/91	10/01/91	01/24/91	04/19/91	07/29/91	08/12/91	10/09/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	N	N	N	N	N	N	.	N
Benzene	G	G	G	G	G	G	.	G
Bromodichloromethane	G	G	G	G	G	G	.	G
Bromoform	G	G	G	G	G	G	.	G
Bromomethane	N	N	N	N	N	N	.	N
2-Butanone	N	N	N	N	N	N	.	N
Carbon disulfide	G	G	G	G	G	G	.	G
Carbon tetrachloride	G	G	G	G	G	G	.	G
Chlorobenzene	G	G	G	G	G	G	.	G
Chlorodibromomethane	G	G	G	G	G	G	.	G
Chloroethane	N	N	N	N	N	N	.	N
Chloroform	G	G	G	G	G	G	.	G
Chloromethane	N	N	N	N	N	N	.	N
1,1-Dichloroethane	G	G	G	G	G	G	.	G
1,2-Dichloroethane	G	G	G	G	G	G	.	G
1,1-Dichloroethene	G	G	G	G	G	G	.	G
1,2-Dichloroethene	G	G	G	G	G	G	.	G
1,2-Dichloropropane	G	G	G	G	G	G	.	G
cis-1,3-Dichloropropene	G	G	G	G	G	G	.	G
trans-1,3-Dichloropropene	G	G	G	G	G	G	.	G
Ethylbenzene	G	G	G	G	G	G	.	G
2-Hexanone	N	N	N	N	N	N	.	N
4-Methyl-2-pentanone	N	N	N	N	N	N	.	N
Methylene chloride	G	G	G	G	G	G	.	G
Styrene	G	G	G	G	G	G	.	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	.	G
Tetrachloroethene	G	G	G	G	G	G	.	G
Toluene	G	G	G	G	G	G	.	2
1,1,1-Trichloroethane	G	G	G	G	G	G	.	G
1,1,2-Trichloroethane	G	G	G	G	G	G	.	G
Trichloroethene	G	G	G	G	G	G	.	G
Vinyl acetate	N	N	N	N	N	N	.	N
Vinyl chloride	N	N	N	N	N	N	.	N
Xylenes	G	G	G	G	G	G	.	G

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-282					GW-283		
	FF					FF		
	01/25/91	04/19/91	07/30/91	08/12/91	10/09/91	01/24/91	04/19/91	07/29/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	N	N	N	.	N	N	N	N
Benzene	G	G	G	.	G	G	G	G
Bromodichloromethane	G	G	G	.	G	G	G	G
Bromoform	G	G	G	.	G	G	G	G
Bromomethane	N	N	N	.	N	N	N	N
2-Butanone	N	N	N	.	N	N	N	N
Carbon disulfide	G	G	G	.	G	G	G	G
Carbon tetrachloride	G	G	G	.	G	G	G	G
Chlorobenzene	G	G	G	.	G	G	G	G
Chlorodibromomethane	G	G	G	.	G	G	G	G
Chloroethane	N	N	N	.	N	N	N	N
Chloroform	G	G	G	.	G	G	G	G
Chloromethane	N	N	N	.	N	N	N	N
1,1-Dichloroethane	G	G	G	.	G	G	G	G
1,2-Dichloroethane	G	G	G	.	G	G	G	G
1,1-Dichloroethene	G	G	G	.	G	G	G	G
1,2-Dichloroethene	G	G	G	.	G	G	G	G
1,2-Dichloropropane	G	G	G	.	G	G	G	G
cis-1,3-Dichloropropene	G	G	G	.	G	G	G	G
trans-1,3-Dichloropropene	G	G	G	.	G	G	G	G
Ethylbenzene	G	G	G	.	G	G	G	G
2-Hexanone	N	N	N	.	N	N	N	N
4-Methyl-2-pentanone	N	N	N	.	N	N	N	N
Methylene chloride	G	G	G	.	G	G	G	0.5
Styrene	G	G	G	.	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	.	G	G	G	G
Tetrachloroethene	G	G	G	.	G	G	G	G
Toluene	G	G	G	.	2	G	G	G
1,1,1-Trichloroethane	G	G	G	.	G	G	G	G
1,1,2-Trichloroethane	G	G	G	.	G	G	G	G
Trichloroethene	G	G	G	.	G	G	G	G
Vinyl acetate	N	N	N	.	N	N	N	N
Vinyl chloride	N	N	N	.	N	N	N	N
Xylenes	G	G	G	.	G	G	G	G

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-283		GW-284						GW-285
	FF		FF						FF
	08/12/91	10/09/91	01/24/91	04/19/91	07/29/91	08/12/91	10/09/91	01/25/91	
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.	.
Acetone	.	N	N	N	N	.	N	N	N
Benzene	.	G	G	G	G	.	G	G	G
Bromodichloromethane	.	G	G	G	G	.	G	G	G
Bromoform	.	G	G	G	G	.	G	G	G
Bromomethane	.	N	N	N	N	.	N	N	N
2-Butanone	.	N	N	N	N	.	N	N	N
Carbon disulfide	.	G	G	G	G	.	G	G	G
Carbon tetrachloride	.	G	G	G	G	.	G	G	G
Chlorobenzene	.	G	G	G	G	.	G	G	G
Chlorodibromomethane	.	G	G	G	G	.	G	G	G
Chloroethane	.	N	N	N	N	.	N	N	N
Chloroform	.	G	G	G	G	.	G	G	G
Chloromethane	.	N	N	N	N	.	N	N	N
1,1-Dichloroethane	.	G	G	G	G	.	G	G	G
1,2-Dichloroethane	.	G	G	G	G	.	G	G	G
1,1-Dichloroethene	.	G	G	G	G	.	G	G	G
1,2-Dichloroethene	.	G	G	G	G	.	G	0.7	G
1,2-Dichloropropane	.	G	G	G	G	.	G	G	G
cis-1,3-Dichloropropene	.	G	G	G	G	.	G	G	G
trans-1,3-Dichloropropene	.	G	G	G	G	.	G	G	G
Ethylbenzene	.	G	G	G	G	.	G	G	G
2-Hexanone	.	N	N	N	N	.	N	N	N
4-Methyl-2-pentanone	.	3	N	N	N	.	N	N	N
Methylene chloride	.	G	G	G	G	.	G	G	G
Styrene	.	G	G	G	G	.	G	G	G
1,1,2,2-Tetrachloroethane	.	G	G	G	G	.	G	G	G
Tetrachloroethene	.	G	G	G	G	.	G	G	G
Toluene	.	2	G	G	G	.	2	G	G
1,1,1-Trichloroethane	.	G	G	G	G	.	G	G	G
1,1,2-Trichloroethane	.	G	G	G	G	.	G	G	G
Trichloroethene	.	G	G	G	G	.	G	G	G
Vinyl acetate	.	N	N	N	N	.	N	N	N
Vinyl chloride	.	N	N	N	N	.	N	N	N
Xylenes	.	G	G	G	G	.	G	G	G

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-285				GW-331		GW-332	
	FF				WC		WC	
	04/19/91	07/29/91	08/12/91	10/09/91	01/23/91	04/14/91	01/23/91	04/13/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
Acetone	N	N	.	N	1500	W	T	T
Benzene	G	G	.	G	B	T	B	B
Bromodichloromethane	G	G	.	G	B	T	B	B
Bromoform	G	G	.	G	B	T	B	B
Bromomethane	N	N	.	N	T	W	T	T
2-Butanone	N	N	.	N	T	W	T	T
Carbon disulfide	G	G	.	G	B	T	B	B
Carbon tetrachloride	G	G	.	G	B	T	B	B
Chlorobenzene	G	G	.	G	B	T	B	B
Chlorodibromomethane	G	G	.	G	B	T	B	B
Chloroethane	N	N	.	N	T	W	T	T
Chloroform	G	G	.	G	B	T	B	B
Chloromethane	N	N	.	N	T	W	T	T
1,1-Dichloroethane	G	G	.	G	84	82	58	B
1,2-Dichloroethane	G	G	.	G	B	T	B	B
1,1-Dichloroethene	G	G	.	G	270	210	160	130
1,2-Dichloroethene	G	G	.	0.8	6100	5700	4000	3500
1,2-Dichloropropane	G	G	.	G	B	T	B	B
cis-1,3-Dichloropropene	G	G	.	G	B	T	B	B
trans-1,3-Dichloropropene	G	G	.	G	B	T	B	B
Ethylbenzene	G	G	.	G	B	T	B	B
2-Hexanone	N	N	.	N	T	W	T	T
4-Methyl-2-pentanone	N	N	.	N	T	W	T	T
Methylene chloride	G	G	.	G	790	T	510	360
Styrene	G	G	.	G	B	T	B	B
1,1,2,2-Tetrachloroethane	G	G	.	G	B	T	B	B
Tetrachloroethene	G	G	.	G	2200	2100	1400	1100
Toluene	G	G	.	2	B	T	B	B
1,1,1-Trichloroethane	G	G	.	G	130	100	76	53
1,1,2-Trichloroethane	G	G	.	G	B	T	B	B
Trichloroethene	G	G	.	G	1200	1100	710	520
Vinyl acetate	N	N	.	N	T	W	T	T
Vinyl chloride	N	N	.	N	250	W	180	T
Xylenes	G	G	.	G	B	T	B	B

(CONTINUED)

APPENDIX B
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-333		GW-334		GW-335		GW-336	
	WC		WC		WC		WC	
	01/21/91	04/13/91	01/21/91	04/13/91	01/21/91	04/10/91	01/23/91	04/14/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	N	N	N	N	N	N	T	T
Benzene	G	G	G	G	G	G	B	B
Bromodichloromethane	G	G	G	G	G	G	B	B
Bromoform	G	G	G	G	G	G	B	B
Bromomethane	N	N	N	N	N	N	T	T
2-Butanone	N	N	N	N	N	N	T	T
Carbon disulfide	G	G	G	G	G	G	B	B
Carbon tetrachloride	G	G	G	G	G	G	B	B
Chlorobenzene	G	G	G	G	G	G	B	B
Chlorodibromomethane	G	G	G	G	G	G	B	B
Chloroethane	N	N	N	N	N	N	T	T
Chloroform	G	G	3	5	G	G	B	B
Chloromethane	N	N	N	N	N	N	T	T
1,1-Dichloroethane	G	G	G	G	G	G	49	43
1,2-Dichloroethane	G	G	G	G	G	G	B	B
1,1-Dichloroethene	G	G	5	G	G	G	240	210
1,2-Dichloroethene	66	58	210	220	G	G	4000	4800
1,2-Dichloropropane	G	G	G	G	G	G	B	B
cis-1,3-Dichloropropene	G	G	G	G	G	G	B	B
trans-1,3-Dichloropropene	G	G	G	G	G	G	B	B
Ethylbenzene	G	G	G	G	G	G	B	B
2-Hexanone	N	N	N	N	N	N	T	T
4-Methyl-2-pentanone	N	N	N	N	N	N	T	T
Methylene chloride	G	G	G	G	G	G	130	B
Styrene	G	G	G	G	G	G	B	B
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	B	B
Tetrachloroethene	8	8	31	33	G	G	500	590
Toluene	G	G	G	G	G	G	B	B
1,1,1-Trichloroethane	G	G	2	G	G	G	91	68
1,1,2-Trichloroethane	G	G	G	G	G	G	B	B
Trichloroethene	10	11	61	69	G	G	540	490
Vinyl acetate	N	N	N	N	N	N	T	T
Vinyl chloride	N	N	4	N	N	N	160	130
Xylenes	G	G	G	G	G	G	B	B

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-337				GW-338			
	WC				WC			
	01/23/91	04/14/91	07/14/91	10/04/91	01/16/91	04/10/91	07/13/91	10/03/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	L	L	L	L	N	N	N	N
Benzene	W	W	W	W	G	G	G	G
Bromodichloromethane	W	W	W	W	G	G	G	G
Bromoform	W	W	W	W	G	G	G	G
Bromomethane	L	L	L	L	N	N	N	N
2-Butanone	L	L	L	L	N	N	N	N
Carbon disulfide	W	W	W	W	G	G	G	G
Carbon tetrachloride	W	W	W	W	G	G	G	G
Chlorobenzene	W	W	W	W	G	G	G	G
Chlorodibromomethane	W	W	W	W	G	G	G	G
Chloroethane	L	L	L	L	N	N	N	N
Chloroform	W	W	W	W	G	G	G	G
Chloromethane	L	L	L	L	N	N	N	N
1,1-Dichloroethane	210	190	190	W	G	G	G	G
1,2-Dichloroethane	W	W	W	W	G	G	G	G
1,1-Dichloroethene	300	W	280	240	G	G	G	G
1,2-Dichloroethene	13000	11000	11000	12000	G	G	G	G
1,2-Dichloropropane	W	W	W	W	G	G	G	G
cis-1,3-Dichloropropene	W	W	W	W	G	G	G	G
trans-1,3-Dichloropropene	W	W	W	W	G	G	G	G
Ethylbenzene	W	W	W	W	G	G	G	G
2-Hexanone	L	L	L	L	N	N	N	N
4-Methyl-2-pentanone	L	L	L	L	N	N	N	N
Methylene chloride	220	W	1600	W	G	G	17	G
Styrene	W	W	W	W	G	G	G	G
1,1,2,2-Tetrachloroethane	W	W	W	W	G	G	G	G
Tetrachloroethene	790	870	930	960	G	G	G	G
Toluene	W	W	W	72	G	G	G	0.6
1,1,1-Trichloroethane	500	430	430	340	G	G	G	G
1,1,2-Trichloroethane	W	W	W	W	G	G	G	G
Trichloroethene	1400	1100	1300	1200	G	G	G	G
Vinyl acetate	L	L	L	L	N	N	1	N
Vinyl chloride	450	L	310	L	N	N	N	N
Xylenes	W	W	W	W	G	G	G	G

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-380				GW-381			
	NHP				NHP			
	01/29/91	04/25/91	08/23/91	10/22/91	02/04/91	05/08/91	08/28/91	10/27/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	N	26	9	N	W	W	W	W
Benzene	G	G	G	G	T	T	T	T
Bromodichloromethane	G	G	G	G	T	T	T	T
Bromoform	G	G	G	G	T	T	T	T
Bromomethane	N	N	N	N	W	W	W	W
2-Butanone	N	N	N	N	W	W	W	W
Carbon disulfide	G	G	G	G	T	T	T	T
Carbon tetrachloride	G	G	G	G	6800	6700	7100	5300
Chlorobenzene	G	G	G	G	T	T	T	T
Chlorodibromomethane	G	G	G	G	T	T	T	T
Chloroethane	N	N	N	N	W	W	W	W
Chloroform	G	G	1	1	830	680	790	580
Chloromethane	N	N	N	N	W	W	W	W
1,1-Dichloroethane	G	G	G	G	T	T	T	T
1,2-Dichloroethane	G	G	G	G	T	T	T	T
1,1-Dichloroethene	G	G	G	G	T	T	T	T
1,2-Dichloroethene	G	G	G	G	T	T	T	T
1,2-Dichloropropane	G	G	G	G	T	T	T	T
cis-1,3-Dichloropropene	G	G	G	G	T	T	T	T
trans-1,3-Dichloropropene	G	G	G	G	T	T	T	T
Ethylbenzene	G	G	G	G	T	T	T	T
2-Hexanone	N	N	N	N	W	W	W	W
4-Methyl-2-pentanone	N	N	N	N	W	W	W	W
Methylene chloride	G	G	G	G	T	T	T	42
Styrene	G	G	G	G	T	T	T	T
1,1,2,2-Tetrachloroethane	G	G	G	G	T	T	T	T
Tetrachloroethene	G	G	0.6	G	T	T	T	T
Toluene	G	G	G	0.5	T	T	T	70
1,1,1-Trichloroethane	G	G	G	G	T	T	T	T
1,1,2-Trichloroethane	G	G	G	G	T	T	T	T
Trichloroethene	G	G	G	G	T	T	T	T
Vinyl acetate	N	N	N	N	W	W	W	W
Vinyl chloride	N	N	N	N	W	W	W	W
Xylenes	G	G	G	G	T	T	T	T

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-382				GW-383			
	NHP				NHP			
	02/04/91	05/07/91	08/27/91	10/27/91	01/29/91	04/25/91	08/27/91	10/26/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	W	W	W	W	V	N	A	N
Benzene	T	T	T	T	N	G	V	G
Bromodichloromethane	T	T	T	T	N	G	V	G
Bromoform	T	T	T	T	N	G	V	G
Bromomethane	W	W	W	W	V	N	A	N
2-Butanone	W	W	W	W	V	N	A	N
Carbon disulfide	T	T	T	T	N	G	V	G
Carbon tetrachloride	3100	6500	6800	5300	19	14	8	G
Chlorobenzene	T	T	T	T	N	G	V	G
Chlorodibromomethane	T	T	T	T	N	G	V	G
Chloroethane	W	W	W	W	V	N	A	N
Chloroform	140	180	200	260	11	10	7	0.6
Chloromethane	W	W	W	W	V	N	A	N
1,1-Dichloroethane	T	T	T	T	N	G	V	G
1,2-Dichloroethane	T	T	T	T	N	G	V	G
1,1-Dichloroethene	T	T	T	T	N	G	V	1
1,2-Dichloroethene	T	T	T	T	41	65	80	97
1,2-Dichloropropane	T	T	T	T	N	G	V	G
cis-1,3-Dichloropropene	T	T	T	T	N	G	V	G
trans-1,3-Dichloropropene	T	T	T	T	N	G	V	G
Ethylbenzene	T	T	T	T	N	G	V	G
2-Hexanone	W	W	W	W	V	N	A	N
4-Methyl-2-pentanone	W	W	W	W	V	N	A	N
Methylene chloride	T	T	T	T	N	G	V	G
Styrene	T	T	T	T	N	G	V	G
1,1,2,2-Tetrachloroethane	T	T	T	T	N	G	V	G
Tetrachloroethene	140	210	260	220	390	320	370	180
Toluene	T	T	23	69	N	G	3	2
1,1,1-Trichloroethane	T	T	T	T	N	G	V	G
1,1,2-Trichloroethane	T	T	T	T	N	G	V	G
Trichloroethene	T	28	T	T	150	120	130	73
Vinyl acetate	W	W	W	W	V	N	A	N
Vinyl chloride	W	W	W	W	V	N	A	N
Xylenes	T	T	T	T	N	G	V	G

(CONTINUED)

APPENDIX B
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-384				GW-385			
	NHP				NHP			
	01/28/91	04/24/91	08/21/91	10/15/91	01/27/91	04/23/91	08/21/91	10/14/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	N	N	N	N	N	N	N	N
Benzene	G	G	G	G	G	G	G	G
Bromodichloromethane	G	G	G	G	G	G	G	G
Bromoform	G	G	G	G	G	G	G	G
Bromomethane	N	N	N	N	N	N	N	N
2-Butanone	N	N	N	N	N	N	N	N
Carbon disulfide	G	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	G	G	G
Chlorobenzene	G	G	G	G	G	G	G	G
Chlorodibromomethane	G	G	G	G	G	G	G	G
Chloroethane	N	N	N	N	N	N	N	N
Chloroform	G	G	G	G	G	G	G	G
Chloromethane	N	N	N	N	N	N	N	N
1,1-Dichloroethane	G	G	G	G	G	G	G	G
1,2-Dichloroethane	G	G	G	G	G	G	G	G
1,1-Dichloroethene	G	G	G	G	G	G	G	G
1,2-Dichloroethene	2	G	3	6	G	G	G	G
1,2-Dichloropropane	G	G	G	G	G	G	G	G
cis-1,3-Dichloropropene	G	G	G	G	G	G	G	G
trans-1,3-Dichloropropene	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N
Methylene chloride	G	G	G	G	G	G	G	1
Styrene	G	G	G	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G
Tetrachloroethene	0.9	G	G	G	G	G	G	G
Toluene	G	G	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G
Trichloroethene	G	G	G	G	G	G	G	G
Vinyl acetate	N	N	N	N	N	N	N	N
Vinyl chloride	N	N	N	N	N	N	N	N
Xylenes	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX B
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-505				GW-508	GW-603		
	RG				RG	NMP		
	03/12/91	06/21/91	09/20/91	12/18/91	12/18/91	01/26/91	04/22/91	09/01/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	23	N	N	N	8	N	N	N
Benzene	G	G	G	G	18000	G	G	G
Bromodichloromethane	G	G	G	G	J	G	G	G
Bromoform	G	G	G	G	J	G	G	G
Bromomethane	N	N	N	N	8	N	N	N
2-Butanone	N	N	N	N	8	N	N	N
Carbon disulfide	G	G	G	G	J	G	G	G
Carbon tetrachloride	G	G	G	G	J	G	G	G
Chlorobenzene	G	G	G	G	J	G	G	G
Chlorodibromomethane	G	G	G	G	J	G	G	G
Chloroethane	N	N	N	N	8	N	N	N
Chloroform	1	G	G	G	J	G	G	G
Chloromethane	N	N	N	N	8	N	N	N
1,1-Dichloroethane	G	G	G	G	J	G	G	G
1,2-Dichloroethane	G	G	G	G	J	G	G	G
1,1-Dichloroethene	2	G	G	G	J	G	G	G
1,2-Dichloroethene	G	2	3	G	J	G	G	G
1,2-Dichloropropane	G	G	G	G	J	G	G	G
cis-1,3-Dichloropropene	G	G	G	G	J	G	G	G
trans-1,3-Dichloropropene	G	G	G	G	J	G	G	G
Ethylbenzene	G	G	G	G	6600	G	G	G
2-Hexanone	N	N	N	N	8	N	N	N
4-Methyl-2-pentanone	N	N	N	N	8	N	N	N
Methylene chloride	G	G	G	G	J	G	G	G
Styrene	G	G	G	G	J	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	J	G	G	G
Tetrachloroethene	G	1	1	G	J	G	G	G
Toluene	G	G	G	G	45000	G	G	G
1,1,1-Trichloroethane	G	G	G	G	J	G	G	G
1,1,2-Trichloroethane	G	G	G	G	J	G	G	G
Trichloroethene	G	1	2	G	J	G	G	G
Vinyl acetate	N	N	N	N	8	N	N	N
Vinyl chloride	N	N	N	N	8	N	N	N
Xylenes	G	G	G	G	44000	G	G	G

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-603	GW-604				GW-605		GW-606
Location	NMP	NMP				NMP		NMP
Date Sampled	11/03/91	01/26/91	04/22/91	09/01/91	11/03/91	08/26/91	10/22/91	08/26/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	N	N	N	N	N	N	18	170
Benzene	G	G	G	G	G	G	G	G
Bromodichloromethane	G	G	G	G	G	G	G	G
Bromoform	G	G	G	G	G	G	G	G
Bromomethane	N	N	N	N	N	N	N	N
2-Butanone	N	N	N	N	N	N	N	N
Carbon disulfide	G	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	26	21	2800
Chlorobenzene	G	G	G	G	G	G	G	G
Chlorodibromomethane	G	G	G	G	G	G	G	G
Chloroethane	N	N	N	N	N	N	N	N
Chloroform	G	1	G	2	1	4	32	600
Chloromethane	N	N	N	N	N	N	N	N
1,1-Dichloroethane	G	G	G	G	G	1	2	G
1,2-Dichloroethane	G	G	G	G	G	G	G	G
1,1-Dichloroethene	G	G	G	G	G	G	1	G
1,2-Dichloroethene	G	G	G	G	G	17	40	2
1,2-Dichloropropane	G	G	G	G	G	G	G	G
cis-1,3-Dichloropropene	G	G	G	G	G	G	G	G
trans-1,3-Dichloropropene	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N
Methylene chloride	0.9	G	G	G	G	0.6	0.9	32
Styrene	G	G	G	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G
Tetrachloroethene	G	G	G	G	G	18	36	12
Toluene	1	G	G	G	1	G	2	0.6
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G
Trichloroethene	G	G	G	G	G	7	15	0.9
Vinyl acetate	N	N	N	N	N	N	N	N
Vinyl chloride	N	N	N	N	N	N	N	N
Xylenes	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX B
Groundwater Quality Data, 1991

Well No.	GW-606	GW-617				GW-618		
Location	NND	Y12				Y12		
Date Sampled	10/24/91	01/13/91	04/09/91	07/12/91	10/02/91	01/13/91	04/09/91	07/12/91
VOLATILE ORGANICS (ug/L)								
Acetone	R	N	N	N	N	N	N	N
Benzene	R	Q	Q	Q	Q	Q	Q	Q
Bromodichloromethane	R	Q	Q	Q	Q	Q	Q	Q
Bromoform	R	Q	Q	Q	Q	Q	Q	Q
Bromomethane	R	N	N	N	N	N	N	N
2-Butanone	R	N	N	N	N	N	N	N
Carbon disulfide	R	Q	Q	Q	Q	Q	Q	Q
Carbon tetrachloride	2600	Q	Q	Q	Q	Q	Q	Q
Chlorobenzene	R	Q	Q	Q	Q	Q	Q	Q
Chlorodibromomethane	R	Q	Q	Q	Q	Q	Q	Q
Chloroethane	R	N	N	N	N	N	N	N
Chloroform	640	Q	Q	Q	Q	Q	Q	Q
Chloromethane	R	N	N	N	N	N	N	N
1,1-Dichloroethane	R	Q	Q	Q	Q	Q	Q	Q
1,2-Dichloroethane	R	Q	Q	Q	Q	Q	Q	Q
1,1-Dichloroethene	R	Q	Q	Q	Q	Q	Q	Q
1,2-Dichloroethene	R	10	9	4	20	34	58	67
1,2-Dichloropropane	R	Q	Q	Q	Q	Q	Q	Q
cis-1,3-Dichloropropene	R	Q	Q	Q	Q	Q	Q	Q
trans-1,3-Dichloropropene	R	Q	Q	Q	Q	Q	Q	Q
Ethylbenzene	R	Q	Q	Q	Q	Q	Q	Q
2-Hexanone	R	N	N	N	N	N	N	N
4-Methyl-2-pentanone	R	N	N	N	N	N	N	N
Methylene chloride	41	Q	Q	Q	Q	Q	Q	Q
Styrene	R	Q	Q	Q	Q	Q	Q	Q
1,1,2,2-Tetrachloroethane	R	Q	Q	Q	Q	Q	Q	Q
Tetrachloroethane	R	4	3	0.7	6	14	17	5
Toluene	R	Q	Q	Q	Q	Q	Q	Q
1,1,1-Trichloroethane	R	Q	Q	Q	Q	Q	Q	Q
1,1,2-Trichloroethane	R	Q	Q	Q	Q	Q	Q	Q
Trichloroethene	R	3	2	0.5	4	12	12	11
Vinyl acetate	R	N	N	N	N	N	N	N
Vinyl chloride	R	N	N	N	N	N	4	4
Xylenes	R	Q	Q	Q	Q	Q	Q	Q

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-618	GW-619				GW-620		
Location	Y12	FTF				FTF		
Date Sampled	10/02/91	01/12/91	04/06/91	07/14/91	10/06/91	01/12/91	04/06/91	07/14/91
VOLATILE ORGANICS (ug/L)								
Acetone	N	M	M	M	N	L	R	K
Benzene	Q	E	E	E	Q	W	K	M
Bromodichloromethane	Q	E	E	E	Q	W	K	M
Bromoform	Q	E	E	E	Q	W	K	M
Bromomethane	N	M	M	M	N	L	R	K
2-Butanone	N	M	M	M	N	L	R	K
Carbon disulfide	Q	E	E	E	Q	W	K	M
Carbon tetrachloride	Q	E	E	E	Q	W	K	M
Chlorobenzene	Q	E	E	E	Q	W	K	M
Chlorodibromomethane	Q	E	E	E	Q	W	K	M
Chloroethane	N	M	M	M	N	L	R	K
Chloroform	Q	E	E	E	Q	W	K	M
Chloromethane	N	M	M	M	N	L	R	K
1,1-Dichloroethane	Q	E	E	E	Q	W	K	M
1,2-Dichloroethane	Q	E	E	E	Q	W	K	M
1,1-Dichloroethene	Q	E	E	E	Q	W	K	M
1,2-Dichloroethene	63	860	50	450	140	800	1200	1100
1,2-Dichloropropane	Q	E	E	E	Q	W	K	M
cis-1,3-Dichloropropene	Q	E	E	E	Q	W	K	M
trans-1,3-Dichloropropene	Q	E	E	E	Q	W	K	M
Ethylbenzene	Q	E	E	E	Q	W	K	M
2-Hexanone	N	M	M	M	N	L	R	K
4-Methyl-2-pentanone	N	26	M	M	N	L	R	K
Methylene chloride	Q	E	E	82	Q	W	K	160
Styrene	Q	E	E	E	Q	W	K	M
1,1,2,2-Tetrachloroethane	Q	E	E	E	Q	W	K	M
Tetrachloroethene	22	960	59	620	200	W	770	910
Toluene	Q	E	E	E	1	W	K	M
1,1,1-Trichloroethane	Q	14	E	E	0.6	W	K	M
1,1,2-Trichloroethane	Q	E	E	E	Q	W	K	M
Trichloroethene	18	240	12	240	53	W	270	330
Vinyl acetate	N	M	M	M	N	L	R	K
Vinyl chloride	E	M	M	M	N	L	R	K
Xylenes	Q	E	E	E	Q	W	K	M

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-620	GW-631					GW-632		
	FTF	RG					RG		
	10/04/91	03/11/91	06/19/91	09/19/91	12/14/91	03/11/91	06/20/91	09/20/91	
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.	.
Acetone	K	N	N	N	E	T	L	L	
Benzene	M	12	6	3	N	5000	9900	9200	
Bromodichloromethane	M	G	G	G	M	B	W	W	
Bromoform	M	G	G	G	M	B	W	W	
Bromomethane	K	N	N	N	E	T	L	L	
2-Butanone	K	N	N	N	E	T	L	L	
Carbon disulfide	M	G	G	G	M	B	W	W	
Carbon tetrachloride	M	G	G	G	M	B	W	W	
Chlorobenzene	M	G	G	G	M	B	W	W	
Chlorodibromomethane	M	G	G	G	M	B	W	W	
Chloroethane	K	N	N	N	E	T	L	L	
Chloroform	M	G	G	G	M	23	W	W	
Chloromethane	K	N	6	N	E	200	530	L	
1,1-Dichloroethane	M	G	G	G	3	B	W	W	
1,2-Dichloroethane	1100	G	G	G	M	95	W	W	
1,1-Dichloroethene	M	G	G	G	M	B	W	W	
1,2-Dichloroethene	M	3	G	G	M	B	W	W	
1,2-Dichloropropane	M	G	G	G	M	B	W	W	
cis-1,3-Dichloropropene	M	G	G	G	M	B	W	W	
trans-1,3-Dichloropropene	M	G	G	G	M	B	W	W	
Ethylbenzene	M	4	G	G	M	79	340	290	
2-Hexanone	K	N	N	N	E	T	L	L	
4-Methyl-2-pentanone	K	N	4	N	E	T	580	L	
Methylene chloride	M	G	18	0.6	2	40	1700	W	
Styrene	M	G	G	G	M	B	W	W	
1,1,2,2-Tetrachloroethane	M	G	G	G	M	B	W	W	
Tetrachloroethene	820	6	11	6	38	B	W	W	
Toluene	13	6	G	G	M	1400	5500	3700	
1,1,1-Trichloroethane	M	G	G	G	M	B	W	W	
1,1,2-Trichloroethane	M	G	G	G	M	B	W	W	
Trichloroethene	290	4	3	1	5	B	W	W	
Vinyl acetate	K	N	4	N	E	T	L	L	
Vinyl chloride	K	N	N	N	E	T	L	L	
Xylenes	M	21	G	G	M	1500	3500	3300	

(CONTINUED)

APPENDIX B
Groundwater Quality Data, 1991

Well No.	GW-632	GW-633				GW-634		
Location	RG	RG				RG		
Date Sampled	12/14/91	03/11/91	06/20/91	09/19/91	12/14/91	03/09/91	06/19/91	09/20/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	L	N	N	N	N	K	W	W
Benzene	7100	3	1	2	2	490	1400	970
Bromodichloromethane	W	G	G	G	G	M	T	T
Bromoform	W	G	2	G	3	M	T	T
Bromomethane	L	N	N	N	N	K	W	W
2-Butanone	L	N	N	N	N	K	W	W
Carbon disulfide	W	G	G	G	G	M	T	T
Carbon tetrachloride	W	G	G	G	G	M	T	T
Chlorobenzene	W	G	G	G	G	M	T	T
Chlorodibromomethane	W	G	G	G	G	M	T	T
Chloroethane	L	N	N	N	N	K	W	W
Chloroform	W	26	37	24	35	9	T	T
Chloromethane	L	N	N	N	N	K	350	W
1,1-Dichloroethane	W	G	G	G	G	N	T	T
1,2-Dichloroethane	W	G	G	G	G	M	T	T
1,1-Dichloroethene	W	1	1	0.8	1	M	T	T
1,2-Dichloroethene	W	2	0.9	2	G	M	T	T
1,2-Dichloropropane	W	G	G	G	G	M	T	T
cis-1,3-Dichloropropene	W	G	G	G	G	M	T	T
trans-1,3-Dichloropropene	W	G	G	G	G	M	T	T
Ethylbenzene	190	G	G	G	G	320	1100	990
2-Hexanone	L	N	N	N	N	K	W	W
4-Methyl-2-pentanone	L	N	N	N	N	K	W	W
Methylene chloride	280	18	24	16	28	13	850	T
Styrene	W	G	G	G	G	M	T	T
1,1,2,2-Tetrachloroethane	W	G	G	G	G	M	T	T
Tetrachloroethene	W	70	88	64	93	M	T	T
Toluene	2900	3	1	1	2	1100	3300	2200
1,1,1-Trichloroethane	W	G	1	G	G	M	T	T
1,1,2-Trichloroethane	W	G	G	G	G	M	T	T
Trichloroethene	W	8	11	8	10	M	T	T
Vinyl acetate	L	N	N	N	N	K	W	W
Vinyl chloride	L	N	N	N	N	K	W	W
Xylenes	2300	5	G	G	1	1900	5400	4300

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-634	GW-656				GW-657		
Location	RG	T0134				T2331		
Date Sampled	12/14/91	03/07/91	06/20/91	09/26/91	12/20/91	03/06/91	06/17/91	09/24/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	W	T	L	L	L	17	N	N
Benzene	880	B	W	W	W	3	G	G
Bromodichloromethane	F	B	W	W	W	G	G	G
Bromoform	F	B	W	W	W	G	G	G
Bromomethane	W	T	L	L	L	N	N	N
2-Butanone	W	T	L	L	L	N	N	N
Carbon disulfide	F	B	W	W	W	G	G	G
Carbon tetrachloride	F	B	W	W	W	0.6	G	G
Chlorobenzene	F	B	W	W	W	G	G	G
Chlorodibromomethane	F	B	W	W	W	G	G	G
Chloroethane	W	T	L	L	L	N	N	N
Chloroform	F	22	W	W	W	0.9	G	G
Chloromethane	W	T	L	L	L	N	N	N
1,1-Dichloroethane	F	71	W	W	W	G	G	G
1,2-Dichloroethane	F	B	W	W	W	G	G	G
1,1-Dichloroethene	F	2200	2400	2000	1900	G	G	G
1,2-Dichloroethene	F	350	W	400	W	G	G	G
1,2-Dichloropropane	F	B	W	W	W	G	G	G
cis-1,3-Dichloropropene	F	B	W	W	W	G	G	G
trans-1,3-Dichloropropene	F	B	W	W	W	G	G	G
Ethylbenzene	920	B	W	W	W	G	G	G
2-Hexanone	W	T	L	L	L	N	N	N
4-Methyl-2-pentanone	W	T	L	L	L	N	N	N
Methylene chloride	F	B	1600	W	W	2	17	G
Styrene	F	B	W	W	W	G	G	G
1,1,2,2-Tetrachloroethane	F	B	W	W	W	G	G	G
Tetrachloroethene	F	41	W	W	W	G	G	G
Toluene	2400	B	W	W	200	1	G	0.9
1,1,1-Trichloroethane	F	26	W	W	W	G	G	G
1,1,2-Trichloroethane	F	B	W	W	W	G	G	G
Trichloroethene	F	15000	17000	14000	12000	G	G	G
Vinyl acetate	W	T	L	L	L	N	N	N
Vinyl chloride	W	T	L	L	L	N	N	N
Xylenes	4100	B	W	W	1400	G	G	G

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-657	GW-658				GW-659		
Location	T2331	FF				FF		
Date Sampled	12/19/91	03/09/91	06/18/91	09/26/91	12/15/91	03/08/91	06/20/91	09/25/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	N	W	N	L	L	V	K	K
Benzene	G	4300	7200	9300	10000	170	1300	1200
Bromodichloromethane	G	T	G	W	W	N	M	M
Bromoform	G	T	G	W	W	N	M	M
Bromomethane	N	W	N	L	L	V	K	K
2-Butanone	N	W	N	L	L	V	K	K
Carbon disulfide	G	T	G	W	W	N	M	M
Carbon tetrachloride	G	T	G	W	W	N	M	M
Chlorobenzene	G	T	G	W	W	N	M	M
Chlorodibromomethane	G	T	G	W	W	N	M	M
Chloroethane	N	W	N	L	L	V	K	K
Chloroform	G	T	G	W	W	2	M	M
Chloromethane	N	W	N	L	L	V	K	K
1,1-Dichloroethane	G	T	G	W	W	N	M	M
1,2-Dichloroethane	G	T	G	W	940	N	M	M
1,1-Dichloroethene	G	T	G	W	W	N	M	M
1,2-Dichloroethene	G	T	G	730	W	N	M	M
1,2-Dichloropropane	G	T	G	W	W	N	M	M
cis-1,3-Dichloropropene	G	T	G	W	W	N	M	M
trans-1,3-Dichloropropene	G	T	G	W	W	N	M	M
Ethylbenzene	G	300	230	730	710	11	200	280
2-Hexanone	N	W	N	L	220	V	K	K
4-Methyl-2-pentanone	N	W	N	L	1400	V	43	48
Methylene chloride	G	T	G	W	68	3	170	17
Styrene	G	T	G	W	W	N	M	M
1,1,2,2-Tetrachloroethane	G	T	G	W	29	N	M	M
Tetrachloroethene	G	T	G	W	W	N	M	M
Toluene	G	900	1100	2200	2200	8	M	21
1,1,1-Trichloroethane	G	T	43	W	W	N	M	M
1,1,2-Trichloroethane	G	T	G	W	W	N	M	M
Trichloroethene	G	T	G	W	W	28	M	M
Vinyl acetate	N	W	N	L	2600	2	18	K
Vinyl chloride	N	W	N	L	L	V	K	K
Xylenes	G	2600	1600	2400	4100	53	150	100

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-659	GW-707				GW-708		
Location	FF	T2331				T2331		
Date Sampled	12/15/91	03/06/91	06/17/91	09/26/91	12/19/91	03/07/91	06/17/91	09/26/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	K	T	N	N	N	N	L	L
Benzene	920	1800	G	3	3	G	3600	2100
Bromodichloromethane	M	B	G	G	G	G	W	W
Bromoform	M	B	G	G	G	G	W	W
Bromomethane	K	T	N	N	N	N	L	L
2-Butanone	K	T	N	N	N	N	L	L
Carbon disulfide	M	B	G	G	G	G	W	W
Carbon tetrachloride	M	B	G	G	G	G	W	W
Chlorobenzene	M	B	G	G	G	G	W	W
Chlorodibromomethane	M	B	G	G	G	G	W	W
Chloroethane	K	T	N	N	N	N	L	L
Chloroform	M	30	G	G	G	0.9	W	W
Chloromethane	K	T	N	N	N	N	L	L
1,1-Dichloroethane	M	B	G	G	G	G	W	W
1,2-Dichloroethane	M	B	G	G	G	G	W	W
1,1-Dichloroethene	M	B	G	G	G	G	W	W
1,2-Dichloroethene	M	B	G	G	G	G	W	W
1,2-Dichloropropane	M	B	G	G	G	G	W	W
cis-1,3-Dichloropropene	M	B	G	G	G	G	W	W
trans-1,3-Dichloropropene	M	B	G	G	G	G	W	W
Ethylbenzene	200	B	G	8	G	G	550	1600
2-Hexanone	K	T	N	N	N	N	L	L
4-Methyl-2-pentanone	37	T	N	5	N	N	L	L
Methylene chloride	M	B	16	G	G	G	1600	W
Styrene	M	B	G	G	G	G	W	W
1,1,2,2-Tetrachloroethane	M	B	G	G	G	G	W	W
Tetrachloroethene	M	B	G	G	G	G	W	W
Toluene	M	2400	G	5	G	G	1900	1900
1,1,1-Trichloroethane	M	B	G	G	G	G	W	W
1,1,2-Trichloroethane	M	B	G	G	G	G	W	W
Trichloroethene	M	B	G	6	G	G	W	W
Vinyl acetate	K	T	N	N	N	N	L	L
Vinyl chloride	K	T	N	N	N	N	L	L
Xylenes	160	5600	G	43	G	G	8700	7900

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-708
Location	T2331
Date Sampled	12/19/91
VOLATILE ORGANICS (ug/L)	.
	.
Acetone	W
Benzene	1800
Bromodichloromethane	F
Bromoform	F
Bromomethane	W
2-Butanone	W
Carbon disulfide	F
Carbon tetrachloride	F
Chlorobenzene	F
Chlorodibromomethane	F
Chloroethane	W
Chloroform	F
Chloromethane	W
1,1-Dichloroethane	F
1,2-Dichloroethane	F
1,1-Dichloroethene	F
1,2-Dichloroethene	F
1,2-Dichloropropane	F
cis-1,3-Dichloropropene	F
trans-1,3-Dichloropropene	F
Ethylbenzene	160
2-Hexanone	W
4-Methyl-2-pentanone	W
Methylene chloride	F
Styrene	F
1,1,2,2-Tetrachloroethane	F
Tetrachloroethene	F
Toluene	630
1,1,1-Trichloroethane	F
1,1,2-Trichloroethane	F
Trichloroethene	F
Vinyl acetate	W
Vinyl chloride	W
Xylenes	5800

MISCELLANEOUS AND RADIOLOGICAL PARAMETERS

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-149		GW-151				GW-153	
	NHP		NHP				NHP	
	01/28/91	04/24/91	01/31/91	05/01/91	08/24/91	10/23/91	01/31/91	05/02/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	4.1	0.9	1	0.8	0.6	0.5	4.7	3.2
pH, Field (pH units)	7.6	7.4	7.4	7.4	7.7	7.5	8.2	7.9
Redox, Field (mV)	147	132	237	278	167	187	248	248
Sp. Cond., Field (umho/cm)	581	511	496	448	441	545	501	385
Temp, Field (degrees C)	16.2	17.8	13.7	16.6	17.7	16.1	14.1	16
pH, 1 (pH units)	7	7.1	7	6.5	8	7.5	7.1	6.3
Sp. Cond., 1 (umho/cm)	493	505	437	455	527	446	440	390
TPH (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	322	308	262	320	222	282	270	238
TSS (mg/L)	23	18	<1	2	<1	1	10	9
Turbidity (NTU)	6.5	1.8	0.3	0.2	0.4	0.25	12	11
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	1.17	0.51	0.17	1.08	1.67	2.00	1.96	1.64
Gross Alpha (CE+/-)	1.40	1.40	1.10	1.40	1.50	1.60	1.40	1.50
Gross Beta (pCi/L)	4.12	8.66	1.35	4.91	3.50	4.97	1.96	4.36
Gross Beta (CE+/-)	3.50	3.60	3.40	3.60	3.40	2.80	3.40	3.60
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 234 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 235 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 235 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 238 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 238 (CE+/-)	.	.	.	.	.	.	.	.

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APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-154		GW-167			GW-168		
Location	NHP		EXP			EXP		
Date Sampled	01/29/91	04/26/91	02/14/91	05/08/91	08/31/91	02/14/91	05/08/91	09/01/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	3.7	3.2	6	4	.	1.1	1	.
pH, Field (pH units)	7.3	7.5	6.9	6.6	.	7.4	7	.
Redox, Field (mV)	316	252	351	232	.	244	18	.
Sp. Cond., Field (umho/cm)	608	565	395	547	.	605	552	.
Temp, Field (degrees C)	14.6	19.4	13.7	16.8	.	14.1	15.6	.
pH, 1 (pH units)	6.8	7	7.5	6.5	7	7	6.6	7.3
Sp. Cond., 1 (umho/cm)	559	548	343	580	606	601	580	630
TPH (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	496	334	232	356	384	340	340	370
TSS (mg/L)	2	5	11	1412	594	1	2	3
Turbidity (NTU)	4.4	18	8.3	130	225	2.2	3.8	6
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	551.59	332.42	0.05	6.36	2.59	1.32	1.88	1.41
Gross Alpha (CE+/-)	15.70	12.20	1.70	1.90	1.60	1.50	1.30	1.40
Gross Beta (pCi/L)	340.64	155.83	7.46	21.33	11.60	11.00	4.29	4.26
Gross Beta (CE+/-)	11.70	8.20	3.60	4.40	3.70	3.80	3.60	3.30
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	2.68	16.50	.	.	.	.	.	.
Strontium (CE+/-)	1.90	22.00	.	.	.	.	.	.
Technetium 99 (pCi/L)	-2130.00	-2420.00	.	.	.	.	.	.
Technetium 99 (CE+/-)	1600.00	1600.00	.	.	.	.	.	.
Tritium (Bq/L)	7.00	.	.	.	.	.	.	.
Tritium (CE+/-)	33.00	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	451.00	118.00	0.87	1.23	.	0.00	0.00	.
Uranium 234 (CE+/-)	27.00	14.00	1.20	1.40	.	1.60	1.40	.
Uranium 235 (pCi/L)	19.20	11.60	0.00	0.00	.	0.48	0.00	.
Uranium 235 (CE+/-)	5.70	4.40	1.50	1.40	.	0.90	1.40	.
Uranium 238 (pCi/L)	279.00	49.90	0.00	0.41	.	0.48	0.00	.
Uranium 238 (CE+/-)	22.00	9.10	1.70	0.80	.	1.60	1.40	.

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APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-168	GW-169				GW-170		
Location	EXP	EXP				EXP		
Date Sampled	11/03/91	03/01/91	05/12/91	09/02/91	11/12/91	03/01/91	05/12/91	09/02/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	1.3	6	6.1	.	5.6	1	1	.
pH, Field (pH units)	7	6.8	5.8	.	7.5	7.7	7.6	.
Redox, Field (mV)	-18	425	314	.	220	238	161	.
Sp. Cond., Field (umho/cm)	491	291	377	.	372	490	509	.
Temp, Field (degrees C)	11.8	13.2	16	.	13	14.2	15.7	.
pH, 1 (pH units)	6.9	7.1	6.2	7.2	7.18	7.5	6.3	7.7
Sp. Cond., 1 (umho/cm)	633	304	333	340	386	453	444	510
TPH (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	350	282	270	256	240	256	266	278
TSS (mg/L)	1	118	626	408	1228	<1	1	2
Turbidity (NTU)	2.6	240	120	170	2100	0.4	2.9	1
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	1.99	2.19	3.54	3.12	45.90	1.75	2.39	2.89
Gross Alpha (CE+/-)	1.60	1.30	1.70	1.60	6.50	1.20	1.50	1.60
Gross Beta (pCi/L)	4.10	8.40	4.11	12.80	71.00	5.20	2.92	4.26
Gross Beta (CE+/-)	2.70	3.50	3.50	3.80	5.80	3.30	3.40	3.30
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	0.00	0.44	.	.	0.91	0.87	.
Uranium 234 (CE+/-)	.	1.70	0.90	.	.	1.80	1.20	.
Uranium 235 (pCi/L)	.	0.00	-0.44	.	.	0.00	-0.43	.
Uranium 235 (CE+/-)	.	1.40	0.90	.	.	1.60	0.90	.
Uranium 238 (pCi/L)	.	0.00	0.00	.	.	0.46	0.00	.
Uranium 238 (CE+/-)	.	1.40	1.70	.	.	0.90	1.50	.

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APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-170	GW-183				GW-190		
Location	EXP	FF				RG		
Date Sampled	11/06/91	03/08/91	06/18/91	09/25/91	12/15/91	03/12/91	06/19/91	09/20/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	1.2	3	1	0.4	7.3	4.1	1.3	4.8
pH, Field (pH units)	7.9	6.7	6.6	6.8	6.3	6.9	7.3	6.6
Redox, Field (mV)	184	62	24	-124	16	319	91	209
Sp. Cond., Field (umho/cm)	519	865	883	874	898	240	239	197
Temp, Field (degrees C)	13.9	17.2	18.8	17.7	17.7	15.9	22	17.3
pH, 1 (pH units)	7.5	7.4	7.59	7.2	6.86	6.8	7.2	7.6
Sp. Cond., 1 (umho/cm)	524	827	938	1010	965	237	272	274
TPH (mg/L)	.	<0.5	<10	<1	<1	<0.5	<10	<1
TDS (mg/L)	292	568	574	608	534	194	174	202
TSS (mg/L)	2	70	21	114	4	16	2	30
Turbidity (NTU)	0.5	45	11	80	3.3	22	3.3	32
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	1.14	2.08	2.86	2.83	-2.01	1.34	1.10	2.67
Gross Alpha (CE+/-)	1.90	1.70	1.70	1.50	2.40	1.20	1.30	1.40
Gross Beta (pCi/L)	2.34	5.08	2.74	3.92	-3.92	1.97	-0.21	5.31
Gross Beta (CE+/-)	3.00	3.60	3.40	3.60	3.10	3.40	3.40	3.30
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 234 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 235 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 235 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 238 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 238 (CE+/-)	.	.	.	.	.	.	.	.

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APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-190	GW-191				GW-192		
Location	RG	B4				B4		
Date Sampled	12/15/91	01/15/91	04/10/91	07/20/91	10/05/91	01/15/91	04/10/91	07/26/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	2.6	7.7	9.8	2.5	1.4	1.9	1.7	1.4
pH, Field (pH units)	6.9	7.4	7.1	7.4	7.2	6.5	6.3	6.5
Redox, Field (mV)	170	251	256	187	226	170	264	-35
Sp. Cond., Field (umho/cm)	237	419	494	561	421	594	624	680
Temp, Field (degrees C)	14	13.7	17.7	19.5	19.3	14.7	19.2	20.7
pH, 1 (pH units)	6.93	7.2	7	8.2	7.3	6.8	7.2	7.1
Sp. Cond., 1 (umho/cm)	274	412	315	513	514	629	412	722
TPH (mg/L)	<1	.	.	.	.	.	.	<10
TDS (mg/L)	150	298	350	304	300	412	432	362
TSS (mg/L)	<1	26	266	269	76	10	9	15
Turbidity (NTU)	1.7	23	95	130	3.7	26	29	19
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	-1.85	2.29	2.06	2.82	1.88	1.29	1.25	0.36
Gross Alpha (CE+/-)	1.80	1.60	1.40	1.50	1.50	1.40	1.30	1.10
Gross Beta (pCi/L)	-2.06	-0.01	5.14	5.03	6.46	5.36	5.60	-1.61
Gross Beta (CE+/-)	3.10	3.50	3.40	3.70	3.30	3.70	3.40	3.40
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	0.00	0.00	.	.	0.00	-0.46	.
Uranium 234 (CE+/-)	.	1.50	1.70	.	.	1.50	0.90	.
Uranium 235 (pCi/L)	.	0.00	0.00	.	.	0.00	0.00	.
Uranium 235 (CE+/-)	.	1.50	1.50	.	.	1.50	1.60	.
Uranium 238 (pCi/L)	.	0.00	0.00	.	.	0.00	0.00	.
Uranium 238 (CE+/-)	.	1.50	1.50	.	.	1.50	1.60	.

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APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-192	GW-193					GW-194		GW-195
Location	B4	T2331					B4		B4
Date Sampled	10/05/91	03/06/91	06/17/91	09/26/91	12/19/91	07/22/91	10/05/91	07/22/91	
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.	.
DO, Field (ppm)	1.3	1	0.3	0.9	3.9	2.2	2.8	0.6	
pH, Field (pH units)	6.6	7.4	7	7.3	7.3	6.7	7	6.4	
Redox, Field (mV)	-24	-203	-172	-207	-148	183	89	216	
Sp. Cond., Field (umho/cm)	580	498	633	563	556	460	360	415	
Temp, Field (degrees C)	19.1	15.3	21.2	23	14	22.7	20.6	21.6	
pH, 1 (pH units)	6.7	7.4	7.7	7.1	7.38	7.3	7	7.1	
Sp. Cond., 1 (umho/cm)	645	471	613	647	645	473	458	426	
TPH (mg/L)	.	4.64	14	65	1.66	.	.	.	
TDS (mg/L)	370	306	398	372	384	294	288	298	
TSS (mg/L)	23	33	9	6	22	26	310	321	
Turbidity (NTU)	4.6	35	55	13	46	25	76	120	
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	2.21	3.02	2.68	3.09	11.00	5.18	3.99	3.86	
Gross Alpha (CE+/-)	1.50	1.40	1.60	1.50	3.80	1.90	1.80	1.70	
Gross Beta (pCi/L)	3.78	11.91	7.12	8.67	16.60	17.98	9.20	6.37	
Gross Beta (CE+/-)	3.20	3.70	3.60	3.90	3.70	4.40	3.50	3.80	
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.	
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.	
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.	
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.	
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.	
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.	
Strontium (pCi/L)	.	.	.	.	.	.	.	.	
Strontium (CE+/-)	.	.	.	.	.	.	.	.	
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.	
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.	
Tritium (Bq/L)	.	.	.	.	.	.	.	.	
Tritium (CE+/-)	.	.	.	.	.	.	.	.	
Uranium 234 (pCi/L)	.	.	.	.	.	.	.	.	
Uranium 234 (CE+/-)	.	.	.	.	.	.	.	.	
Uranium 235 (pCi/L)	.	.	.	.	.	.	.	.	
Uranium 235 (CE+/-)	.	.	.	.	.	.	.	.	
Uranium 238 (pCi/L)	.	.	.	.	.	.	.	.	
Uranium 238 (CE+/-)	.	.	.	.	.	.	.	.	

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APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-195	GW-204				GW-206		
Location	B4	T0134				EXP		
Date Sampled	10/05/91	03/07/91	06/21/91	09/26/91	12/26/91	02/20/91	05/10/91	08/29/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	1.1	2.5	1.9	1	6.6	4.3	3.1	.
pH, Field (pH units)	6.6	7	6.9	6.9	7.2	6.8	7	.
Redox, Field (mV)	164	57	-32	-37	27	147	203	.
Sp. Cond., Field (umho/cm)	319	341	572	555	607	430	511	.
Temp, Field (degrees C)	18.2	17.8	23.9	20	17	14	15.7	.
pH, 1 (pH units)	6.9	7.4	7.1	7.2	8.3	7.6	6.6	7.1
Sp. Cond., 1 (umho/cm)	362	441	618	677	562	444	420	512
TPH (mg/L)	.	2.36	<10	37	0.06	.	.	.
TDS (mg/L)	236	262	372	532	390	304	342	312
TSS (mg/L)	154	158	23	20940	1676	565	3970	3855
Turbidity (NTU)	68	95	26	2900	265	250	3000	1300
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	4.83	22.08	20.20	21.59	-0.65	1.73	12.60	8.29
Gross Alpha (CE+/-)	1.90	3.40	3.30	3.20	2.80	1.60	2.60	2.20
Gross Beta (pCi/L)	16.50	17.54	16.06	15.00	4.07	6.97	14.99	18.90
Gross Beta (CE+/-)	3.80	4.20	4.20	4.20	3.10	3.60	4.00	4.10
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	.	.	.	.	0.46	4.91	.
Uranium 234 (CE+/-)	.	.	.	.	.	0.90	2.80	.
Uranium 235 (pCi/L)	.	.	.	.	.	0.00	-0.41	.
Uranium 235 (CE+/-)	.	.	.	.	.	1.60	0.80	.
Uranium 238 (pCi/L)	.	.	.	.	.	-0.46	2.45	.
Uranium 238 (CE+/-)	.	.	.	.	.	0.90	2.00	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-206	GW-207				GW-208		
	EXP	EXP				EXP		
	11/07/91	02/20/91	05/10/91	08/28/91	10/28/91	02/22/91	05/11/91	08/29/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	1.3	0.3	0.7	.	0.3	0.4	0.8	.
pH, Field (pH units)	7	7.2	7.1	.	7.2	7.4	7.8	.
Redox, Field (mV)	-112	122	170	.	-35	225	211	.
Sp. Cond., Field (umho/cm)	478	461	587	.	518	502	626	.
Temp, Field (degrees C)	16.8	15.2	16.8	.	17.6	18.9	17.2	.
pH, 1 (pH units)	6.8	7.7	6.7	7.6	7.2	7	6.3	7.4
Sp. Cond., 1 (umho/cm)	546	475	538	637	599	594	580	621
TFH (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	316	328	368	356	348	394	416	416
TSS (mg/L)	2760	<1	2	1	<1	<1	2	2
Turbidity (NTU)	2000	2.9	2.4	1.6	0.4	6.4	7	7.5
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	22.00	0.90	1.77	0.44	0.33	1.54	1.02	2.09
Gross Alpha (CE+/-)	5.40	1.40	1.40	1.30	1.80	1.30	1.80	1.80
Gross Beta (pCi/L)	22.90	7.04	3.07	2.96	3.01	3.92	3.59	3.65
Gross Beta (CE+/-)	4.20	3.60	3.40	3.30	2.90	3.50	3.40	3.30
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	0.00	0.42	.	.	1.37	0.00	.
Uranium 234 (CE+/-)	.	1.40	0.80	.	.	2.00	1.40	.
Uranium 235 (pCi/L)	.	0.00	-0.42	.	.	0.91	0.00	.
Uranium 235 (CE+/-)	.	1.40	0.80	.	.	1.30	1.40	.
Uranium 238 (pCi/L)	.	-0.42	0.42	.	.	0.91	0.00	.
Uranium 238 (CE+/-)	.	0.80	0.80	.	.	1.30	1.40	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-208	GW-220				GW-222		GW-223
Location	RXP	NHP				NHP		NHP
Date Sampled	10/30/91	01/29/91	04/26/91	08/24/91	10/22/91	02/01/91	05/02/91	02/01/91
MISCELLANEOUS PARAMETERS								
DO, Field (ppm)	0.6	2.5	1.3	1	0.4	0.5	0.3	1.2
pH, Field (pH units)	7.4	7.1	7	7.7	7.5	6.9	7.1	6.9
Redox, Field (mV)	-50	292	257	147	109	171	199	212
Sp. Cond., Field (umho/cm)	533	553	551	419	421	566	718	647
Temp, Field (degrees C)	16	15.4	20.2	19.2	16.6	17.6	17.4	16.5
pH, 1 (pH units)	7.4	7	7.1	7.8	7.6	6.8	6.5	6.8
Sp. Cond., 1 (umho/cm)	621	461	484	515	371	570	727	689
TPH (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	400	190	312	258	277	398	458	442
TSS (mg/L)	2	28	142	15	226	<1	4	1
Turbidity (NTU)	7.3	16	80	9.5	200	2.8	7.3	4.1
RADIOCHEMICAL PARAMETERS								
Gross Alpha (pCi/L)	2.41	-0.24	2.77	4.55	2.88	38.63	23.05	2.51
Gross Alpha (CE+/-)	1.60	1.20	1.70	1.90	1.80	4.30	3.40	1.50
Gross Beta (pCi/L)	6.27	4.00	2.80	7.16	5.08	41.48	38.53	4.19
Gross Beta (CE+/-)	2.80	3.50	3.30	3.60	2.90	5.10	5.00	3.50
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	-972.00	-445.00	-2710.00
Technetium 99 (CE+/-)	.	.	.	.	.	1600.00	1600.00	1500.00
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	.	.	.	.	10.90	4.10	0.87
Uranium 234 (CE+/-)	.	.	.	.	.	4.40	2.60	1.20
Uranium 235 (pCi/L)	.	.	.	.	.	1.74	1.23	0.00
Uranium 235 (CE+/-)	.	.	.	.	.	1.70	1.40	1.50
Uranium 238 (pCi/L)	.	.	.	.	.	30.10	6.16	1.30
Uranium 238 (CE+/-)	.	.	.	.	.	7.20	3.20	1.50

(CONTINUED)

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APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-223	GW-232					GW-239		
Location	NHP	EXP					EXP		
Date Sampled	05/03/91	03/12/91	05/16/91	09/02/91	11/05/91	02/25/91	05/17/91	09/01/91	
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.	.
DO, Field (ppm)	0.5	0.4	3.6	.	1.1	1.7	1.3	.	.
pH, Field (pH units)	6.9	9.1	9.4	.	9.1	8.8	8.1	.	.
Redox, Field (mV)	226	97	111	.	-18	205	180	.	.
Sp. Cond., Field (umho/cm)	703	864	760	.	679	1546	1954	.	.
Temp, Field (degrees C)	18.7	13.3	16.1	.	13.2	14	16.1	.	.
pH, 1 (pH units)	6.5	9.2	7.1	9.1	7.9	8.6	7.1	8.7	.
Sp. Cond., 1 (umho/cm)	663	868	834	945	925	2094	2067	2030	.
TPH (mg/L)	.	.	.	.	.	.	.	.	.
TDS (mg/L)	454	554	430	574	558	1216	1182	1198	.
TSS (mg/L)	2	15	35	37	13	26	11	14	.
Turbidity (NTU)	6	5.8	26	21	8.5	26	16	16	.
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	4.79	3.04	2.84	2.20	-0.42	3.12	0.81	2.27	.
Gross Alpha (CE+/-)	1.80	1.50	1.60	1.50	2.00	2.60	1.20	1.50	.
Gross Beta (pCi/L)	1.96	7.46	14.94	3.19	-0.45	2.85	0.64	1.81	.
Gross Beta (CE+/-)	3.50	3.70	4.00	3.30	3.00	6.70	3.30	3.20	.
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	-4610.00	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	1500.00	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	1.37	0.82	0.00	.	.	4.32	0.00	.	.
Uranium 234 (CE+/-)	1.60	1.20	1.50	.	.	8.60	1.40	.	.
Uranium 235 (pCi/L)	0.00	-0.41	-0.43	.	.	0.00	-0.42	.	.
Uranium 235 (CE+/-)	1.60	0.80	0.90	.	.	7.50	0.80	.	.
Uranium 238 (pCi/L)	1.37	0.82	0.00	.	.	4.32	0.00	.	.
Uranium 238 (CE+/-)	1.60	1.20	1.50	.	.	6.10	1.40	.	.

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APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-239	GW-240				GW-251		
Location	EXP	NHP				S2		
Date Sampled	11/02/91	01/29/91	04/25/91	08/24/91	10/22/91	01/14/91	04/09/91	07/14/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	3.7	5.5	6.6	4	3.8	0.8	0.8	0.2
pH, Field (pH units)	8.7	7.4	7.4	7.6	7.5	6.4	5.7	6.3
Redox, Field (mV)	-13	313	256	191	81	247	230	265
Sp. Cond., Field (umho/cm)	1825	690	459	678	779	877	1230	864
Temp, Field (degrees C)	14	13.8	15.2	16.1	17.5	13.6	15.3	16.2
pH, 1 (pH units)	8.6	6.8	7	7.8	7.6	6.5	7.5	6.8
Sp. Cond., 1 (umho/cm)	2040	668	491	822	695	1007	1179	1088
TPH (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	1174	278	256	404	486	610	780	514
TSS (mg/L)	5	1	1	2	3	54	72	20
Turbidity (NTU)	8	1.5	0.4	0.6	0.75	28	40	23
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	1.87	2.80	1.05	1.29	4.04	16.52	10.95	11.34
Gross Alpha (CE+/-)	3.10	1.70	1.50	1.50	2.10	2.90	2.50	2.50
Gross Beta (pCi/L)	1.73	20.03	24.55	7.77	10.00	13.76	10.95	9.91
Gross Beta (CE+/-)	2.80	4.20	4.30	3.60	3.20	3.90	3.70	3.60
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 234 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 235 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 235 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 238 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 238 (CE+/-)	.	.	.	.	.	.	.	.

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APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-251	GW-252				GW-253		GW-255
Location	S2	S2				S2		S2
Date Sampled	10/03/91	01/12/91	04/06/91	07/13/91	10/03/91	01/14/91	04/09/91	01/13/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	0.5	10.1	8.7	6.2	7.7	0.5	6.9	4.5
pH, Field (pH units)	6.5	7.3	7.4	7.4	6.8	5.4	5.2	7.5
Redox, Field (mV)	236	292	205	105	220	290	284	374
Sp. Cond., Field (umho/cm)	799	184	94	224	308	4400	5380	440
Temp, Field (degrees C)	16.7	12.8	18.2	18.8	15.7	14.1	15.6	12.7
pH, 1 (pH units)	7	6.5	6.7	7.6	7.3	5.2	5.4	7.1
Sp. Cond., 1 (umho/cm)	966	105	193	165	383	5678	5471	440
TPH (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	612	22	128	120	196	3300	2910	298
TSS (mg/L)	58	4	8	5	7	5	4	128
Turbidity (NTU)	42	4.4	18	9	19	9.2	0.7	85
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	10.19	1.22	1.94	1.55	2.46	95.44	231.47	22.75
Gross Alpha (CE+/-)	2.30	1.20	1.10	1.30	1.30	22.50	10.20	3.30
Gross Beta (pCi/L)	16.39	2.27	4.07	3.62	3.96	93.12	72.14	46.52
Gross Beta (CE+/-)	4.10	3.30	3.10	3.30	3.50	36.60	6.00	5.20
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	673.00	-1870.00	.	.	.	.	-1540.00
Technetium 99 (CE+/-)	.	1600.00	1500.00	.	.	.	.	1500.00
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	0.41	0.43	.	.	.	.	0.42
Uranium 234 (CE+/-)	.	0.80	0.90	.	.	.	.	0.80
Uranium 235 (pCi/L)	.	0.41	0.00	.	.	.	.	0.00
Uranium 235 (CE+/-)	.	0.80	1.50	.	.	.	.	1.40
Uranium 238 (pCi/L)	.	0.81	0.00	.	.	.	.	0.00
Uranium 238 (CE+/-)	.	1.10	1.50	.	.	.	.	1.40

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APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-255			GW-261				GW-262
	S2			SY				SY
	04/08/91	07/13/91	10/03/91	01/10/91	04/03/91	07/11/91	10/01/91	01/10/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	4.1	3.1	4.4	2.9	2.8	3.6	3.6	7.3
pH, Field (pH units)	7.3	7.5	7.5	6.6	6	7	7	7.7
Redox, Field (mV)	261	132	194	295	335	195	200	270
Sp. Cond., Field (umho/cm)	519	393	417	338	386	330	321	356
Temp, Field (degrees C)	15.3	16.8	15.8	12.1	18.9	28.6	19.5	14.2
pH, 1 (pH units)	7.4	7.6	7.4	6.8	7.1	7.5	7.2	7.3
Sp. Cond., 1 (umho/cm)	408	500	507	315	340	400	376	350
TPH (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	318	298	292	228	192	236	230	268
TSS (mg/L)	70	27	37	1	7	5	4	35
Turbidity (NTU)	55	32	38	8	6.9	3.5	6.5	15
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	0.16	1.50	1.72	0.39	2.04	1.04	1.90	3.14
Gross Alpha (CE+/-)	1.10	1.30	1.10	1.00	1.20	1.30	1.20	1.50
Gross Beta (pCi/L)	6.18	1.94	4.68	3.48	4.00	2.03	3.99	8.20
Gross Beta (CE+/-)	3.40	3.20	3.50	3.30	3.20	3.20	3.50	3.60
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	594.00	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	1600.00	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	0.00	.	.	0.43	-0.44	.	.	0.88
Uranium 234 (CE+/-)	1.70	.	.	0.90	0.90	.	.	1.20
Uranium 235 (pCi/L)	0.43	.	.	0.00	0.44	.	.	0.00
Uranium 235 (CE+/-)	0.90	.	.	1.50	0.90	.	.	1.50
Uranium 238 (pCi/L)	0.00	.	.	0.00	0.00	.	.	0.44
Uranium 238 (CE+/-)	1.50	.	.	1.50	1.50	.	.	0.90

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APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-262			GW-263				GW-264
	SY			SY				SY
	04/03/91	07/11/91	10/01/91	01/10/91	04/03/91	07/11/91	10/01/91	01/11/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	6.9	0.6	3.4	6.2	6	3.9	6.6	2
pH, Field (pH units)	7.3	7.9	7.8	7.5	6.5	7.5	7.6	6.8
Redox, Field (mV)	258	198	168	283	325	166	186	-35
Sp. Cond., Field (umho/cm)	423	366	376	463	500	438	436	909
Temp, Field (degrees C)	18.8	20.1	20	15.8	21.7	20	22.6	13.1
pH, 1 (pH units)	7.4	8	7.8	7.1	6.9	7.9	7.6	7.2
Sp. Cond., 1 (umho/cm)	383	441	428	465	480	558	536	912
TPH (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	230	284	266	327	264	332	320	682
TSS (mg/L)	16	40	19	19	10	8	73	9
Turbidity (NTU)	5.4	21	2.4	18	27	7.3	70	10
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	3.00	2.10	2.36	1.69	2.96	3.17	3.35	3.82
Gross Alpha (CE+/-)	1.40	1.50	1.30	1.30	1.40	1.60	1.60	1.60
Gross Beta (pCi/L)	6.41	4.84	3.59	4.95	5.85	6.04	9.40	6.58
Gross Beta (CE+/-)	3.30	3.40	3.40	3.40	3.30	3.40	3.40	3.50
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	0.00	.	.	0.00	-0.43	.	.	0.00
Uranium 234 (CE+/-)	1.80	.	.	1.40	0.90	.	.	1.50
Uranium 235 (pCi/L)	0.00	.	.	0.00	0.00	.	.	0.00
Uranium 235 (CE+/-)	1.60	.	.	1.40	1.50	.	.	1.50
Uranium 238 (pCi/L)	0.46	.	.	0.00	0.43	.	.	0.44
Uranium 238 (CE+/-)	1.40	.	.	1.40	0.90	.	.	0.90

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-264			GW-281				
	SY			FF				
	04/06/91	07/12/91	10/01/91	01/24/91	04/19/91	07/29/91	08/12/91	10/09/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	2.2	0.3	2.6	3	2.2	3.6	4.5	3.2
pH, Field (pH units)	7	7.2	6.9	6.8	6.5	6.5	7	6.9
Redox, Field (mV)	32	-212	-146	289	285	22	186	203
Sp. Cond., Field (umho/cm)	922	880	873	347	384	397	335	381
Temp, Field (degrees C)	16.1	20.9	17.7	15	15.7	20.2	19.1	19.1
pH, 1 (pH units)	7	7.6	7.2	6.7	7.2	.	6.9	6.9
Sp. Cond., 1 (umho/cm)	939	930	983	347	401	.	438	430
TPH (mg/L)	.	.	.	<0.5	<0.5	<10	.	<1
TDS (mg/L)	606	568	640	354	242	.	264	302
TSS (mg/L)	2	2	5	2952	47	.	115	324
Turbidity (NTU)	2.5	4.1	2.9	1600	360	.	75	215
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	2.77	1.05	3.93	2.58	2.89	5.84	.	2.57
Gross Alpha (CE+/-)	1.30	1.30	1.70	1.80	1.70	1.90	.	1.40
Gross Beta (pCi/L)	7.59	2.72	14.20	3.29	10.35	9.03	.	6.93
Gross Beta (CE+/-)	3.30	3.20	3.60	3.40	3.70	3.90	.	3.60
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	0.42	.	.	0.87	0.44	.	.	.
Uranium 234 (CE+/-)	0.80	.	.	1.20	1.50	.	.	.
Uranium 235 (pCi/L)	0.00	.	.	0.00	0.44	.	.	.
Uranium 235 (CE+/-)	1.40	.	.	1.50	0.90	.	.	.
Uranium 238 (pCi/L)	0.00	.	.	0.00	0.44	.	.	.
Uranium 238 (CE+/-)	1.40	.	.	1.50	0.90	.	.	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-282					GW-283		
	FF					FF		
	01/25/91	04/19/91	07/30/91	08/12/91	10/09/91	01/24/91	04/19/91	07/29/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	6.3	4.9	3.7	7	3.5	2	2.5	2.6
pH, Field (pH units)	6.1	6.5	5.9	6.8	6.9	6.5	6.4	6.5
Redox, Field (mV)	292	251	162	207	210	224	310	60
Sp. Cond., Field (umho/cm)	144	151	217	159	230	751	927	962
Temp, Field (degrees C)	15.2	15.8	20.2	18.6	18.7	14.6	17.3	21
pH, 1 (pH units)	6	6.7	.	6.4	6.3	6.7	7.4	.
Sp. Cond., 1 (umho/cm)	98	133	.	188	229	944	1014	.
TPH (mg/L)	<0.5	<0.5	<10	.	0.237	<0.5	<0.5	<10
TDS (mg/L)	86	100	.	140	126	635	654	.
TSS (mg/L)	121	20	.	237	127	138	102	.
Turbidity (NTU)	28	3	.	30	80	3.6	70	.
.	.	.	.	.	.	.	.	.
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	-0.47	1.17	0.79	.	4.74	0.56	1.59	1.61
Gross Alpha (CE+/-)	1.30	1.50	1.20	.	1.70	1.50	1.50	1.30
Gross Beta (pCi/L)	4.00	6.96	6.04	.	10.60	8.49	5.28	3.85
Gross Beta (CE+/-)	3.40	3.50	3.80	.	3.80	3.60	3.40	3.70
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 234 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 235 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 235 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 238 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 238 (CE+/-)	.	.	.	.	.	.	.	.

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APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-283		GW-284					GW-285
	FF		FF					FF
	08/12/91	10/09/91	01/24/91	04/19/91	07/29/91	08/12/91	10/09/91	01/25/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	3.7	3.2	1.6	2.3	2.8	2.9	2.7	5.4
pH, Field (pH units)	6.2	6.8	6.7	6.8	6.5	6.4	6.8	6.5
Redox, Field (mV)	221	193	236	291	15	227	213	208
Sp. Cond., Field (umho/cm)	1091	874	1190	1263	1359	1195	1277	305
Temp, Field (degrees C)	21.6	20.6	13.8	16.8	21.1	19.8	20.4	15.3
pH, 1 (pH units)	6.8	6.8	6.6	6.8	.	7	6.9	6.7
Sp. Cond., 1 (umho/cm)	1032	973	1529	1409	.	1634	1622	329
TPH (mg/L)	.	<1	<0.5	<0.5	<10	.	<1	<0.5
TDS (mg/L)	658	658	666	870	.	1102	1332	256
TSS (mg/L)	92	333	242	478	.	20	434	69
Turbidity (NTU)	50	153	200	660	.	20	140	62
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	.	11.30	4.39	5.92	6.40	.	12.00	2.19
Gross Alpha (CE+/-)	.	2.40	2.00	2.10	2.00	.	2.50	1.70
Gross Beta (pCi/L)	.	17.60	4.59	11.12	6.02	.	10.80	4.79
Gross Beta (CE+/-)	.	4.20	3.40	3.70	3.80	.	3.80	3.40
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 234 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 235 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 235 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 238 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 238 (CE+/-)	.	.	.	.	.	.	.	.

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APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-285				GW-331		GW-332	
	FF				WC		WC	
	04/19/91	07/29/91	08/12/91	10/09/91	01/23/91	04/14/91	01/23/91	04/13/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	3.8	4.4	6	4.7	1.5	0.5	6.4	1
pH, Field (pH units)	7.2	6.6	6.5	6.9	6.3	6.4	6	6.4
Redox, Field (mV)	278	35	219	187	320	294	419	257
Sp. Cond., Field (umho/cm)	454	394	438	372	380	331	306	270
Temp, Field (degrees C)	17.4	20.3	18.4	19.8	16.5	17.9	11.5	19.4
pH, 1 (pH units)	6.8	.	7	6.9	6.5	7.1	6.3	6.8
Sp. Cond., 1 (umho/cm)	365	.	454	831	360	419	287	294
TPH (mg/L)	<0.5	<10	.	<1	.	.	.	.
TDS (mg/L)	240	.	250	270	254	270	210	236
TSS (mg/L)	105	.	336	111	<1	<1	1	6
Turbidity (NTU)	130	.	1100	512	0.17	0.25	2.3	4.4
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	4.89	4.34	.	5.07	0.96	0.72	-0.40	5.02
Gross Alpha (CE+/-)	2.00	1.70	.	1.80	1.40	1.40	1.30	1.60
Gross Beta (pCi/L)	9.44	5.14	.	9.79	5.04	7.61	1.43	6.37
Gross Beta (CE+/-)	3.60	3.70	.	3.80	3.70	3.60	3.20	3.50
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 234 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 235 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 235 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 238 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 238 (CE+/-)	.	.	.	.	.	.	.	.

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APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-333		GW-334		GW-335		GW-336	
	WC		WC		WC		WC	
	01/21/91	04/13/91	01/21/91	04/13/91	01/21/91	04/10/91	01/23/91	04/14/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	3.6	2.9	1.5	1.4	7.4	8.4	2.2	3.5
pH, Field (pH units)	5.5	5.5	6.6	6.5	7	6.9	6.1	6.4
Redox, Field (mV)	351	259	324	211	354	270	345	317
Sp. Cond., Field (umho/cm)	201	196	303	300	429	396	284	281
Temp, Field (degrees C)	13.1	18	12.7	16.1	6.3	21.8	13.2	17.4
pH, 1 (pH units)	6	6.2	6.7	7.1	6.5	6.6	6.5	7.3
Sp. Cond., 1 (umho/cm)	196	233	287	365	412	405	283	405
TPH (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	244	196	254	254	370	282	212	254
TSS (mg/L)	151	163	107	2	158	166	1	13
Turbidity (NTU)	130	110	130	4	110	100	3.9	22
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	2.30	2.55	-0.14	1.28	3.01	0.67	1.36	0.03
Gross Alpha (CE+/-)	1.60	1.30	1.20	1.00	1.70	1.20	1.40	1.30
Gross Beta (pCi/L)	4.10	7.17	-1.07	6.91	4.61	5.43	1.15	3.77
Gross Beta (CE+/-)	3.70	3.50	3.40	3.50	3.70	3.40	3.50	3.30
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 234 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 235 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 235 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 238 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 238 (CE+/-)	.	.	.	.	.	.	.	.

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APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-337				GW-338			
	WC				WC			
	01/23/91	04/14/91	07/14/91	10/04/91	01/16/91	04/10/91	07/13/91	10/03/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	2	1.8	0.8	1.1	5	3.9	2.4	2.9
pH, Field (pH units)	6.7	6.7	7	6.7	7.2	6.9	7.3	7.1
Redox, Field (mV)	317	256	176	194	398	241	127	183
Sp. Cond., Field (umho/cm)	496	435	428	433	394	443	393	413
Temp, Field (degrees C)	15.5	20	22.3	22	14.1	22.7	20.1	20.6
pH, 1 (pH units)	6.8	7.4	7.1	7.7	7.1	7.1	7.5	7.4
Sp. Cond., 1 (umho/cm)	517	523	545	554	419	348	512	513
TPH (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	332	334	310	296	302	260	292	316
TSS (mg/L)	29	22	25	10	9	8	5	8
Turbidity (NTU)	20	20	22	8	13	6.9	2.2	2.9
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	0.46	0.92	2.94	3.06	1.47	3.84	4.50	2.83
Gross Alpha (CE+/-)	1.50	1.40	1.50	1.40	1.40	1.70	1.80	1.30
Gross Beta (pCi/L)	-0.14	2.45	3.38	5.55	0.29	7.02	1.45	0.14
Gross Beta (CE+/-)	3.20	3.30	3.30	3.50	3.50	3.50	3.10	3.20
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 234 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 235 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 235 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 238 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 238 (CE+/-)	.	.	.	.	.	.	.	.

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APPENDIX E
Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-380				GW-381			
	NHP				NHP			
	01/29/91	04/25/91	08/23/91	10/22/91	02/04/91	05/08/91	08/28/91	10/27/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	4.5	4.7	0.8	0.9	0.3	0.7	0.5	0.3
pH, Field (pH units)	6.8	7	6	6.1	7.2	7.2	7.3	7.2
Redox, Field (mV)	315	257	-30	-34	-7	70	-84	-80
Sp. Cond., Field (umho/cm)	1286	791	960	1221	638	656	570	653
Temp, Field (degrees C)	14.1	14.8	27.5	22	16.1	17.4	17.5	19.2
pH, 1 (pH units)	6.7	6.8	6.8	7.1	6.8	6.3	7.4	7.3
Sp. Cond., 1 (umho/cm)	1191	820	631	597	633	681	736	708
TPH (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	682	456	426	440	360	714	676	348
TSS (mg/L)	45	31	256	20	4	270	108	9
Turbidity (NTU)	19	18	325	26	15	560	350	26
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	6.09	2.02	1.10	5.68	2.33	4.33	2.40	3.26
Gross Alpha (CE+/-)	2.10	1.60	1.50	2.40	1.40	1.70	1.60	2.40
Gross Beta (pCi/L)	8.68	4.95	6.72	10.40	2.32	5.27	5.19	5.89
Gross Beta (CE+/-)	3.70	3.40	3.50	3.20	3.40	3.70	3.50	3.00
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	-2090.00	-1260.00	.	.	445.00	1940.00	.	.
Technetium 99 (CE+/-)	1600.00	1600.00	.	.	1600.00	1700.00	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	0.41	0.00	.	.	0.42	0.44	.	.
Uranium 234 (CE+/-)	0.80	1.50	.	.	0.80	0.90	.	.
Uranium 235 (pCi/L)	0.41	0.00	.	.	0.00	0.00	.	.
Uranium 235 (CE+/-)	0.80	1.50	.	.	1.40	1.50	.	.
Uranium 238 (pCi/L)	0.41	0.43	.	.	0.42	0.00	.	.
Uranium 238 (CE+/-)	0.80	0.90	.	.	0.80	1.50	.	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-382				GW-383			
	NHP				NHP			
	02/04/91	05/07/91	08/27/91	10/27/91	01/29/91	04/25/91	08/27/91	10/26/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	0.6	0.8	0.8	0.8	0.8	0.4	0.4	0.9
pH, Field (pH units)	7.4	7.6	7.4	7.1	7.2	7.2	7.4	7.3
Redox, Field (mV)	138	271	-46	-40	127	176	-118	-68
Sp. Cond., Field (umho/cm)	443	456	408	460	538	542	425	490
Temp, Field (degrees C)	15.1	16.4	18.3	18.1	17	19.3	19.2	19
pH, 1 (pH units)	6.9	6.3	7.7	7.5	6.9	7	7.7	7.3
Sp. Cond., 1 (umho/cm)	423	448	525	496	468	505	581	544
TPH (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	306	280	266	248	212	328	312	260
TSS (mg/L)	<1	1	1	<1	3	2	3	<1
Turbidity (NTU)	3.3	3	3.5	2.9	8.8	8.4	11	11
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	2.98	1.30	1.38	3.02	0.71	1.49	1.61	1.67
Gross Alpha (CE+/-)	1.50	1.20	1.50	2.20	1.40	1.60	1.50	2.10
Gross Beta (pCi/L)	5.41	1.43	4.59	5.16	0.76	8.40	3.93	5.11
Gross Beta (CE+/-)	3.60	3.50	3.40	3.00	3.30	3.60	3.40	3.00
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	-3800.00	-1960.00	.	.	-148.00	68.50	.	.
Technetium 99 (CE+/-)	1500.00	1600.00	.	.	1600.00	1600.00	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	0.81	0.43	.	.	0.44	1.64	.	.
Uranium 234 (CE+/-)	1.10	0.90	.	.	0.90	1.60	.	.
Uranium 235 (pCi/L)	0.00	0.43	.	.	0.00	0.00	.	.
Uranium 235 (CE+/-)	1.40	0.90	.	.	1.50	1.40	.	.
Uranium 238 (pCi/L)	0.41	0.43	.	.	0.00	0.82	.	.
Uranium 238 (CE+/-)	0.80	0.90	.	.	1.50	1.20	.	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-384				GW-385			
	NHP				NHP			
	01/28/91	04/24/91	08/21/91	10/15/91	01/27/91	04/23/91	08/21/91	10/14/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	0.5	0.5	0.5	1	7.3	7.5	1.4	0.4
pH, Field (pH units)	7.1	7.1	7.1	7	9	9	9.4	9.2
Redox, Field (mV)	84	83	-62	-62	248	237	67	153
Sp. Cond., Field (umho/cm)	659	586	506	552	604	710	591	672
Temp, Field (degrees C)	16.7	16.7	17.8	16.3	14	16.1	16.7	15.8
pH, 1 (pH units)	7	7	7.4	7.4	9	8.8	9.4	9
Sp. Cond., 1 (umho/cm)	535	595	667	347	710	706	768	685
TPH (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	350	362	376	382	430	468	434	472
TSS (mg/L)	<1	2	<1	3	1	6	6	1
Turbidity (NTU)	7.1	1.4	5.5	7.7	2	2.2	3	1.3
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	2.41	3.49	0.96	0.67	-0.02	0.77	-0.50	2.42
Gross Alpha (CE+/-)	1.60	1.80	1.50	1.90	1.40	1.20	1.20	1.40
Gross Beta (pCi/L)	5.55	7.06	9.35	6.03	2.29	2.39	3.04	0.81
Gross Beta (CE+/-)	3.60	3.50	3.70	3.10	3.30	3.30	3.30	3.30
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	422.00	-1510.00	.	.	1130.00	.	.	.
Technetium 99 (CE+/-)	1700.00	1600.00	.	.	1600.00	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	0.00	0.00	.	.	0.00	.	.	.
Uranium 234 (CE+/-)	1.50	1.50	.	.	1.50	.	.	.
Uranium 235 (pCi/L)	0.00	0.00	.	.	0.00	.	.	.
Uranium 235 (CE+/-)	1.50	1.50	.	.	1.50	.	.	.
Uranium 238 (pCi/L)	0.43	0.00	.	.	0.00	.	.	.
Uranium 238 (CE+/-)	0.90	1.50	.	.	1.50	.	.	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-505				GW-508	GW-603		
	RG				RG	NHP		
	03/12/91	06/21/91	09/20/91	12/15/91	12/15/91	01/26/91	04/22/91	09/01/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	1.9	2	1.3	1.9	4.8	4.1	3.4	.
pH, Field (pH units)	5.3	6	5.7	6.2	7.7	7.2	6.7	.
Redox, Field (mV)	363	135	260	192	226	335	273	.
Sp. Cond., Field (umho/cm)	250	303	218	215	303	431	535	.
Temp, Field (degrees C)	13.1	23.9	22.1	14.5	16	13.1	15.2	.
pH, 1 (pH units)	6	6.5	6.5	5.65	4.5	6.9	7	7.6
Sp. Cond., 1 (umho/cm)	230	299	249	219	278	461	519	511
TPH (mg/L)	<0.5	<10	<1	17.4	0.418	.	.	.
TDS (mg/L)	188	226	220	94	148	336	322	302
TSS (mg/L)	254	466	92	23	17	142	2	8
Turbidity (NTU)	180	360	60	30	4.7	90	1.8	10
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	13.62	12.05	21.20	3.87	1.54	0.89	0.23	1.48
Gross Alpha (CE+/-)	2.60	2.70	3.20	2.50	2.30	1.50	1.30	1.40
Gross Beta (pCi/L)	8.82	6.07	16.90	0.43	0.60	9.91	11.87	11.00
Gross Beta (CE+/-)	3.70	3.70	3.90	3.20	3.20	3.70	3.80	3.70
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 234 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 235 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 235 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 238 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 238 (CE+/-)	.	.	.	.	.	.	.	.

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APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-603	GW-604				GW-605		GW-606
Location	NHP	NHP				NHP		NHP
Date Sampled	11/03/91	01/26/91	04/22/91	09/01/91	11/03/91	08/26/91	10/23/91	08/26/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	3.1	5	4.8	.	5	1.2	0.1	0.2
pH, Field (pH units)	7.3	7.5	7	.	7.8	6.9	7.1	8.4
Redox, Field (mV)	22	245	326	.	119	127	180	79
Sp. Cond., Field (umho/cm)	404	284	409	.	254	449	689	476
Temp, Field (degrees C)	14.1	13.5	15.8	.	13.3	18.1	18.6	17
pH, 1 (pH units)	7.1	6.9	7	7.7	7.4	7.3	7.2	8.4
Sp. Cond., 1 (umho/cm)	499	294	387	343	330	596	519	608
TPH (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	296	470	304	218	180	334	366	328
TSS (mg/L)	59	1836	70	9	3	8	2	<1
Turbidity (NTU)	115	1700	15	15	0.37	14	1.9	1.4
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	3.57	4.59	3.94	0.96	1.99	47.37	73.10	1.55
Gross Alpha (CE+/-)	1.90	2.00	1.90	1.30	1.50	4.80	7.00	1.50
Gross Beta (pCi/L)	9.35	10.56	1.77	1.02	4.14	47.71	69.20	6.79
Gross Beta (CE+/-)	3.00	3.80	3.20	3.20	2.70	5.30	5.40	3.50
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 234 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 235 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 235 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 238 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 238 (CE+/-)	.	.	.	.	.	.	.	.

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APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-606	GW-617				GW-618		
Location	NHP	Y12				Y12		
Date Sampled	10/24/91	01/13/91	04/08/91	07/12/91	10/02/91	01/13/91	04/09/91	07/12/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	0.7	9.1	7	4.6	1.5	1	0.5	0.4
pH, Field (pH units)	8	6.3	5.8	5.3	5.5	6.5	6.2	6.3
Redox, Field (mV)	150	372	346	104	108	166	175	-32
Sp. Cond., Field (umho/cm)	568	274	281	162	123	678	724	698
Temp, Field (degrees C)	16	10.1	20.8	24.5	19.7	17.3	17.2	22.5
pH, 1 (pH units)	7.8	6.1	6.5	5.9	5.7	6.6	7.2	7.2
Sp. Cond., 1 (umho/cm)	456	157	215	183	154	650	516	748
TPH (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	336	84	140	132	94	354	382	382
TSS (mg/L)	<1	11	22	105	4	<1	<1	1
Turbidity (NTU)	0.33	10	19	20	13	2	3.7	3.5
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	6.29	3.28	5.77	1.09	4.01	1.72	-0.20	1.95
Gross Alpha (CE+/-)	2.60	1.50	1.90	1.30	1.70	1.30	1.00	1.40
Gross Beta (pCi/L)	8.26	3.03	10.71	4.71	9.93	4.17	4.89	3.62
Gross Beta (CE+/-)	3.10	3.30	3.60	3.40	3.40	3.40	3.30	3.30
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 234 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 235 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 235 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 238 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 238 (CE+/-)	.	.	.	.	.	.	.	.

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APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-618	GW-619				GW-620		
Location	Y12	FTF				FTF		
Date Sampled	10/02/91	01/12/91	04/06/91	07/14/91	10/04/91	01/12/91	04/06/91	07/14/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	0.3	3.5	2.5	1.3	1.3	12	1.1	2.1
pH, Field (pH units)	6.6	9.2	9	10.8	10.4	11.1	10.3	9.2
Redox, Field (mV)	-18	231	53	22	13	54	41	94
Sp. Cond., Field (umho/cm)	588	221	237	242	264	399	376	207
Temp, Field (degrees C)	19.1	11.3	16.7	18.2	17	11	18	19
pH, 1 (pH units)	6.6	7.2	6.7	9.7	10	6.9	9	8.5
Sp. Cond., 1 (umho/cm)	689	161	147	149	132	164	72	214
TPH (mg/L)	.	.	.	.	.	.	.	.
TDS (mg/L)	386	120	98	10	58	106	20056	90
TSS (mg/L)	<1	7	44	25	10	46	82	133
Turbidity (NTU)	0.48	4.7	4	27	4.2	22	35	70
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	4.52	3.37	1.92	2.84	1.93	3.27	4.35	1.98
Gross Alpha (CE+/-)	1.80	1.50	1.10	1.50	1.20	1.50	1.50	1.40
Gross Beta (pCi/L)	14.70	22.00	27.68	19.08	16.41	23.71	19.82	16.89
Gross Beta (CE+/-)	3.70	4.30	4.30	4.10	4.10	4.30	4.00	4.00
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 234 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 235 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 235 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 238 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 238 (CE+/-)	.	.	.	.	.	.	.	.

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APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-620	GW-631				GW-632		
Location	FTF	RG				RG		
Date Sampled	10/04/91	03/11/91	06/19/91	09/19/91	12/14/91	03/11/91	06/20/91	09/20/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	1.3	1.2	2.9	3.2	0.5	2	0.8	2.5
pH, Field (pH units)	8.6	4.3	5	4.6	4.4	5.6	5.8	6.6
Redox, Field (mV)	108	379	315	239	184	327	142	40
Sp. Cond., Field (umho/cm)	222	324	322	271	212	406	482	371
Temp, Field (degrees C)	18	14.2	20.2	19	17.2	15.4	20	20.2
pH, 1 (pH units)	8.1	5.2	4.5	5.2	4.68	6.5	6.4	6.1
Sp. Cond., 1 (umho/cm)	232	301	337	269	240	330	462	475
TPH (mg/L)	.	0.6	<10	<1	0.181	2.4	.	133
TDS (mg/L)	116	316	298	224	154	286	274	324
TSS (mg/L)	46	5	10	6	1	124	2315	844
Turbidity (NTU)	24	3	9.5	5.5	0.3	28	1100	800
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	0.95	3.43	3.75	4.93	-0.15	15.97	9.76	1.54
Gross Alpha (CE+/-)	1.40	1.50	1.70	1.70	1.80	2.80	2.40	1.20
Gross Beta (pCi/L)	7.55	8.65	2.88	10.90	2.74	25.49	23.96	4.73
Gross Beta (CE+/-)	3.80	3.70	3.50	3.60	3.00	4.50	4.50	3.20
Americium 241 (pCi/L)	.	.	.	.	-0.38	.	.	.
Americium 241 (CE+/-)	.	.	.	.	1.50	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	0.42	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	0.80	.	.	.
Strontium (pCi/L)	.	.	.	.	-3.67	.	.	.
Strontium (CE+/-)	.	.	.	.	3.40	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	4650.00	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	1700.00	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	.	.	.	0.42	.	.	.
Uranium 234 (CE+/-)	.	.	.	.	1.40	.	.	.
Uranium 235 (pCi/L)	.	.	.	.	0.00	.	.	.
Uranium 235 (CE+/-)	.	.	.	.	1.40	.	.	.
Uranium 238 (pCi/L)	.	.	.	.	-0.42	.	.	.
Uranium 238 (CE+/-)	.	.	.	.	0.83	.	.	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-632	GW-633				GW-634		
Location	RG	RG				RG		
Date Sampled	12/14/91	03/11/91	06/20/91	09/19/91	12/14/91	03/09/91	06/19/91	09/20/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	7.1	1.4	1	0.8	1.7	8.7	1.3	1.1
pH, Field (pH units)	5.9	5.1	5.2	5.3	5.2	4.8	5.3	4.8
Redox, Field (mV)	73	338	146	118	145	293	263	102
Sp. Cond., Field (umho/cm)	347	1280	1660	22100	23600	74	89	72
Temp, Field (degrees C)	15.7	13.7	20	18	16.5	16	20	19.6
pH, 1 (pH units)	5.52	5.9	5.6	5.7	5.27	5.4	5.1	5.3
Sp. Cond., 1 (umho/cm)	327	26200	19940	22800	28100	85	83	72.4
TPH (mg/L)	0.661	<0.5	<10	<1	0.0696	4.2	43	188
TDS (mg/L)	244	31016	20540	27324	33660	50	38	66
TSS (mg/L)	417	142	138	148	664	10	<1	34
Turbidity (NTU)	90	170	210	110	2300	2.8	1.6	4.4
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	3.66	49.93	84.07	56.70	288.00	0.32	5.94	2.34
Gross Alpha (CE+/-)	2.50	102.10	23.30	18.00	140.00	1.50	2.00	1.40
Gross Beta (pCi/L)	24.30	603.66	268.39	852.00	584.00	5.16	3.17	1.72
Gross Beta (CE+/-)	4.10	359.00	46.60	64.00	170.00	3.60	3.50	3.50
Americium 241 (pCi/L)	0.00	.	.	0.65	0.86	.	.	.
Americium 241 (CE+/-)	0.80	.	.	1.40	1.70	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	2.04	.	.	-2.85	4.56	.	.	.
Neptunium 237 (CE+/-)	1.80	.	.	2.30	9.10	.	.	.
Strontium (pCi/L)	-0.93	.	.	365.00	128.00	.	.	.
Strontium (CE+/-)	3.60	.	.	51.00	10.00	.	.	.
Technetium 99 (pCi/L)	6750.00	.	.	-1050.00	27200.00	.	.	.
Technetium 99 (CE+/-)	1800.00	.	.	1700.00	2300.00	.	.	.
Tritium (Bq/L)	.	.	.	180.00	7300.00	.	.	.
Tritium (CE+/-)	.	.	.	30.00	100.00	.	.	.
Uranium 234 (pCi/L)	2.86	.	.	-16.60	246.00	.	.	.
Uranium 234 (CE+/-)	2.50	.	.	6.70	65.00	.	.	.
Uranium 235 (pCi/L)	0.41	.	.	-2.37	8.21	.	.	.
Uranium 235 (CE+/-)	0.82	.	.	4.70	12.00	.	.	.
Uranium 238 (pCi/L)	0.41	.	.	-2.37	287.00	.	.	.
Uranium 238 (CE+/-)	1.40	.	.	4.70	7.00	.	.	.

(CONTINUED)

APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-634	GW-656				GW-657		
Location	RG	T0134				T2331		
Date Sampled	12/14/91	03/07/91	06/20/91	09/26/91	12/20/91	03/06/91	06/17/91	09/24/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	1.5	0.4	1.6	1.5	3.3	7.2	0.6	0.5
pH, Field (pH units)	4.7	6.6	6.8	7	6.6	7.4	6.8	6.8
Redox, Field (mV)	132	76	3	5	11	-123	-113	-116
Sp. Cond., Field (umho/cm)	69	629	722	461	546	650	537	533
Temp, Field (degrees C)	17.3	18.6	22.4	20.6	15	16.7	23.8	24
pH, 1 (pH units)	5.04	7.4	7.1	6.9	6.8	8	7.6	7.3
Sp. Cond., 1 (umho/cm)	73	735	726	699	610	679	548	629
TPH (mg/L)	1.31	<0.5	<10	43	0.002	<0.5	<10	<1
TDS (mg/L)	40	458	512	486	484	424	304	336
TSS (mg/L)	1	570	363	193	175	17	3	1
Turbidity (NTU)	0.72	170	320	170	280	24	8.3	14
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	1.28	9.41	13.44	10.01	0.94	1.14	1.77	2.50
Gross Alpha (CE+/-)	1.90	2.50	2.80	2.30	2.60	1.60	1.50	1.40
Gross Beta (pCi/L)	2.89	22.87	16.30	11.08	11.10	14.93	14.10	2.10
Gross Beta (CE+/-)	3.00	4.40	4.20	4.00	3.40	4.00	4.00	3.50
Americium 241 (pCi/L)	0.00	.	.	.	.	.	.	.
Americium 241 (CE+/-)	2.50	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	0.00	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	1.50	.	.	.	.	.	.	.
Strontium (pCi/L)	-1.94	.	.	.	.	.	.	.
Strontium (CE+/-)	3.50	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	2070.00	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	1700.00	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	0.43	.	.	.	.	.	.	.
Uranium 234 (CE+/-)	1.50	.	.	.	.	.	.	.
Uranium 235 (pCi/L)	0.00	.	.	.	.	.	.	.
Uranium 235 (CE+/-)	1.50	.	.	.	.	.	.	.
Uranium 238 (pCi/L)	-0.43	.	.	.	.	.	.	.
Uranium 238 (CE+/-)	0.87	.	.	.	.	.	.	.

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APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-657	GW-658				GW-659		
Location	T2331	FF				FF		
Date Sampled	12/19/91	03/09/91	06/18/91	09/26/91	12/15/91	03/08/91	06/20/91	09/25/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	2.6	4.7	0.9	2.9	1.4	6.5	2.8	0.7
pH, Field (pH units)	6.9	6.2	5.7	6.2	5.6	6.6	6.1	6.1
Redox, Field (mV)	52	188	72	-28	-47	135	31	-25
Sp. Cond., Field (umho/cm)	485	294	356	295	309	302	491	501
Temp, Field (degrees C)	14	15	21.1	20.8	20.1	20.1	25	20.2
pH, 1 (pH units)	7.14	6.5	7.7	6.5	6.38	6.6	6.3	6.3
Sp. Cond., 1 (umho/cm)	579	312	359	426	409	293	508	567
TPH (mg/L)	0.002	4.1	80	750	1.81	<0.5	<10	35
TDS (mg/L)	320	624	224	240	216	168	240	326
TSS (mg/L)	2	62	110	48	5	150	185	40
Turbidity (NTU)	2	80	100	35	12	600	300	16
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	3.14	-1.01	3.73	1.36	-0.82	0.78	2.29	4.32
Gross Alpha (CE+/-)	2.70	1.20	1.80	1.30	2.10	1.50	1.60	1.70
Gross Beta (pCi/L)	8.26	0.78	3.18	2.81	-3.64	9.22	6.66	2.95
Gross Beta (CE+/-)	3.20	3.30	3.40	3.00	3.00	3.80	3.70	3.60
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 234 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 235 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 235 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 238 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 238 (CE+/-)	.	.	.	.	.	.	.	.

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APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-659	GW-707				GW-708		
Location	FF	T2331				T2331		
Date Sampled	12/15/91	03/06/91	06/17/91	09/26/91	12/19/91	03/07/91	06/17/91	09/26/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	7.9	1.3	1	4.5	8	1.1	1.2	0.4
pH, Field (pH units)	5.9	7	7.3	7.3	7.3	6.9	6.7	6.8
Redox, Field (mV)	-6	-124	-55	-11	80	218	-98	-133
Sp. Cond., Field (umho/cm)	578	478	713	550	471	441	705	701
Temp, Field (degrees C)	17.8	13.8	22.6	23.6	14	14.1	29.7	26.3
pH, 1 (pH units)	6.21	7.7	7.5	7.4	7.61	7.9	7.2	7
Sp. Cond., 1 (umho/cm)	502	471	698	676	582	523	634	770
TPH (mg/L)	1.3	5.63	<10	<1	0.008	<0.5	37	171
TDS (mg/L)	274	298	412	368	340	280	394	442
TSS (mg/L)	806	6	3	8	7	1	405	16
Turbidity (NTU)	700	35	5.1	6.7	2.4	5	170	52
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	3.90	1.19	4.04	2.11	0.36	3.58	6.42	4.59
Gross Alpha (CE+/-)	2.80	1.60	1.80	1.50	2.50	1.90	2.10	1.70
Gross Beta (pCi/L)	24.40	2.93	12.89	14.80	9.30	8.01	13.04	8.01
Gross Beta (CE+/-)	4.40	3.40	3.90	3.70	3.70	3.70	4.00	3.80
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 234 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 235 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 235 (CE+/-)	.	.	.	.	.	.	.	.
Uranium 238 (pCi/L)	.	.	.	.	.	.	.	.
Uranium 238 (CE+/-)	.	.	.	.	.	.	.	.

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APPENDIX E
Groundwater Quality Data, 1991

Well No.	GW-708
Location	T2331
Date Sampled	12/19/91
MISCELLANEOUS PARAMETERS	
LO, Field (ppm)	2.3
pH, Field (pH units)	6.8
Redox, Field (mV)	-81
Sp. Cond., Field (umho/cm)	358
Temp, Field (degrees C)	14
pH, 1 (pH units)	6.78
Sp. Cond., 1 (umho/cm)	641
TPH (mg/L)	0.57
TDS (mg/L)	380
TSS (mg/L)	16
Turbidity (NTU)	39
RADIOCHEMICAL PARAMETERS	
Gross Alpha (pCi/L)	1.29
Gross Alpha (CE+/-)	2.60
Gross Beta (pCi/L)	6.20
Gross Beta (CE+/-)	3.20
Americium 241 (pCi/L)	.
Americium 241 (CE+/-)	.
Iodine 125 + 129 (Bq/L)	.
Iodine 125 + 129 (CE+/-)	.
Neptunium 237 (pCi/L)	.
Neptunium 237 (CE+/-)	.
Strontium (pCi/L)	.
Strontium (CE+/-)	.
Technetium 99 (pCi/L)	.
Technetium 99 (CE+/-)	.
Tritium (Bq/L)	.
Tritium (CE+/-)	.
Uranium 234 (pCi/L)	.
Uranium 234 (CE+/-)	.
Uranium 235 (pCi/L)	.
Uranium 235 (CE+/-)	.
Uranium 238 (pCi/L)	.
Uranium 238 (CE+/-)	.

APPENDIX F
QA/QC SAMPLE DATA SUMMARIES

EXPLANATION

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

Compound not detected at the following minimum attainable detection limits (ug/L):

G =	5	T =	250
N =	10	F =	300
V =	20	E =	400
Z =	25	W =	500
D =	30	L =	1000
A =	40	P =	2000
M =	50	H =	4000
X =	80	J =	5000
Y =	90	S =	10000
K =	100	U =	20000
B =	130	C =	40000
R =	200		

The following compounds were not detected in any of the laboratory blank, trip blank, or equipment rinsate samples at the given minimum attainable detection limit:

<u>Compound</u>	<u>Detection Limit (ug/L)</u>
Benzene	5
Bromomethane	10
Chlorobenzene	5
Chlorodibromomethane	5
Chloroethane	10
1,1-Dichloroethane	5
1,2-Dichloroethane	5
1,1-Dichloroethene	5
cis-1,3-Dichloropropene	5
trans-1,3-Dichloropropene	5
Styrene	5
Vinyl chloride	10

LABORATORY BLANK SAMPLE DATA

APPENDIX F
Laboratory Blank Data Summary, First Quarter 1991

Sample No.	910108-056	910109-127	910110-131	910111-224	910115-056	910117-120	910117-123	910118-001	910118-227	910122-001
Acetone	N	N	N	N	N	N	N	N	N	N
Bromoform	G	G	G	G	G	G	G	G	G	G
Chloroform	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	4	N	N
Methylene chloride	G	G	G	G	G	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G	G	1
Toluene	G	G	G	G	G	G	G	G	G	G
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Vinyl acetate	N	N	N	N	N	N	N	N	N	N
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910122-065	910123-001	910123-042	910124-001	910125-002	910125-051	910125-091	910127-003	910129-003	910129-045
Acetone	N	N	N	N	N	N	N	N	N	N
Bromoform	G	G	G	G	G	G	G	G	G	G
Chloroform	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	4	N	N	N	N	N	N	N	N
Methylene chloride	G	G	G	G	G	G	1	G	G	G
1,1,2,2-Tetrachloroethane	G	2	G	G	G	G	G	G	G	G
Toluene	G	G	G	G	G	G	G	G	G	G
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Vinyl acetate	N	N	N	N	N	N	N	N	N	N
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F
Laboratory Blank Data Summary, First Quarter 1991

Sample No.	910130-018	910130-136	910131-001	910201-005	910201-038	910204-003	910204-040	910205-001	910206-003	910206-026
Acetone	N	N	N	N	N	N	N	N	N	N
Bromoform	G	G	G	G	G	G	G	G	G	G
Chloroform	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	G	G	G	G	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G	G	G
Toluene	G	G	G	G	G	G	G	G	G	G
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Vinyl acetate	N	N	N	N	N	N	N	N	N	N
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910206-035	910207-001	910207-065	910211-003	910212-001	910212-031	910214-004	910214-065	910214-068	910219-020
Acetone	N	N	N	N	N	N	N	N	N	N
Bromoform	G	G	G	G	G	G	G	G	G	G
Chloroform	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	G	G	G	G	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G	G	G
Toluene	G	G	G	G	G	G	G	G	G	G
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Vinyl acetate	N	N	N	N	N	N	N	N	N	N
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F
Laboratory Blank Data Summary, First Quarter 1991

Sample No.	910221-003	910221-086	910222-036	910228-010	910228-074	910301-008	910301-183	910304-003	910305-003	910306-003
Acetone	N	N	N	N	16	N	N	N	N	N
Bromoform	G	G	G	G	G	G	G	G	G	G
Chloroform	G	0.8	0.7	G	0.8	G	0.8	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	2	1	G	2	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G	G	G
Toluene	G	G	G	G	G	G	G	G	G	G
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Vinyl acetate	N	1	N	N	N	N	N	N	N	N
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910307-001	910307-059	910308-001	910311-001	910312-001	910312-057	910313-004	910315-054	910318-001	910319-001
Acetone	N	11	N	N	N	N	N	N	N	N
Bromoform	G	G	G	G	G	G	G	G	G	G
Chloroform	G	0.8	G	G	G	0.8	G	0.8	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	G	G	G	G	1	G	1	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G	G	G
Toluene	G	G	G	G	G	G	G	G	G	G
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Vinyl acetate	N	N	N	N	N	N	N	N	N	N
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F

[illegible]

(CONTINUED)

[illegible]

APPENDIX F
Laboratory Blank Data Summary, Second Quarter 1991

Sample No.	910405-003	910405-041	910408-001	910409-002	910409-007	910411-003	910412-001	910412-194	910415-001	910415-119
Acetone	N	N	N	N	N	N	N	N	N	N
Chloroform	0.8	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	G	G	G	G	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910416-001	910416-109	910417-090	910418-028	910419-001	910419-031	910422-001	910422-149	910422-196	910423-035
Acetone	N	N	N	N	N	N	N	N	N	N
Chloroform	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	G	G	G	G	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910424-072	910425-043	910426-189	910429-001	910430-001	910430-004	910501-001	910501-008	910503-166	910506-001
Acetone	N	N	N	N	N	N	N	N	N	N
Chloroform	G	G	G	G	0.9	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	G	G	G	G	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F
Laboratory Blank Data Summary, Second Quarter 1991

Sample No.	910506-117	910506-118	910507-134	910508-058	910513-053	910514-062	910515-003	910516-017	910517-003	910517-053
Acetone	N	N	N	N	6	N	N	N	23	N
Chloroform	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	G	G	G	G	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910519-001	910519-004	910520-098	910521-001	910521-065	910528-039	910528-042	910529-066	910530-029	910531-316
Acetone	N	N	N	N	N	9	N	N	N	N
Chloroform	G	G	G	G	G	0.6	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	G	G	G	G	15	G	17	17	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	2	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910605-001	910605-078	910610-001	910610-043	910611-008	910612-115	910613-058	910614-276	910619-079	910620-027
Acetone	N	N	N	N	14	N	N	N	N	N
Chloroform	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	4
Methylene chloride	G	G	G	G	G	G	G	G	G	17
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F
Laboratory Blank Data Summary, Second Quarter 1991

Sample No.	910620-009	910621-238	910622-012	910623-001	910623-005	910624-176	910627-065	910628-240	910629-004	910629-013
Acetone										
Chloroform										
4-Methyl-2-pentanone										
Methylene chloride										
1,1,2,2-Tetrachloroethane										
1,1,1-Trichloroethane										

(CONTINUED)

Sample No.	910703-009	910911-155	910911-156	910911-157	910911-158	910911-159
Acetone						
Chloroform						
4-Methyl-2-pentanone						
Methylene chloride						
1,1,2,2-Tetrachloroethane						
1,1,1-Trichloroethane						

APPENDIX P
Laboratory Blank Data Summary, Third Quarter 1991

Sample No.	910700-000	910700-001	910711-001	910715-121	910716-039	910717-001	910718-001	910719-037	910719-200	910722-000
Acetone										
Chloroform										
Ethylbenzene										
4-Methyl-2-pentanone										
Methylene chloride										
Toluene										
1,1,1-Trichloroethane										
Vinyl acetate										
Xylenes										

(CONTINUED)

Sample No.	910723-001	910724-009	910724-051	910726-209	910729-095	910731-071	910802-001	910805-002	910805-067	910807-002
Acetone										
Chloroform										
Ethylbenzene										
4-Methyl-2-pentanone										
Methylene chloride										
Toluene										
1,1,1-Trichloroethane										
Vinyl acetate										
Xylenes										

(CONTINUED)

APPENDIX F
Laboratory Blank Data Summary, Third Quarter 1991

Sample No.	910007-020	910007-100	910000-190	910000-000	910013-105	910013-116	910016-107	910014-205	910016-001	910016-257
Acetone										
Chloroform										
Ethylbenzene										
4-methyl-2-pentanone										
Methylcyclohexane										
Toluene										
1,1,1-Trichloroethane										
Vinyl acetate										
Xylenes										

(CONTINUED)

Sample No.	910018-009	910021-001	910022-007	910023-100	910024-001	910024-004	910027-007	910028-014	910028-017	910029-001
Acetone										
Chloroform										
Ethylbenzene										
4-methyl-2-pentanone										
Methylcyclohexane										
Toluene										
1,1,1-Trichloroethane										
Vinyl acetate										
Xylenes										

(CONTINUED)

APPENDIX F
Laboratory Blank Data Summary, Third Quarter 1991

Sample No.	910829-045	910830-007	910831-002	910903-009	910903-005	910904-009	910904-186	910905-001	910906-001	910907-001
Acetone	N	N	N	N	N	N	N	N	N	N
Chloroform	0.6	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	0.7	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	4	N	N	N	N	N	N
Methylene chloride	G	G	G	G	G	G	G	G	G	G
Toluene	G	0.6	0.9	4	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Vinyl acetate	N	N	N	N	N	N	N	N	N	N
Xylenes	G	G	G	4	G	G	G	G	G	G

(CONTINUED)

Sample No.	910909-002	910909-054	910909-118	910910-005	910911-002	910913-009	910913-175	910914-001	910915-022	910916-007
Acetone	N	N	N	N	N	N	N	N	N	N
Chloroform	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	2	N	N	N	N	N
Methylene chloride	G	1	G	G	0.5	0.6	G	G	G	G
Toluene	G	G	G	G	0.6	0.8	G	0.8	G	1
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Vinyl acetate	N	N	N	N	N	N	N	N	N	N
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F
Laboratory Blank Data Summary, Third Quarter 1991

Sample No.	910916-189	910917-003	910918-020	910918-034	910920-002	910922-006	910923-006	910924-036	910925-001	910926-001
Acetone	11	N	N	N	N	N	N	N	N	N
Chloroform	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	G	G	1	G	G	G	G	G	G
Toluene	G	1	2	1	2	G	G	G	0.7	0.8
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Vinyl acetate	N	N	N	N	N	N	N	N	N	N
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910926-030	910928-001	910928-025	910930-003	911001-002
Acetone	N	N	N	N	N
Chloroform	G	G	G	G	G
Ethylbenzene	G	G	G	G	0.4
4-Methyl-2-pentanone	3	N	3	N	N
Methylene chloride	1	G	0.9	G	G
Toluene	1	1	1	3	3
1,1,1-Trichloroethane	G	G	G	G	G
Vinyl acetate	N	N	N	N	N
Xylenes	G	G	G	G	G

APPENDIX F
Laboratory Blank Data Summary, Fourth Quarter 1991

Sample No.	911002-178	911002-181	911004-001	911006-001	911007-005	911008-043	911009-001	911010-003	911010-126	911011-001
Acetone	N	9	N	N	N	N	N	N	13	N
Bromoforn	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	0.6	G	G	G	G	G	G	G	G	G
2-Hexanone	N	2	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	4	N	N	N	N	N	N	N	5
Methylene chloride	1	0.8	G	G	G	G	G	G	1	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G	G	G
Toluene	4	1	G	G	G	G	0.8	1	G	1
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Xylenes	3	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	911011-174	911011-197	911012-001	911014-002	911015-015	911015-125	911016-009	911017-001	911021-002	911022-001
Acetone	N	5	N	N	N	N	N	N	N	N
Bromoforn	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
2-Hexanone	2	N	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	2	N	N	N	N	N	N	5	N
Methylene chloride	G	1	G	G	0.8	1	G	1	G	G
1,1,2,2-Tetrachloroethane	1	G	G	G	G	G	G	G	G	G
Toluene	G	G	2	2	G	G	G	0.4	3	G
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F
Laboratory Blank Data Summary, Fourth Quarter 1991

Sample No.	911023-005	911024-001	911027-029	911028-002	911028-036	911029-007	911029-107	911030-001	911031-001	911101-243
Acetone	N	N	N	N	N	N	N	N	N	N
Bromoform	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	1	G	G	1	G	1	G	0.9	1
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G	2	G
Toluene	G	0.5	G	0.9	G	1	G	2	G	G
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	911104-002	911105-048	911107-008	911108-001	911109-001	911111-002	911112-001	911113-074	911114-001	911118-002
Acetone	N	N	N	N	N	N	N	11	N	N
Bromoform	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N	N	1	N	N
4-Methyl-2-pentanone	N	N	N	N	N	N	N	2	N	N
Methylene chloride	G	1	1	G	G	1	G	G	G	1
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	1	G	G
Toluene	G	G	1	1	1	1	G	G	G	G
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F

Laboratory Blank Data Summary, Fourth Quarter 1991

Sample No.	911119-001	911119-096	911121-001	911121-053	911125-054	911125-059	911126-026	911126-111	911202-028	911202-038
Acetone	N	N	N	N	N	N	N	N	N	N
Bromoform	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
2-Hexanone	N	N	N	11	1	N	N	N	1	N
4-Methyl-2-pentanone	N	N	N	5	N	N	N	N	2	N
Methylene chloride	1	1	1	1	G	1	1	1	1	1
1,1,2,2-Tetrachloroethane	G	G	G	4	1	G	G	G	1	G
Toluene	G	G	G	G	G	G	G	G	G	G
1,1,2-Trichloroethane	G	G	G	1	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	911204-011	911206-055	911209-078	911210-027	911213-001	911216-002	911216-020	911217-001	911217-046	911217-057
Acetone	N	N	N	N	3	N	N	N	N	N
Bromoform	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N	N	N	2	N
4-Methyl-2-pentanone	3	N	N	N	N	N	2	N	N	N
Methylene chloride	G	1	3	3	1	1	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G	G	G
Toluene	G	G	G	G	G	G	G	G	G	G
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Laboratory Blank Data Summary, Fourth Quarter 1991

Sample No.									
Acetone	N								
Bromoform	G								N
Ethylbenzene	G	1							G
2-Hexanone	M	G							G
4-Methyl-2-pentanone	M	2							M
Methylene chloride	M	M							M
1,1,2,2-Tetrachloroethane	G	7							11
Toluene	G	1							2
1,1,2-Trichloroethane	G	G							G
Xylenes	G	G							1
	G	G							G

TRIP BLANK SAMPLE DATA

APPENDIX F
Trip Blank Data Summary, First Quarter 1991

Sample No.	910105-022	910105-025	910105-028	910107-042	910107-048	910109-189	910110-022	910110-025	910110-032	910111-187
Acetone	N	N	N	N	N	N	N	N	N	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Chloroform	2	0.8	0.8	0.8	G	G	G	G	G	G
Chloromethane	N	N	N	N	N	N	N	N	N	N
1,2-Dichloroethene	G	G	G	5	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	9	14
Methylene chloride	G	3	G	8	G	G	G	G	G	7
Toluene	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910112-005	910112-008	910112-041	910112-043	910114-111	910114-112	910115-011	910115-012	910115-013	910116-015
Acetone	N	N	N	N	N	N	N	N	N	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Chloroform	G	G	10	10	11	11	11	11	13	13
Chloromethane	N	N	N	N	N	N	N	N	N	N
1,2-Dichloroethene	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	4	N	N	N	N
Methylene chloride	G	G	G	G	G	G	G	G	G	G
Toluene	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F

Trip Blank Data Summary, First Quarter 1991

Sample No.	910116-020	910116-036	910116-064	910116-069	910116-077	910116-108	910116-159	910119-038	910119-039	910122-021
Acetone	N	N	N	N	N	N	N	N	N	N
Bromodichloromethane	G	G	G	G	G	G	G	2	2	G
Chloroform	G	13	12	1	11	1	0.7	8	8	G
Chloromethane	N	N	N	N	N	N	N	0.8	N	N
1,2-Dichloroethene	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	G	G	G	4	1	G	G	G	G
Toluene	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910123-066	910124-049	910125-011	910126-005	910126-010	910127-049	910127-052	910128-133	910129-010	910129-017
Acetone	N	N	N	N	N	N	N	N	N	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Chloroform	G	0.3	0.8	2	2	G	G	1	G	G
Chloromethane	N	N	N	N	N	N	N	N	N	N
1,2-Dichloroethene	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	2	3	11	4	G	G	G	2	G	G
Toluene	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F
Trip Blank Data Summary, First Quarter 1991

Sample No.	910129-024	910130-034	910130-061	910130-120	910130-158	910201-010	910201-015	910201-174	910201-259	910201-267
Acetone	N	N	N	N	N	N	N	N	N	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Chloroform	17	G	1	1	11	5	4	2	5	16
Chloromethane	N	N	N	N	N	N	N	N	N	N
1,2-Dichloroethene	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	6	N	N
Methylene chloride	G	G	G	G	G	G	G	G	G	G
Toluene	0.4	0.4	G	G	0.8	G	G	0.8	1	G
Xylenes	G	G	G	G	G	G	G	3	G	G

(CONTINUED)

Sample No.	910203-025	910204-075	910204-078	910204-118	910204-131	910208-006	910208-009	910209-039	910209-046	910209-068
Acetone	N	N	N	N	N	N	N	N	N	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Chloroform	11	G	4	G	2	16	10	G	G	1
Chloromethane	N	N	N	N	N	N	N	N	N	N
1,2-Dichloroethene	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	G	G	G	7	G	G	G	G	G
Toluene	G	G	G	G	G	1	0.8	G	G	0.8
Xylenes	G	G	G	G	G	G	3	G	G	G

(CONTINUED)

APPENDIX F
Trip Blank Data Summary, First Quarter 1991

Sample No.	910210-036	910210-039	910210-046	910211-209	910212-026	910212-111	910213-048	910213-111	910214-127	910215-045
Acetone										
Bromodichloromethane										
Chloroform										
Chloromethane										
1,2-Dichloroethane										
4-Methyl-2-pentanone										
Methylene chloride										
Toluene										
Xylenes										

(CONTINUED)

Sample No.	910221-016	910221-019	910221-297	910221-303	910224-004	910224-009	910224-096	910225-071	910225-121	910225-167
Acetone										
Bromodichloromethane										
Chloroform										
Chloromethane										
1,2-Dichloroethane										
4-Methyl-2-pentanone										
Methylene chloride										
Toluene										
Xylenes										

(CONTINUED)

APPENDIX F
Trip Blank Data Summary, First Quarter 1991

Sample No.	910227-046	910227-101	910227-141	910301-007	910301-150	910301-163	910302-009	910302-012	910302-041	910302-051
Acetone	B	B	B	B	B	B	B	B	B	B
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Chloroform	G	0.5	0.8	G	G	G	G	2	1	G
Chloromethane	B	B	B	B	B	B	B	B	B	B
1,2-dichloroethane	G	G	G	G	G	G	G	G	G	G
4-methyl-2-pentane	B	B	B	B	B	B	B	B	B	B
Methylene chloride	G	G	G	G	G	G	G	3	G	G
Toluene	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(continued)

Sample No.	910303-012	910306-017	910306-109	910307-006	910307-009	910308-010	910308-042	910309-046	910310-022	910310-027
Acetone	B	B	B	B	B	10	B	B	B	B
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Chloroform	2	0.7	G	2	2	14	2	2	3	2
Chloromethane	B	B	B	B	B	B	B	B	B	B
1,2-dichloroethane	G	G	G	G	G	G	G	G	G	G
4-methyl-2-pentane	B	B	B	B	B	B	B	B	B	B
Methylene chloride	G	G	3	2	2	2	G	5	G	G
Toluene	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(continued)

APPENDIX 7
Trip Blank Data Summary, First Quarter 1991

Sample No.	910310-032	910313-076	910313-079	910314-031	910315-014	910315-017	910316-153	910318-022	910318-025	910319-000
Acetone										
Bromochloroethane										
Chloroform	1	17	3	7						
Chloroethane				25						
1,2-dichloroethane										
4-methyl-2-pentanone										
methylene chloride										
Toluene						2				
Xylenes										

(CONTINUED)

Sample No.	910319-011	910319-014	910319-024	910320-013	910320-030	910320-000	910321-000	910321-014	910321-033	910322-022
Acetone										
Bromochloroethane										
Chloroform	0.4		4	3	14	2		11		
Chloroethane										
1,2-dichloroethane										
4-methyl-2-pentanone										
methylene chloride										
Toluene										
Xylenes										

(CONTINUED)

APPENDIX 7
Trip Blank Data Summary, First Quarter 1991

Sample No.	910323-003	910323-026	910323-012	910323-013	910326-019	910326-078	910327-014	910327-026	910328-024	910328-029
Acetone										
Bromodichloromethane										
Chloroform		1	2	2		2	2	9	22	2
Chloromethane										
1,2-Dichloroethane										
4-Methyl-2-pentanone										
Methylene chloride			3			7				
Toluene										
Xylene										

(CONTINUED)

Sample No.	910328-032	910330-003
Acetone		
Bromodichloromethane		
Chloroform	22	14
Chloromethane		
1,2-Dichloroethane		
4-Methyl-2-pentanone		
Methylene chloride		
Toluene		
Xylene		

APPENDIX P
Trip Blank Data Summary, Second Quarter 1991

Sample No.	910403-113	910404-012	910404-075	910405-012	910405-022	910405-029	910406-040	910406-205	910410-114	910410-129
Acetone										
Bromodichloromethane	B	B	B	B	B	B	B	B	B	B
Carbon disulfide	C	C	C	C	C	C	C	C	C	C
Chloroform	C	C	C	C	C	C	C	C	C	C
1,2-Dichloropropane	C	14	C	C	C	C	15	C	1	8
Methylene chloride	C	C	C	C	C	C	C	C	C	C
1,1,1-Trichloroethane	C	C	C	C	C	C	C	C	C	7

(CONTINUED)

Sample No.	910411-008	910411-019	910411-023	910411-032	910411-035	910411-100	910411-115	910411-147	910411-148	910413-058
Acetone										
Bromodichloromethane	B	B	B	B	B	B	B	B	B	B
Carbon disulfide	C	C	C	C	C	C	C	C	3	C
Chloroform	C	C	C	C	C	C	C	C	C	C
1,2-Dichloropropane	C	3	0.8	C	2	15	0.8	C	16	15
Methylene chloride	C	C	C	C	C	C	C	C	C	C
1,1,1-Trichloroethane	C	C	C	C	C	C	C	C	C	C

(CONTINUED)

APPENDIX F
Trip Blank Data Summary, Second Quarter 1991

Sample No.	910413-064	910413-067	910415-012	910415-019	910416-012	910416-017	910416-025	910416-028	910420-017	910423-012
Acetone	N	N	N	N	N	N	N	N	N	N
Bromodichloromethane	C	C	C	C	C	C	C	C	C	C
Carbon disulfide	C	C	C	C	C	C	C	C	C	C
Chloroform	C	3	C	C	2	C	C	10	C	2
1,2-Dichloropropane	C	C	C	C	C	C	C	C	C	C
Methylene chloride	C	C	C	C	C	C	C	C	C	C
1,1,1-Trichloroethane	C	C	C	C	C	C	C	C	C	C

(CONTINUED)

Sample No.	910423-046	910424-025	910425-037	910427-006	910427-009	910427-016	910427-023	910427-028	910430-107	910502-011
Acetone	N	N	N	N	N	N	N	N	N	N
Bromodichloromethane	C	C	C	C	C	C	C	C	C	C
Carbon disulfide	C	C	C	C	C	C	C	C	C	C
Chloroform	6	C	12	2	C	2	C	C	7	7
1,2-Dichloropropane	C	C	C	C	C	C	C	C	C	C
Methylene chloride	C	C	C	C	C	C	C	C	3	C
1,1,1-Trichloroethane	C	C	C	C	C	C	C	C	C	C

(CONTINUED)

APPENDIX F
Trip Blank Data Summary, Second Quarter 1991

Sample No.	910502-014	910502-023	910502-032	910502-000	910503-004	910503-010	910504-035	910504-042	910506-013	910506-023
Acetone	M	M	M	M	M	M	M	M	M	M
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Chloroform	5	8	9	8	4	G	G	G	5	2
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Methylene chloride	G	G	G	G	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910507-024	910508-061	910508-064	910508-075	910509-010	910510-183	910511-010	910511-021	910512-010	910512-015
Acetone	M	M	M	M	M	M	M	M	M	M
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Chloroform	14	3	3	2	5	G	5	6	G	2
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Methylene chloride	G	G	2	G	3	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F
Trip Blank Data Summary, Second Quarter 1991

Sample No.	910512-018	910514-010	910514-015	910514-030	910515-027	910516-032	910517-030	910522-004	910522-015	910522-111
Acetone	N	N	N	N	N	N	N	N	N	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Chloroform	G	G	1	2	3	5	13	G	4	2
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Methylene chloride	G	G	G	G	G	G	G	G	16	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910522-114	910522-117	910523-205	910524-157	910525-003	910525-008	910525-013	910601-018	910601-025	910601-028
Acetone	N	N	N	N	N	N	N	N	N	8
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	0.6	G	G
Chloroform	G	4	3	3	7	5	9	12	4	1
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Methylene chloride	G	G	G	17	17	17	17	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F
Trip Blank Data Summary, Second Quarter 1991

Sample No.	910601-031	910601-052	910605-007	910605-012	910606-006	910606-011	910606-054	910606-057	910608-005	910608-008
Acetone	N	N	N	N	N	7	N	N	6	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Chloroform	3	5	2	0.7	1	20	2	4	1	0.5
1,2-Dichloropropane	G	G	G	G	G	2	G	G	G	G
Methylene chloride	2	3	2	G	G	G	G	3	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910608-030	910610-008	910610-089	910613-005	910613-014	910614-082	910614-087	910614-091	910615-005	910615-010
Acetone	N	N	N	N	N	N	N	N	N	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Chloroform	4	G	22	28	27	16	13	19	6	3
1,2-Dichloropropane	G	G	0.8	G	G	G	G	0.8	G	G
Methylene chloride	4	G	G	G	G	G	17	G	17	17
1,1,1-Trichloroethane	G	G	0.8	G	G	2	G	2	G	G

(CONTINUED)

APPENDIX F
Trip Blank Data Summary, Second Quarter 1991

Sample No.	910617-056	910617-065	910617-074	910617-081	910618-021	910618-024	910618-027	910619-009	910620-009	910620-012
Acetone	10	9	N	N	N	N	N	N	N	N
Bromodichloromethane	G	G	G	G	0.7	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Chloroform	23	8	1	1	24	21	13	7	4	14
1,2-Dichloropropane	1	G	G	G	1	1	G	G	G	G
Methylene chloride	G	4	G	G	G	G	G	16	16	17
1,1,1-Trichloroethane	3	G	2	0.7	0.8	0.9	0.9	G	G	G

(CONTINUED)

Sample No.	910620-023	910620-040	910620-088	910621-060	910621-065	910621-213	910621-237	910624-011	910624-016	910624-073
Acetone	N	N	N	N	N	N	13	N	N	N
Bromodichloromethane	G	1	G	G	G	G	G	G	1	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Chloroform	16	25	9	2	7	4	4	27	27	26
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Methylene chloride	17	17	16	16	17	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	1	1	G	G	G

(CONTINUED)

APPENDIX F
Trip Blank Data Summary, Second Quarter 1991

Sample No.	910624-078	910624-118	910624-121	910624-126	910625-040	910625-078	910625-136
Acetone	N	N	N	N	N	N	9
Bromodichloromethane	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G
Chloroform	10	23	9	29	14	3	7
1,2-Dichloropropane	G	G	G	G	G	G	G
Methylene chloride	5	2	G	2	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	0.9

APPENDIX F
Trip Blank Data Summary, Third Quarter 1991

Sample No.	910701-095	910709-063	910709-163	910711-065	910712-009	910712-258	910715-018	910715-159	910715-169	910716-044
Acetone	N	N	N	N	N	N	N	N	N	N
Bromodichloromethane	1	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Chloroform	35	9	10	G	G	G	G	G	G	G
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	3	G	G	15	G	G	18	4	2
Toluene	G	G	G	G	G	G	G	G	G	G
1,1,1-Trichloroethane	0.9	0.8	0.9	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910717-009	910718-009	910719-005	910719-216	910722-007	910722-069	910723-114	910727-043	910728-003	910730-010
Acetone	N	N	N	N	N	N	N	13	N	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Chloroform	G	G	G	G	G	G	G	5	G	G
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N	N	3	N	N
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	3	G	2	6	16	2	16	15	15	16
Toluene	G	G	G	G	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F
Trip Blank Data Summary, Third Quarter 1991

Sample No.	910731-094	910731-101	910731-112	910731-119	910731-141	910802-228	910805-112	910806-103	910806-236	910807-187
Acetone	N	N	N	N	28	N	N	N	N	N
Bromodichloromethane	2	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Chloroform	6	G	G	G	G	0.7	G	G	G	G
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	G	G	6	5	2	0.8	G	G	G
Toluene	G	G	G	G	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910808-205	910809-013	910810-008	910810-015	910813-011	910813-014	910813-323	910814-014	910814-123	910814-220
Acetone	N	N	N	12	N	N	N	13	10	N
Bromodichloromethane	G	G	G	G	G	G	4	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	10	10	G
Chloroform	G	G	G	G	G	G	35	2	G	2
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	G	G	G	G	G	G	2	2	5
Toluene	G	G	G	G	G	G	G	1	1	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F

Trip Blank Data Summary, Third Quarter 1991

Sample No.	910815-285	910817-008	910819-192	910821-118	910822-035	910822-040	910823-154	910823-161	910823-164	910823-177
Acetone	N	N	N	N	N	N	N	N	N	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	0.9	G	G	G	G
Chloroform	0.7	G	G	G	G	1	G	G	G	G
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	6	8	G	G	45	6	G	G	1
Toluene	1	G	G	G	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910824-013	910824-016	910825-005	910825-114	910826-024	910827-097	910827-109	910828-009	910828-025	910829-023
Acetone	N	17	N	16	N	N	N	N	N	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	1	G	G	G	G
Chloroform	G	G	G	1	G	3	G	G	G	1
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	1	G	120	0.7	5	G	9	G	14
Toluene	G	G	G	G	G	G	G	0.7	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F
Trip Blank Data Summary, Third Quarter 1991

Sample No.	910829-032	910831-016	910831-021	910901-007	910901-012	910903-029	910903-079	910904-132	910905-008	910905-013
Acetone	N	N	N	N	N	N	N	51	N	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Chloroform	0.9	1	G	1	0.8	0.8	4	G	G	G
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	0.8	0.8	G	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	5	5	N	N	N	N	N	N	N
Methylene chloride	40	10	1	2	97	5	6	0.7	2	39
Toluene	0.9	4	4	G	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Xylenes	G	4	4	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910905-064	910906-275	910906-280	910906-285	910907-010	910907-011	910908-005	910908-012	910908-034	910909-020
Acetone	N	N	N	N	N	N	N	N	N	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Chloroform	G	G	0.8	G	G	1	G	G	G	G
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	3	N	N	N	N	N
Methylene chloride	14	1	G	G	3	G	2	4	G	2
Toluene	G	G	G	G	G	G	G	G	G	0.5
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX P
Trip Blank Data Summary, Third Quarter 1991

Sample No.	910909-163	910909-100	910910-031	910911-005	910911-000	910911-113	910912-000	910912-100	910912-103	910914-005
Acetone	B	B	B	B	B	20	B	B	B	B
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	5	G	G	G	G	G	G	G	G	G
Chloroform	G	1	G	G	G	G	G	0.7	G	G
1,2-Dichloropropane	4	G	G	G	2	G	G	G	1	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
2-Naphthol	B	B	B	B	B	B	B	B	B	B
4-Methyl-2-pentanone	B	B	B	2	B	B	B	B	B	B
Methylene chloride	10	6	26	6	G	7	5	6	G	G
Toluene	G	G	0.8	G	G	0.9	0.9	1	1	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910914-000	910914-013	910914-033	910915-000	910915-017	910915-000	910915-000	910916-107	910919-172	910919-177
Acetone	B	B	B	B	B	B	22	B	B	B
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Chloroform	G	G	G	0.4	G	0.0	G	G	0.4	G
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
2-Naphthol	B	B	B	B	B	B	B	B	B	B
4-Methyl-2-pentanone	B	B	B	B	B	B	B	B	B	B
Methylene chloride	5	10	4	17	9	2	6	6	5	63
Toluene	G	G	1	1	G	2	2	3	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F
Trip Blank Data Summary, Third Quarter 1991

[illegible]

APPENDIX 7
Trip Blank Data Summary, Fourth Quarter 1991

Sample No.	911001-102	911003-124	911002-196	911003-201	911003-212	911003-220	911004-054	911004-061	911004-068	911005-014
Acetone						25				25
Bromodichloromethane										
Carbon disulfide										0.7
Carbon tetrachloride										
Chloroform		0.7		2				0.7	1	
1,2-dichloropropane										
Ethylbenzene						0.6				
4-methyl-2-pentanone						3				
Methylene chloride				0.6		4			54	20
Toluene	3	20	1				17			
Xylenes	3	4				4	0.4	0.5	0.7	0.8

(CONTINUED)

Sample No.	911005-019	911006-013	911006-032	911006-035	911007-000	911007-017	911008-107	911009-011	911009-014	911010-154
Acetone			27	46				7		
Bromodichloromethane										
Carbon disulfide							0.6			
Carbon tetrachloride										
Chloroform	0.7	0.7	0.9		0.7	1	0.5	1	2	2
1,2-dichloropropane										
Ethylbenzene										
4-methyl-2-pentanone										
Methylene chloride		15	6	7		9	1	2	6	8
Toluene	1	1	2	1	2	2				2
Xylenes										

(CONTINUED)

APPENDIX P
Trip Blank Data Summary, Fourth Quarter 1991

Sample No.	911011-006	911012-011	911014-024	911014-033	911014-056	911014-146	911015-024	911015-031	911015-115	911016-005
Acetone	B	B	B	B	B	B	2	3	B	37
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	G	G	G	G	G
Chloroform	2	2	2	2	2	G	2	2	2	2
1,2-Dichloropropane	G	G	G	G	G	1	G	G	2	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	B	B	B	B	B	B	B	B	B	B
Methylene chloride	47	G	9	9	10	2	36	7	2	1
Toluene	2	G	G	G	G	G	G	G	G	0.6
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	911018-016	911018-025	911019-006	911020-005	911020-010	911021-120	911022-149	911023-024	911023-101	911023-172
Acetone	B	B	B	B	B	44	B	B	42	B
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	G	G	G	G	G
Chloroform	3	3	3	G	2	2	2	2	2	0.8
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	B	5	B	B	B	B	B	B	B	B
Methylene chloride	1	13	2	1	60	17	130	71	11	1
Toluene	3	3	3	G	G	G	G	0.6	1	1
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F

Trip Blank Data Summary, Fourth Quarter 1991

Sample No.	911023-177	911023-182	911024-070	911024-081	911027-007	911027-010	911027-063	911027-066	911028-013	911028-020
Acetone	M	M	M	M	M	M	M	M	M	M
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	G	G	G	G	G
Chloroform	G	1	0.8	3	1	G	G	2	G	G
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	M	M	M	M	M	M	3	M	M	M
Methylene chloride	2	G	2	2	G	1	G	49	1	1
Toluene	G	0.9	G	1	1	1	2	2	1	2
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	911028-091	911029-003	911029-006	911029-140	911030-006	911031-011	911031-029	911031-074	911031-107	911032-024
Acetone	M	M	M	M	M	M	M	M	21	M
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	G	G	G	G	G
Chloroform	0.6	0.7	2	2	G	G	0.7	G	G	3
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	M	M	3	M	M	4	M	M	M	M
Methylene chloride	1	1	3	5	1	6	7	2	G	1
Toluene	G	2	2	2	2	2	G	G	0.8	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F
Trip Blank Data Summary, Fourth Quarter 1991

Sample No.	911103-068	911103-071	911103-074	911103-079	911103-102	911104-009	911105-014	911105-019	911106-003	911106-050
Acetone	N	N	N	N	N	N	N	N	N	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	G	G	G	G	G
Chloroform	0.8	G	G	G	G	G	1	G	1	G
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	2	2	1	2	2	0.9	0.9	G	0.9	3
Toluene	1	1	G	1	1	1	1	1	1	1
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	911106-068	911106-095	911108-019	911108-022	911108-025	911111-041	911111-060	911112-124	911113-023	911115-006
Acetone	N	N	N	N	N	N	N	N	N	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	G	G	G	G	G
Chloroform	G	G	0.7	0.3	G	G	0.7	2	G	0.6
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	G	G	2	3	1	2	G	2	5
Toluene	2	1	2	2	1	1	2	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F

Trip Blank Data Summary, Fourth Quarter 1991

Sample No.	911115-089	911115-393	911118-026	911118-029	911118-034	911118-052	911119-038	911119-039	911120-020	911120-045
Acetone	N	N	N	N	N	N	N	N	N	11
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	G	G	G	G	G
Chloroform	G	G	G	G	2	2	G	G	2	G
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	1
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	3	9	G	5	G	G	2	2	7	2
Toluene	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	911121-030	911121-087	911121-224	911122-095	911122-132	911124-016	911124-023	911125-039	911126-017	911126-029
Acetone	N	N	N	N	11	N	N	N	30	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	2	G	1	2
Carbon tetrachloride	G	G	G	G	G	G	G	G	G	G
Chloroform	1	2	G	1	G	3	G	3	4	G
1,2-Dichloropropane	G	G	G	G	1	G	G	3	4	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	18	G	4	G	2	6	7	G	5	3
Toluene	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F
Trip Blank Data Summary, Fourth Quarter 1991

Sample No.	911127-018	911205-059	911206-021	911209-153	911211-044	911211-107	911213-008	911213-013	911215-005	911215-049
Acetone	N	N	N	N	N	N	N	9	N	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	2	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	G	G	G	G	G
Chloroform	G	G	G	2	3	3	2	3	G	2
1,2-Dichloropropane	2	G	G	G	6	7	6	9	1	1
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	16	G	15	23	5	7	14	2	1	1
Toluene	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	911216-080	911217-012	911218-023	911218-069	911220-007	911220-038	911220-106	911222-003	911223-004	911227-063
Acetone	N	N	N	N	N	N	N	N	N	29
Bromodichloromethane	G	G	5	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	2	G
Carbon tetrachloride	G	G	G	0.8	G	G	G	G	G	G
Chloroform	3	0.5	38	45	4	4	G	2	G	2
1,2-Dichloropropane	G	G	G	G	G	G	G	G	1	1
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	2	N	N	N	N	N	N
Methylene chloride	G	G	0.8	G	G	G	G	G	1	26
Toluene	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F
Trip Blank Data Summary, Fourth Quarter 1991

Sample No.	911228-004
Acetone	N
Bromodichloromethane	G
Carbon disulfide	G
Carbon tetrachloride	G
Chloroform	3
1,2-Dichloropropane	2
Ethylbenzene	G
4-Methyl-2-pentanone	N
Methylene chloride	9
Toluene	G
Xylenes	G

EQUIPMENT RINSATE SAMPLE DATA

APPENDIX F
Equipment Rinse Data Summary, First Quarter 1991

Sample No.	910107-043	910107-060	910108-078	910109-190	910111-178	910112-009	910114-113	910116-021	910116-070	910117-119
Acetone	N	N	N	N	N	N	N	N	N	N
Bromodichloromethane	G	G	G	G	3	G	G	G	G	G
2-Butanone	N	N	N	N	N	N	N	N	N	N
Carbon tetrachloride	G	G	G	G	G	G	G	G	G	G
Chloroform	G	G	G	G	18	G	G	G	G	G
4-Methyl-2-pentanone	9	N	N	5	N	N	N	N	N	N
Tetrachloroethene	G	G	G	G	G	G	1	G	G	G
Toluene	G	G	G	G	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	1	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910125-014	910126-024	910130-035	910201-260	910205-078	910208-021	910210-041	910212-112	910221-298	910222-009
Acetone	N	N	N	N	N	N	N	N	N	13
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
2-Butanone	N	N	N	N	N	N	N	N	N	N
Carbon tetrachloride	G	G	G	G	4	G	G	G	G	G
Chloroform	G	0.5	G	G	G	12	G	G	G	0.9
4-Methyl-2-pentanone	N	N	4	N	N	N	N	N	N	N
Tetrachloroethene	1	G	G	G	G	G	G	G	G	G
Toluene	G	G	0.6	G	G	0.9	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	3	G	G	G	G

(CONTINUED)

APPENDIX F
Equipment Rinseate Data Summary, First Quarter 1991

Sample No.	910225-122	910225-123	910227-104	910227-149	910301-164	910305-013	910305-014	910310-033	910310-034	910314-032
Acetone	N	10	N	N	N	N	N	27	38	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
2-Butanone	N	N	N	N	N	N	N	N	16	N
Carbon tetrachloride	G	G	G	G	G	G	G	G	G	G
Chloroform	0.8	1	G	G	G	G	G	5	10	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Tetrachloroethene	G	G	G	G	G	G	G	G	G	G
Toluene	G	G	G	G	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910314-033	910316-012	910320-089	910320-090	910320-091	910321-034	910323-004	910324-017	910325-018	910327-015
Acetone	10	10	N	N	N	N	N	N	N	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
2-Butanone	N	N	N	N	N	N	N	N	N	N
Carbon tetrachloride	G	G	G	G	G	G	G	G	G	G
Chloroform	1	0.9	G	G	G	1	G	G	0.9	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Tetrachloroethene	G	G	G	G	G	G	G	G	G	G
Toluene	G	G	G	G	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F
Equipment Rinsate Data Summary, First Quarter 1991

Sample No.	910327-072	910328-033	910330-004	910403-044
Acetone	N	N	N	N
Bromodichloromethane	G	G	G	G
2-Butanone	N	N	N	N
Carbon tetrachloride	G	G	G	G
Chloroform	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N
Tetrachloroethene	G	G	G	G
Toluene	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G
Xylenes	G	G	G	G

APPENDIX F
Equipment Rinse Data Summary, Second Quarter 1991

Sample No.	910405-013	910408-041	910411-025	910411-036	910413-059	910416-060	910416-061	910416-062	910418-037	910422-152
Acetone	N	N	N	N	N	N	N	N	N	N
Carbon tetrachloride	G	G	G	G	G	G	G	G	G	G
Chloroform	G	G	G	G	G	G	G	G	G	G
Methylene chloride	G	G	G	G	G	G	G	G	G	G
Tetrachloroethene	G	G	G	1	G	G	G	2	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910427-029	910502-081	910502-082	910508-076	910509-041	910511-022	910512-019	910515-060	910523-206	910523-207
Acetone	N	N	N	N	N	N	N	N	N	N
Carbon tetrachloride	G	G	G	1	G	G	G	G	G	G
Chloroform	G	G	G	G	G	G	G	G	G	G
Methylene chloride	G	G	G	G	G	G	G	G	G	16
Tetrachloroethene	G	G	G	G	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910601-032	910608-034	910613-078	910614-079	910614-088	910617-082	910617-083	910618-054	910620-041	910620-089
Acetone	N	N	N	N	N	N	N	N	N	N
Carbon tetrachloride	G	G	G	G	G	G	G	G	G	G
Chloroform	G	G	21	G	G	2	G	G	G	G
Methylene chloride	G	G	G	G	G	G	G	G	16	15
Tetrachloroethene	G	G	G	G	G	G	G	G	G	G
1,1,1-Trichloroethane	G	G	G	2	2	0.6	0.6	0.9	G	G

(CONTINUED)

APPENDIX F
Equipment Kinetics Data Summary, Second Quarter 1991

Sample No.	910621-203	910621-204	910624-017	910624-079	910624-081	910625-041	910625-079	910625-080	910627-061
Acetone	N	N	N	N	N	2	N	N	11
Carbon tetrachloride	G	G	G	G	G	G	G	G	G
Chloroform	G	0.9	G	G	G	G	G	19	G
Methylene chloride	G	G	3	G	G	G	G	G	G
Tetrachloroethane	G	G	G	G	G	G	G	6	G
1,1,1-Trichloroethane	0.8	0.7	G	G	G	G	G	G	0.8

APPENDIX F
Equipment Rinsewater Data Summary, Third Quarter 1991

Sample No.	910712-073	910715-160	910715-170	910718-005	910719-217	910727-044	910801-271	910801-272	910806-104	910813-040
Acetone	N	N	N	N	N	N	N	N	N	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	G	G	G	G	G
Chloroform	G	G	G	1	G	G	1	G	0.7	G
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	15	16	G	G	G	16	G	0.9	G	G
Tetrachloroethene	G	G	2	G	G	G	G	G	G	G
Toluene	G	G	G	G	0.5	G	G	G	G	G
Trichloroethene	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910814-120	910814-121	910817-009	910819-107	910820-010	910823-171	910823-172	910826-029	910826-045	910827-092
Acetone	N	N	N	N	N	N	N	N	N	N
Bromodichloromethane	G	G	G	6	G	5	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	G	G	G	G	G
Chloroform	G	G	G	40	G	40	2	G	G	G
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	G	G	G	G	G	0.6	G	G	G
Tetrachloroethene	G	G	G	0.7	G	0.9	G	G	G	G
Toluene	G	G	G	G	G	G	G	G	G	G
Trichloroethene	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F
Equipment Rinse Data Summary, Third Quarter 1991

Sample No.	910829-024	910903-000	910903-001	910903-002	910906-276	910906-277	910908-001	910908-002	910909-015	910909-189
Acetone	N	13	N	N	N	N	N	N	N	N
Bromodichloromethane	G	G	2	G	G	G	G	G	G	G
Carbon disulfide	G	G	G	G	G	G	0.8	8	G	G
Carbon tetrachloride	2	G	G	G	G	G	G	G	G	G
Chloroform	G	G	19	2	G	G	G	G	G	G
1,2-Dichloropropane	G	G	G	G	G	G	2	3	4	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
4-Methyl-2-pentanone	N	N	N	N	N	N	N	N	N	N
Methylene chloride	G	G	1	G	G	G	G	G	G	0.9
Tetrachloroethene	G	G	G	G	G	G	G	G	G	G
Toluene	G	G	G	G	G	G	G	G	0.7	0.8
Trichloroethene	G	G	G	G	G	G	G	G	G	G
Xylenes	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	910911-110	910914-014	910914-030	910916-051	910919-050	910922-011	910923-070	910924-037	910920-007	910920-000
Acetone	N	N	N	N	N	N	N	N	N	N
Bromodichloromethane	G	G	G	G	G	G	G	G	G	G
Carbon disulfide	G	1	2	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	G	G	G	G	G
Chloroform	G	G	G	G	G	G	0.8	0.5	0.4	G
1,2-Dichloropropane	G	G	G	G	G	G	G	1	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	1
4-Methyl-2-pentanone	N	N	N	N	N	N	N	2	N	N
Methylene chloride	G	G	G	G	G	G	G	0.7	G	G
Tetrachloroethene	G	G	G	G	G	G	G	G	20	G
Toluene	0.9	G	G	2	3	1	0.7	1	3	4
Trichloroethene	G	G	G	G	G	G	G	G	3	G
Xylenes	G	G	G	G	G	G	G	G	G	5

(CONTINUED)

APPENDIX F
Equipment Rinse Data Summary, Third Quarter 1991

Sample No.	910930-037
Acetone	N
Bromodichloromethane	G
Carbon disulfide	C
Carbon tetrachloride	C
Chloroform	C
1,2-Dichloropropane	G
Ethylbenzene	0.5
4-Methyl-2-pentanone	N
Methylene chloride	0.7
Tetrachloroethane	C
Toluene	3
Trichloroethane	G
Xylenes	G

APPENDIX F
Equipment Rinse Data Summary, Fourth Quarter 1991

Sample No.	911002-221	911005-020	911005-021	911005-022	911006-041	911007-099	911011-002	911011-003	911021-116	911022-150
Acetone	11	N	N	N	N	N	N	N	N	N
Carbon disulfide	G	G	G	G	G	G	G	G	G	G
Chloroform	G	G	G	G	G	G	0.2	0.4	G	G
1,2-Dichloropropane	G	G	G	G	G	G	G	G	G	G
Ethylbenzene	0.5	G	G	G	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	N	2	N	N	N	N
Methylene chloride	G	G	G	G	G	1	0.7	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G	G	G
Tetrachloroethene	G	G	G	0.4	G	G	0.8	G	G	G
Toluene	3	0.9	1	1	9.9	G	2	2	G	G
Trichloroethene	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	911022-221	911022-222	911027-001	911027-002	911028-100	911029-220	911102-021	911112-034	911112-035	911112-036
Acetone	N	N	N	N	N	N	N	N	N	N
Carbon disulfide	G	G	G	0.8	G	G	G	G	G	G
Chloroform	G	0.7	1	G	0.6	G	G	G	5	G
1,2-Dichloropropane	G	G	G	G	G	G	G	1	G	1
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	N	N	N	2	3	5
Methylene chloride	0.9	1	1	1	1	1	1	G	G	1
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G	G	G
Tetrachloroethene	G	G	G	G	G	G	G	G	G	G
Toluene	0.6	0.6	G	G	G	2	G	G	G	G
Trichloroethene	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

APPENDIX F
Equipment Mine-site Data Summary, Fourth Quarter 1991

Sample No.	911112-037	911113-003	911115-390	911118-053	911120-024	911121-158	911122-129	911124-051	911124-052	911127-051
Acetone	N	N	N	N	N	N	N	N	N	N
Carbon disulfide	G	G	G	G	3	G	G	G	G	G
Chloroform	0.7	0.6	G	G	G	G	1	G	G	1
1,2-Dichloropropane	G	G	G	G	1	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	G	G	G	G
2-Hexanone	N	N	N	N	4	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	4	N	N	N	N	N
Methylene chloride	1	G	2	G	1	G	G	G	G	1
1,1,2,2-Tetrachloroethane	G	G	G	G	2	G	G	G	G	G
Tetrachloroethene	G	G	G	G	G	G	G	G	G	G
Toluene	G	G	G	G	G	G	G	G	G	G
Trichloroethene	G	G	G	G	G	G	G	G	G	G

(CONTINUED)

Sample No.	911213-274	911213-275	911213-276	911221-001	911227-060	911228-003
Acetone	N	N	N	N	N	N
Carbon disulfide	G	G	G	G	G	G
Chloroform	2	2	2	2	2	2
1,2-Dichloropropane	2	G	2	G	3	2
Ethylbenzene	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	N	1
Methylene chloride	G	2	G	G	7	8
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G
Tetrachloroethene	G	G	G	G	10	G
Toluene	G	G	G	G	G	G
Trichloroethene	G	G	G	G	1	G

FIELD DUPLICATE SAMPLE DATA

APPENDIX F
Field Duplicate Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-151						GW-168	
	NHP						EXP	
	01/31/91		08/24/91		10/23/91		05/08/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	<0.02	<0.02	<0.02	<0.02	0.023	<0.02	<0.02	<0.02
Antimony	<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
Barium	0.19	0.19	0.17	0.18	0.18	0.18	0.13	0.13
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.085	0.085	0.095	0.087	0.13	0.083	0.044	0.032
Cadmium (AAS)	<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
Chromium (AAS)	<0.01	<0.01	<0.01	0.015	<0.01	<0.01	<0.01	<0.01
Chromium	0.035	0.021	<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
Copper	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	0.0048	0.0047
Iron	<0.004	<0.004	<0.005	<0.005	0.017	<0.005	0.4	0.39
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<0.0002	<0.0002	0.0003	0.00034	<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
Nickel	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	5.2	5.2	.	.	.	.	4.1	5.1
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.55	0.55	0.54	0.55	0.51	0.51	0.56	0.54
Thorium	<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	0.005	<0.001	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	<0.001	<0.001	0.044	0.0068	0.012	0.0062	<0.002	<0.002
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	223	.	211	.	214	.	296	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	57	57	59	58	57	57	87	82
Chloride	13	.	11	.	9	.	15	.
Fluoride	<0.1	.	0.1	.	0.1	.	<0.1	.
Magnesium	25	25	25	25	25	25	25	23
Manganese	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	0.0033
Nitrate-N	0.6	.	0.7	.	0.61	.	0.51	.
Potassium	2.1	2.1	2.3	1.9	2.1	2.4	2.4	2.3
Sodium	5	5	6.3	6.5	6.9	7	5.8	5.6
Sulfate	16	.	18	.	18	.	10	.

(CONTINUED)

APPENDIX F
Field Duplicate Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-183							
	FF							
	03/08/91		06/18/91		09/25/91		12/15/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	6.4	0.06	0.62	0.054	8.6	<0.02	0.076	0.025
Antimony	<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
Barium	0.26	0.22	0.22	0.22	0.27	0.22	0.21	0.23
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	0.00042	<0.0003	<0.0003	<0.0003
Boron	0.03	0.03	0.05	0.074	0.062	0.041	0.058	0.052
Cadmium (AAS)	<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
Chromium (AAS)	0.018	<0.01	<0.01	<0.01	<0.05	<0.05	<0.01	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	0.014	<0.01	<0.01	<0.01
Cobalt	0.0056	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0088	<0.004	0.005	<0.004	0.0063	<0.004	<0.004	<0.004
Iron	8	0.49	1.1	0.42	6.9	0.25	0.51	0.31
Lead (AAS)	0.0081	<0.004	<0.004	<0.004	0.007	<0.004	<0.004	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	<0.01	0.012	<0.01	0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	14	6.2	6.9	6.4	.	.	.	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.65	0.65	0.68	0.68	0.7	0.63	0.64	0.64
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.002	0.001	0.001	0.001	0.002	0.002	0.002	0.002
Vanadium	0.0076	<0.005	<0.005	<0.005	0.0091	<0.005	<0.005	<0.005
Zinc	0.021	0.0074	0.015	0.031	0.024	<0.002	0.0058	0.0047
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO ₃	432	.	410	.	451	.	429	.
Alkalinity-CO ₃	<1	.	<1	.	<1	.	<1	.
Calcium	150	150	150	150	150	140	140	150
Chloride	31	.	34	.	27	.	26.1	.
Fluoride	<0.1	.	<0.1	.	<0.1	.	<0.1	.
Magnesium	19	18	22	23	26	25	24	23
Manganese	0.71	0.47	0.36	0.31	0.27	0.21	0.21	0.29
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	<1.1	.
Potassium	3.4	1.9	2.2	1.5	4.3	1.9	2	1.6
Sodium	23	23	24	21	24	26	22	26
Sulfate	31	.	32	.	28.9	.	25	.

(CONTINUED)

APPENDIX F
Field Duplicate Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-190				GW-191			
	RG				B4			
	09/20/91		12/15/91		07/20/91		10/05/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.14	<0.02	0.048	0.049	3	<0.02	0.099	0.038
Antimony	<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
Barium	0.12	0.13	0.12	0.12	0.37	0.31	0.32	0.27
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.0003	<0.0003
Boron	0.031	0.028	0.023	0.019	0.014	<0.004	0.064	0.048
Cadmium (AAS)	<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
Chromium (AAS)	<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
Cobalt	<0.005	<0.005	<0.005	0.0054	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	0.0056	0.031	<0.004	<0.004	0.0046	0.013
Iron	0.37	0.21	0.2	0.023	3.5	<0.005	0.087	0.12
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	<0.01	<0.01	0.017	0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	.	.	.	.	15	10	.	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.11	0.098	0.12	0.1	0.48	0.45	0.46	0.43
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	0.0059	<0.005	<0.005	<0.005
Zinc	0.022	0.012	0.011	0.015	0.017	0.0048	0.015	0.015
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	111	.	108	.	246	.	260	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	37	28	40	30	85	76	83	76
Chloride	5.1	.	5	.	3	.	3	.
Fluoride	0.2	.	0.2	.	<0.1	.	<0.1	.
Magnesium	6	5.3	6.2	5.9	11	9.7	10	10
Manganese	0.42	0.95	0.17	0.33	0.11	0.0094	0.016	0.0086
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Potassium	1.2	0.89	0.82	1.2	3.8	2.5	2.1	3.4
Sodium	7.9	7.1	8.4	7.3	13	11	9.3	16
Sulfate	14	.	12.8	.	12	.	11	.

(CONTINUED)

APPENDIX F
Field Duplicate Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-192		GW-208					
	B4		EXP					
	04/10/91		02/22/91		08/29/91		10/30/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.12	<0.02	0.027	<0.02	<0.02	<0.02	0.95	0.046
Antimony	<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
Barium	0.17	0.14	0.041	0.042	0.04	0.04	0.04	0.039
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.017	0.018	0.23	0.22	0.23	0.24	0.21	0.23
Cadmium (AAS)	<0.002	0.0024	<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
Chromium (AAS)	<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
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.019	0.036	0.0044	0.0045	<0.004	<0.004	<0.004	<0.004
Iron	3.9	0.86	0.52	0.49	0.57	0.47	0.63	0.47
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	<0.008	<0.008	<0.004	<0.004
Mercury (CVAA)	0.00021	<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
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	9.6	11	12	12	.	.	.	.
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.22	0.17	1.4	1.4	1.5	1.5	1.3	1.3
Thorium	<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
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.0082	0.021	1.1	0.85	1.2	0.89	1.5	0.92
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	381	.	218	.	219	.	217	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	120	100	74	75	78	77	74	73
Chloride	10	.	<1	.	1	.	1	.
Fluoride	0.2	.	0.2	.	0.2	.	0.3	.
Magnesium	14	9.9	23	23	24	24	24	24
Manganese	2.2	1.6	0.017	0.017	0.014	0.013	0.014	0.013
Nitrate-N	<0.2	.	<0.2	.	<0.2	.	<0.2	.
Potassium	1.5	1.1	2.8	2.7	2.6	2.7	2.8	2.8
Sodium	7.1	7.4	14	14	14	15	15	15
Sulfate	2	.	102	.	101	.	113	.

(CONTINUED)

APPENDIX F
Field Duplicate Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-223		GW-251		GW-255		GW-262	
	NHP		S2		S2		SY	
	05/03/91		10/03/91		07/13/91		01/10/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	0.028	0.028	1.6	0.044	1	<0.02	1	0.12
Antimony	<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
Barium	0.3	0.3	0.094	0.089	0.035	0.029	0.28	0.23
Beryllium	<0.0003	<0.0003	0.00073	0.00033	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.018	0.026	0.017	0.014	0.016	0.034	0.021	0.015
Cadmium (AAS)	<0.002	<0.002	0.14	0.14	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	0.11	0.11	<0.003	<0.003	<0.003	<0.003
Chromium (AAS)	<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	0.025	0.023
Cobalt	<0.005	<0.005	0.017	0.011	<0.005	<0.005	<0.005	<0.005
Copper	<0.004	<0.004	0.47	0.32	0.0082	0.025	0.011	0.012
Iron	0.48	0.49	1.4	<0.005	1.3	0.01	1.5	0.014
Lead (AAS)	<0.004	<0.004	0.014	<0.004	<0.004	<0.004	<0.004	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	<0.01	0.033	0.028	<0.01	<0.01	0.012	0.024
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	4.8	3.6	.	.	6.3	5.1	15	13
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.28	0.28	0.18	0.18	0.031	0.03	0.16	0.16
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.007	0.008	0.005	0.004	<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
Zinc	<0.002	0.0034	0.06	0.052	0.016	0.026	0.012	0.0061
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	297	.	158	.	223	.	202	.
Alkalinity-CO3	<1	.	<1	.	<1	.	<1	.
Calcium	110	120	100	100	55	52	67	64
Chloride	37	.	8	.	6	.	<1	.
Fluoride	0.13	.	1.5	.	<0.1	.	0.1	.
Magnesium	15	15	18	19	28	27	6.3	5.8
Manganese	0.63	0.65	2.9	2.8	0.066	<0.001	0.077	0.042
Nitrate-N	<0.2	.	69.9	.	2	.	<0.2	.
Potassium	1.8	1.7	2.9	2.6	2	1.2	2.2	1.9
Sodium	11	11	15	15	3.8	4.2	15	16
Sulfate	34	.	17	.	11	.	14	.

(CONTINUED)

APPENDIX F
Field Duplicate Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-262				GW-264		GW-283	
	SY				SY		FF	
	04/03/91		07/11/91		10/01/91		01/24/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)								
Aluminum	0.16	<0.02	1.3	0.039	0.038	<0.02	6.4	0.05
Antimony	<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
Barium	0.24	0.22	0.3	0.27	0.036	0.044	0.62	0.48
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.0091	0.01	0.086	0.039	0.064	0.07	0.035	0.031
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0034	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	0.0034	<0.003
Chromium (AAS)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01
Chromium	<0.01	0.035	0.013	<0.01	<0.01	<0.01	0.039	<0.01
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0094	<0.005
Copper	0.0043	<0.004	0.0053	<0.004	0.0076	<0.004	0.032	0.0075
Iron	0.22	<0.005	1.7	0.011	0.31	0.17	8.9	0.011
Lead (AAS)	<0.004	<0.004	0.0045	<0.004	<0.004	<0.004	0.0045	<0.004
Mercury (CVAA)	<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
Nickel	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.16	0.18
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	12	12	15	12	.	.	21	11
Silver	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.14	0.15	0.17	0.16	0.32	0.34	0.57	0.55
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	0.001	0.001	0.002	0.001	<0.001	<0.001	0.001	0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	<0.005
Zinc	<0.002	<0.002	0.014	0.0059	0.0097	0.0075	0.037	0.0042
MAJOR IONS (mg/L)								
Alkalinity-HCO ₃	204	.	196	.	408	.	369	.
Alkalinity-CO ₃	<1	.	<1	.	<1	.	<1	.
Calcium	59	60	69	60	140	150	170	160
Chloride	0.89	.	<1	.	15	.	10	.
Fluoride	0.13	.	0.1	.	<0.1	.	<0.1	.
Magnesium	5.8	6.1	6.5	5.8	37	41	17	17
Manganese	0.041	0.017	0.064	0.017	0.038	0.043	1.6	1.8
Nitrate-N	<0.2	.	<0.2	.	<2.26	.	<10	.
Potassium	1.7	2	2.1	1.5	3.2	3.1	5.6	3.6
Sodium	13	9.2	14	12	24	26	12	18
Sulfate	18.2	.	18	.	119	.	10	.

(CONTINUED)

APPENDIX F
Field Duplicate Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-263							GW-334
	FF							WC
	04/19/91		07/29/91		08/12/91	10/09/91		01/21/91
	TOT	DIS	TOT	DIS	TOT	TOT	DIS	TOT
METALS (mg/L)	.	.	.	.	.	.	.	.
Aluminum	3.7	0.079	1.1	0.22	.	0.6	0.05	0.23
Antimony	<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
Barium	0.5	0.46	0.48	0.45	.	0.51	0.48	0.14
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	.	<0.0003	<0.0003	<0.0003
Boron	0.027	0.027	0.026	0.055	.	0.047	0.042	<0.004
Cadmium (AAS)	<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
Chromium (AAS)	0.793	<0.01	2.4	0.018	.	1.1	<0.01	<0.01
Chromium	0.54	<0.01	0.13	<0.01	.	0.075	<0.01	<0.01
Cobalt	0.0084	0.0052	<0.005	<0.005	.	<0.005	<0.005	<0.005
Copper	0.0074	<0.004	<0.004	<0.004	.	<0.004	<0.004	0.059
Iron	6.3	0.062	3.2	0.21	.	1.7	<0.005	0.27
Lead (AAS)	<0.004	<0.004	<0.004	<0.004	.	<0.004	<0.004	<0.004
Mercury (CVAA)	<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
Nickel	0.26	0.25	0.27	0.24	.	0.23	0.19	<0.01
Selenium	<0.05	<0.05	<0.05	<0.05	.	<0.05	<0.05	<0.05
Silicon	19	13	14	13	.	.	.	7.9
Silver	<0.006	<0.006	<0.006	<0.006	.	<0.006	<0.006	<0.006
Strontium	0.49	0.52	0.52	0.53	.	0.55	0.54	0.2
Thorium	<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
Vanadium	0.0087	<0.005	<0.005	<0.005	.	<0.005	<0.005	<0.005
Zinc	0.018	0.0083	<0.002	<0.002	.	0.0047	0.0043	0.087
MAJOR IONS (mg/L)	.	.	.	.	.	.	.	.
Alkalinity-HCO3	349	.	.	.	368	371	.	155
Alkalinity-CO3	<1	.	.	.	<1	<1	.	<1
Calcium	150	180	150	150	.	170	170	66
Chloride	122	.	.	.	91	87	.	8
Fluoride	<0.1	.	.	.	<0.1	<0.1	.	<0.1
Magnesium	18	20	16	16	.	16	16	5.3
Manganese	1.7	1.5	1.6	1.3	.	1.3	1.2	0.015
Nitrate-N	<0.2	.	.	.	<0.2	<0.2	.	4
Potassium	4.2	3	2.4	2.6	.	3.3	2.4	1.7
Sodium	13	14	12	13	.	11	9.7	3.4
Sulfate	10	.	.	.	9	9	.	17

(CONTINUED)

APPENDIX F
Field Duplicate Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-334	GW-603			
	WC	NHP			
	01/21/91	01/26/91		04/22/91	
	DIS	TOT	DIS	TOT	DIS
METALS (mg/L)	.	.	.	.	.
Aluminum	0.048	0.32	0.022	0.079	0.095
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	0.12	0.13	0.13	0.12	0.12
Beryllium	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Boron	0.0044	0.0097	0.0087	0.029	0.02
Cadmium (AAS)	<0.002	<0.002	<0.002	<0.002	<0.002
Cadmium	<0.003	<0.003	<0.003	<0.003	<0.003
Chromium (AAS)	<0.01	<0.01	<0.01	0.036	<0.01
Chromium	<0.01	<0.01	<0.01	<0.01	0.023
Cobalt	<0.005	<0.005	<0.005	<0.005	<0.005
Copper	0.0082	0.013	0.0064	<0.004	<0.004
Iron	0.0052	0.25	<0.004	0.13	0.019
Lead (AAS)	<0.004	0.0061	<0.004	<0.004	<0.004
Mercury (CVAA)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	<0.01	<0.01	<0.01	<0.01	0.021
Nickel	<0.01	0.018	0.016	0.02	0.034
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	7.8	3.6	4.9	4.9	4.9
Silver	<0.006	<0.006	<0.006	<0.006	<0.006
Strontium	0.18	0.079	0.075	0.088	0.091
Thorium	<0.2	<0.2	<0.2	<0.2	<0.2
Uranium (Fluor)	<0.001	<0.001	<0.001	<0.001	<0.001
Vanadium	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	0.008	0.015	0.012	0.017	0.017
MAJOR IONS (mg/L)	.	.	.	.	.
Alkalinity-HCO ₃	.	255	.	267	.
Alkalinity-CO ₃	.	<1	.	<1	.
Calcium	58	71	65	66	68
Chloride	.	6	.	6	.
Fluoride	.	0.2	.	0.2	.
Magnesium	4.9	22	21	20	20
Manganese	0.0036	0.031	0.0026	<0.001	<0.001
Nitrate-N	.	0.8	.	6.7	.
Potassium	1.6	6.8	6.6	6.9	7.1
Sodium	4	4.3	4.2	3.9	4
Sulfate	.	15	.	19	.

APPENDIX F
Field Duplicate Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-151			GW-168	GW-183			
	NHP			EXP	FF			
	01/31/91	08/24/91	10/23/91	05/08/91	03/08/91	06/18/91	09/25/91	12/15/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	A	35	A	N	V	V	41	N
Benzene	V	G	V	G	370	23	140	69
Bromodichloromethane	V	G	V	G	N	N	G	G
Bromoform	V	G	V	G	N	N	G	G
Bromomethane	A	N	A	N	V	V	N	N
2-Butanone	A	N	A	N	V	V	N	N
Carbon disulfide	V	G	V	G	N	N	G	G
Carbon tetrachloride	260	250	390	G	N	N	G	G
Chlorobenzene	V	G	V	G	N	N	G	G
Chlorodibromomethane	V	G	V	G	N	N	G	G
Chloroethane	A	N	A	N	V	V	N	N
Chloroform	12	14	17	G	N	N	G	G
Chloromethane	A	N	A	N	V	40	N	28
1,1-Dichloroethane	V	G	V	G	N	N	G	G
1,2-Dichloroethane	V	G	V	G	N	N	G	G
1,1-Dichloroethene	V	G	V	G	N	N	G	G
1,2-Dichloroethene	V	1	V	G	N	N	G	G
1,2-Dichloropropane	V	G	V	G	N	N	G	G
cis-1,3-Dichloropropene	V	G	V	G	N	N	G	G
trans-1,3-Dichloropropene	V	G	V	G	N	N	G	G
Ethylbenzene	V	G	V	G	22	N	7	7
2-Hexanone	A	N	A	N	V	V	N	N
4-Methyl-2-pentanone	A	N	A	N	V	6	N	N
Methylene chloride	V	G	5	G	N	32	G	G
Styrene	V	G	V	G	N	N	G	G
1,1,2,2-Tetrachloroethane	V	G	V	G	N	N	G	G
Tetrachloroethene	13	17	18	G	N	N	G	G
Toluene	2	G	V	G	270	11	52	60
1,1,1-Trichloroethane	V	G	V	G	N	N	G	G
1,1,2-Trichloroethane	V	G	V	G	N	N	G	G
Trichloroethene	V	3	V	G	N	N	G	G
Vinyl acetate	A	N	A	N	V	V	N	N
Vinyl chloride	A	N	A	N	V	V	N	N
Xylenes	V	G	V	G	130	N	29	43

(CONTINUED)

APPENDIX F
Field Duplicate Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-190		GW-191		GW-192	GW-208		
	RG		B4		B4	EXP		
	09/20/91	12/15/91	07/20/91	10/05/91	04/10/91	02/22/91	08/29/91	10/30/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	N	N	N	N	N	N	N	N
Benzene	G	G	G	G	G	G	G	G
Bromodichloromethane	G	G	G	G	G	G	G	G
Bromoform	G	G	G	G	G	G	G	G
Bromomethane	N	N	N	N	N	N	N	N
2-Butanone	N	N	N	N	N	N	N	N
Carbon disulfide	G	G	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	G	G	G
Chlorobenzene	G	G	G	G	G	G	G	G
Chlorodibromomethane	G	G	G	G	G	G	G	G
Chloroethane	N	N	N	N	N	N	N	N
Chloroform	G	G	G	G	G	G	G	G
Chloromethane	N	N	N	N	N	N	N	N
1,1-Dichloroethane	G	12	G	G	2	G	G	G
1,2-Dichloroethane	G	G	G	G	G	G	G	G
1,1-Dichloroethene	G	1	G	G	G	G	G	G
1,2-Dichloroethene	61	680	G	G	28	G	G	G
1,2-Dichloropropane	G	G	G	G	G	G	G	G
cis-1,3-Dichloropropene	G	G	G	G	G	G	G	G
trans-1,3-Dichloropropene	G	G	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G	0.9	G
2-Hexanone	N	N	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	N	N	5	N
Methylene chloride	G	G	16	G	G	G	G	1
Styrene	G	G	G	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G	G	G
Tetrachloroethene	40	150	G	G	3	G	G	G
Toluene	0.6	0.3	G	1	G	G	4	G
1,1,1-Trichloroethane	0.2	5	G	G	G	G	G	G
1,1,2-Trichloroethane	G	G	G	G	G	G	G	G
Trichloroethene	16	190	G	G	4	G	G	G
Vinyl acetate	N	N	N	N	N	N	N	N
Vinyl chloride	2	33	N	N	N	N	N	N
Xylenes	G	G	G	G	G	G	4	G

(CONTINUED)

APPENDIX F
Field Duplicate Groundwater Quality Data, 1991

Well No.	GW-223	GW-251	GW-255	GW-262			GW-264	GW-283
Location	NHP	S2	S2	SY			SY	TF
Date Sampled	05/03/91	10/03/91	07/13/91	01/10/91	04/03/91	07/11/91	10/01/91	01/24/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.	.	.
Acetone	N	V	N	N	N	N	N	N
Benzene	G	N	G	G	G	G	G	G
Bromodichloromethane	G	N	G	G	G	G	G	G
Bromoform	G	N	G	G	G	G	G	G
Bromomethane	N	V	N	N	N	N	N	N
2-Butanone	N	V	N	N	N	N	N	N
Carbon disulfide	G	N	G	G	G	G	G	G
Carbon tetrachloride	29	7	G	G	G	G	G	G
Chlorobenzene	G	N	G	G	G	G	G	G
Chlorodibromomethane	G	N	G	G	G	G	G	G
Chloroethane	N	V	N	N	N	N	N	N
Chloroform	3	6	3	G	G	G	G	G
Chloromethane	N	V	N	N	N	N	N	N
1,1-Dichloroethane	G	N	G	G	G	G	G	G
1,2-Dichloroethane	G	N	G	G	G	G	G	G
1,1-Dichloroethene	G	N	G	G	G	G	G	G
1,2-Dichloroethene	25	3	G	G	G	G	G	G
1,2-Dichloropropane	G	N	G	G	G	G	G	G
cis-1,3-Dichloropropene	G	N	G	G	G	G	G	G
trans-1,3-Dichloropropene	G	N	G	G	G	G	G	G
Ethylbenzene	G	N	G	G	G	G	G	G
2-Hexanone	N	V	N	N	N	N	N	N
4-Methyl-2-pentanone	N	V	N	N	N	N	N	N
Methylene chloride	G	N	16	G	G	16	G	G
Styrene	G	N	G	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	N	G	G	G	G	G	G
Tetrachloroethene	160	180	G	G	G	G	G	G
Toluene	G	0.9	G	G	G	G	G	G
1,1,1-Trichloroethane	G	N	G	G	G	G	G	G
1,1,2-Trichloroethane	G	N	G	G	G	G	G	G
Trichloroethene	34	53	G	G	G	G	G	G
Vinyl acetate	N	V	N	N	N	N	N	N
Vinyl chloride	N	V	N	N	N	N	N	N
Xylenes	G	N	G	G	G	G	G	G

(CONTINUED)

APPENDIX F
Field Duplicate Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-283			GW-334	GW-603	
	TF			WC	MHP	
	04/19/91	07/29/91	10/09/91	01/21/91	01/26/91	04/22/91
VOLATILE ORGANICS (ug/L)	.	.	.	.	.	.
	.	.	.	.	.	.
Acetone	N	N	N	N	N	N
Benzene	G	G	G	G	G	G
Bromodichloromethane	G	G	G	G	G	G
Bromoform	G	G	G	G	G	G
Bromomethane	N	N	N	N	N	N
2-Butanone	N	N	N	N	N	N
Carbon disulfide	G	G	G	G	G	G
Carbon tetrachloride	G	G	G	G	G	G
Chlorobenzene	G	G	G	G	G	G
Chlorodibromomethane	G	G	G	G	G	G
Chloroethane	N	N	N	N	N	N
Chloroform	G	G	G	3	G	G
Chloromethane	N	N	N	N	N	N
1,1-Dichloroethane	G	G	G	G	G	G
1,2-Dichloroethane	G	G	G	G	G	G
1,1-Dichloroethene	G	G	G	6	G	G
1,2-Dichloroethene	G	G	G	230	G	G
1,2-Dichloropropane	G	G	G	G	G	G
cis-1,3-Dichloropropene	G	G	G	G	G	G
trans-1,3-Dichloropropene	G	G	G	G	G	G
Ethylbenzene	G	G	G	G	G	G
2-Hexanone	N	N	N	N	N	N
4-Methyl-2-pentanone	N	N	N	N	N	N
Methylene chloride	G	G	G	G	G	G
Styrene	G	G	G	G	G	G
1,1,2,2-Tetrachloroethane	G	G	G	G	G	G
Tetrachloroethene	G	G	G	33	G	G
Toluene	G	G	2	G	G	G
1,1,1-Trichloroethane	G	G	G	2	G	G
1,1,2-Trichloroethane	G	G	G	G	G	G
Trichloroethene	G	G	G	65	G	G
Vinyl acetate	N	N	N	N	N	N
Vinyl chloride	N	N	N	4	N	N
Xylenes	G	G	G	G	G	G

APPENDIX F
Field Duplicate Groundwater Quality Data, 1991

Well No. Location Date Sampled	GW-151			GW-168	GW-183			
	NHP			EXP	FF			
	01/31/91	08/24/91	10/23/91	05/08/91	03/08/91	06/18/91	09/25/91	12/15/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	1	0.6	0.5	1	4.1	0.9	1	7.5
pH, Field (pH units)	7.3	7.5	7.5	7.1	6.8	6.6	6.8	6.3
Redox, Field (mV)	216	212	188	34	61	19	-57	14
Sp. Cond., Field (umho/cm)	498	427	538	554	871	877	878	910
Temp, Field (degrees C)	14.5	17.8	15.9	15.4	17	18.8	17.8	17.8
pH, 1 (pH units)	7	7.9	7.5	6.6	7.4	7.6	7.3	6.87
Sp. Cond., 1 (umho/cm)	430	528	443	588	835	941	1000	964
TPH (mg/L)	.	.	.	.	<0.5	.	<1	<1
TDS (mg/L)	266	282	288	332	556	578	622	544
TSS (mg/L)	<1	<1	1	2	77	18	129	3
Turbidity (NTU)	0.35	0.4	0.25	3.4	40	12	75	3.3
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	0.17	1.67	0.64	0.79	1.39	1.66	2.86	-1.98
Gross Alpha (CE+/-)	1.10	1.50	1.40	1.10	1.60	1.50	1.50	2.70
Gross Beta (pCi/L)	0.96	3.80	2.17	1.99	5.67	5.73	3.03	-3.42
Gross Beta (CE+/-)	3.40	3.40	2.70	3.50	3.60	3.60	3.60	3.20
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	.	.	0.82	.	.	.	.
Uranium 234 (CE+/-)	.	.	.	1.20	.	.	.	.
Uranium 235 (pCi/L)	.	.	.	0.00	.	.	.	.
Uranium 235 (CE+/-)	.	.	.	1.40	.	.	.	.
Uranium 238 (pCi/L)	.	.	.	0.00	.	.	.	.
Uranium 238 (CE+/-)	.	.	.	1.40	.	.	.	.

(CONTINUED)

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APPENDIX F
Field Duplicate Groundwater Quality Data, 1991

Well No.	GW-190		GW-191		GW-192	GW-208		
Location	RG		B4		B4	EXP		
Date Sampled	09/20/91	12/15/91	07/20/91	10/05/91	04/10/91	02/22/91	08/29/91	10/30/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	6	2.8	2.8	1.6	2.3	0.4	.	0.4
pH, Field (pH units)	6.7	6.8	7.4	7.2	6.3	7.4	.	7.3
Redox, Field (mV)	170	167	190	228	267	216	.	-52
Sp. Cond., Field (umho/cm)	193	238	547	413	641	499	.	345
Temp, Field (degrees C)	17.1	13.8	19	18.7	16.9	15.7	.	15.8
pH, 1 (pH units)	7.6	6.93	7.6	7.3	7.2	7	7.5	7.4
Sp. Cond., 1 (umho/cm)	273	277	507	511	441	594	621	622
TPH (mg/L)	<1	.	.	.	.	.	.	.
TDS (mg/L)	212	158	316	304	438	368	408	400
TSS (mg/L)	37	<1	55	37	10	<1	2	2
Turbidity (NTU)	37	1.6	26	3.1	31	6.5	7.5	7.3
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	2.66	-2.26	3.59	3.28	0.29	2.64	2.08	2.13
Gross Alpha (CE+/-)	1.40	1.70	1.60	1.70	1.10	1.50	1.50	1.70
Gross Beta (pCi/L)	5.70	-2.91	2.45	3.19	2.20	7.11	4.25	5.32
Gross Beta (CE+/-)	3.30	3.00	3.60	3.10	3.20	3.60	3.30	2.80
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	.	.	.	-0.42	1.25	.	.
Uranium 234 (CE+/-)	.	.	.	.	0.80	1.90	.	.
Uranium 235 (pCi/L)	.	.	.	.	0.00	0.00	.	.
Uranium 235 (CE+/-)	.	.	.	.	1.40	1.40	.	.
Uranium 238 (pCi/L)	.	.	.	.	0.00	0.42	.	.
Uranium 238 (CE+/-)	.	.	.	.	1.40	0.80	.	.

(CONTINUED)

APPENDIX F
Field Duplicate Groundwater Quality Data, 1991

Well No.	GW-223	GW-251	GW-255	GW-262			GW-264	GW-283
Location	NHP	S2	S2	SY			SY	FF
Date Sampled	05/03/91	10/03/91	07/13/91	01/10/91	04/03/91	07/11/91	10/01/91	01/24/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.	.
DO, Field (ppm)	0.3	0.4	2.9	7.6	7.1	0.6	2.6	1.8
pH, Field (pH units)	7.1	6.5	7.5	7.6	6.9	7.6	6.9	6.5
Redox, Field (mV)	224	240	133	266	274	198	-148	232
Sp. Cond., Field (umho/cm)	731	795	393	362	420	362	846	780
Temp, Field (degrees C)	18.8	16.4	16.9	14	17.4	19.1	16.8	16.3
pH, 1 (pH units)	6.5	7.2	8.1	7.3	7.4	8.2	7.2	6.7
Sp. Cond., 1 (umho/cm)	691	974	502	350	376	425	1006	951
TPH (mg/L)	.	.	.	.	.	.	.	<0.5
TDS (mg/L)	474	574	294	264	266	274	632	678
TSS (mg/L)	2	55	26	36	15	41	5	122
Turbidity (NTU)	5.2	40	29	15	5.4	23	2.8	4
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	3.69	9.87	3.02	2.82	2.83	1.62	43.50	2.13
Gross Alpha (CE+/-)	1.60	2.30	1.60	1.40	1.40	1.40	4.50	1.70
Gross Beta (pCi/L)	10.58	11.40	2.24	5.71	9.29	4.02	19.30	7.36
Gross Beta (CE+/-)	3.90	3.80	3.20	3.50	3.50	3.30	3.90	3.60
Americium 241 (pCi/L)	.	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	-1260.00	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	1600.00	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	1.30	.	.	0.48	0.00	.	.	.
Uranium 234 (CE+/-)	1.50	.	.	1.00	1.70	.	.	.
Uranium 235 (pCi/L)	0.00	.	.	0.00	0.00	.	.	.
Uranium 235 (CE+/-)	1.50	.	.	1.60	1.40	.	.	.
Uranium 238 (pCi/L)	0.87	.	.	1.42	0.00	.	.	.
Uranium 238 (CE+/-)	1.20	.	.	1.60	1.40	.	.	.

(CONTINUED)

APPENDIX F
Field Duplicate Groundwater Quality Data, 1991

Well No. . Location . Date Sampled	GW-283				GW-334	GW-603	
	FF				WC	NHP	
	04/19/91	07/29/91	08/12/91	10/09/91	01/21/91	01/26/91	04/22/91
MISCELLANEOUS PARAMETERS	.	.	.	.	.	.	.
DO, Field (ppm)	3.9	2.3	3.6	2.7	1.7	3.7	3.5
pH, Field (pH units)	6.6	6.4	6.4	6.6	6.6	7.3	6.7
Redox, Field (mV)	298	79	226	203	324	321	272
Sp. Cond., Field (umho/cm)	948	929	791	825	323	416	540
Temp, Field (degrees C)	17.7	20.5	21	20.4	12.7	13.3	15.1
pH, 1 (pH units)	6.8	.	6.8	6.6	6.8	7	7
Sp. Cond., 1 (umho/cm)	967	.	1032	960	322	454	530
TPH (mg/L)	<0.5	<10	.	.	.	.	.
TDS (mg/L)	644	.	664	650	262	290	292
TSS (mg/L)	146	.	105	152	137	89	3
Turbidity (NTU)	90	.	46	85	140	116	1.9
RADIOCHEMICAL PARAMETERS	.	.	.	.	.	.	.
Gross Alpha (pCi/L)	3.28	5.05	.	4.19	1.38	2.14	1.74
Gross Alpha (CE+/-)	1.80	1.80	.	1.60	1.40	1.70	1.60
Gross Beta (pCi/L)	7.28	2.20	.	5.18	3.70	11.23	11.97
Gross Beta (CE+/-)	3.50	3.60	.	3.50	3.70	3.80	3.80
Americium 241 (pCi/L)	.	.	.	.	.	.	.
Americium 241 (CE+/-)	.	.	.	.	.	.	.
Iodine 125 + 129 (Bq/L)	.	.	.	.	.	.	.
Iodine 125 + 129 (CE+/-)	.	.	.	.	.	.	.
Neptunium 237 (pCi/L)	.	.	.	.	.	.	.
Neptunium 237 (CE+/-)	.	.	.	.	.	.	.
Strontium (pCi/L)	.	.	.	.	.	.	.
Strontium (CE+/-)	.	.	.	.	.	.	.
Technetium 99 (pCi/L)	.	.	.	.	.	.	.
Technetium 99 (CE+/-)	.	.	.	.	.	.	.
Tritium (Bq/L)	.	.	.	.	.	.	.
Tritium (CE+/-)	.	.	.	.	.	.	.
Uranium 234 (pCi/L)	.	.	.	.	.	.	.
Uranium 234 (CE+/-)	.	.	.	.	.	.	.
Uranium 235 (pCi/L)	.	.	.	.	.	.	.
Uranium 235 (CE+/-)	.	.	.	.	.	.	.
Uranium 238 (pCi/L)	.	.	.	.	.	.	.
Uranium 238 (CE+/-)	.	.	.	.	.	.	.

APPENDIX G
ION-CHARGE BALANCE CALCULATIONS

EXPLANATION

LOCATION:

B4	-	Beta-4 Security Pits
EXP	-	Exit-Pathway Monitoring Well
FF	-	Building 9754-2 Fuel Facility
FTF	-	Fire Training Facility
NHP	-	New Hope Pond
RG	-	Rust Garage Area
S2	-	S-2 Site
SY	-	Y-12 Salvage Yard
T0134	-	Underground Storage Tank 0134-U
T2331	-	Underground Storage Tank 2331-U
WC	-	Waste Coolant Processing Area
Y12	-	Y-12 Plant

NOTES:

mg/L	-	milligrams per Liter
meq/L	-	milliequivalent per Liter
0.00	-	compound not detected or not analyzed
TDS	-	Total Dissolved Solids
TSS	-	Total Suspended Solids

Bicarbonate and carbonate alkalinity (reported as CaCO_3) was converted to HCO_3 and CO_3 as described in Mercier and Turner (1990).

Charge balances were calculated using the following formula:

$$\text{ion-charge balance (\%)} = \left(\frac{\sum \text{cations} - \sum \text{anions}}{\sum \text{cations} + \sum \text{anions}} \right) \times 100$$

APPENDIX G
Ion-Charge Balance Calculations, First Quarter 1991

Well No.	GW-149	GW-151	GW-153	GW-154	GW-167	GW-168	GW-169	GW-170	GW-183	GW-190	GW-191	GW-192	GW-193
Location	NHP	NHP	NHP	NHP	EXP	EXP	EXP	EXP	FF	RG	B4	B4	T2331
Date Sampled	01/28/91	01/31/91	01/31/91	01/29/91	02/14/91	02/14/91	03/01/91	03/01/91	03/08/91	03/12/91	01/15/91	01/15/91	03/06/91
CATIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Calcium	1.35	2.84	1.90	4.54	3.44	4.39	2.84	2.15	7.49	1.70	3.69	5.49	3.64
Magnesium	0.61	2.06	1.48	1.48	0.32	1.89	0.26	1.97	1.48	0.51	0.82	0.99	0.99
Potassium	0.14	0.05	0.08	0.15	0.06	0.06	0.07	0.05	0.05	0.03	0.07	0.04	0.14
Sodium	3.52	0.23	1.22	0.31	0.39	0.40	0.09	0.78	1.04	0.34	0.48	0.30	0.28
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
Total Cations	5.62	5.19	4.68	6.49	4.22	6.75	3.25	4.95	10.06	2.58	5.06	6.82	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
Alkalinity-HCO3	5.40	4.48	3.14	3.74	3.72	5.88	3.22	4.32	6.37	2.22	4.82	7.17	4.78
Chloride	0.34	0.37	1.30	0.08	0.39	0.59	0.06	0.45	0.85	0.14	0.08	0.23	0.20
Fluoride	0.02	0.00	0.01	0.02	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.03
Nitrate Nitrogen	0.00	0.04	0.09	0.01	0.04	0.04	0.06	0.04	0.00	0.01	0.00	0.00	0.00
Sulfate	0.12	0.33	0.37	2.52	0.17	0.23	0.10	0.50	0.65	0.35	0.31	0.04	0.48
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	5.88	5.22	4.91	6.38	4.33	6.73	3.44	5.31	7.87	2.73	5.21	7.45	5.48
CHARGE BALANCE (%)	-2	-0	-2	1	-1	0	-3	-3	12	-3	-1	-4	-4
TDS (mg/L)	322	262	270	496	232	340	282	256	568	194	298	412	306
TSS (mg/L)	23	-1	10	2	11	1	118	-1	70	16	26	10	33

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, First Quarter 1991

Well No.	GW-204	GW-206	GW-207	GW-208	GW-220	GW-222	GW-223	GW-232	GW-239	GW-240	GW-251	GW-252	GW-253
Location	T0134	EXP	EXP	EXP	NHP	NHP	NHP	EXP	EXP	NHP	S2	S2	S2
Date Sampled	03/07/91	02/20/91	02/20/91	02/22/91	01/29/91	02/01/91	02/01/91	03/12/91	02/25/91	01/29/91	01/14/91	01/12/91	01/14/91
CATIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Calcium	2.15	2.79	2.89	3.69	3.74	4.14	5.49	0.10	0.09	1.65	5.49	1.75	20.46
Magnesium	0.56	1.56	3.13	1.89	1.81	1.23	1.23	0.08	0.04	1.40	1.48	1.56	8.23
Potassium	0.06	0.15	0.08	0.07	0.07	0.12	0.05	0.11	0.10	0.59	0.08	0.05	0.20
Sodium	1.39	0.48	0.48	0.61	0.13	0.52	0.43	10.00	19.14	2.44	0.78	0.38	5.22
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	0.01
Total Cations	4.16	4.98	6.58	6.26	5.75	6.02	7.21	10.30	19.37	6.07	7.83	3.73	34.12
ANIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Alkalinity-CO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.80	0.84	0.00	0.00	0.00	0.00
Alkalinity-HCO3	4.08	4.28	5.36	4.50	5.14	4.28	6.17	7.29	9.35	3.68	0.30	0.88	0.10
Chloride	0.23	0.34	0.03	0.00	0.17	5.05	1.16	0.11	14.58	2.96	0.68	0.03	10.01
Fluoride	0.05	0.01	0.01	0.01	0.00	0.02	0.00	0.11	0.10	0.01	0.08	0.00	0.12
Nitrate Nitrogen	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.07	6.57	0.01	71.90
Sulfate	0.33	0.69	1.10	2.19	0.29	17.31	0.71	0.62	1.02	0.35	0.62	0.04	13.62
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
Total Anions	4.69	5.31	6.50	6.69	5.65	26.66	8.04	9.96	25.90	7.08	8.26	0.96	95.76
CHARGE BALANCE (%)	-6	-3	1	-3	1	-63	-5	2	-14	-8	-3	59	-47
TDS (mg/L)	262	304	328	394	190	398	442	554	1216	278	610	22	3300
TSS (mg/L)	158	565	-1	-1	28	-1	1	15	26	1	54	4	5

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, First Quarter 1991

Well No.	GW-255	GW-261	GW-262	GW-263	GW-264	GW-281	GW-282	GW-283	GW-284	GW-285	GW-331	GW-332	GW-333
Location	S2	SY	SY	SY	SY	FF	FF	FF	FF	FF	WC	WC	WC
Date Sampled	01/13/91	01/10/91	01/10/91	01/10/91	01/11/91	01/24/91	01/25/91	01/24/91	01/24/91	01/25/91	01/23/91	01/23/91	01/21/91
CATIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Calcium	2.79	2.15	3.09	3.14	7.49	2.99	0.65	7.98	7.49	3.19	3.24	1.70	0.85
Magnesium	2.47	0.99	0.48	1.23	3.29	0.90	0.28	1.40	1.48	0.43	0.61	0.39	0.37
Potassium	0.04	0.05	0.06	0.04	0.09	0.04	0.06	0.09	0.06	0.05	0.06	0.04	0.06
Sodium	0.17	0.48	0.74	0.74	1.13	0.43	0.25	0.83	1.13	0.38	0.37	0.28	0.43
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
Total Cations	5.46	3.67	4.37	5.16	12.00	4.37	1.24	10.30	10.16	4.05	4.28	2.41	1.72
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
Alkalinity-HCO3	4.60	3.06	4.02	4.34	8.57	3.96	0.64	7.41	5.54	3.56	3.06	2.22	0.90
Chloride	0.20	0.08	0.00	0.87	0.39	0.17	0.20	2.79	6.46	0.31	0.54	0.56	0.39
Fluoride	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nitrate Nitrogen	0.03	0.00	0.00	0.04	0.00	0.00	0.03	0.43	0.00	0.01	0.14	0.14	0.03
Sulfate	0.21	0.77	0.33	0.25	3.08	0.42	0.35	0.21	0.35	0.17	0.48	0.37	1.00
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	5.03	3.92	4.36	5.51	12.05	4.55	1.22	10.84	12.35	4.05	4.22	3.30	2.32
CHARGE BALANCE (%)	4	-3	0	-3	-0	-2	1	-3	-10	0	1	-16	-15
TDS (mg/L)	298	228	268	327	682	354	86	635	666	256	254	210	244
TSS (mg/L)	128	1	35	19	9	2952	121	138	242	69	-1	1	151

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, First Quarter 1991

Well No.	GW-334	GW-335	GW-336	GW-337	GW-338	GW-380	GW-381	GW-382	GW-383	GW-384	GW-385	GW-505	GW-603
Location	WC	WC	WC	WC	WC	NHP	NHP	NHP	NHP	NHP	NHP	RG	NHP
Date Sampled	01/21/91	01/21/91	01/23/91	01/23/91	01/16/91	01/29/91	02/04/91	02/04/91	01/29/91	01/28/91	01/27/91	03/12/91	01/26/91
CATIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Calcium	2.89	2.20	2.05	4.99	3.79	2.79	3.79	2.54	3.89	4.69	0.05	1.05	3.54
Magnesium	0.41	1.15	0.34	0.75	0.72	1.56	1.73	2.06	0.79	0.90	0.02	0.44	1.73
Potassium	0.04	0.06	0.04	0.05	0.09	0.04	0.05	0.04	0.07	0.07	0.06	0.05	0.19
Sodium	0.17	0.91	0.34	0.16	0.23	9.14	1.26	0.28	0.74	0.65	7.83	0.61	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
Total Cations	3.52	4.32	2.76	5.95	4.83	13.53	6.83	4.92	5.49	6.31	7.96	2.14	5.65
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	2.08	0.00	0.00
Alkalinity-HCO3	2.68	1.26	2.54	5.08	4.76	3.74	4.46	4.08	4.30	5.68	5.66	0.58	5.12
Chloride	0.23	0.90	0.31	0.59	0.20	7.67	2.65	0.45	0.65	0.48	0.08	0.90	0.17
Fluoride	0.00	0.03	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.15	0.01	0.01
Nitrate Nitrogen	0.29	0.07	0.21	0.00	0.03	0.07	0.03	0.14	0.00	0.00	0.00	0.21	0.06
Sulfate	0.35	2.42	0.29	0.15	0.31	0.27	0.12	0.29	0.42	0.29	0.44	0.44	0.31
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Total Anions	3.54	4.68	3.35	5.81	5.29	11.76	7.26	4.97	5.37	6.45	8.41	2.13	5.67
CHARGE BALANCE (%)	-0	-4	-10	1	-5	7	-3	-1	1	-1	-3	0	-0
TDS (mg/L)	254	370	212	332	302	682	360	306	212	350	430	188	336
TSS (mg/L)	107	158	1	29	9	45	4	-1	3	-1	1	254	142

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, First Quarter 1991

Well No.	GW-604	GW-617	GW-618	GW-619	GW-620	GW-631	GW-632	GW-633	GW-634	GW-656	GW-657	GW-658	GW-659
Location	NHP	Y12	Y12	FTF	FTF	RG	RG	RG	RG	T0134	T2331	FF	FF
Date Sampled	01/26/91	01/13/91	01/13/91	01/12/91	01/12/91	03/11/91	03/11/91	03/11/91	03/09/91	03/07/91	03/06/91	03/09/91	03/08/91
CATIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Calcium	2.05	1.95	4.99	3.89	1.70	1.00	1.45	384.23	0.11	5.99	3.54	1.85	1.45
Magnesium	1.32	0.41	0.70	0.06	0.64	1.07	0.60	43.60	0.16	0.58	1.07	0.68	0.33
Potassium	0.04	0.03	0.10	0.92	0.41	0.07	0.06	0.00	0.03	0.11	0.38	0.04	0.20
Sodium	0.07	0.20	1.04	0.37	0.13	0.83	0.19	3.18	0.16	0.42	0.91	1.00	0.57
Hydrogen Ion	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Cations	3.47	2.58	6.83	5.24	2.88	2.97	2.30	431.00	0.47	7.11	5.91	3.57	2.54
ANIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Alkalinity-CO3	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Alkalinity-HCO3	3.56	0.74	5.64	1.64	1.78	0.34	2.34	5.78	0.32	3.62	3.96	2.56	1.56
Chloride	0.06	0.14	1.02	0.08	0.08	2.03	0.48	0.00	0.31	2.17	0.93	0.37	0.71
Fluoride	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00
Nitrate Nitrogen	0.04	0.14	0.07	0.06	0.09	0.64	0.86	384.16	0.00	0.00	0.06	0.00	0.01
Sulfate	0.10	0.81	0.58	0.04	0.12	0.04	0.02	0.00	0.02	1.42	1.25	0.29	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
Total Anions	3.77	1.84	7.32	2.14	2.07	3.06	3.70	389.93	0.65	7.21	6.22	3.22	2.53
CHARGE BALANCE (%)	-4	17	-3	42	16	-1	-23	5	-16	-1	-3	5	0
TDS (mg/L)	470	84	354	120	106	316	286	31016	50	458	424	624	168
TSS (mg/L)	1836	11	-1	7	46	5	124	142	10	570	17	62	150

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, First Quarter 1991

Well No.	CW-707	CW-708
.		
Location	T2331	T2331
.		
Date Sampled	03/06/91	03/07/91
.		
CATIONS (meq/L)	-	-
.	-	-
Calcium	3.84	3.54
Magnesium	0.68	0.66
Potassium	0.15	0.12
Sodium	0.10	0.48
Hydrogen Ion	0.00	0.00
.	-	-
Total Cations	4.77	4.80
.	-	-
ANIONS (meq/L)	-	-
.	-	-
Alkalinity-CO3	0.00	0.00
Alkalinity-HCO3	4.90	3.52
Chloride	0.06	0.48
Fluoride	0.02	0.02
Nitrate Nitrogen	0.00	0.04
Sulfate	0.17	0.73
Hydroxyl Ion	0.00	0.00
.	-	-
Total Anions	5.14	4.78
.	-	-
CHARGE BALANCE (%)	-4	0
.	-	-
TDS (mg/L)	298	288
TSS (mg/L)	6	1

APPENDIX C
In-Charge Balance Calculations, Second Quarter 1991

Well No.	GP-149	GP-151	GP-153	GP-154	GP-167	GP-168	GP-169	GP-170	GP-183	GP-190	GP-191	GP-192	GP-193
Location	WEP	WEP	WEP	WEP	WEP	WEP	WEP	WEP	W	MS	MS	MS	Y2131
Date Sampled	04/24/91	05/01/91	05/02/91	04/26/91	05/08/91	05/08/91	05/12/91	05/12/91	06/18/91	06/19/91	06/19/91	06/19/91	06/17/91
CATIONS (mg/L)													
Calcium	1.70	2.99	1.70	2.84	5.49	4.89	3.19	1.70	7.49	1.70	3.59	5.49	5.49
Magnesium	0.74	2.06	1.23	1.15	0.44	1.97	0.30	1.89	1.89	0.47	0.76	0.99	1.23
Potassium	0.15	0.05	0.09	0.16	0.07	0.05	0.07	0.05	0.04	0.03	0.07	0.04	0.17
Sodium	3.00	0.23	0.70	0.32	0.43	0.26	0.07	0.74	1.00	0.33	0.57	0.32	0.26
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
Total Cations	5.59	5.34	3.71	4.48	6.44	6.38	3.64	4.38	10.42	2.52	4.98	6.83	7.15
ANIONS (mg/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
Alkalinity-HCO3	5.20	4.46	3.00	3.42	5.46	6.02	3.50	4.16	8.17	2.12	4.00	7.55	6.63
Chloride	0.34	0.34	0.82	0.11	0.54	0.42	0.06	0.42	0.90	0.11	0.00	0.20	0.14
Fluoride	0.02	0.00	0.01	0.02	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.02
Nitrate Nitrogen	0.00	0.06	0.07	0.03	0.06	0.00	0.07	0.04	0.00	0.00	0.00	0.00	0.00
Sulfate	0.12	0.35	0.27	1.54	0.25	0.00	0.15	0.46	0.67	0.31	0.35	0.04	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
Total Anions	5.68	5.21	4.17	5.12	6.31	6.44	3.77	5.09	9.74	2.55	5.31	7.89	6.94
CHARGE BALANCE (%)	-1	1	-6	-7	1	-0	-2	-7	3	-1	-3	-7	1
TDS (mg/L)	308	320	238	334	356	340	270	266	574	174	350	432	398
TSS (mg/L)	18	2	9	5	1412	2	626	1	21	2	266	9	9

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, Second Quarter 1991

Well No.	GW-204	GW-206	GW-207	GW-208	GW-220	GW-222	GW-223	GW-232	GW-239	GW-240	GW-251	GW-252	GW-253
Location	T0134	EXP	EXP	EXP	NHP	NHP	NHP	EXP	EXP	NHP	S2	S2	S2
Date Sampled	06/21/91	05/10/91	05/10/91	05/11/91	04/26/91	05/02/91	05/03/91	05/16/91	05/17/91	04/25/91	04/09/91	04/06/91	04/09/91
CATIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Calcium	3.19	2.79	2.94	3.79	2.94	5.49	5.49	0.10	0.10	2.00	5.49	1.55	17.46
Magnesium	0.90	1.89	2.96	1.89	1.81	1.23	1.15	0.07	0.04	1.40	1.56	1.81	7.24
Potassium	0.09	0.13	0.07	0.07	0.06	0.11	0.04	0.17	0.06	0.13	0.10	0.04	0.16
Sodium	2.09	0.26	0.38	0.57	0.14	0.78	0.48	8.70	14.79	1.00	0.96	0.27	5.22
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
Total Cations	6.28	5.08	6.35	6.32	4.95	7.62	7.16	9.05	14.99	4.52	8.11	3.66	30.09
ANIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Alkalinity-CO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.88	0.72	0.00	0.00	0.00	0.00
Alkalinity-HCO3	5.88	4.50	5.38	4.46	4.90	5.42	5.94	3.56	9.49	3.80	2.84	2.06	1.06
Chloride	0.31	0.14	0.03	0.03	0.20	1.30	1.02	0.11	9.31	0.79	0.32	0.03	2.91
Fluoride	0.06	0.01	0.01	0.01	0.00	0.01	0.01	0.08	0.10	0.01	0.07	0.01	0.20
Nitrate Nitrogen	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	2.55	0.06	12.14
Sulfate	0.19	0.62	1.10	5.08	0.29	1.02	0.71	0.65	1.02	0.00	0.49	0.12	1.27
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	6.43	5.27	6.52	9.58	5.43	7.75	7.67	8.27	20.64	4.60	6.27	2.27	17.58
CHARGE BALANCE (%)	-1	-2	-1	-20	-5	-1	-3	4	-16	-1	13	23	26
TDS (mg/L)	372	342	368	416	312	458	454	430	1182	256	780	128	2910
TSS (mg/L)	23	3970	2	2	142	4	2	35	11	1	72	8	4

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, Second Quarter 1991

Well No.	GW-255	GW-261	GW-262	GW-263	GW-264	GW-281	GW-282	GW-283	GW-284	GW-285	GW-331	GW-332	GW-333
Location	S2	SY	SY	SY	SY	FF	FF	FF	FF	FF	WC	WC	WC
Date Sampled	04/08/91	04/03/91	04/03/91	04/03/91	04/06/91	04/19/91	04/19/91	04/19/91	04/19/91	04/19/91	04/14/91	04/13/91	04/13/91
CATIONS (meq/L)													
Calcium	2.00	2.10	3.09	1.90	5.99	2.69	1.00	7.98	9.48	2.05	2.10	1.60	0.90
Magnesium	2.47	0.99	0.51	0.99	3.04	0.90	0.19	1.40	1.65	0.43	0.61	0.35	0.38
Potassium	0.03	0.04	0.05	0.04	0.08	0.04	0.09	0.08	0.05	0.04	0.05	0.05	0.06
Sodium	0.15	0.25	0.39	0.57	0.87	0.43	0.14	0.57	1.04	0.33	0.42	0.34	0.61
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
Total Cations	4.65	3.37	4.05	3.49	9.98	4.08	1.42	10.02	12.22	2.85	3.18	2.34	1.95
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
Alkalinity-HCO3	4.66	3.06	4.10	3.30	8.37	3.60	1.12	6.99	4.94	3.52	3.04	1.88	0.70
Chloride	0.17	0.08	0.03	1.69	0.54	0.25	0.06	3.41	7.87	0.34	0.48	0.51	0.37
Fluoride	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nitrate Nitrogen	0.21	0.00	0.00	0.05	0.00	0.00	0.04	0.00	0.00	0.02	0.14	0.14	0.02
Sulfate	0.19	0.80	0.37	0.21	2.83	0.35	0.21	0.21	0.44	0.15	0.44	0.31	0.98
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	5.23	3.95	4.50	5.26	11.74	4.21	1.42	10.62	13.24	4.02	4.10	2.84	2.07
CHARGE BALANCE (%)	-6	-8	-5	-20	-8	-2	0	-3	-4	-17	-13	-10	-3
TDS (mg/L)	318	192	230	264	606	242	100	654	870	240	270	236	196
TSS (mg/L)	70	7	16	10	2	47	20	102	478	105	-1	6	163

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, Second Quarter 1991

Well No.	GW-334	GW-335	GW-336	GW-337	GW-338	GW-380	GW-381	GW-382	GW-383	GW-384	GW-385	GW-505	GW-603
Location	WC	WC	WC	WC	WC	NHP	NHP	NHP	NHP	NHP	NHP	RG	NHP
Date Sampled	04/13/91	04/10/91	04/14/91	04/14/91	04/10/91	04/25/91	05/08/91	05/07/91	04/25/91	04/24/91	04/23/91	06/21/91	04/22/91
CATIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Calcium	2.10	2.20	2.00	4.34	3.69	1.55	3.49	1.80	3.19	4.74	0.05	1.45	3.49
Magnesium	0.43	0.99	0.34	0.75	1.97	1.07	1.73	2.14	0.77	0.99	0.02	0.47	1.73
Potassium	0.05	0.06	0.04	0.05	0.04	0.03	0.05	0.03	0.06	0.06	0.06	0.06	0.19
Sodium	0.22	0.91	0.37	0.19	0.05	5.22	1.35	0.27	0.65	0.61	8.26	0.48	0.18
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
Total Cations	2.79	4.16	2.75	5.33	5.75	7.86	6.62	4.24	4.68	6.40	8.39	2.45	5.59
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	1.08	0.00	0.00
Alkalinity-HCO3	2.90	1.34	2.68	5.04	4.68	3.06	4.24	4.18	4.32	5.78	6.49	1.00	5.38
Chloride	0.14	0.06	0.28	0.73	0.20	3.70	2.71	0.42	0.62	0.54	0.06	0.56	0.17
Fluoride	0.00	0.03	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.12	0.02	0.01
Nitrate Nitrogen	0.21	0.14	0.21	0.00	0.04	0.06	0.03	0.14	0.00	0.00	0.00	0.10	0.05
Sulfate	0.33	2.29	0.25	0.12	0.31	0.10	0.10	0.33	0.42	0.29	0.40	0.52	0.40
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Total Anions	3.59	3.86	3.42	5.89	5.22	6.93	7.08	5.08	5.35	6.60	8.15	2.20	6.00
CHARGE BALANCE (%)	-12	4	-11	-5	5	6	-3	-9	-7	-2	1	5	-4
TDS (mg/L)	254	282	254	334	260	456	714	280	328	362	468	226	322
TSS (mg/L)	2	166	13	22	8	31	270	1	2	2	6	466	2

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, Second Quarter 1991

Well No.	GW-604	GW-617	GW-618	GW-619	GW-620	GW-631	GW-632	GW-633	GW-634	GW-656	GW-657	GW-658	GW-659
Location	NHP	Y12	Y12	FTF	FTF	RG	RG	RG	RG	T0134	T2331	FF	FF
Date Sampled	04/22/91	04/08/91	04/09/91	04/06/91	04/06/91	06/19/91	06/20/91	06/20/91	06/19/91	06/20/91	06/17/91	06/18/91	06/20/91
CATIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Calcium	2.50	1.35	4.69	1.30	1.95	0.65	1.40	1.05	0.09	5.99	3.79	1.65	1.70
Magnesium	1.40	0.39	0.67	0.13	0.02	0.71	0.62	37.84	0.15	0.58	0.72	0.70	0.52
Potassium	0.04	0.03	0.09	0.43	0.54	0.08	0.06	0.33	0.02	0.08	0.17	0.03	0.16
Sodium	0.09	0.21	0.96	0.15	0.20	0.96	0.20	2.78	0.13	0.43	0.52	0.83	1.17
Hydrogen Ion	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Total Cations	4.02	1.98	6.41	2.02	2.70	2.43	2.27	42.01	0.40	7.09	5.20	3.20	3.55
ANIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Alkalinity-CO3	0.00	0.00	0.00	0.16	0.56	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Alkalinity-HCO3	4.16	0.82	5.66	0.84	0.06	0.22	2.78	5.40	0.30	3.30	4.48	3.16	2.62
Chloride	0.08	0.17	0.86	0.06	0.08	1.61	0.37	0.00	0.23	2.14	1.13	0.37	1.81
Fluoride	0.01	0.00	0.01	0.00	0.00	0.01	0.01	0.01	0.00	0.01	0.02	0.00	0.01
Nitrate Nitrogen	0.06	0.14	0.32	0.06	0.07	0.64	0.93	1040.08	0.00	0.00	0.00	0.00	0.00
Sulfate	0.12	0.85	0.61	0.06	0.15	0.04	0.02	0.00	0.04	1.40	0.77	0.27	0.08
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Anions	4.43	1.99	7.46	1.18	0.93	2.56	4.10	1045.48	0.57	6.85	6.40	3.80	4.51
CHARGE BALANCE (%)	-5	-0	-8	26	49	-3	-29	-92	-18	2	-10	-9	-12
TDS (mg/L)	304	140	382	98	20056	298	274	20540	38	512	304	224	240
TSS (mg/L)	70	22	-1	44	82	10	2315	138	-1	363	3	110	185

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, Second Quarter 1991

Well No.	GW-707	GW-708
.		
Location	T2331	T2331
.		
Date Sampled	06/17/91	06/17/91
.		
CATIONS (meq/L)	.	.
.	.	.
Calcium	3.99	5.99
Magnesium	1.15	1.07
Potassium	0.25	0.26
Sodium	1.44	0.15
Hydrogen Ion	0.00	0.00
.	.	.
Total Cations	6.83	7.46
.	.	.
ANIONS (meq/L)	.	.
.	.	.
Alkalinity-CO3	0.00	0.00
Alkalinity-HCO3	5.50	7.03
Chloride	0.37	0.14
Fluoride	0.03	0.01
Nitrate Nitrogen	0.00	0.00
Sulfate	1.12	0.00
Hydroxyl Ion	0.00	0.00
.	.	.
Total Anions	7.02	7.19
.	.	.
CHARGE BALANCE (%)	-1	2
.	.	.
TDS (mg/L)	412	394
TSS (mg/L)	3	405

APPENDIX G
Ion-Charge Balance Calculations, Third Quarter 1991

Well No.	GW-151	GW-167	GW-168	GW-169	GW-170	GW-183	GW-190	GW-191	GW-192	GW-193	GW-194	GW-195	GW-204
Location	NHP	EXP	EXP	EXP	EXP	PF	RG	B4	B4	T2331	B4	B4	T0134
Date Sampled	08/24/91	08/31/91	09/01/91	09/02/91	09/02/91	09/25/91	09/20/91	07/20/91	07/26/91	09/26/91	07/22/91	07/22/91	09/26/91
CATIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Calcium	2.89	5.49	4.84	2.99	2.45	7.49	1.40	3.79	4.99	4.99	3.84	3.14	3.64
Magnesium	2.06	0.46	2.22	0.28	2.14	2.06	0.43	0.80	0.81	1.32	0.47	0.47	0.90
Potassium	0.05	0.06	0.07	0.07	0.04	0.06	0.03	0.06	0.04	0.17	0.03	0.03	0.08
Sodium	0.27	0.57	0.34	0.06	0.83	1.09	0.30	0.52	0.33	0.23	0.31	0.27	2.57
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
Total Cations	5.28	6.58	7.47	3.40	5.45	10.69	2.16	5.18	6.16	6.70	4.65	3.91	7.19
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
Alkalinity-HCO3	4.18	5.10	5.72	3.18	4.22	9.03	2.20	5.06	7.43	6.06	4.34	3.80	6.79
Chloride	0.34	0.50	0.46	0.03	0.42	0.76	0.14	0.08	0.23	0.12	0.08	0.11	0.18
Fluoride	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.03	0.00	0.00	0.07
Nitrate Nitrogen	0.05	0.05	0.04	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sulfate	0.37	0.25	0.22	0.12	0.50	0.60	0.29	0.23	0.00	0.48	0.25	0.31	0.05
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	4.94	5.89	6.44	3.38	5.15	10.39	2.64	5.37	7.67	6.69	4.67	4.22	7.09
CHARGE BALANCE (%)	3	6	7	0	3	1	-10	-2	-11	0	-0	-4	1
TDS (mg/L)	222	384	370	256	278	608	202	304	362	372	294	298	532
TSS (mg/L)	-1	594	3	408	2	114	30	269	15	6	26	321	20940

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, Third Quarter 1991

Well No.	GW-206	GW-207	GW-208	GW-220	GW-232	GW-239	GW-240	GW-251	GW-252	GW-255	GW-261	GW-262	GW-263
Location	EXP	EXP	EXP	NHP	EXP	EXP	NHP	S2	S2	S2	SY	SY	SY
Date Sampled	08/29/91	08/28/91	08/29/91	08/24/91	09/02/91	09/01/91	08/24/91	07/14/91	07/13/91	07/13/91	07/11/91	07/11/91	07/11/91
CATIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Calcium	3.04	2.99	3.74	3.09	0.07	0.09	2.40	6.49	1.70	2.89	2.05	3.09	2.05
Magnesium	2.14	3.21	1.97	1.81	0.09	0.04	1.48	1.65	1.73	2.47	0.90	0.49	0.99
Potassium	0.13	0.07	0.06	0.06	0.11	0.09	0.10	0.09	0.04	0.04	0.03	0.05	0.05
Sodium	0.23	0.43	0.65	0.15	9.57	19.57	3.18	0.96	0.37	0.17	0.33	0.61	0.87
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
Total Cations	5.55	6.70	6.43	5.12	9.84	19.81	7.16	9.18	3.83	5.57	3.32	4.24	3.95
ANIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Alkalinity-CO3	0.00	0.00	0.00	0.00	1.24	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Alkalinity-HCO3	4.90	5.24	4.38	4.42	7.57	9.43	3.16	2.80	1.36	4.38	2.84	3.88	2.98
Chloride	0.14	0.03	0.03	0.20	0.11	10.41	3.13	0.00	0.06	0.17	0.08	0.00	1.86
Fluoride	0.00	0.01	0.01	0.00	0.10	0.14	0.01	0.07	0.00	0.00	0.01	0.01	0.02
Nitrate Nitrogen	0.00	0.00	0.00	0.05	0.00	0.00	0.21	1.50	0.05	0.14	0.00	0.00	0.04
Sulfate	0.33	1.08	2.15	0.29	0.69	1.02	0.56	0.46	0.10	0.23	0.79	0.37	0.21
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Anions	5.37	6.36	6.56	4.96	9.73	21.64	7.08	4.82	1.57	4.92	3.72	4.26	5.10
CHARGE BALANCE (%)	2	3	-1	2	1	-4	1	31	42	6	-6	-0	-13
TDS (mg/L)	312	356	416	258	574	1198	404	514	120	298	236	284	332
TSS (mg/L)	3855	1	2	15	37	14	2	20	5	27	5	40	8

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, Third Quarter 1991

Well No.	GW-264	GW-281	GW-282	GW-283	GW-284	GW-285	GW-337	GW-338	GW-380	GW-381	GW-382	GW-383	GW-384
Location	SY	FF	FF	FF	FF	FF	WC	WC	NHP	NHP	NHP	NHP	NHP
Date Sampled	07/12/91	07/29/91	07/30/91	07/29/91	07/29/91	07/29/91	07/14/91	07/13/91	08/23/91	08/28/91	08/27/91	08/27/91	08/21/91
CATIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Calcium	5.49	2.74	1.30	7.49	10.48	3.19	5.49	4.44	1.65	3.99	2.69	3.99	4.49
Magnesium	2.71	0.99	0.37	1.32	1.56	0.45	0.90	0.80	0.99	1.73	2.14	0.82	0.99
Potassium	0.08	0.11	0.25	0.06	0.05	0.06	0.05	0.06	0.02	0.05	0.03	0.07	0.07
Sodium	1.09	0.42	0.17	0.52	1.13	0.39	0.19	0.23	4.22	1.04	0.25	0.70	0.61
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
Total Cations	9.37	4.26	2.09	9.38	13.22	4.10	6.64	5.52	6.87	6.81	5.11	5.58	6.16
ANIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Alkalinity-CO3	0.00	.	.	.	.	.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Alkalinity-HCO3	7.15	.	.	.	.	.	4.54	4.34	3.18	4.54	3.96	4.22	5.46
Chloride	0.45	.	.	.	.	.	1.38	0.17	21.27	0.25	0.54	0.76	0.51
Fluoride	0.01	.	.	.	.	.	0.00	0.00	0.01	0.00	0.01	0.01	0.01
Nitrate Nitrogen	0.00	.	.	.	.	.	0.00	0.03	0.10	0.00	0.14	0.00	0.00
Sulfate	2.08	.	.	.	.	.	0.12	0.27	0.83	0.12	0.33	0.42	0.29
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	9.69	.	.	.	.	.	6.04	4.81	25.39	4.92	4.97	5.41	6.27
CHARGE BALANCE (%)	-2	.	.	.	.	.	5	7	-57	16	1	2	-1
TDS (mg/L)	568	.	.	.	.	.	310	292	426	676	266	312	376
TSS (mg/L)	2	.	.	.	.	.	25	5	256	108	1	3	-1

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, Third Quarter 1991

Well No.	GM-385	GM-505	GM-603	GM-604	GM-605	GM-606	GM-617	GM-618	GM-619	GM-620	GM-631	GM-632	GM-633
	MRP	RG	MRP	MRP	MRP	MRP	Y12	Y12	FTF	FTF	RG	RG	RG
Date Sampled	08/21/91	09/20/91	09/01/91	09/01/91	08/26/91	08/26/91	07/12/91	07/12/91	07/14/91	07/14/91	09/19/91	09/20/91	09/19/91
CATIONS (mg/L)	Calcium	0.05	1.55	3.44	2.15	3.84	3.09	0.75	5.49	0.80	18.46	2.00	3.59
	Magnesium	0.02	0.49	1.81	1.32	1.15	2.22	0.33	0.75	0.12	0.00	0.90	0.82
	Potassium	0.07	0.06	0.20	0.04	0.06	0.14	0.03	0.09	0.59	1.82	0.09	0.06
	Sodium	7.39	0.36	0.24	0.18	0.65	0.29	0.19	0.91	0.23	0.65	0.83	0.21
	Hydrogen Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
	Total Cations	7.53	2.45	5.70	3.68	5.71	5.75	1.30	7.24	1.74	20.93	3.82	4.69
ANIONS (mg/L)	Alkalinity-CO3	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00
	Alkalinity-HCO3	5.64	1.42	4.82	3.20	4.18	3.86	0.52	5.38	0.70	1.54	0.36	2.52
	Chloride	0.06	0.42	0.16	0.06	0.65	1.10	0.08	0.79	0.08	0.08	1.50	0.54
	Fluoride	0.10	0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.01
	Nitrate Nitrogen	0.00	0.08	0.06	0.04	0.05	0.09	0.14	0.04	0.07	0.07	0.48	0.53
	Sulfate	0.35	0.52	0.22	0.11	0.54	0.54	0.77	0.56	0.08	0.17	0.06	0.02
	Hydroxyl Ion	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00
	Total Anions	7.17	2.45	5.26	3.41	5.42	5.60	1.52	6.78	1.11	1.86	2.40	3.62
	CHARGE BALANCE (%)	2	-0	4	4	3	1	-8	3	22	84	23	13
	TDS (mg/L)	434	220	302	216	334	328	132	382	10	90	224	324
	TSS (mg/L)	6	92	8	9	8	-1	105	1	25	133	6	844
													27324
													148

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, Third Quarter 1991

Well No.	GW-634	GW-656	GW-657	GW-658	GW-659	GW-707	GW-708
Location	RG	T0134	T2331	FF	FF	T2331	T2331
Date Sampled	09/20/91	09/26/91	09/24/91	09/26/91	09/25/91	09/26/91	09/26/91
CATIONS (meq/L)	.	.	.	.	.	.	.
Calcium	0.47	5.49	4.09	1.65	1.85	3.99	6.49
Magnesium	0.15	0.52	0.77	0.82	0.47	1.32	1.15
Potassium	0.04	0.09	0.16	0.03	0.14	0.31	0.22
Sodium	0.16	0.36	0.57	0.83	0.96	1.17	0.16
Hydrogen Ion	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total Cations	0.82	6.46	5.59	3.32	3.42	6.79	8.02
ANIONS (meq/L)	.	.	.	.	.	.	.
Alkalinity-CO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Alkalinity-HCO3	2.84	3.34	4.88	3.70	2.62	4.92	7.77
Chloride	0.25	1.97	0.59	0.28	1.72	0.68	0.11
Fluoride	0.00	0.01	0.03	0.01	0.01	0.04	0.02
Nitrate Nitrogen	0.00	0.00	0.00	0.00	0.00	0.04	0.00
Sulfate	0.04	1.25	0.56	0.08	0.08	0.94	0.04
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Anions	3.13	6.57	6.06	4.07	4.42	6.61	7.94
CHARGE BALANCE (%)	-59	-1	-4	-10	-13	1	0
TDS (mg/L)	66	486	336	240	326	368	442
TSS (mg/L)	34	193	1	48	40	8	16

APPENDIX G
Ion-Charge Balance Calculations, Fourth Quarter 1991

Well No.	GW-151	GW-168	GW-169	GW-170	GW-183	GW-190	GW-191	GW-192	GW-193	GW-194	GW-195	GW-204	GW-206
Location	NRP	EXP	EXP	EXP	FF	RG	B4	B4	T2331	B4	B4	T0134	EXP
Date Sampled	10/23/91	11/03/91	11/12/91	11/06/91	12/15/91	12/15/91	10/05/91	10/05/91	12/19/91	10/05/91	10/05/91	12/26/91	11/07/91
CATIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Calcium	2.84	4.24	3.49	2.40	7.49	1.60	3.69	5.49	4.84	3.59	2.54	3.19	3.54
Magnesium	2.06	1.97	0.37	1.97	2.06	0.52	0.80	0.90	1.23	0.46	0.44	0.75	1.89
Potassium	0.05	0.07	0.06	0.05	0.06	0.03	0.07	0.07	0.18	0.04	0.03	0.09	0.15
Sodium	0.31	0.42	0.07	0.78	1.09	0.33	0.65	0.43	0.42	0.32	0.24	2.17	0.27
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
Total Cations	5.26	6.70	3.99	5.20	10.69	2.47	5.21	6.90	6.68	4.42	3.26	6.20	5.86
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
Alkalinity-HCO3	4.28	5.70	3.74	4.34	8.41	2.22	5.14	6.25	6.23	4.36	3.64	5.82	5.58
Chloride	0.25	0.48	0.03	0.51	0.74	0.14	0.08	0.25	0.26	0.08	0.08	0.20	0.20
Fluoride	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.01	0.04	0.00	0.01	0.06	0.01
Nitrate Nitrogen	0.04	0.04	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sulfate	0.37	0.23	0.15	0.54	0.57	0.27	0.21	0.06	0.27	0.23	0.21	0.12	0.06
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	4.95	6.44	3.97	5.44	9.72	2.63	5.43	6.58	6.80	4.67	3.94	6.20	5.84
CHARGE BALANCE (%)	3	2	0	-2	5	-3	-2	2	-1	-3	-9	0	0
TDS (mg/L)	282	350	240	292	534	150	300	370	384	288	236	390	316
TSS (mg/L)	1	1	1228	2	4	-1	76	23	22	310	154	1676	2760

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, Fourth Quarter 1991

Well No.	GW-207	GW-208	GW-220	GW-232	GW-239	GW-240	GW-251	GW-252	GW-255	GW-261	GW-262	GW-263	GW-264
Location	EXP	EXP	NHP	EXP	EXP	NHP	S2	S2	S2	SY	SY	SY	SY
Date Sampled	10/28/91	10/30/91	10/22/91	11/05/91	11/02/91	10/22/91	10/03/91	10/03/91	10/03/91	10/01/91	10/01/91	10/01/91	10/01/91
CATIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Calcium	2.79	3.69	2.79	0.05	0.09	2.45	4.99	1.70	2.64	2.25	2.99	2.79	6.99
Magnesium	3.04	1.97	1.81	0.08	0.05	1.40	1.56	1.73	2.39	0.90	0.48	1.07	3.37
Potassium	0.05	0.07	0.06	0.06	0.09	0.08	0.07	0.04	0.02	0.05	0.05	0.04	0.09
Sodium	0.43	0.70	0.13	9.57	18.27	3.22	0.65	0.22	0.16	0.41	0.78	0.74	1.13
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
Total Cations	6.32	6.44	4.79	9.77	18.50	7.14	7.27	3.68	5.20	3.61	4.30	4.64	11.58
ANIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Alkalinity-CO3	0.00	0.00	0.00	1.48	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Alkalinity-HCO3	5.32	4.34	4.30	7.13	9.47	3.16	3.16	3.60	4.66	2.82	4.04	3.70	8.07
Chloride	0.00	0.03	0.20	0.10	8.75	0.25	0.23	0.08	0.17	0.08	0.00	1.07	0.42
Fluoride	0.01	0.02	0.00	0.12	0.14	0.02	0.08	0.01	0.00	0.01	0.01	0.01	0.00
Nitrate Nitrogen	0.00	0.00	0.03	0.00	0.00	0.15	4.64	0.12	0.19	0.00	0.00	0.04	0.00
Sulfate	1.02	1.42	0.25	0.67	1.21	0.71	0.19	0.17	0.21	0.73	0.31	0.23	2.46
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	6.35	5.80	4.78	9.50	20.29	4.29	8.29	3.98	5.23	3.64	4.36	5.05	10.95
CHARGE BALANCE (%)	-0	5	0	1	-5	25	-7	-4	-0	-1	-1	-4	3
TDS (mg/L)	348	400	277	558	1174	486	612	196	292	230	266	320	640
TSS (mg/L)	-1	2	226	13	5	3	58	7	37	4	19	73	5

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, Fourth Quarter 1991

Well No.	GW-281	GW-282	GW-283	GW-284	GW-285	GW-337	GW-338	GW-380	GW-381	GW-382	GW-383	GW-384	GW-385
Location	FF	FF	FF	FF	FF	WC	WC	NHP	NHP	NHP	NHP	NHP	NHP
Date Sampled	10/09/91	10/09/91	10/09/91	10/09/91	10/09/91	10/04/91	10/03/91	10/22/91	10/27/91	10/27/91	10/26/91	10/15/91	10/14/91
CATIONS (meq/L)	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	3.14	1.05	8.48	12.48	3.49	4.39	4.04	1.35	3.99	2.59	3.74	0.00	0.05
Magnesium	0.99	0.35	1.32	1.89	0.47	1.07	0.73	0.82	1.73	2.06	0.77	0.01	0.02
Potassium	0.04	0.17	0.06	0.06	0.04	0.05	0.06	0.04	0.06	0.04	0.08	0.03	0.05
Sodium	0.52	0.18	0.37	1.35	0.36	0.17	0.24	3.26	1.04	0.27	0.78	0.00	7.83
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
Total Cations	4.70	1.75	10.23	15.78	4.37	5.68	5.08	5.47	6.83	4.97	5.38	0.04	7.95
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	1.08
Alkalinity-HCO3	4.02	0.96	7.09	5.68	3.60	4.92	4.72	4.16	4.90	4.10	4.32	5.64	6.15
Chloride	0.14	0.20	2.17	9.37	0.56	0.59	0.20	1.30	2.00	0.48	0.68	0.25	0.06
Fluoride	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.00	0.12
Nitrate Nitrogen	0.00	0.20	0.00	0.00	0.02	0.00	0.03	0.10	0.00	0.19	0.00	0.00	0.00
Sulfate	0.23	0.35	0.19	0.56	0.17	0.12	0.27	0.81	0.15	0.35	0.40	0.29	0.37
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	0.01
Total Anions	4.40	1.72	9.45	15.60	4.35	5.63	5.22	6.38	7.04	5.13	5.40	6.18	7.79
CHARGE BALANCE (%)	3	1	4	1	0	0	-1	-8	-2	-2	-8	-99	1
TDS (mg/L)	302	126	658	1332	278	296	316	448	348	248	260	382	472
TSS (mg/L)	324	127	333	434	111	10	8	20	9	-1	-1	3	1

(CONTINUED)

APPENDIX C
Ion-Charge Balance Calculations, Fourth Quarter 1991

Well No.	CW-505	CW-508	CW-603	CW-604	CW-605	CW-606	CW-617	CW-618	CW-619	CW-620	CW-631	CW-632	CW-633
Location	RG	RG	NEP	NEP	NEP	NEP	Y12	Y12	FTF	FTF	RG	RG	RG
Date Sampled	12/15/91	12/15/91	11/03/91	11/03/91	10/23/91	10/24/91	10/02/91	10/02/91	10/04/91	10/04/91	12/14/91	12/14/91	12/14/91
CATIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Calcium	1.20	0.49	3.44	2.00	4.24	2.84	0.80	4.99	3.84	2.15	0.50	2.05	439.12
Magnesium	0.44	0.58	1.73	1.23	1.32	2.22	0.34	0.71	0.04	0.82	0.36	0.68	44.42
Potassium	0.04	0.02	0.17	0.03	0.10	0.16	0.03	0.10	1.13	0.15	0.06	0.05	0.00
Sodium	0.39	1.13	0.16	0.07	0.70	0.28	0.13	0.91	0.38	0.11	0.70	0.20	2.74
Hydrogen Ion	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.01
Total Cations	2.07	2.26	5.50	3.32	6.36	5.51	1.30	6.71	5.39	3.23	1.64	2.99	486.29
ANIONS (meq/L)	.	.	.	.	.	.	.	.	.	.	.	.	.
Alkalinity-CO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00
Alkalinity-HCO3	0.82	0.32	4.62	3.10	4.98	3.62	0.60	5.76	0.58	2.80	0.12	1.16	4.90
Chloride	0.65	2.14	0.17	0.06	0.68	0.25	0.14	0.90	0.06	0.08	1.38	0.38	0.00
Fluoride	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.00
Nitrate Nitrogen	0.08	0.00	0.06	0.04	0.00	0.06	0.06	0.03	0.10	0.08	0.09	1.02	390.58
Sulfate	0.52	0.00	0.19	0.10	0.56	0.56	0.46	0.48	0.08	0.15	0.14	0.00	0.00
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00
Total Anions	2.08	2.47	5.05	3.30	6.22	4.49	1.26	7.18	1.36	3.11	1.73	2.56	395.48
CHARGE BALANCE (%)	-0	-4	4	0	1	10	1	-3	60	2	-3	8	10
TDS (mg/L)	94	148	296	180	366	336	94	386	58	116	154	244	33660
TSS (mg/L)	23	17	59	3	2	-1	4	-1	10	46	1	417	664

(CONTINUED)

APPENDIX G
Ion-Charge Balance Calculations, Fourth Quarter 1991

Well No.	GW-634	GW-656	GW-657	GW-658	GW-659	GW-707	GW-708
Location	RG	T0134	T2331	FF	FF	T2331	T2331
Date Sampled	12/14/91	12/20/91	12/19/91	12/15/91	12/15/91	12/19/91	12/19/91
CATIONS (meq/L)	.	.	.	.	.	.	.
Calcium	0.08	4.99	4.19	1.75	0.09	3.39	5.49
Magnesium	0.15	0.50	0.72	0.72	0.02	0.90	0.99
Potassium	0.02	0.08	0.13	0.03	0.00	0.28	0.16
Sodium	0.16	0.34	0.48	0.78	10.88	0.83	0.12
Hydrogen Ion	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Total Cations	0.42	5.91	5.52	3.28	11.00	5.41	6.76
ANIONS (meq/L)	.	.	.	.	.	.	.
Alkalinity-CO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Alkalinity-HCO3	0.26	3.26	4.20	3.32	2.32	3.84	6.71
Chloride	0.20	2.03	0.49	0.45	2.10	0.48	0.07
Fluoride	0.00	0.01	0.03	0.01	0.00	0.05	0.03
Nitrate Nitrogen	0.00	0.02	0.00	0.00	0.00	0.05	0.00
Sulfate	0.05	1.24	1.01	0.04	0.00	1.45	0.00
Hydroxyl Ion	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Anions	0.51	6.55	5.73	3.81	4.42	5.87	6.81
CHARGE BALANCE (%)	-10	-5	-2	-7	43	-4	-0
TDS (mg/L)	40	484	320	216	274	340	380
TSS (mg/L)	1	175	2	5	806	7	16

APPENDIX H
NITRATE (AS N) DATA SUMMARY

EXPLANATION

LOCATION:

B4 - Beta-4 Security Pits
EXP - Exit-Pathway Monitoring Well
FF - Building 9754-2 Fuel Facility
FTF - Fire Training Facility
NHP - New Hope Pond
RG - Rust Garage Area
S2 - S-2 Site
SY - Y-12 Salvage Yard
T0134 - Underground Storage Tank 0134-U
T2331 - Underground Storage Tank 2331-U
WC - Waste Coolant Processing Area
Y12 - Y-12 Plant

NOTES:

All concentrations reported as nitrate (as N) in milligrams per Liter (mg/L).

Results reported as less than the detection limit (i.e. < 0.2 mg/L) were not used to calculate mean concentrations.

. - Not analyzed
ND - Not detected (mean concentration)

APPENDIX H
Nitrate (as N) Data Summary, 1991

Well No.	GW-149	GW-151	GW-153	GW-154	GW-167	GW-168	GW-169	GW-170	GW-183	GW-190	GW-191	GW-192	GW-193	GW-194
Location	NHP	NHP	NHP	NHP	EXP	EXP	EXP	EXP	FF	RG	B4	B4	T2331	B4
First Quarter	<0.2	0.6	1.2	0.2	0.6	0.5	0.9	0.5	<0.2	0.2	<0.2	<0.2	<0.2	.
Second Quarter	<0.5	0.8	1	0.49	0.91	<2	0.97	0.61	<0.2	<0.2	<0.23	<0.2	<0.2	.
Third Quarter	.	0.7	.	.	0.7	0.5	0.69	<0.2	<0.2	<0.2	<0.2	<0.45	<0.2	<0.2
Fourth Quarter	.	0.61	.	.	.	0.5	0.73	0.56	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Mean	ND	0.68	1.1	0.35	0.74	0.5	0.82	0.56	ND	0.2	ND	ND	ND	ND

(CONTINUED)

Well No.	GW-195	GW-204	GW-206	GW-207	GW-208	GW-220	GW-222	GW-223	GW-232	GW-239	GW-240	GW-251	GW-252	GW-253
Location	B4	T0134	EXP	EXP	EXP	NHP	NHP	NHP	EXP	EXP	NHP	S2	S2	S2
First Quarter	.	<0.2	<0.2	<0.2	<0.2	0.8	<10	<0.2	<0.2	<0.2	1	92	0.2	1007
Second Quarter	.	<0.2	<0.2	<0.2	<0.2	0.59	<2	<0.2	<0.2	<0.2	<2.3	35.7	0.8	170
Third Quarter	<0.2	<0.2	<0.2	<0.2	<0.2	0.7	.	.	<0.2	<0.2	3	21	0.74	.
Fourth Quarter	<5	<0.2	<0.2	<0.2	<0.2	0.45	.	.	<0.2	<2	2.1	65	1.64	.
Mean	ND	ND	ND	ND	ND	0.64	ND	ND	ND	ND	2.03	53.43	0.85	588.5

(CONTINUED)

APPENDIX B
Nitrate (as N) Data Summary, 1991

Well No.	GW-255	GW-261	GW-262	GW-263	GW-264	GW-281	GW-282	GW-283	GW-284	GW-285	GW-331	GW-332	GW-333	GW-334
Location	S2	SY	SY	SY	SY	FF	FF	FF	FF	FF	WC	WC	WC	WC
First Quarter	0.4	<0.2	<0.2	0.5	<0.2	<0.2	0.4	6	<0.2	0.2	2	2	0.4	4
Second Quarter	3	<0.3	<0.2	0.67	<0.2	<0.2	0.5	<0.2	<0.2	0.3	2	2	0.31	3
Third Quarter	2	<0.2	<0.2	0.51	<1	<0.2	0.71	0.3	<0.1	<0.2	.	.	.	.
Fourth Quarter	2.72	<0.2	<0.2	0.51	<2.26	<0.2	2.87	<0.2	<0.2	0.27	.	.	.	.
Mean	2.03	ND	ND	0.55	ND	ND	1.12	3.15	ND	0.26	2	2	0.36	3.5

(CONTINUED)

Well No.	GW-335	GW-336	GW-337	GW-338	GW-380	GW-381	GW-382	GW-383	GW-384	GW-385	GW-505	GW-508	GW-603	GW-604
Location	WC	WC	WC	WC	NHP	NHP	NHP	NHP	NHP	NHP	RG	RG	NHP	NHP
First Quarter	1	3	<0.2	0.4	1	0.4	2	<0.2	<0.2	<0.2	2.9	.	0.8	0.6
Second Quarter	2	3	<0.2	0.5	0.9	0.47	2	<0.2	<0.2	<0.2	1.45	.	0.7	0.8
Third Quarter	.	.	<0.2	0.47	1.35	<0.2	2.03	<0.2	<0.2	<0.2	1.14	.	0.8	0.5
Fourth Quarter	.	.	<0.2	0.36	1.4	<0.2	2.67	<0.02	<0.2	<0.2	1.19	<2.26	0.9	0.5
Mean	1.5	3	ND	0.43	1.16	0.44	2.18	ND	ND	ND	1.67	ND	0.8	0.6

(CONTINUED)

APPENDIX B
Nitrate (as N) Data Summary, 1991

Well No.	CW-605	CW-606	CW-617	CW-618	CW-619	CW-620	CW-631	CW-632	CW-633	CW-634	CW-656	CW-657	CW-658	CW-659
Location	MEP	MEP	Y12	Y12	FTF	FTF	NG	NG	NG	NG	T0134	T2331	FF	FF
First Quarter	.	.	2	1	0.8	1.2	9	12	5380	<0.2	<0.2	0.8	<0.2	0.2
Second Quarter	.	.	2	4.43	0.8	1	9	13	14566	<0.2	<0.2	<0.2	<0.2	<0.2
Third Quarter	0.69	1.32	2	0.57	1	1	6.7	7.4	3686.66	<0.2	<0.2	<0.2	<0.2	<0.2
Fourth Quarter	<0.2	0.78	0.9	0.43	1.4	1.19	1.3	14.3	5470	<0.2	0.24	<0.2	<0.2	<2.2
Mean	0.69	1.05	1.73	1.61	1	1.1	6.5	11.68	7275.67	ND	0.24	0.8	ND	0.2

(CONTINUED)

Well No.	CW-707	CW-708
Location	T2331	T2331
First Quarter	<0.2	0.5
Second Quarter	<0.2	<0.2
Third Quarter	0.57	<0.2
Fourth Quarter	0.74	<0.2
Mean	0.66	0.5

APPENDIX I

VALIDATED RESULTS OF VOLATILE ORGANIC COMPOUND ANALYSES

EXPLANATION

LOCATION:

B4 - Beta-4 Security Pits
EXP - Exit-Pathway Monitoring Well
FF - Building 9754-2 Fuel Facility
FTF - Fire Training Facility
NHP - New Hope Pond
RG - Rust Garage Area
S2 - S-2 Site
SY - Y-12 Salvage Yard
T0134 - Underground Storage Tank 0134-U
T2331 - Underground Storage Tank 2331-U
WC - Waste Coolant Processing Area
Y12 - Y-12 Plant

NOTES:

FD - Field Duplicate
FP - False Positive
- Constituent not detected in associated blank samples (Blank Qualification Results) or not reported (Validated VOC Results)

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

Compound not detected at the following minimum attainable detection limits (ug/L):

G	=	5	T	=	250
N	=	10	F	=	300
V	=	20	E	=	400
Z	=	25	W	=	500
D	=	30	L	=	1000
A	=	40	P	=	2000
M	=	50	H	=	4000
X	=	80	J	=	5000
Y	=	90	S	=	10000
K	=	100	U	=	20000
B	=	130	C	=	40000
R	=	200			

EXPLANATION cont'd

Results of VOC analyses reported for each groundwater sample were evaluated using results for each associated 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 the blank samples (Appendix F) 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.

CORRELATION OF GROUNDWATER SAMPLES TO ASSOCIATED BLANKS

APPENDIX I
Correlation of Groundwater Samples to Associated Blanks
First Quarter 1991

WELL NO.	LOCATION	TYPE	DATE	SAMPLE NO.	TRIP BLANK NO.	LAB BLANK NO.
GW-149	NHP		01/28/91	910129-007	910129-010	910201-005
GW-151	NHP		01/31/91	910201-013	910201-015	910204-003
GW-151	NHP	FD	01/31/91	910201-016	910201-015	910204-003
GW-153	NHP		01/31/91	910201-018	910201-015	910204-040
GW-154	NHP		01/29/91	910130-028	910130-034	910201-038
GW-167	EXP		02/14/91	910215-043	910215-045	910222-036
GW-168	EXP		02/14/91	910215-041	910215-045	910222-036
GW-169	EXP		03/01/91	910302-007	910302-009	910307-059
GW-170	EXP		03/01/91	910302-005	910302-009	910307-059
GW-183	FF		03/08/91	910309-044	910309-046	910313-004
GW-183	FF	FD	03/08/91	910309-047	910309-046	910313-004
GW-190	RG		03/12/91	910314-028	910314-031	910319-015
GW-191	B4		01/15/91	910116-073	910116-077	910125-002
GW-192	B4		01/15/91	910116-074	910116-077	910125-002
GW-193	T2331		03/06/91	910306-103	910306-109	910312-001
GW-204	T0134		03/07/91	910308-004	910308-010	910315-054
GW-206	EXP		02/20/91	910221-017	910221-019	910222-036
GW-207	EXP		02/20/91	910221-036	910221-019	910222-036
GW-208	EXP		02/22/91	910225-117	910225-121	910301-183
GW-208	EXP	FD	02/22/91	910225-118	910225-121	910301-183
GW-220	NHP		01/29/91	910130-030	910130-034	910201-038
GW-222	NHP		02/01/91	910201-265	910201-267	910206-035
GW-223	NHP		02/01/91	910201-263	910201-267	910206-035
GW-232	EXP		03/12/91	910312-077	910312-079	910320-107
GW-239	EXP		02/25/91	910225-165	910225-167	910301-183
GW-240	NHP		01/29/91	910130-032	910130-034	910201-038
GW-251	S2		01/14/91	910114-104	910114-112	910206-026
GW-252	S2		01/12/91	910112-035	910112-043	910118-001
GW-253	S2		01/14/91	910114-105	910114-112	910207-065
GW-255	S2		01/13/91	910114-101	910114-111	910118-227
GW-261	SY		01/10/91	910111-185	910111-187	910117-120
GW-262	SY		01/10/91	910111-181	910111-187	910118-001
GW-262	SY	FD	01/10/91	910111-183	910111-187	910117-120
GW-263	SY		01/10/91	910111-179	910111-187	910117-123
GW-264	SY		01/11/91	910112-003	910112-005	910117-120
GW-281	FF		01/24/91	910125-005	910125-011	910129-045
GW-282	FF		01/25/91	910126-003	910126-005	910130-018
GW-283	FF		01/24/91	910125-009	910125-011	910129-045
GW-283	FF	FD	01/24/91	910125-012	910125-011	910130-138
GW-284	FF		01/24/91	910125-007	910125-011	910129-045
GW-285	FF		01/25/91	910126-001	910126-005	910130-018
GW-331	WC		01/23/91	910124-041	910124-049	910129-045
GW-332	WC		01/23/91	910124-047	910124-049	910129-045
GW-333	WC		01/21/91	910122-013	910122-021	910127-003
GW-334	WC		01/21/91	910122-015	910122-021	910127-003

APPENDIX I
Correlation of Groundwater Samples to Associated Blanks
First Quarter 1991

WELL NO.	LOCATION	TYPE	DATE	SAMPLE NO.	TRIP BLANK NO.	LAB BLANK NO.
GW-334	WC	FD	01/21/91	910122-017	910122-021	910127-003
GW-335	WC		01/21/91	910122-019	910122-021	910127-003
GW-336	WC		01/23/91	910124-043	910124-049	910129-045
GW-337	WC		01/23/91	910124-045	910124-049	910129-045
GW-338	WC		01/16/91	910116-106	910116-108	910125-002
GW-380	NHP		01/29/91	910130-026	910130-034	910201-038
GW-381	NHP		02/04/91	910204-128	910204-131	910206-003
GW-382	NHP		02/04/91	910204-127	910204-131	910207-001
GW-383	NHP		01/29/91	910130-024	910130-034	910201-038
GW-384	NHP		01/28/91	910129-006	910129-010	910201-005
GW-385	NHP		01/27/91	910127-050	910127-052	910131-001
GW-505	RG		03/12/91	910314-027	910314-031	910320-107
GW-603	NHP		01/26/91	910127-043	910127-049	910131-001
GW-603	NHP		01/26/91	910127-044	910127-049	910131-001
GW-604	NHP	FD	01/26/91	910127-045	910127-049	910131-001
GW-617	Y12		01/13/91	910114-102	910114-111	910122-065
GW-618	Y12		01/13/91	910114-103	910114-111	910123-001
GW-619	FTF		01/12/91	910112-039	910112-041	910122-001
GW-620	FTF		01/12/91	910112-037	910112-041	910206-026
GW-631	RG		03/11/91	910312-070	910312-076	910319-001
GW-632	RG		03/11/91	910312-071	910312-076	910320-107
GW-633	RG		03/11/91	910312-072	910312-076	910319-001
GW-634	RG		03/09/91	910310-024	910310-027	910319-015
GW-656	T0134		03/07/91	910308-006	910308-010	910315-054
GW-657	T2331		03/06/91	910306-104	910306-109	910313-004
GW-658	FF		03/09/91	910310-023	910310-027	910313-004
GW-659	FF		03/08/91	910309-049	910309-046	910319-015
GW-707	T2331		03/06/91	910306-105	910306-109	910315-054
GW-708	T2331		03/07/91	910308-008	910308-010	910315-054

APPENDIX I
Correlation of Groundwater Samples to Associated Blanks
Second Quarter 1991

WELL NO.	LOCATION	TYPE	DATE	SAMPLE NO.	TRIP BLANK NO.	LAB BLANK NO.
GW-149	NHP		04/24/91	910425-033	910425-037	910429-001
GW-151	NHP		05/01/91	910502-012	910502-014	910506-001
GW-153	NHP		05/02/91	910503-008	910503-010	910508-058
GW-154	NHP		04/26/91	910427-024	910427-028	910501-001
GW-167	EXP		05/08/91	910509-004	910509-010	910516-017
GW-168	EXP		05/08/91	910509-006	910509-010	910517-053
GW-168	EXP	FD	05/08/91	910509-008	910509-010	910517-053
GW-169	EXP		05/12/91	910514-011	910514-015	910521-001
GW-170	EXP		05/12/91	910514-012	910514-015	910521-001
GW-183	FF		06/18/91	910619-005	910619-009	910624-176
GW-183	FF	FD	06/18/91	910619-007	910619-009	910624-176
GW-190	RG		06/19/91	910620-017	910620-023	910624-176
GW-191	B4		04/10/91	910411-009	910411-019	910415-119
GW-192	B4		04/10/91	910411-011	910411-019	910415-119
GW-192	B4	FD	04/10/91	910411-013	910411-019	910415-119
GW-193	T2331		06/17/91	910618-013	910618-021	910623-001
GW-204	T0134		06/21/91	910624-009	910624-011	910911-159
GW-206	EXP		05/10/91	910517-026	910517-030	910521-065
GW-207	EXP		05/10/91	910517-028	910517-030	910521-065
GW-208	EXP		05/11/91	910512-016	910512-018	910519-004
GW-220	NHP		04/26/91	910427-026	910427-028	910501-001
GW-222	NHP		05/02/91	910503-006	910503-010	910508-058
GW-223	NHP		05/03/91	910504-038	910504-042	910513-053
GW-223	NHP	FD	05/03/91	910504-040	910504-042	910513-053
GW-232	EXP		05/16/91	910522-002	910522-004	910531-316
GW-239	EXP		05/17/91	910523-203	910523-205	910531-316
GW-240	NHP		04/25/91	910427-017	910427-023	910430-001
GW-251	S2		04/09/91	910410-124	910410-129	910415-001
GW-252	S2		04/06/91	910408-200	910408-205	910412-001
GW-253	S2		04/09/91	910410-125	910410-129	910415-001
GW-255	S2		04/08/91	910411-104	910411-108	910412-194
GW-261	SY		04/03/91	910404-067	910404-075	910405-041
GW-262	SY		04/03/91	910404-068	910404-075	910405-041
GW-262	SY	FD	04/03/91	910404-069	910404-075	910405-041
GW-263	SY		04/03/91	910404-070	910404-075	910405-041
GW-264	SY		04/06/91	910408-197	910408-205	910411-003
GW-281	FF		04/19/91	910420-005	910420-017	910422-196
GW-282	FF		04/19/91	910420-007	910420-017	910422-196
GW-283	FF		04/19/91	910420-009	910420-017	910423-035
GW-283	FF	FD	04/19/91	910420-011	910420-017	910423-035
GW-284	FF		04/19/91	910420-013	910420-017	910423-035
GW-285	FF		04/19/91	910420-015	910420-017	910423-035
GW-331	WC		04/14/91	910416-020	910416-025	910422-196
GW-332	WC		04/13/91	910415-015	910415-019	910419-031
GW-333	WC		04/13/91	910415-014	910415-019	910419-031

APPENDIX I
Correlation of Groundwater Samples to Associated Blanks
Second Quarter 1991

WELL NO.	LOCATION	TYPE	DATE	SAMPLE NO.	TRIP BLANK NO.	LAB BLANK NO.
GW-334	WC		04/13/91	910415-013	910415-019	910419-031
GW-335	WC		04/10/91	910411-015	910411-019	910415-119
GW-336	WC		04/14/91	910416-019	910416-025	910422-001
GW-337	WC		04/14/91	910416-021	910416-025	910422-196
GW-338	WC		04/10/91	910411-017	910411-019	910415-119
GW-380	NHP		04/25/91	910427-019	910427-023	910501-008
GW-381	NHP		05/08/91	910508-059	910508-061	910514-062
GW-382	NHP		05/07/91	910508-062	910508-064	910517-003
GW-383	NHP		04/25/91	910427-021	910427-023	910501-008
GW-384	NHP		04/24/91	910425-035	910425-037	910429-001
GW-385	NHP		04/23/91	910424-023	910424-025	910425-043
GW-505	RG		05/21/91	910624-007	910624-011	910911-159
GW-603	NHP		04/22/91	910423-006	910423-012	910424-072
GW-603	NHP	FD	04/22/91	910423-007	910423-012	910424-072
GW-604	NHP		04/22/91	910423-008	910423-012	910423-035
GW-617	Y12		04/08/91	910411-106	910411-108	910412-194
GW-618	Y12		04/09/91	910410-123	910410-129	910415-001
GW-619	FTF		04/06/91	910408-198	910408-205	910412-001
GW-620	FTF		04/06/91	910408-199	910408-205	910412-001
GW-631	RG		06/19/91	910620-019	910620-023	910627-065
GW-632	RG		06/20/91	910621-205	910621-213	910703-089
GW-633	RG		06/20/91	910621-211	910621-213	910629-004
GW-634	RG		06/19/91	910620-021	910620-023	910628-240
GW-656	T0134		06/20/91	910621-209	910621-213	910629-013
GW-657	T2331		06/17/91	910618-015	910618-021	910623-001
GW-658	FF		06/18/91	910619-003	910619-009	910623-005
GW-659	FF		06/20/91	910621-207	910621-213	910703-089
GW-707	T2331		06/17/91	910618-017	910618-021	910624-176
GW-708	T2331		06/17/91	910618-019	910618-021	910623-001

APPENDIX I
Correlation of Groundwater Samples to Associated Blanks
Third Quarter 1991

WELL NO.	LOCATION	TYPE	DATE	SAMPLE NO.	TRIP BLANK NO.	LAB BLANK NO.
GW-151	NHP		08/24/91	910825-106	910825-114	910827-087
GW-151	NHP	FD	08/24/91	910825-108	910825-114	910827-087
GW-167	EXP		08/31/91	910901-005	910901-007	910903-085
GW-168	EXP		09/01/91	910903-021	910903-029	910903-085
GW-169	EXP		09/02/91	910903-074	910903-079	910904-186
GW-170	EXP		09/02/91	910903-073	910903-079	910904-186
GW-183	FF		09/25/91	910925-188	910925-192	910926-001
GW-183	FF	FD	09/25/91	910925-190	910925-192	910926-001
GW-190	RG		09/20/91	910922-012	910922-022	910923-006
GW-190	RG	FD	09/20/91	910922-014	910922-022	910923-006
GW-191	B4		07/20/91	910722-065	910722-069	910724-051
GW-191	B4	FD	07/20/91	910722-068	910722-069	910724-051
GW-192	B4		07/26/91	910727-041	910727-043	910729-095
GW-193	T2331		09/26/91	910926-155	910926-163	910928-001
GW-194	B4		07/22/91	910723-110	910723-114	910726-209
GW-195	B4		07/22/91	910723-112	910723-114	910726-209
GW-204	T0134		09/26/91	910926-157	910926-163	910928-001
GW-206	EXP		08/29/91	910831-010	910831-016	910903-009
GW-207	EXP		08/28/91	910829-019	910829-023	910829-045
GW-208	EXP		08/29/91	910831-012	910831-016	910903-009
GW-208	EXP	FD	08/29/91	910831-014	910831-016	910903-009
GW-220	NHP		08/24/91	910825-110	910825-114	910828-017
GW-232	EXP		09/02/91	910903-075	910903-079	910904-186
GW-239	EXP		09/01/91	910903-022	910903-029	910903-085
GW-240	NHP		08/24/91	910825-112	910825-114	910828-017
GW-251	S2		07/14/91	910715-167	910715-169	910722-008
GW-252	S2		07/13/91	910715-151	910715-159	910719-037
GW-255	S2		07/13/91	910715-153	910715-159	910719-037
GW-255	S2	FD	07/13/91	910715-155	910715-159	910719-037
GW-261	SY		07/11/91	910712-007	910712-009	910716-039
GW-262	SY		07/11/91	910712-003	910712-009	910716-039
GW-262	SY	FD	07/11/91	910712-005	910712-009	910716-039
GW-263	SY		07/11/91	910712-001	910712-009	910715-121
GW-264	SY		07/12/91	910715-016	910715-018	910718-001
GW-281	FF		07/29/91	910731-106	910731-112	910805-067
GW-281	FF		08/12/91	910812-103		
GW-282	FF		07/30/91	910731-099	910731-101	910805-067
GW-282	FF		08/12/91	910812-104		
GW-283	FF		07/29/91	910731-108	910731-112	910816-001
GW-283	FF	FD	07/29/91	910731-110	910731-112	910816-001
GW-283	FF	FD	08/12/91	910812-106		
GW-283	FF		08/12/91	910812-105		
GW-284	FF		07/29/91	910731-102	910731-112	910816-001
GW-284	FF		08/12/91	910812-107		
GW-285	FF		07/29/91	910731-104	910731-112	910816-001

APPENDIX I
Correlation of Groundwater Samples to Associated Blanks
Third Quarter 1991

WELL NO.	LOCATION	TYPE	DATE	SAMPLE NO.	TRIP BLANK NO.	LAB BLANK NO.
GW-285	FF		08/12/91	910812-108		
GW-337	WC		07/14/91	910715-165	910715-169	910719-037
GW-338	WC		07/13/91	910715-157	910715-159	910724-051
GW-380	NHP		08/23/91	910824-014	910824-016	910827-087
GW-381	NHP		08/28/91	910829-021	910829-023	910829-045
GW-382	NHP		08/27/91	910828-023	910828-025	910829-001
GW-383	NHP		08/27/91	910828-021	910828-025	910830-007
GW-384	NHP		08/21/91	910822-038	910822-040	910823-184
GW-385	NHP		08/21/91	910822-036	910822-040	910823-184
GW-505	RG		09/20/91	910922-016	910922-022	910923-006
GW-603	NHP		09/01/91	910903-023	910903-029	910904-009
GW-604	NHP		09/01/91	910903-024	910903-029	910904-009
GW-605	NHP		08/26/91	910827-105	910827-109	910829-001
GW-606	NHP		08/26/91	910827-107	910827-109	910829-001
GW-617	Y12		07/12/91	910715-021	910715-018	910718-001
GW-618	Y12		07/12/91	910715-019	910715-018	910718-001
GW-619	FTF		07/14/91	910715-161	910715-169	910724-051
GW-620	FTF		07/14/91	910715-163	910715-169	910719-037
GW-631	RG		09/19/91	910919-173	910919-177	910922-006
GW-632	RG		09/20/91	910922-018	910922-022	910924-036
GW-633	RG		09/19/91	910919-175	910919-177	910922-006
GW-634	RG		09/20/91	910922-020	910922-022	910924-036
GW-656	T0134		09/26/91	910926-159	910926-163	910928-001
GW-657	T2331		09/24/91	910924-079	910924-081	910925-001
GW-658	FF		09/26/91	910927-297	910926-163	911001-002
GW-659	FF		09/25/91	910925-186	910925-192	910928-025
GW-707	T2331		09/26/91	910927-299	910926-163	910928-025
GW-708	T2331		09/26/91	910926-161	910926-163	910928-001

APPENDIX I
Correlation of Groundwater Samples to Associated Blanks
Fourth Quarter 1991

WELL NO.	LOCATION	TYPE	DATE	SAMPLE NO.	TRIP BLANK NO.	LAB BLANK NO.
GW-151	NHP		10/23/91	911023-170	911023-172	911029-107
GW-151	NHP	FD	10/23/91	911023-173	911023-172	911029-107
GW-168	EXP		11/03/91	911103-096	911103-102	911107-008
GW-169	EXP		11/12/91	911112-125	911112-124	911114-001
GW-170	EXP		11/06/91	911106-086	911106-088	911111-002
GW-183	FF		12/15/91	911216-037	911215-049	911217-057
GW-183	FF	FD	12/15/91	911216-039	911215-049	911217-057
GW-190	RG		12/15/91	911216-041	911216-080	911217-001
GW-190	RG	FD	12/15/91	911216-043	911216-080	911217-001
GW-191	B4		10/05/91	911006-022	911006-032	911010-003
GW-191	B4	FD	10/05/91	911006-024	911006-032	911010-003
GW-192	B4		10/05/91	911006-026	911006-032	911010-003
GW-193	T2331		12/19/91	911220-043	911220-038	911227-071
GW-194	B4		10/05/91	911006-028	911006-032	911011-001
GW-195	B4		10/05/91	911006-030	911006-032	911011-001
GW-204	T0134		12/26/91	911227-061	911227-063	920102-304
GW-206	EXP		11/07/91	911108-017	911108-019	911111-002
GW-207	EXP		10/28/91	911029-001	911029-003	911030-001
GW-208	EXP		10/30/91	911031-027	911031-029	911101-243
GW-208	EXP	FD	10/30/91	911031-030	911031-029	911101-243
GW-220	NHP		10/22/91	911023-022	911023-024	911024-001
GW-232	EXP		11/05/91	911106-001	911106-003	911109-001
GW-239	EXP		11/02/91	911103-066	911103-068	911107-008
GW-240	NHP		10/22/91	911023-020	911023-024	911024-001
GW-251	S2		10/03/91	911004-444	911004-454	911007-005
GW-251	S2	FD	10/03/91	911004-446	911004-454	911007-005
GW-252	S2		10/03/91	911004-452	911004-454	911007-005
GW-255	S2		10/03/91	911004-450	911004-454	911007-005
GW-261	SY		10/01/91	911002-210	911002-212	911004-001
GW-262	SY		10/01/91	911002-208	911002-212	911004-001
GW-263	SY		10/01/91	911002-206	911002-212	911004-001
GW-264	SY		10/01/91	911002-202	911002-212	911004-001
GW-264	SY	FD	10/01/91	911002-204	911002-212	911004-001
GW-281	FF		10/09/91	911010-152	911010-154	911012-001
GW-282	FF		10/09/91	911010-150	911010-154	911012-001
GW-283	FF		10/09/91	911010-088	911010-154	911012-001
GW-283	FF	FD	10/09/91	911010-090	911010-154	911012-001
GW-284	FF		10/09/91	911010-086	911010-154	911012-001
GW-285	FF		10/09/91	911010-084	911010-154	911012-001
GW-337	WC		10/04/91	911005-010	911005-014	911008-043
GW-338	WC		10/03/91	911004-448	911004-454	911007-005
GW-380	NHP		10/22/91	911023-018	911023-024	911024-001
GW-381	NHP		10/27/91	911027-059	911027-063	911029-007
GW-382	NHP		10/27/91	911027-061	911027-063	911029-007
GW-383	NHP		10/26/91	911027-064	911027-066	911030-001

APPENDIX I
Correlation of Groundwater Samples to Associated Blanks
Fourth Quarter 1991

WELL NO.	LOCATION	TYPE	DATE	SAMPLE NO.	TRIP BLANK NO.	LAB BLANK NO.
GW-384	NHP		10/15/91	911015-113	911015-115	911016-009
GW-385	NHP		10/14/91	911014-144	911014-146	911015-125
GW-505	RG		12/15/91	911216-047	911216-080	911217-057
GW-508	RG		12/15/91	911216-045	911216-080	911217-057
GW-603	NHP		11/03/91	911103-098	911103-102	911107-008
GW-604	NHP		11/03/91	911103-100	911103-102	911107-008
GW-605	NHP		10/23/91	911023-168	911023-172	911028-002
GW-606	NHP		10/24/91	911024-076	911024-078	911028-036
GW-617	Y12		10/02/91	911002-199	911002-201	911006-001
GW-618	Y12		10/02/91	911002-197	911002-201	911006-001
GW-619	FTF		10/04/91	911005-008	911005-014	911010-003
GW-620	FTF		10/04/91	911005-012	911005-014	911009-001
GW-631	RG		12/14/91	911215-010	911215-005	911220-057
GW-632	RG		12/14/91	911215-008	911215-005	911217-046
GW-633	RG		12/14/91	911215-006	911215-005	911217-046
GW-634	RG		12/14/91	911215-003	911215-005	911217-046
GW-656	T0134		12/20/91	911220-104	911220-106	911227-071
GW-657	T2331		12/19/91	911220-039	911220-038	911226-071
GW-658	FF		12/15/91	911215-047	911215-049	911217-046
GW-659	FF		12/15/91	911216-035	911215-049	911217-057
GW-707	T2331		12/19/91	911220-036	911220-038	911223-047
GW-708	T2331		12/19/91	911220-041	911220-038	911226-071

BLANK QUALIFICATION RESULTS

APPENDIX I
Blank Qualification Results, First Quarter 1991

Well No.	CM-151	CM-153	CM-167	CM-168	CM-169	CM-170	CM-183	CM-190	CM-192	CM-193	CM-204	CM-206
Location	MRP	MRP	KIP	KIP	KIP	KIP	FF	BC	B4	T2331	T0134	KIP
Date Sampled	01/31/91	01/31/91	02/14/91	02/14/91	03/01/91	03/01/91	03/08/91	03/12/91	01/15/91	03/06/91	03/07/91	02/20/91
Acetone	.	.	.	.	110	110	.	.	.	.	100	.
Bromodichloromethane	.	.	.	.	.	.	.	35	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.	.	.	.	.
Chloroform	20	20	5	5	4	4	10	175	55	.	76	5
Chloromethane	.	.	.	.	.	.	.	.	.	.	.	.
1,2-Dichloroethane	.	.	.	.	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	.	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	10	10	.	.	90	20	40	30	20	10
Toluene	.	.	.	.	.	.	.	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX I
Blank Qualification Results, First Quarter 1991

Well No.	GW-207	GW-220	GW-222	GW-223	GW-232	GW-230	GW-240	GW-251	GW-252	GW-253	GW-255	GW-262
Location	KIP	KIP	KIP	KIP	KIP	KIP	KIP	S2	S2	S2	S2	ST
Date Sampled	02/20/91	01/29/91	02/01/91	02/01/91	03/12/91	02/25/91	01/29/91	01/16/91	01/12/91	01/14/91	01/13/91	01/10/91
Acetone	-	-	-	-	190	-	-	-	-	-	-	-
Bromodichloromethane	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	5	-	80	80	15	10	-	55	50	55	55	-
Chloromethane	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	-	-	-	-	-	-	-	20	20	20	-	70
Methylene chloride	10	-	-	-	40	50	-	-	-	-	-	70
1,1,2,2-Tetrachloroethane	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	-	4	-	-	-	-	4	-	-	-	-	-
1,1,2-Trichloroethane	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl acetate	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes	-	-	-	-	-	-	-	-	-	-	-	-

(CONTINUED)

APPENDIX I
Blank Qualification Results, First Quarter 1991

Cell No.	GP-305	GP-331	GP-332	GP-333	GP-334	GP-335	GP-337	GP-381	GP-382	GP-383	GP-384	GP-385
Location	77	WC	WC	WC	WC	WC	WC	WSP	WSP	WSP	WSP	NS
Date Sampled	01/25/91	01/23/91	01/23/91	01/21/91	01/21/91	01/23/91	01/23/91	02/04/91	02/04/91	01/29/91	01/28/91	03/12/91
Acetone	-	-	-	-	-	-	-	-	-	-	-	190
Bromochloroethane	-	-	-	-	-	-	-	-	-	-	-	35
Bromofluor	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	10	2	2	-	-	2	2	10	10	-	-	175
Chloroethane	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	-	-	-	-	-	-	-	-	-	-	-	-
Methylene chloride	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	40	10	10	-	-	10	10	70	70	-	-	-
Toluene	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl acetate	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes	-	-	-	-	-	-	-	-	-	-	-	-

(Continued)

ANNEX 2
Blank Qualification Results, First Quarter 1991

Well No.	GP-004	GP-017	GP-018	GP-019	GP-020	GP-021	GP-022	GP-023	GP-024	GP-025	GP-026
Location	W12	Y12	Y12	Y12	Y12	W12	W12	W12	W12	W12	W12
Date Sampled	01/26/91	01/13/91	01/13/91	01/12/91	01/12/91	01/11/91	01/11/91	01/11/91	01/09/91	01/07/91	01/06/91
Acetone	-	-	-	-	-	80	150	80	-	100	-
Acetylchloride	-	-	-	-	-	-	-	-	-	-	-
Acetone	-	-	-	-	-	-	-	-	-	-	-
Chloroform	-	25	25	20	20	25	25	25	10	70	10
Chloroethane	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-pentanone	-	-	20	-	-	-	-	-	-	-	-
Methylene chloride	-	-	-	-	-	-	-	-	-	20	20
1,1,2,2-Tetrachloroethane	-	-	10	5	-	-	-	-	-	-	-
Benzene	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	-	-	-	-	-	-	-	-	-	-	-
Vinyl acetate	-	-	-	-	-	-	-	-	-	-	-
Hydrene	-	-	-	-	-	-	-	-	-	-	-

(Continued)

APPENDIX I

Glue Qualification Results, First Quarter 1991

Well No.	GP-036	GP-707	GP-708
Location	FF	T2331	T2331
Date Sampled	03/06/91	03/06/91	03/07/91
Acetone	-	-	100
Bromochloroethane	-	-	-
Bromobenzene	-	-	-
Chlorobenzene	10	4	70
Chloroethane	-	-	-
1,2-Dichloroethane	-	-	-
4-Ethyl-2-pentanone	-	-	-
Ethylene chloride	90	10	20
1,1,2,2-Tetrachloroethane	-	-	-
Toluene	-	-	-
1,1,2-Trichloroethane	-	-	-
Vinyl acetate	-	-	-
Xylene	-	-	-

APPENDIX I
Blank Qualification Results, Second Quarter 1991

Well No.	GW-151	GW-153	GW-169	GW-170	GW-183	GW-190	GW-192	GW-193	GW-204	GW-220	GW-222	GW-223
Location	NEP	NEP	EXP	EXP	TF	NC	04	T2131	T0134	NEP	NEP	NEP
Date Sampled	05/01/91	05/02/91	05/12/91	05/12/91	06/10/91	06/19/91	04/10/91	06/17/91	06/21/91	04/26/91	05/02/91	05/03/91
Acetone	.	.	.	.	.	.	.	.	.	.	.	60
Bromodichloromethane	.	.	.	.	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.	.	.	.	.
Chloroform	25	.	5	5	35	80	15	120	135	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.	.	.	.	.
Methylene chloride	.	.	.	.	170	170	.	160	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.	.	.	.	.

(CONTINUED)

Well No.	GW-232	GW-240	GW-251	GW-252	GW-253	GW-255	GW-331	GW-332	GW-333	GW-334	GW-336	GW-337
Location	EXP	NEP	S2	S2	S2	S2	NC	NC	NC	NC	NC	NC
Date Sampled	05/16/91	04/25/91	04/09/91	04/06/91	04/09/91	04/08/91	04/14/91	04/13/91	04/13/91	04/13/91	04/14/91	04/14/91
Acetone	.	.	.	.	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.	.	.	.	.
Chloroform	.	5	40	.	40	75	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.	.	.	.	.
Methylene chloride	.	.	70	.	70	.	.	.	.	.	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX I

Blank Qualification Results, Second Quarter 1991

Well No.	CW-300	CW-301	CW-302	CW-303	CW-505	CW-617	CW-618	CW-619	CW-620	CW-631	CW-632	CW-633
Location	NEP	NEP	NEP	NEP	RG	Y12	Y12	FTF	FTF	RG	RG	RG
Date Sampled	04/25/91	05/08/91	05/07/91	04/25/91	06/21/91	04/08/91	04/09/91	04/06/91	04/06/91	06/19/91	06/20/91	06/20/91
Acetone	.	.	.	.	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.	.	.	.	.
Chloroform	.	70	15	.	135	75	40	.	.	80	20	20
1,2-Dichloropropane	.	.	.	.	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.	.	.	15	.
Methylene chloride	.	.	20	.	.	.	70	.	.	170	170	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.	.	.	.	.

(CONTINUED)

Well No.	CW-634	CW-656	CW-657	CW-658	CW-659	CW-707	CW-708
Location	RG	T0134	T2331	FF	FF	T2331	T2331
Date Sampled	06/19/91	06/20/91	06/17/91	06/18/91	06/20/91	06/17/91	06/17/91
Acetone	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.
Chloroform	80	20	120	35	20	120	120
1,2-Dichloropropane	.	.	.	.	.	.	.
4-Methyl-2-pentanone	10	.	.	.	15	.	.
Methylene chloride	170	160	160	160	170	170	160
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.

APPENDIX I
Blank Qualification Results, Third Quarter 1991

Well No.	GW-151	GW-169	GW-170	GW-183	GW-190	GW-191	GW-192	GW-193	GW-194	GW-195	GW-204	GW-206
Location	NEP	KIP	KIP	FF	RG	B4	B4	T2331	B4	B4	T0134	KIP
Date Sampled	08/24/91	09/02/91	09/02/91	09/25/91	09/20/91	07/20/91	07/26/91	09/26/91	07/22/91	07/22/91	09/26/91	08/29/91
Acetone	180	.	.	.	.	.	130	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.	.	.	.	.
Chloroform	5	20	20	.	.	.	25	.	.	.	.	5
1,2-Dichloropropane	.	.	.	.	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.	.	.	.	4
2-Hexanone	.	.	.	.	.	.	15	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	10	.	.	10	10	.	25
Methylene chloride	1200	60	60	430	.	160	160	200	160	160	200	100
Toluene	.	.	.	10	6	.	.	10	.	.	10	40
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	5	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.	.	.	.	20

(CONTINUED)

APPENDIX I
Blank Qualification Results, Third Quarter 1991

Well No.	GW-208	GW-220	GW-240	GW-251	GW-252	GW-255	GW-261	GW-262	GW-283	GW-337	GW-338	GW-380
Location	RIP	MRP	MRP	S2	S2	S2	SY	SY	PF	WC	WC	MRP
Date Sampled	08/29/91	08/24/91	08/24/91	07/14/91	07/13/91	07/13/91	07/11/91	07/11/91	07/29/91	07/14/91	07/13/91	08/23/91
Acetone	.	160	160	.	110	110	.	.	.	110	.	180
Bromodichloromethane	.	.	.	.	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.	.	.	.	.
Chloroform	5	5	5	.	.	.	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.	.	.	.	.
Ethylbenzene	4	.	.	.	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	25	.	.	.	10	10	15	15	.	10	10	.
Methylene chloride	100	1200	1200	40	180	180	150	150	.	160	180	10
Toluene	40	.	.	.	.	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.	.	.	5	.
Xylenes	20	.	.	.	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX I
Blank Qualification Results, Third Quarter 1991

Well No.	GW-381	GW-382	GW-383	GW-384	GW-505	GW-604	GW-605	GW-606	GW-617	GW-618	GW-619	GW-620
Location	NHP	NHP	NHP	NHP	RG	NHP	NHP	NHP	Y12	Y12	FTF	FTF
Date Sampled	08/28/91	08/27/91	08/27/91	08/21/91	09/20/91	09/01/91	08/26/91	08/26/91	07/12/91	07/12/91	07/14/91	07/14/91
Acetone	.	.	.	.	.	.	.	.	.	.	.	110
Bromodichloromethane	.	.	.	.	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	5	.	.	.	.	.	.	.	.
Chloroform	5	.	.	5	.	4	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.	.	.	10	10
Methylene chloride	140	.	.	450	.	50	.	.	.	.	160	160
Toluene	.	.	6	.	6	.	.	.	.	.	.	.
1,1,1-Trichloroethane	.	.	.	.	.	.	.	.	.	.	.	.
Vinyl acetate	.	.	.	.	.	.	.	.	.	.	5	.
Xylenes	.	.	.	.	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX I

Blank Qualification Results, Third Quarter 1991

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APPENDIX I
Blank Qualification Results, Fourth Quarter 1991

Well No.	GW-151	GW-168	GW-169	GW-170	GW-183	GW-190	GW-191	GW-192	GW-193	GW-194	GW-195	GW-204
Site	NHP	EXP	EXP	EXP	FF	RG	B4	B4	T2331	B4	B4	T0134
Date Sampled	10/23/91	11/03/91	11/12/91	11/06/91	12/15/91	12/15/91	10/05/91	10/05/91	12/19/91	10/05/91	10/05/91	12/26/91
Acetone	.	.	.	.	.	.	270	270	.	270	270	290
Bromodichloromethane	.	.	.	.	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.	.	.	.	10
Carbon disulfide	.	.	.	.	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.	.	.	.	.
Chloroform	4	.	10	.	10	15	5	5	20	5	5	10
1,2-Dichloropropane	.	.	.	.	5	.	.	.	.	.	.	5
Ethylbenzene	.	.	.	.	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.	.	.	.	15
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.	.	25	25	.
Methylene chloride	10	20	.	10	10	.	60	60	.	60	60	260
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.	.	.	.	10
Toluene	10	10	.	20	.	.	20	20	.	20	20	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.	.	.	.	5
Xylenes	.	.	.	.	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX I
Blank Qualification Results, Fourth Quarter 1991

Well No.	GW-206	GW-207	GW-208	GW-220	GW-232	GW-239	GW-240	GW-251	GW-252	GW-255	GW-281	GW-282
Site	EXP	EXP	EXP	NHP	EXP	EXP	NHP	S2	S2	S2	FF	FF
Date Sampled	11/07/91	10/28/91	10/30/91	10/22/91	11/05/91	11/02/91	10/22/91	10/03/91	10/03/91	10/03/91	10/09/91	10/09/91
Acetone	.	.	.	.	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	.	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.	.	.	.	.
Chloroform	4	4	4	10	5	4	10	.	.	.	10	10
1,2-Dichloropropane	.	.	.	.	.	.	.	.	.	.	.	.
Ethylbenzene	.	.	.	.	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.	.	.	.	.
Methylene chloride	10	10	70	710	9	20	710	170	170	170	80	80
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.	.	.	.	.
Toluene	20	20	.	6	10	10	6	4	4	4	20	20
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX I
Blank Qualification Results, Fourth Quarter 1991

Well No.	GW-263	GW-284	GW-285	GW-337	GW-338	GW-380	GW-381	GW-382	GW-383	GW-384	GW-385	GW-508
Site	FF	FF	FF	WC	WC	NHP	NHP	NHP	NHP	NHP	NHP	RG
Date Sampled	10/09/91	10/09/91	10/09/91	10/04/91	10/03/91	10/22/91	10/27/91	10/27/91	10/26/91	10/15/91	10/14/91	12/15/91
Acetone	.	.	.	250	.	.	.	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.	.	.	.	.
Carbon disulfide	.	.	.	4	.	.	.	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.	.	.	.	.
Chloroform	10	10	10	.	.	10	.	.	10	10	.	15
1,2-Dichloropropane	.	.	.	.	.	.	.	.	.	10	5	.
Ethylbenzene	.	.	.	.	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.	.	.	.	.
4-Methyl-2-pentanone	.	.	.	.	.	.	15	15	.	.	.	.
Methylene chloride	80	80	80	200	170	710	.	.	490	20	20	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.	.	.	.	.
Toluene	20	20	20	8	4	6	20	20	20	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX I
Blank Qualification Results, Fourth Quarter 1991

Well No.	GW-603	GW-604	GW-605	GW-606	GW-617	GW-618	GW-619	GW-620	GW-631	GW-632	GW-633	GW-634
Site	NRP	NRP	NRP	NRP	Y12	Y12	FTF	FTF	RG	RG	RG	RG
Date Sampled	11/03/91	11/03/91	10/23/91	10/24/91	10/02/91	10/02/91	10/04/91	10/04/91	12/14/91	12/14/91	12/14/91	12/14/91
Acetone	.	.	.	.	.	.	250	250	.	.	.	.
Bromodichloromethane	.	.	.	.	.	.	.	.	.	.	.	.
Bromoform	.	.	.	.	.	.	.	.	5	.	.	.
Carbon disulfide	.	.	.	.	.	.	4	4	.	.	.	.
Carbon tetrachloride	.	.	.	.	.	.	.	.	.	.	.	.
Chloroform	.	.	4	4	10	10	.	.	.	.	.	.
1,2-Dichloropropane	.	.	.	.	.	.	.	.	5	5	5	5
Ethylbenzene	.	.	.	.	.	.	.	.	.	.	.	.
2-Hexanone	.	.	.	.	.	.	.	.	10	10	10	10
4-Methyl-2-pentanone	.	.	.	.	.	.	.	.	.	.	.	.
Methylene chloride	20	20	10	20	6	6	200	200	70	10	10	10
1,1,2,2-Tetrachloroethane	.	.	.	.	.	.	.	.	5	.	.	.
Toluene	10	10	10	.	.	.	10	8	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.	.	.	.	.	.	.	.
Xylenes	.	.	.	.	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX I
Blank Qualification Results, Fourth Quarter 1991

Well No.	GM-656	GM-658	GM-659	GM-707	GM-708
Site	T0136	77	77	72331	72331
Date Sampled	12/20/91	12/15/91	12/15/91	12/19/91	12/19/91
Acetone	.	.	.	.	.
Bromodichloromethane	.	.	.	.	.
Bromoform	.	.	.	.	.
Carbon disulfide	.	.	.	.	.
Carbon tetrachloride	.	.	.	.	.
Chloroform	.	10	10	20	20
1,2-Dichloropropane	.	5	5	.	.
Ethylbenzene	.	.	.	.	.
2-Hexanone	.	10	.	.	.
4-Methyl-2-pentanone	.	.	.	.	20
Methylene chloride	.	10	10	.	.
1,1,2,2-Tetrachloroethane	.	.	.	.	.
Toluene	.	.	.	.	.
1,1,2-Trichloroethane	.	.	.	.	.
Xylenes	.	.	.	.	.

VALIDATED VOC RESULTS

APPENDIX I
Validated VOC Results
First Quarter 1991

Well No. . Location . Date Sampled	GW-151		GW-153		GW-167		GW-168		GW-169		GW-170	
	MDP		MDP		MDP		MDP		MDP		MDP	
	01/31/91		01/31/91		02/14/91		02/14/91		03/01/91		03/01/91	
	ug/L	0 mm	ug/L	0 mm	ug/L	0 mm	ug/L	0 mm	ug/L	0 mm	ug/L	0 mm
Acetone	A	-	B	-	B	-	B	-	B	-	79	-
Benzene	V	-	C	-	C	-	C	-	C	-	C	-
Carbon tetrachloride	270	94.4	42	100	C	-	C	-	C	-	99	83.2
Chloroform	FP	-	FP	-	FP	-	FP	-	FP	-	0	6.7
Chloroethane	A	-	B	-	B	-	B	-	B	-	B	-
1,1-Dichloroethane	V	-	C	-	C	-	C	-	C	-	C	-
1,2-Dichloroethane	V	-	C	-	C	-	C	-	C	-	C	-
1,1-Dichloroethane	V	-	C	-	C	-	C	-	C	-	C	-
1,2-Dichloroethane	V	-	C	-	C	-	C	-	C	-	C	-
Ethylbenzene	V	-	C	-	C	-	C	-	C	-	C	-
4-Methyl-2-pentane	A	-	B	-	B	-	B	-	B	-	B	-
Methylene chloride	V	-	C	-	C	-	C	-	C	-	2	1.7
Tetrachloroethane	15	5.2	C	-	C	-	C	-	C	60	7	5.9
Toluene	1	0.3	C	-	C	-	C	-	C	-	C	-
1,1,1-Trichloroethane	V	-	C	-	C	-	C	-	C	-	C	-
Trichloroethane	V	-	C	-	C	-	C	-	C	60	3	2.5
Vinyl acetate	A	-	B	-	B	-	B	-	B	-	B	-
Vinyl chloride	A	-	B	-	B	-	B	-	B	-	B	-
Xylenes	V	-	C	-	C	-	C	-	C	-	C	-
Summed VOCs	204	99.9	42	100	0	-	0	-	10	100	119	100

(CONTINUED)

APPENDIX I
Validated VOC Results
First Quarter 1991

Well No. Location Date Sampled	GW-183		GW-190		GW-192		GW-193		GW-204		GW-206	
	77		85		84		72331		78134		807	
	03/08/91		03/12/91		01/15/91		03/06/91		03/07/91		02/20/91	
	ug/L	0 mm	ug/L	0 mm	ug/L	0 mm	ug/L	0 mm	ug/L	0 mm	ug/L	0 mm
Acetone	V	-	N	-	N	-	N	-	N	-	N	-
Benzene	300	45.3	C	-	C	-	2200	45.3	65	27.9	C	-
Carbon tetrachloride	N	-	C	-	C	-	N	-	C	-	C	-
Chloroform	N	-	77	-	C	-	N	-	77	-	77	-
Chloroethane	V	-	N	-	N	-	N	-	3	1.3	N	-
1,1-Dichloroethane	N	-	C	-	2	7.4	N	-	C	-	C	-
1,2-Dichloroethane	N	-	C	-	C	-	N	-	C	-	C	-
1,1,1-Trichloroethane	N	-	C	-	C	-	N	-	C	-	C	-
1,2-Dichloroethane	N	-	23	33.3	21	77.8	N	-	C	-	C	-
Ethylbenzene	22	2.7	C	-	C	-	670	14.2	C	-	C	-
4-Methyl-2-pentanone	V	-	N	-	N	-	N	-	N	-	N	-
Methylene chloride	N	-	C	-	C	-	N	-	C	-	C	-
Tetrachloroethane	N	-	34	49.3	77	-	N	-	C	-	C	-
Toluene	200	34.5	C	-	C	-	670	17.9	15	6.4	C	-
1,1,1-Trichloroethane	N	-	C	-	C	-	N	-	C	-	C	-
Trichloroethane	N	-	12	17.4	4	14.9	N	-	C	-	C	-
Vinyl acetate	V	-	N	-	N	-	N	-	N	-	N	-
Vinyl chloride	V	-	N	-	N	-	N	-	N	-	N	-
Xylenes	130	16	C	-	C	-	1100	22.4	150	64.4	C	-
Summed VOCs	812	100	69	100	27	100	4000	100	233	100	0	-

(CONTINUED)

APPENDIX I
Validated VOC Results
First Quarter 1991

Well No. Location Date Sampled	GW-207		GW-220		GW-222		GW-223		GW-232		GW-239	
	RSP		RSP		RSP		RSP		RSP		RSP	
	02/20/91		01/29/91		02/01/91		02/01/91		03/12/91		02/25/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	N	.	N	.	N	.	N	.	FP	.	FP	.
Benzene	G	.	G	.	G	.	G	.	G	.	G	.
Carbon tetrachloride	G	.	150	90.9	G	.	26	9	G	.	G	.
Chloroform	FP	.	8	4.8	G	.	FP	.	FP	.	FP	.
Chloroethane	N	.	N	.	N	.	N	.	N	.	N	.
1,1-Dichloroethane	G	.	G	.	G	.	G	.	G	.	G	.
1,2-Dichloroethane	G	.	G	.	G	.	G	.	G	.	G	.
1,1-Dichloroethane	G	.	G	.	G	.	G	.	G	.	G	.
1,2-Dichloroethane	G	.	G	.	8	36.4	30	10.4	G	.	G	.
Ethylbenzene	G	.	G	.	G	.	G	.	G	.	G	.
4-Methyl-2-pentanone	N	.	N	.	N	.	N	.	N	.	N	.
Methylene chloride	G	.	G	.	G	.	G	.	G	.	G	.
Tetrachloroethane	G	.	7	4.2	11	50	190	66	G	.	G	.
Toluene	G	.	G	.	G	.	G	.	G	.	G	.
1,1,1-Trichloroethane	G	.	G	.	G	.	G	.	G	.	G	.
Trichloroethane	G	.	G	.	3	13.6	42	14.6	G	.	G	.
Vinyl acetate	N	.	N	.	N	.	N	.	N	.	N	.
Vinyl chloride	N	.	N	.	N	.	N	.	N	.	N	.
Xylenes	G	.	G	.	G	.	G	.	G	.	G	.
	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCs	0	.	165	99.9	22	100	200	100	0	.	0	.

(CONTINUED)

APPENDIX I
Validated VOC Results
First Quarter 1991

Well No. Location Date Sampled	GW-240		GW-251		GW-252		GW-253		GW-255		GW-262	
	RHP		S2		S2		S2		S2		SY	
	01/29/91		01/14/91		01/12/91		01/14/91		01/13/91		01/10/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	N	.	V	.	N	.	N	.	N	.	N	.
Benzene	G	.	N	.	G	.	Z	.	G	.	C	.
Carbon tetrachloride	11	91.7	13	4.7	G	.	20	2	G	.	G	.
Chloroform	1	8.3	FP	.	G	.	FP	.	FP	.	G	.
Chloromethane	N	.	V	.	N	.	N	.	N	.	N	.
1,1-Dichloroethane	G	.	N	.	G	.	Z	.	G	.	G	.
1,2-Dichloroethane	G	.	N	.	G	.	Z	.	G	.	G	.
1,1-Dichloroethene	G	.	N	.	G	.	Z	.	G	.	G	.
1,2-Dichloroethene	G	.	N	.	G	.	85	8.5	G	.	46	97.9
Ethylbenzene	G	.	N	.	G	.	Z	.	G	.	G	.
4-Methyl-2-pentanone	N	.	V	.	N	.	FP	.	N	.	FP	.
Methylene chloride	G	.	N	.	G	.	Z	.	G	.	G	.
Tetrachloroethene	G	.	100	65.7	FP	.	540	54.3	G	.	FP	.
Toluene	G	.	N	.	G	.	Z	.	G	.	G	.
1,1,1-Trichloroethane	G	.	N	.	G	.	Z	.	G	.	G	.
Trichloroethene	G	.	81	29.6	G	.	350	35.2	G	.	1	2.1
Vinyl acetate	N	.	V	.	N	.	N	.	N	.	N	.
Vinyl chloride	N	.	V	.	N	.	N	.	N	.	N	.
Xylenes	G	.	N	.	G	.	Z	.	G	.	G	.
	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCs	12	100	274	100	0	.	995	100	0	.	47	100

(CONTINUED)

APPENDIX I
Validated VOC Results
First Quarter 1991

Well No. . Location . Date Sampled	GW-285		GW-331		GW-332		GW-333		GW-334		GW-336	
	FP		WC		WC		WC		WC		WC	
	01/25/91		01/23/91		01/23/91		01/21/91		01/21/91		01/23/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	N	.	1500	12	T	.	N	.	N	.	T	.
Benzene	G	.	B	.	B	.	G	.	G	.	B	.
Carbon tetrachloride	G	.	B	.	B	.	G	.	G	.	B	.
Chloroform	G	.	B	.	B	.	G	.	3	0.9	B	.
Chloromethane	N	.	T	.	T	.	N	.	N	.	T	.
1,1-Dichloroethane	G	.	84	0.7	58	0.8	G	.	G	.	49	0.9
1,2-Dichloroethane	G	.	B	.	B	.	G	.	G	.	B	.
1,1-Dichloroethene	G	.	270	2.2	160	2.3	G	.	5	1.6	240	4.2
1,2-Dichloroethene	0.7	100	6100	48.7	4000	56.4	66	78.6	210	66.5	4000	70.1
Ethylbenzene	G	.	B	.	B	.	G	.	G	.	B	.
4-Methyl-2-pentanone	N	.	T	.	T	.	N	.	N	.	T	.
Methylene chloride	G	.	790	6.3	510	7.2	G	.	G	.	130	2.3
Tetrachloroethene	G	.	2200	17.6	1400	19.7	8	9.5	31	9.8	500	8.8
Toluene	G	.	B	.	B	.	G	.	G	.	B	.
1,1,1-Trichloroethane	G	.	130	1	76	1.1	G	.	2	0.6	91	1.6
Trichloroethene	G	.	1200	9.6	710	10	10	11.9	61	19.3	540	9.5
Vinyl acetate	N	.	T	.	T	.	N	.	N	.	T	.
Vinyl chloride	N	.	250	2	180	2.5	N	.	4	1.3	160	2.8
Xylenes	G	.	B	.	B	.	G	.	G	.	B	.
.	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCS	0.7	100	12524	100.1	7094	100	84	100	316	100	5710	100.2

(CONTINUED)

APPENDIX I
Validated VOC Results
First Quarter 1991

Well No. . Location . Date Sampled	GW-337		GW-381		GW-382		GW-383		GW-384		GW-505	
	WC		NHP		NHP		NHP		NHP		RG	
	01/23/91		02/04/91		02/04/91		01/29/91		01/28/91		03/12/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	L	.	W	.	W	.	V	.	N	.	FP	.
Benzene	W	.	T	.	T	.	N	.	G	.	G	.
Carbon tetrachloride	W	.	6800	89.1	3100	91.7	19	3.1	G	.	G	.
Chloroform	W	.	830	10.9	140	4.1	11	1.8	G	.	FP	.
Chloromethane	L	.	W	.	W	.	V	.	N	.	N	.
1,1-Dichloroethane	210	1.2	T	.	T	.	N	.	G	.	G	.
1,2-Dichloroethane	W	.	T	.	T	.	N	.	G	.	G	.
1,1-Dichloroethene	300	1.8	T	.	T	.	N	.	G	.	2	100
1,2-Dichloroethene	13000	77.1	T	.	T	.	41	6.7	2	69	G	.
Ethylbenzene	W	.	T	.	T	.	N	.	G	.	G	.
4-Methyl-2-pentanone	L	.	W	.	W	.	V	.	N	.	N	.
Methylene chloride	220	1.3	T	.	T	.	N	.	G	.	G	.
Tetrachloroethene	790	4.7	T	.	140	4.1	390	63.8	0.9	31	G	.
Toluene	W	.	T	.	T	.	N	.	G	.	G	.
1,1,1-Trichloroethane	500	3	T	.	T	.	N	.	G	.	G	.
Trichloroethene	1400	8.3	T	.	T	.	150	24.5	G	.	G	.
Vinyl acetate	L	.	W	.	W	.	V	.	N	.	N	.
Vinyl chloride	450	2.7	W	.	W	.	V	.	N	.	N	.
Xylenes	W	.	T	.	T	.	N	.	G	.	G	.
.	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCS	16870	100.1	7630	100	3380	99.9	611	99.9	2.9	100	2	100

(CONTINUED)

APPENDIX I
Validated VOC Results
First Quarter 1991

Well No. Location Date Sampled	GW-604		GW-617		GW-618		GW-619		GW-620		GW-631	
	NHP		Y12		Y12		FTF		FTF		RG	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	N	.	N	.	N	.	M	.	L	.	N	.
Benzene	G	.	G	.	G	.	Z	.	W	.	12	21.4
Carbon tetrachloride	G	.	G	.	G	.	Z	.	W	.	G	.
Chloroform	1	100	G	.	G	.	Z	.	W	.	G	.
Chloromethane	N	.	N	.	N	.	M	.	L	.	N	.
1,1-Dichloroethane	G	.	G	.	G	.	Z	.	W	.	G	.
1,2-Dichloroethane	G	.	G	.	G	.	Z	.	W	.	G	.
1,1-Dichloroethene	G	.	G	.	G	.	Z	.	W	.	G	.
1,2-Dichloroethene	G	.	G	.	G	.	Z	.	W	.	G	.
Ethylbenzene	G	.	G	.	G	.	Z	.	W	.	G	.
4-Methyl-2-pentanone	G	.	10	76.9	34	56.7	80	41	800	100	3	5.4
Methylene chloride	G	.	G	.	G	.	Z	.	W	.	4	7.1
Tetrachloroethene	N	.	N	.	N	.	26	1.2	L	.	N	.
Toluene	G	.	G	.	G	.	Z	.	W	.	G	.
1,1,1-Trichloroethane	G	.	FP	.	14	23.3	960	45.7	W	.	6	10.7
Trichloroethene	G	.	G	.	G	.	Z	.	W	.	6	10.7
Vinyl acetate	G	.	G	.	G	.	14	0.7	W	.	G	.
Vinyl chloride	G	.	3	23.1	12	20	240	11.4	W	.	4	7.1
Xylenes	N	.	N	.	N	.	M	.	L	.	N	.
	N	.	N	.	N	.	M	.	L	.	N	.
	G	.	G	.	G	.	Z	.	W	.	21	37.5
	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCs	1	100	13	100	60	100	2100	100	800	100	56	99.9

(CONTINUED)

APPENDIX I
Validated VOC Results
First Quarter 1991

Well No. . Location . Date Sampled	GW-632		GW-633		GW-634		GW-656		GW-657		GW-658	
	RG		RG		RG		T0134		T2331		FF	
	03/11/91		03/11/91		03/09/91		03/07/91		03/06/91		03/09/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	T	.	N	.	K	.	T	.	FP	.	W	.
Benzene	5000	60.1	3	2.7	490	12.9	B	.	3	65.2	4300	53.1
Carbon tetrachloride	B	.	G	.	M	.	B	.	0.6	13	T	.
Chloroform	FP	.	FP	.	FP	.	FP	.	FP	.	T	.
Chloromethane	200	2.4	N	.	K	.	T	.	N	.	W	.
1,1-Dichloroethane	B	.	G	.	M	.	71	0.4	G	.	T	.
1,2-Dichloroethane	95	1.1	G	.	M	.	B	.	G	.	T	.
1,1-Dichloroethene	B	.	1	0.9	M	.	2200	12.4	G	.	T	.
1,2-Dichloroethene	B	.	2	1.8	M	.	350	2	G	.	T	.
Ethylbenzene	79	1	G	.	320	8.4	B	.	G	.	300	3.7
4-Methyl-2-pentanone	T	.	N	.	K	.	T	.	N	.	W	.
Methylene chloride	40	0.5	18	16.4	FP	.	B	.	FP	.	T	.
Tetrachloroethene	B	.	70	63.6	M	.	41	0.2	G	.	T	.
Toluene	1400	16.8	3	2.7	1100	28.9	B	.	1	21.7	900	11.1
1,1,1-Trichloroethane	B	.	G	.	M	.	26	0.1	G	.	T	.
Trichloroethene	B	.	8	7.3	M	.	15000	84.8	G	.	T	.
Vinyl acetate	T	.	N	.	K	.	T	.	N	.	W	.
Vinyl chloride	T	.	N	.	K	.	T	.	N	.	W	.
Xylenes	1500	18	5	4.5	1900	49.9	B	.	G	.	2600	32.1
	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCS	8314	99.9	110	99.9	3810	100.1	17688	99.9	4.6	99.9	8100	100

(CONTINUED)

APPENDIX I
Validated VOC Results
First Quarter 1991

Well No. . Location . Date Sampled	GW-659		GW-707		GW-708	
	FF		T2331		T2331	
	03/08/91		03/06/91		03/07/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	V	.	T	.	N	.
Benzene	170	62.5	1800	18.3	G	.
Carbon tetrachloride	N	.	B	.	G	.
Chloroform	FP	.	30	0.3	FP	.
Chloromethane	V	.	T	.	N	.
1,1-Dichloroethane	N	.	B	.	G	.
1,2-Dichloroethane	N	.	B	.	G	.
1,1-Dichloroethene	N	.	B	.	G	.
1,2-Dichloroethene	N	.	B	.	G	.
Ethylbenzene	11	4	B	.	G	.
4-Methyl-2-pentanone	V	.	T	.	N	.
Methylene chloride	FP	.	B	.	G	.
Tetrachloroethene	N	.	B	.	G	.
Toluene	8	2.9	2400	24.4	G	.
1,1,1-Trichloroethane	N	.	B	.	G	.
Trichloroethene	28	10.3	B	.	G	.
Vinyl acetate	2	0.7	T	.	N	.
Vinyl chloride	V	.	T	.	N	.
Xylenes	53	19.5	5600	57	G	.
.	.	.	.	.	.	.
SUMMED VOCS	272	99.9	9830	100	0	.

APPENDIX I
Validated VOC Results
Second Quarter 1991

Well No. Location Date Sampled	GW-151		GW-153		GW-169		GW-170		GW-183		GW-190	
	NHP		NHP		EXP		EXP		FF		RG	
	05/01/91		05/02/91		05/12/91		05/12/91		06/18/91		06/19/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	V	.	N	.	N	.	N	.	V	.	N	.
Benzene	N	.	G	.	G	.	G	.	12	19.4	G	.
Bromoform	N	.	G	.	G	.	G	.	N	.	G	.
Carbon tetrachloride	160	94.1	120	90.2	G	.	6	14.6	N	.	G	.
Chloroform	FP	.	7	5.3	G	.	28	68.3	N	.	G	.
Chloromethane	V	.	N	.	N	.	N	.	39	62.9	N	.
1,1-Dichloroethane	N	.	G	.	G	.	G	.	N	.	G	.
1,1-Dichloroethene	N	.	G	.	G	.	G	.	N	.	G	.
1,2-Dichloroethene	N	.	G	.	G	.	G	.	N	.	54	47
Ethylbenzene	N	.	G	.	G	.	G	.	N	.	G	.
4-Methyl-2-pentanone	V	.	N	.	N	.	N	.	6	9.7	N	.
Methylene chloride	N	.	G	.	G	.	4	9.8	FP	.	FP	.
Tetrachloroethene	10	5.9	5	3.8	4	44.4	3	7.3	N	.	38	33
Toluene	N	.	G	.	G	.	G	.	5	8.1	G	.
1,1,1-Trichloroethane	N	.	G	.	G	.	G	.	N	.	G	.
Trichloroethene	N	.	1	0.8	5	55.6	G	.	N	.	18	15.7
Vinyl acetate	V	.	N	.	N	.	N	.	V	.	N	.
Vinyl chloride	V	.	N	.	N	.	N	.	V	.	5	4.3
Xylenes	N	.	G	.	G	.	G	.	N	.	G	.
.	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCS	170	100	133	100.1	9	100	41	100	62	100.1	115	100

(CONTINUED)

APPENDIX I
Validated VOC Results
Second Quarter 1991

Well No. . Location . Date Sampled	GW-192		GW-193		GW-204		GW-220		GW-222		GW-223	
	B4		T2331		T0134		NHP		NHP		NHP	
	04/10/91		06/17/91		06/21/91		04/26/91		05/02/91		05/03/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	N	.	R	.	N	.	N	.	N	.	N	.
Benzene	G	.	2300	43.6	120	22.2	G	.	G	.	G	.
Bromoform	G	.	K	.	G	.	G	.	G	.	G	.
Carbon tetrachloride	G	.	K	.	G	.	160	88.9	G	.	30	11.8
Chloroform	G	.	K	.	G	.	8	4.4	G	.	3	1.2
Chloromethane	N	.	R	.	N	.	N	.	N	.	N	.
1,1-Dichloroethane	2	5.6	K	.	G	.	G	.	G	.	G	.
1,1-Dichloroethene	G	.	K	.	G	.	G	.	G	.	G	.
1,2-Dichloroethene	30	83.3	K	.	G	.	G	.	5	21.7	26	10.2
Ethylbenzene	G	.	920	17.5	G	.	G	.	G	.	G	.
4-Methyl-2-pentanone	N	.	R	.	N	.	N	.	N	.	N	.
Methylene chloride	G	.	350	6.6	G	.	G	.	G	.	G	.
Tetrachloroethene	FP	.	K	.	G	.	10	5.6	15	65.2	160	63
Toluene	G	.	600	11.4	30	5.6	G	.	G	.	G	.
1,1,1-Trichloroethane	G	.	K	.	G	.	G	.	G	.	G	.
Trichloroethene	4	11.1	K	.	G	.	2	1.1	3	13	35	13.8
Vinyl acetate	N	.	R	.	N	.	N	.	N	.	N	.
Vinyl chloride	N	.	R	.	N	.	N	.	N	.	N	.
Xylenes	G	.	1100	20.9	390	72.2	G	.	G	.	G	.
.	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCS	36	100	5270	100	540	100	180	100	23	99.9	254	100

(CONTINUED)

APPENDIX I
Validated VOC Results
Second Quarter 1991

Well No. . Location . Date Sampled	GW-232		GW-240		GW-251		GW-252		GW-253		GW-255	
	EXP		NHP		S2		S2		S2		S2	
	05/16/91		04/25/91		04/09/91		04/06/91		04/09/91		04/08/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	45	100	N	.	V	.	N	.	N	.	N	.
Benzene	G	.	G	.	N	.	G	.	Z	.	G	.
Bromoform	G	.	G	.	N	.	G	.	Z	.	G	.
Carbon tetrachloride	G	.	8	100	15	2.4	G	.	20	1.8	G	.
Chloroform	G	.	G	.	FP	.	G	.	FP	.	FP	.
Chloromethane	N	.	N	.	V	.	N	.	N	.	N	.
1,1-Dichloroethane	G	.	G	.	N	.	G	.	Z	.	G	.
1,1-Dichloroethene	G	.	G	.	N	.	G	.	Z	.	G	.
1,2-Dichloroethene	G	.	G	.	11	1.7	G	.	88	7.8	G	.
Ethylbenzene	G	.	G	.	N	.	G	.	Z	.	G	.
4-Methyl-2-pentanone	N	.	N	.	V	.	N	.	N	.	N	.
Methylene chloride	G	.	G	.	N	.	G	.	Z	.	G	.
Tetrachloroethene	G	.	G	.	450	70.8	FP	.	660	58.5	FP	.
Toluene	G	.	G	.	N	.	G	.	Z	.	G	.
1,1,1-Trichloroethane	G	.	G	.	N	.	G	.	Z	.	G	.
Trichloroethene	G	.	G	.	160	25.2	G	.	360	31.9	G	.
Vinyl acetate	N	.	N	.	V	.	N	.	N	.	N	.
Vinyl chloride	N	.	N	.	V	.	N	.	N	.	N	.
Xylenes	G	.	G	.	N	.	G	.	Z	.	G	.
.	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCS	45	100	8	100	636	100.1	0	.	1128	100	0	.

(CONTINUED)

APPENDIX I
Validated VOC Results
Second Quarter 1991

Well No. . Location . Date Sampled	GW-331		GW-332		GW-333		GW-334		GW-336		GW-337	
	WC		WC		WC		WC		WC		WC	
	04/14/91		04/13/91		04/13/91		04/13/91		04/14/91		04/14/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	W	.	T	.	W	.	W	.	T	.	L	.
Benzene	T	.	B	.	G	.	G	.	B	.	W	.
Bromoform	T	.	B	.	G	.	G	.	B	.	W	.
Carbon tetrachloride	T	.	B	.	G	.	G	.	B	.	W	.
Chloroform	T	.	B	.	G	.	5	1.5	B	.	W	.
Chloromethane	W	.	T	.	W	.	W	.	T	.	L	.
1,1-Dichloroethane	82	0.9	B	.	G	.	G	.	43	0.7	190	1.4
1,1-Dichloroethene	210	2.3	130	2.3	G	.	G	.	210	3.3	W	.
1,2-Dichloroethene	5700	61.3	3500	61.8	58	84.1	220	67.3	4800	75.8	11000	80.9
Ethylbenzene	T	.	B	.	G	.	G	.	B	.	W	.
4-Methyl-2-pentanone	W	.	T	.	W	.	W	.	T	.	L	.
Methylene chloride	T	.	360	6.4	G	.	G	.	B	.	W	.
Tetrachloroethene	2100	22.6	1100	19.4	FP	.	33	10.1	590	9.3	870	6.4
Toluene	T	.	B	.	G	.	G	.	B	.	W	.
1,1,1-Trichloroethane	100	1.1	53	0.9	G	.	G	.	68	1.1	430	3.2
Trichloroethene	1100	11.8	520	9.2	11	15.9	69	21.1	490	7.7	1100	8.1
Vinyl acetate	W	.	T	.	W	.	W	.	T	.	L	.
Vinyl chloride	W	.	T	.	W	.	W	.	130	2.1	L	.
Xylenes	T	.	B	.	G	.	G	.	B	.	W	.
.	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCs	9292	100	5663	100	69	100	327	100	6331	100	13590	100

(CONTINUED)

APPENDIX I
Validated VOC Results
Second Quarter 1991

Well No. . Location . Date Sampled	GW-380		GW-381		GW-382		GW-383		GW-505		GW-617	
	NRP		NRP		NRP		NRP		RG		Y12	
	04/25/91		05/08/91		05/07/91		04/25/91		06/21/91		04/08/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	26	100	W	.	W	.	W	.	W	.	W	.
Benzene	G	.	T	.	T	.	G	.	G	.	G	.
Bromoform	G	.	T	.	T	.	G	.	G	.	G	.
Carbon tetrachloride	G	.	6700	90.8	6500	94	14	2.6	G	.	G	.
Chloroform	G	.	600	9.2	100	2.6	10	1.9	G	.	G	.
Chloromethane	W	.	W	.	W	.	W	.	W	.	W	.
1,1-Dichloroethane	G	.	T	.	T	.	G	.	G	.	G	.
1,1-Dichloroethene	G	.	T	.	T	.	G	.	G	.	G	.
1,2-Dichloroethene	G	.	T	.	T	.	65	12.3	2	50	9	81.8
Ethylbenzene	G	.	T	.	T	.	G	.	G	.	G	.
4-Methyl-2-pentanone	W	.	W	.	W	.	W	.	W	.	W	.
Methylene chloride	G	.	T	.	T	.	G	.	G	.	G	.
Tetrachloroethene	G	.	T	.	210	3	320	60.5	1	25	FP	.
Toluene	G	.	T	.	T	.	G	.	G	.	G	.
1,1,1-Trichloroethane	G	.	T	.	T	.	G	.	G	.	G	.
Trichloroethene	G	.	T	.	20	0.4	120	22.7	1	25	2	18.2
Vinyl acetate	W	.	W	.	W	.	W	.	W	.	W	.
Vinyl chloride	W	.	W	.	W	.	W	.	W	.	W	.
Xylenes	G	.	T	.	T	.	G	.	G	.	G	.
.	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCS	26	100	7300	100	6910	100	529	100	4	100	11	100

(CONTINUED)

APPENDIX I
Validated VOC Results
Second Quarter 1991

Well No.	GW-618		GW-619		GW-620		GW-631		GW-632		GW-633	
Location	Y12		FIF		FIF		BG		BG		BG	
Date Sampled	04/09/91		04/06/91		04/06/91		06/19/91		06/20/91		06/20/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	N	-	N	-	R	-	N	-	L	-	N	-
Benzene	G	-	Z	-	K	-	G	17.6	9900	44.9	1	0.7
Bromoform	G	-	Z	-	K	-	G	-	W	-	2	1.4
Carbon tetrachloride	G	-	Z	-	K	-	G	-	W	-	G	-
Chloroform	G	-	Z	-	K	-	G	-	W	-	37	26.1
Chloromethane	N	-	N	-	R	-	G	17.6	530	2.4	N	-
1,1-Dichloroethane	G	-	Z	-	K	-	G	-	W	-	G	-
1,1-Dichloroethene	G	-	Z	-	K	-	G	-	W	-	1	0.7
1,2-Dichloroethane	50	63.7	50	41.3	1200	53.6	G	-	W	-	0.9	0.6
Ethylbenzene	G	-	Z	-	K	-	G	-	340	1.5	G	-
4-Methyl-2-pentanone	N	-	N	-	R	-	4	11.0	500	2.6	N	-
Methylene chloride	G	-	Z	-	K	-	FP	-	1700	7.7	FP	-
Tetrachloroethene	17	18.7	59	48.8	770	34.4	11	32.4	W	-	08	62
Toluene	G	-	Z	-	K	-	G	-	5500	24.9	1	0.7
1,1,1-Trichloroethane	G	-	Z	-	K	-	G	-	W	-	FP	-
Trichloroethene	12	13.2	12	9.9	270	12.1	3	8.8	W	-	11	7.8
Vinyl acetate	N	-	N	-	R	-	4	11.8	L	-	N	-
Vinyl chloride	4	4.4	N	-	R	-	N	-	L	-	N	-
Xylenes	G	-	Z	-	K	-	G	-	3500	15.9	G	-
	-	-	-	-	-	-	-	-	-	-	-	-
SUMMED VOCs	91	100	121	100	2240	100.1	34	100	22050	99.9	141.9	100

(CONTINUED)

APPENDIX 2
Validated VOC Results
Second Quarter 1991

Well No. . Location . Date Sampled	GW-634		GW-656		GW-657		GW-658		GW-659		GW-707	
	NG		T0134		T2331		FP		FP		T2331	
	06/19/91		06/20/91		06/17/91		06/18/91		06/20/91		06/17/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	W	.	L	.	H	.	H	.	K	.	H	.
Benzene	1400	11.3	W	.	G	.	7200	70.8	1300	76	G	.
Bromoform	T	.	W	.	G	.	G	.	H	.	G	.
Carbon tetrachloride	T	.	W	.	G	.	G	.	H	.	G	.
Chloroform	T	.	W	.	G	.	G	.	H	.	G	.
Chloromethane	350	2.8	L	.	H	.	H	.	K	.	H	.
1,1-Dichloroethane	T	.	W	.	G	.	G	.	H	.	G	.
1,1-Dichloroethane	T	.	2400	11.4	G	.	G	.	H	.	G	.
1,2-Dichloroethane	T	.	W	.	G	.	G	.	H	.	G	.
Ethylbenzene	1100	8.9	W	.	G	.	230	2.3	200	11.7	G	.
4-Methyl-2-pentanone	W	.	L	.	H	.	H	.	43	2.5	H	.
Methylene chloride	850	6.9	1600	7.6	FP	.	G	.	FP	.	FP	.
Tetrachloroethene	T	.	W	.	G	.	G	.	H	.	G	.
Toluene	3300	26.6	W	.	G	.	1100	10.8	H	.	G	.
1,1,1-Trichloroethane	T	.	W	.	G	.	43	0.4	H	.	G	.
Trichloroethene	T	.	17000	81	G	.	G	.	H	.	G	.
Vinyl acetate	W	.	L	.	H	.	H	.	18	1.1	H	.
Vinyl chloride	W	.	L	.	H	.	H	.	K	.	H	.
Xylenes	5400	43.5	W	.	G	.	1600	15.7	150	8.8	G	.
.	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCs	12400	100	21000	100	0	.	10173	100	1711	100.1	0	.

(CONTINUED)

APPENDIX I
Validated VOC Results
Second Quarter 1991

Well No.	GB-708	
Location	T2331	
Date Sampled	06/17/91	
	ug/L	% sum
Acetone	L	.
Benzene	3600	22
Bromoform	W	.
Carbon tetrachloride	W	.
Chloroform	W	.
Chloromethane	L	.
1,1-Dichloroethane	W	.
1,1-Dichloroethane	W	.
1,2-Dichloroethane	W	.
Ethylbenzene	550	3.4
4-Methyl-2-pentanone	L	.
Methylene chloride	1600	9.8
Tetrachloroethane	W	.
Toluene	1900	11.6
1,1,1-Trichloroethane	W	.
Trichloroethane	W	.
Vinyl acetate	L	.
Vinyl chloride	L	.
Xylenes	8700	53.2
	.	.
SUMMED VOCs	16350	100

APPENDIX I
Validated VOC Results
Third Quarter 1991

Well No. . Location . Date Sampled	CW-151		CW-169		CW-170		CW-183		CW-190		CW-191	
	MEP		EXP		EXP		FP		NC		B4	
	08/24/91		09/02/91		09/02/91		09/25/91		09/20/91		07/20/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	FP	.	N	.	N	.	N	.	N	.	N	.
Benzene	G	.	G	.	G	.	140	59.6	G	.	G	.
Carbon tetrachloride	250	87.4	G	.	100	90.1	G	.	G	.	G	.
Chloroform	15	5.2	G	.	FP	.	G	.	G	.	G	.
1,1-Dichloroethane	G	.	G	.	G	.	G	.	G	.	G	.
1,1-Dichloroethene	G	.	G	.	G	.	G	.	G	.	G	.
1,2-Dichloroethene	1	0.3	G	.	G	.	G	.	50	45.9	G	.
Ethylbenzene	G	.	G	.	G	.	7	3	G	.	G	.
4-Methyl-2-pentanone	N	.	N	.	N	.	N	.	N	.	N	.
Methylene chloride	G	.	G	.	G	.	G	.	G	.	FP	.
Tetrachloroethene	17	5.9	3	60	8	7.2	G	.	43	39.4	G	.
Toluene	G	.	G	.	G	.	56	23.8	G	.	G	.
1,1,1-Trichloroethane	G	.	G	.	G	.	G	.	G	.	G	.
Trichloroethene	3	1	2	40	3	2.7	G	.	14	12.8	G	.
Vinyl acetate	N	.	N	.	N	.	N	.	N	.	N	.
Vinyl chloride	N	.	N	.	N	.	N	.	2	1.8	N	.
Xylenes	G	.	G	.	G	.	32	13.6	G	.	G	.
.	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCS	286	99.8	5	100	111	100	235	100	109	99.9	0	.

(CONTINUED)

APPENDIX I
Validated VOC Results
Third Quarter 1991

Well No. . Location . Date Sampled	GW-192		GW-193		GW-194		GW-195		GW-204		GW-206	
	B4		T2331		B4		B4		T0134		EXP	
	07/26/91		09/26/91		07/22/91		07/22/91		09/26/91		08/29/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	N	.	R	.	N	.	N	.	N	.	N	.
Benzene	G	.	2000	42	G	.	G	.	110	13.5	G	.
Carbon tetrachloride	G	.	K	.	G	.	G	.	G	.	G	.
Chloroform	G	.	K	.	G	.	G	.	G	.	G	.
1,1-Dichloroethane	1	7.1	K	.	G	.	G	.	G	.	G	.
1,1-Dichloroethene	G	.	K	.	G	.	G	.	G	.	G	.
1,2-Dichloroethene	12	85.7	K	.	G	.	G	.	G	.	G	.
Ethylbenzene	G	.	1000	21	G	.	G	.	130	15.9	FP	.
4-Methyl-2-pentanone	N	.	R	.	N	.	N	.	N	.	FP	.
Methylene chloride	FP	.	K	.	FP	.	FP	.	G	.	G	.
Tetrachloroethene	G	.	K	.	G	.	G	.	G	.	G	.
Toluene	G	.	860	18.1	G	.	G	.	56	6.9	FP	.
1,1,1-Trichloroethane	G	.	K	.	G	.	G	.	G	.	G	.
Trichloroethene	1	7.1	K	.	G	.	G	.	G	.	G	.
Vinyl acetate	N	.	R	.	N	.	N	.	N	.	N	.
Vinyl chloride	N	.	R	.	N	.	N	.	N	.	N	.
Xylenes	G	.	900	18.9	G	.	G	.	520	63.7	FP	.
.	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCs	14	99.9	4760	100	0	.	0	.	816	100	0	.

(CONTINUED)

APPENDIX I
Validated VOC Results
Third Quarter 1991

Well No.	GW-208		GW-220		GW-240		GW-251		GW-252		GW-255	
Location	EXP		NHP		NHP		S2		S2		S2	
Date Sampled	08/29/91		08/24/91		08/24/91		07/14/91		07/13/91		07/13/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	N	.	N	.	N	.	V	.	N	.	N	.
Benzene	G	.	G	.	G	.	N	.	G	.	G	.
Carbon tetrachloride	G	.	280	88.3	13	100	10	2.6	G	.	G	.
Chloroform	G	.	19	6	FP	.	8	2.1	0.6	100	3	100
1,1-Dichloroethane	G	.	G	.	G	.	N	.	G	.	G	.
1,1-Dichloroethene	G	.	G	.	G	.	N	.	G	.	G	.
1,2-Dichloroethene	G	.	G	.	G	.	7	1.8	G	.	G	.
Ethylbenzene	FP	.	G	.	G	.	N	.	G	.	G	.
4-Methyl-2-pentanone	FP	.	N	.	N	.	V	.	N	.	N	.
Methylene chloride	G	.	G	.	FP	.	N	.	FP	.	FP	.
Tetrachloroethene	G	.	15	4.7	G	.	270	69.4	G	.	G	.
Toluene	FP	.	G	.	G	.	N	.	G	.	G	.
1,1,1-Trichloroethane	G	.	G	.	G	.	N	.	G	.	G	.
Trichloroethene	G	.	3	0.9	G	.	94	24.2	G	.	G	.
Vinyl acetate	N	.	N	.	N	.	V	.	N	.	N	.
Vinyl chloride	N	.	N	.	N	.	V	.	N	.	N	.
Xylenes	FP	.	G	.	G	.	N	.	G	.	G	.
	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCs	0	.	317	99.9	13	100	389	100.1	0.6	100	3	100

(CONTINUED)

APPENDIX I
Validated VOC Results
Third Quarter 1991

Well No. Location Date Sampled	GW-261		GW-262		GW-283		GW-337		GW-338		GW-380	
	SY		SY		FF		WC		WC		NHP	
	07/11/91		07/11/91		07/29/91		07/14/91		07/13/91		08/23/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	N	.	N	.	N	.	L	.	N	.	FP	.
Benzene	G	.	G	.	G	.	W	.	G	.	G	.
Carbon tetrachloride	G	.	G	.	G	.	W	.	G	.	G	.
Chloroform	G	.	G	.	G	.	W	.	G	.	1	62.5
1,1-Dichloroethane	G	.	G	.	G	.	190	1.2	G	.	G	.
1,1-Dichloroethene	G	.	G	.	G	.	280	1.7	G	.	G	.
1,2-Dichloroethane	G	.	G	.	G	.	11000	68.6	G	.	G	.
Ethylbenzene	G	.	G	.	G	.	W	.	G	.	G	.
4-Methyl-2-pentanone	N	.	N	.	N	.	L	.	N	.	N	.
Methylene chloride	FP	.	FP	100	0.5	100	1600	10	FP	.	G	.
Tetrachloroethene	G	.	G	.	G	.	930	5.8	G	.	0.6	37.5
Toluene	G	.	G	.	G	.	W	.	G	.	G	.
1,1,1-Trichloroethane	G	.	G	.	G	.	430	2.7	G	.	G	.
Trichloroethene	G	.	G	.	G	.	1300	8.1	G	.	G	.
Vinyl acetate	N	.	N	.	N	.	L	.	FP	.	N	.
Vinyl chloride	N	.	N	.	N	.	310	1.9	N	.	N	.
Xylenes	G	.	G	.	G	.	W	.	G	.	G	.
SUMMED VOCs	0	.	0	.	0.5	100	16040	100	0	.	1.6	100

(CONTINUED)

APPENDIX I
Validated VOC Results
Third Quarter 1991

Well No.	GW-381		GW-382		GW-383		GW-384		GW-505		GW-604	
Location	NHP		NHP		NHP		NHP		RG		NHP	
Date Sampled	08/28/91		08/27/91		08/27/91		08/21/91		09/20/91		09/01/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	W	.	W	.	.	.	N	.	N	.	N	.
Benzene	T	.	T	.	V	.	G	.	G	.	G	.
Carbon tetrachloride	7100	90	6800	93.4	FP	.	G	.	G	.	G	.
Chloroform	790	10	200	2.7	7	1.2	G	.	G	.	FP	.
1,1-Dichloroethane	T	.	T	.	V	.	G	.	G	.	G	.
1,1-Dichloroethene	T	.	T	.	V	.	G	.	G	.	G	.
1,2-Dichloroethene	T	.	T	.	80	13.6	3	100	3	50	G	.
Ethylbenzene	T	.	T	.	V	.	G	.	G	.	G	.
4-Methyl-2-pentanone	W	.	W	.	.	.	N	.	N	.	N	.
Methylene chloride	T	.	T	.	V	.	G	.	G	.	G	.
Tetrachloroethene	T	.	260	3.6	370	63	G	.	1	16.7	G	.
Toluene	T	.	23	0.3	FP	.	G	.	G	.	G	.
1,1,1-Trichloroethane	T	.	T	.	V	.	G	.	G	.	G	.
Trichloroethene	T	.	T	.	130	22.1	G	.	2	33.3	G	.
Vinyl acetate	W	.	W	.	.	.	N	.	N	.	N	.
Vinyl chloride	W	.	W	.	.	.	N	.	N	.	N	.
Xylenes	T	.	T	.	V	.	G	.	G	.	G	.
.	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCs	7890	100	7283	100	587	99.9	3	100	6	100	0	.

(CONTINUED)

APPENDIX I
Validated VOC Results
Third Quarter 1991

Well No. . Location . Date Sampled	GW-605		GW-606		GW-617		GW-618		GW-619		GW-620	
	NHP		NHP		Y12		Y12		FTF		FTF	
	08/26/91		08/26/91		07/12/91		07/12/91		07/14/91		07/14/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	N	.	170	4.7	N	.	N	.	M	.	K	.
Benzene	G	.	G	.	G	.	G	.	Z	.	M	.
Carbon tetrachloride	26	35.3	2800	77.4	G	.	G	.	Z	.	M	.
Chloroform	4	5.4	600	16.6	G	.	G	.	Z	.	M	.
1,1-Dichloroethane	1	1.4	G	.	G	.	G	.	Z	.	M	.
1,1-Dichloroethene	G	.	G	.	G	.	G	.	Z	.	M	.
1,2-Dichloroethene	17	23.1	2	0.1	4	76.9	67	77	450	34.4	1100	47
Ethylbenzene	G	.	G	.	G	.	G	.	Z	.	M	.
4-Methyl-2-pentanone	N	.	N	.	N	.	N	.	M	.	K	.
Methylene chloride	0.6	0.8	32	0.9	G	.	G	.	FP	.	FP	.
Tetrachloroethene	18	24.5	12	0.3	0.7	13.5	5	5.7	620	47.3	910	38.9
Toluene	G	.	0.6	0	G	.	G	.	Z	.	M	.
1,1,1-Trichloroethane	G	.	G	.	G	.	G	.	Z	.	M	.
Trichloroethene	7	9.5	0.9	0	0.5	9.6	11	12.6	240	18.3	330	14.1
Vinyl acetate	N	.	N	.	N	.	N	.	M	.	K	.
Vinyl chloride	N	.	N	.	N	.	4	4.6	M	.	K	.
Xylenes	G	.	G	.	G	.	G	.	Z	.	M	.
	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCs	73.6	100	3617.5	100	5.2	100	87	99.9	1310	100	2340	100

(CONTINUED)

APPENDIX I
Validated VOC Results
Third Quarter 1991

Well No. . Location . Date Sampled	GW-631		GW-632		GW-633		GW-634		GW-656		GW-657	
	RG		RG		RG		RG		T0134		T2331	
	09/19/91		09/20/91		09/19/91		09/20/91		09/26/91		09/24/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	N	.	L	.	N	.	W	.	L	.	N	.
Benzene	3	30	9200	55.8	2	2	970	11.5	W	.	G	.
Carbon tetrachloride	G	.	W	.	G	.	T	.	W	.	G	.
Chloroform	G	.	W	.	24	23.8	T	.	W	.	G	.
1,1-Dichloroethane	G	.	W	.	G	.	T	.	W	.	G	.
1,1-Dichloroethene	G	.	W	.	0.8	0.8	T	.	2000	12.2	G	.
1,2-Dichloroethene	G	.	W	.	2	2	T	.	400	2.4	G	.
Ethylbenzene	G	.	290	1.8	G	.	990	11.7	W	.	G	.
4-Methyl-2-pentanone	N	.	L	.	N	.	W	.	L	.	N	.
Methylene chloride	FP	.	W	.	FP	.	T	.	W	.	G	.
Tetrachloroethene	6	60	W	.	64	63.5	T	.	W	.	G	.
Toluene	G	.	3700	22.4	FP	.	2200	26	W	.	FP	.
1,1,1-Trichloroethane	G	.	W	.	G	.	T	.	W	.	G	.
Trichloroethene	1	10	W	.	8	7.9	T	.	14000	85.4	G	.
Vinyl acetate	N	.	L	.	N	.	W	.	L	.	N	.
Vinyl chloride	N	.	L	.	N	.	W	.	L	.	N	.
Xylenes	G	.	3300	20	G	.	4300	50.8	W	.	G	.
.	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCS	10	100	16490	100	100.8	100	8460	100	16400	100	0	.

(CONTINUED)

APPENDIX I
Validated VOC Results
Third Quarter 1991

Well No.	GW-658		GW-659		GW-707		GW-708	
Location	FF		FF		T2331		T2331	
Date Sampled	09/26/91		09/25/91		09/26/91		09/26/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	L	.	K	.	M	.	L	.
Benzene	9300	60.5	1200	73.7	3	5	2100	15.6
Carbon tetrachloride	W	.	M	.	G	.	W	.
Chloroform	W	.	M	.	G	.	W	.
1,1-Dichloroethane	W	.	M	.	G	.	W	.
1,1-Dichloroethene	W	.	M	.	G	.	W	.
1,2-Dichloroethane	W	.	M	.	G	.	W	.
Ethylbenzene	730	4.8	M	.	G	.	W	.
4-Methyl-2-pentanone	730	4.8	280	17.2	8	13.3	1600	11.9
Methylene chloride	L	.	48	2.9	FP	.	L	.
Tetrachloroethene	W	.	FP	.	G	.	W	.
Toluene	2200	14.3	M	.	G	.	W	.
1,1,1-Trichloroethane	W	.	FP	.	FP	.	1900	14.1
Trichloroethene	W	.	M	.	G	.	W	.
Vinyl acetate	L	.	M	.	6	10	W	.
Vinyl chloride	L	.	K	.	M	.	L	.
Xylenes	2400	15.6	K	.	M	.	L	.
			100	6.1	43	71.7	7900	58.5
SUMMED VOCs	15360	100	1628	99.9	60	100	13500	100.1

APPENDIX I
Validated VOC Results
Fourth Quarter 1991

Well No.	GW-151		GW-168		GW-169		GW-170		GW-183		GW-190	
Location	NRP		EXP		EXP		EXP		FP		RG	
Date Sampled	10/23/91		11/03/91		11/12/91		11/06/91		12/15/91		12/15/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	.	.	N	.	N	.	N	.	N	.	N	.
Benzene	V	.	G	.	G	.	G	.	83	34.9	G	.
Bromoform	V	.	G	.	G	.	G	.	G	.	G	.
Carbon tetrachloride	410	92.3	G	.	G	.	91	87.5	G	.	G	.
Chloroform	16	3.6	G	.	G	.	FP	.	G	.	G	.
Chloromethane	.	.	N	.	N	.	N	.	27	11.3	N	.
1,1-Dichloroethane	V	.	G	.	G	.	G	.	G	.	14	0.9
1,2-Dichloroethane	V	.	G	.	G	.	G	.	G	.	G	.
1,1-Dichloroethene	V	.	G	.	G	.	G	.	G	.	1	0.1
1,2-Dichloroethene	V	.	G	.	G	.	G	.	G	.	1100	70.6
Ethylbenzene	V	.	G	.	G	.	G	.	8	3.4	G	.
2-Hexanone	.	.	N	.	N	.	N	.	N	.	N	.
4-Methyl-2-pentanone	.	.	N	.	N	.	N	.	N	.	N	.
Methylene chloride	FP	.	FP	.	G	.	G	.	G	.	0.6	0
1,1,2,2-Tetrachloroethane	V	.	G	.	G	.	G	.	G	.	G	.
Tetrachloroethene	18	4.1	G	.	3	60	10	9.6	G	.	170	10.9
Toluene	V	.	FP	.	G	.	FP	.	72	30.3	0.3	0
1,1,1-Trichloroethane	V	.	G	.	G	.	G	.	G	.	5	0.3
Trichloroethene	V	.	G	.	2	40	3	2.9	G	.	230	14.8
Vinyl acetate	.	.	N	.	N	.	N	.	N	.	N	.
Vinyl chloride	.	.	N	.	N	.	N	.	N	.	38	2.4
Xylenes	V	.	G	.	G	.	G	.	48	20.2	G	.
	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCS	444	100	0	.	5	100	104	100	238	100.1	1558.9	100

(CONTINUED)

APPENDIX I
Validated VOC Results
Fourth Quarter 1991

Well No. . Location . Date Sampled	GW-191		GW-192		GW-193		GW-194		GW-195		GW-204	
	B4		B4		T2331		B4		B4		T0134	
	10/05/91		10/05/91		12/19/91		10/05/91		10/05/91		12/26/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	N	.	N	.	R	.	N	.	N	.	FP	.
Benzene	G	.	G	.	2400	55.2	G	.	G	.	G	.
Bromoform	G	.	G	.	K	.	G	.	G	.	G	.
Carbon tetrachloride	G	.	G	.	K	.	G	.	G	.	G	.
Chloroform	G	.	G	.	K	.	G	.	G	.	G	.
Chloromethane	N	.	N	.	R	.	N	.	N	.	N	.
1,1-Dichloroethane	G	.	2	3.9	K	.	G	.	G	.	G	.
1,2-Dichloroethane	G	.	G	.	K	.	G	.	G	.	G	.
1,1-Dichloroethene	G	.	0.9	1.8	K	.	G	.	G	.	G	.
1,2-Dichloroethene	G	.	36	70.7	K	.	G	.	G	.	G	.
Ethylbenzene	G	.	G	.	420	9.7	G	.	G	.	G	.
2-Hexanone	N	.	N	.	R	.	N	.	N	.	N	.
4-Methyl-2-pentanone	N	.	N	.	R	.	N	.	N	.	N	.
Methylene chloride	G	.	G	.	K	.	G	.	G	.	FP	.
1,1,2,2-Tetrachloroethane	G	.	G	.	K	.	G	.	G	.	G	.
Tetrachloroethene	G	.	5	9.8	K	.	G	.	0.8	100	G	.
Toluene	FP	.	FP	.	760	17.5	FP	.	FP	.	G	.
1,1,1-Trichloroethane	G	.	G	.	K	.	G	.	G	.	G	.
Trichloroethene	G	.	5	9.8	K	.	G	.	G	.	G	.
Vinyl acetate	N	.	N	.	R	.	N	.	N	.	N	.
Vinyl chloride	N	.	2	3.9	R	.	N	.	N	.	N	.
Xylenes	G	.	G	.	770	17.7	G	.	G	.	G	.
	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCs	0	.	50.9	99.9	4350	100.1	0	.	0.8	100	0	.

(CONTINUED)

APPENDIX I
Validated VOC Results
Fourth Quarter 1991

Well No. . Location . Date Sampled	GW-206		GW-207		GW-208		GW-220		GW-232		GW-239	
	EXP		EXP		EXP		NHP		EXP		EXP	
	11/07/91		10/28/91		10/30/91		10/22/91		11/05/91		11/02/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	N	.	N	.	N	.	V	.	N	.	N	.
Benzene	G	.	G	.	G	.	N	.	G	.	G	.
Bromoform	G	.	G	.	G	.	N	.	G	.	G	.
Carbon tetrachloride	G	.	G	.	G	.	270	87.4	G	.	G	.
Chloroform	G	.	G	.	G	.	20	6.5	G	.	G	.
Chloromethane	N	.	N	.	N	.	V	.	N	.	N	.
1,1-Dichloroethane	G	.	G	.	G	.	N	.	G	.	G	.
1,2-Dichloroethane	G	.	G	.	G	.	N	.	G	.	G	.
1,1-Dichloroethene	G	.	G	.	G	.	N	.	G	.	G	.
1,2-Dichloroethene	G	.	G	.	G	.	N	.	G	.	G	.
Ethylbenzene	G	.	G	.	G	.	N	.	G	.	G	.
2-Hexanone	N	.	N	.	N	.	V	.	N	.	N	.
4-Methyl-2-pentanone	N	.	N	.	N	.	V	.	N	.	N	.
Methylene chloride	G	.	G	.	FP	.	FP	.	FP	.	G	.
1,1,2,2-Tetrachloroethane	G	.	G	.	G	.	N	.	G	.	G	.
Tetrachloroethene	G	.	G	.	G	.	16	5.2	G	.	G	.
Toluene	FP	.	FP	.	G	.	FP	.	FP	.	FP	.
1,1,1-Trichloroethane	G	.	G	.	G	.	N	.	G	.	G	.
Trichloroethene	G	.	G	.	G	.	3	1	G	.	G	.
Vinyl acetate	N	.	N	.	N	.	V	.	N	.	N	.
Vinyl chloride	N	.	N	.	N	.	V	.	N	.	N	.
Xylenes	G	.	G	.	G	.	N	.	G	.	G	.
.	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCS	0	.	0	.	0	.	309	100.1	0	.	0	.

(CONTINUED)

APPENDIX I
Validated VOC Results
Fourth Quarter 1991

Well No. . Location . Date Sampled	GW-240		GW-251		GW-252		GW-255		GW-281		GW-282	
	NHP		S2		S2		S2		FF		FF	
	10/22/91		10/03/91		10/03/91		10/03/91		10/09/91		10/09/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	N	.	V	.	N	.	N	.	N	.	N	.
Benzene	G	.	N	.	G	.	G	.	G	.	G	.
Bromoform	G	.	N	.	G	.	G	.	G	.	G	.
Carbon tetrachloride	7	100	6	2.8	G	.	G	.	G	.	G	.
Chloroform	FP	.	6	2.8	1	100	3	100	G	.	G	.
Chloromethane	N	.	V	.	N	.	N	.	N	.	N	.
1,1-Dichloroethane	G	.	N	.	G	.	G	.	G	.	G	.
1,2-Dichloroethane	G	.	N	.	G	.	G	.	G	.	G	.
1,1-Dichloroethene	G	.	N	.	G	.	G	.	G	.	G	.
1,2-Dichloroethene	G	.	2	0.9	G	.	G	.	G	.	G	.
Ethylbenzene	G	.	N	.	G	.	G	.	G	.	G	.
2-Hexanone	N	.	V	.	N	.	N	.	N	.	N	.
4-Methyl-2-pentanone	N	.	V	.	N	.	N	.	N	.	N	.
Methylene chloride	G	.	N	.	G	.	G	.	G	.	G	.
1,1,2,2-Tetrachloroethane	G	.	N	.	G	.	G	.	G	.	G	.
Tetrachloroethene	G	.	150	69.1	G	.	G	.	G	.	G	.
Toluene	FP	.	FP	.	G	.	G	.	FP	.	FP	.
1,1,1-Trichloroethane	G	.	N	.	G	.	G	.	G	.	G	.
Trichloroethene	G	.	53	24.4	G	.	G	.	G	.	G	.
Vinyl acetate	N	.	V	.	N	.	N	.	N	.	N	.
Vinyl chloride	N	.	V	.	N	.	N	.	N	.	N	.
Xylenes	G	.	N	.	G	.	G	.	G	.	G	.
	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCs	7	100	217	100	1	100	3	100	0	.	0	.

(CONTINUED)

APPENDIX I
Validated VOC Results
Fourth Quarter 1991

Well # Location Date Sampled	GW-283		GW-284		GW-285		GW-337		GW-338		GW-380	
	FF		FF		FF		WC		WC		NHP	
	10/09/91		10/09/91		10/09/91		10/04/91		10/03/91		10/22/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	N	.	N	.	N	.	L	.	N	.	N	.
Benzene	G	.	G	.	G	.	W	.	G	.	G	.
Bromoform	G	.	G	.	G	.	W	.	G	.	G	.
Carbon tetrachloride	G	.	G	.	G	.	W	.	G	.	G	.
Chloroform	G	.	G	.	G	.	W	.	G	.	FF	.
Chloromethane	N	.	N	.	N	.	L	.	N	.	N	.
1,1-Dichloroethane	G	.	G	.	G	.	W	.	G	.	G	.
1,2-Dichloroethane	G	.	G	.	G	.	W	.	G	.	G	.
1,1-Dichloroethene	G	.	G	.	G	.	240	1.6	G	.	G	.
1,2-Dichloroethene	G	.	G	.	0.8	100	12000	81	G	.	G	.
Ethylbenzene	G	.	G	.	G	.	W	.	G	.	G	.
2-Hexanone	N	.	N	.	N	.	L	.	N	.	N	.
4-Methyl-2-pentanone	3	100	N	.	N	.	L	.	N	.	N	.
Methylene chloride	G	.	G	.	G	.	W	.	G	.	G	.
1,1,2,2-Tetrachloroethane	G	.	G	.	G	.	W	.	G	.	G	.
Tetrachloroethene	G	.	G	.	G	.	960	6.5	G	.	G	.
Toluene	FF	.	FF	.	FF	.	72	0.5	FF	.	FF	.
1,1,1-Trichloroethane	G	.	G	.	G	.	340	2.3	G	.	G	.
Trichloroethene	G	.	G	.	G	.	1200	8.1	G	.	G	.
Vinyl acetate	N	.	N	.	N	.	L	.	N	.	N	.
Vinyl chloride	N	.	N	.	N	.	L	.	N	.	N	.
Xylenes	G	.	G	.	G	.	W	.	G	.	G	.
	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCS	3	100	0	.	0.8	100	14812	100	0	.	G	.

(CONTINUED)

APPENDIX I
Validated VOC Results
Fourth Quarter 1991

Well No. . Location . Date Sampled	GW-381		GW-382		GW-383		GW-384		GW-385		GW-508	
	NRP		NRP		NRP		NRP		NRP		RG	
	10/27/91		10/27/91		10/26/91		10/15/91		10/14/91		12/15/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	W	.	W	.	N	.	N	.	N	.	S	.
Benzene	T	.	T	.	G	.	G	.	G	.	18000	15.8
Bromoform	T	.	T	.	G	.	G	.	G	.	J	.
Carbon tetrachloride	5300	88.5	5300	90.6	G	.	G	.	G	.	J	.
Chloroform	580	9.7	260	4.4	FP	.	G	.	G	.	J	.
Chloromethane	W	.	W	.	N	.	N	.	N	.	S	.
1,1-Dichloroethane	T	.	T	.	G	.	G	.	G	.	J	.
1,2-Dichloroethane	T	.	T	.	G	.	G	.	G	.	J	.
1,1-Dichloroethene	T	.	T	.	1	0.3	G	.	G	.	J	.
1,2-Dichloroethene	T	.	T	.	97	27.6	6	100	G	.	J	.
Ethylbenzene	T	.	T	.	G	.	G	.	G	.	6600	5.8
2-Hexanone	W	.	W	.	N	.	N	.	N	.	S	.
4-Methyl-2-pentanone	W	.	W	.	N	.	N	.	N	.	S	.
Methylene chloride	42	0.7	T	.	G	.	G	.	FP	.	J	.
1,1,2,2-Tetrachloroethane	T	.	T	.	G	.	G	.	G	.	J	.
Tetrachloroethene	T	.	220	3.8	180	51.3	G	.	G	.	J	.
Toluene	70	1.2	69	1.2	FP	.	G	.	G	.	45000	39.6
1,1,1-Trichloroethane	T	.	T	.	G	.	G	.	G	.	J	.
Trichloroethene	T	.	T	.	73	20.8	G	.	G	.	J	.
Vinyl acetate	W	.	W	.	N	.	N	.	N	.	S	.
Vinyl chloride	W	.	W	.	N	.	N	.	N	.	S	.
Xylenes	T	.	T	.	G	.	G	.	G	.	44000	38.7
.	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCs	5992	100.1	5849	100	351	100	6	100	0	.	113600	99.9

(CONTINUED)

APPENDIX I
Validated VOC Results
Fourth Quarter 1991

Well No. . Location . Date Sampled	CW-603		CW-604		CW-605		CW-606		CW-617		CW-618	
	RHP		RHP		RHP		RHP		Y12		Y12	
	11/03/91		11/03/91		10/23/91		10/24/91		10/02/91		10/02/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	N	.	N	.	15	9.3	R	.	N	.	N	.
Benzene	G	.	G	.	G	.	K	.	G	.	G	.
Bromoform	G	.	G	.	G	.	K	.	G	.	G	.
Carbon tetrachloride	G	.	G	.	21	13	2600	79.2	G	.	G	.
Chloroform	G	.	1	100	32	19.8	640	19.5	G	.	G	.
Chloromethane	N	.	N	.	N	.	R	.	N	.	N	.
1,1-Dichloroethane	G	.	G	.	2	1.2	K	.	G	.	G	.
1,2-Dichloroethane	G	.	G	.	G	.	K	.	G	.	G	.
1,1-Dichloroethene	G	.	G	.	1	0.6	K	.	G	.	G	.
1,2-Dichloroethene	G	.	G	.	40	24.7	K	.	20	66.7	65	59.1
Ethylbenzene	G	.	G	.	G	.	K	.	G	.	G	.
2-Hexanone	N	.	N	.	N	.	R	.	N	.	N	.
4-Methyl-2-pentanone	N	.	N	.	N	.	R	.	N	.	N	.
Methylene chloride	FP	.	G	.	FP	.	41	1.2	G	.	G	.
1,1,2,2-Tetrachloroethane	G	.	G	.	G	.	K	.	G	.	G	.
Tetrachloroethene	G	.	G	.	36	22.2	K	.	6	20	22	20
Toluene	FP	.	FP	.	FP	.	K	.	G	.	G	.
1,1,1-Trichloroethane	G	.	G	.	G	.	K	.	G	.	G	.
Trichloroethene	G	.	G	.	15	9.3	K	.	4	13.3	18	16.4
Vinyl acetate	N	.	N	.	N	.	R	.	N	.	N	.
Vinyl chloride	N	.	N	.	N	.	R	.	N	.	5	4.5
Xylenes	G	.	G	.	G	.	K	.	G	.	G	.
.	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCs	0	.	1	100	162	100.1	3281	99.9	30	100	110	100

(CONTINUED)

APPENDIX I
Validated VOC Results
Fourth Quarter 1991

Well No. . Location . Date Sampled	GW-619		GW-620		GW-631		GW-632		GW-633		GW-634	
	FIF		FIF		RG		RG		RG		RG	
	10/04/91		10/04/91		12/14/91		12/14/91		12/14/91		12/14/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	N	.	K	.	Z	.	L	.	N	.	W	.
Benzene	G	.	N	.	N	.	7100	55.6	2	1.1	880	10.6
Bromoform	G	.	N	.	N	.	W	.	3	1.7	.	.
Carbon tetrachloride	G	.	N	.	N	.	W	.	G	.	.	.
Chloroform	G	.	N	.	N	.	W	.	35	20	.	.
Chloromethane	N	.	K	.	Z	.	L	.	N	.	W	.
1,1-Dichloroethane	G	.	N	.	3	6.5	W	.	G	.	.	.
1,2-Dichloroethane	G	.	1100	49.5	N	.	W	.	G	.	.	.
1,1-Dichloroethene	G	.	N	.	N	.	W	.	1	0.6	.	.
1,2-Dichloroethene	140	35.6	N	.	N	.	W	.	G	.	.	.
Ethylbenzene	G	.	N	.	N	.	190	1.5	G	.	920	11.1
2-Hexanone	N	.	K	.	Z	.	L	.	N	.	W	.
4-Methyl-2-pentanone	N	.	K	.	Z	.	L	.	N	.	W	.
Methylene chloride	G	.	N	.	FP	.	200	2.2	20	16	.	.
1,1,2,2-Tetrachloroethane	G	.	N	.	N	.	W	.	G	.	.	.
Tetrachloroethene	200	50.8	820	36.9	38	82.6	W	.	93	53.1	.	.
Toluene	FP	.	13	0.6	N	.	2900	22.7	2	1.1	2400	28.9
1,1,1-Trichloroethane	0.6	0.2	N	.	N	.	W	.	G	.	.	.
Trichloroethene	53	13.5	290	13	5	10.9	W	.	10	5.7	.	.
Vinyl acetate	N	.	K	.	Z	.	L	.	N	.	W	.
Vinyl chloride	N	.	K	.	Z	.	L	.	N	.	W	.
Xylenes	G	.	N	.	N	.	2300	18	1	0.6	4100	49.4
.	.	.	.	.	.	.	.	.	.	.	.	.
SUMMED VOCs	393.6	100.1	2223	100	46	100	12770	100	175	99.9	8300	100

(CONTINUED)

5 of 5

APPENDIX I
Validated VOC Results
Fourth Quarter 1991

Well No. . Location . Date Sampled	GW-656		GW-658		GW-659		GW-707		GW-708	
	T0134		FF		FF		T2331		T2331	
	12/20/91		12/15/91		12/15/91		12/19/91		12/19/91	
	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum	ug/L	% sum
Acetone	L	.	L	.	K	.	N	.	W	.
Benzene	W	.	10000	45	920	69.9	3	100	1800	21.5
Bromoform	W	.	W	.	M	.	G	.	.	.
Carbon tetrachloride	W	.	W	.	M	.	G	.	.	.
Chloroform	W	.	W	.	M	.	G	.	.	.
Chloromethane	L	.	L	.	K	.	N	.	W	.
1,1-Dichloroethane	W	.	W	.	M	.	G	.	.	.
1,2-Dichloroethane	W	.	940	4.2	M	.	G	.	.	.
1,1-Dichloroethene	1900	12.3	W	.	M	.	G	.	.	.
1,2-Dichloroethene	W	.	W	.	M	.	G	.	.	.
Ethylbenzene	W	.	710	3.2	200	15.2	G	.	160	1.9
2-Hexanone	L	.	220	1	K	.	N	.	W	.
4-Methyl-2-pentanone	L	.	1400	6.3	37	2.8	N	.	W	.
Methylene chloride	W	.	FP	.	M	.	G	.	.	.
1,1,2,2-Tetrachloroethane	W	.	29	0.1	M	.	G	.	.	.
Tetrachloroethene	W	.	W	.	M	.	G	.	.	.
Toluene	200	1.3	2200	9.9	M	.	G	.	630	7.5
1,1,1-Trichloroethane	W	.	W	.	M	.	G	.	.	.
Trichloroethene	12000	77.4	W	.	M	.	G	.	.	.
Vinyl acetate	L	.	2600	11.7	K	.	N	.	W	.
Vinyl chloride	L	.	L	.	K	.	N	.	W	.
Xylenes	1400	9	4100	18.5	160	12.1	G	.	5800	69.1
	.	.	.	.	.	.	.	.	.	.
SUMMED VOCS	15500	100	22199	99.9	1317	100	3	100	8390	100

APPENDIX J

**TRACE METAL CONCENTRATIONS EXCEEDING
MAXIMUM CONTAMINANT LEVELS**

EXPLANATION

LOCATION:

B4 - Beta-4 Security Pits
EXP - Exit-Pathway Monitoring Well
FF - Building 9754-2 Fuel Facility
FTF - Fire Training Facility
NHP - New Hope Pond
RG - Rust Garage Area
S2 - S-2 Site
SY - Y-12 Salvage Yard
T0134 - Underground Storage Tank 0134-U
T2331 - Underground Storage Tank 2331-U
WC - Waste Coolant Processing Area
Y12 - Y-12 Plant

NOTE:

All results in milligrams per Liter (mg/L).

- Concentration less than MCL
TOT - Total Concentration (Unfiltered Sample)
DIS - Dissolved Concentration (Filtered Sample)
TSS - Total Suspended Solids

<u>Metal</u>	<u>Maximum Contaminant Level (mg/L)</u>
Barium (ICP)	1.0
Cadmium (AAS)	0.01
Chromium (AAS)	0.05
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 J
Trace Metal Concentrations Exceeding
Maximum Contaminant Levels, 1991

Well No. . Location . Date Sampled	GW-167		GW-169		GW-206				GW-251					
	EXP		EXP		EXP				S2					
	05/08/91		11/12/91		02/20/91		05/10/91		01/14/91		04/09/91		07/14/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
Barium	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cadmium (AAS)	.	.	.	.	.	.	.	.	0.16	0.15	0.24	<0.002	0.21	0.21
Chromium (AAS)	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Lead (AAS)	0.081	<0.004	0.3	<0.004	0.08	<0.004	0.067	<0.004	.	.	.	.	.	.
Mercury (CVAA)	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
TSS (mg/L)	1412	.	1228	.	565	.	3970	.	54	.	72	.	20	.

(CONTINUED)

Well No. . Location . Date Sampled	GW-251		GW-253				GW-263						GW-281	
	S2		S2				SY						FF	
	10/03/91		01/14/91		04/09/91		04/03/91		07/11/91		10/01/91		07/29/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
Barium	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cadmium (AAS)	0.14	0.11	5	4.9	4.5	<0.002	.	.	.	.	.	.	.	.
Chromium (AAS)	.	.	.	.	.	.	0.4	<0.01	0.071	<0.01	0.37	<0.01	0.068	0.013
Lead (AAS)	.	.	.	.	0.055	<0.004	.	.	.	.	.	.	.	.
Mercury (CVAA)	.	.	0.009	0.012	0.0064	<0.0002	.	.	.	.	.	.	0.0048	0.00075
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
TSS (mg/L)	58	.	5	.	4	.	10	.	8	.	73	.	.	.

(CONTINUED)

APPENDIX J
Trace Metal Concentrations Exceeding
Maximum Contaminant Levels, 1991

Well No. . Location . Date Sampled	GW-282						GW-283							
	FF						FF							
	04/19/91		07/30/91		10/09/91		01/24/91		04/19/91		07/29/91		10/09/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
Barium	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cadmium (AAS)	0.012	<0.002	0.04	0.037	0.036	0.016	.	.	.	.	2.3	0.019	2	<0.01
Chromium (AAS)	.	.	.	.	0.29	<0.01	0.06	<0.01	0.408	<0.01	.	.	.	.
Lead (AAS)	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mercury (CVAA)	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
TSS (mg/L)	20	.	.	.	127	.	138	.	102	.	.	.	333	.

(CONTINUED)

Well No. . Location . Date Sampled	GW-284						GW-285							
	FF						FF							
	04/19/91		07/29/91		10/09/91		01/25/91		04/19/91		07/29/91		10/09/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
Barium	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cadmium (AAS)	.	.	.	.	.	.	0.011	<0.002	.	.	.	.	.	.
Chromium (AAS)	0.285	<0.01	6.8	0.17	7.2	<0.01	1.8	<0.01	0.202	<0.01	0.78	0.089	4.6	<0.01
Lead (AAS)	.	.	.	.	.	.	0.061	<0.004	.	.	.	.	0.07	<0.004
Mercury (CVAA)	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
TSS (mg/L)	478	.	.	.	434	.	69	.	105	.	.	.	111	.

(CONTINUED)

APPENDIX J
Trace Metal Concentrations Exceeding
Maximum Contaminant Levels, 1991

Well No. . Location . Date Sampled	GW-335				GW-380								GW-505	
	WC				NHP								RG	
	01/21/91		04/10/91		01/29/91		04/25/91		08/23/91		10/22/91		03/12/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
Barium	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cadmium (AAS)	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Chromium (AAS)	0.16	<0.01	0.57	<0.01	0.065	<0.01	0.14	<0.01	2.2	0.29	0.4	<0.01	0.166	<0.01
Lead (AAS)	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mercury (CVAA)	.	.	.	.	.	.	.	.	.	.	.	.	.	.
TSS (mg/L)	158	.	166	.	45	.	31	.	512	.	20	.	254	.

(CONTINUED)

Well No. . Location . Date Sampled	GW-505		GW-603		GW-604		GW-618							
	RG		NHP		NHP		Y12							
	06/21/91		09/01/91		01/26/91		01/13/91		04/09/91		07/12/91		10/02/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
Barium	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cadmium (AAS)	.	.	.	.	.	.	0.027	0.0072	0.021	<0.002	0.034	0.0061	0.016	0.003
Chromium (AAS)	0.21	<0.01	0.16	<0.02	.	.	.	.	.	.	.	.	.	.
Lead (AAS)	.	.	.	.	0.063	<0.004	.	.	.	.	.	.	.	.
Mercury (CVAA)	.	.	.	.	.	.	.	.	.	.	.	.	.	.
TSS (mg/L)	466	.	16	.	1836	.	<1	.	<1	.	2	.	<1	.

(CONTINUED)

APPENDIX J
Trace Metal Concentrations Exceeding
Maximum Contaminant Levels, 1991

Well No. . Location . Date Sampled	GW-619		GW-632				GW-633							
	FTF		RG				RG							
	04/06/91		03/11/91		06/20/91		03/11/91		06/20/91		09/19/91		12/14/91	
	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS	TOT	DIS
Barium	.	.	.	.	.	.	34	36	18	0.13	58	31.071	39	37
Cadmium (AAS)	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Chromium (AAS)	0.054	<0.01	0.155	<0.01	0.3	<0.01	.	.	.	.	.	.	.	.
Lead (AAS)	.	.	0.104	<0.004	.	.	.	.	.	.	.	.	.	.
Mercury (CVAA)	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
TSS (mg/L)	44	.	124	.	2315	.	142	.	138	.	296	.	664	.

(CONTINUED)

Well No. . Location . Date Sampled	GW-656		GW-659	
	T0134		FF	
	03/07/91		12/15/91	
	TOT	DIS	TOT	DIS
Barium	.	.	.	.
Cadmium (AAS)	.	.	.	.
Chromium (AAS)	0.079	<0.01	0.11	<0.01
Lead (AAS)	.	.	.	.
Mercury (CVAA)	.	.	.	.
.	.	.	.	.
TSS (mg/L)	570	.	806	.

APPENDIX K
RADIOCHEMICAL DATA SUMMARY

EXPLANATION

LOCATION:

B4 - Beta-4 Security Pits
EXP - Exit-Pathway Monitoring Well
FF - Building 9754-2 Fuel Facility
FTF - Fire Training Facility
NHP - New Hope Pond
RG - Rust Garage Area
S2 - S-2 Site
SY - Y-12 Salvage Yard
T0134 - Underground Storage Tank 0134-U
T2331 - Underground Storage Tank 2331-U
WC - Waste Coolant Processing Area
Y12 - Y-12 Plant

NOTE:

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

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.

**GROSS ALPHA AND GROSS BETA
ACTIVITY DATA SUMMARY**

APPENDIX K
Gross Alpha and Gross Beta Activity Data Summary

Well No. Location	GW-149		GW-151		GW-153		GW-154		GW-167		GW-168		GW-169	
	NHP		NHP		NHP		NHP		EXP		EXP		EXP	
	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)
GROSS ALPHA	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	1.17	1.40	0.17	1.10	1.96	1.40	551.59	15.70	0.05	1.70	1.32	1.50	2.19	1.30
Second Quarter	0.51	1.40	1.08	1.40	1.64	1.50	332.42	12.20	6.36	1.90	1.88	1.30	3.54	1.70
Third Quarter	.	.	1.67	1.50	.	.	.	.	2.59	1.60	1.41	1.40	3.12	1.60
Fourth Quarter	.	.	2.00	1.60	.	.	.	.	.	.	1.99	1.60	45.90	6.50
Mean	0.84	1.00	1.23	0.70	1.80	1.00	442.00	9.90	3.00	1.00	1.65	0.70	13.69	1.80
GROSS BETA	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	4.12	3.50	1.35	3.40	1.96	3.40	340.64	11.70	7.46	3.60	11.00	3.80	8.40	3.50
Second Quarter	8.66	3.60	4.91	3.60	4.36	3.60	155.83	8.20	21.33	4.40	4.29	3.60	4.11	3.50
Third Quarter	.	.	3.50	3.40	.	.	.	.	11.60	3.70	4.26	3.30	12.80	3.80
Fourth Quarter	.	.	4.97	2.80	.	.	.	.	.	.	4.10	2.70	71.00	5.80
Mean	6.39	2.50	3.68	1.70	3.16	2.50	248.23	7.10	13.46	2.30	5.91	1.70	24.08	2.10

(CONTINUED)

APPENDIX K
Gross Alpha and Gross Beta Activity Data Summary

Well No. Location	GW-170		GW-183		GW-190		GW-191		GW-192		GW-193		GW-194	
	EXP		FF		RG		B4		B4		T2331		B4	
	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)
GROSS ALPHA	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	1.75	1.20	2.08	1.70	1.34	1.20	2.29	1.60	1.29	1.40	3.02	1.40	.	.
Second Quarter	2.39	1.50	2.86	1.70	1.10	1.30	2.06	1.40	1.25	1.30	2.68	1.60	.	.
Third Quarter	2.89	1.60	2.83	1.50	2.67	1.40	2.82	1.50	0.36	1.10	3.09	1.50	5.18	1.90
Fourth Quarter	1.14	1.90	-2.01	2.40	-1.85	1.80	1.88	1.50	2.21	1.50	11.00	3.80	3.99	1.80
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	2.04	0.80	1.44	0.90	0.81	0.70	2.26	0.80	1.28	0.70	4.95	1.20	4.58	1.30
GROSS BETA	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	5.20	3.30	5.08	3.60	1.97	3.40	-0.01	3.50	5.36	3.70	11.91	3.70	.	.
Second Quarter	2.92	3.40	2.74	3.40	-0.21	3.40	5.14	3.40	5.60	3.40	7.12	3.60	.	.
Third Quarter	4.26	3.30	3.92	3.60	5.31	3.30	5.03	3.70	-1.61	3.40	8.67	3.90	17.98	4.40
Fourth Quarter	2.34	3.00	-3.92	3.10	-2.06	3.10	6.46	3.30	3.78	3.20	16.60	3.70	9.20	3.50
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	3.68	1.60	1.95	1.70	1.25	1.70	4.15	1.70	3.28	1.70	11.08	1.90	13.59	2.80

(CONTINUED)

APPENDIX K
Gross Alpha and Gross Beta Activity Data Summary

Well No. Location	GW-195		GW-204		GW-206		GW-207		GW-208		GW-220		GW-222	
	B4		T0134		EXP		EXP		EXP		NHP		NHP	
	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)
GROSS ALPHA	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	.	.	22.08	3.40	1.73	1.60	0.90	1.40	1.54	1.30	-0.24	1.20	38.63	4.30
Second Quarter	.	.	20.20	3.30	12.60	2.60	1.77	1.40	1.02	1.50	2.77	1.70	23.05	3.40
Third Quarter	3.86	1.70	21.59	3.20	8.29	2.20	0.44	1.30	2.09	1.50	4.55	1.90	.	.
Fourth Quarter	4.83	1.90	-0.65	2.80	22.00	5.40	0.33	1.80	2.41	1.60	2.88	1.80	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	4.34	1.30	15.80	1.60	11.16	1.60	0.86	0.70	1.76	0.70	2.49	0.80	30.84	2.70
GROSS BETA	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	.	.	17.54	4.20	6.97	3.60	7.04	3.60	3.92	3.50	4.00	3.50	41.48	5.10
Second Quarter	.	.	16.06	4.20	14.99	4.00	3.07	3.40	3.59	3.40	2.80	3.30	38.53	5.00
Third Quarter	6.37	3.80	15.00	4.20	18.90	4.10	2.96	3.30	3.65	3.30	7.16	3.60	.	.
Fourth Quarter	16.50	3.80	4.07	3.10	22.90	4.20	3.01	2.90	6.27	2.80	5.08	2.90	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	11.43	2.70	13.17	2.00	15.94	2.00	4.02	1.70	4.36	1.60	4.76	1.70	40.00	3.60

(CONTINUED)

APPENDIX K
Gross Alpha and Gross Beta Activity Data Summary

Well No. Location	GW-223		GW-232		GW-239		GW-240		GW-251		GW-252		GW-253	
	NHP		EXP		EXP		NHP		S2		S2		S2	
	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)
GROSS ALPHA	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	2.51	1.50	3.04	1.50	3.12	2.60	2.80	1.70	16.52	2.90	1.22	1.20	95.44	22.50
Second Quarter	4.79	1.80	2.84	1.60	0.81	1.20	1.05	1.50	10.95	2.50	1.94	1.10	231.47	10.20
Third Quarter	.	.	2.20	1.50	2.27	1.50	1.29	1.50	11.34	2.50	1.55	1.30	.	.
Fourth Quarter	.	.	-0.42	2.00	1.87	3.10	4.04	2.10	10.19	2.30	2.46	1.30	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	3.65	1.20	1.92	0.80	2.02	1.10	2.29	0.90	12.25	1.30	1.79	0.60	163.45	12.40
GROSS BETA	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	4.19	3.50	7.46	3.70	2.85	6.70	20.03	4.20	13.76	3.90	2.27	3.30	93.12	36.60
Second Quarter	1.96	3.50	14.94	4.00	0.64	3.30	24.55	4.30	10.95	3.70	4.07	3.10	72.14	6.00
Third Quarter	.	.	3.19	3.30	1.81	3.20	7.77	3.60	9.91	3.60	3.62	3.30	.	.
Fourth Quarter	.	.	-0.45	3.00	1.73	2.80	10.00	3.20	16.39	4.10	3.96	3.50	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	3.07	2.50	6.29	1.80	1.76	2.10	15.59	1.90	12.75	1.90	3.48	1.70	82.63	18.50

(CONTINUED)

APPENDIX K
Gross Alpha and Gross Beta Activity Data Summary

Well No. Location	GW-255		GW-261		GW-262		GW-263		GW-264		GW-281		GW-282	
	S2		SY		SY		SY		SY		FF		FF	
	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)
GROSS ALPHA	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	22.75	3.30	0.39	1.00	3.14	1.50	1.69	1.30	3.82	1.60	2.58	1.80	-0.47	1.30
Second Quarter	0.16	1.10	2.04	1.20	3.00	1.40	2.96	1.40	2.77	1.30	2.89	1.70	1.17	1.50
Third Quarter	1.50	1.30	1.04	1.30	2.10	1.50	3.17	1.60	1.05	1.30	5.84	1.90	0.79	1.20
Fourth Quarter	1.72	1.10	1.90	1.20	2.36	1.30	3.35	1.60	3.93	1.70	2.57	1.40	4.74	1.70
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	6.53	1.00	1.34	0.60	2.65	0.70	2.79	0.70	2.89	0.70	3.47	0.90	1.56	0.70
GROSS BETA	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	46.52	5.20	3.48	3.30	8.20	3.60	4.95	3.40	6.58	3.50	3.29	3.40	4.00	3.40
Second Quarter	6.18	3.40	4.00	3.20	6.41	3.30	5.85	3.30	7.59	3.30	10.35	3.70	6.96	3.50
Third Quarter	1.94	3.20	2.03	3.20	4.84	3.40	6.04	3.40	2.72	3.20	9.03	3.90	6.04	3.80
Fourth Quarter	4.68	3.50	3.99	3.50	3.59	3.40	9.40	3.40	14.20	3.60	6.93	3.60	10.60	3.80
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	14.83	2.00	3.37	1.70	5.76	1.70	6.56	1.70	7.77	1.70	7.40	1.80	6.90	1.80

(CONTINUED)

APPENDIX K
Gross Alpha and Gross Beta Activity Data Summary

Well No. Location	GW-283		GW-284		GW-285		GW-331		GW-332		GW-333		GW-334	
	FF		FF		FF		WC		WC		WC		WC	
	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)
GROSS ALPHA	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	0.56	1.50	4.39	2.00	2.19	1.70	0.96	1.40	-0.40	1.30	2.30	1.60	-0.14	1.20
Second Quarter	1.59	1.50	5.92	2.10	4.89	2.00	0.72	1.40	5.02	1.60	2.55	1.30	1.28	1.00
Third Quarter	1.61	1.30	6.40	2.00	4.34	1.70	.	.	.	.	.	.	.	.
Fourth Quarter	11.30	2.40	12.00	2.50	5.07	1.80	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	3.76	0.90	7.18	1.10	4.12	0.90	0.84	1.00	2.31	1.00	2.42	1.00	0.57	0.80
GROSS BETA	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	8.49	3.60	4.59	3.40	4.79	3.40	5.04	3.70	1.43	3.20	4.10	3.70	-1.07	3.40
Second Quarter	5.28	3.40	11.12	3.70	9.44	3.60	7.61	3.60	6.37	3.50	7.17	3.50	6.91	3.50
Third Quarter	3.85	3.70	6.02	3.80	5.14	3.70	.	.	.	.	.	.	.	.
Fourth Quarter	17.60	4.20	10.80	3.80	9.79	3.80	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	8.81	1.90	8.13	1.80	7.29	1.80	6.32	2.60	3.90	2.40	5.63	2.50	2.92	2.40

(CONTINUED)

APPENDIX K
Gross Alpha and Gross Beta Activity Data Summary

Well No. Location	GW-335		GW-336		GW-337		GW-338		GW-380		GW-381		GW-382	
	WC		WC		WC		WC		NHP		NHP		NHP	
	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)
GROSS ALPHA	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	3.01	1.70	1.36	1.40	0.46	1.50	1.47	1.40	6.09	2.10	2.33	1.40	2.98	1.50
Second Quarter	0.67	1.20	0.03	1.30	0.92	1.40	3.84	1.70	2.02	1.60	4.33	1.70	1.30	1.20
Third Quarter	.	.	.	.	2.94	1.50	4.50	1.80	1.10	1.50	2.40	1.60	1.38	1.50
Fourth Quarter	.	.	.	.	3.06	1.40	2.83	1.30	5.68	2.40	3.26	2.40	3.02	2.20
Mean	1.84	1.00	0.69	1.00	1.84	0.70	3.16	0.80	3.72	1.00	3.08	0.90	2.17	0.80
GROSS BETA	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	4.61	3.70	1.15	3.50	-0.14	3.20	0.29	3.50	8.68	3.70	2.32	3.40	5.41	3.60
Second Quarter	5.43	3.40	3.77	3.30	2.45	3.30	7.02	3.50	4.95	3.40	5.27	3.70	1.43	3.50
Third Quarter	.	.	.	.	3.38	3.30	1.45	3.10	6.72	3.50	5.19	3.50	4.59	3.40
Fourth Quarter	.	.	.	.	5.55	3.50	0.14	3.20	10.40	3.20	5.89	3.00	5.16	3.00
Mean	5.02	2.50	2.46	2.40	2.81	1.70	2.22	1.70	7.69	1.70	4.67	1.70	4.15	1.70

(CONTINUED)

APPENDIX K
Gross Alpha and Gross Beta Activity Data Summary

Well No. Location	GW-383		GW-384		GW-385		GW-505		GW-508		GW-603		GW-604	
	NHP		NHP		NHP		RG		RG		NHP		NHP	
	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)
GROSS ALPHA	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	0.71	1.40	2.41	1.60	-0.02	1.40	13.62	2.60	.	.	0.89	1.50	4.59	2.00
Second Quarter	1.49	1.60	3.49	1.80	0.77	1.20	12.05	2.70	.	.	0.23	1.30	3.94	1.90
Third Quarter	1.61	1.50	0.96	1.50	-0.50	1.20	21.20	3.20	.	.	1.48	1.40	0.96	1.30
Fourth Quarter	1.67	2.10	0.67	1.90	2.42	1.40	3.87	2.50	1.54	2.30	3.57	1.90	1.99	1.50
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	1.37	0.80	1.88	0.90	0.67	0.70	12.68	1.40	1.54	2.30	1.54	0.80	2.87	0.80
GROSS BETA	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	0.76	3.30	5.55	3.60	2.29	3.30	8.82	3.70	.	.	9.91	3.70	10.56	3.80
Second Quarter	8.40	3.60	7.06	3.50	2.39	3.30	6.07	3.70	.	.	11.87	3.80	1.77	3.20
Third Quarter	3.93	3.40	9.35	3.70	3.04	3.30	16.90	3.90	.	.	11.00	3.70	1.02	3.20
Fourth Quarter	5.11	3.00	6.03	3.10	0.81	3.30	0.43	3.20	0.60	3.20	9.35	3.00	4.14	2.70
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	4.55	1.70	7.00	1.70	2.13	1.70	8.05	1.80	0.60	3.20	10.53	1.80	4.37	1.60

(CONTINUED)

APPENDIX K
Gross Alpha and Gross Beta Activity Data Summary

Well No. Location	GW-605		GW-606		GW-617		GW-618		GW-619		GW-620		GW-631	
	NHP		NHP		Y12		Y12		FTF		FTF		RG	
	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)
GROSS ALPHA	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	.	.	.	.	3.28	1.50	1.72	1.30	3.37	1.50	3.27	1.50	3.43	1.50
Second Quarter	.	.	.	.	5.77	1.90	-0.20	1.00	1.92	1.10	4.35	1.50	3.75	1.70
Third Quarter	47.37	4.80	1.55	1.50	1.09	1.30	1.95	1.40	2.84	1.50	1.98	1.40	4.93	1.70
Fourth Quarter	73.10	7.00	6.29	2.60	4.01	1.70	4.52	1.80	1.93	1.20	0.95	1.40	-0.15	1.80
Mean	60.24	4.20	3.92	1.50	3.54	0.80	2.00	0.70	2.51	0.70	2.64	0.70	2.99	0.80
GROSS BETA	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	.	.	.	.	3.03	3.30	4.17	3.40	22.00	4.30	23.71	4.30	8.65	3.70
Second Quarter	.	.	.	.	10.71	3.60	4.89	3.30	27.68	4.30	19.82	4.00	2.88	3.50
Third Quarter	47.71	5.30	6.79	3.50	4.71	3.40	3.62	3.30	19.08	4.10	16.89	4.00	10.90	3.60
Fourth Quarter	69.20	5.40	8.26	3.10	9.93	3.40	14.70	3.70	16.41	4.10	7.55	3.80	2.74	3.00
Mean	58.45	3.80	7.52	2.30	7.09	1.70	6.84	1.70	21.29	2.10	16.99	2.00	6.29	1.70

(CONTINUED)

APPENDIX K
Gross Alpha and Gross Beta Activity Data Summary

Well No. Location	GW-632		GW-633		GW-634		GW-656		GW-657		GW-658		GW-659	
	RG		RG		RG		T0134		T2331		FF		FF	
	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)
GROSS ALPHA	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	15.97	2.80	49.93	102.10	0.32	1.50	9.41	2.50	1.14	1.60	-1.01	1.20	0.78	1.50
Second Quarter	9.76	2.40	84.07	23.30	5.94	2.00	13.44	2.80	1.77	1.50	3.73	1.80	2.29	1.60
Third Quarter	1.54	1.20	56.70	18.00	2.34	1.40	10.01	2.30	2.50	1.40	1.36	1.30	4.32	1.70
Fourth Quarter	3.66	2.50	288.00	140.00	1.28	1.90	0.94	2.60	3.14	2.70	-0.82	2.10	3.90	2.80
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	7.73	1.20	119.67	43.90	2.47	0.90	8.45	1.30	2.14	0.90	0.82	0.80	2.82	1.00
GROSS BETA	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	25.49	4.50	603.66	359.00	5.16	3.60	22.87	4.40	14.93	4.00	0.78	3.30	9.22	3.80
Second Quarter	23.96	4.50	268.39	46.60	3.17	3.50	16.30	4.20	14.10	4.00	3.18	3.40	6.66	3.70
Third Quarter	4.73	3.20	852.00	64.00	1.72	3.50	11.08	4.00	2.10	3.50	2.81	3.00	2.95	3.60
Fourth Quarter	24.30	4.10	584.00	170.00	2.89	3.00	11.10	3.40	8.26	3.20	-3.64	3.00	24.40	4.40
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	19.62	2.10	577.01	101.30	3.23	1.70	15.34	2.00	9.85	1.80	0.78	1.60	10.81	1.90

(CONTINUED)

APPENDIX K

Gross Alpha and Gross Beta Activity Data Summary

Well No. Location	CW-707		CW-708	
	T2331		T2331	
	pCi/L	CE(+/-)	pCi/L	CE(+/-)
GROSS ALPHA	.	.	.	.
.	.	.	.	.
First Quarter	1.19	1.60	3.58	1.90
Second Quarter	4.04	1.80	6.42	2.10
Third Quarter	2.11	1.50	4.59	1.70
Fourth Quarter	0.36	2.50	1.29	2.60
.	.	.	.	.
Mean	1.92	0.90	3.97	1.10
GROSS BETA	.	.	.	.
.	.	.	.	.
First Quarter	2.93	3.40	8.01	3.70
Second Quarter	12.89	3.90	13.04	4.00
Third Quarter	14.80	1.70	8.01	3.80
Fourth Quarter	9.30	3.70	6.20	3.20
.	.	.	.	.
Mean	9.98	1.80	8.82	1.80

**ALPHA-EMITTING RADIONUCLIDE
DATA SUMMARY**

APPENDIX K
Alpha-Emitting Radionuclide Data Summary

Well No.	GW-154		GW-167		GW-168		GW-169		GW-170		GW-191		GW-192	
Location	RIP		RIP		RIP		RIP		RIP		B4		B4	
	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)
Uranium 234	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	451.00	27.00	0.07	1.20	0.00	1.60	0.00	1.70	0.91	1.00	0.90	1.50	0.00	1.50
Second Quarter	118.00	14.00	1.23	1.40	0.00	1.40	0.44	0.90	0.87	1.20	0.00	1.70	-0.46	0.90
Third Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fourth Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	284.50	15.20	1.05	0.90	0.00	1.10	0.22	1.00	0.89	1.10	0.00	1.10	-0.23	0.90
Uranium 235	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	19.20	5.70	0.00	1.50	0.48	0.90	0.00	1.40	0.00	1.60	0.00	1.50	0.00	1.50
Second Quarter	11.60	4.40	0.00	1.40	0.00	1.40	-0.44	0.90	-0.43	0.90	0.00	1.50	0.00	1.60
Third Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fourth Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	15.40	3.60	0.00	1.00	0.24	0.80	-0.22	0.80	-0.22	0.90	0.00	1.10	0.00	1.10
Uranium 238	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	279.00	22.00	0.00	1.70	0.48	1.60	0.00	1.40	0.46	0.90	0.00	1.50	0.00	1.50
Second Quarter	49.90	9.10	0.41	0.80	0.00	1.40	0.00	1.70	0.00	1.50	0.00	1.50	0.00	1.60
Third Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fourth Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	164.45	11.90	0.20	0.90	0.24	1.10	0.00	1.10	0.23	0.90	0.00	1.10	0.00	1.10

(CONTINUED)

APPENDIX K
Alpha-Emitting Radionuclide Data Summary

Well No. Location	GW-206		GW-207		GW-208		GW-222		GW-223		GW-232		GW-239	
	RIP		RIP		RIP		RHP		RHP		RIP		RIP	
	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)
Uranium 234	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	0.46	0.90	0.00	1.40	1.37	2.00	10.90	4.40	0.87	1.20	0.82	1.20	4.32	8.60
Second Quarter	4.91	2.80	0.42	0.80	0.00	1.40	4.10	2.60	1.37	1.60	0.00	1.50	0.00	1.40
Third Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fourth Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	2.68	1.50	0.21	0.80	0.68	1.20	7.50	2.60	1.12	1.00	0.41	1.00	2.16	4.40
Uranium 235	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	0.00	1.60	0.00	1.40	0.91	1.30	1.74	1.70	0.00	1.50	-0.41	0.80	0.00	7.50
Second Quarter	-0.41	0.80	-0.42	0.80	0.00	1.40	1.23	1.40	0.00	1.60	-0.43	0.90	-0.42	0.80
Third Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fourth Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	-0.20	0.90	-0.21	0.80	0.45	1.00	1.48	1.10	0.00	1.10	-0.42	0.60	-0.21	3.80
Uranium 238	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	-0.46	0.90	-0.42	0.80	0.91	1.30	30.10	7.20	1.30	1.50	0.82	1.20	4.32	6.10
Second Quarter	2.45	2.00	0.42	0.80	0.00	1.40	6.16	3.20	1.37	1.60	0.00	1.50	0.00	1.40
Third Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fourth Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	0.99	1.10	0.00	0.60	0.45	1.00	18.13	3.90	1.33	1.10	0.41	1.00	2.16	3.10

(CONTINUED)

APPENDIX K
Alpha-Emitting Radionuclide Data Summary

Well No. Location	GW-252		GW-255		GW-261		GW-262		GW-263		GW-264		GW-281	
	S2		S2		SY		SY		SY		SY		FF	
	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)
Uranium 234	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	0.41	0.80	0.42	0.80	0.43	0.90	0.88	1.20	0.00	1.40	0.00	1.50	0.87	1.20
Second Quarter	0.43	0.90	0.00	1.70	-0.44	0.90	0.00	1.80	-0.43	0.90	0.42	0.80	0.44	1.50
Third Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fourth Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	0.42	0.60	0.21	0.90	-0.01	0.60	0.44	1.10	-0.22	0.80	0.21	0.90	0.66	1.00
Uranium 235	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	0.41	0.80	0.00	1.40	0.00	1.50	0.00	1.50	0.00	1.40	0.00	1.50	0.00	1.50
Second Quarter	0.00	1.50	0.43	0.90	0.44	0.90	0.00	1.60	0.00	1.50	0.00	1.40	0.44	0.90
Third Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fourth Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	0.20	0.90	0.22	0.80	0.22	0.90	0.00	1.10	0.00	1.00	0.00	1.00	0.22	0.90
Uranium 238	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	0.81	1.10	0.00	1.40	0.00	1.50	0.44	0.90	0.00	1.40	0.44	0.90	0.00	1.50
Second Quarter	0.00	1.50	0.00	1.50	0.00	1.50	0.46	1.40	0.43	0.90	0.00	1.40	0.44	0.90
Third Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fourth Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	0.40	0.90	0.00	1.00	0.00	1.10	0.45	0.80	0.22	0.80	0.22	0.80	0.22	0.90

(CONTINUED)

APPENDIX K
Alpha-Emitting Radionuclide Data Summary

Well No. Location	GW-380		GW-381		GW-382		GW-383		GW-384		GW-385	
	NHP		NHP		NHP		NHP		NHP		NHP	
	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)
Uranium 234	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	0.41	0.80	0.42	0.80	0.81	1.10	0.44	0.90	0.00	1.50	0.00	1.50
Second Quarter	0.00	1.50	0.44	0.90	0.43	0.90	1.64	1.60	0.00	1.50	.	.
Third Quarter	.	.	.	.	.	.	.	.	.	.	.	.
Fourth Quarter	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	0.20	0.90	0.43	0.60	0.62	0.70	1.04	0.90	0.00	1.10	0.00	1.50
Uranium 235	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	0.41	0.80	0.00	1.40	0.00	1.40	0.00	1.50	0.00	1.50	0.00	1.50
Second Quarter	0.00	1.50	0.00	1.50	0.43	0.90	0.00	1.40	0.00	1.50	.	.
Third Quarter	.	.	.	.	.	.	.	.	.	.	.	.
Fourth Quarter	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	0.20	0.90	0.00	1.00	0.22	0.80	0.00	1.00	0.00	1.10	0.00	1.50
Uranium 238	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	0.41	0.80	0.42	0.80	0.41	0.80	0.00	1.50	0.43	0.90	0.00	1.50
Second Quarter	0.43	0.90	0.00	1.50	0.43	0.90	0.82	1.20	0.00	1.50	.	.
Third Quarter	.	.	.	.	.	.	.	.	.	.	.	.
Fourth Quarter	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	0.42	0.60	0.21	0.90	0.42	0.60	0.41	1.00	0.22	0.90	0.00	1.50

APPENDIX K
Alpha-Emitting Radionuclide Data Summary

Well No. Location	GW-631		GW-632		GW-633		GW-634	
	RG		RG		RG		RG	
	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)
Uranium 234	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
First Quarter	.	.	.	.	.	.	.	.
Second Quarter	.	.	.	.	.	.	.	.
Third Quarter	.	.	.	.	-16.60	6.70	.	.
Fourth Quarter	0.42	1.40	2.86	2.50	246.00	65.00	0.43	1.50
.	.	.	.	.	.	.	.	.
Mean	0.42	1.40	2.86	2.50	114.70	32.70	0.43	1.50
Uranium 235	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
First Quarter	.	.	.	.	.	.	.	.
Second Quarter	.	.	.	.	.	.	.	.
Third Quarter	.	.	.	.	-2.37	4.70	.	.
Fourth Quarter	0.00	1.40	0.41	0.92	8.21	12.00	0.00	1.50
.	.	.	.	.	.	.	.	.
Mean	0.00	1.40	0.41	0.80	2.92	6.40	0.00	1.50
Uranium 238	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
First Quarter	.	.	.	.	.	.	.	.
Second Quarter	.	.	.	.	.	.	.	.
Third Quarter	.	.	.	.	-2.37	4.70	.	.
Fourth Quarter	-0.42	0.83	0.41	1.40	287.00	7.00	-0.43	0.87
.	.	.	.	.	.	.	.	.
Mean	-0.42	0.80	0.41	1.40	142.31	4.20	-0.43	0.90

(CONTINUED)

APPENDIX K
Alpha-Emitting Radionuclide Data Summary

Well No. Location	GW-631		GW-632		GW-633		GW-634	
	RG		RG		RG		RG	
	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)
Americium 241	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
First Quarter	.	.	.	.	.	.	.	.
Second Quarter	.	.	.	.	.	.	.	.
Third Quarter	.	.	.	.	0.65	1.40	.	.
Fourth Quarter	-0.38	1.50	0.00	0.80	0.86	1.70	0.00	2.50
.	.	.	.	.	.	.	.	.
Mean	-0.38	1.50	0.00	0.80	0.75	1.10	0.00	2.50
Neptunium 237	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
First Quarter	.	.	.	.	.	.	.	.
Second Quarter	.	.	.	.	.	.	.	.
Third Quarter	.	.	.	.	-2.85	2.30	.	.
Fourth Quarter	0.42	0.80	2.04	1.80	4.56	9.10	0.00	1.50
.	.	.	.	.	.	.	.	.
Mean	0.42	0.80	2.04	1.80	0.85	4.70	0.00	1.50

**BETA-EMITTING RADIONUCLIDE
DATA SUMMARY**

APPENDIX K
Beta-Emitting Radionuclide Data Summary

Well No. Location	GW-154		GW-222		GW-223		GW-252		GW-255		GW-380		GW-381	
	NHP		NHP		NHP		S2		S2		NHP		NHP	
	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)
Technetium 99	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	-2130.00	1600.00	-972.00	1600.00	-2710.00	1500.00	673.00	1600.00	-1540.00	1500.00	-2090.00	1600.00	445.00	1600.00
Second Quarter	-2420.00	1600.00	-445.00	1600.00	-4610.00	1500.00	-1870.00	1500.00	594.00	1600.00	-1260.00	1600.00	1940.00	1700.00
Third Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fourth Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	-2275.00	1131.40	-708.50	1131.40	-3660.00	1060.70	-598.50	1096.60	-473.00	1096.60	-1675.00	1131.40	1192.50	1167.30
Strontium	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	2.68	1.90	.	.	.	.	.	.	.	.	.	.	.	.
Second Quarter	16.50	22.00	.	.	.	.	.	.	.	.	.	.	.	.
Third Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fourth Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	9.59	11.00	.	.	.	.	.	.	.	.	.	.	.	.
Tritium	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	189.00	891.00	.	.	.	.	.	.	.	.	.	.	.	.
Second Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Third Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Fourth Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	189.00	891.00	.	.	.	.	.	.	.	.	.	.	.	.

(CONTINUED)

APPENDIX K
Beta-Emitting Radionuclide Data Summary

Well No. Location	GW-382		GW-383		GW-384		GW-385		GW-631		GW-632		GW-633	
	NHP		NHP		NHP		NHP		RG		RG		RG	
	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)	pCi/L	CE(+/-)
Technetium 99	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	-3800.00	1500.00	-148.00	1600.00	422.00	1700.00	1130.00	1600.00	.	.	.	.	.	.
Second Quarter	-1960.00	1600.00	68.50	1600.00	-1510.00	1600.00	.	.	.	.	.	.	.	.
Third Quarter	.	.	.	.	.	.	.	.	.	.	.	.	-1050.00	1700.00
Fourth Quarter	.	.	.	.	.	.	.	.	4650.00	1700.00	6750.00	1800.00	27200.00	2300.00
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	-2880.00	1096.60	-39.75	1131.40	-544.00	1167.30	1130.00	1600.00	4650.00	1700.00	6750.00	1800.00	13075.00	1430.00
Strontium	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Second Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Third Quarter	.	.	.	.	.	.	.	.	.	.	.	.	365.00	51.00
Fourth Quarter	.	.	.	.	.	.	.	.	-3.67	3.40	-0.93	3.60	128.00	10.00
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	.	.	.	.	.	.	.	.	-3.67	3.40	-0.93	3.60	246.50	26.00
Tritium	.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
First Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Second Quarter	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Third Quarter	.	.	.	.	.	.	.	.	.	.	.	.	4860.00	810.00
Fourth Quarter	.	.	.	.	.	.	.	.	.	.	.	.	197100.0	2700.00
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Mean	.	.	.	.	.	.	.	.	.	.	.	.	100980.0	1409.40

(CONTINUED)

APPENDIX K
Beta-Emitting Radionuclide Data Summary

Well No. . Location	GW-634	
	RG	
	pCi/L	CE(+/-)
Technetium 99	.	.
.	.	.
First Quarter	.	.
Second Quarter	.	.
Third Quarter	.	.
Fourth Quarter	2070.00	1700.00
.	.	.
Mean	2070.00	1700.00
Strontium	.	.
.	.	.
First Quarter	.	.
Second Quarter	.	.
Third Quarter	.	.
Fourth Quarter	-1.94	3.50
.	.	.
Mean	-1.94	3.50
Tritium	.	.
.	.	.
First Quarter	.	.
Second Quarter	.	.
Third Quarter	.	.
Fourth Quarter	.	.
.	.	.
Mean	.	.

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