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V. G. Johnson

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**Westinghouse
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**WESTINGHOUSE HANFORD COMPANY OPERATIONAL GROUNDWATER
STATUS REPORT, 1990 - 1992**

EXECUTIVE SUMMARY

Evaluation of the status of groundwater conditions beneath the Hanford Site involves assessment of groundwater quality and geohydrologic conditions as required by U.S. Department of Energy Order 5400.1 (III/IV) (DOE 1988). This requirement is implemented in the Westinghouse Hanford Company-operated areas through the Operational Groundwater Program managed by the Geosciences Function of Westinghouse Hanford Company's Environmental Division. The Operational Groundwater Program also provides data for operational groundwater surveillance as described in the *Environmental Monitoring Plan* for the Hanford Site (DOE-RL 1991c). Field activities for these programs include periodic water-level measurements and collection of samples for analysis of a wide range of constituents from a large network of groundwater monitoring wells. Constituent concentrations are evaluated against state and federal water quality standards, and water levels are used to estimate the rate and direction of groundwater flow.

The Geosciences Function conducts field activities for several programs including the *Resource Conservation and Recovery Act of 1976*; *Comprehensive Environmental Response, Compensation, and Liability Act of 1980*; operational surveillance; discharge permit program; Expedited Response Actions; and the underground storage tank program. This report integrates groundwater results from these sources and covers a transition period from 1989 through September 1992, during which a major decrease in liquid wastewater discharge to the ground occurred. As a summary of groundwater conditions at the end of

the Hanford Site plutonium production mission, this report also serves as a benchmark against which improvement or changes in groundwater quality can be measured. Highlights and major findings for this "benchmark" period are summarized in the following paragraphs.

Groundwater Quality--Samples from nearly 300 groundwater monitoring wells at active or recently active liquid waste disposal and storage sites were analyzed for the complete list of hazardous waste constituents (Appendix IX, 40 CFR 264) and site-specific radionuclides. Of the 380 individual constituents, a relatively small number exceeded state groundwater protection, national drinking water, or equivalent standards. Those constituents that exceeded a standard and exhibited a definite plume include arsenic, chromium, fluoride, carbon tetrachloride, chloroform, trichlorethylene, cyanide, nitrate, sulfate, tritium, cobalt-60, iodine-129, cesium-137, technetium-99, strontium-90, uranium, and plutonium-239. Of these, the most significant contamination involves the widespread occurrence of carbon tetrachloride and related volatile organic compounds, resulting from past-practice disposal of plutonium processing waste from Z Plant activities in the 200 West Area. The contaminant plume covers an area of over 10 km² (4 mi²) within which concentrations over 10,000 times higher than the state groundwater quality standard of 0.3 ppb occur (see Figure ES-1). The unknown distribution of the residual inventory in the soil column and uncertainty about the depth distribution in groundwater beneath the major disposal sites are of particular concern. If liquid carbon tetrachloride is present as a separate phase in the unconfined aquifer, it could dissolve slowly and persist indefinitely as a continuing source. The occurrence of carbon tetrachloride concentrations of about 3,000 ppb at a depth of 52 m below the water table in an older well near

the 216-Z-9 Crib, adds to the concern that a source may exist in the lower portion of the unconfined aquifer. This is significant because less than 5% of the estimated inventory discharged to the soil column can be accounted for as a dissolved phase in the near-surface portion of the unconfined aquifer. Plans are under way to further evaluate the status of carbon tetrachloride in groundwater.

Concern has also been expressed by the Washington State Department of Ecology and the U.S. Environmental Protection Agency over the proximity of active wastewater disposal sites to potentially contaminated soil vapor (i.e., absorption of organic vapors by percolating wastewater could serve as a continuing source of groundwater contamination). Preliminary results from a perched water table monitoring well installed in 1991 near the 216-Z-20 Crib showing concentrations of carbon tetrachloride that are just at the detection level suggest that this transport mechanism may not be significant. However, additional perched water table monitoring wells are needed for spatial confirmation.

Elevated uranium and technetium-99 concentrations in groundwater near the U Plant cribs in the 200 West Area constitute smaller but significant additional areas of contamination. Concentrations of these constituents, resulting from past-practice disposal from U Plant and UO_3 Plant, are far in excess of drinking water standards in the vicinity of the currently active 216-U-17 Crib. The challenge at this and other active waste disposal and storage sites has been to demonstrate that continued discharge of low volumes of relatively noncontaminated wastewater until 1995 will not exacerbate existing subsurface contamination. Initial subsurface solute transport

modeling of the soil column beneath the 216-U-17 Crib suggests wastewater will not infiltrate to groundwater and that contaminants will be retained in the upper portion of the soil column. (Additional characterization is scheduled for fiscal year 1993 to address this issue for *Hanford Federal Facility Agreement and Consent Order* [Tri-Party Agreement] milestone M17-13) (Ecology et al. 1990).

Tritium remains as the dominant and most widespread groundwater contaminant in the 200 East Area. Dramatic changes have occurred over the last 3 years as input to Plutonium-Uranium Reduction Extraction and evaporator-related discharges have been reduced or terminated. The residual plumes are apparently shifting directions as a result of varying water input to B Pond and other wastewater disposal sites in the 200 East Area. Better definition of current conditions is planned for fiscal year 1993 as part of the Aggregate Area Management Studies.

Changing groundwater quality conditions in the vicinity of the Grout Treatment Facility continue to frustrate attempts to establish a baseline at this site. However, with terminated contaminant input from adjacent ditches and cribs, this condition may stabilize as water from B Pond displaces previously contaminated groundwater. Continued monitoring in selected downgradient wells will help to define this changing condition.

In the 100 Areas, a marked decline of strontium-90 input to the Columbia River from N Reactor operations occurred during the report period because of the dramatic decrease in the volume of wastewater discharged to the 1325-N Crib. Other significant changes in the 100 Areas include a steady

decline in hexavalent chromium, nitrate, and uranium in groundwater near the river. At the 100-H Area, this has in part been due to corrective actions at the 183-H Solar Evaporator Basins. Unknown sources of additional chromium persist, however, and further characterization is needed to resolve groundwater-chromium anomalies in the 100-H, 100-D, and 100-K Areas. The highly localized occurrence of tritium (up to about 1,000,000 pCi/L) in the immediate vicinity of the 100-KE nuclear fuel storage basin continues. However, springs and wells downgradient from the basin suggest there is very little input to the Columbia River from this localized source.

A sediment and water quality investigation of the shoreline on the Hanford side of the Columbia River (November 1991) for the *100 Aggregate Area Study* (Hartman and Peterson 1992) demonstrated the importance of spring sampling as a valuable monitoring tool to supplement operational monitoring activities. An interesting outcome of this survey was that hexavalent chromium in groundwater that discharges to the river via springs appears to be taken up by river sediments. A reduction (Cr^{+6} to Cr^{+3})-sorption mechanism involving microbial sediment coatings is postulated for this uptake process. Other above-background sediment anomalies found included zinc, cadmium, silver, and possibly antimony. These occurrences may be related to sources other than Hanford Site operations. Circumstantial evidence suggests upstream mining sources (leachate from lead-zinc refineries and mine tailings in the upper Columbia River drainage basin). Continued characterization of the Columbia River system along the Hanford Reach is planned for the *100 Aggregate Area Study* to assess the significance of this observation and to document the source(s).

The major changes in groundwater quality in the 300 Areas involved a sharp decline in uranium concentrations at the 300 Area process trenches. This appeared to occur in response to the corrective action involving removal of uranium-contaminated sediment from the bottom of the trench. Additional groundwater monitoring is needed for confirmation (i.e., to see if the change is real or simply due to lower than normal river stages that may have altered groundwater flow patterns in the area and/or interaction of the water table with the contaminants held in the soil column).

Geohydrologic Conditions--Declining water levels in the 200 Areas caused by significantly reduced wastewater discharges to the soil column occurred during the report period. The rate of decline is approximately 0.3 m/yr (1 ft/yr) in areas with the highest permeability. Consequently, continual lowering of sample pumps to keep up with the declining water table will be needed. Eventually such wells will become "dry" and new wells will be needed if they cannot be deepened. Well replacement could cost over \$20,000,000 during the next 10 to 15 years. Geosciences staff proposals to deal with this problem include installation of deeper screened intervals or multiscreened intervals on all new wells and investigation of methods for well deepening and installation of small-diameter extension screens.

Agricultural influences on the geohydrologic regime beneath the Hanford Site include declining potentiometric surface (about 2.1 m/yr [7 ft/yr]) in the upper Wanapum Basalt aquifers in the upper Cold Creek syncline and development of an extensive groundwater mound at the northeastern boundary of the Site. The U.S. Geological Survey is documenting the impact of imported irrigation water on water levels in the latter area. The effect of the much

higher water levels (north-northeast of the Columbia River) on upper confined aquifer flow dynamics beneath the Hanford Site is poorly understood. Limited vertical head data suggest that upward leakage beneath some waste sites in the 100 Areas is likely. Destabilization of the White Bluffs and ponding of agricultural return flows on the Wahluke Slope are the most obvious impacts of imported water to the central Pasco Basin. The influence of agricultural chemicals on groundwater quality beneath the northern area of the Hanford Site is unknown.

Several investigations are under way to improve current understanding of the interaction between Hanford Site groundwater and the Columbia River. Water-level equipment that records continuously is operating in numerous wells near the river shoreline. Similar equipment is operating at several river stations in the 100 Areas and 300 Area. The water-level data, along with water quality data, are being used to describe the mixing between groundwater and river water that occurs along the shoreline. This information is important for predicting the transport of contaminated Hanford Site groundwater into the Columbia River as well as for making remedial action decisions.

Finally, contaminant occurrences in the lower unconfined and upper confined aquifers in the 200 and 600 Areas remain as unexplained hydrologic anomalies that need to be more thoroughly addressed in future characterization studies to support remedial or corrective actions.

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Figure ES-1. Contour Map of the Carbon Tetrachloride Plume in Groundwater.

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ACRONYMS

AAMS	Aggregate Area Management Study
CERCLA	<i>Comprehensive Environmental Response, Compensation, and Liability Act of 1980</i>
CLP	contract laboratory program
CRQL	contract required quantitation limit
CY	calendar year
DCG	derived concentration guide
DOE	U.S. Department of Energy
DWS	drinking water standard
Ecology	Washington State Department of Ecology
EML	Environmental Measurements Laboratory
EPA	Environmental Protection Agency
ERA	expedited response action
FFTF	Fast Flux Test Facility
GTF	Grout Treatment Facility
HEIS	Hanford Environmental Information System
LLWMA	Low-Level Waste Management Area
LLWMU	Low-Level Waste Management Unit
LWDF	Liquid Waste Disposal Facility
LWRF	Liquid Waste Retention Facility
MCL	maximum concentration limit
MDC	maximum detectable concentration
NORCUS	Northwest College University Association for Science
NPDES	National Pollutant Discharge Elimination System
NRDWL	nonradioactive dangerous waste landfill
OESP	Operational Environmental Surveillance Program
OGP	Operational Groundwater Program
PFP	Plutonium Finishing Plant
PNL	Pacific Northwest Laboratory
PUREX	Plutonium Uranium Reduction Extraction
QC	quality control
RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
REDOX	reduction oxidation
RI/FS	remedial investigation/feasibility study
SST	single-shell tank
SWL	solid waste landfill
TOC	total organic carbon
TOX	total organic halogen
TRU	transuranic
Tri-Party Agreement	<i>Hanford Federal Facility Agreement and Consent Order</i>
TSD	treatment, storage, and disposal
UST	U.S. Testing, Inc.
WAC	Washington Administrative Code
Westinghouse Hanford	Westinghouse Hanford Company
WMA	waste management area
WRS	Wilcoxon Rank Sum
WWQS	Washington water quality standard

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1.0 Introduction

WESTINGHOUSE HANFORD COMPANY OPERATIONAL GROUNDWATER STATUS REPORT, 1990-92

1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

The primary purpose of this report is to document the status of groundwater quality and hydrologic conditions in areas of the Hanford Site operated by Westinghouse Hanford Company (Westinghouse Hanford). Previous related reports were issued as *Operational Groundwater Monitoring in the 200 Areas*, the last of which was issued in 1989 (Serkowski and Jordan 1989). In 1989-1990, a special study for the Liquid Effluent Project to address *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) (Ecology et al. 1990) issues was conducted that involved soil and groundwater quality assessment at active liquid waste disposal sites. Groundwater monitoring results for the Liquid Effluent Study constituted the operational monitoring report for calendar year (CY) 1989 and first quarter 1990 and were summarized in two separate reports (WHC 1990a, 1990c) issued in August 1990. This report fulfills reporting requirements specified in WHC-CM-7-5, Part N, "Groundwater Protection," and described in the environmental monitoring plan for the Hanford Site (DOE-RL 1991c). It covers a time period (ca. 1989 through September 1992) during which major disruptions in sampling activities occurred because of analytical contract problems and a significant shift in the Hanford Site mission.

In addition to the above, this report summarizes Westinghouse Hanford Geosciences efforts to further characterize the "geohydrologic regime" beneath and

adjacent to the Hanford Site (DOE Order 5400.1 [III] [DOE 1988b]; DOE-RL 1989a). This information is needed to provide a better understanding of the processes that influence groundwater movement and contaminant transport in both the upper confined and unconfined aquifers impacted by past and present operations.

1.2 PROGRAM DESCRIPTION

This report was prepared by Westinghouse Hanford Geosciences as part of its Operational Groundwater Program (OGP) as defined in the *Environmental Monitoring Plan* for the Hanford Site (DOE-RL 1991c). The Westinghouse Hanford Environmental Assurance Group provides oversight of the program through the Operational Environmental Surveillance Program (OESP) of Westinghouse Hanford (WHC-CM-7-4, *Operational Environmental Monitoring*; DOE-RL 1991c). The primary focus of the OESP is on regulatory compliance and related reporting.

The OGP is a broad program for coordination and integration of the diverse groundwater monitoring and characterization activities that include the following:

- Implementation of the *Hanford Site Groundwater Protection Management Program* (DOE-RL 1989a) in Westinghouse Hanford-operated areas
- State permit and monitoring related to *Resource Conservation and Recovery Act of 1976* (RCRA) to assess the impact of treatment, storage, and disposal (TSD) facilities on groundwater quality

- Background characterization to establish "natural" background values (Tri-Party Agreement)
- Groundwater aspects of remedial investigation/feasibility studies (RI/FS) for *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* (CERCLA) sites
- Groundwater components of the Aggregate Area Management Studies to refine the origin and distribution of past-practice contaminant plumes for remedial investigations (Tri-Party Agreement)
- Near-field operational groundwater monitoring to provide early detection of groundwater contamination and to document compliance with state and federal groundwater standards
- Office of Well Management to coordinate drilling, remediation, and use of monitoring wells.

Selected data from all the above programs are used in conjunction with data for those sites not yet covered by state discharge permit and RCRA or CERCLA monitoring programs to fulfill the needs of near-field operational groundwater monitoring required by U.S. Department of Energy (DOE) Order 5400.1 (IV) (DOE 1988b), WHC-CM-7-4 and WHC-CM-7-5, and as described in the *Environmental Monitoring Plan* for the Hanford Site (DOE-RL 1991c). The various program and administrative requirements involving groundwater or related activities in areas operated by Westinghouse Hanford are shown in Figure 1-1. As indicated, this report complies with the reporting requirements of several DOE orders and Westinghouse Hanford

administrative policies and procedures. Figure 1-1 also illustrates the relationship between the top-tier environmental program documents for the Hanford Site and the Groundwater Protection Management Program. The groundwater surveillance program administered by Pacific Northwest Laboratory (PNL) (Figure 1-1) addresses Sitewide and offsite groundwater contaminant migration issues as distinguished from the more intensive or site-specific focus of the operational program. Together, these two programs provide both early detection and assessment of Hanford Site operations on groundwater quality as required by DOE Order 5400.1(IV) (DOE 1988b).

1.3 REPORT ORGANIZATION

Chapters 2.0 through 5.0 provide documentation for data and interpretations of groundwater quality beneath Westinghouse Hanford-operated areas not included in reports associated with other programs (RCRA, CERCLA, Tri-Party Agreement milestones). However, related data and interpretations from other sources are also summarized as appropriate for assessing the overall status of groundwater quality in Westinghouse Hanford-operated areas. Chapter 6.0 contains summaries of studies conducted by Geosciences staff that are related to the scope of this document and the Groundwater Protection Management Program for the Hanford Site. Appendix A contains groundwater quality criteria and statistical methods for comparing background values and standards with observed values. Appendix B contains contaminant plume data lists. Appendix C contains analytical data for selected monitoring wells at operational (non-RCRA) disposal sites.

Figure 1-1. Relationship Between the Groundwater Protection Management Program and Other Environmental Protection Programs and Plans Required by U. S. Department of Energy Order 5400.1.

2.0 Geohydrologic Setting and Waste Site Locations

2.0 GEOHYDROLOGIC SETTING AND WASTE SITE LOCATIONS

This chapter provides a general overview of the geohydrologic setting and locations of waste disposal and storage sites in areas operated by Westinghouse Hanford. A review of the contaminant source areas and the controls on groundwater movement also serves as a background for later discussion of near-field contaminant plume distribution patterns (Chapter 5.0).

2.1 GEOHYDROLOGIC SETTING

The Hanford Site is located in the Pasco Basin, a broad alluvial basin within the Columbia Plateau (Figure 2-1). The geology and hydrology of the Pasco Basin and Hanford Site have been discussed in numerous reports (i.e., Myers et al. 1979; Myers and Price 1981; Gephart et al. 1979; DOE 1987, and DOE 1988a; Reidel and Hooper 1989; Delaney et al. 1991; Lindsey 1991). The reader is referred to these reports for detailed descriptions. Regional and sub-basin features that have a bearing on subsurface hydrologic and geologic conditions in operational areas of the Hanford Site are summarized in the sections that follow.

2.1.1 Regional Setting

The Columbia Plateau, sometimes called the Columbia Basin, is a broad intermontane basin. The structural framework of the Columbia Plateau is controlled by the Columbia River Basalt Group. This rock has been folded and faulted during the past 17 million years, producing the present topography and structural relief of the Hanford Site. The Columbia River Basalt Group contains a series of aquifers

that are bounded by the lava flows. These aquifers, some of which are important regional water sources, constitute the confined aquifer system that extends beneath the Hanford Site. Recharge of these aquifers occurs by infiltration of precipitation through fractured basalt outcrops along the ridges of the major folds (e.g., Rattlesnake Hills, Yakima Ridge, Umtanum Ridge, and Saddle Mountains, [Figure 2-1]).

The Ringold Formation, consisting of semiconsolidated alluvium, contains the principal aquifer above the basalt. These sediments were deposited by the Columbia River system as the ridges surrounding the Hanford Site formed. They consist primarily of gravels, sands, silts, and clay, and define a river system that migrated from northwest to southeast across the Hanford Site. The distribution of these deposits influences the rate and direction of groundwater movement over a large portion of the Hanford Site, especially along the western margin.

The vadose or unsaturated zone is dominated by the Hanford formation, the Plio-Pleistocene deposits, and the early Palouse soil. The Hanford formation consists of sedimentary deposits from the cataclysmic Pleistocene floods. These consist of gravels, silts, and sands. The Plio-Pleistocene deposits and the early Palouse soil consist of silts and sands that were probably deposited by the prevailing winds. These loosely consolidated and coarse-textured deposits contain the top of the uppermost aquifer beneath the eastern part of the Hanford Site and strongly influence groundwater movement where they occur in the operational areas of the Site.

Both natural and artificial sources of water in the Pasco Basin influence groundwater conditions in the vicinity of the Hanford Site

(Figure 2-2). The most significant of these sources is imported irrigation water from the Columbia Basin Project. Irrigation water has raised the water table by as much as 61 m (200 ft) above the water table elevation beneath the Hanford Site. Irrigation water return flows have also created large ponds on the northern portion of the Hanford Site. Irrigation of orchards and vineyards in the upper Cold Creek syncline adds to the natural recharge of the unconfined aquifer beneath the 200 Areas. The Columbia River contributes to groundwater recharge in the 100 Areas and causes significant groundwater fluctuations near the streambank. At the far southern end of the Hanford Site, the city of Richland maintains a groundwater storage "reservoir" that creates a groundwater "mound" complicating flow directions in the 1100 Area.

2.1.2 Operational Areas

As a result of nuclear plant siting studies and waste management studies, many published geology and hydrology studies are available for the Hanford Site. Summaries of conditions beneath the 100 and 200 Areas are as follows.

2.1.2.1 100 Areas. The 100 Areas lie north of the Gable Mountain-Gable Butte anticlines in the Wahluke syncline (Figure 2-1). The most recent description of the geology of this area is by Lindsey (1992), and the hydrology of the area has been discussed by Hartman and Peterson (1992). The uppermost basalt flow in the 100 Areas is the Elephant Mountain Member. Directly overlying this is the Ringold Formation, the Hanford formation, and Holocene deposits. The suprabasalt sediments are about 200 m (656 ft) thick along the axis of the syncline. The Ringold

Formation is highly variable across the 100 Areas. Gravels are more abundant on the western part of the syncline, while the eastern part is dominated by muds. Gravels dominate the Hanford formation throughout the 100 Areas with some intrastratified sands. No slackwater facies occur in the 100 Areas. The Holocene deposits in the area are dominated by Columbia River deposits and eolian deposits. The combination of fluctuating river stage and variable permeabilities of the sedimentary deposits in the 100 Areas results in significant local perturbations in the general west-to-east flow direction.

2.1.2.2 200 Areas. The geology and hydrology of the 200 Areas have been the subject of much study and many reports over the past several decades (i.e., Myers et al. 1979, Myers and Price 1981, Gephart et al. 1979, Tallman et al. 1979, Graham 1981, and Routson and Johnson 1990). The most recent work on these areas is by Lindsey et al. (1991) for the 200 West Area, Lindsey et al. (1992) for the 200 East Area, Hoffman et al. (1992) for the 200-BP-1 Area, and Connelly et al. (1992) for the hydrogeologic model for the 200 East Area.

The 200 Areas lie on the north limb of the Cold Creek syncline. The uppermost flow of the Columbia River Basalt Group is the Elephant Mountain Member. The suprabasalt stratigraphy consists of the Ringold Formation, the Plio-Pleistocene unit, the early Palouse Soil, and the Hanford formation. The Ringold Formation is a series of interbedded gravels, sands, silts, and muds. Overlying this is the Plio-Pleistocene unit and early Palouse soil. The latter units are present only under 200 West Area and are predominantly eolian with distinct caliche stringers. The Hanford formation consists mainly of gravels

with interbedded sands. Near the south end of the 200 West Area, some slackwater deposits are present.

The stratigraphy already discussed has a profound influence on the movement of moisture and wastewater through the soil column beneath the waste storage and disposal sites. For example, the fine-textured deposits of the Plio-Pleistocene retard the downward movement of wastewater, resulting in perched water zones near many waste disposal sites in the 200 West Area. This condition creates an extended source area larger than the physical dimensions of disposal structures and significantly influences the time required for contaminants to reach the water table. Such features must be kept in mind for interpretation of groundwater contaminant sources and plume geometries associated with individual waste sites.

2.2 WASTE SITE LOCATIONS

Active or recently active waste disposal and storage sites that are potential or known groundwater contaminant sources are discussed by programmatic area in the following sections.

2.2.1 RCRA Sites

Locations of RCRA facilities in relation to major landmarks are shown in Figure 2-3. The facilities shown include (1) sites where liquid or semi-liquid wastes are stored in underground tanks with some potential for leakage to the soil column (single-shell tanks [SST]), (2) burial grounds with possible soil and groundwater contamination potential (low-level waste management areas [LLWMA] and waste management areas [WMA]), (3) currently active or recently

active liquid waste disposal sites (liquid waste disposal facility [LWDF]), and (4) planned liquid waste retention facilities (LWRF). The designation of these sites as RCRA facilities was made through negotiation between Westinghouse Hanford, the DOE, Richland Field Office (RL), Washington State Department of Ecology (Ecology), and U.S. Environmental Protection Agency (EPA), bringing the facilities into compliance with applicable regulations.

There are currently 21 facilities with RCRA compliant monitoring networks with a total of over 245 groundwater monitoring wells. In accordance with the "interim status" designation of these sites, a three-phase monitoring program is conducted consisting of a background or baseline phase, evaluation or detection monitoring phase, and a potential groundwater quality assessment phase. The assessment phase is initiated only if positive results are found during the detection phase. Indicator parameters such as conductivity, pH, total organic carbon (TOC) and total organic halogens (TOX) as well as site-specific parameters (radioactive constituents or suspected chemical contaminants) are monitored quarterly. More detailed analyte lists are added if positive results are obtained from the detection monitoring phase. Results are reported to Ecology quarterly and annually (DOE-RL 1992a).

2.2.2 Discharge Permit and Related Sites

An outgrowth of the Liquid Effluent Study completed in August 1990 (WHC 1990a) involved a subsequent agreement to include all liquid waste discharges under the State of Washington waste discharge permit program (WAC 173-216). All

facilities releasing wastewater to the soil column are now subject to the permit program.

A large number of both large and small or minor waste streams are included as summarized in Table 2-1. Locations of disposal sites for the waste streams designated as "Interim Compliance" and "Other" are shown in Figure 2-4. Figure 2-4 also includes locations of facilities that are not currently under either program but have been used in the recent past and were included in the Liquid Effluent Study conducted in 1989-1990 (see Table 2-1 for list of Liquid Effluent Study waste streams and disposal sites). Many of the facilities listed in Table 2-1 require site assessments and/or groundwater monitoring networks as conditions of a discharge permit. Additional characterization work for the assessment phase will begin on these sites during fiscal year (FY) 1993. Some older operational groundwater monitoring wells are available at some of these facilities, however, and are sampled under the Operational Groundwater Surveillance Program (Section 2.2.3). This sampling will continue until newer RCRA compliant or equivalent networks are installed as required by conditions of the permit.

2.2.3 Operational Groundwater Surveillance Program

As described in the *Environmental Monitoring Plan* for the Hanford Site (DOE-RL 1991c), this program involves sampling and analysis at facilities that are not currently under RCRA or are not yet monitored as a permit condition. There are 50 non-RCRA compliant wells currently in use for this purpose. Locations of monitored facilities are shown in Figure 2-4. Most of these (with the exception of the

KE Fuel Storage Basin) were also included in the Liquid Effluent study (Table 2-2).

Active liquid waste disposal sites are sampled quarterly and semi-annually at other sites (DOE-RL 1991c). Site-specific radioactive and selected chemical constituents are included in the analyte list. During the liquid effluent study, all available monitoring wells at these sites were analyzed for the full Appendix IX analyte list as well as for site-specific radionuclides. Results of this effort were reported in *Liquid Effluent Study: Groundwater Characterization Data* (WHC 1990c) and *Liquid Effluent Study Final Project Report* (WHC 1990a). This document provides an update of groundwater sampling and related interpretations at the non-RCRA facilities since the Liquid Effluent Study reports.

Analytical work for the operational surveillance and RCRA sampling programs is conducted under contract with IT Richland (formerly U.S. Testing) for radioactive waste and Data Chem Labs for hazardous waste. In addition to the programs described previously, a summary of groundwater compliance aspects of the Operational Groundwater Surveillance Program is reported in the *Westinghouse Hanford Company Environmental Surveillance Annual Report Calendar Year 1991* (Schmidt et al. 1992). The primary focus of the latter report is on radioactive constituents in air, surface water, biota, soil, and groundwater in active Westinghouse Hanford operated areas.

2.2.4 CERCLA Related Groundwater Sampling

Characterization activities at past-practice disposal sites include

groundwater sampling and analysis in several areas that overlap or lie adjacent to RCRA and Operational Program facilities (Figure 2-4). The various past-practice waste sites are characterized on a priority basis as established in the Tri-Party Agreement Action Plan (Ecology et al. 1990).

Current groundwater-related activities include (1) installation or remediation and sampling of 41 wells for the 200 BP-1 Operable Unit in the 200 East Area, (2) installation and sampling at 24 new wells in the 1100 Area, (3) groundwater transport studies at the 300 Area, (4) review of existing groundwater data for the 200 Aggregate Areas study of contaminant plume distribution in the vicinity of major operable unit groupings on the 200 Area Plateau, and (5) the carbon tetrachloride expedited response action (ERA) in the 200 West Area. Groundwater sampling and analysis results associated with these remedial investigation studies are entered into the Hanford Environmental Information System (HEIS) database for common access. Analytical work is performed by offsite laboratories under the Contract Laboratory Program (CLP).

Groundwater data and related studies associated with the CERCLA work provide an important data source that must be integrated with the RCRA, 216 Permit, and operational surveillance activities to provide an overall assessment of groundwater conditions beneath the Westinghouse Hanford operated areas. This document fulfills this objective.

2.2.5 Ancillary Groundwater Studies

Previous studies of groundwater quality conditions across the

Hanford Site have been conducted by the U.S. Geological Survey (USGS) (ca. 1978-1984) and by the Basalt Waste Isolation Program (BWIP) (1978-1987). Chemical characterization data for the unconfined, uppermost confined, and deep basalt aquifers are available from these sources and are used to supplement current data as needed to provide a comprehensive evaluation of groundwater quality including background or upgradient "natural" conditions.

Westinghouse Hanford Geosciences maintains both hardcopy and electronic data files derived from data generated from the USGS and BWIP programs. Future plans include incorporation of these archival data into the HEIS database as funding and time permit. Selected data from the above sources were hand entered into LOTUS (a trademark of Lotus Development Corporation) files during FY 1992 as subsets suitable for use on personal computers.

Figure 2-1. Generalized Geologic Map of the Pasco Basin.

Figure 2-2. Natural and Artificial Sources of Water.

39203129.5

Figure 2-3. Locations of RCRA Groundwater Monitoring Projects and Landmarks on the Hanford Site.

GEOSCI\110890-B

Figure 2-4. Locations of Active or Recently Active Liquid Waste Disposal Sites.

S9007025.C

Table 2-1. Liquid Effluent Receiving Sites Requiring
a Groundwater Impact Assessment and
WAC 173-216 SWD Permit.

Tri-Party Agreement Milestone M-17-06E (only groundwater impact assessment)

300 Area Process Trenches - Project L-045H

Interim Compliance Wastestreams:

Tri-Party Agreement Milestone M-17-13A (only groundwater impact assessments)

216-U-14 Ditch
1325-N LWDF
216-W-LC Crib
216-Z-20 Crib
216-U-17 Crib
216-S-26 Crib
216-T-1 Crib
216-T-1 Ditch
216-T-4-2 Ditch
284 West Powerhouse Pond
2101-M Pond

"Other Phase II Waste Streams

Tri-Party Agreement Milestone M-17-13A and WAC 173-216 State Waste Discharge Permit

400 Area Ponds
100-D Ponds
216-B-3 Pond System

Miscellaneous Waste Streams:

WAC 173-216 State Waste Discharge Permit

216-C-9 Pond
400 Area Septic System
200-W Powerhouse Ash Pit
200-E Powerhouse Ash Pit
300 Area Powerhouse Ash Pit
300 Area Sanitary Sewer
100-N Sewage Lagoon
300 Area Backwash Pond
216-Z-21 Seepage Basin (207-Z Retention Basin)
200-E Chemical Drain Field
183-N Backwash Discharge Pond
Unidentified Waste Streams--to be determined

Planned Waste Streams:

WAC 173-216 State Waste Discharge Permit

Project C-018H Treated Effluent Disposal Site
Project W-049H Treated Effluent Disposal Site

Table 2-2. Liquid Effluent Streams and receiving Site Status
as of September 1992, (sheet 1 of 2).

Receiving Site	Associated Effluent Stream	Receiving Site Status
1 100-D Ponds	183-D Filter backwash wastewater	Active
2 1324N/NA Pond	163N Demineralization Plant wastewater	Inactive
3 1325N Crib	N Reactor effluent	Active
4 216-A-8-Crib	241-A&/AZ Tank Farm steam condensate	Inactive
5 216-A-29 Ditch	PUREX Plant chemical sewer	Inactive
6 216-A-30 Crib	PUREX Plant steam condensate	Inactive
7 216-A-36B Crib	PUREX Plant ammonia scrubber condensate	Inactive
8 216-A-37-1 Crib	242-A Evaporator process condensate	Inactive
9 216-A-37-2 Crib	PUREX Plant steam condensate	Inactive
10 216-A-45 Crib	PUREX Plant process condensate	Inactive
11 216-B-3 Pond System	PUREX Plant chemical sewer	Active
	PUREX Plant cooling water	
	242-A Evaporator cooling water	
	B Plant cooling water	
	241-A Tank Farm cooling water	
	284-E Powerplant wastewater	
	244-AR Vault cooling water	
	242-A Evaporator steam condensate	
12 216-B-55 Crib	B Plant steam condensate	Inactive
13 216-B-62 Crib	B Plant process condensate	Inactive
14 216-B-63 Ditch	B Plant chemical sewer	Active
15 216-C-7 Crib	209-E Laboratory reflector water	Active
16 216-S-10 Ditch	S Plant wastewater	Active
17 216-S-26 Crib	222-S Laboratory wastewater	Active
18 216-T-1 Ditch	T Plant laboratory wastewater	Active
19 216-T-4-2 Ditch	T Plant wastewater	Active

Table 2-2. Liquid Effluent Streams and Receiving Site Status
as of September 1992, (sheet 2 of 2).

Receiving Site	Associated Effluent Stream	Receiving Site Status
20 216-U-14 Ditch	UO ₂ /U Plant wastewater	Active
	242-S Evaporator steam condensate	
21 216-U-17 Crib	UO ₂ Plant process condensate	Active
22 216-W-LC Crib	2724-W Laundry wastewater	Active
23 216-Z-20 Crib	Plutonium Finishing Plant wastewater	Active
24 200-W Powerhouse Pond	284-W Powerplant wastewater	Active
25 2101-M Pond	2101-M Laboratory wastewater	Active
26 300 Area Process Trenches	300 Area process wastewater	Active
27 400 Area Ponds	400 Area secondary cooling water	Active

3.0 Sampling and Analysis

3.0 SAMPLING AND ANALYSIS

This chapter describes the sampling and analysis and associated quality control procedures associated with data used in the interpretive sections (Chapter 5.0). More detail is provided for data sources that have not been described in other documentation (Operational Surveillance Program).

3.1 CERCLA DATA

The CERCLA groundwater quality data was acquired in accordance with the Westinghouse Hanford procedures and quality assurance program plans for remedial investigation and feasibility study activities (WHC 1990b; WHC-CM-4-2, *Quality Assurance Manual*). More detailed documentation for the CERCLA-related groundwater quality data is included in the Aggregate Area Management Study reports for the 200 West and 200 East Areas (DOE-RL 1992c, 1992d).

Analytical work for Hanford Site CERCLA projects is performed by off-site laboratories under the CLP managed by the Office of Sample Management, Westinghouse Hanford.

3.2 RCRA AND OPERATIONAL SURVEILLANCE PROGRAM DATA

The RCRA and operational groundwater sampling and analysis programs are conducted under one umbrella statement of work and associated quality control procedures. The controlling documents and inter-relationships are illustrated in Figure 3-1. The RCRA sampling and analysis projects are implemented through individual groundwater monitoring plans for each waste site and conform to the requirements of 40 CFR 265. The operational surveillance sites are

covered under the *Environmental Monitoring Plan* for the Hanford Site (DOE-RL 1991c). Under the umbrella statement of work for sampling and analysis, both programs are covered by the same quality assurance and quality control procedures. The primary difference between the two programs involves the number, location, and construction of the groundwater monitoring wells. All RCRA monitoring wells are constructed and located in accordance with WAC 173-160 and paragraph 265.91 of 40 CFR 265, which specify both upgradient and downgradient well locations. Most of the operational monitoring wells at active waste sites not yet in compliance with RCRA or discharge permit requirements are located immediately adjacent to the disposal facilities. These well networks were originally designed to detect "breakthrough" of waste constituents from the soil column to groundwater. Thus, in most cases the samples are from locations where very little mixing has occurred between the effluent and ambient groundwater beneath the disposal facility. Additionally, the older or non-RCRA-compliant wells are typically constructed of carbon steel and have greater perforated intervals than the standardized RCRA well (stainless steel casings with screened intervals covering the upper 4.6 m [15 ft] of the saturated zone).

It should also be noted that during CY 1991 the quality control program was transferred from PNL to Westinghouse Hanford Geosciences. The quality control program is based on EPA Region 10 guidance, the *RCRA Groundwater Monitoring Technical Enforcement Guidance Document* (NWWA/EPA 1986) and *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*, Chapter 1.0 (EPA 1986). Additional details of the program are described in the RCRA annual report (DOE-RL 1992a).

Data collected before June 1991 were covered under the PNL quality assurance and control program as described in WHC (1990c). The contract for analytical services during this time period was held by U.S. Testing Inc.--Richland. The contract contained the following quality assurance (QA) clauses: (1) the laboratory was to ensure the integrity and validity of test results through an internal UST quality control (QC) program that included written QC procedures, QC samples, and corrective actions; (2) the laboratory would maintain EPA safe drinking water certification; (3) the laboratory would meet QC requirements of EPA's *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*, SW-846 (EPA 1986); (4) the laboratory would participate in interlaboratory comparisons and audits (i.e., DOE/Environmental Measurements Laboratory [EML] Quality Assessment Program, EPA Environmental Radioactivity Laboratory inter-comparisons, and EPA water pollution and water supply performance evaluation studies); and (5) the laboratory would produce a quarterly report of interlaboratory comparisons and QC results. Because of problems with the performance of contract specifications, UST was replaced by IT Corporation in 1991. As a result of associated litigation, access to earlier laboratory records associated with the UST data has been less than successful. However, comparison testing for volatile organics and selected metals using sample splits and re-analysis of UST (returned) samples yielded favorable results (Hagood 1991, WHC 1990c).

Trends, descriptions of data collection procedures, personal knowledge, and professional judgement must be relied on in these cases. Currently such data are maintained separately from the Hanford Site groundwater database or HEIS and are used primarily for planning or comparison purposes, i.e., ancillary data not used for regulatory purposes.

3.3 ARCHIVED OR ANCILLARY DATA

Data described under Section 2.2.5 cannot be subjected to the same validation checks discussed for RCRA sampling and analysis results.

Figure 3-1. Quality Assurance Document Hierarchy for Resource Conservation and Recovery Act/Operational Groundwater Monitoring Program.

VG-JM092592-B

4.0 Groundwater Quality Criteria

4.0 GROUNDWATER QUALITY CRITERIA

Assessment of the status of groundwater quality conditions in Westinghouse Hanford-operated areas requires comparison with reference levels. Several sources of water quality standards and criteria must be used to obtain the breadth of coverage needed. For purposes of this report, two primary reference concentrations are recognized: health-based standards and "natural" background.

4.1 HUMAN HEALTH OR RISK-BASED STANDARDS

The health-based reference values used in this report are listed in Appendix A-1 and are derived from (1) state of Washington (WAC regulations), (2) EPA and DOE orders (radioactive constituents), and (3) Westinghouse Hanford

administrative guides (site-specific application of DOE guidelines). Where more than one reference value is available, the lowest concentration is used. No regulatory implication is intended by reference to the above standards. They are used only as an indicator of possible groundwater quality problem areas.

4.2 NATURAL BACKGROUND

Comparison with natural background reference values is necessary in those cases where either (1) no standards or criteria for naturally occurring constituents in groundwater exist or (2) a standard exists but is lower than naturally occurring concentrations in the area background. Background values used in this report are listed in Appendix A-1 along with a discussion of their application (Appendix A-2).

5.0 Data Interpretation

5.0 DATA INTERPRETATION

Groundwater quality data derived from sources described previously are evaluated on an area basis in the following five major subsections: 100 Areas, 200 Areas, 300 Area, 400 Area, and 600 Area. Major contaminant plume distribution features are discussed first in each major subsection followed by individual or active waste site descriptions.

5.1 100 AREAS

The 100 Areas waste sites (Figure 5-1) consist primarily of the nine decommissioned plutonium production reactors ("operable units") and associated waste disposal facilities. Waste site characterization is conducted under CERCLA and past-practice provisions of RCRA. A comprehensive compilation and interpretation of available groundwater quality and geohydrologic information for this area has been prepared as part of the *100 Aggregate Area Study* (Hartman and Peterson 1992) from which much of the following discussion was taken.

5.1.1 Plume Maps

Parameters indicative of groundwater contamination in the 100 Areas include gross alpha, gross beta, tritium, nitrate, and hexavalent chromium. These constituents are highly mobile in groundwater and were present in waste liquids and reactor coolant released in the 100 Areas. A broad list of analytes (Appendix IX of 40 CFR 264) was also included in a groundwater quality assessment of active disposal sites conducted for the *Liquid Effluent Study Final*

Project Report (WHC 1990a). The latter are discussed in Section 5.1.2.

The contaminant plume maps are based on 1990 data that were averaged for those wells with multiple results. In many cases, the plume boundaries are not well defined because of minimal spatial coverage.

A water table map indicating approximate groundwater flow directions for the 100 Areas is shown in Figure 5-2 as a reference for the following discussion of contaminant plume distribution patterns.

5.1.1.1 Gross Alpha. Groundwater in the 100-H and 100-F Areas contains the most significant gross alpha contamination in the 100 Areas (Figure 5-3). The highest gross alpha concentration occurs in the 100-H Area. This is attributed to past leakage of uranium-contaminated liquid waste from the solar evaporator basins (located in the east-central portion of the 100-H operable unit). The gross alpha concentrations in the 100-H Area declined from 1988 to 1990 apparently in response to cleanout and closure of the solar evaporator basins. Only two wells in the 100-H Area and one well in the 100-F Area had alpha activities greater than detection limits in 1990.

5.1.1.2 Gross Beta. Gross beta concentrations in groundwater in the 100-N Area are one to two orders of magnitude higher than in other 100 Areas (Figure 5-4) and are attributed primarily to the presence of strontium-90 from liquid effluent discharges to 100-N cribs. The transport and behavior of strontium-90 from these waste facilities was modeled for effluent and remedial action studies

(WHC 1990a; Connelly et al. 1992, respectively). These studies indicate a sharp decline in the quantity of strontium-90 added to the Columbia River caused by the termination of liquid waste disposal activities from 100-N reactor operations. However, the groundwater concentrations are expected to decline very slowly because of the inventory of adsorbed strontium-90 in the aquifer (WHC 1990a).

Gross beta concentrations in the 100-H Area show a pattern of decline similar to the gross alpha. The gross beta is attributed primarily to technetium-99, a co-contaminant in the uranium recycle-fuel fabrication process as discussed above for gross alpha. The technetium-99 is present as TcO_4^{-1} , a highly mobile anion similar to nitrate in chemical properties.

The gross beta concentrations have decreased in the 100-N and 100-F Areas between 1988 and 1990. The bar chart for the 100-F Area shows a decrease between 1988 and 1989 and an increase in 1990. The maxima for the 100-F Area in Figure 5-4 are from a single well. There are relatively few data for this well in earlier years, and they are slightly erratic, but there are no obvious outliers. Thus, the apparent increase in gross beta activity in the 100-F Area between 1989 and 1990 appears to be real.

Figure 5-5 is a contour plot of gross beta concentration in groundwater for 1990. Gross beta greater than the drinking water standard (50 pCi/L) was observed in all of the reactor areas except the 100-K and 100-D Areas. As discussed previously, the 100-N Area contains the highest beta activity in groundwater with the greatest area of elevated gross beta concentrations.

Wells 6-61-62 and 6-56-53 are located between Gable Mountain and Gable Butte, an area commonly called Gable Gap. Samples from these wells apparently had elevated gross beta activities in 1990. The 1990 data are comparable to earlier data from these wells. Groundwater in this area may contain contaminants from Gable Mountain Pond, a former liquid disposal facility that was located south of Gable Mountain, or from facilities in the 200 Areas (Serkowski and Jordan 1989).

5.1.1.3 Tritium. Tritium contamination of groundwater in the 100 Areas is most significant in the 100-K and 100-N Areas. The values plotted in Figure 5-6 for the 100-K and 100-N Areas are for wells adjacent to active or recently active storage or disposal facilities.

Figure 5-7 is a contour map of tritium in groundwater in the 100 Areas for 1990 (1989 for the 100-H Area). Detectable tritium was observed in wells in all reactor areas. Plumes with the greatest areal extent and highest concentrations were in the 100-N and 100-K Areas. Tritium concentrations greater than the drinking water standard (20,000 pCi/L) were observed in the 100-N and 100-K Areas in 1990.

Figure 5-8 shows tritium versus time in groundwater samples from three wells in Gable Gap. Tritium is elevated in all three of these wells and increased sharply in one of the wells in the late 1970's. The source of this contamination is attributed to migration of contaminated groundwater from past fuel reprocessing activities in the 200 Areas.

5.1.1.4 Nitrate. The highest concentration of nitrate in groundwater in the 100 Areas is seen

in the 100-H Area (Figure 5-9) where concentrations are decreasing with time. The pattern of decline is similar to gross alpha and beta as discussed above. The principal source of nitrate in the 100-H Area groundwater is also attributed to past leakage from the solar evaporator basins. Nitrate concentrations are also elevated in the 100-D and 100-F Areas. Concentrations higher than the drinking water standard (45,000 ppb) were observed in the 100-D, 100-H, and 100-F Areas.

Figure 5-10 shows contoured nitrate concentrations for 1990. Groundwater in all 6 of the reactor areas had nitrate concentrations higher than in 600 Area wells. The plumes in the 100-D and 100-F Areas are ill-defined due to lack of data.

Well 6-61-62, located in Gable Gap, had nitrate concentrations an order of magnitude higher than nearby wells in 1990 and in previous years. The source of nitrate contamination at this well is unknown.

5.1.1.5 Chromium. The 100-D and 100-H Areas contain the highest concentrations of chromium in the 100 Areas (Figure 5-11). The bar chart for the 100-D Area appears to show a sharp increase between 1988 and 1989 and a decrease in 1990. However, the 1989 and 1990 values are from a well near the D Reactor building. There were no data from this or any other D Area wells in 1988; the value shown in the figure for 1988 is for a well in the 600 Area. A similar situation occurs in the 100-K Area. The 1988 data shown in the Figure 5-11 are for a well in the 600-Area; the 1989 and 1990 data are for wells near former waste disposal facilities.

Chromium distribution patterns in the 100-K, 100-D, and 100-H Areas are shown Figure 5-12. The plumes in the 100-D and 100-K Areas appear to be widespread; however, the shape of these plumes is not well-defined due to lack of data.

The complex temporal and areal distribution patterns for hexavalent chromium in the 100 Areas reflect the past discharge history of coolant water and historical perturbations in the groundwater flow regime because of mounding effects at each reactor site (see Hartman and Peterson 1992). Considerably more chromium concentration data over the 100 Aggregate Area are needed to fully assess the occurrence and temporal behavior of this contaminant.

5.1.2 Active Sites and Past Sources

Active or recently active waste sites in the 100 Areas consist of (1) the nuclear fuel storage basins and associated crib in the 100-K Area, (2) the 100-D demineralizer wastewater disposal pond, (3) the 100-N cribs, and (4) the solar evaporator basins in the 100 H-Area. The 100-D, 100-H, and 100-N waste storage and disposal facilities are monitored under the RCRA program. The 100-K fuel storage basins are monitored for the Operational Surveillance Program.

5.1.2.1 100-N Area. Groundwater monitoring is conducted in the 100-N Area for three RCRA sites and for operational purposes. There are more wells (Figure 5-13) and more frequent sampling than in most of the other reactor areas, so the groundwater contaminant plumes are better defined. A summary of the

salient features of groundwater contamination near these disposal facilities follows.

- Gross alpha has been slightly elevated in the past but is below the detection limit in all wells in 1990; it is probably not a constituent of concern.
- Gross beta values in the 100 Areas are highest at Well N-67 near the inactive 1301-N facility and are decreasing with time. Values are greater than the drinking water standard in most wells in the northern part of the 100-N Area, primarily because of strontium-90.
- Tritium is greater than the drinking water standard in many wells in the northern part of the 100-N Area, particularly wells located near the recently active 1325-N liquid waste disposal facility.
- Nitrate is elevated above background in a few isolated wells but is less than the drinking water standard in all wells in 1990.
- Chromium in all wells is less than or near detection limit.
- Localized occurrence of petroleum hydrocarbons exists from underground diesel storage tank leakage.

Evaluation of results for analysis of the full list of Appendix IX hazardous waste constituents in groundwater samples from the monitoring well network for 1324-N and 1325-N Cribs did not reveal any positive or significant occurrences other than as noted above (WHC 1990a, Sections 2.2 and 2.3). Current wastewater discharge to the

1325-N Crib has been reduced from over 3.758×10^3 L/min (1,000 gal/min) to only 3.8 to 7.6 L/min (1 to 2 gal/min). Evaluation of groundwater and soil column contamination at these facilities is also scheduled as part of the groundwater impact assessment for Tri-Party Agreement milestone M-17-13A.

Additional details of the monitoring program at this facility are described in the RCRA annual report (DOE-RL 1992a) and *Westinghouse Hanford Company Environmental Surveillance Annual Report--Calendar Year 1991* (Schmidt et al. 1992). In addition, NPDES and related effluent monitoring includes groundwater sample analysis of wells located near the shoreline. Spring sampling along the shoreline is also conducted for the PNL sitewide environmental surveillance program and for CERCLA program (Peterson and Johnson 1992).

5.1.2.2 100-H Area. Contaminant plumes are fairly well defined in the 100-H Area, due to the extensive RCRA monitoring well network (Figure 5-14). The following are highlights of contaminant occurrences from this program.

- Gross alpha levels are primarily due to uranium in the 100 Areas; they are elevated only in one well (H4-3), but are decreasing with time.
- In 1990, gross beta was above or near the drinking water standard in three wells. It was highest in well H4-3, and is decreasing with time. The plume appears relatively small and is believed to be due to technetium-99.
- Tritium data were not obtained in 1990, but were below the drinking water standard in all

wells in 1988 and 1989. It was elevated above background in most wells in 1989.

- Nitrate levels are greater than background in most wells, greater than the drinking water standard in several wells in 1990, highest in well H4-3, and are decreasing with time.
- Chromium is greater than the drinking water standard in nearly all wells, highest in well H4-14, and decreasing with time.

Additional details of the RCRA monitoring program for this facility are provided in the RCRA annual report (DOE-RL 1992a).

5.1.2.3 100-D Area. Major sources of contaminants from this area consist of residual reactor coolant water treatment chemicals and disposal of conventional water treatment waste associated with the 100-D Ponds.

The exact location or source of the chromium plume or anomaly (see Figure 5-10) in the 100-D Area has not yet been identified. Apparently a source of residual sodium dichromate or chromic acid is present at or near the water table that provides a continuing source of input to the groundwater. Since reactor operations were terminated at this site in 1967, any residual contaminant in groundwater caused by coolant leakage from retention basins should have long since dissipated (unless there is an upgradient source outside the 100-D Area that has not been identified). Followup characterization is planned to address this anomaly as part of the 100 Aggregate Areas Study.

The 100-D Pond system is located at the northern end of the 100-D Area and approximately 300 m (984 ft) from the river (Figure 5-15). The facility consists of a settling pond and percolation pond separated by a dike. The ponds were built in 1977 to dispose of liquid effluent from the 183-D Water Treatment Facility in the 100-D Area. This waste consists of filter backwash from sand beds used in the alum (or aluminum sulfate) flocculation treatment to remove suspended sediment from the raw river water. The dominant chemical waste constituent released to the pond is aluminum sulfate (WHC 1990a). Liquid waste from the 189-D Building engineering testing laboratories is also discharged to the pond system.

RCRA groundwater monitoring wells were installed (see Figure 5-15) but no water quality data were acquired during 1991 (DOE-RL 1992a). The approximate direction of groundwater movement based on the current water table map is north. Thus, the spring or seep samples along the shoreline in the downgradient direction from the ponds should show evidence of elevated sulfate if chemical waste is migrating from the pond area to the river. The fall 1991 seeps or spring survey (Peterson and Johnson 1992) shows both elevated chromium (up to 80 ppm) and sulfate (44 ppm as compared to average river water of 10 ppm and average groundwater of 35 ppm) near the 100-D Area.

RCRA sampling of the groundwater monitoring network that includes wells between the seeps and the ponds should further document the extent and nature of the chemical waste plume emanating from the ponds.

It should be noted that concentrations in groundwater will

be higher than in seep water because of dilution in the streambank storage zone. This illustrates the potential value of spring sampling as a supplemental "groundwater" monitoring tool if a river water mixing or dilution correction can be made. Work is under way to quantify mixing relationships in the streambank as part of the 100 Aggregate Areas Study.

5.1.2.4 100-K Area. The 100-K Area reactor operations were terminated in 1971. Waste sources included reactor coolant treatment chemicals, radioactive waste disposal trenches, and miscellaneous facility sources. Current operations involve storage of N Reactor fuel in the KE Basin and equipment decontamination. Locations of monitoring wells and waste storage and disposal facilities are shown in Figure 5-16.

The occurrence of moderately high levels of tritium immediately downgradient from the KE Basin is the primary groundwater contamination in the 100-K Area. However, like the 100-D and 100-H Areas, anomalous chromium occurs that must be related to some type of continuing source.

Tritium concentrations in the four wells immediately downgradient from the storage basin are shown as a function of time in Figure 5-17. The well with the highest tritium concentrations (Well 1-K-30) has curiously remained at a level of approximately 1,000,000 pCi/L for the last 6 years. An unexplained excursion occurred in concentrations in well 1-K-27 after 1988. The relative concentration of nitrate in these wells is similar to tritium (Figure 5-18). The above patterns do not seem to be related to the operating history of the fuel storage basin as discussed in the following paragraphs.

Tritium concentrations in basin water are on the order of 4,000,000 pCi/L. Although a hypothetical leak of storage basin water at this tritium concentration could account for the highest groundwater tritium concentrations (well 1-K-30), tritium should exhibit a decline because of radioactive decay of the hypothetical source.

A leak was discovered in the KE Basin in the 1970's but was apparently repaired in 1980 (Schmidt et al. 1991). Antimony-125, a mobile radionuclide that was also present in storage basin water, appears to decline with a half-time close to its radiological half-life (Figure 5-19) following repair of the leak. Curiously, the same well that shows a decrease in antimony-125 also shows an abrupt increase in tritium in 1988. Thus it seems unlikely that the water around this well is stagnant, as might have been concluded based only on the apparent rate of decline of antimony-125 (i.e., at a rate similar to its radiological half-life). A source of the elevated tritium other than the storage basin has been proposed (Schmidt et al. 1991). However, even if the storage basin is not the source, it is still difficult to rationalize a tritium source that appears to remain constant even though reactor production of tritium ceased several years ago.

Another anomalous groundwater contaminant occurrence in the 100-K Area involves elevated nitrate in well 1-K-19 at the west end of the liquid waste disposal trench (Figure 5-20). The concentration peaks in 1988 and then exhibits a rapid and continuous decline to the present. No obvious source for this recent occurrence has been identified. Regardless of the origin of the elevated tritium and

nitrate near the KE Basin and trench, the sources appear to be highly localized and do not appear to result in a significant input to the Columbia River, based on the observed concentrations in springs in the vicinity of the 100-K Area (Figure 5-21). Additional monitoring wells and sampling are planned for the 100 Aggregate Area Study, which should illuminate the continuing sources of tritium, chromium, and nitrate in the 100-K Area.

5.2 200 AREAS

This section describes contaminant plume distribution patterns and sources beneath the 200 East and 200 West Areas. The plume geometries were developed from a review of published contaminant plume studies and compilation of information from the HEIS database.

Groundwater contaminant plume mapping in the 200 Areas has been conducted on selected constituents since the 1940's. The most recent information regarding plume distributions in the areas has been reviewed. Four studies have been identified that contain contaminant plume maps and/or information for the 200 East Area (Evans et al. 1992; Woodruff et al. 1991; Serkowski and Jordan 1989; DOE-RL 1992d). Six studies have been identified that contain contaminant plume maps and/or information on contaminant detections in the 200 West Area (Evans et al. 1992; Jaquish and Bryce 1990; Serkowski and Jordan 1989; DOE-RL 1991a, 1991c; WHC 1990b).

There was an interruption of laboratory services during the period from June 1990 until May 1991, during which time no sampling for hazardous waste constituents was conducted. Samples

for radioactive constituents were collected from selected wells and archived for later analysis. Those samples are currently being analyzed in conjunction with normally scheduled samples, and results are being validated and entered into the groundwater database.

The HEIS database was queried for all contaminants that have been detected in the 200 East, 200 West, and surrounding 600 Area groundwater samples analyzed since January 1, 1988. A large portion of the samples were analyzed for the complete list (ca. 380 analytes) specified in Appendix IX of 40 CFR 264. The term "contaminants" refers to any chemical or constituent exceeding the concentration listed in the following:

- 40 CFR 141 and 143--*Primary and Secondary Drinking Water Regulations*
- FR 54 22062--*Proposed Drinking Water Maximum Concentration Limit (MCL)*
- 40 CFR 264 Appendix IV--*The RCRA "Long List"*
- WAC 173-200-040--*Model Toxics Control Act...*
- DOE Order 5400.5--*Derived Concentration Guides (DCG) for Radionuclides* (DOE 1990).

The contaminants that exceeded a standard (see Appendix A-1) were then compiled and the results are presented in Table 5-1. The information from the most recent published studies has been integrated with the contaminant detection determinations to develop plume distribution maps for the constituents identified in Table 5-1. Maps were developed from

average concentration values from the period January 1, 1988 to the present. This approach was chosen to provide sufficient data for contouring. The average values for each well (by constituent) that were used in developing the plume maps reported in this study are contained in Appendix B.

The maps can be categorized into four groupings based on areal extent of contamination (widespread, intermediate, localized, and indeterminate). A summary of these categories (by contaminant) is contained in Table 5-2. These plume maps accompany brief discussions of each contaminant found in the groundwater beneath the 200 East and 200 West Areas.

5.2.1 Plume Maps

Individual constituents listed in Table 5-2 are discussed separately for the 200 East and 200 West Areas as follow.

5.2.1.1 200 East Area. Arsenic-- There appear to be broad areas of arsenic contamination (above the reference level) beneath the 200 East and surrounding 600 Area (Figure 5-22). Two problems exist in data presentation: (1) the contract required quantitation limit (CRQL) for arsenic is different for RCRA and CERCLA projects (5 ppb vs 10 ppb respectively), and (2) the Washington water quality standard (WWQS) for arsenic is 0.05 ppb, two orders of magnitude less than the RCRA CRQL. Therefore, the areas of contamination indicated in Figure 5-22 are contoured at the minimum concentration supported by the data. Areas of apparent contamination, when compared to the most stringent standard available, may be much larger. However, aside from the above, three separate determinations of "natural

background" upgradient from the influence of Hanford Site activities (see Appendix A-2) suggest a range of 3.9 to 6.7 ppb for the mean values. This range of mean values is consistent with the cluster of arsenic concentrations shown to the far south of the 200 East fenceline (see Figure 5-22). As discussed in Appendix A-2, the most appropriate test in this case may be to compare the range of the population of apparent high values within the plume with the range of the population of background area values. Only a few of the higher values shown in Figure 5-22 exceed the upper range of the area background (Appendix A-2). More background data are needed; however, it is clear that the natural background for arsenic at the Hanford Site is on the order of 100 times greater than the state groundwater protection standard of 0.05 ppb. In such cases, a site-specific "natural" background value can be substituted for the WAC-173-200 standard (Figure 5-23).

Specific Conductivity-- This is a general indicator of total dissolved solids in the groundwater. It is typically correlated with contaminant plumes and is shown for the 200 East Area in Figure 5-23.

Chromium-- One minor area of chromium contamination is suggested by Figure 5-24. This plume is defined by a single well. The contamination is, however, persistent and appears to be real. All three of the applicable regulatory standards for this constituent (WWQS, drinking water standard (DWS), and MCL) are equivalent (50 ppb) and exceed the detection limit (10 ppb). The mean natural background values range from 4 ± 2 to <50 ppb (Appendix A-2).

Cyanide--A proposed drinking water standard for cyanide has been issued (200 ppb) and one cyanide plume was identified based on this limit (Figure 5-25). The plume is centered on well 6-50-53A, approximately 975 m (3,200 ft) north of the 200 East boundary fence. The RCRA and CERCLA CRQLs are equivalent (10 ppb) and well below the proposed standard. This is consistent with the presence of nitrate, technetium-99, and "complexed" cobalt-60 (all mobile co-contaminants) in several million gallons of nuclear fuel processing waste discharged to the BY Cribbs in the mid 1950's.

Nitrate--Nitrate contamination in excess of the WWQS and DWS of 45 ppm (as NO_3) occurs in several areas within and north of the 200 East Area (Figure 5-26). The highest nitrate concentrations are associated with the contaminant plume centered on well 6-50-53A (see cyanide discussion). The plume approaching from the west is from a 200 West source and is discussed in *Hydrogeologic Model for the 200 East Groundwater Aggregate Area* (Connelly et al. 1992). The detection limit for nitrate for both RCRA and CERCLA programs is 0.2 ppm.

Gross Alpha--Five gross alpha contaminant "plumes" are illustrated in Figure 5-27. Surprisingly high averages (>20 pCi/L) have been reported for wells 6-55-57 and 6-52-54, which define the northernmost plumes. Only two values have been reported for well 6-55-57 (74 and <4) and one for 6-52-54. Additional analytical results may indicate that the first values reported are anomalous. A similar situation is probable for the plume indicated along the 200 East northern fenceline (beneath the 200-BP-1 operable unit). This plume was defined by wells for which only one or two results were reported,

and no associated alpha-emitting contaminant has been identified in the area. In comparison, natural background for gross alpha is 2.5 ± 1.5 pCi/L. Transuranic (TRU) contaminants (plutonium-238/239, Americium-241) in the vicinity of the B-5 Reverse Well and uranium in the vicinity of the 216-B-62 Crib account for the two small plumes shown in the west central area of 200 East. The maximum detectable concentration (MDC) for gross alpha is 4 pCi/L.

Gross Beta--Widespread beta contamination exists beneath the 200 East groundwater Aggregate Area Management Study (AAMS) area (Figure 5-28). Good correlation exists between the individual plumes and known beta-emitting contaminants (strontium-90, cobalt-60, technetium-99, cesium-137), except for the plume located to the southwest of the 200 East fenceline. In addition, the plume that appears to extend beyond the northwest corner of the map is poorly constrained but is probably related to movement of the groundwater plume from the BY Cribbs (see cyanide discussion earlier). The WWQS and DWS standard of 50 pCi/L is well above the contract minimum detectable activity for gross beta (8 pCi/L). Natural background estimates range from 7.1 ± 2.6 to 19 ± 12 pCi/L.

Cesium-137--The occurrence of cesium-137 contamination greater than the DWS and the 1/25 DCG standard of 120 pCi/L is indicated in Figure 5-29. The cesium-137 is associated with known contamination in the vicinity of the B-5 Reverse Well and, like other nonmobile co-contaminants (strontium-90 and plutonium-239), appears to be restricted to near the point of injection.

Cobalt-60--Cobalt-60 contamination (Figure 5-30) is associated with the cyanide plume as discussed earlier. Chemical complexation of cobalt-60 with cyanide or ferrocyanide has been offered as an explanation for the widespread distribution of cobalt-60, which is normally immobile in the subsurface (Evans et al. 1992). The applicable standard for cobalt-60 is 100 pCi/L (1/25 DCG and DWS), which is well above the minimum detectable activity.

Iodine-129--Iodine-129 contamination exists over a fairly large area (Figure 5-31). However, data points are absent in some critical areas, which would help constrain or confirm the plume geometry suggested by the computer plot. The broad plume distribution extending to the southeast and northwest is concordant with the tritium plume, reflecting a common origin and similar mobility characteristics. The primary source for both iodine-129 and tritium is past disposal of Plutonium Uranium Reduction Extraction (PUREX) process condensate to cribs located in the southeast area of 200 East. The DWS of 1 pCi/L is equal to the contract minimum detectable activity.

Plutonium-239/240--As with cesium-137, the single plutonium-239/240 occurrence is centered in the immediate vicinity of the B-5 Reverse Well (Figure 5-32). Only four wells define the plume. The standard (1/25 DCG) of 1 pCi/L is above the minimum detectable activity of 0.1 pCi/L required in the laboratory contract.

Strontium-90--Strontium-90 contaminant plumes in excess of the 8 pCi/L standard (DWS/WWQS/1/25 DCG) occur in three areas (Figure 5-33). The highest concentrations are associated with the plume centered

at the B-5 Reverse Well. The plume in the southeast corner of 200 East Area is not well constrained, and additional well information might modify the shape of the plume significantly. The localized elevated concentrations in this area, however, suggest possible breakthrough from the soil column from past-practice discharges to 216-A-8, 216-A-30, or the 216-A-29 Ditch. The elevated strontium-90 north of the 200 East Area is due to breakthrough of strontium-90 from the soil column beneath the decommissioned Gable Mountain Pond. Fission products were released to the pond from a process upset that occurred in the mid-1960's. The breakthrough to groundwater was first observed in 1984 and contributed to the decision to close the pond in 1985-1986 to minimize additional transport from the soil column to the water table.

Technetium-99--One major plume of technetium-99 contamination are located to the north of the 200 East Area (Figure 5-34). The highest concentration is found in well 6-50-53A. The standard for technetium-99 is 900 pCi/L (1/25 DCG and DWS), well above the contract minimum detectable activity of 15 pCi/L. The source and occurrence of co-contaminants originating from the BY Cribs was discussed previously (see cyanide discussion).

Tritium--Tritium contamination covers the largest area of any contaminant in the 200 East groundwater AAMS area (Figure 5-35). The approach of tritium from the west is related to 200 West Area past-practice discharges (see DOE-RL 1992d). The highest tritium concentrations are found in wells located near the southeast corner of the 200 East Area. These wells monitor active and inactive liquid disposal facilities associated with the PUREX facility. The regulatory

limit for tritium is 20,000 pCi/L (20 nCi/L), and the contract minimum detectable activity is 500 pCi/L (0.5 nCi/L). The contaminant distribution patterns in the 200 East Area have been modified in response to the increased discharge to B Pond following termination of the Gable Mountain Pond disposal facility in 1986.

5.2.1.2 200 West Contaminant Plumes. Arsenic--At least three separate areas of limited arsenic contamination potentially exist in 200 West Area groundwater as illustrated in Figure 5-36. A problem exists in the interpretation of the analytical data because the detection limit (5 ppb) exceeds the most stringent regulatory limit (WWQS = 0.05 ppb). Also, as previously discussed, the natural background is approximately 100 times greater than the above-groundwater protection standard.

Specific Conductivity--This is a general indicator of total dissolved solids in the groundwater. It is typically correlated with contaminant plumes and is shown for the 200 West Area in Figure 5-37.

Chromium--Three areas of chromium contamination appear to exist as shown in Figure 5-38. All three of the applicable regulatory standards for this constituent (WWQS, DWS, and MCL) are equivalent (50 ppb) and exceed the detection limit (10 ppb). The area of contamination located in the southeast corner of the 200 West Area is defined by only one point. It appears to be a persistent contaminant, and other detection level exceedances are present in the area and to the east.

Fluoride--Two minor areas of fluoride contamination potentially exist that exceed the DWS and MCL standard of 4 ppm. The plume map for this constituent is presented in

Figure 5-39. The natural background means (Appendix A-2) range from 0.37 ± 0.1 to 0.55 ± 0.33 ppb. The zones of elevated fluoride also seem to coincide with the arsenic and chromium anomalies.

Carbon Tetrachloride--The distribution of this constituent is described in detail in DOE-RL (1991d) and the contaminant plume map for that study is reproduced in this document as Figure 5-40. The data are based on averaged data for the period January 1988 to May 1991. The most stringent limit for this constituent is 0.3 ppb (WWQS), which is well below the 5-ppb detection limit. The wide areal extent and high concentrations in relation to the 0.3-ppb standard make this occurrence the single most significant impact on groundwater quality beneath the Hanford Site.

Chloroform--The chloroform contaminant plume illustrated in Figure 5-41 is similar to the much larger carbon tetrachloride contamination illustrated in Figure 5-40, reflecting a common source related to past-practice disposal to the Z Plant cribs. The most stringent applicable standard for this contaminant is 7 ppb (WWQS).

Trichloroethylene--This is the third volatile organic contaminant found in highest concentration in the central portion of 200 West Area (Figure 5-42). As with chloroform, the two plumes appear to coincide with the carbon tetrachloride plume. In the case of trichloroethylene, the detection limit (5 ppb) exceeds the most stringent standard (WWQS = 3 ppb). Therefore, the plume may be somewhat larger than illustrated in Figure 5-42.

Nitrate--The nitrate plume (Figure 5-43) shows a wide distribution reflecting the mobility

and multiple sources of this ubiquitous contaminant. The DWS and MCL for nitrate are both 45 ppm. The primary area of contamination is centered beneath the central portion of the 200 West Area and extends well beyond the 200 West Area fenceline to the northeast/east.

Gross Alpha and Gross Beta--The primary occurrences of radioactive contaminants beneath the 200 West Area are in the southern and northeastern portions of the area. This distribution is well illustrated with the gross alpha and gross beta plume maps (Figures 5-44 and 5-45). These distribution patterns are distinct from the volatile organic plumes that are more centrally located and associated with Z Plant (past-practice) disposal activities. Most of the gross alpha is associated with uranium breakthrough from the 216-U-1/2 Cribs and possible leaks from transfer lines from U/UO₃ Plant that occurred during and before 1985. The applicable standards are 15 pCi/L (WWQS, DWS) for gross alpha and 50 pCi/L (WWQS, DWS) for gross beta. The detection limit for each gross indicator constituent is well below the applicable standard.

Iodine-129--The detection limit for iodine-129 is equivalent to the DWS and MCL standard of 1 pCi/L. Two distinct plumes beneath the 200 West Area are illustrated in Figure 5-46. The plumes coincide with the general radionuclide distribution discussed previously but also extend well to the southeast of the 200 West Area and share a similar distribution pattern with tritium.

Plutonium-239/240--A single well (2-W15-8) contained plutonium-239/240 contamination that exceeded the DWS standard of 1 pCi/L. Americium-241 was also found in this well (6 pCi/L vs a standard of

1 pCi/L). The location of this isolated occurrence is illustrated in Figure 5-47. The well is located immediately adjacent the 216-Z-9 Crib, which received TRU as well as solvent wastes before 1973. The age of the well and its proximity to the crib strongly suggest that there may have been a preferential pathway for movement of liquid waste from the saturated soil beneath the crib directly to groundwater along the outside of the casing. A spectral gamma log of the well indicates TRU contamination along the casing, supporting the preferential pathway explanation. This well is under review for sealing as part of the carbon tetrachloride expedited response action.

Technetium-99--The distribution of technetium-99 (Figure 5-48) is most similar to the gross alpha and uranium plumes. This is attributed to a common source for uranium and technetium-99; i.e., associated with past-practice disposal of process condensates from the UO₃ Plant to the 216-U-1/2, 216-U-8, and 216-U-12 Cribs. Technetium-99 is thought to be present as the pertechnetate ion (TcO₄⁻¹), a highly mobile anion with chemical properties similar to nitrate. The DWS and MCL for this constituent is 900 pCi/L. The area of contamination extends to the east of the 200 West Area fenceline.

Tritium--Tritium is a contaminant that has been used extensively as a plume indicator because of its mobility and detectability. The distribution of this constituent beneath the 200 Areas is shown in Figure 5-49. The general distribution pattern is similar to iodine-129, probably reflecting a common source caused by past disposal of process condensate waste from the nuclear fuel dissolution and extraction activities at the

reduction oxidation (REDOX) plant located near the southern end of the 200 West Area. The detection limit (0.5 pCi/L) is well below the most stringent regulatory standards (DWS, WWQS, MCL = 20,000 pCi/L).

Uranium--Uranium contamination appears in two areas beneath the 200 West Area as illustrated in Figure 5-50. The area in the southwest corner (see Figure 5-50) coincides with the technetium-99 plume as discussed above. There appears to be a slight difference between the uranium and technetium distribution pattern, however, possibly reflecting a difference in mobility and/or source. The areas of contamination are of limited extent but are well in excess of the 40 pCi/L DWS and MCL limit. An attempt was made to remediate the uranium-contaminated groundwater associated with this plume in 1986. Although some success was achieved, much of the uranium remains in the contaminated portion of the aquifer. The slow rate of movement in this area (ca. 0.3 to 0.6 m/d [1 to 2 feet/day]), accounts for the limited size of the plume (i.e., the primary source of uranium was the crib breakthrough event in 1985 while the tritium and iodine sources date back to the start of REDOX operations in the 1950's).

5.2.2 Active Sites and Past Sources

5.2.2.1 200 East Area. The major recent and past sources of groundwater contaminants in the 200 East Area were PUREX process condensates containing tritium, nitric acid carryover, and iodine-129. The large volumes associated with these waste streams were discharged via two "clusters" of cribs or drain fields located in the southeastern corner of the 200 East Area. These two groups are discussed collectively to facilitate

correlation with plume patterns and projection of trends. Also discussed are other significant sources of groundwater contamination that resulted from past disposal activities at the BY cribs, B Plant cribs, and the 216-B-5 Reverse Well. Additionally, the effect of large volumes of relatively uncontaminated cooling water on plume distribution patterns and chemical composition are considered.

216-B-3 Pond System and Adjacent Disposal Facilities--The B Pond system consists of the original pond (216-B-3), three expansion lobes (216-B-3A, 3B, and 3C), and several ditches (Figure 5-51). The 216-B-3 Pond began receiving liquid effluent in 1945, and the three expansion lobes were placed in service in 1983, 1984, and 1985, respectively. Liquid effluent streams discharged to the pond system consist primarily of cooling water and steam condensate. In 1985, a major increase in discharge rate to the B Pond system occurred because of closure of Gable Mountain Pond (216-A-25). This resulted in nearly a doubling of the volume of wastewater discharged to the ground in the 200 East Area. Major shifts in plume transport rate and direction are attributed to this major change in wastewater management. The present water table and flow directions are shown in Figure 5-52.

Past discharges included chemical wastes as well as spills. The latter occurrences may have resulted in significant soil column buildup of strontium-90 and cesium-137 in the original 216-B-3 Pond. Other spills included cadmium nitrate, hydrazine, and ammonium fluoride/nitrate (WHC 1990a). The original B-3 Pond has been designated for closure with continued use of the three expansion lobes (WHC 1990a).

The groundwater quality survey for the Liquid Effluent Study conducted in 1989-1990 included the Appendix IX list of hazardous constituents as well as site-specific radionuclides in 12 wells located around the pond system. This survey did not reveal any anomalously high contaminant concentrations other than manganese in one or two wells, which was attributed to natural conditions (reducing conditions or low-dissolved oxygen).

The RCRA groundwater monitoring program at this site, however, has identified anomalous total organic halogen (TOH) levels (up to 1,300 ppb) that peaked in two wells (6-43-41E and 6-43-41F) in 1990 and then declined to near background conditions (DOE-RL 1992a). Because of the localized occurrence, it is highly unlikely that it is related to the pond system. Otherwise, a greater incidence of occurrence would be expected in the other monitoring wells in the network around the ponds.

Based on the above considerations, the major impact of the B Pond system on groundwater quality conditions is to (1) dilute existing groundwater contamination in the vicinity of the pond and (2) control the rate and direction of groundwater movement in the 200 East Area. Because most of the water discharged to B Pond is basically river water with lower dissolved solids than ambient groundwater, the major chemical composition of local area groundwater is also markedly altered because of dilution. Application of a "natural background" under these conditions and interpretation of variations in conductivity must account for this dilution effect. One approach is to assume that dilution is the only change that occurs and that pond water with an average conductivity of 100 $\mu\text{S}/\text{cm}$

mixes with groundwater with an average conductivity of 380 $\mu\text{S}/\text{cm}$ (see Figure 5-23). A simple two-component mixing equation can be used to estimate the apparent amount of pond water in the mixture. The "percent pond water" distribution pattern would show the potential dilution effect or influence of B Pond. The percentages can be used to estimate a mixture from the two sources using average river water composition and average groundwater compositions. Possible effects that could cause deviations from simple mixing include reaction of the pond water with vadose zone and aquifer solids and high dissolved solids added from a waste source. (The former effect is not expected to be very significant for major constituents other than perhaps silica, based on comparison of perched water and effluent chemical composition such as at the 216-Z-20 Crib, well 2-W18-29). Judgement and process knowledge must be used to discern possible localized chemical waste effects on the conductivity-mixing correction.

The effect of B Pond on contaminant distribution patterns is dramatically illustrated at the 216-A-37-1 and 216-A-30 Crib (Figure 5-53). The 216-A-37-1 Crib received evaporator/process condensate containing high concentrations of tritium until early 1989, after which the contaminant stream was collected and stored. The 216-A-30 Crib is located immediately downgradient from the 216-A-37-1 Crib but did not receive tritiated wastewater. The concentration-history plot (Figure 5-54) of tritium in monitoring wells at these cribs shows the influence of the B Pond mound, which causes groundwater to flow west to southwest (i.e., opposite the general direction of groundwater flow across the Hanford Site in this area). In addition,

the concentration-history plot also illustrates the rapid change in contaminant concentrations near certain cribs in response to operational changes in wastewater disposal. The rate of change shown in Figure 5-54 illustrates the rate at which the large peak in tritium from this source is moving away (toward the west-southwest). This "pulse" will continue to move through the area, as well as any associated mobile chemical contaminants, at a rate of approximately 3 m/day (10 ft/day). This same rate of apparent movement can be expected for any contaminants introduced to the groundwater beneath the Grout Treatment Facility (GTF) disposal trenches from past sources such as the 216-A-29 Ditch and the 216-A-8 and 216-A-24 Cribs. Residual contaminants beneath the GTF and trenches should thus be diluted and displaced as the relatively noncontaminated B Pond water moves across the area from northeast to southwest.

The significance of these dramatic changes is that adjacent facilities will experience "pulses" of contaminated groundwater over time. Thus groundwater remediation strategies and ongoing RCRA and operational monitoring must account for this effect.

216-A-45 and Related Cribs--The other major source area or cluster of sources for the 200 East Area is the group of PUREX cribs located immediately south of the plant (Figure 5-55). This set of cribs accounts for the principal source of tritium in the widespread plume that stretches across the site to the southeast. These PUREX cribs were at the "headwaters" of the tritium plume during the operating period. Tritium concentrations near the cribs were several million pCi/L, the highest concentrations observed in groundwater at the Hanford Site.

The disposal of the radioactive process condensates to the 216-A-45 Crib was discontinued in mid-1989. Discharge to the 216-A-36B Crib, which received ammonia scrubber waste containing high concentrations of tritium and many other radionuclides, was discontinued in 1987 (WHC 1990a).

A concentration-history plot (Figure 5-56) for iodine-129 in well 2-E17-13, located immediately adjacent to the 216-A-45 Crib, shows that this mobile contaminant did not exhibit a rapid decline when use of the crib was discontinued, as was observed for tritium at the 216-A-30/A-37 Cribs. This may in part be related to the relatively "flat" hydraulic gradient and the significantly lower hydraulic conductivity in this area than in the area west of the grout facility and adjacent cribs (DOE-RL 1992c). Contaminant concentration dynamics are discussed further in connection with concentration-history plots at B Plant cribs in the following subsection.

216-B-62 and 216-B-55 Cribs--The B Plant cribs received process and steam condensates that contributed appreciable amounts of fission-product radionuclides to the soil column during past-practice disposal activities (DOE-RL 1992c). However, tritium in two wells at the 216-B-62 Crib (Figure 5-57) was the only significant contaminant occurrence identified in the *Liquid Effluent Study* (WHC 1990a); nevertheless, because of significant soil column loadings and a high potential for mobilization, a volume restriction was suggested if continued use of the 216-B-62 Crib was needed (WHC 1990a). Input to the crib ceased in 1986.

A tritium occurrence beneath the 216-B-62 Crib, showing an abrupt increase between 1988 and 1989, was

attributed to upgradient sources associated with PUREX operations (i.e., the 216-A-45, 216-A-36B, and/or 216-A-37-1 Cribs). This conclusion is supported by similar concentration-history plots at other locations along the apparent northwest component of the tritium plume (Figure 5-58). The similar concentration-time patterns at various distances strongly resemble the patterns observed for a tracer test at various distances away from the point of introduction to the aquifer. The time difference between the peaks and the corresponding distances suggest a travel time on the order of 6 m/day (20 ft/day). However, as previously indicated for iodine-129, the rate of movement in the immediate vicinity of the assumed source (216-A-45 and 216-A-36B Cribs) appears to be much slower than in the "far-field" or downgradient direction (i.e., to the northwest). The reasons for this apparent discrepancy are not clear but may be related to the change in discharge to B Pond during this period of observation (discharge to B Pond increased significantly in 1985 and then began decreasing in 1989).

Other anomalous occurrences near the above cribs and B-5 Reverse Well have been noted in the past that were attributed to a high-density aqueous phase from the BY cribs (Figure 5-59). This waste source was thought to have migrated along the top of basalt that dips to the south in this area (Smith 1980).

RCRA Sites--A summary of the status of the RCRA sites in 200 East Area and vicinity is shown in Table 5-3. Those sites that have elevated to the assessment category are as indicated in the fourth column of the table. Placement in this category involved a statistical test showing an increase of indicator parameter (pH, specific

conductivity, TOC, and TOX) concentrations in the downgradient wells versus upgradient concentrations. Exceedance of local upgradient background concentrations of specific conductivity at the 216-A-29 Ditch and the Low-Level Waste Management Unit (LLWMU)-1 accounts for the assessment status of these waste disposal and storage facilities. Exceedance of local background concentrations of TOX at the B Pond and LLWMU-3 account for the assessment status of these sites. More information concerning these sites can be found in the RCRA annual report (DOE-RL 1992a).

200 East Area Waste Site Summary--

The conditions described for the 200 East Area waste sites emphasize the importance of understanding contaminant plume dynamics in assessing groundwater quality at RCRA and operational waste site locations downgradient of the PUREX cribs. Continued monitoring of basic indicators (tritium, nitrate, gross beta) on a quarterly basis in a broad array of wells will be needed to adequately track the progress of the changes occurring because of sharply declining wastewater discharges. The declining water levels may also require lowering of sample pumps to maintain a uniform depth of withdrawal over time.

5.2.2.2 200 West Area. The major groundwater contaminant sources in the 200 West Area originated from the Z Plant/Plutonium Finishing Plant (PFP) complex and associated liquid waste disposal sites. The second largest source of recent groundwater contamination arises from the U/UO₃ Plant operations. Past disposal activities associated with REDOX nuclear fuel reprocessing activities included discharge of process condensates containing large amounts of tritium and iodine-129, which account for the widespread

plumes of these highly mobile radionuclides in the southeast area. T Plant and associated past-practice disposal of liquid radioactive wastes are largely responsible for the contaminant plumes in the northern area of 200 West. These four major source areas are discussed collectively to facilitate evaluation of changing groundwater conditions and contaminant movement beneath currently active liquid waste disposal and storage sites.

A detailed inventory of 200 West Area waste sites, geohydrology, groundwater monitoring facilities, and contaminant geochemistry is contained in the *200 West Area Groundwater Aggregate Area Management Study Report* (DOE-RL 1992d). The primary purpose of the AAMS report is to provide documentation of existing subsurface conditions for potential remediation of contamination from past-practice disposal activities. The focus of the following summary and review of groundwater quality and hydrologic conditions in the 200 West Area is on (1) the potential impacts of these past-practice sources on current and future operations and (2) impact of current activities on subsurface conditions.

Z Plant Area--Locations of active and inactive liquid waste disposal facilities associated with current and past Z Plant operations are shown in Figure 5-60. These facilities account for most of the chlorinated hydrocarbon plumes previously discussed as well as some of the highly localized metal and TRU occurrences.

The Z Plant waste sites are approximately centered within the residual groundwater mound because of (1) past wastewater disposal to U Pond and (2) smaller inputs from currently active sites. The area shown in Figure 5-60 is also within

a zone of rapidly declining water levels as shown in Figure 5-61. The core area with the greatest change in water elevations also corresponds to the area with the greatest hydraulic conductivities. The significance for future operations is that RCRA facilities and other active disposal sites in this zone are subject to greater perturbations in existing contaminant plume movement and water levels than at other locations in the 200 West Area.

The water table elevations in the immediate vicinity of the 216-Z-20 Crib, the major local source of continuing wastewater discharge, are shown in Figure 5-62. There appears to be little if any gradient along or adjacent to the crib. This area is at or near the center of the groundwater mound previously described; thus, groundwater flow directions could be in any or all directions from this location. A preferential groundwater flow path to the west-northwest, however, may exist because of the zone of high hydraulic conductivity in this area (Figure 5-63).

While this area is in the center of the mound, the water levels in many of the older wells in the immediate vicinity of the Z Plant cribs have dropped to within or below the well bottoms. Attempts to deepen these monitoring wells have been only marginally successful because of "sanding in" or obstructions. This illustrates a problem that will continue to plague the well maintenance program for the groundwater monitoring network in the future.

The groundwater quality assessment for the Liquid Effluent Study at the 216-Z-20 Crib indicated only carbon tetrachloride, chloroform, and trichlorethylene as significant

groundwater contaminants (WHC 1990a). Followup sampling performed in collaboration with the carbon tetrachloride ERA (Figure 5-64) suggested that the 216-Z-20 Crib was located in an area of high groundwater CCl_4 concentrations from past-practice disposal activities (DOE-RL 1991d). For example, the area shown immediately north of the 216-Z-20 Crib in Figure 5-64 is near the center of the 200 West Area carbon tetrachloride plume (Figure 5-65).

An explanation for the occurrence of elevated CCl_4 beneath the 216-Z-20 Crib was proposed by Ecology and EPA during review of the Liquid Effluent Study. According to their conceptual model, high soil gas concentrations of CCl_4 could migrate laterally from adjacent Z Plant cribs and become absorbed by the infiltrating water from the 216-Z-20 Crib. This would be a secondary source or pathway for contamination of groundwater.

Soil gas sampling during FY 1992 in the vicinity of the Z Plant cribs area revealed concentrations of up to a few hundred parts per million by volume between the 216-Z-18 and 216-Z-1A Cribs (DOE-RL 1991d). Much higher concentrations have been measured in vadose zone boreholes near the 216-Z-9 Trench (the disposal facility that received the greatest amount of chlorinated hydrocarbon waste).

An aqueous phase, in equilibrium with a vapor phase concentration of 100 ppmv (parts per million by volume) of CCl_4 , would reach a theoretical concentration of 600 $\mu\text{g/L}$ (DOE-RL 1991d). Thus if vapor phase transport from the 216-Z-1A or 216-Z-18 Cribs occurs and results in soil gas CCl_4 concentrations of the above magnitude, perched water from the 216-Z-20 Crib should yield

concentrations of several hundred micrograms per liter. That is, water beneath the active 216-Z-20 Crib that accumulates as a perched water zone above the fine sediments (caliche layer) should have adequate time to absorb the chlorinated hydrocarbons from the soil gas or vapor phase before the water migrates to the water table.

One well was available in 1991 to partially test the above possibility. For example, an RCRA well was completed in the perched water zone near the southern end of the 216-Z-20 Crib as part of the Low-Level Waste Burial Ground (#4) monitoring network. This well (2-W18-29) was sampled for the operational surveillance and carbon tetrachloride ERA programs during FY 1992. Concentrations of 10, 20, and 10 ppb were obtained for CCl_4 during three separate sampling events. As shown in Figure 5-64, concentrations of 200 to 1,000 $\mu\text{g/L}$ occur beneath the 216-Z-20 Crib. Thus it appears unlikely that a vapor phase transport mechanism involving contamination of perched water from the 216-Z-20 Crib can account for the observed concentrations of CCl_4 in groundwater beneath this crib. Additional perched water samples are needed at the north end of the crib, however, to confirm this tentative conclusion. The absence of significant concentrations of chlorinated hydrocarbons (e.g., <35 $\mu\text{g/L}$ chloroform and <5 $\mu\text{g/L}$ CCl_4) in the effluent stream discharged to the crib (WHC 1990a) is also consistent with the above observations.

Depth Distribution of Carbon Tetrachloride--This contaminant was discharged to the Z Plant cribs as a separate liquid phase as well as dissolved in the wastewater (DOE-RL 1991d). The volume of effluent discharged to the crib is shown in

Figure 5-66. The relatively high density of CCl_4 (1.6 g/cm^3) leads to the speculation that a free phase could migrate to the water table and subsequently settle deeper in the saturated zone. Preferential pathways such as older wells with open areas or voids around the outside of the casings could provide a more direct pathway for downward transport of the dense, nonaqueous liquid phase. Several older wells installed in the 1950's and 1960's with deeper perforated intervals were located adjacent to the Z Plant cribs. One such well, 2-W15-6, is located near the 216-Z-9 Crib and is perforated to a depth of approximately 52 m (170 ft) below the water table. Another well with similar characteristics, 2-W15-5, lies between the 216-Z-9 and the 216-Z-20 Cribs.

If downward transport occurred in these locations, dissolved carbon tetrachloride should be present at greater depths in the aquifer than just near the surface or top of the water table.

Near-surface and deeper samples were collected in 1991 for a collaborative effort between the ERA project and the operational surveillance program. Bailed samples were taken at the surface and bottom of 2-W15-6, and pumped samples (after purging) were taken from approximately 3 m (10 ft) below the surface and near the bottom of the well after installation of a packer to isolate the lower section of perforated interval. Some additional, although meager, depth-related information was acquired from the two monitoring wells at the 216-Z-20 Crib. These data are arranged in relation to stratigraphic position and location with respect to the 216-Z-9 and 216-Z-20 Cribs in Figure 5-67. A rather dramatic occurrence of very high carbon tetrachloride

concentrations was encountered at the bottom of this well (2-W15-6), and near the water table elevation. Both the bailed and pumped sample sets showed this pattern. However, a somewhat lower concentration was obtained with the deep-pumped sample than with the deep-bailed sample (the latter was taken before installation of the packer and pump). This suggests that the contamination may be localized in the immediate vicinity of the borehole rather than widespread in the deeper part of the aquifer. A prolonged pump and sample sequence from this interval is needed to confirm these limited observations. Near-surface and deeper samples at the other monitoring wells shown in Figure 5-67 also suggest deeper contamination than just at the very top of the aquifer. More detailed vertical-depth profiles are needed in this area to confirm this preliminary impression. Nevertheless, the implication is that carbon tetrachloride may be present in the deeper part of the aquifer as a separate liquid phase that could continue to slowly dissolve over time. This may account for the impression that the zone of highest groundwater concentrations of carbon tetrachloride remain immediately adjacent to the Z cribs even though the cribs have been inactive for the last 20 to 30 years (see Figures 5-64 and 5-65). The potential significance to Westinghouse Hanford operations is that ongoing groundwater monitoring programs for RCRA and 216 discharge permits will continue to be influenced by this widespread contaminant plume that may now begin to shift, or even reverse directions, in response to declining wastewater discharge volumes (see Figure 5-66) and water levels.

Plans--Additional characterization and analysis of contaminant

transport beneath the 216-Z-20 Crib and vicinity are planned during FY 1993 as part of the Liquid Effluent Study followup site assessments for Tri-Party Agreement milestone M17-13. Additional soil vapor characterization is also underway for the CCl₄ ERA and Integrated Site Demonstration Project. Depth profile information will also be acquired during early FY 1993 for the 200 West Aggregate Area Management Study. Coordination of subsurface characterization and related efforts among these programs will be accomplished through the Operational Groundwater Program managed by Westinghouse Hanford Geosciences.

U Plant Area--The primary source of the technetium-99, uranium, gross beta, and gross alpha plumes previously discussed can be traced to past-practice disposal of process condensate from the UO₂ Plant. From 1950 to the present, these wastes, with highly variable amounts of treatment, were discharged to the series of cribs shown in Figure 5-68. In addition to the cribs, the transfer lines running from the U Plant complex to the cribs may have leaked because of the corrosive nature of the liquid waste (e.g., dilute nitric acid). This waste stream has been neutralized prior to disposal since 1988.

An effluent discharge history for the most important cribs is shown in Figure 5-69. As illustrated, the largest waste volume was received by the 216-U-8 Crib. However, the greatest quantity of radioactive waste was added to the 216-U-1/2 Cribs. In 1985 large volumes of water were discharged to the adjacent 216-U-16 Crib, resulting in mobilization of uranium and technetium-99 stored on the soil column beneath the 216-U-1/2 Cribs. This resulted in uranium concentrations in groundwater of

nearly 80,000 pCi/L in one well nearest the source of contamination. A partially successful pump-and-treat campaign was conducted in 1986 to mitigate this inadvertent groundwater contamination.

In addition to the above source, which is now migrating east, the other cribs, 216-U-8 and 216-U-12, received similar corrosive wastewater but with lower radionuclide concentrations. In addition, the waste line running south from the U Plant area to these two cribs appears to have leaked. For example, groundwater monitoring wells located upgradient and downgradient from the line indicate much higher concentrations of uranium and technetium-99 in the downgradient well. Thus groundwater containing elevated uranium, nitrate, and technetium-99 from these past-practice sources is migrating from west to east across the area south of U Plant (221-U in Figure 5-68) and beneath the 216-U-17 Crib.

Graphic enhancements of the previous plume maps (Section 5.2.1.2), including superimposed water-level contours and waste site locations, are shown in Figures 5-70 and 5-71. These plots show that the general direction of groundwater flow, based on the water table contours, coincides reasonably well with the plume locations. There appears to be a difference in the uranium and technetium-99 distribution patterns, which may reflect different source strengths and/or migration rates for these two radionuclides. The rate of groundwater movement near the axis of the two plumes has been estimated at approximately 0.3 m/day (1 ft/day) (Connelly et al. 1992).

216-U-17 Crib--This crib began receiving neutralized process condensate for the first time in

1988 and was used until July 1989, after which the process condensate and other wastewater was stored (use of the crib resumed in August 1992). The primary constituents of concern detected in groundwater beneath this crib during the Liquid Effluent Study were those discussed previously as well as above-background occurrences of copper and zinc.

Concentration-history plots for gross beta and technetium-99 (Figure 5-72) illustrate the influence of the migrating contaminant plume from upgradient sources. Figure 5-72 shows that the uranium-technetium plume began arriving at the 216-U-17 Crib even before the crib was placed into use for the first time and that the upgradient concentrations appear to be somewhat greater than the downgradient concentrations. This is clearly illustrated with a cumulative distribution plot for the two wells as shown in Figure 5-73. The cumulative distributions are based on all uranium and technetium-99 data through the first quarter of 1992. The distribution curves for the upgradient well (2-W19-24) are clearly displaced to the right from the downgradient well, showing higher concentrations of about a factor of 2.5 for technetium-99 and a factor of 1.6 for uranium. The difference between the distribution curves for the two radionuclides probably reflects different sources and/or arrival times.

Preliminary PORFLO-3 modeling results indicate that all of the wastewater will be retained in the soil column above the water table at a continuous input to the crib of 3.8 L/min (1 gal/min) (the anticipated average flow rate to the crib until 1995). This result is illustrated in Figure 5-74 for which seven soil column stratigraphic

units and associated soil conductivity assignments were used (for a more detailed description of the modeling see WHC 1990a). Additional modeling and characterization for this crib are scheduled for completion in FY 1993 as part of Tri-Party Agreement milestone M17-13.

216-U-14 Ditch--This ditch is included in the U Plant discussion because of its location immediately west of 216-U-1/2 Crib (see Figure 5-68). It has received planned releases of only low-contaminated wastewater from U/UO₃ Plant and 242-S Evaporator steam condensate. A continuous flow of approximately 1,136 L/min (300 gal/min) was previously maintained in the ditch to prevent radioactive wastes retained in the surficial sediments of the ditch from drying out and becoming airborne (the ditch has recently been backfilled with gravel to eliminate the need for addition of water for this purpose). As discussed in the final report of the Liquid Effluent Study (WHC 1990a), uranium spills to the ditch have occurred in the past. No significant groundwater contamination attributable to the ditch has been identified previously in the downgradient wells (WHC 1990a). Continued use of the ditch, but at significantly reduced input rates, is planned until 1995.

Previous studies of the uranium spill problem concluded that the uranium would be retained in the top few feet of soil beneath the ditch. More recent solute transport calculations, however, suggested that breakthrough to groundwater was possible with continued use of the ditch under the conditions in effect in 1990 (WHC 1990a).

Concentration-history plots of uranium in the two downgradient

monitoring wells for this facility are shown in Figure 5-75. Although the concentrations are somewhat erratic over time, and are below the drinking water standard (1/25 DCG; Appendix A-1), there does appear to be an upward trend between 1989 and the first quarter of 1992.

In addition, monitoring results at the three perched water wells (see Figure 5-75) for the first two quarters of 1992 indicated uranium concentrations ranging from 28 to 139 ppb (equivalent to 20 to 97 pCi/L, assuming natural isotopic abundances of uranium-234, uranium-235, and uranium-238). Gross beta ranged from 88 to 413 pCi/L. Thus there may be other unidentified radionuclides present.

The chloride and sulfate concentrations of the perched water suggest a composition similar to Columbia River water. This would be consistent with the previous practice of using fire hydrant water to maintain moist conditions in the bottom of the ditch. Circumstantial evidence strongly suggests the contaminants in the perched water are from the 216-U-14 Ditch, but lateral migration of contaminated perched water from other nearby sources cannot be entirely ruled out. Additional characterization data are needed, as discussed below.

A characterization plan has been written for the 216-U-14 Ditch to comply with Tri-Party Agreement milestone M17-13 and to further characterize the nature of the above occurrence. Two new upgradient wells will be drilled at this site in early FY 1993. Additional sampling and analysis will be conducted to identify all of the contributing radionuclides in the perched water and to determine their probable source.

S Plant Area--The locations of inactive and active liquid waste disposal sites associated with S Plant and related operations are shown in Figure 5-76. The inactive cribs (e.g., S-1/2, S-7, S-9, S-23) received process condensates, stack drainage, and related radioactive waste streams from nuclear fuel reprocessing activities from about 1950 to 1973. These cribs are the principal sources for the widespread tritium and iodine-129 plumes that emanate from the south end of the 200 West Area (see Section 5.2.2.2; Figures 5-46 and 5-49). Remnant groundwater contamination from these past-practice sources appears to persist in the immediate area today. This is attributed in part to the low hydraulic conductivities of the unconfined aquifer in this area. Thus evaluation of contaminants in the vicinity of currently active disposal sites in this area must differentiate these remnant plumes from active disposal sites.

The principal wastewater disposal sites in current use are the 216-S-10 Ditch and Pond and the 216-S-26 Crib. The ditch and pond are currently in an RCRA background monitoring phase (DOE-RL 1992a) that includes a monitoring well network consisting of six new wells. An evaluation and status of the background phase will not be available until completion of the four quarters of sampling in September 1992. However, evaluation of input records for the waste streams discharged to the ditch suggests there should be only minimal impact on groundwater quality from this source (WHC 1990a).

The 216-S-26 Crib receives wastewater consisting of floor drains, steam condensate, laboratory sinks, and hood drains from the 222-S analytical laboratories. One downgradient monitoring well

(2-W27-1) is located at this facility. The groundwater quality assessment of this site for the Liquid Effluent Study (WHC 1990a) did not reveal any significant occurrences that could be associated with operation of this crib. The plume maps in Section 5.2.2.2 show some elevated but localized occurrences of chromium, chloroform, and trichloroethylene immediately north of the 216-S-26 Crib; the source for these anomalous occurrences has not been identified.

Nitrate, tritium, and possibly selenium were the only constituents detected at levels above drinking water standards in the one downgradient well associated with 216-S-26 Crib. Concentration-history plots for nitrate and tritium are shown in Figure 5-77. The erratic but declining concentrations with time are attributed to movement of the "remnant" contaminant plumes previously discussed.

The 216-S-26 Crib is scheduled for additional evaluation as part of Tri-Party Agreement milestone M17-13 during FY 1993.

T Plant Area--Distinct contaminant plumes noted in Section 5.2.2.2 that lie in the northern section of the 200 West Area are a result of past-practice activities associated with the T Plant cribs and tank farm operations. The most significant practice, relevant to understanding the nature and distribution of groundwater contaminants, especially in the north-to-northeast corner, involved the discharge of SST overflow to the trenches. This involved passing first-cycle, radioactive liquid waste serially through the SSTs and then discharging the so called "first-cycle supernatant" to the ground via the 216-T-5 through T-25 trenches. A total of nearly 20,000,000 L was

discharged to the ground in this manner. The gross beta, iodine-129, and uranium anomalies shown in the north-northeast corner of the 200 West Area (see Figures 5-45, 5-46, and 5-50) are attributed to this source. The stability of the source in the soil column overlying the groundwater in this area is unknown.

Many other sources and large volumes of wastewater were discharged in the T Plant area via cribs, ditches, and ponds (see DOE-RL 1992d for detailed inventory). The large volumes discharged to the pond system had a major impact on development of the early groundwater mound and initial flow directions in the 200 West Area (DOE-RL 1991d). The pond and ditch system remnant still in use today is the 216-T-4-2 Ditch (Figure 5-78). No groundwater monitoring wells are located near this active disposal facility. This facility and the 216-T-1 Ditch are scheduled for followup soil and groundwater quality assessments during 1993 to comply with Tri-Party Agreement milestone M17-13. Soil samples to assess contaminant storage beneath the ditches from unknown past discharges will be collected, and perched water and groundwater monitoring wells will be installed to assess local area groundwater quality.

RCRA Sites--A summary of the status of the RCRA sites in the 200 West Area and vicinity is shown in Table 5-4. Those sites that have been elevated to the assessment category are indicated in the fourth column of Table 5-4. Placement in this category involved a statistical test showing an increase of indicator parameter (pH, specific conductivity, TOC, and TOX) concentrations in the downgradient wells versus upgradient concentrations. More information

concerning these sites can be found in the RCRA annual and quarterly reports (e.g., DOE-RL 1992a).

5.3 300 AREA

The groundwater quality assessment for the Liquid Effluent Study (WHC 1990a) noted that several constituents exceeded drinking water or equivalent standards in the 300 Area. These included chlorinated hydrocarbons, gross alpha, uranium, coliform, fluoride, iron, and manganese. Most of these contaminants were attributed to nuclear fuel fabrication activities that generated wastewater discharged to the 300 Area process trenches (Figure 5-79). The fuel fabrication activities ceased in 1987. Uranium is the most significant and widespread groundwater contamination resulting from this past-practice activity (Figure 5-80). The need for continued use of the trench for laboratory and other equipment-related wastewater disposal and the existence of groundwater contaminants attributed to the trench prompted an ERA in 1991. This program identified a layer of contaminated near-surface sediments in the trench containing high levels of uranium, copper, chromium, and silver. The layer was removed so that subsequent discharges to the trench did not come in contact with the contaminated sediments. A uranium concentration-history plot for a groundwater monitoring well (3-1-17A) at the head end of the trench is shown in Figure 5-81, where the shaded area represents the post-treatment time period. The cyclic nature of the pretreatment concentration-history plot appears to be correlated with river stage, which complicates the comparison between the "before" and "after" treatment periods. A cumulative distribution plot of all concentration data for each period

shown in Figure 5-81 provides a more definitive comparison as illustrated in Figure 5-82. This plot suggests there has been a decrease in the median concentration from 110 to approximately 35 pCi/L. If this trend continues with time, a gradual attenuation of the groundwater contaminant plume should occur. Additional monitoring data over time at higher river stages is needed, however, to verify the apparent improvement in groundwater quality caused by this mitigating action.

Other contaminants in the 300 Area, such as copper and chlorinated hydrocarbons, appear to have declined to minor levels. The positive coliform counts noted above are attributed to sanitary drain field discharges in the 300 Area. Sanitary drain fields are a common feature across the Hanford Site that must be addressed on a Sitewide basis.

Both CERCLA and RCRA as well as ERA, operational monitoring, and 216 discharge permit activities are under way in the 300 Area. Coordination and integration of groundwater-related sampling and analysis activities among these various programs will be a major challenge in the future.

5.4 400 AREA

The 400 Area consists of a complex of buildings and facilities dedicated to operations of a research reactor, the Fast Flux Test Facility (FFTF), and a fuel material testing facility. Wastewater discharges from the 400 Area facilities are collected in the 400 Area Process Sewer. Routine wastes consist of cooling water and numerous sinks, drains, sumps, and other miscellaneous sources.

Wastewater is discharged to the 400 Area Process Ponds located north of the 400 Area fence. The unlined ponds have been operated since 1979 and receive the liquid effluents from the 400 Area Process Sewer. Configuration of the pond and monitoring well is shown in Figure 5-83.

Nitrate was the only significant contaminant identified in the groundwater quality assessment for the Liquid Effluent Study (WHC 1990a). A concentration-history plot for the single monitoring well downgradient from the pond is shown in Figure 5-84. This plot shows an increase in the nitrate concentration beginning in 1988 that appears to be leveled out at the present time. The increase occurred only in the well immediately adjacent to the pond; nearby upgradient wells show somewhat elevated nitrate but at lower concentrations and without major perturbations in time. The latter are due to the widespread nitrate plume from past PUREX operations.

As a followup to the above, coliform was analyzed in well 6-2-7 during FY 1992 (fecal bacteria and nitrate are co-contaminants in sanitary sewer water). Results for coliform were negative.

Other than the minor nitrate anomaly discussed above and the nitrate and tritium from the PUREX-related plume (Figures 5-85 and 5-86), groundwater quality in the vicinity of the 400 Area appears to be comparable to natural background.

5.5 600 AREA

5.5.1 Plume Map

Nitrate and tritium plumes originating in the 200 East Area

impact the groundwater across the 600 Area southeast of the 200 East Area, including the groundwater beneath the Nonradioactive Dangerous Waste Landfill (NRDWL), the Solid Waste Landfill (SWL), and the FFTF (see Figure 5-87).

The main lobe of the most recent tritium and nitrate plumes to enter the 600 Area passes directly beneath the NRDWL and SWL where tritium concentrations in the top portion of the unconfined aquifer exceed 250,000 pCi/L. In one of the deeper groundwater monitoring wells at the NRDWL (699-26-33A), screened at the top of the Ringold Formation approximately 18 m (60 ft) below the water table, tritium concentrations are approximately 60,000 pCi/L. In another NRDWL well (699-25-33A), screened at approximately the same depth and located approximately 274 m (900 ft) further from the axis of the plume, tritium concentration is less than 500 pCi/L. These are all RCRA-compliant wells, and the concentrations of other groundwater constituents indicate that leakage and mixing with groundwater from the top of the aquifer cannot explain the observed contamination. The deeper contamination at the NRDWL seems to be consistent with the apparent occurrence of elevated tritium concentrations at depths near the bottom of the unconfined aquifer in two older wells (6-31-31 and 6-38-65), also located along or just north of the axis of the PUREX tritium plume (Eddy et al. 1978). The vertical pathway responsible for the deeper contamination in the lower unconfined aquifer is not readily apparent. Further investigation of vertical pathways (older, unsealed wells near waste sites, erosional windows, etc.) and depth distribution of contaminants at other locations may be warranted.

Tritium plumes migrating from the 200 East Area to the Columbia River have contaminated a large area stretching along the Columbia River from near the old Hanford town site to immediately north of the 300 Area. More recent contaminant plumes, resulting from the restart of PUREX in 1983, are superimposed on these older plumes. The area of tritium contamination corresponds to a broad valley in the top of the Ringold Formation, apparently cut by the ancestral Columbia River or Pleistocene floods and filled with highly transmissive sediments of the Hanford formation. The southeastern boundary of the tritium contamination zone is apparently controlled by the transition of the water table from the highly transmissive Hanford formation into the much tighter Ringold Formation. The control on the northern boundary is less clear but may be similar.

Recent contaminant plumes leaving the 200 East Area and migrating toward the southeast follow a zone of very high hydraulic transmissivity (Jacobson and Freshley 1990) that lies within the old valley. The zone of high transmissivity extends southeastward through Gable Gap, across the 200 East Area, and southeastward across the 600 Area.

The apparent sources of the recent tritium and nitrate plumes are the cribs south and east of the PUREX Plant. Groundwater moving radially out from B Pond passes beneath these cribs before turning southeastward into the 600 Area. The present tritium plume path in the 600 Area is farther south than the historical norm, apparently as a result of groundwater mounding beneath B Pond. This may result in enhanced contaminant transport in the southern lobe of the historical tritium plume. The long-term effect of the more southerly contaminant flow path may be increased

contamination of groundwater beneath the 300 Area along the southern margin of the historical plume area.

5.5.2 Active Sites and Past Sources

Disposal sites within the 600 Area consist principally of the NRDWL and the SWL that make up the Central Landfill Complex, located approximately 4 km (2.5 mi) southeast of the southeast corner of the 200 East Area (Figure 5-87). The NRDWL received dangerous waste from 1975 through 1985. It also received asbestos waste and sewage waste during this time (DOE-RL 1990b). The SWL began operations in 1973 and is still operational. It receives sanitary waste, office waste, and construction debris (DOE-RL 1990b).

Groundwater monitoring at the NRDWL has yielded no evidence for groundwater contamination; however, groundwater monitoring at the adjacent SWL indicates groundwater contamination with several chlorinated hydrocarbons including 1,1,1-trichloromethane (111-TCA), trichloromethane (TCE), and perchloroethene (PCE) (DOE 1991a). Concentrations are low, with the most abundant, 111-TCA, occurring in concentrations up to 50 ppb; however, TCE and PCE concentrations in downgradient wells are above the groundwater protection standards listed in WAC 173-200 (3 ppb and 0.8 ppb, respectively).

The source of the chlorinated hydrocarbons at the SWL is uncertain; however, available evidence indicates that the groundwater contamination probably derives from several discrete sources in the vadose zone. A soil gas survey (Evans et al. 1989) also indicates high concentrations of carbon dioxide in the shallow vadose zone. This carbon dioxide, possibly from the bacterial degradation of

chlorinated hydrocarbons, apparently affects groundwater chemistry beneath the site. If carbon dioxide concentrations increase downward within the vadose zone, as expected for a dense vapor, concentrations at the water table may be quite high. Diffusion of this carbon dioxide gas phase into groundwater would result in a lowering of pH, with a resultant dissolution of aquifer material (buffering by aquifer). Downgradient wells at the SWL show a decreased pH and an increased alkalinity, exactly what would be expected from the diffusion of carbon dioxide into groundwater. Additional information is published in DOE 1991a.

WHC-EP-0595

Figure 5-1. 100 Aggregate Area Groundwater Operable Units.

Figure 5-3. Maximum Gross Alpha Activity in 100 Area Groundwater, 1988-1990.

Figure 5-4. Maximum Gross Beta Activity in 100 Area Groundwater, 1988-1990.

Figure 5-5. Gross Beta Plumes in 100 Area Groundwater, 1990.

Figure 5-6. Maximum Tritium Detected in 100 Area Groundwater, 1988-1990.

Figure 5-7. Tritium in 100 Area Groundwater, 1990.

Figure 5-8. Concentration History of Tritium in Selected Wells Near Gable Gap.

Figure 5-9. Maximum Nitrate Detected in 100 Area Groundwater, 1988-1990.

Figure 5-10. Nitrate in 100 Area Groundwater, 1990.

Figure 5-11. Maximum Chromium Detected in 100 Area Groundwater, 1988-1990.

Figure 5-12. Chromium in 100-Area Groundwater, 1990.

Figure 5-13. 100-N Area Wells and Waste Sites.

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Figure 5-16. 100-K Area Well Locations and Waste Facilities.

GEOSCI\051392-B

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Figure 5-17. Tritium Levels Versus Time at the KE Basin.

Figure 5-18. Nitrate Concentrations in Groundwater Versus Time Near the KE Basin.

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Figure 5-19. Antimony-125 Versus Time in Groundwater Near the KE Basin.

Figure 5-20. Nitrate Concentrations in Groundwater Near 100-K Liquid Waste Disposal Trenches.

H9302023.2

Figure 5-21. Tritium Concentrations in Springs and Groundwater Versus Distance Along Shoreline Near the 100-K Area, 1991.

Figure 5-22. Arsenic Plume Map, 200 East Area.

Figure 5-23. Specific Conductivity Contours for 200 East Area.

Areas in blue show the distribution of low conductivity cooling water from the B Pond system (lower right corner), the 2101-M Pond (lower left corner) and other past sources such as Gable Mountain Pond (upper left corner). Areas in green and yellow are above the natural background (380 $\mu\text{S}/\text{cm}$) for Hanford groundwater and indicate the presence of chemical contaminants. Major waste disposal sites are outlined in either red (active) or black (inactive). The light colored zone shows where basalt occurs above the water table.

Note that chromium, nitrate and arsenic correlate with the high conductivity zones (yellow and green).

Figure 5-24. Chromium Plume Map, 200 East Area.

Figure 5-25. Cyanide Plume Map, 200 East Area.

Figure 5-28. Gross Beta Plume Map, 200 East Area.

Figure 5-29. Cesium-137 Plume Map, 200 East Area.

Figure 5-30. Cobalt-60 Plume Map, 200 East Area.

Figure 5-31. Iodine-129 Plume Map, 200 East Area.

Figure 5-32. Plutonium-239/240 Plume Map, 200 East Area.

Figure 5-33. Strontium-90 Plume Map, 200 East Area.

Figure 5-34. Technetium-99 Plume Map, 200 East Area.

Figure 5-35. Tritium Plume Map, 200 East Area.

Figure 5-36. Arsenic Plume Map, 200 West Area.

Figure 5-37. Specific Conductivity Contours for 200 West Area.

Areas in blue show the distribution of low conductivity cooling water from U Pond and currently active cribs in the Z Plant area ("U" shaped dark blue zone). Areas in red and yellow are zones of significant chemical contamination and coincide with several contaminant plumes (e.g., see nitrate, fluoride, arsenic, chromium). The localized zone of red and yellow in the center of the figure is due to past-practice disposal of large volumes of high salt waste (first and second cycle supernatant) near the TX, TY and T Tank Farms (outlined in black). The large tongue of high conductivity shown in red in the lower right corner is attributed to past-practice disposal of UO_3 -Plant process condensate

Figure 5-38. Chromium Plume Map, 200 West Area.

Figure 5-39. Fluoride Plume Map, 200 West Area.

Figure 5-41. Chloroform Plume Map, 200 West Area.

Figure 5-42. Trichloroethylene Plume Map, 200 West Area.

Figure 5-44. Gross Alpha Plume Map, 200 West Area.

Figure 5-46. Iodine-129 Plume Map, 200 West Area.

Figure 5-47. Plutonium-239/240 Plume Map, 200 West Area.

Figure 5-48. Technetium-99 Plume Map, 200 West Area.

Figure 5-49. Tritium Plume Map, 200 West Area.

Figure 5-50. Uranium Plume Map, 200 West Area.

Figure 5-51. Well Location and Site Map for 216-B-3 Pond System and Adjacent Disposal Facilities.

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Figure 5-52. Water Table Elevations and Flow Directions, B Pond Area.

VCN\092492-H

Figure 5-53. Well Location and Site Map, 216-A-30 Crib.

FIGURE 5-53

Figure 5-54. Tritium Versus Time Near 216-A-30 Crib.

VGJ\092692-B

Figure 5-55. Well Location and Site Map for 216-A-45 and Vicinity Cribs.

Figure 5-56. Iodine-129 Versus Time Near 216-A-45 Crib.

VGJ\092592-L

Figure 5-57. Well Location and Site Map for 216-B-55 and B-62 Cribs.

VGJ\092592-F

Figure 5-58. Tritium Versus Time in Selected Locations, 200 East Area.

Figure 5-59. Location Map for 216-BY Cribbs.

Figure 5-60. Facility and Waste Site Location Map, Z Plant Area.

Figure 5-61. Recent Changes in Water Table Elevations, 200 West Area.

Figure 5-62. Water Table Elevations at 216-Z-20 Crib and Vicinity.

Figure 5-64. Areal Distribution of Carbon Tetrachloride in Groundwater Near 216-Z-20 Crib.

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Figure 5-65. Perspective View of Carbon Tetrachloride Concentration.

Figure 5-66. Monthly Discharge Volumes of Liquid Waste to the 216-Z-20 Crib.

Figure 5-67. Stratigraphy and Vertical Distribution of Carbon Tetrachloride and Chloroform at the 216-Z-9 and 216-Z-20 Cribs.

Figure 5-68. Facility and Waste Site Location Map, U-Plant Area.

VGJ\092592-D

Figure 5-69. U-Plant Cribs Discharge/Operating History.

H9212017.2

Figure 5-70. Water Table Map Showing Concentrations of Uranium.

Figure 5-71. Water Table map Showing Concentrations of Technetium-99.

GSTEC032692-STR

Figure 5-72. Groundwater Contaminant History at the 216-U-17 Crib.

H9212017.3

Figure 5-73. Kolmogorov-Smirnov Two-Sample Test of Contaminants in Upgradient and Downgradient Wells at 216-U-17 Crib.

VGJ\092592-H

See Appendix A-2 for method.

Figure 5-74. Relative Saturation Beneath 216-U-17 Crib
(After 5 Years of Continuous Operation).

Figure 5-75. Uranium Concentration in Groundwater Versus Time at the 216-U-14 Ditch.

Figure 5-76. Facilities and Waste Site Location Map for S Cribs.

Figure 5-77. Nitrate and Tritium Versus Time at the 216-S-26 Crib
(Well 2-W27-1)

VGJ\092592-C

Figure 5-78. Facilities and Waste Site Location Map for T-Plant Area.

Figure 5-79. Facilities and Waste Site Location Map, 300 Area.

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Figure 5-80. Uranium Plume Map, 300 Area, November 1987.

Figure 5-81. Uranium Concentration History in Groundwater
at the 300 Process Trench.

Figure 5-82. Comparison of Uranium Concentrations in Groundwater
Before and After Expedited Response Action
at the 300 Process Trench.
See Appendix A-2 for method.

Kolmogorov-Smirnov Two-Sample Test
Before ERA vs After ERA

Figure 5-83. Facilities and Waste Disposal Site Location Map, 400 Area.

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Figure 5-84. Nitrate Concentration History in Groundwater at the 40° Area Percolation Pond.

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Figure 5-85. Nitrate Plume Map, 400 Area and Vicinity, 1991.

Figure 5-86. Tritium Plume Map, 400 Area and Vicinity.

Figure 5-87. Facilities and Waste Disposal Site Location Map.

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Table 5-1. Constituents Exceeding a Water Quantity Standard.

Constituent	Standard exceeded	Level
Arsenic	WWQS	0.05 ppb
Chromium	WWQS, DWS	50 ppb
Fluoride	WWQS, DWS	4,000 ppb
Iron	WWQS, DWS	300 ppb
Manganese	WWQS, DWS	50 ppb
Carbon tetrachloride	WWQS, DWS	0.3 ppb
Chloroform	WWQS, DWS	7 ppb
Trichloroethylene	WWQS, DWS	3 ppb *
Hydrazine	WWQS	0.03 ppb *
Styrene	DWS	5 ppb
Cyanide	DWS (PROPOSED)	200 ppb
Nitrate	WWQS, DWS	45 ppm
Sulfate	WWQS, DWS	250 ppm
Bis(2-ethylhexyl)phthalate	WWQS	6 ppb *
Coliform	DWS	1 ppb
Alpha	WWQS, DWS	15 pCi/L
Beta	WWQS, DWS	50 pCi/L
Cesium-137	1/25 DCG, DWS	120 pCi/L
Cobalt-60	DWS, 1/25 DCG	100 pCi/L
Iodine-129	DWS, 1/25 DCG	1 pCi/L
Plutonium-239/240	1/25 DCG, DWS	1 pCi/L
Radium	WWQS, DWS	3 pCi/L
Strontium-90	DWS, WWQS, 1/25 DCG	8 pCi/L
Technetium-99	DWS, 1/25 DCG	900 pCi/L
Tritium	DWS, WWQS, 1/25 DCG	20,000 pCi/L
Uranium	DWS	40 pCi/L

*Indicates that the detection limit for this constituent is higher than the most stringent regulatory limit.

WWQS = Washington Water Quality Standard (WAC 173-200).

DWS = Drinking Water Standard.

DCG = Derived Concentration Guide, DOE Order 5400.5.

Table 5-2. Contaminant Plume Category.

Constituent	Plume distribution	Areas of contamination		
		200 West	200 East	600 Area
Arsenic	Localized	X	X	
Chromium	Intermediate	X	X	
Fluoride	Intermediate	X		
Iron	Indeterminate			
Manganese	Indeterminate			
Aluminum	Indeterminate			
Carbon tetrachloride	Intermediate	X		
Chloroform	Intermediate	X		
Trichloroethylene	Intermediate	X		
Hydrazine	Indeterminate			
Styrene	Indeterminate			
Cyanide	Intermediate	X	X	X
Nitrate	Widespread	X	X	X
Sulfate	Indeterminate			
Bis(2-ethylhexyl) phthalate	Indeterminate			
Coliform	Indeterminate			
Alpha	Intermediate	X	X	X
Beta	Intermediate	X	X	X
Cesium-137	Localized		X	
Cobalt-60	Intermediate			X
Iodine-129	Intermediate	X	X	X
Plutonium-239/240	Localized	X	X	
Radium	Indeterminate			
Strontium-90	Localized		X	X
Technetium-99	Intermediate	X	X	X
Tritium	Widespread	X	X	X
Uranium	Localized	X		

Table 5-3. Status of Hanford Site RCRA Interim Status Groundwater Monitoring Projects in the 200 East Area as of December 31, 1991.

Project (date initiated)	Status			Use Category
	Background monitoring	Ind. para. evaluation	GW quality assessment	
GTF (8/85)		X		Active
216-B-3 Pond (11/88)			X (5/90) TOX	Active
216-A-29 Ditch (11/88)			X (6/90) Spe Cond	Active
216-A-368 Crib (5/88)		X		Inactive
216-A-10 Crib (11/88)		X		Inactive
216-B-63 Trench (3/90)	X			Active
LERF (6/91)	X			Active
2101-M Pond (8/88)		X		Active
LLBG WMA 1 (9/88)			X (12/89) Spe Cond	N/A
WMA 2 (9/88)		X		N/A
SST WMA-A-AX (2/90)	X			N/A
WMA-B-BX-BY (2/90)	X			N/A
WMA-C (2/90)N/A	X			

NOTE: An X and date in the fourth column indicates the date that the assessment was initiated and the indicator parameter that triggered assessment monitoring.

GTF = Grout Treatment Facility.
 GW = groundwater.
 Ind Para = Indicator Parameter.
 LERF = Liquid Effluent Retention Facility.
 LLBG = Low-Level Burial Grounds.
 LWDF = Liquid Waste Disposal Facility.
 NRDWL = Nonradioactive Dangerous Waste Landfill.
 Spe Cond = specific conductance.
 SST = single-shell tanks.
 TOX = total organic halogen.
 WMA = Waste Management Area.
 N/A = Not Applicable.

Table 5-4. Status of Hanford Site RCRA Interim-Status Groundwater Monitoring Projects in the 200 West Area as of December 31, 1991.

Project (date initiated)	Status			Use Category
	Background monitoring	Ind. para. evaluation	GW quality assessment	
216-S-10 Pond (8/91)	X			Active
216-U-12 Crib (9/91)	X			Inactive
LLBG WMA 3 (10/88)			X (12/89) TOX	N/A
WMA 4 (10/88)		X		N/A
WMA 5	X ^a			N/A
SST WMA-SX	X ^a			N/A
WMA-T (2/90)	X			N/A
WMA-TX-TY	X ^a			N/A
WMA-U	X ^a			N/A

NOTE: An X and date in the fourth column indicates the date that the assessment was initiated and the indicator parameter that triggered assessment monitoring.

^aDrilling is in progress.

GTF = Grout Treatment Facility.

GW = groundwater.

Ind Para = Indicator Parameter.

LERF = Liquid Effluent Retention Facility.

LLBG = Low-Level Burial Grounds.

LWDF = Liquid Waste Disposal Facility.

NRDWL = Nonradioactive Dangerous Waste Landfill.

Spe Cond = specific conductance.

SST = single-shell tanks.

TOX = total organic halogen.

WMA = Waste Management Area.

N/A = Not Applicable.

6.0 Geohydrology of the Pasco Basin

6.0 GEOHYDROLOGY OF THE PASCO BASIN

The extent of contamination in the groundwater from the past and present operations of the Hanford Site and rate of movement of contaminants from the disposal sites toward accessible environments is dependent on the geohydrologic regime, a subset of the hydrologic system. Protection of uncontaminated groundwater beneath the Hanford Site, prevention of offsite migration, and remediation of groundwater contamination require a detailed knowledge of the geohydrologic regime of the Hanford Site and vicinity.

As previously discussed, DOE order 5400.1 (III) (DOE 1988) requires documentation of the geohydrologic regime. This involves evaluation of groundwater recharge and hydrologic conditions that influence the groundwater system. Such information is also needed to aid in management and protection of groundwater resources. This section summarizes studies performed by Westinghouse Hanford Geosciences staff toward this goal. These have included DOE reports, presentations at scientific meetings, input to planning documents, published scientific papers, and unpublished studies for a wide range of projects.

6.1 CHARACTERIZATION STRATEGY

Management of groundwater resources beneath the Hanford Site requires a conceptual model of surface water and groundwater regimes on a basin-wide scale (Figure 6-1). The strategy for the continued development of such models involves collection and analysis of the following types of information:

- Geohydrologic framework (stratigraphic and structural relationships and groundwater units)
- Hydrochemical facies
- Physical parameters (hydraulic conductivity, volume flow rates, net infiltration, etc.)
- Hydraulic (water levels)
- Flow dynamics
- Recharge/discharge boundaries.

This information is used to assess groundwater movement, surface water/groundwater interactions, and to evaluate manmade surface and subsurface disturbances (wastewater discharge, irrigation withdrawals, etc.).

Some of the above information is available as a result of past defense waste and nuclear repository characterization studies and ongoing studies conducted by state and federal natural resource agencies. A significant portion of the data acquisition and model development has been documented in site characterization reports and plans (DOE 1987; 1988a). These documents also provide detailed descriptions of additional data requirements that are being used as guidelines (where applicable to surface water/groundwater interactions and evaluation of the unconfined and uppermost confined aquifer systems).

Detailed data acquisition plans to define the hydrologic regimes within the Pasco Basin (DOE 1987; 1988a) form the basis for defining and prioritizing future data needs to support current basin-wide characterization efforts. These plans focus on acquiring critical groundwater protection/management information bearing on the Hanford

Site and vicinity. They include but are not limited to the following:

- Recharge data to better quantify groundwater transport in the unconfined aquifer (the aquifer beneath Hanford most vulnerable to contamination) and the uppermost confined aquifer.
- Assess effects of agricultural recharge (i.e., impact of Columbia Basin Irrigation Project activities) on confined system flow dynamics beneath the Hanford Site
- Assess aquifer interconnectivity (to resolve groundwater classification issues and likelihood of offsite transport via confined aquifers).

This section summarizes the relevant parts from Westinghouse Hanford studies that are applicable to fulfilling the intent of DOE order 5400.1 (III) (DOE 1988b) by contributing to a conceptual model of the surface water and groundwater regimes of the Hanford Site and vicinity.

The following studies consist of two sponsor categories: (1) work related to Operational Groundwater Program activities, and (2) work funded through other projects. The first category involves work that supports remediation and waste management activities. The second category includes activities funded by external sources such as the NORCUS program and USDOE Office of Basic Energy Research.

6.2 RECHARGE STUDIES

6.2.1 Chloride as Hydrologic Tracer in the Pasco Basin (F. N. Hodges and V. G. Johnson)

Studies of groundwater composition along the southwestern margin of the Pasco Basin, part of a determination of natural background groundwater compositions for the Hanford Site, have revealed spatially distinct bimodal chloride concentrations (<10 ppm or >20 ppm) in the unconfined aquifer. The chloride budget within the Pasco Basin suggests two potential sources of high-chloride waters: (1) upwelling of deep basaltic groundwaters into the unconfined aquifer, and (2) localized evaporation in excess of normal that occurs during normal recharge along basin margins.

As indicated by Na+K/Ca+Mg ratios, evaporation is the dominant process. Chloride concentrations and F/Cl ratios for Rattlesnake Hills springs are similar to values for the low chloride component in the unconfined aquifer, indicating similar degrees of evaporation and reaction with basalt. This similarity indicates that infiltration of spring-like groundwater from the basalt, in the subsurface, may be a major source of recharge for the unconfined aquifer. The high-chloride groundwaters appear to be a result of greater evaporation, principally where spring waters flow on the surface prior to reinfiltration.

The average apparent concentration factor due to evaporation is ≥ 6 for spring waters and ≥ 23 for the high-chloride groundwaters. The nitrate concentration in precipitation in the recharge area is approximately 1.6 ppm. This implies that natural nitrate concentrations in the unconfined aquifer, assuming that

nitrate is conserved, might be ≥ 35 ppm. In addition, evaporation of spring waters would tend to concentrate metals leached from the basalts, resulting in higher background values for these groundwaters.

6.2.2 Recharge to the Uppermost Aquifers from Springs (A. Law, V. Johnson, S. P. Reidel, and M. C. Walker)

Recharge to the unconfined aquifer is an important aspect of determining groundwater flow on the Hanford Site and recharge to the confined and unconfined aquifer systems. The USGS is currently studying recharge to the uppermost aquifer from surface runoff across the western part of the Hanford Site. This study supplements that of the USGS in addressing the role of springs as a source of direct or indirect recharge to the unconfined aquifer.

Geologic mapping by Westinghouse Hanford geologists on the Hanford Site is being combined with data collected from springs across the Site and, in particular, the Dry Creek and Cold Creek Valleys on the western part of the Hanford Site. The data is being used to determine which stratigraphic units are associated with the springs, the properties of the waters from these springs, and the presence or absence of structural controls on the springs.

The spring data will be used to estimate the volume of water supplied to the unconfined aquifer, the composition of the spring water, and changes in the composition between the springs and the unconfined aquifer. This will allow refinement of estimates of initial background groundwater compositions

and sources of recharge to the unconfined aquifer and help to understand the importance of stratigraphy and geologic structures on the confined aquifer system.

6.3 CONFINED AQUIFER GEOHYDROLOGY

6.3.1 Potentiometric Map of the Rattlesnake Ridge Aquifer (R. L. Jackson)

The Rattlesnake Ridge interbed of the Ellensburg Formation is areally extensive beneath the Hanford Site and Pasco Basin. It is the shallowest of the aquifers confined by lava flows of the Columbia River Basalt Group and, in places, is in direct contact with the unconfined aquifer system.

A potentiometric map (Figure 6-2) was constructed from available hydraulic head data using 15 monitoring wells measured between December 1986 and January 1987. The following are salient features shown in Figure 1:

- An inferred northerly to easterly groundwater flow direction within most of the 200 West Area
- An inferred northwesterly flow direction in the area between 200 East Area and Gable Mountain
- The presence of a localized hydraulic head low in the Umtanum Ridge-Gable Mountain area
- The dominant line-sink (potential discharge) area along a broad region bordering the Columbia River. This poorly defined discharge area appears to be several miles

wide and does not always correspond to the present Columbia River channel.

Comparison of hydraulic heads measured in 1986 and 1991 for several selected wells near B-Pond indicate a decline of about 0.7 m; the reasons for this are not known but could be related to seasonal variations or recent reductions in the volume of effluent discharged to the soil column near B-Pond. Further studies are needed to understand intercommunication between the Rattlesnake Ridge aquifer and the unconfined aquifer and the impacts of waste management activities on this system.

A comparison of the potentiometric map for the Rattlesnake Ridge aquifer to the unconfined aquifer suggests the following:

- There is the potential for recharge of the Rattlesnake Ridge aquifer from the unconfined aquifer in the 200 West Area and near B-Pond because the hydraulic gradient is downward.
- There is the potential for recharge of the unconfined aquifer system from the Rattlesnake Ridge aquifer east of 200 West Area, east of B-Pond, and north of the Umtanum Ridge-Gable Mountain area where the hydraulic gradient is upward.

6.3.2 Confined Aquifer Head Anomaly Suggests Large Fault Beneath Hanford Site (S. P. Reidel and V. G. Johnson)

A hydrologic anomaly was identified in the western Cold Creek syncline as part of past studies at the Hanford Site (DOE 1988). This anomaly has long been known to

influence groundwater flow in the Cold Creek syncline and, in the past, has been called the Cold Creek hydrologic anomaly (DOE 1988). This feature has higher hydraulic heads on the west side (upgradient) and lower on the downgradient east side (Figure 6-3). The cause of this anomaly has never been determined but has been suggested to be a geologic structure of some type (DOE 1988a).

The geologic record of boreholes and surface geologic features in the area of the anomaly have been reviewed and interpreted with respect to the structural geology of the area. The hydrologic anomaly has been reinterpreted as a subsurface fault that strikes to the north and coincides with a previously identified geophysical anomaly (DOE 1988). The north-striking fault, named the Cold Creek fault, has basalt flows downdropped on the east side where the upper part of the Saddle Mountains Basalt and the lower part of the Ringold Formation appear to pinch out against the fault (Figure 6-4). Hydrochemical and hydraulic data (Figure 6-5) support this interpretation. The data suggest that groundwater and solutes are migrating vertically in the vicinity of the fault and mixing with shallower basalt aquifers (Gephart et al. 1984; Gifford et al. 1985; Early 1986; 1988; DOE 1988).

We interpret the Cold Creek fault to act as a constriction to lateral groundwater movement in the confined aquifer along the axis of the Cold Creek syncline. Horizontal groundwater gradients in the Wanapum Basalt and Grande Ronde Basalt east of the Cold Creek fault are from 10^{-4} to 10^{-5} (m/m). Hydraulic gradients in the Wanapum Basalt west of the fault are on the order of 10^{-3} (m/m) (Swanson and Leventhal 1984). Hydraulic head in confined

aquifers decreases as much as 150 m (492 ft) from west to east across the fault; structural offset is nearly the same. The fault offsets aquifers between flows, forcing vertical groundwater flow along the fractured rock that makes up the fault plane between offset aquifers (Figure 6-5). We interpret the vertical conductivity along the fault to be less than horizontal conductivities in the upper basalt aquifers, thus producing a constriction in horizontal groundwater flow through the fault zone and down the Cold Creek syncline.

The hydrologic anomaly and associated correlations discussed above strongly suggest the presence of at least one large subsurface fault in the Cold Creek syncline beneath the Hanford Site. The age and seismic significance of this feature are unknown.

6.3.3 Groundwater Monitoring and Seismicity at the Hanford Site (N. H. Rasmussen)

Worldwide studies have shown that increased water pressure can cause seismicity. Increased pore pressure, reducing friction in rock masses under earthquake-generating stresses, can induce earthquake activity. The increased pore pressure can be from liquid injection or by surface loading from water reservoirs. It has been suggested by Hanford oversight groups that swarm earthquakes, on and near the Hanford Site, are caused from the rise of the water table. This rise in the water table is due to the additional irrigation water from the Columbia Basin Irrigation Project and past waste disposal practices at the Hanford Site.

A study was initiated in an attempt to find if there is any possible correlation between water table fluctuations and earthquake swarm activity in and north of the Hanford Site. Adequate water table data are available from that area and earthquake swarm data has been monitored from that area for over 20 years.

Preliminary findings indicate that there is no correlation between earthquake swarms and fluctuations in groundwater levels, suggesting that the swarm earthquakes are not induced by irrigation or waste disposal activity at the Hanford Site. Continued seismic monitoring in the future will be evaluated with respect to continued groundwater fluctuations and long-term trends in water levels to see if the lack of correlation persists.

6.4 GEOLOGIC AND STRATIGRAPHIC CONTROLS

6.4.1 Field Localities Important to Understanding the Geohydrology of the Hanford Site (S. P. Reidel, K. A. Lindsey, and K. R. Fecht)

Recharge to the shallow groundwater aquifers is controlled by a number of processes and sources. A report was published during FY 1992 (Reidel et al. 1992) describing key localities on the Hanford Site that are important to understanding geologic controls on geohydrology of the shallow aquifer system. This report describes the geohydrologic setting of both the shallow basalt aquifers and the unconfined aquifers. It provides locations and descriptions of field localities that can be examined and used to help understand the geohydrologic regime near the areas

where groundwater monitoring and remediation activities are being carried out.

6.5 IRRIGATION IMPACTS

6.5.1 Effects of Irrigation Withdrawals from Confined Aquifers in the Western Pasco Basin (V. G. Johnson, F. N. Hodges, and S. P. Reidel)

Aquifers in the Miocene Columbia River Basalt Group and overlying sediments are important sources of domestic and agricultural water in south-central Washington. Confined aquifers are recharged primarily by springs and by direct infiltration from uplifted anticlinal ridges.

Groundwaters in the Columbia River Basalt Group change with depth and residence time from a Ca/Mg/HCO₃ to a Na/Cl/H₂O₃ type water. Some of the shallow basalt (<300 m, Wanapum Basalt) aquifers have exceptional water quality characteristics; e.g., <300 mg/L dissolved solids; Fe & Mn <0.1 mg/L; Na, SO₄, & Cl < 20 mg/L; and heavy metals <10 µg/L. Tritium and carbon-14 data indicate times since recharge of 10's to 100's of years for spring waters, from 100's to 1000's of years for groundwaters in the suprabasalt aquifer, and >10,000 years for groundwaters in the shallow confined aquifer. Chlorine-36 and noble gas isotope data suggest ages >100,000 years for groundwaters in the deeper confined system.

The relatively long groundwater residence times are consistent with arid site recharge conditions (e.g., average net infiltration emphasizing the need for conservation of these unique aquifers). For example, extensive groundwater withdrawals

from the Priest Rapids Member in the western Pasco Basin, where groundwater ages are >10,000 years ca. 5 km from the recharge area, have resulted in a >10 m drop in the potentiometric surface over an area of several square miles. Accordingly, groundwater protection and conservation of these vulnerable water resources should be high priority items in any water management plan for the region.

Excessive withdrawals may also eventually impact confined aquifer flow directions beneath the 200 West Area of the Hanford Site.

Figure 6-1. Major Surface Water Features of the Pasco Basin that Influence the Groundwater Regime Beneath the Hanford Site.

39203129.5

Figure 6-2. Potentiometric Map of the Rattlesnake Ridge Interbed, Hanford Site.

H9205004.1b

Figure 6-4. Cold Creek Fault.

Figure 6-5. Cross Section Through the Cold Creek Fault.

7.0 Conclusions

7.0 CONCLUSIONS

Findings that may be of operational significance are summarized in two general categories as follow.

Present and Future Changes in Groundwater Conditions

Several Westinghouse Hanford-operated areas show declining groundwater contaminant concentrations. The most significant of these are (1) the area around the 300 Area Process Trenches, (2) the 183-H Evaporator Basins and vicinity, and (3) the area beneath and immediately west of the Grout Treatment Facility. These improving conditions are in part due to a major reduction in wastewater discharge to the ground, mitigation activities, and aquifer dilution processes.

The major change in the hydrologic regime because of Westinghouse Hanford operations involves a steadily declining water table, especially in the 200 West and East Areas. The interaction of variable hydraulic properties and declining water levels will perturb existing contaminant plume distribution patterns in the future. These dynamic conditions will make it difficult to distinguish past-practice contaminants from potential contributions from remaining wastewater disposal sites. This effect is most prominent in the 200 East Area where B Pond has a major impact on groundwater flow directions and aquifer dilution in the vicinity of major waste disposal and storage sites. More limited but notable aquifer dilution also occurs in the 200 West Area in the vicinity of Z Plant because of sanitary and cooling water disposal.

Contaminant Occurrences at Operating Facilities

Groundwater sampling and analysis results reported in this document suggest the presence of contaminants in the vicinity of a few operating facilities that may warrant additional attention. These occurrences are summarized as follow:

Arsenic in Perched Water at the 216-Z-20 Crib. Above-background arsenic concentrations (20 to 25 ppb) were encountered in a perched water well near the southern end of the subject crib. Arsenic is a carcinogen for which the state of Washington has issued a groundwater protection standard of 0.05 ppb. Natural background for the state is approximately 5 ppb and may be somewhat higher (up to approximately 10 ppb) beneath the Hanford Site. Other elevated arsenic occurrences in groundwater were identified in the 200 West and East Areas, prompting a statistical evaluation of natural background versus elevated arsenic concentrations (see Appendix A-2). The source and significance of the slightly elevated arsenic concentrations in perched water is currently unknown.

Carbon Tetrachloride in Groundwater in the Vicinity of the 216-Z-20 Crib. Concentrations of CCl_4 ranging from approximately 100 to 2,000 ppb in two monitoring wells at the subject crib are attributed to adjacent past-practice activities associated with Z Plant operations. The absence of significant levels in effluent and in perched water suggests that vapor phase transport and absorption of gaseous CCl_4 by infiltrating wastewater may not be an important groundwater contaminant pathway at this disposal site. Additional perched water wells

closer to the larger source areas, however, are needed for confirmation.

The occurrence of some of the highest concentrations of CCl_4 in both near-surface and deeper groundwater near the 216-Z-9 Trench, located immediately north of the 216-Z-20 Crib, suggests the aquifer may be contaminated with a liquid phase of this dense, only slightly soluble chlorinated hydrocarbon. If so, this could be a source of continuing groundwater contamination in the vicinity of the 216-Z-20 Crib. This is the subject of continuing characterization activities associated with the Expedited Response Action and the Integrated Site Demonstration Project. Close coordination among these activities is needed to ensure maximum information and to assess potential impacts on continuing operations.

Uranium and Technetium-99 Beneath the 216-U-17 Crib. Elevated concentrations of these contaminants, resulting from past-practice disposal of UO_3 Plant process condensate, exist in the vicinity of the subject crib. Concentration-history plots and plume distribution patterns indicate there were multiple sources in both time and space that originated from the 216-U-1/2, the 216-U-8, and the 216-U-12 cribs and associated transfer lines. Analysis of projected wastewater input rates to the subject crib indicates that future relatively uncontaminated wastewater will not reach groundwater during the planned operating period (August 1992 to 1995).

Uranium and Gross Beta in Perched Water Beneath the 216-U-14 Ditch. Slightly elevated uranium and gross beta concentrations have been confirmed in three perched water table monitoring wells adjacent to

the subject ditch. Samples from downgradient groundwater monitoring wells show lower uranium concentrations than samples from the perched water wells, but appear to show an erratic upward trend. Followup characterization work to identify the gross beta components and installation of additional monitoring wells is planned for FY 1993.

Localized Contaminant Plumes at the TX, TY, and T Tank Farms. Computer-generated contours of specific conductivity and other contaminants for the 200 West Area suggest localized groundwater contamination beneath and adjacent to the subject TSD facilities. Constituents that are either elevated above natural background levels or a standard include fluoride, sulfate, nitrate, gross beta, technetium-99, chromium, and possibly uranium. The plumes all appear to coincide and center along the west side of the T Tank Farm. The relative abundances of chemical constituents observed in groundwater are consistent with the chemical composition reported for the contents of the T Tanks. The localized nature of the contamination may be a result of the aquifer properties and hydrologic conditions in this area. For example, Connelly et al. (1992) show a zone of very low hydraulic conductivity that matches the approximate shape and location of the contaminant plume contours. Thus groundwater contaminants introduced at this location would move very slowly. The subject tank farms are surrounded by numerous liquid waste disposal sites that received first and second cycle supernatant, process condensates, second cycle tank waste bottoms, and miscellaneous chemicals. These wastes would be expected to have chemical compositions similar to the SST wastes. Thus distinction between potential groundwater

contamination from tank leaks and past-practice disposal of millions of gallons of similar waste to adjacent cribs is a major challenge for the RCRA groundwater monitoring project at this site. Other supplemental subsurface characterization may be needed to resolve this issue.

Evidence of Sanitary Wastewater Breakthrough. The occurrence of

positive coliform counts in the 300 Area and scattered occurrences in the 200 Areas suggest possible sanitary wastewater breakthrough to groundwater. Rerouting of 300 Area sanitary wastewater to the city of Richland treatment system is planned for the 300 Area. Septic systems and drainfields associated with other operating facilities in the 100, 200, and 400 Areas are circumstantial evidence for the scattered coliform occurrences noted above.

8.0 References

8.0 REFERENCES

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APPENDIX A: REFERENCE VALUES FOR GROUNDWATER QUALITY ASSESSMENT

This appendix provides a listing of the numerical values (Appendix A-1) for (1) drinking water and related standards used for reference or comparison purposes (Table A-1-1) and (2) provisional natural background values for major and trace constituents in groundwater at the Hanford Site (Table A-1-2).^{*} In Appendix A-2 an example data set is used to illustrate the derivation and use of the natural background values and related statistical tests.

NOTE: The statistical methods and interpretations presented in this appendix should not be construed as a WHC or DOE position. They should be regarded only as suggested preliminary approaches for evaluation of groundwater data. Consultation with WHC Regulatory and Permitting Functions is advised for the most current interpretation of state and federal regulations in those cases where exceedance of a standard is encountered.

^{*}Values listed in Table A-1-2 are obtained from DOE/RL 92-23, *Hanford Sitewide Groundwater Background*.

APPENDIX A-1: CRITERIA AND STANDARDS

State and Federal Standards

Available numerical values for drinking water or equivalent standards are provided in Table A-1-1 (pages A-1-3 through A-1-29). The constituents are listed alphabetically in column 1. Column 2 indicates the type of standard defined as follows:

MCL:	Maximum contaminant level
MCL prop:	"proposed maximum contaminant level
DWS	Drinking water standard
WWQS	Washington Water Quality Standard
CM-7-5	Westinghouse Hanford Company Environmental Control Manual, ECM-7-5, Part N (Groundwater Protection) administrative guides
1/25 DCG	Drinking water equivalent (4 mrem/yr) of the U.S. Department of Energy derived concentration guide (based on International Commission on Radiological Protection (ICRP) Report #26 and 30) for radionuclides
SMCL	Secondary maximum contaminant limit.

Column 3 provides the numerical value for the respective standard. Additional places beyond three significant figures are computer generated and should be ignored. Column 4 lists the units of the standard, and column 5 provides the source documentation for the standard cited.

It should be noted in referring to this listing that the Washington Water Quality Standards (WWQS) are very often far more restrictive than the DWS or MCL values listed. This is due in part to carcinogen/risk-based standards (EPA). They should also be viewed as "groundwater protection" values; i.e., perhaps most appropriately used to control effluent releases. They should not be regarded as cleanup standard for contaminated aquifers. Guidance emanating from the *Model Toxics Act* (WHC 173-340-720) has recently become available for deriving and applying cleanup standards for contaminated groundwater as discussed in Appendix A-2.

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NOTE: The state and federal standards listing, pages A-1-3 through A-1-28, is currently under revision and will be provided at a later date.

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Natural Background

Table A-1-2 provides a summary of provisional natural background values for Hanford Site groundwater (DOE-RL 1992). The values are from various existing data sources as indicated in the column headings and footnotes to the table.

The first column lists the constituents alphabetically. Some constituents are designated as high or low to indicate there is more than one population group for that constituent. Judgment and other Site information must be used in these cases (e.g., locations such as along the river or where cooling water dilution of groundwater may occur, presence or absence of oxygen because natural reducing conditions may result in elevated metals, etc.).

Columns 3, 4, and 5 provide the mean and one standard deviation from the sources indicated. Where available, the sample size used to calculate the mean and standard deviation is indicated in parentheses.

The Pacific Northwest Laboratory (PNL) results are based on approximately 50 wells selected from across the Hanford Site from locations outside known contaminant plumes. The U. S. Geological Survey values shown are based on 7 well locations in an upgradient corridor running parallel to Rattlesnake Ridge (Figure A-1-1). The Westinghouse Hanford values are based on 17 wells located in the Rattlesnake ridge corridor and were combined from the Basalt Waste Isolation Project (BWIP) Hydrochemistry Database and the Hanford Groundwater Database (DOE-RL 1992). Examination of the 6-7 quarters of sampling results from the BWIP data set suggested there was little if any evidence of autocorrelation or seasonal effects. In these cases, Ecology guidance (Ecology 1992) allows multiple results from a single well to be combined; i.e., treated as independent samples for computational purposes. Thus the sample size indicated in parentheses is larger than the number of wells from which the data set was derived for both the USGS and Westinghouse Hanford columns.

The fifth column represents the estimate of the upper 95% confidence limit on the 95th percentile of the natural background distributions. The new state guidance applies a different set of rules for this calculation for deriving cleanup standards that will result in lower estimates than shown here (See Appendix A-2 discussion).

The values listed in Table A-1-2 should be used only for preliminary screening purposes. Constituent concentrations at a specific site can be visually compared to these values. If they appear to be outside the range of naturally occurring concentrations indicated in Table A-1-2, a more detailed evaluation is recommended using the complete background data set for the constituents of concern as discussed in Appendix A-2.

Figure A-1-1. Background Well Locations in Rattlesnake ridge Corridor.

Table A-1-2. Summary of Provisional Hanford Site Groundwater Background Values^a. (sheet 1 of 4)

Constituent (Conc.)	PNL Results ^b	USGS Results ^b (Sample Size)	WHC Unconfined ^b (Sample Size)	WHC Provisional Threshold Values
Aluminum (ppb)	<2	110±139 (12)	<200 (50)	<200
Ammonium (ppb)	<50	N.A.	<50 (18)	<120
Arsenic (ppb)	3.9±2.4	6.7±3.7 (7)	<5 (14)	10
Barium (ppb)	42±20	53±14 (11)	41±20 (53)	68.5
Beryllium (ppb)	<0.3	N.A.	<5 (16)	<5
Bismuth (ppb)	<0.02	N.A.	<5 (4)	<5
Boron (ppb)	<50	<50 (14)	<100 (35)	<100
Cadmium (ppb)	<0.2	<10 (1)	<10 (16)	<10
Calcium (ppb)	40,400±10,300	40,857±8,282 (14)	38,542±11,023 (53)	63,600
Chloride-Low (ppb)	N.A.	5,825±1,355 (8)	5,032±1,774 (53)	8,690
Chloride-High (ppb)	N.A.	20,667±2,503 (6)	23,296±2,463 (14)	28,500
Chloride-All (ppb)	10,300±6,500	12,186±7,842 (14)	8,848±7,723 (67)	N.C.
Chromium (ppb)	4±2	<50 (11)	<30 (8)	<30

^aSource: From Tables 5-9 and 5-11 (DOE/RL-92-23).^bResults shown are mean ± one standard deviation.

*Potential outlier observation(s) were removed.

N.A. = not available. N.C. = not calculated. N.D. = not detected.

Table A-1-2. Summary of Provisional Hanford Site Groundwater Background Values^a. (sheet 2 of 4)

Constituent (Conc.)	PNL Results ^b	USGS Results ^b (Sample Size)	WHC Unconfined ^b (Sample Size)	WHC Provisional Threshold Values
Copper (ppb)	<1	<10 (10)	<30 (50)	<30
Fluoride (ppb)	370±100	550±330 (14)	437±131* (47)	1,340 775*
Iron-Low (ppb)	N.A.	22±16* (13)	<50 (34)	86
Iron-Mid (ppb)	N.A.	N.A.	115±52 (7)	291
Iron-High (ppb)	N.A.	N.A.	494±118 (12)	818
Iron-All (ppb)	N.A.	N.A.	149±199 (53)	N.C.
Lead (ppb)	<0.5	<30* (6)	<5 (15)	<5
Magnesium (ppb)	11800±3400	10,814±1,813 (14)	11,190±2,578 (53)	16,480
Manganese-Low (ppb)	N.A.	26±27 (8)	<20 (33)	24.5
Manganese-Hgh (ppb)	N.A.	150±87 (3)	118±17 (20)	163.5
Manganese-All (ppb)	7±5	60±73 (11)	50±55 (53)	N.C.
Mercury (ppb)	<0.1	N.A.	<0.1 (14)	<0.1
Nickel (ppb)	<4	<50 (14)	<30 (23)	<30

^aSource: From Tables 5-9 and 5-11 (DOE/RL-92-23).^bResults shown are mean ± one standard deviation.

*Potential outlier observation(s) were removed.

N.A. = not available. N.C. = not calculated. N.D. = not detected.

Table A-1-2. Summary of Provisional Hanford Site Groundwater Background Values^a. (sheet 3 of 4)

Constituent (Conc.)	PNL Results ^b	USGS Results ^b (Sample Size)	WHC Unconfined ^b (Sample Size)	WHC Provisional Threshold Values
Nitrate (ppb)	N.A.	3,224±3,380 (13)	5,170±3,576 (78)	12,400
Phosphate (ppb)	<1,000	140±62 (3)	<1,000 ^f	<1,000
Potassium (ppb)	4,950±1,240	5,900±1,253 (14)	4,993±1,453 (53)	7,975
Selenium (ppb)	<2	N.A.	<5 (14)	<5
Silver (ppb)	<10	N.A.	<10	<10
Silicon (ppb)	N.A.	16,786±3,683 (14)	18,152±4,974 (35)	26,500
Sodium (ppb)	18,260±10,150	20,286±7,907 (14)	15,774±6,784 (53)	33,500
Strontium (ppb)	236±102	159±78 (14)	164±47 (43)	264.1
Sulfate (ppb)	34,300±16,900	41,286±27,880 (14)	30,605±22,611 (67)	90,500
Uranium (pCi/l)	1.7±0.8	N.A.	1.7±1.2 (10)	3.43
Vanadium (ppb)	17±9	N.A.	9±4 (18)	15
Zinc-Low (ppb)	N.A.	14±20 (11)	<50 (36)	<50
Zinc-High (ppb)	N.A.	373±284 (3)	247±165 (17)	673

^aSource: From Tables 5-9 and 5-11 (DOE/RL-92-23).^bResults shown are mean ± one standard deviation.^cPotential outlier observation(s) were removed.

N.A. = not available. N.C. = not calculated. N.D. = not detected.

Table A-1-2. Summary of Provisional Hanford Site Groundwater Background Values^a. (sheet 4 of 4)

Constituent (Conc.)	PNL Results ^b	USGS Results ^b (Sample Size)	WHC Unconfined ^b (Sample Size)	WHC Provisional Threshold Values
Zinc-All (ppb)	6±2	91±190 (14)	95±140 (53)	N.C.
Field Alk. (ppb)	N.A.	134100±20469 (10)	137,758±33,656 (31)	215,000
Lab Alk. (ppb)	123000±21000	130,000±8,165 (4)	133,717±29,399 (52)	210,000
Field pH	N.A.	N.A.	7.57±0.29 (57)	[6.90, 8.24]
Lab pH	7.64±0.16	N.A.	7.75±0.21 (52)	[7.25, 8.25]
TOC (ppb)	586±347	N.A.	519±367* (62)	2,610 1,610*
Field Cond. (umho/cm)	N.A.	N.A.	344±83 (22)	539
Lab. Cond. (umho/cm)	380±82	N.A.	332±93 (36)	530
TOX, LDL (ppb)	N.A.	N.A.	<20* (14)	60.8 37.6*
Total Carbon (ppb)	N.A.	N.A.	31,772±7,022 (48)	50,100
Gross Alpha (pCi/l)	2.5±1.4	N.A.	2.5±1.5* (36)	63 5.79*
Gross Beta (pCi/l)	19±12	N.A.	7.1±2.6* (44)	35.5 12.62*
Radium (pCi/l)	<0.2	N.A.	N.D. (10)	0.23

^aFrom Tables 5-9 and 5-11 (DOE/RL-92-23).^bResults shown are mean ± one standard deviation.

*Potential outlier observation(s) were removed.

N.A. = not available. N. C. = not calculated. N.D. = not detected.

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APPENDIX A-2: STATISTICAL METHODS

C. J. Chou

The primary purposes of Appendix A-2 are (1) to demonstrate the use of Washington State Department of Ecology's (Ecology) statistical guidance document (Ecology 1992) to calculate background threshold values, (2) to illustrate problems that might be encountered in applying the statistical methods recommended by Ecology for evaluating groundwater background data, and (3) to illustrate an approach suitable for analyzing groundwater data at the Hanford Site. In addition, methods discussed in this appendix represent initial efforts to establish statistical guidance for evaluation of groundwater at the Hanford Site.

Natural background data and related statistical tests at the Hanford Site may be used in the decision-making process associated with (1) detection, assessment, and/or corrective action at *Resource Conservation and Recovery Act* (RCRA) sites; (2) compliance testing for operational groundwater surveillance; (3) groundwater impact assessments at active liquid waste disposal sites; and (4) cleanup considerations at *Comprehensive Environmental Response Compensation and Liability Act* (CERCLA) sites. These major areas are discussed separately in the sections that follow.

A-2.1 RCRA Monitoring

Interim Status--RCRA groundwater monitoring networks are designed to detect the possible impact of a specific facility on groundwater quality. A "local area" background is used to account for contaminant sources upgradient from RCRA facilities. The sampling and statistical difference testing of the upgradient (background) vs. downgradient (compliance) means are prescriptive in these cases (i.e., the averaged replicate t-test on means between individual downgradient wells and local background). However, the natural background can/should be used to test the "robustness" of critical mean exceedances in some cases. For example, if the local area background critical mean for an indicator parameter is exceeded in a single downgradient well (after verification sampling), but not for the natural background, the decision to initiate assessment monitoring should be reconsidered or an alternative course of action negotiated. In addition, it may be necessary in some cases to substitute the natural background values for data from local upgradient wells (because of interference with upgradient wells from nearby contaminant sources or dilution of the upgradient groundwater by cooling water discharges).

Final Status--RCRA groundwater monitoring programs under final status allow more latitude in application of statistical methods to assess impact on groundwater quality (Figure A-2-1). If or when final status is assigned to the Hanford Site, background threshold (or tolerance limits) can be used (EPA 1989) to assess the likelihood that background has been exceeded beneath a treatment, storage, or disposal facility. Use of both local area and

Figure A-2-1. Background Well to Compliance Well Comparisons
(Source: EPA 1989)

"natural" background values could presumably be applied in such testing. Various statistical tests for a final status groundwater monitoring program to detect the presence of trends, the shift in central tendency, and compliance with regulatory requirements are given in *RCRA Data Analysis Protocol for the Hanford Site, Washington* (WHC 1992).

A-2.2 Non-RCRA Monitoring

Comparison of natural background concentrations with observations in the vicinity of some waste disposal sites may be necessary in those cases where a RCRA monitoring network is not yet in place (i.e., there are no local upgradient wells). A comparison between upgradient-downgradient wells at these sites can be treated in the same manner as a RCRA site under final status (Figure A-2-1) using the natural background data in place of local area or upgradient wells.

To illustrate various statistical methods to test the hypothesis whether concentrations of a specific analyte of concern at a waste site is significantly different from natural background concentrations, a test case is provided. The analyte of concern is arsenic (200 East Area [DOE-RL 1992]). Note that the background data set and the test site data used in this Appendix are for the purpose of illustration only. Therefore, the background values derived for the test case may not necessarily be representative of Hanford Sitewide groundwater background.

Test Case

The background data set for this test consists of arsenic concentrations from a total of 42 wells: 10 wells in the Rattlesnake Ridge Corridor and another 32 wells across the Hanford Site that lie outside of known contaminant plumes. The primary criteria used in selection of test data suitable for consideration in the evaluation of natural background include site geohydrology, well characteristics, and the distribution of indicator contaminants in the groundwater (i.e., tritium less than 1,000 pCi/l). The database consists of U.S. Geological Survey (USGS) results from various wells sampled at the Hanford Site during 1977 through 1984.

The compliance data set for the test case consists of arsenic levels from 65 wells in the 200 East Area (DOE/RL-92-19). Raw data from the background area described above as well as the 200 East area are presented in Table A-2-1 and Table A-2-2, respectively. There is only one non-detect arsenic value from the background area. Based on Ecology guidance, the non-detect was replaced by 1/2 of the detection limit (i.e., 1 ppb). The results of the analysis are generally not sensitive to the specific choice of the replacement value if the number of nondetects is few. Gross beta values from the background area are also presented for the purpose of illustrating Ecology's default procedure for the determination of cleanup standards based on background data (see discussion in A-2.3). Unless otherwise specified, the statistical software package STATGRAPHICS Version 4.2 (a trademark of Statistical Graphics Corporation) was used to generate the plots and test statistics.

Table A-2-1. Background Arsenic and Gross Beta Data From 42 Wells Across the Hanford Site. (sheet 1 of 2)

Well Number	Well Name	Arsenic (ppb)	Gross Beta (pCi/l)	Arsenic (ln ppb)	Gross Beta (ln pCi/l)
1	6-S12-3	5.5	6.5	1.7047	1.8641
2	6-S8-19	11.0	7.9	2.3979	2.0605
3	6-S3-25	6.0	7.1	1.7918	1.9601
4	6-2-33	6.5	4.7	1.8718	1.5369
5	6-11-45A	3.0	4.2	1.0986	1.4351
6	6-14-38	4.0	4.1	1.3863	1.3987
7	6-19-43	3.0	8.2	1.0986	2.0980
8	6-24-46	1.0	5.1	0.0000	1.6292
9	6-25-55	3.0	4.9	1.0986	1.5892
10	6-55-89	1.0	4.5	0.0000	1.5041
11	6-20-E5-0	5.0	7.3	1.6094	1.9879
12	6-33-56	4.7	6.6	1.5404	1.8820
13	6-35-78	3.0	18.0	1.0986	2.8904
14	6-4-86	7.0	7.5	1.9459	2.0149
15	6-49-55	6.6	9.8	1.8871	2.2865
16	6-48-71	1.0	3.2	0.0000	1.1632
17	6-63-90	3.0	3.8	1.0986	1.3350
18	6-50-28B	7.0	3.9	1.9459	1.3610
19	6-34-51	6.0	5.1	1.7918	1.6292
20	6-55-76	1.3	4.7	0.2877	1.5476
21	6-31-53B	6.0	4.9	1.7918	1.5892
22	6-45-69	4.0	2.6	1.3863	0.9555
23	6-71-30	6.0	7.0	1.7918	1.9459
24	6-51-63	4.0	3.6	1.3863	1.2809
25	6-57-25A	13.5	6.2	2.6027	1.8165
26	6-37-82A	2.0	7.8	0.6931	2.0541
27	6-43-88	0.5	3.7	-0.6931	1.3083
28	6-48-18	1.0	6.3	0.0000	1.8405

Table A-2-1. Background Arsenic and Gross Beta Data From 42 Wells Across the Hanford Site. (sheet 2 of 2)

Well Number	Well Name	Arsenic (ppb)	Gross Beta (pCi/l)	Arsenic (ln ppb)	Gross Beta (ln pCi/l)
29	6-50-85	2.0	3.8	0.6931	1.3350
30	6-55-50C	3.0	4.1	1.0986	1.3987
31	6-57-83	1.0	2.8	0.0000	1.0296
32	6-62-31	1.0	4.9	0.0000	1.5892
33	6-63-25A	4.0	4.1	1.3863	1.4110
34	6-66-39	1.0	2.5	0.0000	0.9163
35	3-8-4	8.0	4.6	2.0794	1.5261
36	6-15-15B	8.0	9.8	2.0794	2.2824
37	6-17-5	3.0	5.7	1.0986	1.7405
38	3-3-1	1.0	11.0	0.0000	2.3979
39	6-40-33	10.0	5.5	2.3026	1.7047
40	6-39-39	2.0	5.3	0.6931	1.6677
41	6-47-46	3.0	8.1	1.0986	2.0919
42	6-54-34	1.0	4.6	0.0000	1.5261
Mean ($\bar{x}$)		4.1333	N.C.	1.1224	1.6805
Standard Deviation (s)		3.0346	N.C.	0.8302	0.4040
Variance(s^2)		9.2088	N.C.	0.6892	0.1632
Denominator ^a = (n-1)*s ²		377.57	N.C.	28.26	6.69

^aDenominator for the W statistic.

N.C. = not calculated.

Table A-2-2. Arsenic Data From the 200 East Area.
(sheet 1 of 2)

Well Number	Arsenic (ppb)	Arsenic (ln ppb)	Well Number	Arsenic (ppb)	Arsenic (ln ppb)
1	6.4	1.8563	21	11.9	2.4765
2	5.5	1.7047	22	6.1	1.8083
3	7.1	1.9601	23	7.6	2.0281
4	6.1	1.8083	24	10.4	2.3418
5	7.4	2.0015	25	7.6	2.0281
6	9.6	2.2618	26	6.1	1.8083
7	8.9	2.1861	27	5.0	1.6094
8	8.0	2.0794	28	5.0	1.6094
9	5.8	1.7579	29	9.0	2.1972
10	9.1	2.2083	30	11.7	2.4596
11	8.2	2.1041	31	10.6	2.3609
12	8.3	2.1163	32	5.8	1.7579
13	6.9	1.9315	33	30.9	3.4308
14	5.3	1.6677	34	17.0	2.8332
15	5.5	1.7047	35	24.0	3.1781
16	6.8	1.9169	36	12.8	2.5494
17	6.0	1.7918	37	8.9	2.1861
18	6.9	1.9315	38	31.0	3.4340
19	5.2	1.6487	39	7.6	2.0281
20	12.9	2.5572	40	8.3	2.1163

Table A-2-2. Arsenic Data From the 200 East Area.
(sheet 2 of 2)

Well Number	Arsenic (ppb)	Arsenic (ln ppb)	Well Number	Arsenic (ppb)	Arsenic (ln ppb)
41	10.6	2.3609	54	6.3	1.8405
42	5.4	1.6864	55	7.0	1.9459
43	9.6	2.2618	56	9.5	2.2513
44	56.0	4.0254	57	6.2	1.8245
45	8.5	2.1401	58	9.7	2.2721
46	9.6	2.2618	59	6.4	1.8563
47	11.5	2.4423	60	8.8	2.1748
48	12.1	2.4932	61	5.6	1.7228
49	7.7	2.0412	62	6.7	1.9021
50	7.4	2.0015	63	10.4	2.3418
51	7.0	1.9459	64	6.0	1.7918
52	10.0	2.3026	65	16.8	2.8214
53	9.8	2.2824			

Source: DOE-RL 1992

Kolmogorov-Smirnov two-sample test. The test method presented here is called the Kolmogorov-Smirnov two-sample test. It is useful in situations where two samples are drawn, one from each of two possibly different populations, and to determine whether the two distribution functions associated with the two populations (background and the site) are identical. The Kolmogorov-Smirnov two-sample test is preferred over other tests such as the median test, the Mann-Whitney test, or the parametric t-test because these tests are sensitive only to differences between the two means or medians. However, these tests are not sensitive to differences of other types, such as differences in variances. The Kolmogorov-Smirnov two-sample test is sensitive against all types of differences that may exist between the two distribution functions (Conover 1980).

Assumptions. The data consist of two independent random samples, one of size n , $X_1, X_2, \dots, X_n$ from the background area ($n = 42$), and the other of size m , $Y_1, Y_2, \dots, Y_m$ from the waste management area ($m = 65$). Let $F(x)$ and $G(x)$ represent their respective, unknown, distribution functions.

Hypothesis. The null hypothesis, H_0 , is that the two distribution functions are the same for all x values. The alternative hypothesis, H_a , is stated as the X s (i.e., the background data) tend to be smaller than the Y s (i.e., the data from the 200 East Area). The hypothesis can also be stated as:

$$\begin{aligned} H_0: F(x) &= G(x), \text{ for all values of } x \text{ from } -\infty \text{ to } +\infty \\ H_a: F(x) &> G(x), \text{ for at least one value of } x \end{aligned}$$

Test Statistic. Let $S_1(x)$ be the empirical distribution function based on the background arsenic values, $X_1, X_2, \dots, X_{42}$, and let $S_2(x)$ be the empirical distribution function based on the arsenic values from the 200 East Area, $Y_1, Y_2, \dots, Y_{65}$. The test statistic T_1^+ is defined as the greatest (denoted by "sup" for supremum) vertical distance where the function $S_1(x)$ is above the function $S_2(x)$. Or, stated in mathematical terms:

$$T_1^+ = \sup [S_1(x) - S_2(x)]$$

which is read as " T_1^+ equals the supremum, over all x , where the function $S_1(x)$ is above the function $S_2(x)$."

Decision Rule. Reject H_0 at the level of significance $\alpha = 0.05$ if the test statistic T_1^+ exceeds the $1 - \alpha$ (0.95) quantile as given in Table A-2-1 of Conover (1980). For values of n and m not covered by the table, the large sample approximations provided at the end of the table may be used. For example, in the arsenic case, $n = 42$ and $m = 65$, at the 5% level of significance, the critical value equals $1.22 * \sqrt{(m+n)/mn} = 0.242$.

Example 1 - Comparison of Background and Contaminated Zone Arsenic Levels. The test statistic T_1^+ is calculated to be 0.667, which is greater than the 0.95 quantile (i.e., the critical value) = 0.242. Hence the null hypothesis is rejected at 5% level of significance. The alternative hypothesis that the background arsenic values tend to be smaller than that from the 200 East Area is accepted. The Kolmogorov-

Smirnov two-sample test result is also presented in Figure A-2-2. It is obvious from Figure A-2-2 that background arsenic values are smaller. A multiple box-and-whisker plot of the arsenic levels is shown in Figure A-2-3. This plot shows that only four or five values are outside the range of natural variation in arsenic values at the Hanford Site. Thus the size of the area of significant impact is much smaller than the area represented by the compliance data set. Cleanup-related considerations for this case are discussed in the following section.

A-2.3 COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION LIABILITY ACT/ MODEL TOXICS CONTROL ACT CLEANUP STANDARDS

The cleanup standard should be determined for the contaminants present at the site. This standard may be based on appropriate applicable state and federal laws, risk, ecological factors, and analytical considerations (e.g., below detection limit data, practical quantitation limit), or may be related to background levels of the contaminant at the site. Under *The Model Toxics Control Act* (MTCA) (WAC 173-340), there are three basic methods for establishing cleanup levels in groundwater (WAC 173-340-700). Cleanup levels resulting from these methods are briefly defined in the following paragraphs.

- Method A--numerical standards (routine cleanup method) for 25 of the most common hazardous substances found at the sites. This method is designed for cleanup cases that are relatively straightforward or involve only a few hazardous substance, all of which must be listed in the Method A tables (see page 77 of MTCA). This approach will be used mainly by small sites that do not warrant the costs of conducting risk assessments and site studies.
- Method B--a site-specific method that includes risk assessment-based standards, standards based on applicable state and federal laws, or natural background concentrations (standard method). The risk level for individual carcinogens cannot exceed 1 in 1,000,000. If more than one type of hazardous substance is present, the total risk level at the site may not exceed 1 in 100,000.
- Method C--This method is similar to method B except that the lifetime cancer risk is set at 1 in 100,000 for both individual substances and for the total risk caused by all substances on a site. This method is used when compliance with Method A or B cleanup levels is impossible or may cause greater environmental harm or if the site is an industrial site (conditional method).

Figure A-2-2. Kolmogorov-Smirnov Two-Sample Test for Arsenic.

Figure A-2-3. Multiple Box-and-Whisker Plot for Arsenic.

Natural vs. Area Background Concentrations. The MTCA regulations make a distinction between natural and area background concentrations as described below:

- Natural background refers to the concentration of a constituent that occurs naturally in the environment and has not been influenced by localized human activities (WAC 173-340-200).
- Area background is defined as the concentration of hazardous substances consistently present in the environment in the vicinity of a site as a result of human activities unrelated to releases from that site (WAC 173-340-200).

Use of Background in the Cleanup Standards Regulation. Background data can generally be used in three ways to establish cleanup standards:

- Natural background can be used to establish a cleanup standard for a hazardous substance for which no applicable or relevant and appropriate requirement (ARAR) or cleanup standard regulation value exists (WAC 173-340-704[2][c]).
- Natural background can be used to replace an existing Method A, Method B, or Method C cleanup standard when that standard is below the natural background level (WAC 173-340-700[4][d]).
- When Method A or Method B cleanup standards are below area background levels, Method C can be used to establish the cleanup standard. When the Method C cleanup standard is below area background, the cleanup standard may be set equal to the area background value subject to constraints on maximum allowable Method C cleanup levels (WAC 173-340-706[1][a]).

Determination of Background Values Based on Ecology's Statistical Guidance Document (Ecology 1992). A flowchart to provide an overview of the data evaluation procedures for determining possible cleanup standards based on background under MTCA is shown in Figure A-2-4. This flowchart is a slight modification of Figure 12 shown in the statistical guidance document (Ecology 1992). The default procedure is to calculate the 90th percentile value based on a log-normal distribution as the default background value for cleanup standard and site evaluations, provided that (1) the background data are log-normally distributed (e.g., based on the Wilk-Shapiro W-test for normality) and (2) the 90th percentile value is less than 4 times the median value (the 50th percentile). If background data are log-normally distributed but the 90th percentile value exceeds 4 times the median value, the background value is determined to be 4 times the median value.

Ecology's default procedure establishing the background-based cleanup standard at the 90th percentile of the estimated distribution is based on the

Figure A-2-4. Flowchart for Determination of Cleanup Standards Based on Background Data Modified after Ecology (1992).

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assumption of a log-normal distribution. In cases where the assumption of a log-normal distribution is rejected, Ecology should be consulted on appropriate alternative procedures to establish the cleanup standard. For a normal distribution, assuming concurrence from Ecology, the cleanup standard should be the lesser of (1) the estimated 80th percentile and (2) 4 times the mean value of the estimated normal distribution. Note that Ecology may determine that another percentile is more appropriate on a site-specific basis.

Based on Ecology's statistical guidance document, if background data sets are neither log-normally nor normally distributed, a nonparametric method (requires consultation with Ecology), which does not require the data to fit any particular distribution type, should be used. However, Ecology has to be consulted regarding which percentile (90th or 80th or something else) to use. Additionally, Ecology recognizes the fact that using the standard default methods will pose problems for simultaneously achieving desirable false positive error rates and statistical power to detect residual contamination when background data are highly skewed and background samples are relatively small. In such cases, it may be appropriate to consider using alternative distribution test methods such as the Wilcoxon Rank Sum test and the Quantile tests (see further discussions in A-2.4).

In Example 2, the gross beta data from 42 wells of the background area (see Table A-2-1) are used to illustrate the default procedure for calculating cleanup standard based on natural background. In Example 3, the arsenic values from the background area are used to illustrate alternative procedures for estimating the background-based cleanup standard (requiring concurrence of Ecology). The test procedure for the Wilk-Shapiro W-test for normality of data is given below because the result of the goodness-of-fit test will determine which procedure to use.

The Wilk-Shapiro W-test. The Wilk-Shapiro W-test for normality of data is Ecology's recommended goodness-of-fit test procedure to examine the assumption of data distribution. The test procedures are described below.

Assumption. The data consist of a random sample $X_1, X_2, \dots, X_n$ of size n ($n = 42$) associated with some unknown distribution function $F(x)$.

Hypothesis. The null hypothesis is that the data are drawn from a normal distribution function with unspecified mean and variance. The alternative hypothesis is that the data are not normal.

H_0 : $F(x)$ is a normal distribution with unspecified mean and variance.

H_a : $F(x)$ is non-normal.

Test Statistic. First calculate the denominator D of the test statistic

$$D = \sum (X_i - \bar{X})^2,$$

where $\bar{X}$ is the sample mean and the summation (denoted by $\sum$) is from $i=1$ through $i=n$. Then order the sample from the smallest to the largest, $X_{(1)} \leq X_{(2)} \leq \dots \leq X_{(n)}$, where $X_{(i)}$ denotes the i th order statistic. Then define $k = n/2$, if n is even and $k = (n-1)/2$ if n is odd. For the

observed sample size n , obtain coefficients $a_1, a_2, \dots, a_k$ from Table A-1-7 of Conover (1980). The test statistic is given by

$$W = (1/D) * [\sum a_i (X_{(n-i+1)} - X_{(i)})]^2$$

where the summation (denoted by $\sum$) is from $i=1$ through $i=k$.

Decision Rule. Reject H_0 at the $\alpha=0.05$ level of significance if W is less than the α quantile given by Table A18 of Conover (1980). Note that Table A18 allows the Wilk-Shapiro test to be used only if $n \leq 50$. For n larger than 50, one may use an extension of this procedure using coefficients given in Table A-8 of Shapiro (1980) or use D'Agostino test (see Gilbert 1987, pages 160-162).

Example 2 - Ecology's Default Procedure to Calculate Gross Beta Background Value. In this example, gross beta activity levels (pCi/l) from the 42 wells in the background area were used to illustrate Ecology's default log-normal assumption to calculate a background-based standard. The background data (X_s) was first transformed into Y_s (i.e., $Y = \ln X$) using natural logarithm (see Table A-2-1, last column). Then, Wilk-Shapiro's W -test procedure was applied to the log-transformed values. The denominator, D , of the W -test test statistic is calculated to be 6.6921. The numerator is 6.5232. Hence the test statistic W is $6.5232/6.6921 = 0.9748$. The critical value is 0.942 (from Table A-1-8 of Conover 1980) for a sample size of 42 at 5% level of significance ($\alpha=0.05$). The null hypothesis that the gross beta data from the background area follow a log-normal distribution cannot be rejected at the 5% level because the calculated value of W ($=0.9748$) is greater than the critical value (i.e., 0.942). The W -test result for the gross beta is shown in Table A-2-3.

For a log-normal distribution, the background value is determined to be the 90th percentile if it is lower than 4 times the median value (see Figure 1-2-4). The following formula is used to estimate the p th percentile of a log-normal distribution:

$$Y_p = \bar{Y} + Z_p * s$$

Where $\bar{Y}$ and s are the mean and standard deviation of the log-transformed data respectively and Z_p is the p th quantile of a standard normal distribution. For example, for a 90th percentile, $Z_{90}=1.282$ and for a 50th percentile (median), the corresponding Z_p value is 0.

Substituting $\bar{Y}=1.6805$, $s=0.4040$, and $Z_{90}=1.282$ into above equation, $Y_{90} = 1.6805 + 1.282*0.4040 = 2.1984$ (in unit of $\ln$ pCi/l). Hence, the 90th percentile is estimated to be $X_{90}=e^{2.1984}=9.01$ (pCi/l).

Similarly, $Y_{50}=1.6805$ ($\ln$ pCi/l) and the 50th percentile (original scale) is estimated to be $X_{50}=e^{1.6805}=5.3682$ (pCi/l). The use of the estimated 90th percentile as background value is subject to the constraint that the 90th percentile is smaller than 4 times the median value (see Figure A-2-4).

For gross beta, $X_{90}=9.01 < 4*5.3682=21.473$ (pCi/l). The background value is calculated to be 9.01 pCi/l.

Table A-2-3. The Wilk-Shapiro W-Test Result Using log Gross Beta Data From the Background Area.

Rank ^a (i)	Coefficient a_i^b	$Y_{(i)}^c$	$Y_{(n-i+1)}^c$	Difference ^d	$a_i \cdot \text{Diff}^e$
1	0.3917	0.9163	2.8904	1.9741	0.7732
2	0.2701	0.9555	2.3979	1.4424	0.3896
3	0.2345	1.0296	2.2865	1.2568	0.2947
4	0.2085	1.1632	2.2824	1.1192	0.2334
5	0.1874	1.2809	2.0980	0.8171	0.1531
6	0.1694	1.3083	2.0919	0.7835	0.1327
7	0.1535	1.3350	2.0605	0.7255	0.1114
8	0.1392	1.3350	2.0541	0.7191	0.1001
9	0.1259	1.3610	2.0149	0.6539	0.0823
10	0.1136	1.3987	1.9879	0.5892	0.0669
11	0.1020	1.3987	1.9601	0.5614	0.0573
12	0.0909	1.4110	1.9459	0.5349	0.0486
13	0.0804	1.4351	1.8820	0.4469	0.0359
14	0.0701	1.5041	1.8641	0.3600	0.0252
15	0.0602	1.5261	1.8405	0.3145	0.0189
16	0.0506	1.5261	1.8165	0.2904	0.0147
17	0.0411	1.5369	1.7405	0.2036	0.0084
18	0.0318	1.5476	1.7047	0.1572	0.0050
19	0.0227	1.5892	1.6677	0.0785	0.0018
20	0.0136	1.5892	1.6292	0.0400	0.0005
21	0.0045	1.5892	1.6292	0.0400	0.0002
				Sum =	2.5541
				Sum ² =	6.5232
				Denominator ^f =	6.69
				W = (Sum ² /Denom.)	0.9748

^aRank of the data.^bCoefficients from Table A-1-7 of Conover (1980).^cOrdered data, for $i=1$, $Y_{(1)}$ is the smallest datum, $Y_{(n-i+1)}$ is the largest data based on the natural logarithms^dFor $i=1$, Difference = $Y_{(n-i+1)} - Y_{(i)} = Y_{(n)} - Y_{(1)}$.^eThis column is the product of a_i and the difference column.^fSee Table A-2-1.

In the above example, the WAC 173-200 standard (50 pCi/l) would be used because the background value is lower than the standard. The case where a water quality or groundwater protection standard is lower than the natural background is considered in Example 3.

Example 3 - Ecology's Alternative Procedure to Establish Arsenic Background Value. This example illustrates how to establish a background value under Ecology's alternative procedure (Ecology has to be consulted). The background data set consists of arsenic data from 42 wells across the Hanford Site (see Table A-2-1). The first step is to perform the Wilk-Shapiro's W-test on the log-transformed arsenic data. The test statistic, $W=0.931$, is smaller than the critical value of 0.942 (for $n=42$ and $\alpha=0.05$). The assumption of a log-normal distribution is rejected at $\alpha=0.05$. The W-test result is shown in Table A-2-4.

The next step (see Figure A-2-4) is to perform the Wilk-Shapiro W-test on the original data (in units of ppb). The test statistic, $W=0.894$, is smaller than the critical value of 0.942. The assumption of a normal distribution is also rejected at $\alpha=0.05$. The W-test result is presented in Table A-2-5.

If the background data set is neither log-normally nor normally distributed, a nonparametric method (requiring consultation with Ecology), which does not require the data to fit any particular distribution type, should be used (see Figure A-2-4). Example 3 illustrates the use of a non-parametric procedure to estimate a 90th percentile as a background value. The use of the 90th percentile is selected based on the following supporting evidence:

- The degree of departure from a log-normal distribution is not great. This is demonstrated by the W-test test statistic (on the log-transformed data) of 0.931, which is very close to the critical value of 0.942. Using the default procedure, the arsenic background value is estimated to be 8.91 ppb.
- The coefficient of variation based on the best fit log-normal distribution is close to 1 (0.996) indicating that the background arsenic case is highly skewed.
- The number of background samples is relatively large (i.e., data from 42 wells).

Assuming that Ecology agrees with the above rationale for the use of a 90th percentile, the following steps illustrate how to obtain a non-parametric estimate of the pth percentile:

(1) Sort the data from the smallest to the largest, and rank them from 1 (the smallest) to n (the largest), where n is the total number of samples in a data set. Data points with the same value (i.e., ties) should be ordered consecutively, and each data point assigned its own rank.

Table A-2-4. The Wilk-Shapiro W-Test Result Using log Arsenic Data From the Background Area.

Rank ^a (i)	Coefficient a_i^b	$Y_{(i)}^c$	$Y_{(n-i+1)}^c$	Difference ^d	$a_i * \text{Diff}^e$
1	0.3917	-0.6931	2.6027	3.2958	1.2910
2	0.2701	0.0000	2.3979	2.3979	0.6477
3	0.2345	0.0000	2.3026	2.3026	0.5400
4	0.2085	0.0000	2.0794	2.0794	0.4336
5	0.1874	0.0000	2.0794	2.0794	0.3897
6	0.1694	0.0000	1.9459	1.9459	0.3296
7	0.1535	0.0000	1.9459	1.9459	0.2987
8	0.1392	0.0000	1.8871	1.8871	0.2627
9	0.1259	0.0000	1.8718	1.8718	0.2357
10	0.1136	0.0000	1.7918	1.7918	0.2035
11	0.1020	0.2877	1.7918	1.5041	0.1534
12	0.0909	0.6931	1.7918	1.0986	0.0999
13	0.0804	0.6931	1.7918	1.0986	0.0883
14	0.0701	0.6931	1.7047	1.0116	0.0709
15	0.0602	1.0986	1.6094	0.5108	0.0308
16	0.0506	1.0986	1.5404	0.4418	0.0224
17	0.0411	1.0986	1.3863	0.2877	0.0118
18	0.0318	1.0986	1.3863	0.2877	0.0091
19	0.0227	1.0986	1.3863	0.2877	0.0065
20	0.0136	1.0986	1.3863	0.2877	0.0039
21	0.0045	1.0986	1.0986	0.0000	0.0000
				Sum =	5.1291
				Sum ² =	26.308
				Denominator ^f =	28.26
				W =	0.9311

^aRank of the data.^bCoefficients from Table A17 of Conover (1980).^cOrdered data, for $i=1$, $Y_{(1)}$ is the smallest datum, $Y_{(n-i+1)}$ is the largest data based on natural logarithms.^dFor $i=1$, Difference = $Y_{(n-i+1)} - Y_{(i)} = Y_{(n)} - Y_{(1)}$.^eThis column is the product of a_i and the difference column.^fSee Table A-2-1.

Table A-2-5. The Wilk-Shapiro W-Test Result Using Arsenic (Original Scale) Data From the Background Area.

Rank ^a (i)	Coefficient a_i ^b	$X_{(i)}$ ^c	$X_{(n-i+1)}$ ^c	Difference ^d	$a_i \cdot \text{Diff}^e$
1	0.3917	0.5	13.5	13.0	5.0921
2	0.2701	1.0	11.0	10.0	2.7010
3	0.2345	1.0	10.0	9.0	2.1105
4	0.2085	1.0	8.0	7.0	1.4595
5	0.1874	1.0	8.0	7.0	1.3118
6	0.1694	1.0	7.0	6.0	1.0164
7	0.1535	1.0	7.0	6.0	0.9210
8	0.1392	1.0	6.6	5.6	0.7795
9	0.1259	1.0	6.5	5.5	0.6925
10	0.1136	1.0	6.0	5.0	0.5680
11	0.1020	1.3	6.0	4.7	0.4760
12	0.0909	2.0	6.0	4.0	0.3636
13	0.0804	2.0	6.0	4.0	0.3216
14	0.0701	2.0	5.5	3.5	0.2454
15	0.0602	3.0	5.0	2.0	0.1204
16	0.0506	3.0	4.7	1.7	0.0843
17	0.0411	3.0	4.0	1.0	0.0411
18	0.0318	3.0	4.0	1.0	0.0318
19	0.0227	3.0	4.0	1.0	0.0227
20	0.0136	3.0	4.0	1.0	0.0136
21	0.0045	3.0	3.0	0.0	0.0000
				Sum =	18.3728
				Sum ² =	337.5581
				Denominator ^f =	377.57
				W = (Sum ² /Denom.)	0.8940

^aRank of the data.^bCoefficients from Table A17 of Conover (1980).^cOrdered data, for $i=1$, $X_{(i)}$ is the smallest datum, $X_{(n-i+1)}$ is the largest data based on original scale.^dFor $i=1$, Difference = $X_{(n-i+1)} - X_{(i)} = X_{(n)} - X_{(1)}$.^eThis column is the product of a_i and the difference column.^fSee Table A-2-1.

(2) Estimate v by

$$v = p*(n+1)/100$$

where v is the rank of the p th percentile data.

(3) If v is an integer, then the p th percentile is simply the v th ranked datum in the sorted data set. If v is not an integer, then the p th percentile must be obtained by linear interpolation between the two closed order statistics.

In the arsenic case, the data are sorted from the smallest to the largest based on the original measurement scale (ppb). Next, v is estimated to be $90*(42+1)/100 = 38.7$. The 90th percentile is estimated by linear interpolation between the 38th and 39th datum point in the sorted data set. The 38th and 39th datum point both have arsenic value of 8 ppb. Hence the 38.7th datum point is also 8 ppb. Using this alternative procedure, the arsenic background value is estimated to be 8 ppb (assume Ecology's concurrence).

The Method A cleanup standard for arsenic in groundwater is 5 ug/l (or 5 ppb) [WAC 173-340-720(2)(a)(i)] and the risk-based groundwater protection standard for arsenic in groundwater is 0.05 ug/l (or 0.05 ppb) [WAC 173-200-040(2)(c)]. The estimated natural background level ranges from 8 ppb (based on non-parametric procedure) to 8.91 ppb (based on the default procedure), which is about 1.6 to 1.8 times higher than the Method A cleanup standard and about 160 to 180 times higher than the WAC 173-200 groundwater protection standard (risk-based standard or Method B cleanup standard). In this situation, natural background can be used to replace an existing Method A (i.e., 5 ppb) or Method B (i.e., 0.05 ppb) when that standard is below the natural background level [WAC 173-340-700(4)(d)].

Other Considerations. Background groundwater concentrations, as well as onsite concentrations, may vary substantially over time (seasonal variations or trends), over space (spatial variations), and/or may be serially correlated (autocorrelation). If temporal and spatial variations are present in the data, they must be carefully accounted for in the sampling design as well as in the statistical evaluation process. A model that considers seasonal pattern and autocorrelation structure in the data is provided in the U. S. Environmental Protection Agency (EPA) document (EPA 1988).

A-2.4 COMPLIANCE MONITORING

In this section, Ecology's requirements with regard to compliance with groundwater cleanup standards are described first. An evaluation of Ecology's methods to assess the attainment of cleanup standards is discussed second.

Comparison of Site Data to Standards Using Ecology's Statistical Guidance Document (Ecology 1992). The following are Ecology's requirements with regard to compliance with groundwater cleanup levels.

- Compliance with a cleanup standard shall be determined for each monitoring well (WAC 173-340-720[8][c][iv]).

- For cleanup levels based on short-term or acute toxic effects on human health or the environment, an upper percentile concentration shall be used to evaluate compliance with groundwater cleanup levels (WAC 173-340-720[8][c][v][A]).
- For cleanup levels based on chronic or carcinogenic threats, the mean concentration shall be used to evaluate compliance with groundwater cleanup levels unless there are large variations in concentrations relative to the mean concentration or a large percentage of concentrations below the detection limit (WAC 173-340-720[8][c][v][B]).

Therefore, the confidence interval approach should be used for cleanup levels based on chronic or carcinogenic effects, and the tolerance interval approach should be used for cleanup levels based on short-term or acute toxic effects. Additionally, other statistical methods approved by Ecology are also acceptable (WAC 173-340-720[8][d][iii]).

The confidence interval and tolerance interval methods should not be performed on data that cannot be approximated by a normal or log-normal distribution. A non-parametric method should be used for such types of data.

In addition to comparing site data to the cleanup standard, there are two other requirements that must be met before a site can be determined to be clean (WAC 173-340-720[8][e] and [f]).

- No single sample concentration shall be greater than 2 times the groundwater cleanup level.
- Less than 10% of the sample concentrations shall exceed the groundwater cleanup level during a representative sampling period.

For background-based standards, adjustments to these criteria should be considered (see Figure A-2-5). Table A-2-6 provides a summary of Ecology's requirements in calculating a value for assessing compliance with a groundwater cleanup standard.

Evaluation and Discussion of Ecology's Method in Assessing the Attainment of Cleanup Standards. Ecology has stated that "Once a numerical cleanup standard has been selected, whether based on risk-equivalent concentrations, ARARs, ecologically protective levels, natural or area backgrounds, or other criteria, the evaluation of compliance monitoring data with respect to the cleanup standard proceeds in exactly the same way. The fact that a numerical cleanup standard has been derived based on background data does not affect the types of evaluations of compliance monitoring data." It is also stated that "In all cases, a single numerical value is obtained for the cleanup standard, to which site data can be compared," (Ecology 1992). In our opinion, the process of evaluating compliance data depends on whether the standard is background-based for the reasons that follow.

Figure A-2-5. Flowchart Overview for Determining that Groundwater at a Site Meets a Background-Based Cleanup Standard--Modified after Ecology 1992.

* For cleanup standards not based on background, no more than 10% of compliance monitoring samples can exceed the standard.

** For cleanup standards not based on background, no single sample concentration can exceed two times the cleanup level.

¹ UCL = Upper Confidence Limit

Note: If Lognormal cv > 0.5 , see attachment 2 of WDOE (1992) for determining a maximum exceedance factor.

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Table A-2-6. Summary of How to Calculate a Value for Comparison
With a Cleanup Standard^b.
Source: Ecology (1992)

Site Data Distribution	Toxic Effects	Groundwater
Log-normal (Default)	Chronic	Upper 95% confidence limit (CL) using Land's method (see Gilbert 1987, page 170)
	Short Term/Acute	Upper 95% tolerance limit (TL) on the 50th percentile (median)
Normal	Chronic	Upper 95% CL on mean
	Short Term/Acute	Upper 95% CL on mean
Neither Log-normal nor Normal (n≤20)	Chronic	<ul style="list-style-type: none"> Upper 95% TL (non-parametric) on site-specific percentile^a using procedure described in Conover (1980, page 112) May consider obtaining additional samples
	Short Term/Acute	<ul style="list-style-type: none"> Upper 95% TL on median May consider obtaining additional samples
	Chronic	<ul style="list-style-type: none"> Upper 95% CL on site-specific percentile^a Upper 95% CL using large sample approximation based on the central limit theorem^a
	Short Term/Acute	Upper 95% CL on median
(n>20)		

^aRequires consultation with Ecology.

^bAdditional Requirements: When cleanup standard is not based on background, other compliance criteria are:

- No single value more than twice the cleanup standard; and
- No more than 10% of values greater than cleanup standard.

When a cleanup standard is based on background, different criteria may apply (see Figure A-2-5).

- The hypothesis is an assumption about a property or characteristic of a population under study. Before a statistical test is performed, it is necessary to clearly specify the null hypothesis and the alternative hypothesis. The goal of the statistical inference is to decide which of the two complementary hypotheses is likely to be true.
- The null hypothesis that contaminant concentrations at the site exceed the cleanup level (i.e., the site is "dirty") and the alternative hypothesis that the site is "clean" are appropriate for comparison with risk-based standards or in such case that the site is known to be contaminated. However, when the cleanup standards are background-based, the hypotheses should be the reverse of those given.
- When the standards are based on risks, ARARs, ecologically protective levels, etc., the statistical test is a one-sample case (i.e., evaluating the site data vs. a constant or a fixed value). However, when the standards are based on background, the statistical test is a two-sample case (i.e., evaluating the site data vs. background data).
- In order to define a statistical test to determine if the contaminant concentrations in groundwater well(s) attain the cleanup standard, the characteristic of the concentrations to be compared to the cleanup standard must be specified. For example, if this characteristic is determined to be a mean (or median) concentration, a statistical tests on the mean (or median) can be designed and carried out. When this characteristic is determined to be a specified percentile, a statistical test on percentile can be performed.
- The use of a single numerical value as a background-based cleanup standard discards important information. Background for a particular constituent of concern should be considered as a statistical distribution of concentration levels. To treat these background-based standards as constants (known without error) may result in excessive or unnecessary remediation (Gilbert and Simpson 1990).

Hence, whether the standard is based on background affects not only the way the hypotheses are stated but also the statistical tests (one-sample test or two-sample test) to be performed.

After groundwater at a CERCLA/RCRA site has been remediated, it is necessary to determine whether the remediation effort has been successful (i.e., verification of cleanup). This determination should be statistically based, using appropriate sampling designs and tests. Appropriate statistical tests may include the Wilcoxon Rank Sum (WRS) and/or Quantile test depending on the types of contamination scenarios (Gilbert and Simpson 1990). If the remediation action has "uniformly" reduced contamination levels, but not to background levels, the WRS test should be used because it has greater power than the Quantile test. However, if most of the cleanup unit has been remediated to background levels and only a few "hot spots" remain, the Quantile test is preferred. Additionally, if more than 40% of the background samples are non-detects, the Quantile test should be used. Procedures to carry out the WRS test and the Quantile test are in Gilbert and Simpson (1990).

Another approach to test the attainment of background-based cleanup standards is to (1) treat background threshold values (90th percentile for a log-normal distribution, 80th percentile for a normal distribution, etc.) as known constants (known without error) and (2) use compliance sampling or acceptance sampling tests. However, the drawback is that the α level will be greater than specified, say 5%, when assuming the parameter is a constant (see Gilbert and Simpson 1990). Excessive or unnecessary remediation may result in such cases. For this reason, using a threshold value as if it were a constant is not recommended for attainment testing (Gilbert and Simpson 1990).

A-2.5 ISSUES RELATED TO THE ASSESSMENT OF GROUNDWATER CLEANUP ATTAINMENT.

The Contaminants to Be Tested. In general, contaminants will be identified at the site prior to remedial action. Because of physical, chemical, and biological changes in soil and groundwater, a few chemicals should be selected as indicators or primary contaminants to assess the attainment of cleanup standards. The criteria for selecting these indicator parameters may depend on factors such as expected concentrations, association with other chemicals, cost of analytical analysis, detection limits, and the presence of off-site upgradient sources of contaminants. Decisions on which chemicals are to be used to assess attainment should be based on expert knowledge of the site and its groundwater. Inclusion of all potential contaminants in assessing attainment is ineffective (i.e., very poor power) and costly. It should also be noted that in order to actually apply cleanup standards to groundwater remediation at the Hanford Site, it may be necessary to begin with the most upgradient source(s). Thus an integrated, site-wide approach to remediation would be needed.

The Time Period for Assessing Attainment. Concentrations of constituents of concern in groundwater are measured from samples collected from wells at specified times. For assessing the attainment of groundwater cleanup standards, the period of time over which sampling occurs must be carefully selected. Clearly, if there are unidentified present or future sources of contamination, the groundwater (even if it is clean now) may be contaminated sometime in the future. For example, upgradient plumes could migrate into an area that has been remediated. In the absence of other sources of contamination, groundwater that has attained the cleanup standard should continue to attain the standard. If the future conditions at the site are likely to be similar to the current conditions, it may be reasonable to conclude that future concentrations will be similar to the concentrations found in the sample. However, followup monitoring is needed to determine if there may be some unexpected problems. At least 1 or 2 years of quarterly followup monitoring may be needed for this purpose. However, the length of the period for followup monitoring has to be negotiated.

Assessing Wells Individually or Testing Wells As a Group. There are two ways to judge the attainment of the groundwater cleanup standards: (1) assess each well individually (i.e., make a separate attainment decision for each well), concluding that the groundwater at the site attains the cleanup standard only if the groundwater in each well attains the cleanup standard, and (2) assess all wells as a group.

Individual well comparison is required under MTCA [WAC 173-340-720(8)(c)(iv)]. However, as more wells and more chemicals are tested, the overall Type I error (false positive) rate will increase, resulting in a non-

attainment decision. For example, if a particular site has 10 monitoring wells and 4 contaminants of concern, there are 40 comparisons (10 wells x 4 chemicals) to be made. Using a 5% Type I error rate for each individual comparison, the probability of failing at least one in the 40 statistical comparisons is:

$$1 - (1 - 0.05)^{40} = 1 - 0.1285 = 0.87$$

Hence, the overall false positive rate is about 87%. This means that when the site is clean (the true state of nature), the probability of making at least one error (i.e., indication of a non-attainment decision) is about 87%. When the number of comparisons is 100 (say 20 wells and 5 chemicals), the overall false positive rate is more than 99%. One possible remedy is to use Bonferroni's inequality, substituting α by α/k , where k is the number of comparisons to be made when calculating the CL on means (or medians). Another possible remedy is to assess wells as a group and perform statistical tests (such as parametric or non-parametric Analysis of Variance, WRS test, Quantile test, etc.) Finally, in case of an initial exceedance and/or statistical significant test result, verification sampling must be allowed.

The above considerations emphasize the importance of choosing an appropriate statistical test early in the planning stage for groundwater cleanup or corrective actions.

Less-Than Values. If more than 50% of the values for a constituent of interest in the background data set are below detection, a test of proportions, as described in EPA (1989), is recommended. However, it should be noted that the test of proportions is based on the normal approximation to the binomial distribution. Otherwise, an exact procedure as described by Nelson (1982) should be used. In order for a test based on the normal approximation to give reasonably accurate results, the following conditions must be met:

$$n_1 p_1 > 5 \text{ and } n_2 p_2 > 5$$

where: n_1 and n_2 are sample sizes for the background and waste site data sets, respectively, and p_1 and p_2 are the proportions of samples above detection limits in the background and waste site data sets, respectively.

A-2.6 SUMMARY AND CONCLUSIONS

Results of the application of Ecology guidance to the arsenic test case and associated discussion suggest that use of the guidance could result in unnecessary groundwater remediation. For this reason, development of alternative site-specific guidance for Hanford is warranted. This will involve consideration of spatial variability of natural background and will require acquisition of background data from additional locations.

To effectively collect and utilize groundwater monitoring data in the four programmatic areas at the Hanford Site, the background region should be selected from area(s) free from contamination and similar to the test site in physical, chemical, or biological characteristics. Furthermore, concentrations of chemicals in groundwater vary considerably depending on factors such as soil characteristics, proximity to recharge and discharge areas, and flow rates. Therefore, background must be considered as a

statistical distribution of concentration levels, rather than a single concentration.

The values listed in Table A-1-2 should be used only for preliminary screening purposes. Constituent concentrations at a specific site can be visually compared to these values. If they appear to be outside the range of naturally occurring concentrations indicated in Table A-1-2, a more detailed evaluation is recommended using the complete background data set for constituent of concern. Appropriate statistical tests include Wilcoxon rank sum test, Quantile test, hot spot comparisons, and Kolmogorov-Smirnov types of tests.

When making contamination and/or remediation decisions about a waste site, all available information must be used. In addition to statistical test procedures, geochemical and hydrologic considerations are integral parts of the decision process. A phased approach, as shown in Figure A-2-6, is recommended. The phases proceed from simple to the more complex, and from an overview to detailed analysis. All phases should be completed and evaluated before a decision is reached. Work is in progress toward this approach.

Figure A-2-6. A Phased Approach to Contamination/Remediation Decisions.

^aConsensus Among DOE, WHC, EPA, and Ecology (Work in Progress)

^bEcology Allows a 20% Exceedance of Background Based Standards

^cIf More than 50% of the Samples in the Background Data Set are Below the Limit of Detection

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APPENDIX A REFERENCES

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APPENDIX B: CONTAMINANT PLUME DATA LISTING

This appendix consists of Table B-1 (pages B-1 through B-118), which provides a complete well-by-well listing of the data used for the interpretive plume maps presented in the main body of this report. The analytical results are tabulated as constituent averages over the period of 1988 through 1992. All data were obtained from the Hanford Groundwater Data Base.

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Constituent	Well	Average of Result	D.L.	Units
Arsenic, filtered	2-E13-14	5	5.0	PPB
Arsenic, filtered	2-E13-5	5	5.0	PPB
Arsenic, filtered	2-E17-1	6	5.0	PPB
Arsenic, filtered	2-E17-12	7	5.0	PPB
Arsenic, filtered	2-E17-13	8	5.0	PPB
Arsenic, filtered	2-E17-14	7	5.0	PPB
Arsenic, filtered	2-E17-15	7	5.0	PPB
Arsenic, filtered	2-E17-16	9	5.0	PPB
Arsenic, filtered	2-E17-17	6	5.0	PPB
Arsenic, filtered	2-E17-18	10	5.0	PPB
Arsenic, filtered	2-E17-19	6	5.0	PPB
Arsenic, filtered	2-E17-20	7	5.0	PPB
Arsenic, filtered	2-E17-5	7	5.0	PPB
Arsenic, filtered	2-E17-6	5	5.0	PPB
Arsenic, filtered	2-E17-9	13	5.0	PPB
Arsenic, filtered	2-E18-1	5	5.0	PPB
Arsenic, filtered	2-E18-2	5	5.0	PPB
Arsenic, filtered	2-E18-3	12	5.0	PPB
Arsenic, filtered	2-E18-4	10	5.0	PPB
Arsenic, filtered	2-E24-16	9	5.0	PPB
Arsenic, filtered	2-E24-17	10	5.0	PPB
Arsenic, filtered	2-E24-18	7	5.0	PPB
Arsenic, filtered	2-E24-19	8	5.0	PPB
Arsenic, filtered	2-E24-2	11	5.0	PPB
Arsenic, filtered	2-E24-20	9	5.0	PPB
Arsenic, filtered	2-E25-11	7	5.0	PPB
Arsenic, filtered	2-E25-18	10	5.0	PPB
Arsenic, filtered	2-E25-19	8	5.0	PPB
Arsenic, filtered	2-E25-20	8	5.0	PPB
Arsenic, filtered	2-E25-21	12	5.0	PPB
Arsenic, filtered	2-E25-22	9	5.0	PPB
Arsenic, filtered	2-E25-23	20	5.0	PPB
Arsenic, filtered	2-E25-24	16	5.0	PPB
Arsenic, filtered	2-E25-25	5	5.0	PPB
Arsenic, filtered	2-E25-26	6	5.0	PPB
Arsenic, filtered	2-E25-27	6	5.0	PPB
Arsenic, filtered	2-E25-28	9	5.0	PPB
Arsenic, filtered	2-E25-29P	12	5.0	PPB
Arsenic, filtered	2-E25-30P	24	5.0	PPB
Arsenic, filtered	2-E25-31	9	5.0	PPB
Arsenic, filtered	2-E25-32P	5	5.0	PPB
Arsenic, filtered	2-E25-33	11	5.0	PPB
Arsenic, filtered	2-E25-34	8	5.0	PPB
Arsenic, filtered	2-E25-35	11	5.0	PPB
Arsenic, filtered	2-E25-36	9	5.0	PPB
Arsenic, filtered	2-E25-37	6	5.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Arsenic, filtered	2-E25-38	10	5.0	PPB
Arsenic, filtered	2-E25-39	5	5.0	PPB
Arsenic, filtered	2-E25-40	11	5.0	PPB
Arsenic, filtered	2-E25-41	9	5.0	PPB
Arsenic, filtered	2-E25-42	6	5.0	PPB
Arsenic, filtered	2-E25-43	8	5.0	PPB
Arsenic, filtered	2-E26-10	9	5.0	PPB
Arsenic, filtered	2-E26-11	6	5.0	PPB
Arsenic, filtered	2-E26-12	8	5.0	PPB
Arsenic, filtered	2-E26-13	10	5.0	PPB
Arsenic, filtered	2-E26-9	7	5.0	PPB
Arsenic, filtered	2-E27-10	7	5.0	PPB
Arsenic, filtered	2-E27-11	8	5.0	PPB
Arsenic, filtered	2-E27-12	8	5.0	PPB
Arsenic, filtered	2-E27-13	9	5.0	PPB
Arsenic, filtered	2-E27-14	9	5.0	PPB
Arsenic, filtered	2-E27-15	8	5.0	PPB
Arsenic, filtered	2-E27-16	15	5.0	PPB
Arsenic, filtered	2-E27-7	7	5.0	PPB
Arsenic, filtered	2-E27-8	8	5.0	PPB
Arsenic, filtered	2-E27-9	8	5.0	PPB
Arsenic, filtered	2-E28-13	5	5.0	PPB
Arsenic, filtered	2-E28-18	5	5.0	PPB
Arsenic, filtered	2-E28-21	5	5.0	PPB
Arsenic, filtered	2-E28-23	5	5.0	PPB
Arsenic, filtered	2-E28-26	5	5.0	PPB
Arsenic, filtered	2-E28-27	6	5.0	PPB
Arsenic, filtered	2-E28-28	5	5.0	PPB
Arsenic, filtered	2-E32-1	5	5.0	PPB
Arsenic, filtered	2-E32-2	6	5.0	PPB
Arsenic, filtered	2-E32-3	5	5.0	PPB
Arsenic, filtered	2-E32-4	5	5.0	PPB
Arsenic, filtered	2-E32-5	5	5.0	PPB
Arsenic, filtered	2-E33-1	7	5.0	PPB
Arsenic, filtered	2-E33-13	7	5.0	PPB
Arsenic, filtered	2-E33-14	8	5.0	PPB
Arsenic, filtered	2-E33-15	8	5.0	PPB
Arsenic, filtered	2-E33-18	8	5.0	PPB
Arsenic, filtered	2-E33-21	8	5.0	PPB
Arsenic, filtered	2-E33-24	8	5.0	PPB
Arsenic, filtered	2-E33-26	8	5.0	PPB
Arsenic, filtered	2-E33-28	8	5.0	PPB
Arsenic, filtered	2-E33-29	7	5.0	PPB
Arsenic, filtered	2-E33-3	8	5.0	PPB
Arsenic, filtered	2-E33-30	6	5.0	PPB
Arsenic, filtered	2-E33-31	8	5.0	PPB
Arsenic, filtered	2-E33-32	9	5.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Arsenic, filtered	2-E33-33	10	5.0	PPB
Arsenic, filtered	2-E33-34	8	5.0	PPB
Arsenic, filtered	2-E33-35	7	5.0	PPB
Arsenic, filtered	2-E33-36	11	5.0	PPB
Arsenic, filtered	2-E33-37	11	5.0	PPB
Arsenic, filtered	2-E33-38	6	5.0	PPB
Arsenic, filtered	2-E33-39	6	5.0	PPB
Arsenic, filtered	2-E33-4	8	5.0	PPB
Arsenic, filtered	2-E33-41	9	5.0	PPB
Arsenic, filtered	2-E33-42	10	5.0	PPB
Arsenic, filtered	2-E33-43	9	5.0	PPB
Arsenic, filtered	2-E33-5	6	5.0	PPB
Arsenic, filtered	2-E33-7	8	5.0	PPB
Arsenic, filtered	2-E33-8	9	5.0	PPB
Arsenic, filtered	2-E34-1	3	5.0	PPB
Arsenic, filtered	2-E34-2	6	5.0	PPB
Arsenic, filtered	2-E34-3	7	5.0	PPB
Arsenic, filtered	2-E34-5	6	5.0	PPB
Arsenic, filtered	2-E34-6	5	5.0	PPB
Arsenic, filtered	2-E34-7	6	5.0	PPB
Arsenic, filtered	2-E34-8	10	5.0	PPB
Arsenic, filtered	2-E35-1	5	5.0	PPB
Arsenic, filtered	2-E35-2	9	5.0	PPB
Arsenic, filtered	2-W10-13	5	5.0	PPB
Arsenic, filtered	2-W10-14	5	5.0	PPB
Arsenic, filtered	2-W10-15	6	5.0	PPB
Arsenic, filtered	2-W10-16	5	5.0	PPB
Arsenic, filtered	2-W10-17	11	5.0	PPB
Arsenic, filtered	2-W10-18	5	5.0	PPB
Arsenic, filtered	2-W10-4	6	5.0	PPB
Arsenic, filtered	2-W10-9	16	5.0	PPB
Arsenic, filtered	2-W11-23	5	5.0	PPB
Arsenic, filtered	2-W14-10	5	5.0	PPB
Arsenic, filtered	2-W14-2	5	5.0	PPB
Arsenic, filtered	2-W14-5	5	5.0	PPB
Arsenic, filtered	2-W14-6	5	5.0	PPB
Arsenic, filtered	2-W15-10	5	5.0	PPB
Arsenic, filtered	2-W15-11	5	5.0	PPB
Arsenic, filtered	2-W15-15	5	5.0	PPB
Arsenic, filtered	2-W15-16	5	5.0	PPB
Arsenic, filtered	2-W15-17	5	5.0	PPB
Arsenic, filtered	2-W15-18	5	5.0	PPB
Arsenic, filtered	2-W15-19	5	5.0	PPB
Arsenic, filtered	2-W15-20	5	5.0	PPB
Arsenic, filtered	2-W15-22	5	5.0	PPB
Arsenic, filtered	2-W15-23	5	5.0	PPB
Arsenic, filtered	2-W15-24	5	5.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Arsenic, filtered	2-W15-4	24	5.0	PPB
Arsenic, filtered	2-W15-7	5	5.0	PPB
Arsenic, filtered	2-W15-8	5	5.0	PPB
Arsenic, filtered	2-W18-15	12	5.0	PPB
Arsenic, filtered	2-W18-21	5	5.0	PPB
Arsenic, filtered	2-W18-22	5	5.0	PPB
Arsenic, filtered	2-W18-23	5	5.0	PPB
Arsenic, filtered	2-W18-24	5	5.0	PPB
Arsenic, filtered	2-W18-25	8	5.0	PPB
Arsenic, filtered	2-W18-26	5	5.0	PPB
Arsenic, filtered	2-W18-5	5	5.0	PPB
Arsenic, filtered	2-W19-11	5	5.0	PPB
Arsenic, filtered	2-W19-13	5	5.0	PPB
Arsenic, filtered	2-W19-15	5	5.0	PPB
Arsenic, filtered	2-W19-16	5	5.0	PPB
Arsenic, filtered	2-W19-18	5	5.0	PPB
Arsenic, filtered	2-W19-19	5	5.0	PPB
Arsenic, filtered	2-W19-20	5	5.0	PPB
Arsenic, filtered	2-W19-21	14	5.0	PPB
Arsenic, filtered	2-W19-23	5	5.0	PPB
Arsenic, filtered	2-W19-24	5	5.0	PPB
Arsenic, filtered	2-W19-25	5	5.0	PPB
Arsenic, filtered	2-W19-26	5	5.0	PPB
Arsenic, filtered	2-W19-27	12	5.0	PPB
Arsenic, filtered	2-W19-28	5	5.0	PPB
Arsenic, filtered	2-W19-29	5	5.0	PPB
Arsenic, filtered	2-W19-3	5	5.0	PPB
Arsenic, filtered	2-W19-31	5	5.0	PPB
Arsenic, filtered	2-W19-32	5	5.0	PPB
Arsenic, filtered	2-W19-9	5	5.0	PPB
Arsenic, filtered	2-W22-1	5	5.0	PPB
Arsenic, filtered	2-W22-20	5	5.0	PPB
Arsenic, filtered	2-W22-21	5	5.0	PPB
Arsenic, filtered	2-W22-22	5	5.0	PPB
Arsenic, filtered	2-W22-39	6	5.0	PPB
Arsenic, filtered	2-W22-40	5	5.0	PPB
Arsenic, filtered	2-W22-41	5	5.0	PPB
Arsenic, filtered	2-W22-42	5	5.0	PPB
Arsenic, filtered	2-W23-10	5	5.0	PPB
Arsenic, filtered	2-W23-11	12	5.0	PPB
Arsenic, filtered	2-W23-13	14	5.0	PPB
Arsenic, filtered	2-W23-14	6	5.0	PPB
Arsenic, filtered	2-W26-10	5	5.0	PPB
Arsenic, filtered	2-W26-12	8	5.0	PPB
Arsenic, filtered	2-W26-6	5	5.0	PPB
Arsenic, filtered	2-W26-7	5	5.0	PPB
Arsenic, filtered	2-W26-8	5	5.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Arsenic, filtered	2-W26-9	8	5.0	PPB
Arsenic, filtered	2-W27-1	5	5.0	PPB
Arsenic, filtered	2-W6-2	5	5.0	PPB
Arsenic, filtered	2-W6-4	5	5.0	PPB
Arsenic, filtered	2-W6-5	5	5.0	PPB
Arsenic, filtered	2-W6-6	5	5.0	PPB
Arsenic, filtered	2-W6-7	5	5.0	PPB
Arsenic, filtered	2-W6-8	5	5.0	PPB
Arsenic, filtered	2-W7-1	5	5.0	PPB
Arsenic, filtered	2-W7-10	5	5.0	PPB
Arsenic, filtered	2-W7-11	5	5.0	PPB
Arsenic, filtered	2-W7-12	5	5.0	PPB
Arsenic, filtered	2-W7-2	5	5.0	PPB
Arsenic, filtered	2-W7-3	5	5.0	PPB
Arsenic, filtered	2-W7-4	5	5.0	PPB
Arsenic, filtered	2-W7-5	5	5.0	PPB
Arsenic, filtered	2-W7-6	5	5.0	PPB
Arsenic, filtered	2-W7-7	5	5.0	PPB
Arsenic, filtered	2-W7-8	5	5.0	PPB
Arsenic, filtered	2-W7-9	5	5.0	PPB
Arsenic, filtered	2-W8-1	5	5.0	PPB
Arsenic, filtered	2-W9-1	5	5.0	PPB
Arsenic, filtered	6-20-39	5	5.0	PPB
Arsenic, filtered	6-23-34	5	5.0	PPB
Arsenic, filtered	6-24-33	5	5.0	PPB
Arsenic, filtered	6-24-34A	5	5.0	PPB
Arsenic, filtered	6-24-34B	5	5.0	PPB
Arsenic, filtered	6-24-34C	5	5.0	PPB
Arsenic, filtered	6-24-35	5	5.0	PPB
Arsenic, filtered	6-24-46	5	5.0	PPB
Arsenic, filtered	6-25-33A	5	5.0	PPB
Arsenic, filtered	6-25-34A	5	5.0	PPB
Arsenic, filtered	6-25-34B	6	5.0	PPB
Arsenic, filtered	6-25-34C	5	5.0	PPB
Arsenic, filtered	6-26-33	5	5.0	PPB
Arsenic, filtered	6-26-34	5	5.0	PPB
Arsenic, filtered	6-26-35A	5	5.0	PPB
Arsenic, filtered	6-26-35C	5	5.0	PPB
Arsenic, filtered	6-29-78	5	5.0	PPB
Arsenic, filtered	6-32-70B	5	5.0	PPB
Arsenic, filtered	6-32-72	5	5.0	PPB
Arsenic, filtered	6-32-77	5	5.0	PPB
Arsenic, filtered	6-34-42	6	5.0	PPB
Arsenic, filtered	6-35-66	5	5.0	PPB
Arsenic, filtered	6-35-70	5	5.0	PPB
Arsenic, filtered	6-36-61A	5	5.0	PPB
Arsenic, filtered	6-37-82A	5	5.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Arsenic, filtered	6-38-70	5	5.0	PPB
Arsenic, filtered	6-39-39	5	5.0	PPB
Arsenic, filtered	6-39-79	5	5.0	PPB
Arsenic, filtered	6-40-40A	5	5.0	PPB
Arsenic, filtered	6-40-40B	5	5.0	PPB
Arsenic, filtered	6-40-62	5	5.0	PPB
Arsenic, filtered	6-42-39A	5	5.0	PPB
Arsenic, filtered	6-42-39B	5	5.0	PPB
Arsenic, filtered	6-42-40A	5	5.0	PPB
Arsenic, filtered	6-42-41	5	5.0	PPB
Arsenic, filtered	6-42-42B	7	5.0	PPB
Arsenic, filtered	6-43-40	5	5.0	PPB
Arsenic, filtered	6-43-41E	5	5.0	PPB
Arsenic, filtered	6-43-41F	6	5.0	PPB
Arsenic, filtered	6-43-41G	5	5.0	PPB
Arsenic, filtered	6-43-42J	13	5.0	PPB
Arsenic, filtered	6-43-43	8	5.0	PPB
Arsenic, filtered	6-43-45	10	5.0	PPB
Arsenic, filtered	6-44-42	13	5.0	PPB
Arsenic, filtered	6-44-43B	7	5.0	PPB
Arsenic, filtered	6-44-64	5	5.0	PPB
Arsenic, filtered	6-45-42	6	5.0	PPB
Arsenic, filtered	6-45-69A	5	5.0	PPB
Arsenic, filtered	6-47-46A	5	5.0	PPB
Arsenic, filtered	6-47-60	6	5.0	PPB
Arsenic, filtered	6-48-50	3	5.0	PPB
Arsenic, filtered	6-48-71	5	5.0	PPB
Arsenic, filtered	6-49-55A	5	5.0	PPB
Arsenic, filtered	6-49-57A	7	5.0	PPB
Arsenic, filtered	6-49-79	5	5.0	PPB
Arsenic, filtered	6-50-53A	3	5.0	PPB
Arsenic, filtered	6-50-85	5	5.0	PPB
Arsenic, filtered	6-52-54	6	5.0	PPB
Arsenic, filtered	6-52-57	3	5.0	PPB
Arsenic, filtered	6-53-47A	5	5.0	PPB
Arsenic, filtered	6-53-55A	3	5.0	PPB
Arsenic, filtered	6-55-50C	5	5.0	PPB
Arsenic, filtered	6-55-55	6	5.0	PPB
Arsenic, filtered	6-55-57	3	5.0	PPB
Arsenic, filtered	6-55-76	5	5.0	PPB
Arsenic, filtered	6-65-72	5	5.0	PPB
Arsenic, filtered	6-65-83	5	5.0	PPB
Arsenic, filtered	6-67-86	5	5.0	PPB
Cesium-137	1-84-2	10	20.0	PCI/L
Cesium-137	1-84-3	10	20.0	PCI/L
Cesium-137	1-84-4	10	20.0	PCI/L
Cesium-137	1-85-1	10	20.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Cesium-137	1-B9-1	10	20.0	PCI/L
Cesium-137	2-E13-14	10	20.0	PCI/L
Cesium-137	2-E13-19	10	20.0	PCI/L
Cesium-137	2-E13-5	10	20.0	PCI/L
Cesium-137	2-E13-8	10	20.0	PCI/L
Cesium-137	2-E16-2	10	20.0	PCI/L
Cesium-137	2-E17-1	10	20.0	PCI/L
Cesium-137	2-E17-12	10	20.0	PCI/L
Cesium-137	2-E17-13	10	20.0	PCI/L
Cesium-137	2-E17-14	10	20.0	PCI/L
Cesium-137	2-E17-15	10	20.0	PCI/L
Cesium-137	2-E17-16	10	20.0	PCI/L
Cesium-137	2-E17-17	10	20.0	PCI/L
Cesium-137	2-E17-18	10	20.0	PCI/L
Cesium-137	2-E17-19	10	20.0	PCI/L
Cesium-137	2-E17-2	10	20.0	PCI/L
Cesium-137	2-E17-20	10	20.0	PCI/L
Cesium-137	2-E17-5	10	20.0	PCI/L
Cesium-137	2-E17-6	10	20.0	PCI/L
Cesium-137	2-E17-8	10	20.0	PCI/L
Cesium-137	2-E17-9	10	20.0	PCI/L
Cesium-137	2-E18-1	10	20.0	PCI/L
Cesium-137	2-E18-2	10	20.0	PCI/L
Cesium-137	2-E18-3	10	20.0	PCI/L
Cesium-137	2-E18-4	10	20.0	PCI/L
Cesium-137	2-E23-1	10	20.0	PCI/L
Cesium-137	2-E24-1	10	20.0	PCI/L
Cesium-137	2-E24-11	10	20.0	PCI/L
Cesium-137	2-E24-12	10	20.0	PCI/L
Cesium-137	2-E24-13	10	20.0	PCI/L
Cesium-137	2-E24-16	10	20.0	PCI/L
Cesium-137	2-E24-17	10	20.0	PCI/L
Cesium-137	2-E24-18	10	20.0	PCI/L
Cesium-137	2-E24-19	10	20.0	PCI/L
Cesium-137	2-E24-2	10	20.0	PCI/L
Cesium-137	2-E24-20	10	20.0	PCI/L
Cesium-137	2-E24-4	10	20.0	PCI/L
Cesium-137	2-E24-7	10	20.0	PCI/L
Cesium-137	2-E24-8	10	20.0	PCI/L
Cesium-137	2-E25-10	10	20.0	PCI/L
Cesium-137	2-E25-11	10	20.0	PCI/L
Cesium-137	2-E25-17	10	20.0	PCI/L
Cesium-137	2-E25-18	10	20.0	PCI/L
Cesium-137	2-E25-19	10	20.0	PCI/L
Cesium-137	2-E25-2	10	20.0	PCI/L
Cesium-137	2-E25-20	10	20.0	PCI/L
Cesium-137	2-E25-21	10	20.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Cesium-137	2-E25-22	10	20.0	PCI/L
Cesium-137	2-E25-23	10	20.0	PCI/L
Cesium-137	2-E25-24	10	20.0	PCI/L
Cesium-137	2-E25-25	10	20.0	PCI/L
Cesium-137	2-E25-26	10	20.0	PCI/L
Cesium-137	2-E25-27	10	20.0	PCI/L
Cesium-137	2-E25-28	10	20.0	PCI/L
Cesium-137	2-E25-29P	10	20.0	PCI/L
Cesium-137	2-E25-30P	10	20.0	PCI/L
Cesium-137	2-E25-31	10	20.0	PCI/L
Cesium-137	2-E25-32P	10	20.0	PCI/L
Cesium-137	2-E25-33	10	20.0	PCI/L
Cesium-137	2-E25-34	10	20.0	PCI/L
Cesium-137	2-E25-35	10	20.0	PCI/L
Cesium-137	2-E25-36	10	20.0	PCI/L
Cesium-137	2-E25-37	10	20.0	PCI/L
Cesium-137	2-E25-39	10	20.0	PCI/L
Cesium-137	2-E25-40	10	20.0	PCI/L
Cesium-137	2-E25-41	10	20.0	PCI/L
Cesium-137	2-E25-6	10	20.0	PCI/L
Cesium-137	2-E25-9	10	20.0	PCI/L
Cesium-137	2-E26-11	10	20.0	PCI/L
Cesium-137	2-E26-6	10	20.0	PCI/L
Cesium-137	2-E26-9	10	20.0	PCI/L
Cesium-137	2-E27-10	10	20.0	PCI/L
Cesium-137	2-E27-11	10	20.0	PCI/L
Cesium-137	2-E27-12	10	20.0	PCI/L
Cesium-137	2-E27-13	10	20.0	PCI/L
Cesium-137	2-E27-14	10	20.0	PCI/L
Cesium-137	2-E27-15	10	20.0	PCI/L
Cesium-137	2-E27-16	10	20.0	PCI/L
Cesium-137	2-E27-5	10	20.0	PCI/L
Cesium-137	2-E27-7	10	20.0	PCI/L
Cesium-137	2-E27-8	10	20.0	PCI/L
Cesium-137	2-E27-9	10	20.0	PCI/L
Cesium-137	2-E28-1	10	20.0	PCI/L
Cesium-137	2-E28-12	10	20.0	PCI/L
Cesium-137	2-E28-13	10	20.0	PCI/L
Cesium-137	2-E28-18	10	20.0	PCI/L
Cesium-137	2-E28-21	10	20.0	PCI/L
Cesium-137	2-E28-23	1328	20.0	PCI/L
Cesium-137	2-E28-24	112	20.0	PCI/L
Cesium-137	2-E28-25	247	20.0	PCI/L
Cesium-137	2-E28-26	10	20.0	PCI/L
Cesium-137	2-E28-27	10	20.0	PCI/L
Cesium-137	2-E28-28	10	20.0	PCI/L
Cesium-137	2-E28-7	10	20.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Cesium-137	2-E32-1	10	20.0	PCI/L
Cesium-137	2-E32-2	10	20.0	PCI/L
Cesium-137	2-E32-3	10	20.0	PCI/L
Cesium-137	2-E32-4	10	20.0	PCI/L
Cesium-137	2-E32-5	10	20.0	PCI/L
Cesium-137	2-E33-1	10	20.0	PCI/L
Cesium-137	2-E33-13	10	20.0	PCI/L
Cesium-137	2-E33-14	10	20.0	PCI/L
Cesium-137	2-E33-15	10	20.0	PCI/L
Cesium-137	2-E33-18	10	20.0	PCI/L
Cesium-137	2-E33-21	10	20.0	PCI/L
Cesium-137	2-E33-24	10	20.0	PCI/L
Cesium-137	2-E33-26	10	20.0	PCI/L
Cesium-137	2-E33-28	10	20.0	PCI/L
Cesium-137	2-E33-29	10	20.0	PCI/L
Cesium-137	2-E33-3	10	20.0	PCI/L
Cesium-137	2-E33-30	10	20.0	PCI/L
Cesium-137	2-E33-31	10	20.0	PCI/L
Cesium-137	2-E33-32	10	20.0	PCI/L
Cesium-137	2-E33-33	10	20.0	PCI/L
Cesium-137	2-E33-34	10	20.0	PCI/L
Cesium-137	2-E33-35	10	20.0	PCI/L
Cesium-137	2-E33-36	10	20.0	PCI/L
Cesium-137	2-E33-37	10	20.0	PCI/L
Cesium-137	2-E33-38	10	20.0	PCI/L
Cesium-137	2-E33-39	10	20.0	PCI/L
Cesium-137	2-E33-4	10	20.0	PCI/L
Cesium-137	2-E33-41	10	20.0	PCI/L
Cesium-137	2-E33-42	10	20.0	PCI/L
Cesium-137	2-E33-43	10	20.0	PCI/L
Cesium-137	2-E33-5	10	20.0	PCI/L
Cesium-137	2-E33-7	10	20.0	PCI/L
Cesium-137	2-E33-8	10	20.0	PCI/L
Cesium-137	2-E33-9	10	20.0	PCI/L
Cesium-137	2-E34-1	10	20.0	PCI/L
Cesium-137	2-E34-2	10	20.0	PCI/L
Cesium-137	2-E34-3	10	20.0	PCI/L
Cesium-137	2-E34-5	10	20.0	PCI/L
Cesium-137	2-E34-6	10	20.0	PCI/L
Cesium-137	2-E34-7	10	20.0	PCI/L
Cesium-137	2-E34-8	10	20.0	PCI/L
Cesium-137	2-E35-1	10	20.0	PCI/L
Cesium-137	2-W10-1	10	20.0	PCI/L
Cesium-137	2-W10-13	10	20.0	PCI/L
Cesium-137	2-W10-14	10	20.0	PCI/L
Cesium-137	2-W10-15	10	20.0	PCI/L
Cesium-137	2-W10-16	10	20.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Cesium-137	2-W10-17	10	20.0	PCI/L
Cesium-137	2-W10-18	10	20.0	PCI/L
Cesium-137	2-W10-3	10	20.0	PCI/L
Cesium-137	2-W10-4	10	20.0	PCI/L
Cesium-137	2-W10-8	10	20.0	PCI/L
Cesium-137	2-W10-9	10	20.0	PCI/L
Cesium-137	2-W11-11	10	20.0	PCI/L
Cesium-137	2-W11-14	10	20.0	PCI/L
Cesium-137	2-W11-18	10	20.0	PCI/L
Cesium-137	2-W11-23	10	20.0	PCI/L
Cesium-137	2-W11-24	10	20.0	PCI/L
Cesium-137	2-W14-10	10	20.0	PCI/L
Cesium-137	2-W14-2	10	20.0	PCI/L
Cesium-137	2-W14-5	10	20.0	PCI/L
Cesium-137	2-W14-6	10	20.0	PCI/L
Cesium-137	2-W15-10	10	20.0	PCI/L
Cesium-137	2-W15-11	10	20.0	PCI/L
Cesium-137	2-W15-15	10	20.0	PCI/L
Cesium-137	2-W15-16	10	20.0	PCI/L
Cesium-137	2-W15-17	10	20.0	PCI/L
Cesium-137	2-W15-18	10	20.0	PCI/L
Cesium-137	2-W15-19	10	20.0	PCI/L
Cesium-137	2-W15-2	10	20.0	PCI/L
Cesium-137	2-W15-20	10	20.0	PCI/L
Cesium-137	2-W15-22	10	20.0	PCI/L
Cesium-137	2-W15-23	10	20.0	PCI/L
Cesium-137	2-W15-24	10	20.0	PCI/L
Cesium-137	2-W15-3	10	20.0	PCI/L
Cesium-137	2-W15-4	10	20.0	PCI/L
Cesium-137	2-W15-6	10	20.0	PCI/L
Cesium-137	2-W15-7	10	20.0	PCI/L
Cesium-137	2-W15-8	10	20.0	PCI/L
Cesium-137	2-W18-15	10	20.0	PCI/L
Cesium-137	2-W18-17	10	20.0	PCI/L
Cesium-137	2-W18-20	10	20.0	PCI/L
Cesium-137	2-W18-21	10	20.0	PCI/L
Cesium-137	2-W18-22	10	20.0	PCI/L
Cesium-137	2-W18-23	10	20.0	PCI/L
Cesium-137	2-W18-24	10	20.0	PCI/L
Cesium-137	2-W18-25	10	20.0	PCI/L
Cesium-137	2-W18-26	10	20.0	PCI/L
Cesium-137	2-W18-5	10	20.0	PCI/L
Cesium-137	2-W19-1	10	20.0	PCI/L
Cesium-137	2-W19-11	10	20.0	PCI/L
Cesium-137	2-W19-12	10	20.0	PCI/L
Cesium-137	2-W19-13	10	20.0	PCI/L
Cesium-137	2-W19-14	10	20.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Cesium-137	2-W19-15	10	20.0	PCI/L
Cesium-137	2-W19-16	10	20.0	PCI/L
Cesium-137	2-W19-17	10	20.0	PCI/L
Cesium-137	2-W19-18	10	20.0	PCI/L
Cesium-137	2-W19-19	10	20.0	PCI/L
Cesium-137	2-W19-2	10	20.0	PCI/L
Cesium-137	2-W19-20	10	20.0	PCI/L
Cesium-137	2-W19-21	10	20.0	PCI/L
Cesium-137	2-W19-23	10	20.0	PCI/L
Cesium-137	2-W19-24	10	20.0	PCI/L
Cesium-137	2-W19-25	10	20.0	PCI/L
Cesium-137	2-W19-26	10	20.0	PCI/L
Cesium-137	2-W19-27	10	20.0	PCI/L
Cesium-137	2-W19-28	10	20.0	PCI/L
Cesium-137	2-W19-29	10	20.0	PCI/L
Cesium-137	2-W19-3	10	20.0	PCI/L
Cesium-137	2-W19-30	10	20.0	PCI/L
Cesium-137	2-W19-31	10	20.0	PCI/L
Cesium-137	2-W19-32	10	20.0	PCI/L
Cesium-137	2-W19-9	10	20.0	PCI/L
Cesium-137	2-W22-1	10	20.0	PCI/L
Cesium-137	2-W22-10	10	20.0	PCI/L
Cesium-137	2-W22-12	10	20.0	PCI/L
Cesium-137	2-W22-18	10	20.0	PCI/L
Cesium-137	2-W22-2	10	20.0	PCI/L
Cesium-137	2-W22-20	10	20.0	PCI/L
Cesium-137	2-W22-21	10	20.0	PCI/L
Cesium-137	2-W22-22	10	20.0	PCI/L
Cesium-137	2-W22-26	10	20.0	PCI/L
Cesium-137	2-W22-39	10	20.0	PCI/L
Cesium-137	2-W22-40	10	20.0	PCI/L
Cesium-137	2-W22-41	10	20.0	PCI/L
Cesium-137	2-W22-42	10	20.0	PCI/L
Cesium-137	2-W23-1	10	20.0	PCI/L
Cesium-137	2-W23-10	10	20.0	PCI/L
Cesium-137	2-W23-11	10	20.0	PCI/L
Cesium-137	2-W23-13	10	20.0	PCI/L
Cesium-137	2-W23-14	10	20.0	PCI/L
Cesium-137	2-W23-2	10	20.0	PCI/L
Cesium-137	2-W23-3	10	20.0	PCI/L
Cesium-137	2-W23-9	10	20.0	PCI/L
Cesium-137	2-W26-10	10	20.0	PCI/L
Cesium-137	2-W26-12	10	20.0	PCI/L
Cesium-137	2-W26-3	10	20.0	PCI/L
Cesium-137	2-W26-6	10	20.0	PCI/L
Cesium-137	2-W26-7	10	20.0	PCI/L
Cesium-137	2-W27-1	10	20.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Cesium-137	2-W6-1	10	20.0	PCI/L
Cesium-137	2-W6-2	10	20.0	PCI/L
Cesium-137	2-W6-4	10	20.0	PCI/L
Cesium-137	2-W6-5	10	20.0	PCI/L
Cesium-137	2-W6-6	10	20.0	PCI/L
Cesium-137	2-W6-7	10	20.0	PCI/L
Cesium-137	2-W6-8	10	20.0	PCI/L
Cesium-137	2-W7-1	10	20.0	PCI/L
Cesium-137	2-W7-10	10	20.0	PCI/L
Cesium-137	2-W7-11	10	20.0	PCI/L
Cesium-137	2-W7-12	10	20.0	PCI/L
Cesium-137	2-W7-2	10	20.0	PCI/L
Cesium-137	2-W7-3	10	20.0	PCI/L
Cesium-137	2-W7-4	10	20.0	PCI/L
Cesium-137	2-W7-5	10	20.0	PCI/L
Cesium-137	2-W7-6	10	20.0	PCI/L
Cesium-137	2-W7-7	10	20.0	PCI/L
Cesium-137	2-W7-8	10	20.0	PCI/L
Cesium-137	2-W7-9	10	20.0	PCI/L
Cesium-137	2-W8-1	10	20.0	PCI/L
Cesium-137	2-W9-1	10	20.0	PCI/L
Cesium-137	6-20-39	10	20.0	PCI/L
Cesium-137	6-23-34	10	20.0	PCI/L
Cesium-137	6-24-33	10	20.0	PCI/L
Cesium-137	6-24-34A	10	20.0	PCI/L
Cesium-137	6-24-34B	10	20.0	PCI/L
Cesium-137	6-24-34C	10	20.0	PCI/L
Cesium-137	6-24-35	10	20.0	PCI/L
Cesium-137	6-25-34C	10	20.0	PCI/L
Cesium-137	6-28-40P	10	20.0	PCI/L
Cesium-137	6-31-31	10	20.0	PCI/L
Cesium-137	6-31-53B	10	20.0	PCI/L
Cesium-137	6-32-43	10	20.0	PCI/L
Cesium-137	6-32-72	10	20.0	PCI/L
Cesium-137	6-32-77	10	20.0	PCI/L
Cesium-137	6-34-39A	10	20.0	PCI/L
Cesium-137	6-34-41B	10	20.0	PCI/L
Cesium-137	6-34-42	10	20.0	PCI/L
Cesium-137	6-34-51	10	20.0	PCI/L
Cesium-137	6-35-70	10	20.0	PCI/L
Cesium-137	6-35-78A	10	20.0	PCI/L
Cesium-137	6-36-46Q	10	20.0	PCI/L
Cesium-137	6-36-46R	10	20.0	PCI/L
Cesium-137	6-36-61A	10	20.0	PCI/L
Cesium-137	6-37-82A	10	20.0	PCI/L
Cesium-137	6-38-65	10	20.0	PCI/L
Cesium-137	6-38-70	10	20.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Cesium-137	6-39-39	10	20.0	PCI/L
Cesium-137	6-39-79	10	20.0	PCI/L
Cesium-137	6-40-33A	10	20.0	PCI/L
Cesium-137	6-40-62	10	20.0	PCI/L
Cesium-137	6-42-40A	10	20.0	PCI/L
Cesium-137	6-42-40B	10	20.0	PCI/L
Cesium-137	6-43-41E	10	20.0	PCI/L
Cesium-137	6-43-41F	10	20.0	PCI/L
Cesium-137	6-43-45	10	20.0	PCI/L
Cesium-137	6-44-43B	10	20.0	PCI/L
Cesium-137	6-45-42	10	20.0	PCI/L
Cesium-137	6-45-69A	10	20.0	PCI/L
Cesium-137	6-47-46A	10	20.0	PCI/L
Cesium-137	6-47-60	10	20.0	PCI/L
Cesium-137	6-48-18	10	20.0	PCI/L
Cesium-137	6-48-50	10	20.0	PCI/L
Cesium-137	6-48-71	10	20.0	PCI/L
Cesium-137	6-49-100C	10	20.0	PCI/L
Cesium-137	6-49-55A	10	20.0	PCI/L
Cesium-137	6-49-57A	10	20.0	PCI/L
Cesium-137	6-49-79	10	20.0	PCI/L
Cesium-137	6-50-42	10	20.0	PCI/L
Cesium-137	6-50-53A	10	20.0	PCI/L
Cesium-137	6-52-54	10	20.0	PCI/L
Cesium-137	6-52-57	10	20.0	PCI/L
Cesium-137	6-53-47A	10	20.0	PCI/L
Cesium-137	6-53-47B	10	20.0	PCI/L
Cesium-137	6-53-48A	10	20.0	PCI/L
Cesium-137	6-53-48B	10	20.0	PCI/L
Cesium-137	6-53-55A	10	20.0	PCI/L
Cesium-137	6-54-48	10	20.0	PCI/L
Cesium-137	6-55-50A	10	20.0	PCI/L
Cesium-137	6-55-50C	10	20.0	PCI/L
Cesium-137	6-55-55	10	20.0	PCI/L
Cesium-137	6-55-57	10	20.0	PCI/L
Cesium-137	6-55-89	10	20.0	PCI/L
Cesium-137	6-60-60	10	20.0	PCI/L
Cesium-137	6-61-62	10	20.0	PCI/L
Cesium-137	6-61-66	10	20.0	PCI/L
Cesium-137	6-63-25A	10	20.0	PCI/L
Cesium-137	6-63-58	10	20.0	PCI/L
Cesium-137	6-64-62	10	20.0	PCI/L
Cesium-137	6-65-59A	10	20.0	PCI/L
Cesium-137	6-66-103	10	20.0	PCI/L
Cesium-137	6-66-23	10	20.0	PCI/L
Cesium-137	6-66-58	10	20.0	PCI/L
Cesium-137	6-66-64	10	20.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Chloroform	1-B4-2	5	5.0	PPB
Chloroform	1-B4-4	5	5.0	PPB
Chloroform	1-B9-1	5	5.0	PPB
Chloroform	2-E13-14	5	5.0	PPB
Chloroform	2-E13-5	5	5.0	PPB
Chloroform	2-E16-2	5	5.0	PPB
Chloroform	2-E17-1	5	5.0	PPB
Chloroform	2-E17-12	5	5.0	PPB
Chloroform	2-E17-13	5	5.0	PPB
Chloroform	2-E17-14	5	5.0	PPB
Chloroform	2-E17-15	5	5.0	PPB
Chloroform	2-E17-16	5	5.0	PPB
Chloroform	2-E17-17	5	5.0	PPB
Chloroform	2-E17-18	5	5.0	PPB
Chloroform	2-E17-19	5	5.0	PPB
Chloroform	2-E17-20	5	5.0	PPB
Chloroform	2-E17-5	5	5.0	PPB
Chloroform	2-E17-6	5	5.0	PPB
Chloroform	2-E17-9	5	5.0	PPB
Chloroform	2-E18-1	5	5.0	PPB
Chloroform	2-E18-2	5	5.0	PPB
Chloroform	2-E18-3	7	5.0	PPB
Chloroform	2-E18-4	5	5.0	PPB
Chloroform	2-E23-1	5	5.0	PPB
Chloroform	2-E24-16	5	5.0	PPB
Chloroform	2-E24-17	5	5.0	PPB
Chloroform	2-E24-18	5	5.0	PPB
Chloroform	2-E24-19	3	5.0	PPB
Chloroform	2-E24-2	5	5.0	PPB
Chloroform	2-E24-7	5	5.0	PPB
Chloroform	2-E25-11	5	5.0	PPB
Chloroform	2-E25-13	5	5.0	PPB
Chloroform	2-E25-17	5	5.0	PPB
Chloroform	2-E25-18	5	5.0	PPB
Chloroform	2-E25-19	5	5.0	PPB
Chloroform	2-E25-20	5	5.0	PPB
Chloroform	2-E25-21	5	5.0	PPB
Chloroform	2-E25-22	5	5.0	PPB
Chloroform	2-E25-23	5	5.0	PPB
Chloroform	2-E25-24	5	5.0	PPB
Chloroform	2-E25-25	5	5.0	PPB
Chloroform	2-E25-26	5	5.0	PPB
Chloroform	2-E25-28	5	5.0	PPB
Chloroform	2-E25-29P	5	5.0	PPB
Chloroform	2-E25-30P	5	5.0	PPB
Chloroform	2-E25-31	5	5.0	PPB
Chloroform	2-E25-32P	5	5.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Chloroform	2-E25-33	5	5.0	PPB
Chloroform	2-E25-34	5	5.0	PPB
Chloroform	2-E25-35	5	5.0	PPB
Chloroform	2-E25-36	5	5.0	PPB
Chloroform	2-E25-37	5	5.0	PPB
Chloroform	2-E25-38	5	5.0	PPB
Chloroform	2-E25-39	5	5.0	PPB
Chloroform	2-E25-41	5	5.0	PPB
Chloroform	2-E25-6	5	5.0	PPB
Chloroform	2-E25-9	5	5.0	PPB
Chloroform	2-E26-11	5	5.0	PPB
Chloroform	2-E26-5	5	5.0	PPB
Chloroform	2-E26-9	5	5.0	PPB
Chloroform	2-E27-10	5	5.0	PPB
Chloroform	2-E27-11	5	5.0	PPB
Chloroform	2-E27-15	5	5.0	PPB
Chloroform	2-E27-16	3	5.0	PPB
Chloroform	2-E27-8	5	5.0	PPB
Chloroform	2-E27-9	5	5.0	PPB
Chloroform	2-E28-12	5	5.0	PPB
Chloroform	2-E28-13	5	5.0	PPB
Chloroform	2-E28-18	5	5.0	PPB
Chloroform	2-E28-21	5	5.0	PPB
Chloroform	2-E28-23	5	5.0	PPB
Chloroform	2-E28-26	5	5.0	PPB
Chloroform	2-E28-27	5	5.0	PPB
Chloroform	2-E28-28	5	5.0	PPB
Chloroform	2-E28-7	5	5.0	PPB
Chloroform	2-E32-1	5	5.0	PPB
Chloroform	2-E32-2	5	5.0	PPB
Chloroform	2-E32-3	5	5.0	PPB
Chloroform	2-E32-4	5	5.0	PPB
Chloroform	2-E32-5	5	5.0	PPB
Chloroform	2-E33-1	5	5.0	PPB
Chloroform	2-E33-13	5	5.0	PPB
Chloroform	2-E33-14	5	5.0	PPB
Chloroform	2-E33-15	5	5.0	PPB
Chloroform	2-E33-18	5	5.0	PPB
Chloroform	2-E33-24	5	5.0	PPB
Chloroform	2-E33-26	5	5.0	PPB
Chloroform	2-E33-28	5	5.0	PPB
Chloroform	2-E33-29	5	5.0	PPB
Chloroform	2-E33-3	5	5.0	PPB
Chloroform	2-E33-30	5	5.0	PPB
Chloroform	2-E33-31	5	5.0	PPB
Chloroform	2-E33-32	5	5.0	PPB
Chloroform	2-E33-33	5	5.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Chloroform	2-E33-34	5	5.0	PPB
Chloroform	2-E33-35	5	5.0	PPB
Chloroform	2-E33-36	3	5.0	PPB
Chloroform	2-E33-37	3	5.0	PPB
Chloroform	2-E33-38	5	5.0	PPB
Chloroform	2-E33-39	5	5.0	PPB
Chloroform	2-E33-4	5	5.0	PPB
Chloroform	2-E33-41	5	5.0	PPB
Chloroform	2-E33-5	5	5.0	PPB
Chloroform	2-E33-7	5	5.0	PPB
Chloroform	2-E34-1	5	5.0	PPB
Chloroform	2-E34-2	5	5.0	PPB
Chloroform	2-E34-3	5	5.0	PPB
Chloroform	2-E34-5	5	5.0	PPB
Chloroform	2-E34-6	5	5.0	PPB
Chloroform	2-E34-7	5	5.0	PPB
Chloroform	2-E34-8	3	5.0	PPB
Chloroform	2-E35-1	5	5.0	PPB
Chloroform	2-W10-13	3	5.0	PPB
Chloroform	2-W10-14	5	5.0	PPB
Chloroform	2-W10-16	8	5.0	PPB
Chloroform	2-W10-17	3	5.0	PPB
Chloroform	2-W10-18	9	5.0	PPB
Chloroform	2-W10-4	19	5.0	PPB
Chloroform	2-W10-8	5	5.0	PPB
Chloroform	2-W10-9	15	5.0	PPB
Chloroform	2-W11-14	6	5.0	PPB
Chloroform	2-W11-23	3	5.0	PPB
Chloroform	2-W11-7	26	5.0	PPB
Chloroform	2-W14-10	3	5.0	PPB
Chloroform	2-W14-2	8	5.0	PPB
Chloroform	2-W14-5	7	5.0	PPB
Chloroform	2-W14-6	3	5.0	PPB
Chloroform	2-W15-10	21	5.0	PPB
Chloroform	2-W15-11	31	5.0	PPB
Chloroform	2-W15-12	23	5.0	PPB
Chloroform	2-W15-15	6	5.0	PPB
Chloroform	2-W15-16	41	5.0	PPB
Chloroform	2-W15-17	3	5.0	PPB
Chloroform	2-W15-18	17	5.0	PPB
Chloroform	2-W15-19	154	5.0	PPB
Chloroform	2-W15-20	9	5.0	PPB
Chloroform	2-W15-22	14	5.0	PPB
Chloroform	2-W15-23	5	5.0	PPB
Chloroform	2-W15-24	41	5.0	PPB
Chloroform	2-W15-4	18	5.0	PPB
Chloroform	2-W15-7	16	5.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Chloroform	2-W15-8	1595	5.0	PPB
Chloroform	2-W18-15	3	5.0	PPB
Chloroform	2-W18-17	101	5.0	PPB
Chloroform	2-W18-20	24	5.0	PPB
Chloroform	2-W18-21	3	5.0	PPB
Chloroform	2-W18-22	5	5.0	PPB
Chloroform	2-W18-23	7	5.0	PPB
Chloroform	2-W18-24	17	5.0	PPB
Chloroform	2-W18-25	5	5.0	PPB
Chloroform	2-W18-26	21	5.0	PPB
Chloroform	2-W18-4	521	5.0	PPB
Chloroform	2-W18-5	25	5.0	PPB
Chloroform	2-W18-9	14	5.0	PPB
Chloroform	2-W19-1	3	5.0	PPB
Chloroform	2-W19-11	3	5.0	PPB
Chloroform	2-W19-12	5	5.0	PPB
Chloroform	2-W19-13	3	5.0	PPB
Chloroform	2-W19-15	3	5.0	PPB
Chloroform	2-W19-16	3	5.0	PPB
Chloroform	2-W19-18	3	5.0	PPB
Chloroform	2-W19-19	3	5.0	PPB
Chloroform	2-W19-2	3	5.0	PPB
Chloroform	2-W19-20	3	5.0	PPB
Chloroform	2-W19-21	5	5.0	PPB
Chloroform	2-W19-23	5	5.0	PPB
Chloroform	2-W19-24	3	5.0	PPB
Chloroform	2-W19-25	3	5.0	PPB
Chloroform	2-W19-26	3	5.0	PPB
Chloroform	2-W19-27	5	5.0	PPB
Chloroform	2-W19-28	7	5.0	PPB
Chloroform	2-W19-29	6	5.0	PPB
Chloroform	2-W19-3	3	5.0	PPB
Chloroform	2-W19-30	5	5.0	PPB
Chloroform	2-W19-31	3	5.0	PPB
Chloroform	2-W19-5	5	5.0	PPB
Chloroform	2-W19-9	3	5.0	PPB
Chloroform	2-W22-1	5	5.0	PPB
Chloroform	2-W22-12	5	5.0	PPB
Chloroform	2-W22-20	9	5.0	PPB
Chloroform	2-W22-21	5	5.0	PPB
Chloroform	2-W22-22	5	5.0	PPB
Chloroform	2-W22-26	5	5.0	PPB
Chloroform	2-W22-39	5	5.0	PPB
Chloroform	2-W22-40	3	5.0	PPB
Chloroform	2-W22-41	3	5.0	PPB
Chloroform	2-W22-42	3	5.0	PPB
Chloroform	2-W23-10	5	5.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Chloroform	2-W23-11	5	5.0	PPB
Chloroform	2-W23-14	5	5.0	PPB
Chloroform	2-W23-9	5	5.0	PPB
Chloroform	2-W26-10	3	5.0	PPB
Chloroform	2-W26-12	3	5.0	PPB
Chloroform	2-W26-6	5	5.0	PPB
Chloroform	2-W26-7	5	5.0	PPB
Chloroform	2-W26-8	5	5.0	PPB
Chloroform	2-W26-9	5	5.0	PPB
Chloroform	2-W27-1	9	5.0	PPB
Chloroform	2-W6-2	3	5.0	PPB
Chloroform	2-W6-4	12	5.0	PPB
Chloroform	2-W6-5	17	5.0	PPB
Chloroform	2-W6-6	5	5.0	PPB
Chloroform	2-W6-7	8	5.0	PPB
Chloroform	2-W6-8	5	5.0	PPB
Chloroform	2-W7-1	3	5.0	PPB
Chloroform	2-W7-10	3	5.0	PPB
Chloroform	2-W7-11	3	5.0	PPB
Chloroform	2-W7-12	3	5.0	PPB
Chloroform	2-W7-2	3	5.0	PPB
Chloroform	2-W7-3	3	5.0	PPB
Chloroform	2-W7-4	6	5.0	PPB
Chloroform	2-W7-5	3	5.0	PPB
Chloroform	2-W7-6	5	5.0	PPB
Chloroform	2-W7-7	3	5.0	PPB
Chloroform	2-W7-8	3	5.0	PPB
Chloroform	2-W7-9	5	5.0	PPB
Chloroform	2-W8-1	3	5.0	PPB
Chloroform	2-W9-1	5	5.0	PPB
Chloroform	6-20-39	5	5.0	PPB
Chloroform	6-23-34	3	5.0	PPB
Chloroform	6-24-33	3	5.0	PPB
Chloroform	6-24-34A	3	5.0	PPB
Chloroform	6-24-34B	3	5.0	PPB
Chloroform	6-24-34C	3	5.0	PPB
Chloroform	6-24-35	3	5.0	PPB
Chloroform	6-24-46	5	5.0	PPB
Chloroform	6-25-33A	3	5.0	PPB
Chloroform	6-25-34A	3	5.0	PPB
Chloroform	6-25-34B	3	5.0	PPB
Chloroform	6-25-34C	3	5.0	PPB
Chloroform	6-26-33	3	5.0	PPB
Chloroform	6-26-34	3	5.0	PPB
Chloroform	6-26-35A	3	5.0	PPB
Chloroform	6-26-35C	3	5.0	PPB
Chloroform	6-28-40P	5	5.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Chloroform	6-29-78	5	5.0	PPB
Chloroform	6-31-31P	5	5.0	PPB
Chloroform	6-32-70B	5	5.0	PPB
Chloroform	6-32-72	5	5.0	PPB
Chloroform	6-32-77	5	5.0	PPB
Chloroform	6-34-42	5	5.0	PPB
Chloroform	6-35-66	5	5.0	PPB
Chloroform	6-35-70	5	5.0	PPB
Chloroform	6-36-61A	5	5.0	PPB
Chloroform	6-37-82A	5	5.0	PPB
Chloroform	6-38-70	3	5.0	PPB
Chloroform	6-39-39	5	5.0	PPB
Chloroform	6-39-79	6	5.0	PPB
Chloroform	6-40-62	5	5.0	PPB
Chloroform	6-42-40A	5	5.0	PPB
Chloroform	6-42-40B	5	5.0	PPB
Chloroform	6-42-42B	5	5.0	PPB
Chloroform	6-43-41E	5	5.0	PPB
Chloroform	6-43-41F	5	5.0	PPB
Chloroform	6-43-42J	5	5.0	PPB
Chloroform	6-43-43	5	5.0	PPB
Chloroform	6-43-45	5	5.0	PPB
Chloroform	6-43-88	5	5.0	PPB
Chloroform	6-44-42	5	5.0	PPB
Chloroform	6-44-43B	5	5.0	PPB
Chloroform	6-44-64	5	5.0	PPB
Chloroform	6-45-42	5	5.0	PPB
Chloroform	6-45-69A	3	5.0	PPB
Chloroform	6-47-46A	5	5.0	PPB
Chloroform	6-47-60	5	5.0	PPB
Chloroform	6-48-18	5	5.0	PPB
Chloroform	6-48-50	5	5.0	PPB
Chloroform	6-48-71	5	5.0	PPB
Chloroform	6-49-100C	5	5.0	PPB
Chloroform	6-49-55A	5	5.0	PPB
Chloroform	6-49-57A	5	5.0	PPB
Chloroform	6-49-79	3	5.0	PPB
Chloroform	6-50-53A	5	5.0	PPB
Chloroform	6-50-85	5	5.0	PPB
Chloroform	6-52-54	5	5.0	PPB
Chloroform	6-52-57	5	5.0	PPB
Chloroform	6-53-47A	5	5.0	PPB
Chloroform	6-53-55A	5	5.0	PPB
Chloroform	6-55-50C	5	5.0	PPB
Chloroform	6-55-55	5	5.0	PPB
Chloroform	6-55-57	5	5.0	PPB
Chloroform	6-55-70	5	5.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Chloroform	6-55-76	3	5.0	PPB
Chloroform	6-60-60	5	5.0	PPB
Chloroform	6-65-72	5	5.0	PPB
Chloroform	6-65-83	5	5.0	PPB
Chloroform	6-66-21	3	5.0	PPB
Chloroform	6-67-81	5	5.0	PPB
Chromium, filtered	1-B4-4	14	10.0	PPB
Chromium, filtered	1-B5-1	14	10.0	PPB
Chromium, filtered	1-B9-1	17	10.0	PPB
Chromium, filtered	2-E13-14	42	10.0	PPB
Chromium, filtered	2-E13-5	12	10.0	PPB
Chromium, filtered	2-E17-1	13	10.0	PPB
Chromium, filtered	2-E17-12	12	10.0	PPB
Chromium, filtered	2-E17-13	10	10.0	PPB
Chromium, filtered	2-E17-14	13	10.0	PPB
Chromium, filtered	2-E17-15	18	10.0	PPB
Chromium, filtered	2-E17-16	13	10.0	PPB
Chromium, filtered	2-E17-17	13	10.0	PPB
Chromium, filtered	2-E17-18	13	10.0	PPB
Chromium, filtered	2-E17-19	11	10.0	PPB
Chromium, filtered	2-E17-20	17	10.0	PPB
Chromium, filtered	2-E17-5	13	10.0	PPB
Chromium, filtered	2-E17-6	10	10.0	PPB
Chromium, filtered	2-E17-9	11	10.0	PPB
Chromium, filtered	2-E18-1	13	10.0	PPB
Chromium, filtered	2-E18-2	12	10.0	PPB
Chromium, filtered	2-E18-3	13	10.0	PPB
Chromium, filtered	2-E18-4	14	10.0	PPB
Chromium, filtered	2-E24-12	10	10.0	PPB
Chromium, filtered	2-E24-16	13	10.0	PPB
Chromium, filtered	2-E24-17	13	10.0	PPB
Chromium, filtered	2-E24-18	13	10.0	PPB
Chromium, filtered	2-E24-19	288	10.0	PPB
Chromium, filtered	2-E24-2	12	10.0	PPB
Chromium, filtered	2-E24-20	20	10.0	PPB
Chromium, filtered	2-E24-8	12	10.0	PPB
Chromium, filtered	2-E25-11	20	10.0	PPB
Chromium, filtered	2-E25-18	14	10.0	PPB
Chromium, filtered	2-E25-19	13	10.0	PPB
Chromium, filtered	2-E25-20	23	10.0	PPB
Chromium, filtered	2-E25-21	14	10.0	PPB
Chromium, filtered	2-E25-22	11	10.0	PPB
Chromium, filtered	2-E25-23	10	10.0	PPB
Chromium, filtered	2-E25-24	10	10.0	PPB
Chromium, filtered	2-E25-25	12	10.0	PPB
Chromium, filtered	2-E25-26	13	10.0	PPB
Chromium, filtered	2-E25-27	10	10.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Chromium, filtered	2-E25-28	13	10.0	PPB
Chromium, filtered	2-E25-29P	14	10.0	PPB
Chromium, filtered	2-E25-30P	16	10.0	PPB
Chromium, filtered	2-E25-31	13	10.0	PPB
Chromium, filtered	2-E25-32P	12	10.0	PPB
Chromium, filtered	2-E25-33	13	10.0	PPB
Chromium, filtered	2-E25-34	13	10.0	PPB
Chromium, filtered	2-E25-35	18	10.0	PPB
Chromium, filtered	2-E25-36	15	10.0	PPB
Chromium, filtered	2-E25-37	16	10.0	PPB
Chromium, filtered	2-E25-38	15	10.0	PPB
Chromium, filtered	2-E25-39	45	10.0	PPB
Chromium, filtered	2-E25-40	20	10.0	PPB
Chromium, filtered	2-E25-41	17	10.0	PPB
Chromium, filtered	2-E25-42	20	10.0	PPB
Chromium, filtered	2-E25-43	20	10.0	PPB
Chromium, filtered	2-E26-10	20	10.0	PPB
Chromium, filtered	2-E26-11	20	10.0	PPB
Chromium, filtered	2-E26-12	20	10.0	PPB
Chromium, filtered	2-E26-13	20	10.0	PPB
Chromium, filtered	2-E26-9	20	10.0	PPB
Chromium, filtered	2-E27-10	13	10.0	PPB
Chromium, filtered	2-E27-11	18	10.0	PPB
Chromium, filtered	2-E27-12	18	10.0	PPB
Chromium, filtered	2-E27-13	18	10.0	PPB
Chromium, filtered	2-E27-14	18	10.0	PPB
Chromium, filtered	2-E27-15	18	10.0	PPB
Chromium, filtered	2-E27-16	20	10.0	PPB
Chromium, filtered	2-E27-5	10	10.0	PPB
Chromium, filtered	2-E27-7	18	10.0	PPB
Chromium, filtered	2-E27-8	15	10.0	PPB
Chromium, filtered	2-E27-9	20	10.0	PPB
Chromium, filtered	2-E28-13	10	10.0	PPB
Chromium, filtered	2-E28-18	12	10.0	PPB
Chromium, filtered	2-E28-21	12	10.0	PPB
Chromium, filtered	2-E28-23	13	10.0	PPB
Chromium, filtered	2-E28-26	15	10.0	PPB
Chromium, filtered	2-E28-27	15	10.0	PPB
Chromium, filtered	2-E28-28	20	10.0	PPB
Chromium, filtered	2-E32-1	10	10.0	PPB
Chromium, filtered	2-E32-2	12	10.0	PPB
Chromium, filtered	2-E32-3	16	10.0	PPB
Chromium, filtered	2-E32-4	14	10.0	PPB
Chromium, filtered	2-E32-5	18	10.0	PPB
Chromium, filtered	2-E33-1	5	10.0	PPB
Chromium, filtered	2-E33-13	5	10.0	PPB
Chromium, filtered	2-E33-14	5	10.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Chromium, filtered	2-E33-15	5	10.0	PPB
Chromium, filtered	2-E33-18	12	10.0	PPB
Chromium, filtered	2-E33-21	10	10.0	PPB
Chromium, filtered	2-E33-24	5	10.0	PPB
Chromium, filtered	2-E33-26	10	10.0	PPB
Chromium, filtered	2-E33-28	12	10.0	PPB
Chromium, filtered	2-E33-29	13	10.0	PPB
Chromium, filtered	2-E33-3	11	10.0	PPB
Chromium, filtered	2-E33-30	13	10.0	PPB
Chromium, filtered	2-E33-31	16	10.0	PPB
Chromium, filtered	2-E33-32	13	10.0	PPB
Chromium, filtered	2-E33-33	13	10.0	PPB
Chromium, filtered	2-E33-34	15	10.0	PPB
Chromium, filtered	2-E33-35	16	10.0	PPB
Chromium, filtered	2-E33-36	20	10.0	PPB
Chromium, filtered	2-E33-37	20	10.0	PPB
Chromium, filtered	2-E33-38	5	10.0	PPB
Chromium, filtered	2-E33-39	5	10.0	PPB
Chromium, filtered	2-E33-4	12	10.0	PPB
Chromium, filtered	2-E33-41	20	10.0	PPB
Chromium, filtered	2-E33-42	20	10.0	PPB
Chromium, filtered	2-E33-43	20	10.0	PPB
Chromium, filtered	2-E33-5	5	10.0	PPB
Chromium, filtered	2-E33-7	10	10.0	PPB
Chromium, filtered	2-E33-8	10	10.0	PPB
Chromium, filtered	2-E34-1	5	10.0	PPB
Chromium, filtered	2-E34-2	30	10.0	PPB
Chromium, filtered	2-E34-3	13	10.0	PPB
Chromium, filtered	2-E34-5	12	10.0	PPB
Chromium, filtered	2-E34-6	11	10.0	PPB
Chromium, filtered	2-E34-7	20	10.0	PPB
Chromium, filtered	2-E34-8	20	10.0	PPB
Chromium, filtered	2-E35-1	10	10.0	PPB
Chromium, filtered	2-E35-2	20	10.0	PPB
Chromium, filtered	2-W10-13	15	10.0	PPB
Chromium, filtered	2-W10-14	16	10.0	PPB
Chromium, filtered	2-W10-15	139	10.0	PPB
Chromium, filtered	2-W10-16	35	10.0	PPB
Chromium, filtered	2-W10-17	27	10.0	PPB
Chromium, filtered	2-W10-18	30	10.0	PPB
Chromium, filtered	2-W10-4	64	10.0	PPB
Chromium, filtered	2-W10-8	10	10.0	PPB
Chromium, filtered	2-W10-9	149	10.0	PPB
Chromium, filtered	2-W11-23	10	10.0	PPB
Chromium, filtered	2-W14-10	10	10.0	PPB
Chromium, filtered	2-W14-2	13	10.0	PPB
Chromium, filtered	2-W14-5	10	10.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Chromium, filtered	2-W14-6	10	10.0	PPB
Chromium, filtered	2-W15-10	17	10.0	PPB
Chromium, filtered	2-W15-11	27	10.0	PPB
Chromium, filtered	2-W15-15	12	10.0	PPB
Chromium, filtered	2-W15-16	14	10.0	PPB
Chromium, filtered	2-W15-17	18	10.0	PPB
Chromium, filtered	2-W15-18	20	10.0	PPB
Chromium, filtered	2-W15-19	17	10.0	PPB
Chromium, filtered	2-W15-20	18	10.0	PPB
Chromium, filtered	2-W15-22	22	10.0	PPB
Chromium, filtered	2-W15-23	20	10.0	PPB
Chromium, filtered	2-W15-24	18	10.0	PPB
Chromium, filtered	2-W15-4	10	10.0	PPB
Chromium, filtered	2-W15-6	20	10.0	PPB
Chromium, filtered	2-W15-7	13	10.0	PPB
Chromium, filtered	2-W15-8	20	10.0	PPB
Chromium, filtered	2-W18-15	10	10.0	PPB
Chromium, filtered	2-W18-17	10	10.0	PPB
Chromium, filtered	2-W18-21	14	10.0	PPB
Chromium, filtered	2-W18-22	13	10.0	PPB
Chromium, filtered	2-W18-23	15	10.0	PPB
Chromium, filtered	2-W18-24	13	10.0	PPB
Chromium, filtered	2-W18-25	20	10.0	PPB
Chromium, filtered	2-W18-26	18	10.0	PPB
Chromium, filtered	2-W18-5	14	10.0	PPB
Chromium, filtered	2-W19-11	10	10.0	PPB
Chromium, filtered	2-W19-12	49	10.0	PPB
Chromium, filtered	2-W19-13	10	10.0	PPB
Chromium, filtered	2-W19-15	10	10.0	PPB
Chromium, filtered	2-W19-16	10	10.0	PPB
Chromium, filtered	2-W19-18	13	10.0	PPB
Chromium, filtered	2-W19-19	10	10.0	PPB
Chromium, filtered	2-W19-2	10	10.0	PPB
Chromium, filtered	2-W19-20	13	10.0	PPB
Chromium, filtered	2-W19-21	13	10.0	PPB
Chromium, filtered	2-W19-23	13	10.0	PPB
Chromium, filtered	2-W19-24	11	10.0	PPB
Chromium, filtered	2-W19-25	10	10.0	PPB
Chromium, filtered	2-W19-26	15	10.0	PPB
Chromium, filtered	2-W19-27	16	10.0	PPB
Chromium, filtered	2-W19-28	15	10.0	PPB
Chromium, filtered	2-W19-29	20	10.0	PPB
Chromium, filtered	2-W19-3	10	10.0	PPB
Chromium, filtered	2-W19-31	20	10.0	PPB
Chromium, filtered	2-W19-32	33	10.0	PPB
Chromium, filtered	2-W19-5	10	10.0	PPB
Chromium, filtered	2-W19-9	10	10.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Chromium, filtered	2-W22-1	10	10.0	PPB
Chromium, filtered	2-W22-12	10	10.0	PPB
Chromium, filtered	2-W22-20	323	10.0	PPB
Chromium, filtered	2-W22-21	40	10.0	PPB
Chromium, filtered	2-W22-22	10	10.0	PPB
Chromium, filtered	2-W22-26	10	10.0	PPB
Chromium, filtered	2-W22-39	20	10.0	PPB
Chromium, filtered	2-W22-40	21	10.0	PPB
Chromium, filtered	2-W22-41	20	10.0	PPB
Chromium, filtered	2-W22-42	21	10.0	PPB
Chromium, filtered	2-W23-10	10	10.0	PPB
Chromium, filtered	2-W23-11	15	10.0	PPB
Chromium, filtered	2-W23-13	20	10.0	PPB
Chromium, filtered	2-W23-14	20	10.0	PPB
Chromium, filtered	2-W26-10	20	10.0	PPB
Chromium, filtered	2-W26-12	20	10.0	PPB
Chromium, filtered	2-W26-6	20	10.0	PPB
Chromium, filtered	2-W26-7	148	10.0	PPB
Chromium, filtered	2-W26-8	20	10.0	PPB
Chromium, filtered	2-W26-9	30	10.0	PPB
Chromium, filtered	2-W27-1	17	10.0	PPB
Chromium, filtered	2-W6-2	32	10.0	PPB
Chromium, filtered	2-W6-4	23	10.0	PPB
Chromium, filtered	2-W6-5	39	10.0	PPB
Chromium, filtered	2-W6-6	20	10.0	PPB
Chromium, filtered	2-W6-7	50	10.0	PPB
Chromium, filtered	2-W6-8	20	10.0	PPB
Chromium, filtered	2-W7-1	15	10.0	PPB
Chromium, filtered	2-W7-10	20	10.0	PPB
Chromium, filtered	2-W7-11	20	10.0	PPB
Chromium, filtered	2-W7-12	20	10.0	PPB
Chromium, filtered	2-W7-2	16	10.0	PPB
Chromium, filtered	2-W7-3	14	10.0	PPB
Chromium, filtered	2-W7-4	16	10.0	PPB
Chromium, filtered	2-W7-5	15	10.0	PPB
Chromium, filtered	2-W7-6	40	10.0	PPB
Chromium, filtered	2-W7-7	18	10.0	PPB
Chromium, filtered	2-W7-8	19	10.0	PPB
Chromium, filtered	2-W7-9	65	10.0	PPB
Chromium, filtered	2-W8-1	15	10.0	PPB
Chromium, filtered	2-W9-1	15	10.0	PPB
Chromium, filtered	6-20-39	10	10.0	PPB
Chromium, filtered	6-23-34	12	10.0	PPB
Chromium, filtered	6-24-33	13	10.0	PPB
Chromium, filtered	6-24-34A	13	10.0	PPB
Chromium, filtered	6-24-34B	12	10.0	PPB
Chromium, filtered	6-24-34C	12	10.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Chromium, filtered	6-24-35	12	10.0	PPB
Chromium, filtered	6-24-46	10	10.0	PPB
Chromium, filtered	6-25-33A	13	10.0	PPB
Chromium, filtered	6-25-34A	13	10.0	PPB
Chromium, filtered	6-25-34B	13	10.0	PPB
Chromium, filtered	6-25-34C	12	10.0	PPB
Chromium, filtered	6-26-33	14	10.0	PPB
Chromium, filtered	6-26-34	12	10.0	PPB
Chromium, filtered	6-26-35A	15	10.0	PPB
Chromium, filtered	6-26-35C	13	10.0	PPB
Chromium, filtered	6-29-78	10	10.0	PPB
Chromium, filtered	6-31-31	10	10.0	PPB
Chromium, filtered	6-32-43	10	10.0	PPB
Chromium, filtered	6-32-70B	23	10.0	PPB
Chromium, filtered	6-32-72	10	10.0	PPB
Chromium, filtered	6-32-77	10	10.0	PPB
Chromium, filtered	6-33-56	21	10.0	PPB
Chromium, filtered	6-34-42	20	10.0	PPB
Chromium, filtered	6-34-51	20	10.0	PPB
Chromium, filtered	6-35-66	23	10.0	PPB
Chromium, filtered	6-35-70	13	10.0	PPB
Chromium, filtered	6-35-78A	12	10.0	PPB
Chromium, filtered	6-36-61A	14	10.0	PPB
Chromium, filtered	6-37-82A	15	10.0	PPB
Chromium, filtered	6-38-65	10	10.0	PPB
Chromium, filtered	6-38-70	12	10.0	PPB
Chromium, filtered	6-39-39	10	10.0	PPB
Chromium, filtered	6-39-79	10	10.0	PPB
Chromium, filtered	6-40-33A	10	10.0	PPB
Chromium, filtered	6-40-40A	20	10.0	PPB
Chromium, filtered	6-40-40B	21	10.0	PPB
Chromium, filtered	6-40-62	13	10.0	PPB
Chromium, filtered	6-42-39A	20	10.0	PPB
Chromium, filtered	6-42-39B	25	10.0	PPB
Chromium, filtered	6-42-40A	13	10.0	PPB
Chromium, filtered	6-42-41	20	10.0	PPB
Chromium, filtered	6-42-42B	14	10.0	PPB
Chromium, filtered	6-43-40	20	10.0	PPB
Chromium, filtered	6-43-41E	94	10.0	PPB
Chromium, filtered	6-43-41F	14	10.0	PPB
Chromium, filtered	6-43-41G	20	10.0	PPB
Chromium, filtered	6-43-42J	13	10.0	PPB
Chromium, filtered	6-43-43	13	10.0	PPB
Chromium, filtered	6-43-45	16	10.0	PPB
Chromium, filtered	6-43-88	10	10.0	PPB
Chromium, filtered	6-44-42	13	10.0	PPB
Chromium, filtered	6-44-43B	29	10.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Chromium, filtered	6-44-64	10	10.0	PPB
Chromium, filtered	6-45-42	12	10.0	PPB
Chromium, filtered	6-45-69A	13	10.0	PPB
Chromium, filtered	6-46-21B	10	10.0	PPB
Chromium, filtered	6-47-35A	10	10.0	PPB
Chromium, filtered	6-47-46A	10	10.0	PPB
Chromium, filtered	6-47-60	5	10.0	PPB
Chromium, filtered	6-48-18	20	10.0	PPB
Chromium, filtered	6-48-50	5	10.0	PPB
Chromium, filtered	6-48-71	15	10.0	PPB
Chromium, filtered	6-49-100C	20	10.0	PPB
Chromium, filtered	6-49-55A	5	10.0	PPB
Chromium, filtered	6-49-57A	5	10.0	PPB
Chromium, filtered	6-49-79	12	10.0	PPB
Chromium, filtered	6-50-53A	5	10.0	PPB
Chromium, filtered	6-50-85	10	10.0	PPB
Chromium, filtered	6-51-75	20	10.0	PPB
Chromium, filtered	6-52-54	5	10.0	PPB
Chromium, filtered	6-52-57	5	10.0	PPB
Chromium, filtered	6-53-47A	10	10.0	PPB
Chromium, filtered	6-53-47B	10	10.0	PPB
Chromium, filtered	6-53-55A	5	10.0	PPB
Chromium, filtered	6-54-34	10	10.0	PPB
Chromium, filtered	6-54-48	10	10.0	PPB
Chromium, filtered	6-54-49	10	10.0	PPB
Chromium, filtered	6-55-50C	13	10.0	PPB
Chromium, filtered	6-55-55	5	10.0	PPB
Chromium, filtered	6-55-57	5	10.0	PPB
Chromium, filtered	6-55-76	13	10.0	PPB
Chromium, filtered	6-57-29A	10	10.0	PPB
Chromium, filtered	6-59-58	10	10.0	PPB
Chromium, filtered	6-60-57	10	10.0	PPB
Chromium, filtered	6-65-72	10	10.0	PPB
Chromium, filtered	6-65-83	24	10.0	PPB
Chromium, filtered	6-66-23	20	10.0	PPB
Chromium, filtered	6-67-86	22	10.0	PPB
Cobalt-60	1-84-2	11	22.5	PCI/L
Cobalt-60	1-84-3	11	22.5	PCI/L
Cobalt-60	1-84-4	11	22.5	PCI/L
Cobalt-60	1-85-1	11	22.5	PCI/L
Cobalt-60	1-89-1	11	22.5	PCI/L
Cobalt-60	2-E13-14	11	22.5	PCI/L
Cobalt-60	2-E13-19	11	22.5	PCI/L
Cobalt-60	2-E13-5	11	22.5	PCI/L
Cobalt-60	2-E13-8	11	22.5	PCI/L
Cobalt-60	2-E16-2	11	22.5	PCI/L
Cobalt-60	2-E17-1	11	22.5	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Cobalt-60	2-E17-12	11	22.5	PCI/L
Cobalt-60	2-E17-13	11	22.5	PCI/L
Cobalt-60	2-E17-14	25	22.5	PCI/L
Cobalt-60	2-E17-15	29	22.5	PCI/L
Cobalt-60	2-E17-16	24	22.5	PCI/L
Cobalt-60	2-E17-17	11	22.5	PCI/L
Cobalt-60	2-E17-18	11	22.5	PCI/L
Cobalt-60	2-E17-19	11	22.5	PCI/L
Cobalt-60	2-E17-2	11	22.5	PCI/L
Cobalt-60	2-E17-20	11	22.5	PCI/L
Cobalt-60	2-E17-5	11	22.5	PCI/L
Cobalt-60	2-E17-6	11	22.5	PCI/L
Cobalt-60	2-E17-8	11	22.5	PCI/L
Cobalt-60	2-E17-9	11	22.5	PCI/L
Cobalt-60	2-E18-1	11	22.5	PCI/L
Cobalt-60	2-E18-2	11	22.5	PCI/L
Cobalt-60	2-E18-3	11	22.5	PCI/L
Cobalt-60	2-E18-4	11	22.5	PCI/L
Cobalt-60	2-E23-1	11	22.5	PCI/L
Cobalt-60	2-E24-1	11	22.5	PCI/L
Cobalt-60	2-E24-11	11	22.5	PCI/L
Cobalt-60	2-E24-12	11	22.5	PCI/L
Cobalt-60	2-E24-13	11	22.5	PCI/L
Cobalt-60	2-E24-16	11	22.5	PCI/L
Cobalt-60	2-E24-17	11	22.5	PCI/L
Cobalt-60	2-E24-18	11	22.5	PCI/L
Cobalt-60	2-E24-19	11	22.5	PCI/L
Cobalt-60	2-E24-2	11	22.5	PCI/L
Cobalt-60	2-E24-20	11	22.5	PCI/L
Cobalt-60	2-E24-4	11	22.5	PCI/L
Cobalt-60	2-E24-7	11	22.5	PCI/L
Cobalt-60	2-E24-8	11	22.5	PCI/L
Cobalt-60	2-E25-10	11	22.5	PCI/L
Cobalt-60	2-E25-11	11	22.5	PCI/L
Cobalt-60	2-E25-17	11	22.5	PCI/L
Cobalt-60	2-E25-18	11	22.5	PCI/L
Cobalt-60	2-E25-19	11	22.5	PCI/L
Cobalt-60	2-E25-2	11	22.5	PCI/L
Cobalt-60	2-E25-20	11	22.5	PCI/L
Cobalt-60	2-E25-21	11	22.5	PCI/L
Cobalt-60	2-E25-22	11	22.5	PCI/L
Cobalt-60	2-E25-23	11	22.5	PCI/L
Cobalt-60	2-E25-24	11	22.5	PCI/L
Cobalt-60	2-E25-25	11	22.5	PCI/L
Cobalt-60	2-E25-26	11	22.5	PCI/L
Cobalt-60	2-E25-27	11	22.5	PCI/L
Cobalt-60	2-E25-28	11	22.5	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Cobalt-60	2-E25-29P	11	22.5	PCI/L
Cobalt-60	2-E25-30P	11	22.5	PCI/L
Cobalt-60	2-E25-31	11	22.5	PCI/L
Cobalt-60	2-E25-32P	11	22.5	PCI/L
Cobalt-60	2-E25-33	11	22.5	PCI/L
Cobalt-60	2-E25-34	11	22.5	PCI/L
Cobalt-60	2-E25-35	11	22.5	PCI/L
Cobalt-60	2-E25-36	11	22.5	PCI/L
Cobalt-60	2-E25-37	11	22.5	PCI/L
Cobalt-60	2-E25-39	11	22.5	PCI/L
Cobalt-60	2-E25-40	11	22.5	PCI/L
Cobalt-60	2-E25-41	11	22.5	PCI/L
Cobalt-60	2-E25-6	11	22.5	PCI/L
Cobalt-60	2-E25-9	11	22.5	PCI/L
Cobalt-60	2-E26-11	11	22.5	PCI/L
Cobalt-60	2-E26-6	11	22.5	PCI/L
Cobalt-60	2-E26-9	11	22.5	PCI/L
Cobalt-60	2-E27-10	11	22.5	PCI/L
Cobalt-60	2-E27-11	11	22.5	PCI/L
Cobalt-60	2-E27-12	11	22.5	PCI/L
Cobalt-60	2-E27-13	11	22.5	PCI/L
Cobalt-60	2-E27-14	11	22.5	PCI/L
Cobalt-60	2-E27-15	11	22.5	PCI/L
Cobalt-60	2-E27-16	11	22.5	PCI/L
Cobalt-60	2-E27-5	11	22.5	PCI/L
Cobalt-60	2-E27-7	11	22.5	PCI/L
Cobalt-60	2-E27-8	11	22.5	PCI/L
Cobalt-60	2-E27-9	11	22.5	PCI/L
Cobalt-60	2-E28-1	11	22.5	PCI/L
Cobalt-60	2-E28-12	11	22.5	PCI/L
Cobalt-60	2-E28-13	11	22.5	PCI/L
Cobalt-60	2-E28-18	11	22.5	PCI/L
Cobalt-60	2-E28-21	11	22.5	PCI/L
Cobalt-60	2-E28-23	28	22.5	PCI/L
Cobalt-60	2-E28-24	11	22.5	PCI/L
Cobalt-60	2-E28-25	11	22.5	PCI/L
Cobalt-60	2-E28-26	11	22.5	PCI/L
Cobalt-60	2-E28-27	11	22.5	PCI/L
Cobalt-60	2-E28-28	11	22.5	PCI/L
Cobalt-60	2-E28-7	11	22.5	PCI/L
Cobalt-60	2-E32-1	11	22.5	PCI/L
Cobalt-60	2-E32-2	11	22.5	PCI/L
Cobalt-60	2-E32-3	11	22.5	PCI/L
Cobalt-60	2-E32-4	11	22.5	PCI/L
Cobalt-60	2-E32-5	11	22.5	PCI/L
Cobalt-60	2-E33-1	11	22.5	PCI/L
Cobalt-60	2-E33-13	11	22.5	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Cobalt-60	2-E33-14	11	22.5	PCI/L
Cobalt-60	2-E33-15	11	22.5	PCI/L
Cobalt-60	2-E33-18	11	22.5	PCI/L
Cobalt-60	2-E33-21	11	22.5	PCI/L
Cobalt-60	2-E33-24	11	22.5	PCI/L
Cobalt-60	2-E33-26	11	22.5	PCI/L
Cobalt-60	2-E33-28	11	22.5	PCI/L
Cobalt-60	2-E33-29	11	22.5	PCI/L
Cobalt-60	2-E33-3	11	22.5	PCI/L
Cobalt-60	2-E33-30	11	22.5	PCI/L
Cobalt-60	2-E33-31	11	22.5	PCI/L
Cobalt-60	2-E33-32	11	22.5	PCI/L
Cobalt-60	2-E33-33	11	22.5	PCI/L
Cobalt-60	2-E33-34	11	22.5	PCI/L
Cobalt-60	2-E33-35	11	22.5	PCI/L
Cobalt-60	2-E33-36	11	22.5	PCI/L
Cobalt-60	2-E33-37	11	22.5	PCI/L
Cobalt-60	2-E33-38	11	22.5	PCI/L
Cobalt-60	2-E33-39	11	22.5	PCI/L
Cobalt-60	2-E33-4	11	22.5	PCI/L
Cobalt-60	2-E33-41	11	22.5	PCI/L
Cobalt-60	2-E33-42	11	22.5	PCI/L
Cobalt-60	2-E33-43	11	22.5	PCI/L
Cobalt-60	2-E33-5	11	22.5	PCI/L
Cobalt-60	2-E33-7	40	22.5	PCI/L
Cobalt-60	2-E33-8	11	22.5	PCI/L
Cobalt-60	2-E33-9	11	22.5	PCI/L
Cobalt-60	2-E34-1	11	22.5	PCI/L
Cobalt-60	2-E34-2	11	22.5	PCI/L
Cobalt-60	2-E34-3	11	22.5	PCI/L
Cobalt-60	2-E34-5	11	22.5	PCI/L
Cobalt-60	2-E34-6	11	22.5	PCI/L
Cobalt-60	2-E34-7	11	22.5	PCI/L
Cobalt-60	2-E34-8	11	22.5	PCI/L
Cobalt-60	2-E35-1	11	22.5	PCI/L
Cobalt-60	2-W10-1	11	22.5	PCI/L
Cobalt-60	2-W10-13	11	22.5	PCI/L
Cobalt-60	2-W10-14	11	22.5	PCI/L
Cobalt-60	2-W10-15	11	22.5	PCI/L
Cobalt-60	2-W10-16	11	22.5	PCI/L
Cobalt-60	2-W10-17	11	22.5	PCI/L
Cobalt-60	2-W10-18	11	22.5	PCI/L
Cobalt-60	2-W10-3	11	22.5	PCI/L
Cobalt-60	2-W10-4	11	22.5	PCI/L
Cobalt-60	2-W10-8	11	22.5	PCI/L
Cobalt-60	2-W10-9	11	22.5	PCI/L
Cobalt-60	2-W11-11	11	22.5	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Cobalt-60	2-W11-14	11	22.5	PCI/L
Cobalt-60	2-W11-18	11	22.5	PCI/L
Cobalt-60	2-W11-23	11	22.5	PCI/L
Cobalt-60	2-W11-24	11	22.5	PCI/L
Cobalt-60	2-W14-10	11	22.5	PCI/L
Cobalt-60	2-W14-2	11	22.5	PCI/L
Cobalt-60	2-W14-5	11	22.5	PCI/L
Cobalt-60	2-W14-6	11	22.5	PCI/L
Cobalt-60	2-W15-10	11	22.5	PCI/L
Cobalt-60	2-W15-11	11	22.5	PCI/L
Cobalt-60	2-W15-15	11	22.5	PCI/L
Cobalt-60	2-W15-16	11	22.5	PCI/L
Cobalt-60	2-W15-17	11	22.5	PCI/L
Cobalt-60	2-W15-18	11	22.5	PCI/L
Cobalt-60	2-W15-19	11	22.5	PCI/L
Cobalt-60	2-W15-2	11	22.5	PCI/L
Cobalt-60	2-W15-20	11	22.5	PCI/L
Cobalt-60	2-W15-22	11	22.5	PCI/L
Cobalt-60	2-W15-23	11	22.5	PCI/L
Cobalt-60	2-W15-24	11	22.5	PCI/L
Cobalt-60	2-W15-3	11	22.5	PCI/L
Cobalt-60	2-W15-4	11	22.5	PCI/L
Cobalt-60	2-W15-6	11	22.5	PCI/L
Cobalt-60	2-W15-7	11	22.5	PCI/L
Cobalt-60	2-W15-8	11	22.5	PCI/L
Cobalt-60	2-W18-15	11	22.5	PCI/L
Cobalt-60	2-W18-17	11	22.5	PCI/L
Cobalt-60	2-W18-20	11	22.5	PCI/L
Cobalt-60	2-W18-21	11	22.5	PCI/L
Cobalt-60	2-W18-22	11	22.5	PCI/L
Cobalt-60	2-W18-23	11	22.5	PCI/L
Cobalt-60	2-W18-24	11	22.5	PCI/L
Cobalt-60	2-W18-25	11	22.5	PCI/L
Cobalt-60	2-W18-26	11	22.5	PCI/L
Cobalt-60	2-W18-5	11	22.5	PCI/L
Cobalt-60	2-W19-1	11	22.5	PCI/L
Cobalt-60	2-W19-11	11	22.5	PCI/L
Cobalt-60	2-W19-12	11	22.5	PCI/L
Cobalt-60	2-W19-13	11	22.5	PCI/L
Cobalt-60	2-W19-14	11	22.5	PCI/L
Cobalt-60	2-W19-15	11	22.5	PCI/L
Cobalt-60	2-W19-16	11	22.5	PCI/L
Cobalt-60	2-W19-17	11	22.5	PCI/L
Cobalt-60	2-W19-18	11	22.5	PCI/L
Cobalt-60	2-W19-19	11	22.5	PCI/L
Cobalt-60	2-W19-2	11	22.5	PCI/L
Cobalt-60	2-W19-20	11	22.5	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Cobalt-60	2-W19-21	11	22.5	PCI/L
Cobalt-60	2-W19-23	11	22.5	PCI/L
Cobalt-60	2-W19-24	11	22.5	PCI/L
Cobalt-60	2-W19-25	11	22.5	PCI/L
Cobalt-60	2-W19-26	11	22.5	PCI/L
Cobalt-60	2-W19-27	11	22.5	PCI/L
Cobalt-60	2-W19-28	11	22.5	PCI/L
Cobalt-60	2-W19-29	11	22.5	PCI/L
Cobalt-60	2-W19-3	11	22.5	PCI/L
Cobalt-60	2-W19-30	11	22.5	PCI/L
Cobalt-60	2-W19-31	11	22.5	PCI/L
Cobalt-60	2-W19-32	11	22.5	PCI/L
Cobalt-60	2-W19-9	11	22.5	PCI/L
Cobalt-60	2-W22-1	11	22.5	PCI/L
Cobalt-60	2-W22-10	11	22.5	PCI/L
Cobalt-60	2-W22-12	11	22.5	PCI/L
Cobalt-60	2-W22-18	11	22.5	PCI/L
Cobalt-60	2-W22-2	11	22.5	PCI/L
Cobalt-60	2-W22-20	11	22.5	PCI/L
Cobalt-60	2-W22-21	11	22.5	PCI/L
Cobalt-60	2-W22-22	11	22.5	PCI/L
Cobalt-60	2-W22-26	11	22.5	PCI/L
Cobalt-60	2-W22-39	11	22.5	PCI/L
Cobalt-60	2-W22-40	11	22.5	PCI/L
Cobalt-60	2-W22-41	11	22.5	PCI/L
Cobalt-60	2-W22-42	11	22.5	PCI/L
Cobalt-60	2-W23-1	11	22.5	PCI/L
Cobalt-60	2-W23-10	11	22.5	PCI/L
Cobalt-60	2-W23-11	11	22.5	PCI/L
Cobalt-60	2-W23-13	11	22.5	PCI/L
Cobalt-60	2-W23-14	11	22.5	PCI/L
Cobalt-60	2-W23-2	11	22.5	PCI/L
Cobalt-60	2-W23-3	11	22.5	PCI/L
Cobalt-60	2-W23-9	11	22.5	PCI/L
Cobalt-60	2-W26-10	11	22.5	PCI/L
Cobalt-60	2-W26-12	11	22.5	PCI/L
Cobalt-60	2-W26-3	11	22.5	PCI/L
Cobalt-60	2-W26-6	11	22.5	PCI/L
Cobalt-60	2-W26-7	11	22.5	PCI/L
Cobalt-60	2-W27-1	11	22.5	PCI/L
Cobalt-60	2-W6-1	11	22.5	PCI/L
Cobalt-60	2-W6-2	11	22.5	PCI/L
Cobalt-60	2-W6-4	11	22.5	PCI/L
Cobalt-60	2-W6-5	11	22.5	PCI/L
Cobalt-60	2-W6-6	11	22.5	PCI/L
Cobalt-60	2-W6-7	11	22.5	PCI/L
Cobalt-60	2-W6-8	11	22.5	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Cobalt-60	2-W7-1	11	22.5	PCI/L
Cobalt-60	2-W7-10	11	22.5	PCI/L
Cobalt-60	2-W7-11	11	22.5	PCI/L
Cobalt-60	2-W7-12	11	22.5	PCI/L
Cobalt-60	2-W7-2	11	22.5	PCI/L
Cobalt-60	2-W7-3	11	22.5	PCI/L
Cobalt-60	2-W7-4	11	22.5	PCI/L
Cobalt-60	2-W7-5	11	22.5	PCI/L
Cobalt-60	2-W7-6	11	22.5	PCI/L
Cobalt-60	2-W7-7	11	22.5	PCI/L
Cobalt-60	2-W7-8	11	22.5	PCI/L
Cobalt-60	2-W7-9	11	22.5	PCI/L
Cobalt-60	2-W8-1	11	22.5	PCI/L
Cobalt-60	2-W9-1	11	22.5	PCI/L
Cobalt-60	6-20-39	11	22.5	PCI/L
Cobalt-60	6-23-34	11	22.5	PCI/L
Cobalt-60	6-24-33	11	22.5	PCI/L
Cobalt-60	6-24-34A	11	22.5	PCI/L
Cobalt-60	6-24-34B	11	22.5	PCI/L
Cobalt-60	6-24-34C	11	22.5	PCI/L
Cobalt-60	6-24-35	11	22.5	PCI/L
Cobalt-60	6-25-34C	11	22.5	PCI/L
Cobalt-60	6-28-40P	11	22.5	PCI/L
Cobalt-60	6-31-31	11	22.5	PCI/L
Cobalt-60	6-31-53B	11	22.5	PCI/L
Cobalt-60	6-32-43	11	22.5	PCI/L
Cobalt-60	6-32-72	11	22.5	PCI/L
Cobalt-60	6-32-77	11	22.5	PCI/L
Cobalt-60	6-34-39A	11	22.5	PCI/L
Cobalt-60	6-34-41B	11	22.5	PCI/L
Cobalt-60	6-34-42	11	22.5	PCI/L
Cobalt-60	6-34-51	11	22.5	PCI/L
Cobalt-60	6-35-70	11	22.5	PCI/L
Cobalt-60	6-35-78A	11	22.5	PCI/L
Cobalt-60	6-36-46Q	11	22.5	PCI/L
Cobalt-60	6-36-46R	11	22.5	PCI/L
Cobalt-60	6-36-61A	11	22.5	PCI/L
Cobalt-60	6-37-82A	11	22.5	PCI/L
Cobalt-60	6-38-65	11	22.5	PCI/L
Cobalt-60	6-38-70	11	22.5	PCI/L
Cobalt-60	6-39-39	11	22.5	PCI/L
Cobalt-60	6-39-79	11	22.5	PCI/L
Cobalt-60	6-40-33A	11	22.5	PCI/L
Cobalt-60	6-40-62	11	22.5	PCI/L
Cobalt-60	6-42-40A	11	22.5	PCI/L
Cobalt-60	6-42-40B	11	22.5	PCI/L
Cobalt-60	6-43-41E	11	22.5	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Cobalt-60	6-43-41F	11	22.5	PCI/L
Cobalt-60	6-43-45	11	22.5	PCI/L
Cobalt-60	6-44-43B	11	22.5	PCI/L
Cobalt-60	6-45-42	11	22.5	PCI/L
Cobalt-60	6-45-69A	11	22.5	PCI/L
Cobalt-60	6-47-46A	11	22.5	PCI/L
Cobalt-60	6-47-60	11	22.5	PCI/L
Cobalt-60	6-48-18	11	22.5	PCI/L
Cobalt-60	6-48-50	11	22.5	PCI/L
Cobalt-60	6-48-71	11	22.5	PCI/L
Cobalt-60	6-49-100C	11	22.5	PCI/L
Cobalt-60	6-49-55A	80	22.5	PCI/L
Cobalt-60	6-49-57A	11	22.5	PCI/L
Cobalt-60	6-49-79	11	22.5	PCI/L
Cobalt-60	6-50-42	11	22.5	PCI/L
Cobalt-60	6-50-53A	440	22.5	PCI/L
Cobalt-60	6-52-54	28	22.5	PCI/L
Cobalt-60	6-52-57	11	22.5	PCI/L
Cobalt-60	6-53-47A	11	22.5	PCI/L
Cobalt-60	6-53-47B	11	22.5	PCI/L
Cobalt-60	6-53-48A	11	22.5	PCI/L
Cobalt-60	6-53-48B	11	22.5	PCI/L
Cobalt-60	6-53-55A	11	22.5	PCI/L
Cobalt-60	6-54-48	11	22.5	PCI/L
Cobalt-60	6-55-50A	11	22.5	PCI/L
Cobalt-60	6-55-50C	11	22.5	PCI/L
Cobalt-60	6-55-55	11	22.5	PCI/L
Cobalt-60	6-55-57	67	22.5	PCI/L
Cobalt-60	6-55-89	11	22.5	PCI/L
Cobalt-60	6-60-60	11	22.5	PCI/L
Cobalt-60	6-61-62	11	22.5	PCI/L
Cobalt-60	6-61-66	11	22.5	PCI/L
Cobalt-60	6-63-25A	11	22.5	PCI/L
Cobalt-60	6-63-58	11	22.5	PCI/L
Cobalt-60	6-64-62	11	22.5	PCI/L
Cobalt-60	6-65-59A	11	22.5	PCI/L
Cobalt-60	6-66-103	11	22.5	PCI/L
Cobalt-60	6-66-23	11	22.5	PCI/L
Cobalt-60	6-66-58	11	22.5	PCI/L
Cobalt-60	6-66-64	11	22.5	PCI/L
Cyanide	1-B4-4	10	10.0	PPB
Cyanide	1-B5-1	10	10.0	PPB
Cyanide	1-B9-1	10	10.0	PPB
Cyanide	2-E13-14	12	10.0	PPB
Cyanide	2-E13-5	12	10.0	PPB
Cyanide	2-E16-2	10	10.0	PPB
Cyanide	2-E17-1	13	10.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Cyanide	2-E17-12	13	10.0	PPB
Cyanide	2-E17-13	10	10.0	PPB
Cyanide	2-E17-14	15	10.0	PPB
Cyanide	2-E17-15	13	10.0	PPB
Cyanide	2-E17-16	15	10.0	PPB
Cyanide	2-E17-17	15	10.0	PPB
Cyanide	2-E17-18	15	10.0	PPB
Cyanide	2-E17-19	15	10.0	PPB
Cyanide	2-E17-20	15	10.0	PPB
Cyanide	2-E17-5	13	10.0	PPB
Cyanide	2-E17-6	10	10.0	PPB
Cyanide	2-E17-8	20	10.0	PPB
Cyanide	2-E17-9	10	10.0	PPB
Cyanide	2-E18-1	13	10.0	PPB
Cyanide	2-E18-2	10	10.0	PPB
Cyanide	2-E18-3	14	10.0	PPB
Cyanide	2-E18-4	13	10.0	PPB
Cyanide	2-E24-12	10	10.0	PPB
Cyanide	2-E24-16	15	10.0	PPB
Cyanide	2-E24-17	13	10.0	PPB
Cyanide	2-E24-18	15	10.0	PPB
Cyanide	2-E24-19	20	10.0	PPB
Cyanide	2-E24-2	10	10.0	PPB
Cyanide	2-E24-20	20	10.0	PPB
Cyanide	2-E24-4	13	10.0	PPB
Cyanide	2-E24-8	10	10.0	PPB
Cyanide	2-E25-11	10	10.0	PPB
Cyanide	2-E25-17	10	10.0	PPB
Cyanide	2-E25-18	15	10.0	PPB
Cyanide	2-E25-19	11	10.0	PPB
Cyanide	2-E25-20	12	10.0	PPB
Cyanide	2-E25-21	12	10.0	PPB
Cyanide	2-E25-22	13	10.0	PPB
Cyanide	2-E25-23	12	10.0	PPB
Cyanide	2-E25-24	10	10.0	PPB
Cyanide	2-E25-25	10	10.0	PPB
Cyanide	2-E25-26	13	10.0	PPB
Cyanide	2-E25-28	13	10.0	PPB
Cyanide	2-E25-29P	15	10.0	PPB
Cyanide	2-E25-30P	10	10.0	PPB
Cyanide	2-E25-31	13	10.0	PPB
Cyanide	2-E25-32P	10	10.0	PPB
Cyanide	2-E25-33	15	10.0	PPB
Cyanide	2-E25-34	10	10.0	PPB
Cyanide	2-E25-35	10	10.0	PPB
Cyanide	2-E25-36	15	10.0	PPB
Cyanide	2-E25-37	15	10.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Cyanide	2-E25-38	10	10.0	PPB
Cyanide	2-E25-39	20	10.0	PPB
Cyanide	2-E25-40	20	10.0	PPB
Cyanide	2-E25-41	20	10.0	PPB
Cyanide	2-E25-42	20	10.0	PPB
Cyanide	2-E25-43	20	10.0	PPB
Cyanide	2-E25-6	15	10.0	PPB
Cyanide	2-E25-9	10	10.0	PPB
Cyanide	2-E26-1	10	10.0	PPB
Cyanide	2-E26-10	20	10.0	PPB
Cyanide	2-E26-11	20	10.0	PPB
Cyanide	2-E26-12	20	10.0	PPB
Cyanide	2-E26-13	20	10.0	PPB
Cyanide	2-E26-5	10	10.0	PPB
Cyanide	2-E26-9	20	10.0	PPB
Cyanide	2-E27-10	14	10.0	PPB
Cyanide	2-E27-11	18	10.0	PPB
Cyanide	2-E27-12	20	10.0	PPB
Cyanide	2-E27-13	20	10.0	PPB
Cyanide	2-E27-14	20	10.0	PPB
Cyanide	2-E27-15	20	10.0	PPB
Cyanide	2-E27-16	20	10.0	PPB
Cyanide	2-E27-5	10	10.0	PPB
Cyanide	2-E27-7	20	10.0	PPB
Cyanide	2-E27-8	13	10.0	PPB
Cyanide	2-E27-9	13	10.0	PPB
Cyanide	2-E28-1	20	10.0	PPB
Cyanide	2-E28-12	10	10.0	PPB
Cyanide	2-E28-13	10	10.0	PPB
Cyanide	2-E28-16	20	10.0	PPB
Cyanide	2-E28-18	13	10.0	PPB
Cyanide	2-E28-19	20	10.0	PPB
Cyanide	2-E28-21	12	10.0	PPB
Cyanide	2-E28-23	10	10.0	PPB
Cyanide	2-E28-26	15	10.0	PPB
Cyanide	2-E28-27	15	10.0	PPB
Cyanide	2-E28-28	20	10.0	PPB
Cyanide	2-E28-5	20	10.0	PPB
Cyanide	2-E28-7	10	10.0	PPB
Cyanide	2-E32-1	13	10.0	PPB
Cyanide	2-E32-2	5	10.0	PPB
Cyanide	2-E32-2	13	10.0	PPB
Cyanide	2-E32-3	15	10.0	PPB
Cyanide	2-E32-4	14	10.0	PPB
Cyanide	2-E32-5	17	10.0	PPB
Cyanide	2-E33-1	5	10.0	PPB
Cyanide	2-E33-1	11	10.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Cyanide	2-E33-13	5	10.0	PPB
Cyanide	2-E33-13	14	10.0	PPB
Cyanide	2-E33-14	5	10.0	PPB
Cyanide	2-E33-14	10	10.0	PPB
Cyanide	2-E33-15	5	10.0	PPB
Cyanide	2-E33-15	11	10.0	PPB
Cyanide	2-E33-18	5	10.0	PPB
Cyanide	2-E33-18	11	10.0	PPB
Cyanide	2-E33-21	10	10.0	PPB
Cyanide	2-E33-24	5	10.0	PPB
Cyanide	2-E33-24	12	10.0	PPB
Cyanide	2-E33-26	5	10.0	PPB
Cyanide	2-E33-26	11	10.0	PPB
Cyanide	2-E33-28	5	10.0	PPB
Cyanide	2-E33-28	13	10.0	PPB
Cyanide	2-E33-29	5	10.0	PPB
Cyanide	2-E33-29	14	10.0	PPB
Cyanide	2-E33-3	11	10.0	PPB
Cyanide	2-E33-3	16	10.0	PPB
Cyanide	2-E33-30	5	10.0	PPB
Cyanide	2-E33-30	13	10.0	PPB
Cyanide	2-E33-31	5	10.0	PPB
Cyanide	2-E33-31	17	10.0	PPB
Cyanide	2-E33-32	5	10.0	PPB
Cyanide	2-E33-32	16	10.0	PPB
Cyanide	2-E33-33	5	10.0	PPB
Cyanide	2-E33-33	14	10.0	PPB
Cyanide	2-E33-34	5	10.0	PPB
Cyanide	2-E33-34	16	10.0	PPB
Cyanide	2-E33-35	5	10.0	PPB
Cyanide	2-E33-35	17	10.0	PPB
Cyanide	2-E33-36	20	10.0	PPB
Cyanide	2-E33-37	20	10.0	PPB
Cyanide	2-E33-38	5	10.0	PPB
Cyanide	2-E33-38	10	10.0	PPB
Cyanide	2-E33-39	5	10.0	PPB
Cyanide	2-E33-39	11	10.0	PPB
Cyanide	2-E33-4	23	10.0	PPB
Cyanide	2-E33-4	29	10.0	PPB
Cyanide	2-E33-41	38	10.0	PPB
Cyanide	2-E33-42	25	10.0	PPB
Cyanide	2-E33-43	20	10.0	PPB
Cyanide	2-E33-5	13	10.0	PPB
Cyanide	2-E33-5	15	10.0	PPB
Cyanide	2-E33-7	31	10.0	PPB
Cyanide	2-E33-7	33	10.0	PPB
Cyanide	2-E33-8	10	10.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Cyanide	2-E34-1	5	10.0	PPB
Cyanide	2-E34-1	12	10.0	PPB
Cyanide	2-E34-2	5	10.0	PPB
Cyanide	2-E34-2	12	10.0	PPB
Cyanide	2-E34-3	13	10.0	PPB
Cyanide	2-E34-5	5	10.0	PPB
Cyanide	2-E34-5	13	10.0	PPB
Cyanide	2-E34-6	11	10.0	PPB
Cyanide	2-E34-7	16	10.0	PPB
Cyanide	2-E34-8	20	10.0	PPB
Cyanide	2-E35-1	10	10.0	PPB
Cyanide	2-W10-13	15	10.0	PPB
Cyanide	2-W10-14	15	10.0	PPB
Cyanide	2-W10-15	20	10.0	PPB
Cyanide	2-W10-16	20	10.0	PPB
Cyanide	2-W10-17	20	10.0	PPB
Cyanide	2-W10-18	20	10.0	PPB
Cyanide	2-W10-4	10	10.0	PPB
Cyanide	2-W10-8	10	10.0	PPB
Cyanide	2-W10-9	15	10.0	PPB
Cyanide	2-W11-14	13	10.0	PPB
Cyanide	2-W11-18	20	10.0	PPB
Cyanide	2-W11-23	20	10.0	PPB
Cyanide	2-W11-7	10	10.0	PPB
Cyanide	2-W12-1	20	10.0	PPB
Cyanide	2-W14-10	10	10.0	PPB
Cyanide	2-W14-2	50	10.0	PPB
Cyanide	2-W14-5	10	10.0	PPB
Cyanide	2-W14-6	10	10.0	PPB
Cyanide	2-W15-10	10	10.0	PPB
Cyanide	2-W15-11	10	10.0	PPB
Cyanide	2-W15-12	10	10.0	PPB
Cyanide	2-W15-15	13	10.0	PPB
Cyanide	2-W15-16	15	10.0	PPB
Cyanide	2-W15-17	16	10.0	PPB
Cyanide	2-W15-18	15	10.0	PPB
Cyanide	2-W15-19	20	10.0	PPB
Cyanide	2-W15-20	20	10.0	PPB
Cyanide	2-W15-22	20	10.0	PPB
Cyanide	2-W15-23	20	10.0	PPB
Cyanide	2-W15-24	20	10.0	PPB
Cyanide	2-W15-4	13	10.0	PPB
Cyanide	2-W15-6	20	10.0	PPB
Cyanide	2-W15-7	13	10.0	PPB
Cyanide	2-W15-8	25	10.0	PPB
Cyanide	2-W18-15	10	10.0	PPB
Cyanide	2-W18-17	10	10.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Cyanide	2-W18-20	10	10.0	PPB
Cyanide	2-W18-21	14	10.0	PPB
Cyanide	2-W18-22	14	10.0	PPB
Cyanide	2-W18-23	15	10.0	PPB
Cyanide	2-W18-24	15	10.0	PPB
Cyanide	2-W18-25	20	10.0	PPB
Cyanide	2-W18-26	20	10.0	PPB
Cyanide	2-W18-4	10	10.0	PPB
Cyanide	2-W18-5	25	10.0	PPB
Cyanide	2-W18-9	10	10.0	PPB
Cyanide	2-W19-1	15	10.0	PPB
Cyanide	2-W19-11	10	10.0	PPB
Cyanide	2-W19-13	13	10.0	PPB
Cyanide	2-W19-15	10	10.0	PPB
Cyanide	2-W19-16	10	10.0	PPB
Cyanide	2-W19-18	13	10.0	PPB
Cyanide	2-W19-19	10	10.0	PPB
Cyanide	2-W19-20	10	10.0	PPB
Cyanide	2-W19-21	12	10.0	PPB
Cyanide	2-W19-23	10	10.0	PPB
Cyanide	2-W19-24	12	10.0	PPB
Cyanide	2-W19-25	10	10.0	PPB
Cyanide	2-W19-26	15	10.0	PPB
Cyanide	2-W19-27	15	10.0	PPB
Cyanide	2-W19-28	16	10.0	PPB
Cyanide	2-W19-29	20	10.0	PPB
Cyanide	2-W19-3	10	10.0	PPB
Cyanide	2-W19-30	20	10.0	PPB
Cyanide	2-W19-31	20	10.0	PPB
Cyanide	2-W19-32	20	10.0	PPB
Cyanide	2-W19-5	10	10.0	PPB
Cyanide	2-W19-9	10	10.0	PPB
Cyanide	2-W22-1	10	10.0	PPB
Cyanide	2-W22-12	10	10.0	PPB
Cyanide	2-W22-2	10	10.0	PPB
Cyanide	2-W22-20	12	10.0	PPB
Cyanide	2-W22-21	20	10.0	PPB
Cyanide	2-W22-22	10	10.0	PPB
Cyanide	2-W22-26	10	10.0	PPB
Cyanide	2-W22-39	20	10.0	PPB
Cyanide	2-W22-40	20	10.0	PPB
Cyanide	2-W22-41	20	10.0	PPB
Cyanide	2-W22-42	20	10.0	PPB
Cyanide	2-W23-10	10	10.0	PPB
Cyanide	2-W23-11	20	10.0	PPB
Cyanide	2-W23-13	20	10.0	PPB
Cyanide	2-W23-14	20	10.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Cyanide	2-W26-10	20	10.0	PPB
Cyanide	2-W26-12	20	10.0	PPB
Cyanide	2-W26-3	10	10.0	PPB
Cyanide	2-W26-6	15	10.0	PPB
Cyanide	2-W26-7	20	10.0	PPB
Cyanide	2-W26-8	20	10.0	PPB
Cyanide	2-W26-9	20	10.0	PPB
Cyanide	2-W27-1	10	10.0	PPB
Cyanide	2-W6-2	16	10.0	PPB
Cyanide	2-W6-4	20	10.0	PPB
Cyanide	2-W6-5	20	10.0	PPB
Cyanide	2-W6-6	20	10.0	PPB
Cyanide	2-W6-7	20	10.0	PPB
Cyanide	2-W6-8	20	10.0	PPB
Cyanide	2-W7-1	16	10.0	PPB
Cyanide	2-W7-10	20	10.0	PPB
Cyanide	2-W7-11	20	10.0	PPB
Cyanide	2-W7-12	20	10.0	PPB
Cyanide	2-W7-2	16	10.0	PPB
Cyanide	2-W7-3	15	10.0	PPB
Cyanide	2-W7-4	15	10.0	PPB
Cyanide	2-W7-5	15	10.0	PPB
Cyanide	2-W7-6	16	10.0	PPB
Cyanide	2-W7-7	20	10.0	PPB
Cyanide	2-W7-8	20	10.0	PPB
Cyanide	2-W7-9	20	10.0	PPB
Cyanide	2-W8-1	16	10.0	PPB
Cyanide	2-W9-1	16	10.0	PPB
Cyanide	6-20-39	10	10.0	PPB
Cyanide	6-23-34	10	10.0	PPB
Cyanide	6-24-33	10	10.0	PPB
Cyanide	6-24-34A	10	10.0	PPB
Cyanide	6-24-34B	10	10.0	PPB
Cyanide	6-24-34C	10	10.0	PPB
Cyanide	6-24-35	10	10.0	PPB
Cyanide	6-24-46	10	10.0	PPB
Cyanide	6-25-33A	10	10.0	PPB
Cyanide	6-25-34A	10	10.0	PPB
Cyanide	6-25-34B	10	10.0	PPB
Cyanide	6-25-34C	10	10.0	PPB
Cyanide	6-26-33	10	10.0	PPB
Cyanide	6-26-34	10	10.0	PPB
Cyanide	6-26-35A	10	10.0	PPB
Cyanide	6-26-35C	10	10.0	PPB
Cyanide	6-29-78	10	10.0	PPB
Cyanide	6-31-31	10	10.0	PPB
Cyanide	6-32-43	10	10.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Cyanide	6-32-70B	10	10.0	PPB
Cyanide	6-32-72	10	10.0	PPB
Cyanide	6-32-77	10	10.0	PPB
Cyanide	6-33-56	20	10.0	PPB
Cyanide	6-34-42	20	10.0	PPB
Cyanide	6-34-51	20	10.0	PPB
Cyanide	6-35-66	10	10.0	PPB
Cyanide	6-35-70	15	10.0	PPB
Cyanide	6-35-78A	10	10.0	PPB
Cyanide	6-36-61A	13	10.0	PPB
Cyanide	6-37-82A	15	10.0	PPB
Cyanide	6-38-65	10	10.0	PPB
Cyanide	6-38-70	18	10.0	PPB
Cyanide	6-39-39	10	10.0	PPB
Cyanide	6-39-79	10	10.0	PPB
Cyanide	6-40-33A	10	10.0	PPB
Cyanide	6-40-62	13	10.0	PPB
Cyanide	6-42-40A	10	10.0	PPB
Cyanide	6-42-40B	10	10.0	PPB
Cyanide	6-42-42B	10	10.0	PPB
Cyanide	6-43-41E	10	10.0	PPB
Cyanide	6-43-41F	10	10.0	PPB
Cyanide	6-43-42J	20	10.0	PPB
Cyanide	6-43-43	10	10.0	PPB
Cyanide	6-43-45	10	10.0	PPB
Cyanide	6-43-88	10	10.0	PPB
Cyanide	6-44-42	20	10.0	PPB
Cyanide	6-44-43B	10	10.0	PPB
Cyanide	6-44-64	15	10.0	PPB
Cyanide	6-45-42	35	10.0	PPB
Cyanide	6-45-69A	13	10.0	PPB
Cyanide	6-46-21B	10	10.0	PPB
Cyanide	6-47-35A	10	10.0	PPB
Cyanide	6-47-46A	10	10.0	PPB
Cyanide	6-47-60	5	10.0	PPB
Cyanide	6-47-60	18	10.0	PPB
Cyanide	6-48-50	5	10.0	PPB
Cyanide	6-48-50	11	10.0	PPB
Cyanide	6-48-71	15	10.0	PPB
Cyanide	6-49-55A	22	10.0	PPB
Cyanide	6-49-55A	81	10.0	PPB
Cyanide	6-49-57A	22	10.0	PPB
Cyanide	6-49-57A	30	10.0	PPB
Cyanide	6-49-79	12	10.0	PPB
Cyanide	6-50-53A	612	10.0	PPB
Cyanide	6-50-53A	890	10.0	PPB
Cyanide	6-50-85	10	10.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Cyanide	6-52-54	13	10.0	PPB
Cyanide	6-52-54	46	10.0	PPB
Cyanide	6-52-57	5	10.0	PPB
Cyanide	6-52-57	10	10.0	PPB
Cyanide	6-53-47A	10	10.0	PPB
Cyanide	6-53-55A	5	10.0	PPB
Cyanide	6-53-55A	15	10.0	PPB
Cyanide	6-54-34	10	10.0	PPB
Cyanide	6-55-50C	13	10.0	PPB
Cyanide	6-55-55	5	10.0	PPB
Cyanide	6-55-55	28	10.0	PPB
Cyanide	6-55-57	91	10.0	PPB
Cyanide	6-55-57	107	10.0	PPB
Cyanide	6-55-76	10	10.0	PPB
Cyanide	6-57-29A	10	10.0	PPB
Cyanide	6-59-58	10	10.0	PPB
Cyanide	6-60-57	10	10.0	PPB
Cyanide	6-65-72	16	10.0	PPB
Cyanide	6-65-83	10	10.0	PPB
Cyanide	6-67-86	10	10.0	PPB
Fluoride	1-84-2	250	500.0	PPB
Fluoride	1-84-3	250	500.0	PPB
Fluoride	1-84-4	250	500.0	PPB
Fluoride	1-85-1	500	500.0	PPB
Fluoride	1-89-1	250	500.0	PPB
Fluoride	2-E13-14	571	500.0	PPB
Fluoride	2-E13-19	500	500.0	PPB
Fluoride	2-E13-5	250	500.0	PPB
Fluoride	2-E13-8	500	500.0	PPB
Fluoride	2-E16-2	550	500.0	PPB
Fluoride	2-E17-1	539	500.0	PPB
Fluoride	2-E17-12	541	500.0	PPB
Fluoride	2-E17-13	563	500.0	PPB
Fluoride	2-E17-14	539	500.0	PPB
Fluoride	2-E17-15	638	500.0	PPB
Fluoride	2-E17-16	535	500.0	PPB
Fluoride	2-E17-17	572	500.0	PPB
Fluoride	2-E17-18	510	500.0	PPB
Fluoride	2-E17-19	557	500.0	PPB
Fluoride	2-E17-2	633	500.0	PPB
Fluoride	2-E17-20	539	500.0	PPB
Fluoride	2-E17-5	537	500.0	PPB
Fluoride	2-E17-6	527	500.0	PPB
Fluoride	2-E17-8	250	500.0	PPB
Fluoride	2-E17-9	600	500.0	PPB
Fluoride	2-E18-1	530	500.0	PPB
Fluoride	2-E18-2	645	500.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Fluoride	2-E18-3	250	500.0	PPB
Fluoride	2-E18-4	250	500.0	PPB
Fluoride	2-E23-1	500	500.0	PPB
Fluoride	2-E24-12	500	500.0	PPB
Fluoride	2-E24-16	250	500.0	PPB
Fluoride	2-E24-17	250	500.0	PPB
Fluoride	2-E24-18	535	500.0	PPB
Fluoride	2-E24-19	250	500.0	PPB
Fluoride	2-E24-2	250	500.0	PPB
Fluoride	2-E24-20	250	500.0	PPB
Fluoride	2-E24-4	250	500.0	PPB
Fluoride	2-E24-7	550	500.0	PPB
Fluoride	2-E24-8	500	500.0	PPB
Fluoride	2-E25-11	250	500.0	PPB
Fluoride	2-E25-13	500	500.0	PPB
Fluoride	2-E25-17	500	500.0	PPB
Fluoride	2-E25-18	532	500.0	PPB
Fluoride	2-E25-19	600	500.0	PPB
Fluoride	2-E25-2	500	500.0	PPB
Fluoride	2-E25-20	732	500.0	PPB
Fluoride	2-E25-21	685	500.0	PPB
Fluoride	2-E25-22	250	500.0	PPB
Fluoride	2-E25-23	513	500.0	PPB
Fluoride	2-E25-24	680	500.0	PPB
Fluoride	2-E25-25	250	500.0	PPB
Fluoride	2-E25-26	250	500.0	PPB
Fluoride	2-E25-27	500	500.0	PPB
Fluoride	2-E25-28	250	500.0	PPB
Fluoride	2-E25-29P	540	500.0	PPB
Fluoride	2-E25-3	500	500.0	PPB
Fluoride	2-E25-30P	541	500.0	PPB
Fluoride	2-E25-31	250	500.0	PPB
Fluoride	2-E25-32P	250	500.0	PPB
Fluoride	2-E25-33	614	500.0	PPB
Fluoride	2-E25-34	250	500.0	PPB
Fluoride	2-E25-35	724	500.0	PPB
Fluoride	2-E25-36	250	500.0	PPB
Fluoride	2-E25-37	250	500.0	PPB
Fluoride	2-E25-38	250	500.0	PPB
Fluoride	2-E25-39	250	500.0	PPB
Fluoride	2-E25-40	250	500.0	PPB
Fluoride	2-E25-41	250	500.0	PPB
Fluoride	2-E25-42	700	500.0	PPB
Fluoride	2-E25-43	250	500.0	PPB
Fluoride	2-E25-6	250	500.0	PPB
Fluoride	2-E25-9	250	500.0	PPB
Fluoride	2-E26-1	500	500.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Fluoride	2-E26-10	250	500.0	PPB
Fluoride	2-E26-11	502	500.0	PPB
Fluoride	2-E26-12	250	500.0	PPB
Fluoride	2-E26-13	250	500.0	PPB
Fluoride	2-E26-2	500	500.0	PPB
Fluoride	2-E26-4	500	500.0	PPB
Fluoride	2-E26-5	500	500.0	PPB
Fluoride	2-E26-9	528	500.0	PPB
Fluoride	2-E27-10	250	500.0	PPB
Fluoride	2-E27-11	500	500.0	PPB
Fluoride	2-E27-12	250	500.0	PPB
Fluoride	2-E27-13	250	500.0	PPB
Fluoride	2-E27-14	250	500.0	PPB
Fluoride	2-E27-15	250	500.0	PPB
Fluoride	2-E27-16	250	500.0	PPB
Fluoride	2-E27-5	500	500.0	PPB
Fluoride	2-E27-7	250	500.0	PPB
Fluoride	2-E27-8	250	500.0	PPB
Fluoride	2-E27-9	250	500.0	PPB
Fluoride	2-E28-1	250	500.0	PPB
Fluoride	2-E28-12	667	500.0	PPB
Fluoride	2-E28-13	556	500.0	PPB
Fluoride	2-E28-16	500	500.0	PPB
Fluoride	2-E28-17	600	500.0	PPB
Fluoride	2-E28-18	250	500.0	PPB
Fluoride	2-E28-19	500	500.0	PPB
Fluoride	2-E28-21	569	500.0	PPB
Fluoride	2-E28-23	549	500.0	PPB
Fluoride	2-E28-24	2467	500.0	PPB
Fluoride	2-E28-25	533	500.0	PPB
Fluoride	2-E28-26	543	500.0	PPB
Fluoride	2-E28-27	580	500.0	PPB
Fluoride	2-E28-28	518	500.0	PPB
Fluoride	2-E28-5	250	500.0	PPB
Fluoride	2-E28-7	525	500.0	PPB
Fluoride	2-E28-9	650	500.0	PPB
Fluoride	2-E32-1	502	500.0	PPB
Fluoride	2-E32-2	250	500.0	PPB
Fluoride	2-E32-3	530	500.0	PPB
Fluoride	2-E32-4	593	500.0	PPB
Fluoride	2-E32-5	560	500.0	PPB
Fluoride	2-E33-1	250	500.0	PPB
Fluoride	2-E33-13	250	500.0	PPB
Fluoride	2-E33-14	250	500.0	PPB
Fluoride	2-E33-15	250	500.0	PPB
Fluoride	2-E33-18	250	500.0	PPB
Fluoride	2-E33-21	500	500.0	PPB

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Constituent	Well	Average of Result	D.L.	Unit
Fluoride	2-E33-24	250	500.0	PPB
Fluoride	2-E33-26	250	500.0	PPB
Fluoride	2-E33-28	250	500.0	PPB
Fluoride	2-E33-29	250	500.0	PPB
Fluoride	2-E33-3	250	500.0	PPB
Fluoride	2-E33-30	250	500.0	PPB
Fluoride	2-E33-31	250	500.0	PPB
Fluoride	2-E33-32	250	500.0	PPB
Fluoride	2-E33-33	250	500.0	PPB
Fluoride	2-E33-34	250	500.0	PPB
Fluoride	2-E33-35	250	500.0	PPB
Fluoride	2-E33-36	250	500.0	PPB
Fluoride	2-E33-37	250	500.0	PPB
Fluoride	2-E33-38	250	500.0	PPB
Fluoride	2-E33-39	250	500.0	PPB
Fluoride	2-E33-4	250	500.0	PPB
Fluoride	2-E33-41	506	500.0	PPB
Fluoride	2-E33-42	250	500.0	PPB
Fluoride	2-E33-43	250	500.0	PPB
Fluoride	2-E33-5	250	500.0	PPB
Fluoride	2-E33-7	250	500.0	PPB
Fluoride	2-E33-8	500	500.0	PPB
Fluoride	2-E34-1	250	500.0	PPB
Fluoride	2-E34-2	250	500.0	PPB
Fluoride	2-E34-3	250	500.0	PPB
Fluoride	2-E34-5	250	500.0	PPB
Fluoride	2-E34-6	586	500.0	PPB
Fluoride	2-E34-7	540	500.0	PPB
Fluoride	2-E34-8	250	500.0	PPB
Fluoride	2-E35-1	500	500.0	PPB
Fluoride	2-E35-2	552	500.0	PPB
Fluoride	2-W10-13	250	500.0	PPB
Fluoride	2-W10-14	250	500.0	PPB
Fluoride	2-W10-15	4386	500.0	PPB
Fluoride	2-W10-16	2033	500.0	PPB
Fluoride	2-W10-17	1840	500.0	PPB
Fluoride	2-W10-18	1240	500.0	PPB
Fluoride	2-W10-4	3113	500.0	PPB
Fluoride	2-W10-8	1200	500.0	PPB
Fluoride	2-W10-9	4590	500.0	PPB
Fluoride	2-W11-14	741	500.0	PPB
Fluoride	2-W11-18	1700	500.0	PPB
Fluoride	2-W11-23	500	500.0	PPB
Fluoride	2-W11-7	1250	500.0	PPB
Fluoride	2-W12-1	700	500.0	PPB
Fluoride	2-W14-10	547	500.0	PPB
Fluoride	2-W14-2	1044	500.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Fluoride	2-W14-5	1920	500.0	PPB
Fluoride	2-W14-6	2804	500.0	PPB
Fluoride	2-W15-10	500	500.0	PPB
Fluoride	2-W15-11	500	500.0	PPB
Fluoride	2-W15-12	1794	500.0	PPB
Fluoride	2-W15-15	250	500.0	PPB
Fluoride	2-W15-16	664	500.0	PPB
Fluoride	2-W15-17	250	500.0	PPB
Fluoride	2-W15-18	631	500.0	PPB
Fluoride	2-W15-19	500	500.0	PPB
Fluoride	2-W15-20	535	500.0	PPB
Fluoride	2-W15-22	503	500.0	PPB
Fluoride	2-W15-23	550	500.0	PPB
Fluoride	2-W15-24	624	500.0	PPB
Fluoride	2-W15-4	10067	500.0	PPB
Fluoride	2-W15-6	500	500.0	PPB
Fluoride	2-W15-7	542	500.0	PPB
Fluoride	2-W15-8	1458	500.0	PPB
Fluoride	2-W18-15	500	500.0	PPB
Fluoride	2-W18-17	610	500.0	PPB
Fluoride	2-W18-20	250	500.0	PPB
Fluoride	2-W18-21	250	500.0	PPB
Fluoride	2-W18-22	250	500.0	PPB
Fluoride	2-W18-23	250	500.0	PPB
Fluoride	2-W18-24	652	500.0	PPB
Fluoride	2-W18-25	250	500.0	PPB
Fluoride	2-W18-26	638	500.0	PPB
Fluoride	2-W18-4	775	500.0	PPB
Fluoride	2-W18-5	653	500.0	PPB
Fluoride	2-W18-8	500	500.0	PPB
Fluoride	2-W18-9	500	500.0	PPB
Fluoride	2-W19-1	500	500.0	PPB
Fluoride	2-W19-11	584	500.0	PPB
Fluoride	2-W19-12	600	500.0	PPB
Fluoride	2-W19-13	683	500.0	PPB
Fluoride	2-W19-15	560	500.0	PPB
Fluoride	2-W19-16	598	500.0	PPB
Fluoride	2-W19-18	531	500.0	PPB
Fluoride	2-W19-19	750	500.0	PPB
Fluoride	2-W19-2	500	500.0	PPB
Fluoride	2-W19-20	1302	500.0	PPB
Fluoride	2-W19-21	250	500.0	PPB
Fluoride	2-W19-23	533	500.0	PPB
Fluoride	2-W19-24	1025	500.0	PPB
Fluoride	2-W19-25	1600	500.0	PPB
Fluoride	2-W19-26	1500	500.0	PPB
Fluoride	2-W19-27	250	500.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Fluoride	2-W19-28	750	500.0	PPB
Fluoride	2-W19-29	1167	500.0	PPB
Fluoride	2-W19-3	572	500.0	PPB
Fluoride	2-W19-30	2550	500.0	PPB
Fluoride	2-W19-31	250	500.0	PPB
Fluoride	2-W19-32	563	500.0	PPB
Fluoride	2-W19-5	500	500.0	PPB
Fluoride	2-W19-9	652	500.0	PPB
Fluoride	2-W22-1	500	500.0	PPB
Fluoride	2-W22-10	250	500.0	PPB
Fluoride	2-W22-12	540	500.0	PPB
Fluoride	2-W22-2	650	500.0	PPB
Fluoride	2-W22-20	539	500.0	PPB
Fluoride	2-W22-21	500	500.0	PPB
Fluoride	2-W22-22	501	500.0	PPB
Fluoride	2-W22-26	500	500.0	PPB
Fluoride	2-W22-39	525	500.0	PPB
Fluoride	2-W22-40	550	500.0	PPB
Fluoride	2-W22-41	725	500.0	PPB
Fluoride	2-W22-42	670	500.0	PPB
Fluoride	2-W22-9	1950	500.0	PPB
Fluoride	2-W23-1	1000	500.0	PPB
Fluoride	2-W23-10	500	500.0	PPB
Fluoride	2-W23-11	250	500.0	PPB
Fluoride	2-W23-13	575	500.0	PPB
Fluoride	2-W23-14	250	500.0	PPB
Fluoride	2-W23-4	500	500.0	PPB
Fluoride	2-W23-9	250	500.0	PPB
Fluoride	2-W26-10	513	500.0	PPB
Fluoride	2-W26-12	1000	500.0	PPB
Fluoride	2-W26-3	500	500.0	PPB
Fluoride	2-W26-6	250	500.0	PPB
Fluoride	2-W26-7	607	500.0	PPB
Fluoride	2-W26-8	518	500.0	PPB
Fluoride	2-W26-9	513	500.0	PPB
Fluoride	2-W27-1	250	500.0	PPB
Fluoride	2-W6-2	250	500.0	PPB
Fluoride	2-W6-4	250	500.0	PPB
Fluoride	2-W6-5	500	500.0	PPB
Fluoride	2-W6-6	250	500.0	PPB
Fluoride	2-W6-7	250	500.0	PPB
Fluoride	2-W6-8	250	500.0	PPB
Fluoride	2-W7-1	250	500.0	PPB
Fluoride	2-W7-10	250	500.0	PPB
Fluoride	2-W7-11	250	500.0	PPB
Fluoride	2-W7-12	250	500.0	PPB
Fluoride	2-W7-2	250	500.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Fluoride	2-W7-3	250	500.0	PPB
Fluoride	2-W7-4	250	500.0	PPB
Fluoride	2-W7-5	517	500.0	PPB
Fluoride	2-W7-6	625	500.0	PPB
Fluoride	2-W7-7	530	500.0	PPB
Fluoride	2-W7-8	531	500.0	PPB
Fluoride	2-W7-9	531	500.0	PPB
Fluoride	2-W8-1	250	500.0	PPB
Fluoride	2-W9-1	250	500.0	PPB
Fluoride	6-20-20	250	500.0	PPB
Fluoride	6-20-39	542	500.0	PPB
Fluoride	6-23-34	550	500.0	PPB
Fluoride	6-24-33	531	500.0	PPB
Fluoride	6-24-34A	525	500.0	PPB
Fluoride	6-24-34B	551	500.0	PPB
Fluoride	6-24-34C	555	500.0	PPB
Fluoride	6-24-35	519	500.0	PPB
Fluoride	6-24-46	523	500.0	PPB
Fluoride	6-25-33A	514	500.0	PPB
Fluoride	6-25-34A	564	500.0	PPB
Fluoride	6-25-34B	587	500.0	PPB
Fluoride	6-25-34C	528	500.0	PPB
Fluoride	6-26-33	606	500.0	PPB
Fluoride	6-26-34	589	500.0	PPB
Fluoride	6-26-35A	548	500.0	PPB
Fluoride	6-26-35C	250	500.0	PPB
Fluoride	6-28-40	250	500.0	PPB
Fluoride	6-29-78	551	500.0	PPB
Fluoride	6-31-31	675	500.0	PPB
Fluoride	6-31-31P	950	500.0	PPB
Fluoride	6-32-43	560	500.0	PPB
Fluoride	6-32-62	800	500.0	PPB
Fluoride	6-32-70B	250	500.0	PPB
Fluoride	6-32-72	502	500.0	PPB
Fluoride	6-32-77	599	500.0	PPB
Fluoride	6-33-42	550	500.0	PPB
Fluoride	6-33-56	500	500.0	PPB
Fluoride	6-34-41B	700	500.0	PPB
Fluoride	6-34-42	600	500.0	PPB
Fluoride	6-34-51	250	500.0	PPB
Fluoride	6-35-66	250	500.0	PPB
Fluoride	6-35-70	500	500.0	PPB
Fluoride	6-35-78A	250	500.0	PPB
Fluoride	6-36-46Q	500	500.0	PPB
Fluoride	6-36-61A	250	500.0	PPB
Fluoride	6-36-61B	550	500.0	PPB
Fluoride	6-36-93	250	500.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Fluoride	6-37-82A	250	500.0	PPB
Fluoride	6-38-65	250	500.0	PPB
Fluoride	6-38-70	616	500.0	PPB
Fluoride	6-39-39	575	500.0	PPB
Fluoride	6-39-79	250	500.0	PPB
Fluoride	6-40-33A	850	500.0	PPB
Fluoride	6-40-40A	833	500.0	PPB
Fluoride	6-40-40B	667	500.0	PPB
Fluoride	6-40-62	250	500.0	PPB
Fluoride	6-41-23	500	500.0	PPB
Fluoride	6-42-39A	733	500.0	PPB
Fluoride	6-42-39B	700	500.0	PPB
Fluoride	6-42-40A	250	500.0	PPB
Fluoride	6-42-40B	500	500.0	PPB
Fluoride	6-42-41	250	500.0	PPB
Fluoride	6-42-42B	533	500.0	PPB
Fluoride	6-43-40	533	500.0	PPB
Fluoride	6-43-41E	557	500.0	PPB
Fluoride	6-43-41F	520	500.0	PPB
Fluoride	6-43-41G	567	500.0	PPB
Fluoride	6-43-42J	507	500.0	PPB
Fluoride	6-43-43	250	500.0	PPB
Fluoride	6-43-45	250	500.0	PPB
Fluoride	6-43-88	500	500.0	PPB
Fluoride	6-44-42	250	500.0	PPB
Fluoride	6-44-43B	502	500.0	PPB
Fluoride	6-44-64	558	500.0	PPB
Fluoride	6-45-42	645	500.0	PPB
Fluoride	6-45-69A	250	500.0	PPB
Fluoride	6-46-21B	600	500.0	PPB
Fluoride	6-47-35A	500	500.0	PPB
Fluoride	6-47-46A	554	500.0	PPB
Fluoride	6-47-60	250	500.0	PPB
Fluoride	6-48-18	250	500.0	PPB
Fluoride	6-48-50	250	500.0	PPB
Fluoride	6-48-71	250	500.0	PPB
Fluoride	6-49-100C	250	500.0	PPB
Fluoride	6-49-55A	250	500.0	PPB
Fluoride	6-49-57A	250	500.0	PPB
Fluoride	6-49-79	250	500.0	PPB
Fluoride	6-50-48B	500	500.0	PPB
Fluoride	6-50-53A	622	500.0	PPB
Fluoride	6-50-85	250	500.0	PPB
Fluoride	6-51-63	250	500.0	PPB
Fluoride	6-51-75	250	500.0	PPB
Fluoride	6-52-19	600	500.0	PPB
Fluoride	6-52-54	250	500.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Fluoride	6-52-57	250	500.0	PPB
Fluoride	6-53-47A	250	500.0	PPB
Fluoride	6-53-47B	500	500.0	PPB
Fluoride	6-53-48A	250	500.0	PPB
Fluoride	6-53-55A	250	500.0	PPB
Fluoride	6-54-34	650	500.0	PPB
Fluoride	6-54-48	250	500.0	PPB
Fluoride	6-54-49	500	500.0	PPB
Fluoride	6-55-40	600	500.0	PPB
Fluoride	6-55-50C	250	500.0	PPB
Fluoride	6-55-55	250	500.0	PPB
Fluoride	6-55-57	250	500.0	PPB
Fluoride	6-55-76	250	500.0	PPB
Fluoride	6-57-29A	500	500.0	PPB
Fluoride	6-58-24	250	500.0	PPB
Fluoride	6-59-58	950	500.0	PPB
Fluoride	6-60-57	1967	500.0	PPB
Fluoride	6-61-37	700	500.0	PPB
Fluoride	6-61-41	600	500.0	PPB
Fluoride	6-61-62	900	500.0	PPB
Fluoride	6-61-66	500	500.0	PPB
Fluoride	6-62-31	500	500.0	PPB
Fluoride	6-63-25A	250	500.0	PPB
Fluoride	6-63-55	1350	500.0	PPB
Fluoride	6-63-58	1100	500.0	PPB
Fluoride	6-64-62	750	500.0	PPB
Fluoride	6-65-59A	800	500.0	PPB
Fluoride	6-65-72	575	500.0	PPB
Fluoride	6-65-83	500	500.0	PPB
Fluoride	6-66-23	250	500.0	PPB
Fluoride	6-66-38	500	500.0	PPB
Fluoride	6-66-39	250	500.0	PPB
Fluoride	6-66-58	950	500.0	PPB
Fluoride	6-67-51	500	500.0	PPB
Fluoride	6-67-86	250	500.0	PPB
Gross alpha	2-E13-14	5	4.0	PCI/L
Gross alpha	2-E13-5	2	4.0	PCI/L
Gross alpha	2-E16-2	2	4.0	PCI/L
Gross alpha	2-E17-1	2	4.0	PCI/L
Gross alpha	2-E17-12	2	4.0	PCI/L
Gross alpha	2-E17-13	2	4.0	PCI/L
Gross alpha	2-E17-14	8	4.0	PCI/L
Gross alpha	2-E17-15	2	4.0	PCI/L
Gross alpha	2-E17-16	2	4.0	PCI/L
Gross alpha	2-E17-17	2	4.0	PCI/L
Gross alpha	2-E17-18	2	4.0	PCI/L
Gross alpha	2-E17-19	2	4.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Gross alpha	2-E17-2	5	4.0	PCI/L
Gross alpha	2-E17-20	2	4.0	PCI/L
Gross alpha	2-E17-5	5	4.0	PCI/L
Gross alpha	2-E17-6	2	4.0	PCI/L
Gross alpha	2-E17-9	2	4.0	PCI/L
Gross alpha	2-E18-1	2	4.0	PCI/L
Gross alpha	2-E18-2	2	4.0	PCI/L
Gross alpha	2-E18-3	2	4.0	PCI/L
Gross alpha	2-E18-4	2	4.0	PCI/L
Gross alpha	2-E24-1	4	4.0	PCI/L
Gross alpha	2-E24-13	2	4.0	PCI/L
Gross alpha	2-E24-16	2	4.0	PCI/L
Gross alpha	2-E24-17	2	4.0	PCI/L
Gross alpha	2-E24-18	7	4.0	PCI/L
Gross alpha	2-E24-19	2	4.0	PCI/L
Gross alpha	2-E24-2	2	4.0	PCI/L
Gross alpha	2-E24-20	2	4.0	PCI/L
Gross alpha	2-E24-4	2	4.0	PCI/L
Gross alpha	2-E25-10	2	4.0	PCI/L
Gross alpha	2-E25-11	2	4.0	PCI/L
Gross alpha	2-E25-17	2	4.0	PCI/L
Gross alpha	2-E25-18	2	4.0	PCI/L
Gross alpha	2-E25-19	2	4.0	PCI/L
Gross alpha	2-E25-20	2	4.0	PCI/L
Gross alpha	2-E25-21	2	4.0	PCI/L
Gross alpha	2-E25-22	2	4.0	PCI/L
Gross alpha	2-E25-23	2	4.0	PCI/L
Gross alpha	2-E25-24	2	4.0	PCI/L
Gross alpha	2-E25-25	2	4.0	PCI/L
Gross alpha	2-E25-26	2	4.0	PCI/L
Gross alpha	2-E25-28	2	4.0	PCI/L
Gross alpha	2-E25-29P	2	4.0	PCI/L
Gross alpha	2-E25-31	2	4.0	PCI/L
Gross alpha	2-E25-32P	2	4.0	PCI/L
Gross alpha	2-E25-33	2	4.0	PCI/L
Gross alpha	2-E25-34	2	4.0	PCI/L
Gross alpha	2-E25-35	2	4.0	PCI/L
Gross alpha	2-E25-36	2	4.0	PCI/L
Gross alpha	2-E25-37	2	4.0	PCI/L
Gross alpha	2-E25-38	2	4.0	PCI/L
Gross alpha	2-E25-39	2	4.0	PCI/L
Gross alpha	2-E25-40	2	4.0	PCI/L
Gross alpha	2-E25-41	2	4.0	PCI/L
Gross alpha	2-E25-42	2	4.0	PCI/L
Gross alpha	2-E25-43	2	4.0	PCI/L
Gross alpha	2-E25-6	2	4.0	PCI/L
Gross alpha	2-E25-9	2	4.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Gross alpha	2-E26-10	2	4.0	PCI/L
Gross alpha	2-E26-11	2	4.0	PCI/L
Gross alpha	2-E26-12	2	4.0	PCI/L
Gross alpha	2-E26-13	2	4.0	PCI/L
Gross alpha	2-E26-6	2	4.0	PCI/L
Gross alpha	2-E26-9	2	4.0	PCI/L
Gross alpha	2-E27-10	2	4.0	PCI/L
Gross alpha	2-E27-11	2	4.0	PCI/L
Gross alpha	2-E27-12	2	4.0	PCI/L
Gross alpha	2-E27-13	2	4.0	PCI/L
Gross alpha	2-E27-14	2	4.0	PCI/L
Gross alpha	2-E27-15	2	4.0	PCI/L
Gross alpha	2-E27-16	2	4.0	PCI/L
Gross alpha	2-E27-7	2	4.0	PCI/L
Gross alpha	2-E27-8	2	4.0	PCI/L
Gross alpha	2-E27-9	2	4.0	PCI/L
Gross alpha	2-E28-11	2	4.0	PCI/L
Gross alpha	2-E28-12	14	4.0	PCI/L
Gross alpha	2-E28-13	2	4.0	PCI/L
Gross alpha	2-E28-15	2	4.0	PCI/L
Gross alpha	2-E28-16	6	4.0	PCI/L
Gross alpha	2-E28-17	8	4.0	PCI/L
Gross alpha	2-E28-18	27	4.0	PCI/L
Gross alpha	2-E28-19	10	4.0	PCI/L
Gross alpha	2-E28-21	27	4.0	PCI/L
Gross alpha	2-E28-23	29	4.0	PCI/L
Gross alpha	2-E28-24	9	4.0	PCI/L
Gross alpha	2-E28-25	24	4.0	PCI/L
Gross alpha	2-E28-26	16	4.0	PCI/L
Gross alpha	2-E28-27	4	4.0	PCI/L
Gross alpha	2-E28-28	12	4.0	PCI/L
Gross alpha	2-E28-7	2	4.0	PCI/L
Gross alpha	2-E28-9	6	4.0	PCI/L
Gross alpha	2-E32-2	2	4.0	PCI/L
Gross alpha	2-E32-3	11	4.0	PCI/L
Gross alpha	2-E32-4	2	4.0	PCI/L
Gross alpha	2-E32-5	13	4.0	PCI/L
Gross alpha	2-E33-1	8	4.0	PCI/L
Gross alpha	2-E33-13	7	4.0	PCI/L
Gross alpha	2-E33-14	2	4.0	PCI/L
Gross alpha	2-E33-15	2	4.0	PCI/L
Gross alpha	2-E33-18	2	4.0	PCI/L
Gross alpha	2-E33-24	2	4.0	PCI/L
Gross alpha	2-E33-26	2	4.0	PCI/L
Gross alpha	2-E33-28	2	4.0	PCI/L
Gross alpha	2-E33-29	2	4.0	PCI/L
Gross alpha	2-E33-3	4	4.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Gross alpha	2-E33-30	2	4.0	PCI/L
Gross alpha	2-E33-31	2	4.0	PCI/L
Gross alpha	2-E33-32	2	4.0	PCI/L
Gross alpha	2-E33-33	2	4.0	PCI/L
Gross alpha	2-E33-34	2	4.0	PCI/L
Gross alpha	2-E33-35	2	4.0	PCI/L
Gross alpha	2-E33-36	2	4.0	PCI/L
Gross alpha	2-E33-37	2	4.0	PCI/L
Gross alpha	2-E33-38	2	4.0	PCI/L
Gross alpha	2-E33-39	2	4.0	PCI/L
Gross alpha	2-E33-4	5	4.0	PCI/L
Gross alpha	2-E33-41	2	4.0	PCI/L
Gross alpha	2-E33-42	2	4.0	PCI/L
Gross alpha	2-E33-43	2	4.0	PCI/L
Gross alpha	2-E33-5	4	4.0	PCI/L
Gross alpha	2-E33-7	9	4.0	PCI/L
Gross alpha	2-E34-1	2	4.0	PCI/L
Gross alpha	2-E34-2	2	4.0	PCI/L
Gross alpha	2-E34-3	2	4.0	PCI/L
Gross alpha	2-E34-5	2	4.0	PCI/L
Gross alpha	2-E34-6	2	4.0	PCI/L
Gross alpha	2-E34-7	2	4.0	PCI/L
Gross alpha	2-E34-8	2	4.0	PCI/L
Gross alpha	2-E35-2	2	4.0	PCI/L
Gross alpha	2-W10-13	2	4.0	PCI/L
Gross alpha	2-W10-14	2	4.0	PCI/L
Gross alpha	2-W10-15	2	4.0	PCI/L
Gross alpha	2-W10-16	2	4.0	PCI/L
Gross alpha	2-W10-17	2	4.0	PCI/L
Gross alpha	2-W10-18	2	4.0	PCI/L
Gross alpha	2-W10-3	13	4.0	PCI/L
Gross alpha	2-W10-8	2	4.0	PCI/L
Gross alpha	2-W10-9	2	4.0	PCI/L
Gross alpha	2-W11-11	2	4.0	PCI/L
Gross alpha	2-W11-14	240	4.0	PCI/L
Gross alpha	2-W11-23	2	4.0	PCI/L
Gross alpha	2-W11-24	2	4.0	PCI/L
Gross alpha	2-W11-7	2	4.0	PCI/L
Gross alpha	2-W14-10	6	4.0	PCI/L
Gross alpha	2-W14-2	2	4.0	PCI/L
Gross alpha	2-W14-6	2	4.0	PCI/L
Gross alpha	2-W15-10	2	4.0	PCI/L
Gross alpha	2-W15-11	2	4.0	PCI/L
Gross alpha	2-W15-15	2	4.0	PCI/L
Gross alpha	2-W15-16	2	4.0	PCI/L
Gross alpha	2-W15-17	2	4.0	PCI/L
Gross alpha	2-W15-18	2	4.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Gross alpha	2-W15-19	2	4.0	PCI/L
Gross alpha	2-W15-2	2	4.0	PCI/L
Gross alpha	2-W15-20	2	4.0	PCI/L
Gross alpha	2-W15-22	2	4.0	PCI/L
Gross alpha	2-W15-23	2	4.0	PCI/L
Gross alpha	2-W15-24	2	4.0	PCI/L
Gross alpha	2-W15-3	2	4.0	PCI/L
Gross alpha	2-W15-6	2	4.0	PCI/L
Gross alpha	2-W15-7	2	4.0	PCI/L
Gross alpha	2-W15-8	2	4.0	PCI/L
Gross alpha	2-W18-15	40	4.0	PCI/L
Gross alpha	2-W18-17	2	4.0	PCI/L
Gross alpha	2-W18-2	2	4.0	PCI/L
Gross alpha	2-W18-20	2	4.0	PCI/L
Gross alpha	2-W18-21	13	4.0	PCI/L
Gross alpha	2-W18-22	2	4.0	PCI/L
Gross alpha	2-W18-23	2	4.0	PCI/L
Gross alpha	2-W18-24	2	4.0	PCI/L
Gross alpha	2-W18-25	4	4.0	PCI/L
Gross alpha	2-W18-26	2	4.0	PCI/L
Gross alpha	2-W18-5	2	4.0	PCI/L
Gross alpha	2-W18-7	2	4.0	PCI/L
Gross alpha	2-W18-9	2	4.0	PCI/L
Gross alpha	2-W19-1	4	4.0	PCI/L
Gross alpha	2-W19-11	2323	4.0	PCI/L
Gross alpha	2-W19-12	2	4.0	PCI/L
Gross alpha	2-W19-13	7	4.0	PCI/L
Gross alpha	2-W19-14	2	4.0	PCI/L
Gross alpha	2-W19-15	142	4.0	PCI/L
Gross alpha	2-W19-16	696	4.0	PCI/L
Gross alpha	2-W19-17	23	4.0	PCI/L
Gross alpha	2-W19-18	2408	4.0	PCI/L
Gross alpha	2-W19-19	504	4.0	PCI/L
Gross alpha	2-W19-2	94	4.0	PCI/L
Gross alpha	2-W19-20	350	4.0	PCI/L
Gross alpha	2-W19-21	15	4.0	PCI/L
Gross alpha	2-W19-23	139	4.0	PCI/L
Gross alpha	2-W19-24	371	4.0	PCI/L
Gross alpha	2-W19-25	217	4.0	PCI/L
Gross alpha	2-W19-26	220	4.0	PCI/L
Gross alpha	2-W19-27	11	4.0	PCI/L
Gross alpha	2-W19-28	27	4.0	PCI/L
Gross alpha	2-W19-29	1359	4.0	PCI/L
Gross alpha	2-W19-3	2130	4.0	PCI/L
Gross alpha	2-W19-30	2	4.0	PCI/L
Gross alpha	2-W19-31	2	4.0	PCI/L
Gross alpha	2-W19-32	2	4.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Gross alpha	2-W19-9	901	4.0	PCI/L
Gross alpha	2-W22-1	4	4.0	PCI/L
Gross alpha	2-W22-10	2	4.0	PCI/L
Gross alpha	2-W22-18	2	4.0	PCI/L
Gross alpha	2-W22-2	5	4.0	PCI/L
Gross alpha	2-W22-20	8	4.0	PCI/L
Gross alpha	2-W22-21	15	4.0	PCI/L
Gross alpha	2-W22-22	2	4.0	PCI/L
Gross alpha	2-W22-39	6	4.0	PCI/L
Gross alpha	2-W22-40	2	4.0	PCI/L
Gross alpha	2-W22-41	2	4.0	PCI/L
Gross alpha	2-W22-42	2	4.0	PCI/L
Gross alpha	2-W23-10	27	4.0	PCI/L
Gross alpha	2-W23-11	14	4.0	PCI/L
Gross alpha	2-W23-13	9	4.0	PCI/L
Gross alpha	2-W23-14	9	4.0	PCI/L
Gross alpha	2-W23-4	38	4.0	PCI/L
Gross alpha	2-W23-8	2	4.0	PCI/L
Gross alpha	2-W23-9	23	4.0	PCI/L
Gross alpha	2-W26-10	2	4.0	PCI/L
Gross alpha	2-W26-12	2	4.0	PCI/L
Gross alpha	2-W26-3	2	4.0	PCI/L
Gross alpha	2-W26-6	2	4.0	PCI/L
Gross alpha	2-W26-7	2	4.0	PCI/L
Gross alpha	2-W26-8	10	4.0	PCI/L
Gross alpha	2-W26-9	2	4.0	PCI/L
Gross alpha	2-W27-1	8	4.0	PCI/L
Gross alpha	2-W6-2	2	4.0	PCI/L
Gross alpha	2-W6-4	5	4.0	PCI/L
Gross alpha	2-W6-5	2	4.0	PCI/L
Gross alpha	2-W6-6	2	4.0	PCI/L
Gross alpha	2-W6-7	5	4.0	PCI/L
Gross alpha	2-W6-8	2	4.0	PCI/L
Gross alpha	2-W7-1	2	4.0	PCI/L
Gross alpha	2-W7-10	2	4.0	PCI/L
Gross alpha	2-W7-11	2	4.0	PCI/L
Gross alpha	2-W7-12	2	4.0	PCI/L
Gross alpha	2-W7-2	2	4.0	PCI/L
Gross alpha	2-W7-3	2	4.0	PCI/L
Gross alpha	2-W7-4	2	4.0	PCI/L
Gross alpha	2-W7-5	2	4.0	PCI/L
Gross alpha	2-W7-6	23	4.0	PCI/L
Gross alpha	2-W7-7	2	4.0	PCI/L
Gross alpha	2-W7-8	2	4.0	PCI/L
Gross alpha	2-W7-9	2	4.0	PCI/L
Gross alpha	2-W8-1	2	4.0	PCI/L
Gross alpha	2-W9-1	2	4.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Gross alpha	6-20-39	2	4.0	PCI/L
Gross alpha	6-23-34	4	4.0	PCI/L
Gross alpha	6-24-33	2	4.0	PCI/L
Gross alpha	6-24-34A	2	4.0	PCI/L
Gross alpha	6-24-34B	2	4.0	PCI/L
Gross alpha	6-24-34C	4	4.0	PCI/L
Gross alpha	6-24-35	2	4.0	PCI/L
Gross alpha	6-24-46	2	4.0	PCI/L
Gross alpha	6-25-33A	2	4.0	PCI/L
Gross alpha	6-25-34A	2	4.0	PCI/L
Gross alpha	6-25-34B	2	4.0	PCI/L
Gross alpha	6-25-34C	2	4.0	PCI/L
Gross alpha	6-25-55	2	4.0	PCI/L
Gross alpha	6-25-70	2	4.0	PCI/L
Gross alpha	6-26-33	2	4.0	PCI/L
Gross alpha	6-26-34	2	4.0	PCI/L
Gross alpha	6-26-35A	2	4.0	PCI/L
Gross alpha	6-26-35C	2	4.0	PCI/L
Gross alpha	6-28-40	2	4.0	PCI/L
Gross alpha	6-28-40P	2	4.0	PCI/L
Gross alpha	6-28-52A	2	4.0	PCI/L
Gross alpha	6-29-78	2	4.0	PCI/L
Gross alpha	6-31-31	2	4.0	PCI/L
Gross alpha	6-31-31P	2	4.0	PCI/L
Gross alpha	6-32-22	2	4.0	PCI/L
Gross alpha	6-32-43	2	4.0	PCI/L
Gross alpha	6-32-62	2	4.0	PCI/L
Gross alpha	6-32-70B	2	4.0	PCI/L
Gross alpha	6-32-72	2	4.0	PCI/L
Gross alpha	6-32-77	2	4.0	PCI/L
Gross alpha	6-33-42	2	4.0	PCI/L
Gross alpha	6-33-56	2	4.0	PCI/L
Gross alpha	6-34-39A	2	4.0	PCI/L
Gross alpha	6-34-42	2	4.0	PCI/L
Gross alpha	6-34-51	2	4.0	PCI/L
Gross alpha	6-35-66	2	4.0	PCI/L
Gross alpha	6-35-70	2	4.0	PCI/L
Gross alpha	6-35-78A	13	4.0	PCI/L
Gross alpha	6-36-46P	2	4.0	PCI/L
Gross alpha	6-36-46Q	2	4.0	PCI/L
Gross alpha	6-36-46R	2	4.0	PCI/L
Gross alpha	6-36-61A	2	4.0	PCI/L
Gross alpha	6-36-61B	2	4.0	PCI/L
Gross alpha	6-36-93	2	4.0	PCI/L
Gross alpha	6-37-82A	2	4.0	PCI/L
Gross alpha	6-38-65	2	4.0	PCI/L
Gross alpha	6-38-70	42	4.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Gross alpha	6-39-39	2	4.0	PCI/L
Gross alpha	6-39-79	8	4.0	PCI/L
Gross alpha	6-40-33A	2	4.0	PCI/L
Gross alpha	6-40-40A	2	4.0	PCI/L
Gross alpha	6-40-40B	2	4.0	PCI/L
Gross alpha	6-40-62	2	4.0	PCI/L
Gross alpha	6-41-23	2	4.0	PCI/L
Gross alpha	6-42-39A	4	4.0	PCI/L
Gross alpha	6-42-39B	2	4.0	PCI/L
Gross alpha	6-42-40A	2	4.0	PCI/L
Gross alpha	6-42-40B	2	4.0	PCI/L
Gross alpha	6-42-41	2	4.0	PCI/L
Gross alpha	6-42-42B	2	4.0	PCI/L
Gross alpha	6-43-40	2	4.0	PCI/L
Gross alpha	6-43-41E	2	4.0	PCI/L
Gross alpha	6-43-41F	2	4.0	PCI/L
Gross alpha	6-43-41G	2	4.0	PCI/L
Gross alpha	6-43-42J	2	4.0	PCI/L
Gross alpha	6-43-43	2	4.0	PCI/L
Gross alpha	6-43-45	2	4.0	PCI/L
Gross alpha	6-43-88	2	4.0	PCI/L
Gross alpha	6-44-42	2	4.0	PCI/L
Gross alpha	6-44-43B	2	4.0	PCI/L
Gross alpha	6-44-64	2	4.0	PCI/L
Gross alpha	6-45-42	2	4.0	PCI/L
Gross alpha	6-45-69A	2	4.0	PCI/L
Gross alpha	6-46-21B	2	4.0	PCI/L
Gross alpha	6-47-35A	2	4.0	PCI/L
Gross alpha	6-47-46A	2	4.0	PCI/L
Gross alpha	6-47-60	2	4.0	PCI/L
Gross alpha	6-48-18	2	4.0	PCI/L
Gross alpha	6-48-50	2	4.0	PCI/L
Gross alpha	6-48-71	2	4.0	PCI/L
Gross alpha	6-49-100C	2	4.0	PCI/L
Gross alpha	6-49-28	2	4.0	PCI/L
Gross alpha	6-49-55A	8	4.0	PCI/L
Gross alpha	6-49-57A	17	4.0	PCI/L
Gross alpha	6-49-79	2	4.0	PCI/L
Gross alpha	6-50-30	2	4.0	PCI/L
Gross alpha	6-50-42	2	4.0	PCI/L
Gross alpha	6-50-48B	2	4.0	PCI/L
Gross alpha	6-50-53A	6	4.0	PCI/L
Gross alpha	6-50-85	2	4.0	PCI/L
Gross alpha	6-51-75	2	4.0	PCI/L
Gross alpha	6-52-19	2	4.0	PCI/L
Gross alpha	6-52-54	23	4.0	PCI/L
Gross alpha	6-52-57	2	4.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Gross alpha	6-53-103	2	4.0	PCI/L
Gross alpha	6-53-47A	2	4.0	PCI/L
Gross alpha	6-53-47B	2	4.0	PCI/L
Gross alpha	6-53-48A	2	4.0	PCI/L
Gross alpha	6-53-48B	2	4.0	PCI/L
Gross alpha	6-53-55A	2	4.0	PCI/L
Gross alpha	6-54-34	2	4.0	PCI/L
Gross alpha	6-54-45A	2	4.0	PCI/L
Gross alpha	6-54-48	2	4.0	PCI/L
Gross alpha	6-54-49	2	4.0	PCI/L
Gross alpha	6-55-50C	2	4.0	PCI/L
Gross alpha	6-55-50D	2	4.0	PCI/L
Gross alpha	6-55-55	2	4.0	PCI/L
Gross alpha	6-55-57	17	4.0	PCI/L
Gross alpha	6-55-76	2	4.0	PCI/L
Gross alpha	6-56-43	2	4.0	PCI/L
Gross alpha	6-57-29A	2	4.0	PCI/L
Gross alpha	6-59-58	2	4.0	PCI/L
Gross alpha	6-61-37	2	4.0	PCI/L
Gross alpha	6-61-41	2	4.0	PCI/L
Gross alpha	6-63-25A	2	4.0	PCI/L
Gross alpha	6-63-58	2	4.0	PCI/L
Gross alpha	6-63-90	2	4.0	PCI/L
Gross alpha	6-65-72	2	4.0	PCI/L
Gross alpha	6-65-83	2	4.0	PCI/L
Gross alpha	6-66-103	2	4.0	PCI/L
Gross alpha	6-67-86	2	4.0	PCI/L
Gross alpha	6-67-98	2	4.0	PCI/L
Gross alpha	6-69-38	2	4.0	PCI/L
Gross beta	1-B4-2	55	8.0	PCI/L
Gross beta	1-B4-3	50	8.0	PCI/L
Gross beta	1-B4-4	64	8.0	PCI/L
Gross beta	1-B5-1	19	8.0	PCI/L
Gross beta	1-B9-1	18	8.0	PCI/L
Gross beta	2-E13-14	100	8.0	PCI/L
Gross beta	2-E13-19	4	8.0	PCI/L
Gross beta	2-E13-5	10	8.0	PCI/L
Gross beta	2-E13-8	4	8.0	PCI/L
Gross beta	2-E16-2	11	8.0	PCI/L
Gross beta	2-E17-1	26	8.0	PCI/L
Gross beta	2-E17-12	54	8.0	PCI/L
Gross beta	2-E17-13	73	8.0	PCI/L
Gross beta	2-E17-14	349	8.0	PCI/L
Gross beta	2-E17-15	809	8.0	PCI/L
Gross beta	2-E17-16	58	8.0	PCI/L
Gross beta	2-E17-17	89	8.0	PCI/L
Gross beta	2-E17-18	19	8.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Gross beta	2-E17-19	181	8.0	PCI/L
Gross beta	2-E17-2	91	8.0	PCI/L
Gross beta	2-E17-20	41	8.0	PCI/L
Gross beta	2-E17-5	344	8.0	PCI/L
Gross beta	2-E17-6	33	8.0	PCI/L
Gross beta	2-E17-8	32	8.0	PCI/L
Gross beta	2-E17-9	26	8.0	PCI/L
Gross beta	2-E18-1	4	8.0	PCI/L
Gross beta	2-E18-2	4	8.0	PCI/L
Gross beta	2-E18-3	4	8.0	PCI/L
Gross beta	2-E18-4	4	8.0	PCI/L
Gross beta	2-E23-1	26	8.0	PCI/L
Gross beta	2-E24-1	45	8.0	PCI/L
Gross beta	2-E24-11	24	8.0	PCI/L
Gross beta	2-E24-12	261	8.0	PCI/L
Gross beta	2-E24-13	4	8.0	PCI/L
Gross beta	2-E24-16	38	8.0	PCI/L
Gross beta	2-E24-17	33	8.0	PCI/L
Gross beta	2-E24-18	28	8.0	PCI/L
Gross beta	2-E24-19	12	8.0	PCI/L
Gross beta	2-E24-2	24	8.0	PCI/L
Gross beta	2-E24-20	4	8.0	PCI/L
Gross beta	2-E24-4	4	8.0	PCI/L
Gross beta	2-E24-7	4	8.0	PCI/L
Gross beta	2-E24-8	18	8.0	PCI/L
Gross beta	2-E25-10	4	8.0	PCI/L
Gross beta	2-E25-11	11	8.0	PCI/L
Gross beta	2-E25-13	10	8.0	PCI/L
Gross beta	2-E25-17	10	8.0	PCI/L
Gross beta	2-E25-18	4	8.0	PCI/L
Gross beta	2-E25-19	30	8.0	PCI/L
Gross beta	2-E25-2	4	8.0	PCI/L
Gross beta	2-E25-20	13	8.0	PCI/L
Gross beta	2-E25-21	4	8.0	PCI/L
Gross beta	2-E25-22	4	8.0	PCI/L
Gross beta	2-E25-23	10	8.0	PCI/L
Gross beta	2-E25-24	11	8.0	PCI/L
Gross beta	2-E25-25	4	8.0	PCI/L
Gross beta	2-E25-26	4	8.0	PCI/L
Gross beta	2-E25-27	4	8.0	PCI/L
Gross beta	2-E25-28	4	8.0	PCI/L
Gross beta	2-E25-29P	4	8.0	PCI/L
Gross beta	2-E25-3	4	8.0	PCI/L
Gross beta	2-E25-30P	4	8.0	PCI/L
Gross beta	2-E25-31	4	8.0	PCI/L
Gross beta	2-E25-32P	4	8.0	PCI/L
Gross beta	2-E25-33	4	8.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Gross beta	2-E25-34	4	8.0	PCI/L
Gross beta	2-E25-35	4	8.0	PCI/L
Gross beta	2-E25-36	4	8.0	PCI/L
Gross beta	2-E25-37	4	8.0	PCI/L
Gross beta	2-E25-38	4	8.0	PCI/L
Gross beta	2-E25-39	4	8.0	PCI/L
Gross beta	2-E25-40	9	8.0	PCI/L
Gross beta	2-E25-41	4	8.0	PCI/L
Gross beta	2-E25-42	4	8.0	PCI/L
Gross beta	2-E25-43	4	8.0	PCI/L
Gross beta	2-E25-6	4	8.0	PCI/L
Gross beta	2-E25-9	4	8.0	PCI/L
Gross beta	2-E26-10	4	8.0	PCI/L
Gross beta	2-E26-11	4	8.0	PCI/L
Gross beta	2-E26-12	4	8.0	PCI/L
Gross beta	2-E26-13	4	8.0	PCI/L
Gross beta	2-E26-2	4	8.0	PCI/L
Gross beta	2-E26-4	4	8.0	PCI/L
Gross beta	2-E26-6	4	8.0	PCI/L
Gross beta	2-E26-9	4	8.0	PCI/L
Gross beta	2-E27-10	4	8.0	PCI/L
Gross beta	2-E27-11	4	8.0	PCI/L
Gross beta	2-E27-12	4	8.0	PCI/L
Gross beta	2-E27-13	17	8.0	PCI/L
Gross beta	2-E27-14	52	8.0	PCI/L
Gross beta	2-E27-15	9	8.0	PCI/L
Gross beta	2-E27-16	4	8.0	PCI/L
Gross beta	2-E27-5	12	8.0	PCI/L
Gross beta	2-E27-7	4	8.0	PCI/L
Gross beta	2-E27-8	4	8.0	PCI/L
Gross beta	2-E27-9	4	8.0	PCI/L
Gross beta	2-E28-11	4	8.0	PCI/L
Gross beta	2-E28-12	19	8.0	PCI/L
Gross beta	2-E28-13	4	8.0	PCI/L
Gross beta	2-E28-15	4	8.0	PCI/L
Gross beta	2-E28-16	4	8.0	PCI/L
Gross beta	2-E28-17	13	8.0	PCI/L
Gross beta	2-E28-18	14	8.0	PCI/L
Gross beta	2-E28-19	10	8.0	PCI/L
Gross beta	2-E28-21	14	8.0	PCI/L
Gross beta	2-E28-23	11229	8.0	PCI/L
Gross beta	2-E28-24	316	8.0	PCI/L
Gross beta	2-E28-25	9333	8.0	PCI/L
Gross beta	2-E28-26	11	8.0	PCI/L
Gross beta	2-E28-27	20	8.0	PCI/L
Gross beta	2-E28-28	10	8.0	PCI/L
Gross beta	2-E28-7	148	8.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Gross beta	2-E28-9	22	8.0	PCI/L
Gross beta	2-E32-1	19	8.0	PCI/L
Gross beta	2-E32-2	25	8.0	PCI/L
Gross beta	2-E32-3	17	8.0	PCI/L
Gross beta	2-E32-4	4	8.0	PCI/L
Gross beta	2-E32-5	14	8.0	PCI/L
Gross beta	2-E33-1	168	8.0	PCI/L
Gross beta	2-E33-13	480	8.0	PCI/L
Gross beta	2-E33-14	40	8.0	PCI/L
Gross beta	2-E33-15	14	8.0	PCI/L
Gross beta	2-E33-18	32	8.0	PCI/L
Gross beta	2-E33-20	13	8.0	PCI/L
Gross beta	2-E33-21	16	8.0	PCI/L
Gross beta	2-E33-24	176	8.0	PCI/L
Gross beta	2-E33-26	288	8.0	PCI/L
Gross beta	2-E33-28	16	8.0	PCI/L
Gross beta	2-E33-29	16	8.0	PCI/L
Gross beta	2-E33-3	204	8.0	PCI/L
Gross beta	2-E33-30	18	8.0	PCI/L
Gross beta	2-E33-31	103	8.0	PCI/L
Gross beta	2-E33-32	23	8.0	PCI/L
Gross beta	2-E33-33	4	8.0	PCI/L
Gross beta	2-E33-34	235	8.0	PCI/L
Gross beta	2-E33-35	94	8.0	PCI/L
Gross beta	2-E33-36	4	8.0	PCI/L
Gross beta	2-E33-37	4	8.0	PCI/L
Gross beta	2-E33-38	312	8.0	PCI/L
Gross beta	2-E33-39	29	8.0	PCI/L
Gross beta	2-E33-4	362	8.0	PCI/L
Gross beta	2-E33-41	79	8.0	PCI/L
Gross beta	2-E33-42	75	8.0	PCI/L
Gross beta	2-E33-43	4	8.0	PCI/L
Gross beta	2-E33-5	309	8.0	PCI/L
Gross beta	2-E33-7	475	8.0	PCI/L
Gross beta	2-E33-8	71	8.0	PCI/L
Gross beta	2-E33-9	117	8.0	PCI/L
Gross beta	2-E34-1	4	8.0	PCI/L
Gross beta	2-E34-2	9	8.0	PCI/L
Gross beta	2-E34-3	9	8.0	PCI/L
Gross beta	2-E34-5	8	8.0	PCI/L
Gross beta	2-E34-6	9	8.0	PCI/L
Gross beta	2-E34-7	4	8.0	PCI/L
Gross beta	2-E34-8	4	8.0	PCI/L
Gross beta	2-E35-1	4	8.0	PCI/L
Gross beta	2-E35-2	4	8.0	PCI/L
Gross beta	2-W10-1	42	8.0	PCI/L
Gross beta	2-W10-13	4	8.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Gross beta	2-W10-14	4	8.0	PCI/L
Gross beta	2-W10-15	56	8.0	PCI/L
Gross beta	2-W10-16	20	8.0	PCI/L
Gross beta	2-W10-17	29	8.0	PCI/L
Gross beta	2-W10-18	11	8.0	PCI/L
Gross beta	2-W10-3	90	8.0	PCI/L
Gross beta	2-W10-4	67	8.0	PCI/L
Gross beta	2-W10-8	9	8.0	PCI/L
Gross beta	2-W10-9	48	8.0	PCI/L
Gross beta	2-W11-11	54	8.0	PCI/L
Gross beta	2-W11-14	126	8.0	PCI/L
Gross beta	2-W11-15	19	8.0	PCI/L
Gross beta	2-W11-18	67	8.0	PCI/L
Gross beta	2-W11-23	9	8.0	PCI/L
Gross beta	2-W11-24	4	8.0	PCI/L
Gross beta	2-W11-7	50	8.0	PCI/L
Gross beta	2-W14-10	12	8.0	PCI/L
Gross beta	2-W14-2	81	8.0	PCI/L
Gross beta	2-W14-5	33	8.0	PCI/L
Gross beta	2-W14-6	17	8.0	PCI/L
Gross beta	2-W15-10	13	8.0	PCI/L
Gross beta	2-W15-11	16	8.0	PCI/L
Gross beta	2-W15-15	4	8.0	PCI/L
Gross beta	2-W15-16	4	8.0	PCI/L
Gross beta	2-W15-17	4	8.0	PCI/L
Gross beta	2-W15-18	4	8.0	PCI/L
Gross beta	2-W15-19	10	8.0	PCI/L
Gross beta	2-W15-2	4	8.0	PCI/L
Gross beta	2-W15-20	4	8.0	PCI/L
Gross beta	2-W15-22	32	8.0	PCI/L
Gross beta	2-W15-23	4	8.0	PCI/L
Gross beta	2-W15-24	4	8.0	PCI/L
Gross beta	2-W15-3	97	8.0	PCI/L
Gross beta	2-W15-4	9	8.0	PCI/L
Gross beta	2-W15-6	4	8.0	PCI/L
Gross beta	2-W15-7	16	8.0	PCI/L
Gross beta	2-W15-8	79	8.0	PCI/L
Gross beta	2-W18-15	12	8.0	PCI/L
Gross beta	2-W18-17	4	8.0	PCI/L
Gross beta	2-W18-2	4	8.0	PCI/L
Gross beta	2-W18-20	4	8.0	PCI/L
Gross beta	2-W18-21	4	8.0	PCI/L
Gross beta	2-W18-22	4	8.0	PCI/L
Gross beta	2-W18-23	4	8.0	PCI/L
Gross beta	2-W18-24	4	8.0	PCI/L
Gross beta	2-W18-25	4	8.0	PCI/L
Gross beta	2-W18-26	4	8.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Gross beta	2-W18-5	4	8.0	PCI/L
Gross beta	2-W18-7	4	8.0	PCI/L
Gross beta	2-W18-9	4	8.0	PCI/L
Gross beta	2-W19-1	11	8.0	PCI/L
Gross beta	2-W19-11	2155	8.0	PCI/L
Gross beta	2-W19-12	261	8.0	PCI/L
Gross beta	2-W19-13	16	8.0	PCI/L
Gross beta	2-W19-14	9	8.0	PCI/L
Gross beta	2-W19-15	201	8.0	PCI/L
Gross beta	2-W19-16	759	8.0	PCI/L
Gross beta	2-W19-17	50	8.0	PCI/L
Gross beta	2-W19-18	3078	8.0	PCI/L
Gross beta	2-W19-19	1057	8.0	PCI/L
Gross beta	2-W19-2	121	8.0	PCI/L
Gross beta	2-W19-20	1684	8.0	PCI/L
Gross beta	2-W19-21	4	8.0	PCI/L
Gross beta	2-W19-23	291	8.0	PCI/L
Gross beta	2-W19-24	2526	8.0	PCI/L
Gross beta	2-W19-25	3272	8.0	PCI/L
Gross beta	2-W19-26	564	8.0	PCI/L
Gross beta	2-W19-27	4	8.0	PCI/L
Gross beta	2-W19-28	900	8.0	PCI/L
Gross beta	2-W19-29	1940	8.0	PCI/L
Gross beta	2-W19-3	1628	8.0	PCI/L
Gross beta	2-W19-30	157	8.0	PCI/L
Gross beta	2-W19-31	42	8.0	PCI/L
Gross beta	2-W19-32	107	8.0	PCI/L
Gross beta	2-W19-5	23	8.0	PCI/L
Gross beta	2-W19-9	670	8.0	PCI/L
Gross beta	2-W22-1	29	8.0	PCI/L
Gross beta	2-W22-10	48	8.0	PCI/L
Gross beta	2-W22-12	4	8.0	PCI/L
Gross beta	2-W22-18	14	8.0	PCI/L
Gross beta	2-W22-2	22	8.0	PCI/L
Gross beta	2-W22-20	28	8.0	PCI/L
Gross beta	2-W22-21	155	8.0	PCI/L
Gross beta	2-W22-22	4	8.0	PCI/L
Gross beta	2-W22-26	21	8.0	PCI/L
Gross beta	2-W22-39	105	8.0	PCI/L
Gross beta	2-W22-40	4	8.0	PCI/L
Gross beta	2-W22-41	27	8.0	PCI/L
Gross beta	2-W22-42	28	8.0	PCI/L
Gross beta	2-W23-1	84	8.0	PCI/L
Gross beta	2-W23-1u	18	8.0	PCI/L
Gross beta	2-W23-11	4	8.0	PCI/L
Gross beta	2-W23-13	4	8.0	PCI/L
Gross beta	2-W23-14	4	8.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Gross beta	2-W23-2	541	8.0	PCI/L
Gross beta	2-W23-3	82	8.0	PCI/L
Gross beta	2-W23-4	43	8.0	PCI/L
Gross beta	2-W23-7	395	8.0	PCI/L
Gross beta	2-W23-8	4	8.0	PCI/L
Gross beta	2-W23-9	18	8.0	PCI/L
Gross beta	2-W26-10	4	8.0	PCI/L
Gross beta	2-W26-12	4	8.0	PCI/L
Gross beta	2-W26-3	4	8.0	PCI/L
Gross beta	2-W26-6	4	8.0	PCI/L
Gross beta	2-W26-7	4	8.0	PCI/L
Gross beta	2-W26-8	8	8.0	PCI/L
Gross beta	2-W26-9	4	8.0	PCI/L
Gross beta	2-W27-1	4	8.0	PCI/L
Gross beta	2-W6-2	11	8.0	PCI/L
Gross beta	2-W6-4	16	8.0	PCI/L
Gross beta	2-W6-5	41	8.0	PCI/L
Gross beta	2-W6-6	4	8.0	PCI/L
Gross beta	2-W6-7	29	8.0	PCI/L
Gross beta	2-W6-8	4	8.0	PCI/L
Gross beta	2-W7-1	4	8.0	PCI/L
Gross beta	2-W7-10	4	8.0	PCI/L
Gross beta	2-W7-11	4	8.0	PCI/L
Gross beta	2-W7-12	4	8.0	PCI/L
Gross beta	2-W7-2	4	8.0	PCI/L
Gross beta	2-W7-3	4	8.0	PCI/L
Gross beta	2-W7-4	11	8.0	PCI/L
Gross beta	2-W7-5	8	8.0	PCI/L
Gross beta	2-W7-6	22	8.0	PCI/L
Gross beta	2-W7-7	4	8.0	PCI/L
Gross beta	2-W7-8	4	8.0	PCI/L
Gross beta	2-W7-9	4	8.0	PCI/L
Gross beta	2-W8-1	4	8.0	PCI/L
Gross beta	2-W9-1	4	8.0	PCI/L
Gross beta	6-20-20	28	8.0	PCI/L
Gross beta	6-20-39	4	8.0	PCI/L
Gross beta	6-23-34	17	8.0	PCI/L
Gross beta	6-24-33	18	8.0	PCI/L
Gross beta	6-24-34A	18	8.0	PCI/L
Gross beta	6-24-34B	19	8.0	PCI/L
Gross beta	6-24-34C	18	8.0	PCI/L
Gross beta	6-24-35	17	8.0	PCI/L
Gross beta	6-24-46	4	8.0	PCI/L
Gross beta	6-25-33A	8	8.0	PCI/L
Gross beta	6-25-34A	22	8.0	PCI/L
Gross beta	6-25-34B	20	8.0	PCI/L
Gross beta	6-25-34C	21	8.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Gross beta	6-25-55	4	8.0	PCI/L
Gross beta	6-25-70	4	8.0	PCI/L
Gross beta	6-26-33	21	8.0	PCI/L
Gross beta	6-26-34	24	8.0	PCI/L
Gross beta	6-26-35A	19	8.0	PCI/L
Gross beta	6-26-35C	21	8.0	PCI/L
Gross beta	6-28-40	13	8.0	PCI/L
Gross beta	6-28-40P	4	8.0	PCI/L
Gross beta	6-28-52A	8	8.0	PCI/L
Gross beta	6-29-78	4	8.0	PCI/L
Gross beta	6-31-31	9	8.0	PCI/L
Gross beta	6-31-31P	4	8.0	PCI/L
Gross beta	6-32-22	35	8.0	PCI/L
Gross beta	6-32-43	15	8.0	PCI/L
Gross beta	6-32-62	4	8.0	PCI/L
Gross beta	6-32-70B	34	8.0	PCI/L
Gross beta	6-32-72	12	8.0	PCI/L
Gross beta	6-32-77	4	8.0	PCI/L
Gross beta	6-33-42	25	8.0	PCI/L
Gross beta	6-33-56	4	8.0	PCI/L
Gross beta	6-34-39A	4	8.0	PCI/L
Gross beta	6-34-42	12	8.0	PCI/L
Gross beta	6-34-51	4	8.0	PCI/L
Gross beta	6-35-66	10	8.0	PCI/L
Gross beta	6-35-70	19	8.0	PCI/L
Gross beta	6-35-78A	4	8.0	PCI/L
Gross beta	6-36-46P	12	8.0	PCI/L
Gross beta	6-36-46Q	9	8.0	PCI/L
Gross beta	6-36-46R	10	8.0	PCI/L
Gross beta	6-36-61A	4	8.0	PCI/L
Gross beta	6-36-61B	4	8.0	PCI/L
Gross beta	6-36-93	4	8.0	PCI/L
Gross beta	6-37-82A	4	8.0	PCI/L
Gross beta	6-38-65	16	8.0	PCI/L
Gross beta	6-38-70	340	8.0	PCI/L
Gross beta	6-39-39	4	8.0	PCI/L
Gross beta	6-39-79	4	8.0	PCI/L
Gross beta	6-40-33A	4	8.0	PCI/L
Gross beta	6-40-40A	4	8.0	PCI/L
Gross beta	6-40-40B	4	8.0	PCI/L
Gross beta	6-40-62	4	8.0	PCI/L
Gross beta	6-41-23	13	8.0	PCI/L
Gross beta	6-42-39A	4	8.0	PCI/L
Gross beta	6-42-39B	4	8.0	PCI/L
Gross beta	6-42-40A	4	8.0	PCI/L
Gross beta	6-42-40B	11	8.0	PCI/L
Gross beta	6-42-41	4	8.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Gross beta	6-42-42B	4	8.0	PCI/L
Gross beta	6-43-40	4	8.0	PCI/L
Gross beta	6-43-41E	4	8.0	PCI/L
Gross beta	6-43-41F	4	8.0	PCI/L
Gross beta	6-43-41G	4	8.0	PCI/L
Gross beta	6-43-42J	4	8.0	PCI/L
Gross beta	6-43-43	4	8.0	PCI/L
Gross beta	6-43-45	4	8.0	PCI/L
Gross beta	6-43-88	4	8.0	PCI/L
Gross beta	6-44-42	4	8.0	PCI/L
Gross beta	6-44-43B	4	8.0	PCI/L
Gross beta	6-44-64	20	8.0	PCI/L
Gross beta	6-45-42	4	8.0	PCI/L
Gross beta	6-45-69A	4	8.0	PCI/L
Gross beta	6-46-21B	4	8.0	PCI/L
Gross beta	6-47-35A	4	8.0	PCI/L
Gross beta	6-47-46A	9	8.0	PCI/L
Gross beta	6-47-60	4	8.0	PCI/L
Gross beta	6-48-18	4	8.0	PCI/L
Gross beta	6-48-50	12	8.0	PCI/L
Gross beta	6-48-71	4	8.0	PCI/L
Gross beta	6-49-100C	4	8.0	PCI/L
Gross beta	6-49-28	4	8.0	PCI/L
Gross beta	6-49-55A	796	8.0	PCI/L
Gross beta	6-49-57A	358	8.0	PCI/L
Gross beta	6-49-79	4	8.0	PCI/L
Gross beta	6-50-30	4	8.0	PCI/L
Gross beta	6-50-42	4	8.0	PCI/L
Gross beta	6-50-48B	12	8.0	PCI/L
Gross beta	6-50-53A	3068	8.0	PCI/L
Gross beta	6-50-85	4	8.0	PCI/L
Gross beta	6-51-63	10	8.0	PCI/L
Gross beta	6-51-75	4	8.0	PCI/L
Gross beta	6-52-19	4	8.0	PCI/L
Gross beta	6-52-54	430	8.0	PCI/L
Gross beta	6-52-57	22	8.0	PCI/L
Gross beta	6-53-103	4	8.0	PCI/L
Gross beta	6-53-47A	114	8.0	PCI/L
Gross beta	6-53-47B	197	8.0	PCI/L
Gross beta	6-53-48A	111	8.0	PCI/L
Gross beta	6-53-48B	558	8.0	PCI/L
Gross beta	6-53-55A	18	8.0	PCI/L
Gross beta	6-54-34	4	8.0	PCI/L
Gross beta	6-54-45A	4	8.0	PCI/L
Gross beta	6-54-48	88	8.0	PCI/L
Gross beta	6-54-49	48	8.0	PCI/L
Gross beta	6-55-50A	35	8.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Gross beta	6-55-50C	4	8.0	PCI/L
Gross beta	6-55-50D	12	8.0	PCI/L
Gross beta	6-55-55	34	8.0	PCI/L
Gross beta	6-55-57	972	8.0	PCI/L
Gross beta	6-55-70	4	8.0	PCI/L
Gross beta	6-55-76	4	8.0	PCI/L
Gross beta	6-55-89	4	8.0	PCI/L
Gross beta	6-56-43	4	8.0	PCI/L
Gross beta	6-57-29A	4	8.0	PCI/L
Gross beta	6-59-58	4	8.0	PCI/L
Gross beta	6-60-57	4	8.0	PCI/L
Gross beta	6-60-60	45	8.0	PCI/L
Gross beta	6-61-37	4	8.0	PCI/L
Gross beta	6-61-41	8	8.0	PCI/L
Gross beta	6-61-62	96	8.0	PCI/L
Gross beta	6-61-66	4	8.0	PCI/L
Gross beta	6-63-25A	4	8.0	PCI/L
Gross beta	6-63-55	17	8.0	PCI/L
Gross beta	6-63-58	41	8.0	PCI/L
Gross beta	6-63-90	4	8.0	PCI/L
Gross beta	6-64-62	92	8.0	PCI/L
Gross beta	6-65-50	8	8.0	PCI/L
Gross beta	6-65-59A	17	8.0	PCI/L
Gross beta	6-65-72	23	8.0	PCI/L
Gross beta	6-65-83	10	8.0	PCI/L
Gross beta	6-66-103	4	8.0	PCI/L
Gross beta	6-66-58	10	8.0	PCI/L
Gross beta	6-66-64	64	8.0	PCI/L
Gross beta	6-67-86	4	8.0	PCI/L
Gross beta	6-67-98	4	8.0	PCI/L
Gross beta	6-69-38	17	8.0	PCI/L
Iodine-129 (Drinking Water Standard)	1-84-4	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	1-85-1	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	1-89-1	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E13-14	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E13-19	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E13-8	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E16-2	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E17-1	15	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E17-12	5	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E17-13	3	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E17-14	17	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E17-16	9	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E17-17	7	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E17-18	6	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E17-2	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E17-5	6	1.0	PCI/L

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Iodine-129 (Drinking Water Standard)	2-E17-6	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E17-8	6	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E17-9	14	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E23-1	4	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E24-1	27	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E24-12	2	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E24-13	4	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E24-17	12	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E24-18	5	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E24-19	6	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E24-20	6	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E24-7	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-11	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-17	3	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-18	3	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-19	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-20	2	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-21	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-22	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-23	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-24	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-25	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-26	2	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-28	3	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-29P	3	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-3	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-30P	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-31	5	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-32P	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-33	3	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-40	8	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-41	6	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-6	5	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E25-9	3	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E26-1	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E26-10	2	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E26-11	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E26-2	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E26-3	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E26-4	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E26-9	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E27-1	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E27-12	3	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E27-13	6	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E27-14	7	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E27-15	4	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E27-5	2	1.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Iodine-129 (Drinking Water Standard)	2-E27-7	4	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E28-1	3	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E28-12	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E28-13	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E28-18	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E28-21	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E28-23	2	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E28-7	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E33-1	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E33-18	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E33-20	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E33-21	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E33-24	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E33-3	2	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E33-31	5	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E33-32	6	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E33-33	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E33-41	4	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E33-42	5	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E33-43	7	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E33-5	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E33-7	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E33-8	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E34-1	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-E35-2	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W10-1	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W10-15	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W10-16	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W10-17	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W10-18	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W10-3	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W10-4	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W10-5	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W10-8	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W10-9	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W11-14	2	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W11-3	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W12-1	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W14-10	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W14-5	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W14-6	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W15-10	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W15-11	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W15-2	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W15-22	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W15-4	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W15-6	1	1.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Iodine-129 (Drinking Water Standard)	2-W15-7	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W18-20	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W18-25	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W18-3	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W18-5	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W19-15	2	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W19-16	3	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W19-18	5	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W19-19	2	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W19-2	7	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W19-20	2	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W19-21	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W19-23	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W19-24	2	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W19-25	2	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W19-27	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W19-28	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W19-29	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W19-3	11	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W19-30	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W19-31	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W19-32	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W19-9	2	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W21-1	3	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W22-10	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W22-12	4	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W22-20	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W22-22	2	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W22-26	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W22-39	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W22-7	2	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W22-9	24	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W23-1	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W23-10	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W23-13	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W23-14	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W23-4	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W23-9	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W27-1	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	2-W6-1	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-20-20	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-24-33	2	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-24-46	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-25-55	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-25-70	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-28-40	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-29-78	1	1.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Iodine-129 (Drinking Water Standard)	6-31-31	6	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-32-22	4	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-32-43	3	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-32-62	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-32-70B	3	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-32-72	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-32-77	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-33-42	5	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-33-56	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-34-42	6	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-34-51	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-35-66	5	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-35-70	30	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-36-61B	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-38-65	2	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-38-70	2	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-39-39	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-39-79	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-40-33A	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-40-62	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-41-23	5	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-44-64	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-45-69A	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-46-21B	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-47-35A	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-47-46A	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-47-60	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-48-18	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-48-71	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-49-100C	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-49-28	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-49-55A	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-49-57A	4	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-49-79	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-50-42	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-50-48B	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-50-53A	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-50-85	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-51-63	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-51-75	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-52-19	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-53-103	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-53-47A	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-53-55A	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-55-50A	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-55-50C	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-55-50D	1	1.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Iodine-129 (Drinking Water Standard)	6-56-43	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-59-58	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-60-57	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-60-60	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-61-62	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-61-66	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-63-58	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-64-62	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-65-50	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-65-59A	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-65-72	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-65-83	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-66-58	1	1.0	PCI/L
Iodine-129 (Drinking Water Standard)	6-66-64	1	1.0	PCI/L
Nitrate	1-B4-2	14	500.0	PPB
Nitrate	1-B4-3	13	500.0	PPB
Nitrate	1-B4-4	15	500.0	PPB
Nitrate	1-B5-1	12	500.0	PPB
Nitrate	1-B9-1	23	500.0	PPB
Nitrate	2-E13-14	15	500.0	PPB
Nitrate	2-E13-19	11	500.0	PPB
Nitrate	2-E13-5	13	500.0	PPB
Nitrate	2-E13-8	18	500.0	PPB
Nitrate	2-E16-2	2	500.0	PPB
Nitrate	2-E17-1	190	500.0	PPB
Nitrate	2-E17-12	43	500.0	PPB
Nitrate	2-E17-13	52	500.0	PPB
Nitrate	2-E17-14	201	500.0	PPB
Nitrate	2-E17-15	240	500.0	PPB
Nitrate	2-E17-16	47	500.0	PPB
Nitrate	2-E17-17	63	500.0	PPB
Nitrate	2-E17-18	17	500.0	PPB
Nitrate	2-E17-19	125	500.0	PPB
Nitrate	2-E17-2	83	500.0	PPB
Nitrate	2-E17-20	194	500.0	PPB
Nitrate	2-E17-5	126	500.0	PPB
Nitrate	2-E17-6	24	500.0	PPB
Nitrate	2-E17-8	122	500.0	PPB
Nitrate	2-E17-9	122	500.0	PPB
Nitrate	2-E18-1	11	500.0	PPB
Nitrate	2-E18-2	0	500.0	PPB
Nitrate	2-E18-3	1	500.0	PPB
Nitrate	2-E18-4	1	500.0	PPB
Nitrate	2-E23-1	23	500.0	PPB
Nitrate	2-E24-1	155	500.0	PPB
Nitrate	2-E24-11	124	500.0	PPB
Nitrate	2-E24-12	112	500.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Nitrate	2-E24-13	3	500.0	PPB
Nitrate	2-E24-16	105	500.0	PPB
Nitrate	2-E24-17	91	500.0	PPB
Nitrate	2-E24-18	51	500.0	PPB
Nitrate	2-E24-19	4	500.0	PPB
Nitrate	2-E24-2	98	500.0	PPB
Nitrate	2-E24-20	49	500.0	PPB
Nitrate	2-E24-4	2	500.0	PPB
Nitrate	2-E24-7	33	500.0	PPB
Nitrate	2-E24-8	33	500.0	PPB
Nitrate	2-E25-11	32	500.0	PPB
Nitrate	2-E25-13	142	500.0	PPB
Nitrate	2-E25-17	22	500.0	PPB
Nitrate	2-E25-18	49	500.0	PPB
Nitrate	2-E25-19	121	500.0	PPB
Nitrate	2-E25-2	2	500.0	PPB
Nitrate	2-E25-20	148	500.0	PPB
Nitrate	2-E25-21	4	500.0	PPB
Nitrate	2-E25-22	4	500.0	PPB
Nitrate	2-E25-23	2	500.0	PPB
Nitrate	2-E25-24	2	500.0	PPB
Nitrate	2-E25-25	1	500.0	PPB
Nitrate	2-E25-26	1	500.0	PPB
Nitrate	2-E25-27	2	500.0	PPB
Nitrate	2-E25-28	1	500.0	PPB
Nitrate	2-E25-29P	8	500.0	PPB
Nitrate	2-E25-3	2	500.0	PPB
Nitrate	2-E25-30P	4	500.0	PPB
Nitrate	2-E25-31	8	500.0	PPB
Nitrate	2-E25-32P	1	500.0	PPB
Nitrate	2-E25-33	10	500.0	PPB
Nitrate	2-E25-34	1	500.0	PPB
Nitrate	2-E25-35	6	500.0	PPB
Nitrate	2-E25-36	10	500.0	PPB
Nitrate	2-E25-37	2	500.0	PPB
Nitrate	2-E25-38	3	500.0	PPB
Nitrate	2-E25-39	1	500.0	PPB
Nitrate	2-E25-40	4	500.0	PPB
Nitrate	2-E25-41	4	500.0	PPB
Nitrate	2-E25-42	5	500.0	PPB
Nitrate	2-E25-43	2	500.0	PPB
Nitrate	2-E25-6	2	500.0	PPB
Nitrate	2-E25-9	2	500.0	PPB
Nitrate	2-E26-1	2	500.0	PPB
Nitrate	2-E26-10	7	500.0	PPB
Nitrate	2-E26-11	6	500.0	PPB
Nitrate	2-E26-12	2	500.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Nitrate	2-E26-13	1	500.0	PPB
Nitrate	2-E26-2	2	500.0	PPB
Nitrate	2-E26-3	3	500.0	PPB
Nitrate	2-E26-4	2	500.0	PPB
Nitrate	2-E26-5	1	500.0	PPB
Nitrate	2-E26-6	5	500.0	PPB
Nitrate	2-E26-9	2	500.0	PPB
Nitrate	2-E27-1	3	500.0	PPB
Nitrate	2-E27-10	4	500.0	PPB
Nitrate	2-E27-11	8	500.0	PPB
Nitrate	2-E27-12	3	500.0	PPB
Nitrate	2-E27-13	2	500.0	PPB
Nitrate	2-E27-14	8	500.0	PPB
Nitrate	2-E27-15	3	500.0	PPB
Nitrate	2-E27-16	2	500.0	PPB
Nitrate	2-E27-5	6	500.0	PPB
Nitrate	2-E27-7	3	500.0	PPB
Nitrate	2-E27-8	7	500.0	PPB
Nitrate	2-E27-9	8	500.0	PPB
Nitrate	2-E28-1	5	500.0	PPB
Nitrate	2-E28-12	138	500.0	PPB
Nitrate	2-E28-13	42	500.0	PPB
Nitrate	2-E28-16	26	500.0	PPB
Nitrate	2-E28-17	28	500.0	PPB
Nitrate	2-E28-18	37	500.0	PPB
Nitrate	2-E28-19	34	500.0	PPB
Nitrate	2-E28-21	38	500.0	PPB
Nitrate	2-E28-23	9	500.0	PPB
Nitrate	2-E28-24	0	500.0	PPB
Nitrate	2-E28-25	8	500.0	PPB
Nitrate	2-E28-26	43	500.0	PPB
Nitrate	2-E28-27	25	500.0	PPB
Nitrate	2-E28-28	32	500.0	PPB
Nitrate	2-E28-5	4	500.0	PPB
Nitrate	2-E28-7	7	500.0	PPB
Nitrate	2-E28-9	18	500.0	PPB
Nitrate	2-E32-1	10	500.0	PPB
Nitrate	2-E32-2	16	500.0	PPB
Nitrate	2-E32-3	47	500.0	PPB
Nitrate	2-E32-4	26	500.0	PPB
Nitrate	2-E32-5	53	500.0	PPB
Nitrate	2-E33-1	27	500.0	PPB
Nitrate	2-E33-13	0	500.0	PPB
Nitrate	2-E33-14	4	500.0	PPB
Nitrate	2-E33-15	0	500.0	PPB
Nitrate	2-E33-18	6	500.0	PPB
Nitrate	2-E33-20	3	500.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Nitrate	2-E33-21	3	500.0	PPB
Nitrate	2-E33-24	5	500.0	PPB
Nitrate	2-E33-26	8	500.0	PPB
Nitrate	2-E33-28	3	500.0	PPB
Nitrate	2-E33-29	6	500.0	PPB
Nitrate	2-E33-3	24	500.0	PPB
Nitrate	2-E33-30	5	500.0	PPB
Nitrate	2-E33-31	10	500.0	PPB
Nitrate	2-E33-32	8	500.0	PPB
Nitrate	2-E33-33	3	500.0	PPB
Nitrate	2-E33-34	25	500.0	PPB
Nitrate	2-E33-35	8	500.0	PPB
Nitrate	2-E33-36	4	500.0	PPB
Nitrate	2-E33-37	3	500.0	PPB
Nitrate	2-E33-38	0	500.0	PPB
Nitrate	2-E33-39	0	500.0	PPB
Nitrate	2-E33-4	0	500.0	PPB
Nitrate	2-E33-41	11	500.0	PPB
Nitrate	2-E33-42	12	500.0	PPB
Nitrate	2-E33-43	4	500.0	PPB
Nitrate	2-E33-5	17	500.0	PPB
Nitrate	2-E33-7	41	500.0	PPB
Nitrate	2-E33-8	8	500.0	PPB
Nitrate	2-E33-9	10	500.0	PPB
Nitrate	2-E34-1	4	500.0	PPB
Nitrate	2-E34-2	9	500.0	PPB
Nitrate	2-E34-3	6	500.0	PPB
Nitrate	2-E34-5	9	500.0	PPB
Nitrate	2-E34-6	7	500.0	PPB
Nitrate	2-E34-7	9	500.0	PPB
Nitrate	2-E34-8	3	500.0	PPB
Nitrate	2-E35-1	10	500.0	PPB
Nitrate	2-E35-2	4	500.0	PPB
Nitrate	2-W10-1	336	500.0	PPB
Nitrate	2-W10-13	18	500.0	PPB
Nitrate	2-W10-14	21	500.0	PPB
Nitrate	2-W10-15	394	500.0	PPB
Nitrate	2-W10-16	176	500.0	PPB
Nitrate	2-W10-17	111	500.0	PPB
Nitrate	2-W10-18	53	500.0	PPB
Nitrate	2-W10-3	794	500.0	PPB
Nitrate	2-W10-4	175	500.0	PPB
Nitrate	2-W10-5	99	500.0	PPB
Nitrate	2-W10-8	31	500.0	PPB
Nitrate	2-W10-9	412	500.0	PPB
Nitrate	2-W11-14	95	500.0	PPB
Nitrate	2-W11-18	75	500.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Nitrate	2-W11-23	228	500.0	PPB
Nitrate	2-W11-24	156	500.0	PPB
Nitrate	2-W11-3	84	500.0	PPB
Nitrate	2-W11-7	209	500.0	PPB
Nitrate	2-W11-9	56	500.0	PPB
Nitrate	2-W12-1	336	500.0	PPB
Nitrate	2-W14-10	57	500.0	PPB
Nitrate	2-W14-2	52	500.0	PPB
Nitrate	2-W14-5	90	500.0	PPB
Nitrate	2-W14-6	27	500.0	PPB
Nitrate	2-W15-10	64	500.0	PPB
Nitrate	2-W15-11	92	500.0	PPB
Nitrate	2-W15-12	95	500.0	PPB
Nitrate	2-W15-15	23	500.0	PPB
Nitrate	2-W15-16	70	500.0	PPB
Nitrate	2-W15-17	19	500.0	PPB
Nitrate	2-W15-18	82	500.0	PPB
Nitrate	2-W15-19	76	500.0	PPB
Nitrate	2-W15-2	4	500.0	PPB
Nitrate	2-W15-20	8	500.0	PPB
Nitrate	2-W15-22	51	500.0	PPB
Nitrate	2-W15-23	27	500.0	PPB
Nitrate	2-W15-24	20	500.0	PPB
Nitrate	2-W15-3	114	500.0	PPB
Nitrate	2-W15-4	468	500.0	PPB
Nitrate	2-W15-6	6	500.0	PPB
Nitrate	2-W15-7	50	500.0	PPB
Nitrate	2-W15-8	167	500.0	PPB
Nitrate	2-W18-15	2	500.0	PPB
Nitrate	2-W18-17	218	500.0	PPB
Nitrate	2-W18-20	1	500.0	PPB
Nitrate	2-W18-21	3	500.0	PPB
Nitrate	2-W18-22	17	500.0	PPB
Nitrate	2-W18-23	6	500.0	PPB
Nitrate	2-W18-24	17	500.0	PPB
Nitrate	2-W18-25	1	500.0	PPB
Nitrate	2-W18-26	5	500.0	PPB
Nitrate	2-W18-3	114	500.0	PPB
Nitrate	2-W18-4	36	500.0	PPB
Nitrate	2-W18-5	248	500.0	PPB
Nitrate	2-W18-8	5	500.0	PPB
Nitrate	2-W18-9	3	500.0	PPB
Nitrate	2-W19-1	1	500.0	PPB
Nitrate	2-W19-11	81	500.0	PPB
Nitrate	2-W19-12	11	500.0	PPB
Nitrate	2-W19-13	18	500.0	PPB
Nitrate	2-W19-14	9	500.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Nitrate	2-W19-15	89	500.0	PPB
Nitrate	2-W19-16	46	500.0	PPB
Nitrate	2-W19-17	10	500.0	PPB
Nitrate	2-W19-18	98	500.0	PPB
Nitrate	2-W19-19	1322	500.0	PPB
Nitrate	2-W19-2	251	500.0	PPB
Nitrate	2-W19-20	1032	500.0	PPB
Nitrate	2-W19-21	1	500.0	PPB
Nitrate	2-W19-23	396	500.0	PPB
Nitrate	2-W19-24	1025	500.0	PPB
Nitrate	2-W19-25	806	500.0	PPB
Nitrate	2-W19-26	1120	500.0	PPB
Nitrate	2-W19-27	1	500.0	PPB
Nitrate	2-W19-28	323	500.0	PPB
Nitrate	2-W19-29	396	500.0	PPB
Nitrate	2-W19-3	42	500.0	PPB
Nitrate	2-W19-30	1000	500.0	PPB
Nitrate	2-W19-31	14	500.0	PPB
Nitrate	2-W19-32	6	500.0	PPB
Nitrate	2-W19-5	3	500.0	PPB
Nitrate	2-W19-9	23	500.0	PPB
Nitrate	2-W21-1	40	500.0	PPB
Nitrate	2-W22-1	6	500.0	PPB
Nitrate	2-W22-10	3	500.0	PPB
Nitrate	2-W22-12	2	500.0	PPB
Nitrate	2-W22-18	0	500.0	PPB
Nitrate	2-W22-2	5	500.0	PPB
Nitrate	2-W22-20	91	500.0	PPB
Nitrate	2-W22-21	22	500.0	PPB
Nitrate	2-W22-22	14	500.0	PPB
Nitrate	2-W22-26	12	500.0	PPB
Nitrate	2-W22-39	15	500.0	PPB
Nitrate	2-W22-40	25	500.0	PPB
Nitrate	2-W22-41	213	500.0	PPB
Nitrate	2-W22-42	280	500.0	PPB
Nitrate	2-W22-7	3	500.0	PPB
Nitrate	2-W22-9	5	500.0	PPB
Nitrate	2-W23-1	10	500.0	PPB
Nitrate	2-W23-10	114	500.0	PPB
Nitrate	2-W23-11	2	500.0	PPB
Nitrate	2-W23-13	9	500.0	PPB
Nitrate	2-W23-14	4	500.0	PPB
Nitrate	2-W23-2	30	500.0	PPB
Nitrate	2-W23-3	13	500.0	PPB
Nitrate	2-W23-4	5	500.0	PPB
Nitrate	2-W23-8	3	500.0	PPB
Nitrate	2-W23-9	78	500.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Nitrate	2-W26-10	3	500.0	PPB
Nitrate	2-W26-12	1	500.0	PPB
Nitrate	2-W26-3	2	500.0	PPB
Nitrate	2-W26-6	3	500.0	PPB
Nitrate	2-W26-7	5	500.0	PPB
Nitrate	2-W26-8	1	500.0	PPB
Nitrate	2-W26-9	5	500.0	PPB
Nitrate	2-W27-1	45	500.0	PPB
Nitrate	2-W6-1	225	500.0	PPB
Nitrate	2-W6-2	62	500.0	PPB
Nitrate	2-W6-4	140	500.0	PPB
Nitrate	2-W6-5	290	500.0	PPB
Nitrate	2-W6-6	2	500.0	PPB
Nitrate	2-W6-7	210	500.0	PPB
Nitrate	2-W6-8	4	500.0	PPB
Nitrate	2-W7-1	43	500.0	PPB
Nitrate	2-W7-10	12	500.0	PPB
Nitrate	2-W7-11	39	500.0	PPB
Nitrate	2-W7-12	21	500.0	PPB
Nitrate	2-W7-2	28	500.0	PPB
Nitrate	2-W7-3	4	500.0	PPB
Nitrate	2-W7-4	81	500.0	PPB
Nitrate	2-W7-5	47	500.0	PPB
Nitrate	2-W7-6	6	500.0	PPB
Nitrate	2-W7-7	14	500.0	PPB
Nitrate	2-W7-8	31	500.0	PPB
Nitrate	2-W7-9	25	500.0	PPB
Nitrate	2-W8-1	29	500.0	PPB
Nitrate	2-W9-1	24	500.0	PPB
Nitrate	6-20-20	33	500.0	PPB
Nitrate	6-20-39	5	500.0	PPB
Nitrate	6-23-34	24	500.0	PPB
Nitrate	6-24-33	29	500.0	PPB
Nitrate	6-24-34A	28	500.0	PPB
Nitrate	6-24-34B	31	500.0	PPB
Nitrate	6-24-34C	33	500.0	PPB
Nitrate	6-24-35	24	500.0	PPB
Nitrate	6-24-46	9	500.0	PPB
Nitrate	6-25-33A	4	500.0	PPB
Nitrate	6-25-34A	27	500.0	PPB
Nitrate	6-25-34B	30	500.0	PPB
Nitrate	6-25-34C	32	500.0	PPB
Nitrate	6-25-55	14	500.0	PPB
Nitrate	6-25-70	12	500.0	PPB
Nitrate	6-26-33	29	500.0	PPB
Nitrate	6-26-34	30	500.0	PPB
Nitrate	6-26-35A	31	500.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Nitrate	6-26-35C	21	500.0	PPB
Nitrate	6-26-89	3	500.0	PPB
Nitrate	6-28-40	16	500.0	PPB
Nitrate	6-28-40P	7	500.0	PPB
Nitrate	6-28-52A	3	500.0	PPB
Nitrate	6-29-78	8	500.0	PPB
Nitrate	6-31-31	3	500.0	PPB
Nitrate	6-31-31P	2	500.0	PPB
Nitrate	6-32-22	21	500.0	PPB
Nitrate	6-32-43	19	500.0	PPB
Nitrate	6-32-62	26	500.0	PPB
Nitrate	6-32-70B	17	500.0	PPB
Nitrate	6-32-72	7	500.0	PPB
Nitrate	6-32-77	5	500.0	PPB
Nitrate	6-33-42	23	500.0	PPB
Nitrate	6-33-56	10	500.0	PPB
Nitrate	6-34-39A	3	500.0	PPB
Nitrate	6-34-41B	7	500.0	PPB
Nitrate	6-34-42	10	500.0	PPB
Nitrate	6-34-51	8	500.0	PPB
Nitrate	6-35-66	22	500.0	PPB
Nitrate	6-35-70	20	500.0	PPB
Nitrate	6-35-78A	2	500.0	PPB
Nitrate	6-36-46P	3	500.0	PPB
Nitrate	6-36-46Q	2	500.0	PPB
Nitrate	6-36-46R	0	500.0	PPB
Nitrate	6-36-46S	3	500.0	PPB
Nitrate	6-36-61A	18	500.0	PPB
Nitrate	6-36-61B	11	500.0	PPB
Nitrate	6-36-93	36	500.0	PPB
Nitrate	6-37-82A	36	500.0	PPB
Nitrate	6-38-65	102	500.0	PPB
Nitrate	6-38-70	258	500.0	PPB
Nitrate	6-39-39	18	500.0	PPB
Nitrate	6-39-79	7	500.0	PPB
Nitrate	6-40-33A	1	500.0	PPB
Nitrate	6-40-40A	3	500.0	PPB
Nitrate	6-40-40B	1	500.0	PPB
Nitrate	6-40-62	44	500.0	PPB
Nitrate	6-41-23	11	500.0	PPB
Nitrate	6-42-39A	12	500.0	PPB
Nitrate	6-42-39B	12	500.0	PPB
Nitrate	6-42-40A	2	500.0	PPB
Nitrate	6-42-40B	2	500.0	PPB
Nitrate	6-42-41	1	500.0	PPB
Nitrate	6-42-42B	6	500.0	PPB
Nitrate	6-43-40	6	500.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Nitrate	6-43-41E	9	500.0	PPB
Nitrate	6-43-41F	10	500.0	PPB
Nitrate	6-43-41G	6	500.0	PPB
Nitrate	6-43-42J	3	500.0	PPB
Nitrate	6-43-43	1	500.0	PPB
Nitrate	6-43-45	1	500.0	PPB
Nitrate	6-43-88	10	500.0	PPB
Nitrate	6-44-42	1	500.0	PPB
Nitrate	6-44-43B	6	500.0	PPB
Nitrate	6-44-64	51	500.0	PPB
Nitrate	6-45-42	6	500.0	PPB
Nitrate	6-45-69A	22	500.0	PPB
Nitrate	6-46-21B	17	500.0	PPB
Nitrate	6-47-35A	14	500.0	PPB
Nitrate	6-47-46A	14	500.0	PPB
Nitrate	6-47-60	13	500.0	PPB
Nitrate	6-48-18	5	500.0	PPB
Nitrate	6-48-50	0	500.0	PPB
Nitrate	6-48-71	22	500.0	PPB
Nitrate	6-49-100C	8	500.0	PPB
Nitrate	6-49-28	3	500.0	PPB
Nitrate	6-49-55A	102	500.0	PPB
Nitrate	6-49-57A	15	500.0	PPB
Nitrate	6-49-79	35	500.0	PPB
Nitrate	6-50-30	3	500.0	PPB
Nitrate	6-50-42	5	500.0	PPB
Nitrate	6-50-48B	2	500.0	PPB
Nitrate	6-50-53A	397	500.0	PPB
Nitrate	6-50-85	25	500.0	PPB
Nitrate	6-51-63	17	500.0	PPB
Nitrate	6-51-75	2	500.0	PPB
Nitrate	6-52-19	4	500.0	PPB
Nitrate	6-52-54	1	500.0	PPB
Nitrate	6-52-57	0	500.0	PPB
Nitrate	6-53-103	3	500.0	PPB
Nitrate	6-53-47A	3	500.0	PPB
Nitrate	6-53-47B	31	500.0	PPB
Nitrate	6-53-48A	46	500.0	PPB
Nitrate	6-53-48B	0	500.0	PPB
Nitrate	6-53-55A	0	500.0	PPB
Nitrate	6-54-34	7	500.0	PPB
Nitrate	6-54-45A	3	500.0	PPB
Nitrate	6-54-48	51	500.0	PPB
Nitrate	6-54-49	5	500.0	PPB
Nitrate	6-55-40	6	500.0	PPB
Nitrate	6-55-44	3	500.0	PPB
Nitrate	6-55-50A	3	500.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Nitrate	6-55-50C	3	500.0	PPB
Nitrate	6-55-50D	3	500.0	PPB
Nitrate	6-55-55	0	500.0	PPB
Nitrate	6-55-57	0	500.0	PPB
Nitrate	6-55-70	3	500.0	PPB
Nitrate	6-55-76	4	500.0	PPB
Nitrate	6-55-89	8	500.0	PPB
Nitrate	6-56-43	3	500.0	PPB
Nitrate	6-57-29A	3	500.0	PPB
Nitrate	6-58-24	2	500.0	PPB
Nitrate	6-59-58	4	500.0	PPB
Nitrate	6-59-80B	3	500.0	PPB
Nitrate	6-60-57	2	500.0	PPB
Nitrate	6-60-60	2	500.0	PPB
Nitrate	6-61-37	4	500.0	PPB
Nitrate	6-61-41	3	500.0	PPB
Nitrate	6-61-62	41	500.0	PPB
Nitrate	6-61-66	5	500.0	PPB
Nitrate	6-62-31	49	500.0	PPB
Nitrate	6-63-25A	15	500.0	PPB
Nitrate	6-63-55	7	500.0	PPB
Nitrate	6-63-58	18	500.0	PPB
Nitrate	6-63-90	5	500.0	PPB
Nitrate	6-64-62	32	500.0	PPB
Nitrate	6-65-23	18	500.0	PPB
Nitrate	6-65-50	4	500.0	PPB
Nitrate	6-65-59A	10	500.0	PPB
Nitrate	6-65-72	20	500.0	PPB
Nitrate	6-65-83	5	500.0	PPB
Nitrate	6-66-103	3	500.0	PPB
Nitrate	6-66-23	37	500.0	PPB
Nitrate	6-66-38	2	500.0	PPB
Nitrate	6-66-39	2	500.0	PPB
Nitrate	6-66-58	8	500.0	PPB
Nitrate	6-66-64	19	500.0	PPB
Nitrate	6-67-51	3	500.0	PPB
Nitrate	6-67-86	3	500.0	PPB
Nitrate	6-67-98	5	500.0	PPB
Nitrate	6-68-105	3	500.0	PPB
Nitrate	6-69-38	3	500.0	PPB
Strontium-90	1-B4-2	28	5.0	PCI/L
Strontium-90	1-B4-3	22	5.0	PCI/L
Strontium-90	1-B4-4	29	5.0	PCI/L
Strontium-90	1-B5-1	3	5.0	PCI/L
Strontium-90	1-B9-1	3	5.0	PCI/L
Strontium-90	2-E13-14	3	5.0	PCI/L
Strontium-90	2-E13-19	3	5.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Strontium-90	2-E13-5	3	5.0	PCI/L
Strontium-90	2-E13-8	3	5.0	PCI/L
Strontium-90	2-E16-2	3	5.0	PCI/L
Strontium-90	2-E17-1	3	5.0	PCI/L
Strontium-90	2-E17-12	3	5.0	PCI/L
Strontium-90	2-E17-13	3	5.0	PCI/L
Strontium-90	2-E17-14	19	5.0	PCI/L
Strontium-90	2-E17-15	7	5.0	PCI/L
Strontium-90	2-E17-16	3	5.0	PCI/L
Strontium-90	2-E17-17	3	5.0	PCI/L
Strontium-90	2-E17-18	3	5.0	PCI/L
Strontium-90	2-E17-2	3	5.0	PCI/L
Strontium-90	2-E17-20	13	5.0	PCI/L
Strontium-90	2-E17-5	3	5.0	PCI/L
Strontium-90	2-E17-6	3	5.0	PCI/L
Strontium-90	2-E17-8	3	5.0	PCI/L
Strontium-90	2-E17-9	3	5.0	PCI/L
Strontium-90	2-E18-1	3	5.0	PCI/L
Strontium-90	2-E24-1	10	5.0	PCI/L
Strontium-90	2-E24-11	3	5.0	PCI/L
Strontium-90	2-E24-12	6	5.0	PCI/L
Strontium-90	2-E24-13	3	5.0	PCI/L
Strontium-90	2-E24-17	3	5.0	PCI/L
Strontium-90	2-E24-18	3	5.0	PCI/L
Strontium-90	2-E24-19	65	5.0	PCI/L
Strontium-90	2-E24-2	3	5.0	PCI/L
Strontium-90	2-E24-20	3	5.0	PCI/L
Strontium-90	2-E24-4	3	5.0	PCI/L
Strontium-90	2-E24-8	3	5.0	PCI/L
Strontium-90	2-E25-11	3	5.0	PCI/L
Strontium-90	2-E25-17	3	5.0	PCI/L
Strontium-90	2-E25-18	3	5.0	PCI/L
Strontium-90	2-E25-19	3	5.0	PCI/L
Strontium-90	2-E25-2	3	5.0	PCI/L
Strontium-90	2-E25-20	3	5.0	PCI/L
Strontium-90	2-E25-21	3	5.0	PCI/L
Strontium-90	2-E25-22	3	5.0	PCI/L
Strontium-90	2-E25-23	3	5.0	PCI/L
Strontium-90	2-E25-24	3	5.0	PCI/L
Strontium-90	2-E25-25	3	5.0	PCI/L
Strontium-90	2-E25-26	3	5.0	PCI/L
Strontium-90	2-E25-28	3	5.0	PCI/L
Strontium-90	2-E25-29P	3	5.0	PCI/L
Strontium-90	2-E25-3	3	5.0	PCI/L
Strontium-90	2-E25-30P	3	5.0	PCI/L
Strontium-90	2-E25-31	3	5.0	PCI/L
Strontium-90	2-E25-32P	3	5.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Strontium-90	2-E25-33	3	5.0	PCI/L
Strontium-90	2-E25-34	3	5.0	PCI/L
Strontium-90	2-E25-35	3	5.0	PCI/L
Strontium-90	2-E25-40	3	5.0	PCI/L
Strontium-90	2-E25-41	3	5.0	PCI/L
Strontium-90	2-E25-6	3	5.0	PCI/L
Strontium-90	2-E25-9	3	5.0	PCI/L
Strontium-90	2-E26-2	3	5.0	PCI/L
Strontium-90	2-E26-3	3	5.0	PCI/L
Strontium-90	2-E26-4	3	5.0	PCI/L
Strontium-90	2-E26-6	3	5.0	PCI/L
Strontium-90	2-E27-1	3	5.0	PCI/L
Strontium-90	2-E27-10	3	5.0	PCI/L
Strontium-90	2-E27-11	3	5.0	PCI/L
Strontium-90	2-E27-12	3	5.0	PCI/L
Strontium-90	2-E27-13	3	5.0	PCI/L
Strontium-90	2-E27-14	3	5.0	PCI/L
Strontium-90	2-E27-15	3	5.0	PCI/L
Strontium-90	2-E27-5	3	5.0	PCI/L
Strontium-90	2-E27-7	3	5.0	PCI/L
Strontium-90	2-E27-8	3	5.0	PCI/L
Strontium-90	2-E27-9	3	5.0	PCI/L
Strontium-90	2-E28-1	3	5.0	PCI/L
Strontium-90	2-E28-12	3	5.0	PCI/L
Strontium-90	2-E28-13	3	5.0	PCI/L
Strontium-90	2-E28-18	3	5.0	PCI/L
Strontium-90	2-E28-21	3	5.0	PCI/L
Strontium-90	2-E28-23	4396	5.0	PCI/L
Strontium-90	2-E28-24	196	5.0	PCI/L
Strontium-90	2-E28-25	5149	5.0	PCI/L
Strontium-90	2-E28-26	3	5.0	PCI/L
Strontium-90	2-E28-27	3	5.0	PCI/L
Strontium-90	2-E28-28	3	5.0	PCI/L
Strontium-90	2-E28-7	76	5.0	PCI/L
Strontium-90	2-E32-1	3	5.0	PCI/L
Strontium-90	2-E32-2	3	5.0	PCI/L
Strontium-90	2-E32-3	3	5.0	PCI/L
Strontium-90	2-E32-4	3	5.0	PCI/L
Strontium-90	2-E32-5	3	5.0	PCI/L
Strontium-90	2-E33-1	3	5.0	PCI/L
Strontium-90	2-E33-13	3	5.0	PCI/L
Strontium-90	2-E33-14	3	5.0	PCI/L
Strontium-90	2-E33-15	3	5.0	PCI/L
Strontium-90	2-E33-18	3	5.0	PCI/L
Strontium-90	2-E33-20	3	5.0	PCI/L
Strontium-90	2-E33-21	3	5.0	PCI/L
Strontium-90	2-E33-24	3	5.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Strontium-90	2-E33-26	3	5.0	PCI/L
Strontium-90	2-E33-28	3	5.0	PCI/L
Strontium-90	2-E33-29	3	5.0	PCI/L
Strontium-90	2-E33-3	3	5.0	PCI/L
Strontium-90	2-E33-30	3	5.0	PCI/L
Strontium-90	2-E33-31	3	5.0	PCI/L
Strontium-90	2-E33-32	3	5.0	PCI/L
Strontium-90	2-E33-33	3	5.0	PCI/L
Strontium-90	2-E33-34	3	5.0	PCI/L
Strontium-90	2-E33-35	3	5.0	PCI/L
Strontium-90	2-E33-38	3	5.0	PCI/L
Strontium-90	2-E33-39	3	5.0	PCI/L
Strontium-90	2-E33-4	3	5.0	PCI/L
Strontium-90	2-E33-41	3	5.0	PCI/L
Strontium-90	2-E33-42	3	5.0	PCI/L
Strontium-90	2-E33-43	3	5.0	PCI/L
Strontium-90	2-E33-5	3	5.0	PCI/L
Strontium-90	2-E33-7	3	5.0	PCI/L
Strontium-90	2-E33-8	3	5.0	PCI/L
Strontium-90	2-E33-9	3	5.0	PCI/L
Strontium-90	2-E34-1	3	5.0	PCI/L
Strontium-90	2-E34-2	3	5.0	PCI/L
Strontium-90	2-E34-3	3	5.0	PCI/L
Strontium-90	2-E34-5	3	5.0	PCI/L
Strontium-90	2-E34-6	3	5.0	PCI/L
Strontium-90	2-E34-7	3	5.0	PCI/L
Strontium-90	2-E35-1	3	5.0	PCI/L
Strontium-90	2-W10-1	3	5.0	PCI/L
Strontium-90	2-W10-13	3	5.0	PCI/L
Strontium-90	2-W10-14	3	5.0	PCI/L
Strontium-90	2-W10-15	3	5.0	PCI/L
Strontium-90	2-W10-16	3	5.0	PCI/L
Strontium-90	2-W10-17	3	5.0	PCI/L
Strontium-90	2-W10-18	3	5.0	PCI/L
Strontium-90	2-W10-3	3	5.0	PCI/L
Strontium-90	2-W10-4	3	5.0	PCI/L
Strontium-90	2-W10-8	3	5.0	PCI/L
Strontium-90	2-W10-9	3	5.0	PCI/L
Strontium-90	2-W11-11	3	5.0	PCI/L
Strontium-90	2-W11-18	3	5.0	PCI/L
Strontium-90	2-W11-23	3	5.0	PCI/L
Strontium-90	2-W11-24	3	5.0	PCI/L
Strontium-90	2-W11-3	3	5.0	PCI/L
Strontium-90	2-W11-9	3	5.0	PCI/L
Strontium-90	2-W14-10	3	5.0	PCI/L
Strontium-90	2-W14-2	3	5.0	PCI/L
Strontium-90	2-W14-5	3	5.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Strontium-90	2-W14-6	3	5.0	PCI/L
Strontium-90	2-W15-10	3	5.0	PCI/L
Strontium-90	2-W15-11	3	5.0	PCI/L
Strontium-90	2-W15-15	3	5.0	PCI/L
Strontium-90	2-W15-16	3	5.0	PCI/L
Strontium-90	2-W15-17	3	5.0	PCI/L
Strontium-90	2-W15-18	3	5.0	PCI/L
Strontium-90	2-W15-19	3	5.0	PCI/L
Strontium-90	2-W15-20	3	5.0	PCI/L
Strontium-90	2-W15-22	3	5.0	PCI/L
Strontium-90	2-W15-23	3	5.0	PCI/L
Strontium-90	2-W15-24	3	5.0	PCI/L
Strontium-90	2-W15-3	3	5.0	PCI/L
Strontium-90	2-W15-4	3	5.0	PCI/L
Strontium-90	2-W15-6	3	5.0	PCI/L
Strontium-90	2-W15-7	3	5.0	PCI/L
Strontium-90	2-W18-17	3	5.0	PCI/L
Strontium-90	2-W18-20	3	5.0	PCI/L
Strontium-90	2-W18-21	3	5.0	PCI/L
Strontium-90	2-W18-22	3	5.0	PCI/L
Strontium-90	2-W18-23	3	5.0	PCI/L
Strontium-90	2-W18-24	3	5.0	PCI/L
Strontium-90	2-W18-25	3	5.0	PCI/L
Strontium-90	2-W18-26	3	5.0	PCI/L
Strontium-90	2-W18-3	3	5.0	PCI/L
Strontium-90	2-W18-5	3	5.0	PCI/L
Strontium-90	2-W19-1	3	5.0	PCI/L
Strontium-90	2-W19-11	3	5.0	PCI/L
Strontium-90	2-W19-12	3	5.0	PCI/L
Strontium-90	2-W19-13	3	5.0	PCI/L
Strontium-90	2-W19-14	3	5.0	PCI/L
Strontium-90	2-W19-15	3	5.0	PCI/L
Strontium-90	2-W19-16	3	5.0	PCI/L
Strontium-90	2-W19-17	3	5.0	PCI/L
Strontium-90	2-W19-18	3	5.0	PCI/L
Strontium-90	2-W19-19	3	5.0	PCI/L
Strontium-90	2-W19-2	3	5.0	PCI/L
Strontium-90	2-W19-20	3	5.0	PCI/L
Strontium-90	2-W19-21	3	5.0	PCI/L
Strontium-90	2-W19-23	3	5.0	PCI/L
Strontium-90	2-W19-24	3	5.0	PCI/L
Strontium-90	2-W19-25	3	5.0	PCI/L
Strontium-90	2-W19-26	3	5.0	PCI/L
Strontium-90	2-W19-27	3	5.0	PCI/L
Strontium-90	2-W19-29	3	5.0	PCI/L
Strontium-90	2-W19-3	3	5.0	PCI/L
Strontium-90	2-W19-30	3	5.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Strontium-90	2-W19-31	3	5.0	PCI/L
Strontium-90	2-W19-32	3	5.0	PCI/L
Strontium-90	2-W19-9	3	5.0	PCI/L
Strontium-90	2-W22-1	8	5.0	PCI/L
Strontium-90	2-W22-10	22	5.0	PCI/L
Strontium-90	2-W22-12	3	5.0	PCI/L
Strontium-90	2-W22-18	3	5.0	PCI/L
Strontium-90	2-W22-2	3	5.0	PCI/L
Strontium-90	2-W22-20	3	5.0	PCI/L
Strontium-90	2-W22-21	3	5.0	PCI/L
Strontium-90	2-W22-22	3	5.0	PCI/L
Strontium-90	2-W22-26	3	5.0	PCI/L
Strontium-90	2-W22-39	3	5.0	PCI/L
Strontium-90	2-W22-7	3	5.0	PCI/L
Strontium-90	2-W22-9	3	5.0	PCI/L
Strontium-90	2-W23-1	3	5.0	PCI/L
Strontium-90	2-W23-10	3	5.0	PCI/L
Strontium-90	2-W23-11	3	5.0	PCI/L
Strontium-90	2-W23-13	3	5.0	PCI/L
Strontium-90	2-W23-14	3	5.0	PCI/L
Strontium-90	2-W23-2	3	5.0	PCI/L
Strontium-90	2-W23-3	3	5.0	PCI/L
Strontium-90	2-W23-4	3	5.0	PCI/L
Strontium-90	2-W23-9	3	5.0	PCI/L
Strontium-90	2-W26-6	3	5.0	PCI/L
Strontium-90	2-W27-1	3	5.0	PCI/L
Strontium-90	2-W6-2	3	5.0	PCI/L
Strontium-90	2-W6-4	3	5.0	PCI/L
Strontium-90	2-W6-5	3	5.0	PCI/L
Strontium-90	2-W6-6	3	5.0	PCI/L
Strontium-90	2-W6-7	3	5.0	PCI/L
Strontium-90	2-W6-8	3	5.0	PCI/L
Strontium-90	2-W7-1	3	5.0	PCI/L
Strontium-90	2-W7-10	3	5.0	PCI/L
Strontium-90	2-W7-11	3	5.0	PCI/L
Strontium-90	2-W7-12	3	5.0	PCI/L
Strontium-90	2-W7-2	3	5.0	PCI/L
Strontium-90	2-W7-3	3	5.0	PCI/L
Strontium-90	2-W7-4	3	5.0	PCI/L
Strontium-90	2-W7-5	3	5.0	PCI/L
Strontium-90	2-W7-6	3	5.0	PCI/L
Strontium-90	2-W7-7	3	5.0	PCI/L
Strontium-90	2-W7-8	3	5.0	PCI/L
Strontium-90	2-W7-9	3	5.0	PCI/L
Strontium-90	2-W8-1	3	5.0	PCI/L
Strontium-90	2-W9-1	3	5.0	PCI/L
Strontium-90	6-23-34	3	5.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Strontium-90	6-24-33	3	5.0	PCI/L
Strontium-90	6-24-34A	3	5.0	PCI/L
Strontium-90	6-24-34B	3	5.0	PCI/L
Strontium-90	6-24-34C	3	5.0	PCI/L
Strontium-90	6-24-35	3	5.0	PCI/L
Strontium-90	6-25-34C	3	5.0	PCI/L
Strontium-90	6-31-31	3	5.0	PCI/L
Strontium-90	6-32-43	3	5.0	PCI/L
Strontium-90	6-32-70B	3	5.0	PCI/L
Strontium-90	6-32-72	3	5.0	PCI/L
Strontium-90	6-35-66	3	5.0	PCI/L
Strontium-90	6-35-70	3	5.0	PCI/L
Strontium-90	6-36-93	3	5.0	PCI/L
Strontium-90	6-38-65	3	5.0	PCI/L
Strontium-90	6-38-70	3	5.0	PCI/L
Strontium-90	6-40-33A	3	5.0	PCI/L
Strontium-90	6-42-40A	3	5.0	PCI/L
Strontium-90	6-42-40B	3	5.0	PCI/L
Strontium-90	6-43-41E	3	5.0	PCI/L
Strontium-90	6-43-41F	3	5.0	PCI/L
Strontium-90	6-43-45	3	5.0	PCI/L
Strontium-90	6-44-43B	3	5.0	PCI/L
Strontium-90	6-45-42	3	5.0	PCI/L
Strontium-90	6-47-60	3	5.0	PCI/L
Strontium-90	6-48-50	3	5.0	PCI/L
Strontium-90	6-49-100C	3	5.0	PCI/L
Strontium-90	6-49-55A	3	5.0	PCI/L
Strontium-90	6-49-57A	3	5.0	PCI/L
Strontium-90	6-50-30	3	5.0	PCI/L
Strontium-90	6-50-42	3	5.0	PCI/L
Strontium-90	6-50-48B	3	5.0	PCI/L
Strontium-90	6-50-53A	3	5.0	PCI/L
Strontium-90	6-52-54	3	5.0	PCI/L
Strontium-90	6-52-57	3	5.0	PCI/L
Strontium-90	6-53-47A	60	5.0	PCI/L
Strontium-90	6-53-47B	100	5.0	PCI/L
Strontium-90	6-53-48A	56	5.0	PCI/L
Strontium-90	6-53-48B	311	5.0	PCI/L
Strontium-90	6-53-55A	3	5.0	PCI/L
Strontium-90	6-54-48	54	5.0	PCI/L
Strontium-90	6-54-49	22	5.0	PCI/L
Strontium-90	6-55-50A	3	5.0	PCI/L
Strontium-90	6-55-50C	3	5.0	PCI/L
Strontium-90	6-55-50D	3	5.0	PCI/L
Strontium-90	6-55-55	3	5.0	PCI/L
Strontium-90	6-55-57	3	5.0	PCI/L
Strontium-90	6-55-89	3	5.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Strontium-90	6-59-58	3	5.0	PCI/L
Strontium-90	6-60-60	3	5.0	PCI/L
Strontium-90	6-61-62	3	5.0	PCI/L
Strontium-90	6-61-66	3	5.0	PCI/L
Strontium-90	6-63-58	3	5.0	PCI/L
Strontium-90	6-64-62	3	5.0	PCI/L
Strontium-90	6-65-59A	3	5.0	PCI/L
Strontium-90	6-66-58	3	5.0	PCI/L
Strontium-90	6-66-64	3	5.0	PCI/L
Technetium-99	1-B4-2	111	15.0	PCI/L
Technetium-99	1-B4-3	100	15.0	PCI/L
Technetium-99	1-B4-4	107	15.0	PCI/L
Technetium-99	1-B5-1	99	15.0	PCI/L
Technetium-99	1-B9-1	70	15.0	PCI/L
Technetium-99	2-E13-14	8	15.0	PCI/L
Technetium-99	2-E13-19	8	15.0	PCI/L
Technetium-99	2-E13-5	34	15.0	PCI/L
Technetium-99	2-E13-8	8	15.0	PCI/L
Technetium-99	2-E16-2	8	15.0	PCI/L
Technetium-99	2-E17-1	68	15.0	PCI/L
Technetium-99	2-E17-12	342	15.0	PCI/L
Technetium-99	2-E17-13	61	15.0	PCI/L
Technetium-99	2-E17-14	444	15.0	PCI/L
Technetium-99	2-E17-15	110	15.0	PCI/L
Technetium-99	2-E17-16	8	15.0	PCI/L
Technetium-99	2-E17-17	201	15.0	PCI/L
Technetium-99	2-E17-18	8	15.0	PCI/L
Technetium-99	2-E17-5	209	15.0	PCI/L
Technetium-99	2-E17-6	8	15.0	PCI/L
Technetium-99	2-E17-8	8	15.0	PCI/L
Technetium-99	2-E17-9	96	15.0	PCI/L
Technetium-99	2-E18-1	8	15.0	PCI/L
Technetium-99	2-E18-2	8	15.0	PCI/L
Technetium-99	2-E18-3	8	15.0	PCI/L
Technetium-99	2-E18-4	8	15.0	PCI/L
Technetium-99	2-E24-12	93	15.0	PCI/L
Technetium-99	2-E24-19	25	15.0	PCI/L
Technetium-99	2-E24-20	8	15.0	PCI/L
Technetium-99	2-E24-8	24	15.0	PCI/L
Technetium-99	2-E25-11	8	15.0	PCI/L
Technetium-99	2-E25-17	8	15.0	PCI/L
Technetium-99	2-E25-18	8	15.0	PCI/L
Technetium-99	2-E25-19	8	15.0	PCI/L
Technetium-99	2-E25-20	8	15.0	PCI/L
Technetium-99	2-E25-21	8	15.0	PCI/L
Technetium-99	2-E25-22	8	15.0	PCI/L
Technetium-99	2-E25-23	8	15.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Technetium-99	2-E25-24	8	15.0	PCI/L
Technetium-99	2-E25-25	8	15.0	PCI/L
Technetium-99	2-E25-26	8	15.0	PCI/L
Technetium-99	2-E25-27	8	15.0	PCI/L
Technetium-99	2-E25-28	8	15.0	PCI/L
Technetium-99	2-E25-29P	8	15.0	PCI/L
Technetium-99	2-E25-30P	8	15.0	PCI/L
Technetium-99	2-E25-31	8	15.0	PCI/L
Technetium-99	2-E25-32P	8	15.0	PCI/L
Technetium-99	2-E25-33	8	15.0	PCI/L
Technetium-99	2-E25-37	8	15.0	PCI/L
Technetium-99	2-E25-38	8	15.0	PCI/L
Technetium-99	2-E25-39	8	15.0	PCI/L
Technetium-99	2-E25-40	8	15.0	PCI/L
Technetium-99	2-E25-41	8	15.0	PCI/L
Technetium-99	2-E25-6	8	15.0	PCI/L
Technetium-99	2-E25-9	8	15.0	PCI/L
Technetium-99	2-E26-11	8	15.0	PCI/L
Technetium-99	2-E26-9	8	15.0	PCI/L
Technetium-99	2-E27-10	8	15.0	PCI/L
Technetium-99	2-E27-11	8	15.0	PCI/L
Technetium-99	2-E27-12	8	15.0	PCI/L
Technetium-99	2-E27-13	42	15.0	PCI/L
Technetium-99	2-E27-14	121	15.0	PCI/L
Technetium-99	2-E27-15	8	15.0	PCI/L
Technetium-99	2-E27-5	66	15.0	PCI/L
Technetium-99	2-E27-7	8	15.0	PCI/L
Technetium-99	2-E27-8	8	15.0	PCI/L
Technetium-99	2-E27-9	8	15.0	PCI/L
Technetium-99	2-E28-1	29	15.0	PCI/L
Technetium-99	2-E28-12	55	15.0	PCI/L
Technetium-99	2-E28-13	8	15.0	PCI/L
Technetium-99	2-E28-16	43	15.0	PCI/L
Technetium-99	2-E28-18	8	15.0	PCI/L
Technetium-99	2-E28-19	8	15.0	PCI/L
Technetium-99	2-E28-21	8	15.0	PCI/L
Technetium-99	2-E28-23	88	15.0	PCI/L
Technetium-99	2-E28-26	8	15.0	PCI/L
Technetium-99	2-E28-27	101	15.0	PCI/L
Technetium-99	2-E28-28	8	15.0	PCI/L
Technetium-99	2-E28-7	92	15.0	PCI/L
Technetium-99	2-E32-1	110	15.0	PCI/L
Technetium-99	2-E32-2	102	15.0	PCI/L
Technetium-99	2-E32-3	69	15.0	PCI/L
Technetium-99	2-E32-4	8	15.0	PCI/L
Technetium-99	2-E32-5	20	15.0	PCI/L
Technetium-99	2-E33-1	753	15.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Technetium-99	2-E33-10	35	15.0	PCI/L
Technetium-99	2-E33-18	27	15.0	PCI/L
Technetium-99	2-E33-20	27	15.0	PCI/L
Technetium-99	2-E33-21	84	15.0	PCI/L
Technetium-99	2-E33-24	1390	15.0	PCI/L
Technetium-99	2-E33-28	54	15.0	PCI/L
Technetium-99	2-E33-29	47	15.0	PCI/L
Technetium-99	2-E33-3	90	15.0	PCI/L
Technetium-99	2-E33-30	60	15.0	PCI/L
Technetium-99	2-E33-31	276	15.0	PCI/L
Technetium-99	2-E33-32	37	15.0	PCI/L
Technetium-99	2-E33-33	8	15.0	PCI/L
Technetium-99	2-E33-34	606	15.0	PCI/L
Technetium-99	2-E33-35	233	15.0	PCI/L
Technetium-99	2-E33-37	8	15.0	PCI/L
Technetium-99	2-E33-41	239	15.0	PCI/L
Technetium-99	2-E33-42	321	15.0	PCI/L
Technetium-99	2-E33-43	8	15.0	PCI/L
Technetium-99	2-E33-5	1545	15.0	PCI/L
Technetium-99	2-E33-7	4170	15.0	PCI/L
Technetium-99	2-E33-8	343	15.0	PCI/L
Technetium-99	2-E34-1	8	15.0	PCI/L
Technetium-99	2-E34-2	8	15.0	PCI/L
Technetium-99	2-E34-3	8	15.0	PCI/L
Technetium-99	2-E34-5	8	15.0	PCI/L
Technetium-99	2-E34-6	8	15.0	PCI/L
Technetium-99	2-E34-7	8	15.0	PCI/L
Technetium-99	2-E34-8	20	15.0	PCI/L
Technetium-99	2-E35-1	8	15.0	PCI/L
Technetium-99	2-W10-1	507	15.0	PCI/L
Technetium-99	2-W10-13	8	15.0	PCI/L
Technetium-99	2-W10-14	8	15.0	PCI/L
Technetium-99	2-W10-15	312	15.0	PCI/L
Technetium-99	2-W10-16	111	15.0	PCI/L
Technetium-99	2-W10-17	119	15.0	PCI/L
Technetium-99	2-W10-18	40	15.0	PCI/L
Technetium-99	2-W10-4	199	15.0	PCI/L
Technetium-99	2-W10-9	310	15.0	PCI/L
Technetium-99	2-W11-18	221	15.0	PCI/L
Technetium-99	2-W14-10	8	15.0	PCI/L
Technetium-99	2-W14-2	483	15.0	PCI/L
Technetium-99	2-W14-6	43	15.0	PCI/L
Technetium-99	2-W15-10	42	15.0	PCI/L
Technetium-99	2-W15-11	8	15.0	PCI/L
Technetium-99	2-W15-15	8	15.0	PCI/L
Technetium-99	2-W15-16	8	15.0	PCI/L
Technetium-99	2-W15-17	8	15.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Technetium-99	2-W15-18	8	15.0	PCI/L
Technetium-99	2-W15-19	23	15.0	PCI/L
Technetium-99	2-W15-20	8	15.0	PCI/L
Technetium-99	2-W15-22	99	15.0	PCI/L
Technetium-99	2-W15-23	8	15.0	PCI/L
Technetium-99	2-W15-24	8	15.0	PCI/L
Technetium-99	2-W15-4	41	15.0	PCI/L
Technetium-99	2-W15-6	8	15.0	PCI/L
Technetium-99	2-W15-7	8	15.0	PCI/L
Technetium-99	2-W15-8	406	15.0	PCI/L
Technetium-99	2-W18-15	8	15.0	PCI/L
Technetium-99	2-W18-17	8	15.0	PCI/L
Technetium-99	2-W18-20	8	15.0	PCI/L
Technetium-99	2-W18-21	8	15.0	PCI/L
Technetium-99	2-W18-22	8	15.0	PCI/L
Technetium-99	2-W18-23	8	15.0	PCI/L
Technetium-99	2-W18-24	8	15.0	PCI/L
Technetium-99	2-W18-25	8	15.0	PCI/L
Technetium-99	2-W18-26	8	15.0	PCI/L
Technetium-99	2-W18-3	8	15.0	PCI/L
Technetium-99	2-W19-1	34	15.0	PCI/L
Technetium-99	2-W19-11	1768	15.0	PCI/L
Technetium-99	2-W19-12	1118	15.0	PCI/L
Technetium-99	2-W19-13	110	15.0	PCI/L
Technetium-99	2-W19-14	39	15.0	PCI/L
Technetium-99	2-W19-15	713	15.0	PCI/L
Technetium-99	2-W19-16	977	15.0	PCI/L
Technetium-99	2-W19-17	140	15.0	PCI/L
Technetium-99	2-W19-18	4280	15.0	PCI/L
Technetium-99	2-W19-19	13741	15.0	PCI/L
Technetium-99	2-W19-20	13947	15.0	PCI/L
Technetium-99	2-W19-23	1270	15.0	PCI/L
Technetium-99	2-W19-24	26602	15.0	PCI/L
Technetium-99	2-W19-25	20058	15.0	PCI/L
Technetium-99	2-W19-26	3078	15.0	PCI/L
Technetium-99	2-W19-28	7315	15.0	PCI/L
Technetium-99	2-W19-29	5330	15.0	PCI/L
Technetium-99	2-W19-3	927	15.0	PCI/L
Technetium-99	2-W19-30	2800	15.0	PCI/L
Technetium-99	2-W19-31	211	15.0	PCI/L
Technetium-99	2-W19-32	459	15.0	PCI/L
Technetium-99	2-W19-5	95	15.0	PCI/L
Technetium-99	2-W19-9	511	15.0	PCI/L
Technetium-99	2-W22-12	8	15.0	PCI/L
Technetium-99	2-W22-18	66	15.0	PCI/L
Technetium-99	2-W22-20	121	15.0	PCI/L
Technetium-99	2-W22-21	637	15.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Technetium-99	2-W22-22	8	15.0	PCI/L
Technetium-99	2-W22-26	26	15.0	PCI/L
Technetium-99	2-W22-39	408	15.0	PCI/L
Technetium-99	2-W22-40	17	15.0	PCI/L
Technetium-99	2-W22-41	104	15.0	PCI/L
Technetium-99	2-W22-42	131	15.0	PCI/L
Technetium-99	2-W23-10	8	15.0	PCI/L
Technetium-99	2-W23-11	8	15.0	PCI/L
Technetium-99	2-W23-13	8	15.0	PCI/L
Technetium-99	2-W23-14	8	15.0	PCI/L
Technetium-99	2-W23-2	2761	15.0	PCI/L
Technetium-99	2-W23-7	2204	15.0	PCI/L
Technetium-99	2-W23-9	53	15.0	PCI/L
Technetium-99	2-W26-6	8	15.0	PCI/L
Technetium-99	2-W27-1	8	15.0	PCI/L
Technetium-99	2-W6-2	62	15.0	PCI/L
Technetium-99	2-W6-4	42	15.0	PCI/L
Technetium-99	2-W6-5	158	15.0	PCI/L
Technetium-99	2-W6-6	8	15.0	PCI/L
Technetium-99	2-W6-7	103	15.0	PCI/L
Technetium-99	2-W6-8	8	15.0	PCI/L
Technetium-99	2-W7-1	8	15.0	PCI/L
Technetium-99	2-W7-10	8	15.0	PCI/L
Technetium-99	2-W7-11	8	15.0	PCI/L
Technetium-99	2-W7-12	8	15.0	PCI/L
Technetium-99	2-W7-2	8	15.0	PCI/L
Technetium-99	2-W7-3	8	15.0	PCI/L
Technetium-99	2-W7-4	64	15.0	PCI/L
Technetium-99	2-W7-5	27	15.0	PCI/L
Technetium-99	2-W7-6	8	15.0	PCI/L
Technetium-99	2-W7-7	8	15.0	PCI/L
Technetium-99	2-W7-8	8	15.0	PCI/L
Technetium-99	2-W7-9	8	15.0	PCI/L
Technetium-99	2-W8-1	8	15.0	PCI/L
Technetium-99	2-W9-1	8	15.0	PCI/L
Technetium-99	6-20-39	8	15.0	PCI/L
Technetium-99	6-24-33	8	15.0	PCI/L
Technetium-99	6-24-46	8	15.0	PCI/L
Technetium-99	6-25-55	8	15.0	PCI/L
Technetium-99	6-25-70	8	15.0	PCI/L
Technetium-99	6-28-40P	8	15.0	PCI/L
Technetium-99	6-29-78	8	15.0	PCI/L
Technetium-99	6-31-31	8	15.0	PCI/L
Technetium-99	6-31-31P	8	15.0	PCI/L
Technetium-99	6-32-22	181	15.0	PCI/L
Technetium-99	6-32-43	51	15.0	PCI/L
Technetium-99	6-32-70B	173	15.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Technetium-99	6-32-72	52	15.0	PCI/L
Technetium-99	6-32-77	8	15.0	PCI/L
Technetium-99	6-33-42	16	15.0	PCI/L
Technetium-99	6-33-56	8	15.0	PCI/L
Technetium-99	6-34-39A	8	15.0	PCI/L
Technetium-99	6-34-42	8	15.0	PCI/L
Technetium-99	6-34-51	32	15.0	PCI/L
Technetium-99	6-35-66	32	15.0	PCI/L
Technetium-99	6-35-70	90	15.0	PCI/L
Technetium-99	6-35-78A	8	15.0	PCI/L
Technetium-99	6-36-46P	8	15.0	PCI/L
Technetium-99	6-36-46Q	8	15.0	PCI/L
Technetium-99	6-36-46R	8	15.0	PCI/L
Technetium-99	6-36-61A	8	15.0	PCI/L
Technetium-99	6-36-93	8	15.0	PCI/L
Technetium-99	6-37-82A	8	15.0	PCI/L
Technetium-99	6-38-65	41	15.0	PCI/L
Technetium-99	6-38-70	3154	15.0	PCI/L
Technetium-99	6-39-39	8	15.0	PCI/L
Technetium-99	6-39-79	8	15.0	PCI/L
Technetium-99	6-40-33A	32	15.0	PCI/L
Technetium-99	6-40-62	8	15.0	PCI/L
Technetium-99	6-41-23	46	15.0	PCI/L
Technetium-99	6-42-40B	8	15.0	PCI/L
Technetium-99	6-44-43B	8	15.0	PCI/L
Technetium-99	6-44-64	109	15.0	PCI/L
Technetium-99	6-45-42	8	15.0	PCI/L
Technetium-99	6-45-69A	8	15.0	PCI/L
Technetium-99	6-46-21B	8	15.0	PCI/L
Technetium-99	6-47-35A	8	15.0	PCI/L
Technetium-99	6-47-46A	8	15.0	PCI/L
Technetium-99	6-47-60	8	15.0	PCI/L
Technetium-99	6-48-18	8	15.0	PCI/L
Technetium-99	6-48-71	8	15.0	PCI/L
Technetium-99	6-49-100C	8	15.0	PCI/L
Technetium-99	6-49-28	8	15.0	PCI/L
Technetium-99	6-49-55A	6141	15.0	PCI/L
Technetium-99	6-49-79	8	15.0	PCI/L
Technetium-99	6-50-42	8	15.0	PCI/L
Technetium-99	6-50-48B	8	15.0	PCI/L
Technetium-99	6-50-53A	21282	15.0	PCI/L
Technetium-99	6-50-85	8	15.0	PCI/L
Technetium-99	6-51-63	8	15.0	PCI/L
Technetium-99	6-51-75	8	15.0	PCI/L
Technetium-99	6-53-103	8	15.0	PCI/L
Technetium-99	6-53-47A	8	15.0	PCI/L
Technetium-99	6-53-48A	8	15.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Technetium-99	6-53-48B	8	15.0	PCI/L
Technetium-99	6-54-34	8	15.0	PCI/L
Technetium-99	6-55-50A	8	15.0	PCI/L
Technetium-99	6-55-50C	19	15.0	PCI/L
Technetium-99	6-55-76	8	15.0	PCI/L
Technetium-99	6-55-89	8	15.0	PCI/L
Technetium-99	6-57-29A	8	15.0	PCI/L
Technetium-99	6-59-58	22	15.0	PCI/L
Technetium-99	6-60-60	101	15.0	PCI/L
Technetium-99	6-61-37	8	15.0	PCI/L
Technetium-99	6-61-41	8	15.0	PCI/L
Technetium-99	6-61-62	492	15.0	PCI/L
Technetium-99	6-61-66	8	15.0	PCI/L
Technetium-99	6-62-31	8	15.0	PCI/L
Technetium-99	6-63-25A	8	15.0	PCI/L
Technetium-99	6-63-55	87	15.0	PCI/L
Technetium-99	6-63-58	205	15.0	PCI/L
Technetium-99	6-63-90	8	15.0	PCI/L
Technetium-99	6-64-62	476	15.0	PCI/L
Technetium-99	6-65-50	59	15.0	PCI/L
Technetium-99	6-65-59A	273	15.0	PCI/L
Technetium-99	6-65-72	35	15.0	PCI/L
Technetium-99	6-65-83	8	15.0	PCI/L
Technetium-99	6-66-23	8	15.0	PCI/L
Technetium-99	6-66-38	8	15.0	PCI/L
Technetium-99	6-66-39	8	15.0	PCI/L
Technetium-99	6-66-58	57	15.0	PCI/L
Technetium-99	6-66-64	301	15.0	PCI/L
Technetium-99	6-67-51	24	15.0	PCI/L
Technetium-99	6-67-86	8	15.0	PCI/L
Trichloroethylene	1-84-2	5	1.0	PPB
Trichloroethylene	1-84-2	5	5.0	PPB
Trichloroethylene	1-84-4	3	1.0	PPB
Trichloroethylene	1-84-4	3	5.0	PPB
Trichloroethylene	1-89-1	3	1.0	PPB
Trichloroethylene	1-89-1	3	5.0	PPB
Trichloroethylene	2-E13-14	5	1.0	PPB
Trichloroethylene	2-E13-14	5	5.0	PPB
Trichloroethylene	2-E13-5	5	1.0	PPB
Trichloroethylene	2-E13-5	5	5.0	PPB
Trichloroethylene	2-E16-2	5	1.0	PPB
Trichloroethylene	2-E16-2	5	5.0	PPB
Trichloroethylene	2-E17-1	5	1.0	PPB
Trichloroethylene	2-E17-1	5	5.0	PPB
Trichloroethylene	2-E17-12	5	1.0	PPB
Trichloroethylene	2-E17-12	5	5.0	PPB
Trichloroethylene	2-E17-13	5	1.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Trichloroethylene	2-E17-13	5	5.0	PPB
Trichloroethylene	2-E17-14	5	1.0	PPB
Trichloroethylene	2-E17-14	5	5.0	PPB
Trichloroethylene	2-E17-15	5	1.0	PPB
Trichloroethylene	2-E17-15	5	5.0	PPB
Trichloroethylene	2-E17-16	5	1.0	PPB
Trichloroethylene	2-E17-16	5	5.0	PPB
Trichloroethylene	2-E17-17	5	1.0	PPB
Trichloroethylene	2-E17-17	5	5.0	PPB
Trichloroethylene	2-E17-18	5	1.0	PPB
Trichloroethylene	2-E17-18	5	5.0	PPB
Trichloroethylene	2-E17-19	5	1.0	PPB
Trichloroethylene	2-E17-19	5	5.0	PPB
Trichloroethylene	2-E17-20	5	1.0	PPB
Trichloroethylene	2-E17-20	5	5.0	PPB
Trichloroethylene	2-E17-5	5	1.0	PPB
Trichloroethylene	2-E17-5	5	5.0	PPB
Trichloroethylene	2-E17-6	5	1.0	PPB
Trichloroethylene	2-E17-6	5	5.0	PPB
Trichloroethylene	2-E17-9	5	1.0	PPB
Trichloroethylene	2-E17-9	5	5.0	PPB
Trichloroethylene	2-E18-1	5	1.0	PPB
Trichloroethylene	2-E18-1	5	5.0	PPB
Trichloroethylene	2-E18-2	5	1.0	PPB
Trichloroethylene	2-E18-2	5	5.0	PPB
Trichloroethylene	2-E18-3	5	1.0	PPB
Trichloroethylene	2-E18-3	5	5.0	PPB
Trichloroethylene	2-E18-4	5	1.0	PPB
Trichloroethylene	2-E18-4	5	5.0	PPB
Trichloroethylene	2-E23-1	5	1.0	PPB
Trichloroethylene	2-E23-1	5	5.0	PPB
Trichloroethylene	2-E24-16	5	1.0	PPB
Trichloroethylene	2-E24-16	5	5.0	PPB
Trichloroethylene	2-E24-17	5	1.0	PPB
Trichloroethylene	2-E24-17	5	5.0	PPB
Trichloroethylene	2-E24-18	5	1.0	PPB
Trichloroethylene	2-E24-18	5	5.0	PPB
Trichloroethylene	2-E24-19	3	1.0	PPB
Trichloroethylene	2-E24-19	3	5.0	PPB
Trichloroethylene	2-E24-2	5	1.0	PPB
Trichloroethylene	2-E24-2	5	5.0	PPB
Trichloroethylene	2-E24-7	5	1.0	PPB
Trichloroethylene	2-E24-7	5	5.0	PPB
Trichloroethylene	2-E25-11	5	1.0	PPB
Trichloroethylene	2-E25-11	5	5.0	PPB
Trichloroethylene	2-E25-13	5	1.0	PPB
Trichloroethylene	2-E25-13	5	5.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Trichloroethylene	2-E25-17	5	1.0	PPB
Trichloroethylene	2-E25-17	5	5.0	PPB
Trichloroethylene	2-E25-18	5	1.0	PPB
Trichloroethylene	2-E25-18	5	5.0	PPB
Trichloroethylene	2-E25-19	5	1.0	PPB
Trichloroethylene	2-E25-19	5	5.0	PPB
Trichloroethylene	2-E25-20	5	1.0	PPB
Trichloroethylene	2-E25-20	5	5.0	PPB
Trichloroethylene	2-E25-21	5	1.0	PPB
Trichloroethylene	2-E25-21	5	5.0	PPB
Trichloroethylene	2-E25-22	5	1.0	PPB
Trichloroethylene	2-E25-22	5	5.0	PPB
Trichloroethylene	2-E25-23	5	1.0	PPB
Trichloroethylene	2-E25-23	5	5.0	PPB
Trichloroethylene	2-E25-24	5	1.0	PPB
Trichloroethylene	2-E25-24	5	5.0	PPB
Trichloroethylene	2-E25-25	5	1.0	PPB
Trichloroethylene	2-E25-25	5	5.0	PPB
Trichloroethylene	2-E25-26	5	1.0	PPB
Trichloroethylene	2-E25-26	5	5.0	PPB
Trichloroethylene	2-E25-28	5	1.0	PPB
Trichloroethylene	2-E25-28	5	5.0	PPB
Trichloroethylene	2-E25-29P	5	1.0	PPB
Trichloroethylene	2-E25-29P	5	5.0	PPB
Trichloroethylene	2-E25-30P	5	1.0	PPB
Trichloroethylene	2-E25-30P	5	5.0	PPB
Trichloroethylene	2-E25-31	5	1.0	PPB
Trichloroethylene	2-E25-31	5	5.0	PPB
Trichloroethylene	2-E25-32P	5	1.0	PPB
Trichloroethylene	2-E25-32P	5	5.0	PPB
Trichloroethylene	2-E25-33	5	1.0	PPB
Trichloroethylene	2-E25-33	5	5.0	PPB
Trichloroethylene	2-E25-34	5	1.0	PPB
Trichloroethylene	2-E25-34	5	5.0	PPB
Trichloroethylene	2-E25-35	5	1.0	PPB
Trichloroethylene	2-E25-35	5	5.0	PPB
Trichloroethylene	2-E25-36	5	1.0	PPB
Trichloroethylene	2-E25-36	5	5.0	PPB
Trichloroethylene	2-E25-37	5	1.0	PPB
Trichloroethylene	2-E25-37	5	5.0	PPB
Trichloroethylene	2-E25-38	5	1.0	PPB
Trichloroethylene	2-E25-38	5	5.0	PPB
Trichloroethylene	2-E25-39	5	1.0	PPB
Trichloroethylene	2-E25-39	5	5.0	PPB
Trichloroethylene	2-E25-41	5	1.0	PPB
Trichloroethylene	2-E25-41	5	5.0	PPB
Trichloroethylene	2-E25-6	5	1.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Trichloroethylene	2-E25-6	5	5.0	PPB
Trichloroethylene	2-E25-9	5	1.0	PPB
Trichloroethylene	2-E25-9	5	5.0	PPB
Trichloroethylene	2-E26-11	5	1.0	PPB
Trichloroethylene	2-E26-11	5	5.0	PPB
Trichloroethylene	2-E26-5	5	1.0	PPB
Trichloroethylene	2-E26-5	5	5.0	PPB
Trichloroethylene	2-E26-9	5	1.0	PPB
Trichloroethylene	2-E26-9	5	5.0	PPB
Trichloroethylene	2-E27-10	5	1.0	PPB
Trichloroethylene	2-E27-10	5	5.0	PPB
Trichloroethylene	2-E27-11	5	1.0	PPB
Trichloroethylene	2-E27-11	5	5.0	PPB
Trichloroethylene	2-E27-15	5	1.0	PPB
Trichloroethylene	2-E27-15	5	5.0	PPB
Trichloroethylene	2-E27-16	5	1.0	PPB
Trichloroethylene	2-E27-16	5	5.0	PPB
Trichloroethylene	2-E27-8	5	1.0	PPB
Trichloroethylene	2-E27-8	5	5.0	PPB
Trichloroethylene	2-E27-9	5	1.0	PPB
Trichloroethylene	2-E27-9	5	5.0	PPB
Trichloroethylene	2-E28-12	5	1.0	PPB
Trichloroethylene	2-E28-12	5	5.0	PPB
Trichloroethylene	2-E28-13	5	1.0	PPB
Trichloroethylene	2-E28-13	5	5.0	PPB
Trichloroethylene	2-E28-18	5	1.0	PPB
Trichloroethylene	2-E28-18	5	5.0	PPB
Trichloroethylene	2-E28-21	5	1.0	PPB
Trichloroethylene	2-E28-21	5	5.0	PPB
Trichloroethylene	2-E28-23	5	1.0	PPB
Trichloroethylene	2-E28-23	5	5.0	PPB
Trichloroethylene	2-E28-26	5	1.0	PPB
Trichloroethylene	2-E28-26	5	5.0	PPB
Trichloroethylene	2-E28-27	3	1.0	PPB
Trichloroethylene	2-E28-27	3	5.0	PPB
Trichloroethylene	2-E28-28	5	1.0	PPB
Trichloroethylene	2-E28-28	5	5.0	PPB
Trichloroethylene	2-E28-7	5	1.0	PPB
Trichloroethylene	2-E28-7	5	5.0	PPB
Trichloroethylene	2-E32-1	5	1.0	PPB
Trichloroethylene	2-E32-1	5	5.0	PPB
Trichloroethylene	2-E32-2	5	1.0	PPB
Trichloroethylene	2-E32-2	5	5.0	PPB
Trichloroethylene	2-E32-3	5	1.0	PPB
Trichloroethylene	2-E32-3	5	5.0	PPB
Trichloroethylene	2-E32-4	5	1.0	PPB
Trichloroethylene	2-E32-4	5	5.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Trichloroethylene	2-E32-5	5	1.0	PPB
Trichloroethylene	2-E32-5	5	5.0	PPB
Trichloroethylene	2-E33-1	5	1.0	PPB
Trichloroethylene	2-E33-1	5	5.0	PPB
Trichloroethylene	2-E33-13	5	1.0	PPB
Trichloroethylene	2-E33-13	5	5.0	PPB
Trichloroethylene	2-E33-14	5	1.0	PPB
Trichloroethylene	2-E33-14	5	5.0	PPB
Trichloroethylene	2-E33-15	5	1.0	PPB
Trichloroethylene	2-E33-15	5	5.0	PPB
Trichloroethylene	2-E33-18	5	1.0	PPB
Trichloroethylene	2-E33-18	5	5.0	PPB
Trichloroethylene	2-E33-24	5	1.0	PPB
Trichloroethylene	2-E33-24	5	5.0	PPB
Trichloroethylene	2-E33-26	5	1.0	PPB
Trichloroethylene	2-E33-26	5	5.0	PPB
Trichloroethylene	2-E33-28	5	1.0	PPB
Trichloroethylene	2-E33-28	5	5.0	PPB
Trichloroethylene	2-E33-29	5	1.0	PPB
Trichloroethylene	2-E33-29	5	5.0	PPB
Trichloroethylene	2-E33-3	5	1.0	PPB
Trichloroethylene	2-E33-3	5	5.0	PPB
Trichloroethylene	2-E33-30	5	1.0	PPB
Trichloroethylene	2-E33-30	5	5.0	PPB
Trichloroethylene	2-E33-31	5	1.0	PPB
Trichloroethylene	2-E33-31	5	5.0	PPB
Trichloroethylene	2-E33-32	5	1.0	PPB
Trichloroethylene	2-E33-32	5	5.0	PPB
Trichloroethylene	2-E33-33	5	1.0	PPB
Trichloroethylene	2-E33-33	5	5.0	PPB
Trichloroethylene	2-E33-34	5	1.0	PPB
Trichloroethylene	2-E33-34	5	5.0	PPB
Trichloroethylene	2-E33-35	5	1.0	PPB
Trichloroethylene	2-E33-35	5	5.0	PPB
Trichloroethylene	2-E33-36	5	1.0	PPB
Trichloroethylene	2-E33-36	5	5.0	PPB
Trichloroethylene	2-E33-37	5	1.0	PPB
Trichloroethylene	2-E33-37	5	5.0	PPB
Trichloroethylene	2-E33-38	5	1.0	PPB
Trichloroethylene	2-E33-38	5	5.0	PPB
Trichloroethylene	2-E33-39	5	1.0	PPB
Trichloroethylene	2-E33-39	5	5.0	PPB
Trichloroethylene	2-E33-4	5	1.0	PPB
Trichloroethylene	2-E33-4	5	5.0	PPB
Trichloroethylene	2-E33-41	5	1.0	PPB
Trichloroethylene	2-E33-41	5	5.0	PPB
Trichloroethylene	2-E33-5	5	1.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Trichloroethylene	2-E33-5	5	5.0	PPB
Trichloroethylene	2-E33-7	5	1.0	PPB
Trichloroethylene	2-E33-7	5	5.0	PPB
Trichloroethylene	2-E34-1	5	1.0	PPB
Trichloroethylene	2-E34-1	5	5.0	PPB
Trichloroethylene	2-E34-2	5	1.0	PPB
Trichloroethylene	2-E34-2	5	5.0	PPB
Trichloroethylene	2-E34-3	5	1.0	PPB
Trichloroethylene	2-E34-3	5	5.0	PPB
Trichloroethylene	2-E34-5	5	1.0	PPB
Trichloroethylene	2-E34-5	5	5.0	PPB
Trichloroethylene	2-E34-6	5	1.0	PPB
Trichloroethylene	2-E34-6	5	5.0	PPB
Trichloroethylene	2-E34-7	5	1.0	PPB
Trichloroethylene	2-E34-7	5	5.0	PPB
Trichloroethylene	2-E34-8	5	1.0	PPB
Trichloroethylene	2-E34-8	5	5.0	PPB
Trichloroethylene	2-E35-1	5	1.0	PPB
Trichloroethylene	2-E35-1	5	5.0	PPB
Trichloroethylene	2-W10-13	5	1.0	PPB
Trichloroethylene	2-W10-13	5	5.0	PPB
Trichloroethylene	2-W10-14	5	1.0	PPB
Trichloroethylene	2-W10-14	5	5.0	PPB
Trichloroethylene	2-W10-16	8	1.0	PPB
Trichloroethylene	2-W10-16	8	5.0	PPB
Trichloroethylene	2-W10-17	3	1.0	PPB
Trichloroethylene	2-W10-17	3	5.0	PPB
Trichloroethylene	2-W10-18	5	1.0	PPB
Trichloroethylene	2-W10-18	5	5.0	PPB
Trichloroethylene	2-W10-4	24	1.0	PPB
Trichloroethylene	2-W10-4	24	5.0	PPB
Trichloroethylene	2-W10-8	5	1.0	PPB
Trichloroethylene	2-W10-8	5	5.0	PPB
Trichloroethylene	2-W10-9	17	1.0	PPB
Trichloroethylene	2-W10-9	17	5.0	PPB
Trichloroethylene	2-W11-14	3	1.0	PPB
Trichloroethylene	2-W11-14	3	5.0	PPB
Trichloroethylene	2-W11-23	5	1.0	PPB
Trichloroethylene	2-W11-23	5	5.0	PPB
Trichloroethylene	2-W11-7	7	1.0	PPB
Trichloroethylene	2-W11-7	7	5.0	PPB
Trichloroethylene	2-W14-10	5	1.0	PPB
Trichloroethylene	2-W14-10	5	5.0	PPB
Trichloroethylene	2-W14-2	9	1.0	PPB
Trichloroethylene	2-W14-2	9	5.0	PPB
Trichloroethylene	2-W14-5	5	1.0	PPB
Trichloroethylene	2-W14-5	5	5.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Trichloroethylene	2-W14-6	5	1.0	PPB
Trichloroethylene	2-W14-6	5	5.0	PPB
Trichloroethylene	2-W15-10	8	1.0	PPB
Trichloroethylene	2-W15-10	8	5.0	PPB
Trichloroethylene	2-W15-11	10	1.0	PPB
Trichloroethylene	2-W15-11	10	5.0	PPB
Trichloroethylene	2-W15-12	9	1.0	PPB
Trichloroethylene	2-W15-12	9	5.0	PPB
Trichloroethylene	2-W15-15	5	1.0	PPB
Trichloroethylene	2-W15-15	5	5.0	PPB
Trichloroethylene	2-W15-16	11	1.0	PPB
Trichloroethylene	2-W15-16	11	5.0	PPB
Trichloroethylene	2-W15-17	5	1.0	PPB
Trichloroethylene	2-W15-17	5	5.0	PPB
Trichloroethylene	2-W15-18	3	1.0	PPB
Trichloroethylene	2-W15-18	3	5.0	PPB
Trichloroethylene	2-W15-19	5	1.0	PPB
Trichloroethylene	2-W15-19	5	5.0	PPB
Trichloroethylene	2-W15-20	5	1.0	PPB
Trichloroethylene	2-W15-20	5	5.0	PPB
Trichloroethylene	2-W15-22	3	1.0	PPB
Trichloroethylene	2-W15-22	3	5.0	PPB
Trichloroethylene	2-W15-23	5	1.0	PPB
Trichloroethylene	2-W15-23	5	5.0	PPB
Trichloroethylene	2-W15-24	5	1.0	PPB
Trichloroethylene	2-W15-24	5	5.0	PPB
Trichloroethylene	2-W15-4	12	1.0	PPB
Trichloroethylene	2-W15-4	12	5.0	PPB
Trichloroethylene	2-W15-7	9	1.0	PPB
Trichloroethylene	2-W15-7	9	5.0	PPB
Trichloroethylene	2-W15-8	3	1.0	PPB
Trichloroethylene	2-W15-8	3	5.0	PPB
Trichloroethylene	2-W18-15	5	1.0	PPB
Trichloroethylene	2-W18-15	5	5.0	PPB
Trichloroethylene	2-W18-17	8	1.0	PPB
Trichloroethylene	2-W18-17	8	5.0	PPB
Trichloroethylene	2-W18-20	5	1.0	PPB
Trichloroethylene	2-W18-20	5	5.0	PPB
Trichloroethylene	2-W18-21	5	1.0	PPB
Trichloroethylene	2-W18-21	5	5.0	PPB
Trichloroethylene	2-W18-22	5	1.0	PPB
Trichloroethylene	2-W18-22	5	5.0	PPB
Trichloroethylene	2-W18-23	5	1.0	PPB
Trichloroethylene	2-W18-23	5	5.0	PPB
Trichloroethylene	2-W18-24	6	1.0	PPB
Trichloroethylene	2-W18-24	6	5.0	PPB
Trichloroethylene	2-W18-25	5	1.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Trichloroethylene	2-W18-25	5	5.0	PPB
Trichloroethylene	2-W18-26	5	1.0	PPB
Trichloroethylene	2-W18-26	5	5.0	PPB
Trichloroethylene	2-W18-4	5	1.0	PPB
Trichloroethylene	2-W18-4	5	5.0	PPB
Trichloroethylene	2-W18-5	3	1.0	PPB
Trichloroethylene	2-W18-5	3	5.0	PPB
Trichloroethylene	2-W18-9	5	1.0	PPB
Trichloroethylene	2-W18-9	5	5.0	PPB
Trichloroethylene	2-W19-1	5	1.0	PPB
Trichloroethylene	2-W19-1	5	5.0	PPB
Trichloroethylene	2-W19-11	5	1.0	PPB
Trichloroethylene	2-W19-11	5	5.0	PPB
Trichloroethylene	2-W19-12	5	1.0	PPB
Trichloroethylene	2-W19-12	5	5.0	PPB
Trichloroethylene	2-W19-13	5	1.0	PPB
Trichloroethylene	2-W19-13	5	5.0	PPB
Trichloroethylene	2-W19-15	5	1.0	PPB
Trichloroethylene	2-W19-15	5	5.0	PPB
Trichloroethylene	2-W19-16	3	1.0	PPB
Trichloroethylene	2-W19-16	3	5.0	PPB
Trichloroethylene	2-W19-18	5	1.0	PPB
Trichloroethylene	2-W19-18	5	5.0	PPB
Trichloroethylene	2-W19-19	5	1.0	PPB
Trichloroethylene	2-W19-19	5	5.0	PPB
Trichloroethylene	2-W19-2	5	1.0	PPB
Trichloroethylene	2-W19-2	5	5.0	PPB
Trichloroethylene	2-W19-20	3	1.0	PPB
Trichloroethylene	2-W19-20	3	5.0	PPB
Trichloroethylene	2-W19-21	5	1.0	PPB
Trichloroethylene	2-W19-21	5	5.0	PPB
Trichloroethylene	2-W19-23	3	1.0	PPB
Trichloroethylene	2-W19-23	3	5.0	PPB
Trichloroethylene	2-W19-24	3	1.0	PPB
Trichloroethylene	2-W19-24	3	5.0	PPB
Trichloroethylene	2-W19-25	3	1.0	PPB
Trichloroethylene	2-W19-25	3	5.0	PPB
Trichloroethylene	2-W19-26	3	1.0	PPB
Trichloroethylene	2-W19-26	3	5.0	PPB
Trichloroethylene	2-W19-27	5	1.0	PPB
Trichloroethylene	2-W19-27	5	5.0	PPB
Trichloroethylene	2-W19-28	3	1.0	PPB
Trichloroethylene	2-W19-28	3	5.0	PPB
Trichloroethylene	2-W19-29	6	1.0	PPB
Trichloroethylene	2-W19-29	6	5.0	PPB
Trichloroethylene	2-W19-3	5	1.0	PPB
Trichloroethylene	2-W19-3	5	5.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Trichloroethylene	2-W19-30	5	1.0	PPB
Trichloroethylene	2-W19-30	5	5.0	PPB
Trichloroethylene	2-W19-31	5	1.0	PPB
Trichloroethylene	2-W19-31	5	5.0	PPB
Trichloroethylene	2-W19-5	5	1.0	PPB
Trichloroethylene	2-W19-5	5	5.0	PPB
Trichloroethylene	2-W19-9	3	1.0	PPB
Trichloroethylene	2-W19-9	3	5.0	PPB
Trichloroethylene	2-W22-1	5	1.0	PPB
Trichloroethylene	2-W22-1	5	5.0	PPB
Trichloroethylene	2-W22-12	5	1.0	PPB
Trichloroethylene	2-W22-12	5	5.0	PPB
Trichloroethylene	2-W22-20	32	1.0	PPB
Trichloroethylene	2-W22-20	32	5.0	PPB
Trichloroethylene	2-W22-21	5	1.0	PPB
Trichloroethylene	2-W22-21	5	5.0	PPB
Trichloroethylene	2-W22-22	5	1.0	PPB
Trichloroethylene	2-W22-22	5	5.0	PPB
Trichloroethylene	2-W22-26	5	1.0	PPB
Trichloroethylene	2-W22-26	5	5.0	PPB
Trichloroethylene	2-W22-39	5	1.0	PPB
Trichloroethylene	2-W22-39	5	5.0	PPB
Trichloroethylene	2-W22-40	5	1.0	PPB
Trichloroethylene	2-W22-40	5	5.0	PPB
Trichloroethylene	2-W22-41	5	1.0	PPB
Trichloroethylene	2-W22-41	5	5.0	PPB
Trichloroethylene	2-W22-42	5	1.0	PPB
Trichloroethylene	2-W22-42	5	5.0	PPB
Trichloroethylene	2-W23-10	5	1.0	PPB
Trichloroethylene	2-W23-10	5	5.0	PPB
Trichloroethylene	2-W23-11	5	1.0	PPB
Trichloroethylene	2-W23-11	5	5.0	PPB
Trichloroethylene	2-W23-14	5	1.0	PPB
Trichloroethylene	2-W23-14	5	5.0	PPB
Trichloroethylene	2-W23-9	5	1.0	PPB
Trichloroethylene	2-W23-9	5	5.0	PPB
Trichloroethylene	2-W26-10	5	1.0	PPB
Trichloroethylene	2-W26-10	5	5.0	PPB
Trichloroethylene	2-W26-12	5	1.0	PPB
Trichloroethylene	2-W26-12	5	5.0	PPB
Trichloroethylene	2-W26-6	5	1.0	PPB
Trichloroethylene	2-W26-6	5	5.0	PPB
Trichloroethylene	2-W26-7	5	1.0	PPB
Trichloroethylene	2-W26-7	5	5.0	PPB
Trichloroethylene	2-W26-8	5	1.0	PPB
Trichloroethylene	2-W26-8	5	5.0	PPB
Trichloroethylene	2-W26-9	5	1.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Trichloroethylene	2-W26-9	5	5.0	PPB
Trichloroethylene	2-W27-1	5	1.0	PPB
Trichloroethylene	2-W27-1	5	5.0	PPB
Trichloroethylene	2-W6-2	3	1.0	PPB
Trichloroethylene	2-W6-2	3	5.0	PPB
Trichloroethylene	2-W6-4	3	1.0	PPB
Trichloroethylene	2-W6-4	3	5.0	PPB
Trichloroethylene	2-W6-5	5	1.0	PPB
Trichloroethylene	2-W6-5	5	5.0	PPB
Trichloroethylene	2-W6-6	5	1.0	PPB
Trichloroethylene	2-W6-6	5	5.0	PPB
Trichloroethylene	2-W6-7	3	1.0	PPB
Trichloroethylene	2-W6-7	3	5.0	PPB
Trichloroethylene	2-W6-8	5	1.0	PPB
Trichloroethylene	2-W6-8	5	5.0	PPB
Trichloroethylene	2-W7-1	5	1.0	PPB
Trichloroethylene	2-W7-1	5	5.0	PPB
Trichloroethylene	2-W7-10	5	1.0	PPB
Trichloroethylene	2-W7-10	5	5.0	PPB
Trichloroethylene	2-W7-11	5	1.0	PPB
Trichloroethylene	2-W7-11	5	5.0	PPB
Trichloroethylene	2-W7-12	5	1.0	PPB
Trichloroethylene	2-W7-12	5	5.0	PPB
Trichloroethylene	2-W7-2	5	1.0	PPB
Trichloroethylene	2-W7-2	5	5.0	PPB
Trichloroethylene	2-W7-3	5	1.0	PPB
Trichloroethylene	2-W7-3	5	5.0	PPB
Trichloroethylene	2-W7-4	5	1.0	PPB
Trichloroethylene	2-W7-4	5	5.0	PPB
Trichloroethylene	2-W7-5	5	1.0	PPB
Trichloroethylene	2-W7-5	5	5.0	PPB
Trichloroethylene	2-W7-6	5	1.0	PPB
Trichloroethylene	2-W7-6	5	5.0	PPB
Trichloroethylene	2-W7-7	5	1.0	PPB
Trichloroethylene	2-W7-7	5	5.0	PPB
Trichloroethylene	2-W7-8	5	1.0	PPB
Trichloroethylene	2-W7-8	5	5.0	PPB
Trichloroethylene	2-W7-9	5	1.0	PPB
Trichloroethylene	2-W7-9	5	5.0	PPB
Trichloroethylene	2-W8-1	5	1.0	PPB
Trichloroethylene	2-W8-1	5	5.0	PPB
Trichloroethylene	2-W9-1	5	1.0	PPB
Trichloroethylene	2-W9-1	5	5.0	PPB
Trichloroethylene	6-20-39	5	1.0	PPB
Trichloroethylene	6-20-39	5	5.0	PPB
Trichloroethylene	6-23-34	5	1.0	PPB
Trichloroethylene	6-23-34	5	5.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Trichloroethylene	6-24-33	3	1.0	PPB
Trichloroethylene	6-24-33	3	5.0	PPB
Trichloroethylene	6-24-34A	3	1.0	PPB
Trichloroethylene	6-24-34A	3	5.0	PPB
Trichloroethylene	6-24-34B	3	1.0	PPB
Trichloroethylene	6-24-34B	3	5.0	PPB
Trichloroethylene	6-24-34C	3	1.0	PPB
Trichloroethylene	6-24-34C	3	5.0	PPB
Trichloroethylene	6-24-35	3	1.0	PPB
Trichloroethylene	6-24-35	3	5.0	PPB
Trichloroethylene	6-24-46	5	1.0	PPB
Trichloroethylene	6-24-46	5	5.0	PPB
Trichloroethylene	6-25-33A	3	1.0	PPB
Trichloroethylene	6-25-33A	3	5.0	PPB
Trichloroethylene	6-25-34A	3	1.0	PPB
Trichloroethylene	6-25-34A	3	5.0	PPB
Trichloroethylene	6-25-34B	3	1.0	PPB
Trichloroethylene	6-25-34B	3	5.0	PPB
Trichloroethylene	6-25-34C	3	1.0	PPB
Trichloroethylene	6-25-34C	3	5.0	PPB
Trichloroethylene	6-26-33	3	1.0	PPB
Trichloroethylene	6-26-33	3	5.0	PPB
Trichloroethylene	6-26-34	3	1.0	PPB
Trichloroethylene	6-26-34	3	5.0	PPB
Trichloroethylene	6-26-35A	3	1.0	PPB
Trichloroethylene	6-26-35A	3	5.0	PPB
Trichloroethylene	6-26-35C	3	1.0	PPB
Trichloroethylene	6-26-35C	3	5.0	PPB
Trichloroethylene	6-28-40P	5	1.0	PPB
Trichloroethylene	6-28-40P	5	5.0	PPB
Trichloroethylene	6-29-78	5	1.0	PPB
Trichloroethylene	6-29-78	5	5.0	PPB
Trichloroethylene	6-31-31P	12	1.0	PPB
Trichloroethylene	6-31-31P	12	5.0	PPB
Trichloroethylene	6-32-70B	5	1.0	PPB
Trichloroethylene	6-32-70B	5	5.0	PPB
Trichloroethylene	6-32-72	5	1.0	PPB
Trichloroethylene	6-32-72	5	5.0	PPB
Trichloroethylene	6-32-77	5	1.0	PPB
Trichloroethylene	6-32-77	5	5.0	PPB
Trichloroethylene	6-34-42	5	1.0	PPB
Trichloroethylene	6-34-42	5	5.0	PPB
Trichloroethylene	6-35-66	5	1.0	PPB
Trichloroethylene	6-35-66	5	5.0	PPB
Trichloroethylene	6-35-70	5	1.0	PPB
Trichloroethylene	6-35-70	5	5.0	PPB
Trichloroethylene	6-36-61A	5	1.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Trichloroethylene	6-36-61A	5	5.0	PPB
Trichloroethylene	6-37-82A	5	1.0	PPB
Trichloroethylene	6-37-82A	5	5.0	PPB
Trichloroethylene	6-38-70	3	1.0	PPB
Trichloroethylene	6-38-70	3	5.0	PPB
Trichloroethylene	6-39-39	5	1.0	PPB
Trichloroethylene	6-39-39	5	5.0	PPB
Trichloroethylene	6-39-79	5	1.0	PPB
Trichloroethylene	6-39-79	5	5.0	PPB
Trichloroethylene	6-40-62	5	1.0	PPB
Trichloroethylene	6-40-62	5	5.0	PPB
Trichloroethylene	6-42-40A	5	1.0	PPB
Trichloroethylene	6-42-40A	5	5.0	PPB
Trichloroethylene	6-42-40B	5	1.0	PPB
Trichloroethylene	6-42-40B	5	5.0	PPB
Trichloroethylene	6-42-42B	5	1.0	PPB
Trichloroethylene	6-42-42B	5	5.0	PPB
Trichloroethylene	6-43-41E	5	1.0	PPB
Trichloroethylene	6-43-41E	5	5.0	PPB
Trichloroethylene	6-43-41F	5	1.0	PPB
Trichloroethylene	6-43-41F	5	5.0	PPB
Trichloroethylene	6-43-42J	5	1.0	PPB
Trichloroethylene	6-43-42J	5	5.0	PPB
Trichloroethylene	6-43-43	5	1.0	PPB
Trichloroethylene	6-43-43	5	5.0	PPB
Trichloroethylene	6-43-45	5	1.0	PPB
Trichloroethylene	6-43-45	5	5.0	PPB
Trichloroethylene	6-43-88	5	1.0	PPB
Trichloroethylene	6-43-88	5	5.0	PPB
Trichloroethylene	6-44-42	5	1.0	PPB
Trichloroethylene	6-44-42	5	5.0	PPB
Trichloroethylene	6-44-43B	5	1.0	PPB
Trichloroethylene	6-44-43B	5	5.0	PPB
Trichloroethylene	6-44-64	5	1.0	PPB
Trichloroethylene	6-44-64	5	5.0	PPB
Trichloroethylene	6-45-42	5	1.0	PPB
Trichloroethylene	6-45-42	5	5.0	PPB
Trichloroethylene	6-45-69A	5	1.0	PPB
Trichloroethylene	6-45-69A	5	5.0	PPB
Trichloroethylene	6-47-46A	5	1.0	PPB
Trichloroethylene	6-47-46A	5	5.0	PPB
Trichloroethylene	6-47-60	5	1.0	PPB
Trichloroethylene	6-47-60	5	5.0	PPB
Trichloroethylene	6-48-18	3	1.0	PPB
Trichloroethylene	6-48-18	3	5.0	PPB
Trichloroethylene	6-48-50	5	1.0	PPB
Trichloroethylene	6-48-50	5	5.0	PPB

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Constituent	Well	Average of Result	D.L.	Units
Trichloroethylene	6-48-71	5	1.0	PPB
Trichloroethylene	6-48-71	5	5.0	PPB
Trichloroethylene	6-49-100C	5	1.0	PPB
Trichloroethylene	6-49-100C	5	5.0	PPB
Trichloroethylene	6-49-55A	5	1.0	PPB
Trichloroethylene	6-49-55A	5	5.0	PPB
Trichloroethylene	6-49-57A	5	1.0	PPB
Trichloroethylene	6-49-57A	5	5.0	PPB
Trichloroethylene	6-49-79	5	1.0	PPB
Trichloroethylene	6-49-79	5	5.0	PPB
Trichloroethylene	6-50-53A	5	1.0	PPB
Trichloroethylene	6-50-53A	5	5.0	PPB
Trichloroethylene	6-50-85	5	1.0	PPB
Trichloroethylene	6-50-85	5	5.0	PPB
Trichloroethylene	6-52-54	5	1.0	PPB
Trichloroethylene	6-52-54	5	5.0	PPB
Trichloroethylene	6-52-57	5	1.0	PPB
Trichloroethylene	6-52-57	5	5.0	PPB
Trichloroethylene	6-53-47A	5	1.0	PPB
Trichloroethylene	6-53-47A	5	5.0	PPB
Trichloroethylene	6-53-55A	5	1.0	PPB
Trichloroethylene	6-53-55A	5	5.0	PPB
Trichloroethylene	6-55-50C	5	1.0	PPB
Trichloroethylene	6-55-50C	5	5.0	PPB
Trichloroethylene	6-55-55	5	1.0	PPB
Trichloroethylene	6-55-55	5	5.0	PPB
Trichloroethylene	6-55-57	5	1.0	PPB
Trichloroethylene	6-55-57	5	5.0	PPB
Trichloroethylene	6-55-70	5	1.0	PPB
Trichloroethylene	6-55-70	5	5.0	PPB
Trichloroethylene	6-55-76	3	1.0	PPB
Trichloroethylene	6-55-76	3	5.0	PPB
Trichloroethylene	6-60-60	5	1.0	PPB
Trichloroethylene	6-60-60	5	5.0	PPB
Trichloroethylene	6-65-72	5	1.0	PPB
Trichloroethylene	6-65-72	5	5.0	PPB
Trichloroethylene	6-65-83	5	1.0	PPB
Trichloroethylene	6-65-83	5	5.0	PPB
Trichloroethylene	6-66-23	3	1.0	PPB
Trichloroethylene	6-66-23	3	5.0	PPB
Trichloroethylene	6-67-86	5	1.0	PPB
Trichloroethylene	6-67-86	5	5.0	PPB
Tritium	1-84-2	3	500.0	PCI/L
Tritium	1-84-3	12	500.0	PCI/L
Tritium	1-84-4	3	500.0	PCI/L
Tritium	1-85-1	2	500.0	PCI/L
Tritium	1-89-1	2	500.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Tritium	2-E13-14	0	500.0	PCI/L
Tritium	2-E13-19	0	500.0	PCI/L
Tritium	2-E13-5	0	500.0	PCI/L
Tritium	2-E13-8	0	500.0	PCI/L
Tritium	2-E16-2	3	500.0	PCI/L
Tritium	2-E17-1	3662	500.0	PCI/L
Tritium	2-E17-12	1534	500.0	PCI/L
Tritium	2-E17-13	1160	500.0	PCI/L
Tritium	2-E17-14	1848	500.0	PCI/L
Tritium	2-E17-15	1098	500.0	PCI/L
Tritium	2-E17-16	280	500.0	PCI/L
Tritium	2-E17-17	693	500.0	PCI/L
Tritium	2-E17-18	220	500.0	PCI/L
Tritium	2-E17-19	1316	500.0	PCI/L
Tritium	2-E17-2	45	500.0	PCI/L
Tritium	2-E17-20	3008	500.0	PCI/L
Tritium	2-E17-5	1131	500.0	PCI/L
Tritium	2-E17-6	31	500.0	PCI/L
Tritium	2-E17-8	3576	500.0	PCI/L
Tritium	2-E17-9	4126	500.0	PCI/L
Tritium	2-E18-1	0	500.0	PCI/L
Tritium	2-E18-2	0	500.0	PCI/L
Tritium	2-E18-3	1	500.0	PCI/L
Tritium	2-E18-4	1	500.0	PCI/L
Tritium	2-E23-1	646	500.0	PCI/L
Tritium	2-E24-1	3708	500.0	PCI/L
Tritium	2-E24-11	4270	500.0	PCI/L
Tritium	2-E24-12	271	500.0	PCI/L
Tritium	2-E24-13	5	500.0	PCI/L
Tritium	2-E24-16	2211	500.0	PCI/L
Tritium	2-E24-17	2035	500.0	PCI/L
Tritium	2-E24-18	999	500.0	PCI/L
Tritium	2-E24-19	4	500.0	PCI/L
Tritium	2-E24-2	2046	500.0	PCI/L
Tritium	2-E24-20	6	500.0	PCI/L
Tritium	2-E24-4	8	500.0	PCI/L
Tritium	2-E24-7	1175	500.0	PCI/L
Tritium	2-E24-8	972	500.0	PCI/L
Tritium	2-E25-11	429	500.0	PCI/L
Tritium	2-E25-13	37	500.0	PCI/L
Tritium	2-E25-17	360	500.0	PCI/L
Tritium	2-E25-18	403	500.0	PCI/L
Tritium	2-E25-19	2369	500.0	PCI/L
Tritium	2-E25-2	7	500.0	PCI/L
Tritium	2-E25-20	984	500.0	PCI/L
Tritium	2-E25-21	4	500.0	PCI/L
Tritium	2-E25-22	7	500.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Tritium	2-E25-23	0	500.0	PCI/L
Tritium	2-E25-24	0	500.0	PCI/L
Tritium	2-E25-25	0	500.0	PCI/L
Tritium	2-E25-26	3	500.0	PCI/L
Tritium	2-E25-27	3	500.0	PCI/L
Tritium	2-E25-28	2	500.0	PCI/L
Tritium	2-E25-29P	59	500.0	PCI/L
Tritium	2-E25-3	6	500.0	PCI/L
Tritium	2-E25-30P	1	500.0	PCI/L
Tritium	2-E25-31	16	500.0	PCI/L
Tritium	2-E25-32P	1	500.0	PCI/L
Tritium	2-E25-33	29	500.0	PCI/L
Tritium	2-E25-34	2	500.0	PCI/L
Tritium	2-E25-35	60	500.0	PCI/L
Tritium	2-E25-36	7	500.0	PCI/L
Tritium	2-E25-37	1	500.0	PCI/L
Tritium	2-E25-38	6	500.0	PCI/L
Tritium	2-E25-39	3	500.0	PCI/L
Tritium	2-E25-40	11	500.0	PCI/L
Tritium	2-E25-41	5	500.0	PCI/L
Tritium	2-E25-42	25	500.0	PCI/L
Tritium	2-E25-43	2	500.0	PCI/L
Tritium	2-E25-6	6	500.0	PCI/L
Tritium	2-E25-9	29	500.0	PCI/L
Tritium	2-E26-1	15	500.0	PCI/L
Tritium	2-E26-10	2	500.0	PCI/L
Tritium	2-E26-11	2	500.0	PCI/L
Tritium	2-E26-12	1	500.0	PCI/L
Tritium	2-E26-13	0	500.0	PCI/L
Tritium	2-E26-2	2	500.0	PCI/L
Tritium	2-E26-3	4	500.0	PCI/L
Tritium	2-E26-4	23	500.0	PCI/L
Tritium	2-E26-6	3	500.0	PCI/L
Tritium	2-E26-9	0	500.0	PCI/L
Tritium	2-E27-1	1	500.0	PCI/L
Tritium	2-E27-10	8	500.0	PCI/L
Tritium	2-E27-11	9	500.0	PCI/L
Tritium	2-E27-12	2	500.0	PCI/L
Tritium	2-E27-13	1	500.0	PCI/L
Tritium	2-E27-14	1	500.0	PCI/L
Tritium	2-E27-15	1	500.0	PCI/L
Tritium	2-E27-16	0	500.0	PCI/L
Tritium	2-E27-5	5	500.0	PCI/L
Tritium	2-E27-7	1	500.0	PCI/L
Tritium	2-E27-8	10	500.0	PCI/L
Tritium	2-E27-9	11	500.0	PCI/L
Tritium	2-E28-1	7	500.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Tritium	2-E28-11	0	500.0	PCI/L
Tritium	2-E28-12	123	500.0	PCI/L
Tritium	2-E28-13	9	500.0	PCI/L
Tritium	2-E28-15	7	500.0	PCI/L
Tritium	2-E28-17	74	500.0	PCI/L
Tritium	2-E28-18	71	500.0	PCI/L
Tritium	2-E28-21	69	500.0	PCI/L
Tritium	2-E28-23	7	500.0	PCI/L
Tritium	2-E28-24	65	500.0	PCI/L
Tritium	2-E28-25	6	500.0	PCI/L
Tritium	2-E28-26	72	500.0	PCI/L
Tritium	2-E28-27	221	500.0	PCI/L
Tritium	2-E28-28	23	500.0	PCI/L
Tritium	2-E28-5	2	500.0	PCI/L
Tritium	2-E28-7	7	500.0	PCI/L
Tritium	2-E28-9	17	500.0	PCI/L
Tritium	2-E32-1	33	500.0	PCI/L
Tritium	2-E32-2	157	500.0	PCI/L
Tritium	2-E32-3	264	500.0	PCI/L
Tritium	2-E32-4	9	500.0	PCI/L
Tritium	2-E32-5	186	500.0	PCI/L
Tritium	2-E33-1	5	500.0	PCI/L
Tritium	2-E33-13	6	500.0	PCI/L
Tritium	2-E33-14	0	500.0	PCI/L
Tritium	2-E33-15	4	500.0	PCI/L
Tritium	2-E33-18	5	500.0	PCI/L
Tritium	2-E33-20	5	500.0	PCI/L
Tritium	2-E33-21	2	500.0	PCI/L
Tritium	2-E33-24	15	500.0	PCI/L
Tritium	2-E33-26	8	500.0	PCI/L
Tritium	2-E33-27	5	500.0	PCI/L
Tritium	2-E33-28	2	500.0	PCI/L
Tritium	2-E33-29	5	500.0	PCI/L
Tritium	2-E33-3	4	500.0	PCI/L
Tritium	2-E33-30	5	500.0	PCI/L
Tritium	2-E33-31	3	500.0	PCI/L
Tritium	2-E33-32	3	500.0	PCI/L
Tritium	2-E33-33	3	500.0	PCI/L
Tritium	2-E33-34	6	500.0	PCI/L
Tritium	2-E33-35	3	500.0	PCI/L
Tritium	2-E33-36	3	500.0	PCI/L
Tritium	2-E33-37	2	500.0	PCI/L
Tritium	2-E33-38	4	500.0	PCI/L
Tritium	2-E33-39	1	500.0	PCI/L
Tritium	2-E33-4	2	500.0	PCI/L
Tritium	2-E33-41	3	500.0	PCI/L
Tritium	2-E33-42	3	500.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Tritium	2-E33-43	3	500.0	PCI/L
Tritium	2-E33-5	5	500.0	PCI/L
Tritium	2-E33-7	6	500.0	PCI/L
Tritium	2-E33-8	3	500.0	PCI/L
Tritium	2-E33-9	3	500.0	PCI/L
Tritium	2-E34-1	3	500.0	PCI/L
Tritium	2-E34-2	3	500.0	PCI/L
Tritium	2-E34-3	6	500.0	PCI/L
Tritium	2-E34-5	0	500.0	PCI/L
Tritium	2-E34-6	0	500.0	PCI/L
Tritium	2-E34-7	1	500.0	PCI/L
Tritium	2-E34-8	0	500.0	PCI/L
Tritium	2-E35-1	1	500.0	PCI/L
Tritium	2-E35-2	0	500.0	PCI/L
Tritium	2-W10-1	50	500.0	PCI/L
Tritium	2-W10-13	0	500.0	PCI/L
Tritium	2-W10-14	0	500.0	PCI/L
Tritium	2-W10-15	44	500.0	PCI/L
Tritium	2-W10-16	47	500.0	PCI/L
Tritium	2-W10-17	44	500.0	PCI/L
Tritium	2-W10-18	36	500.0	PCI/L
Tritium	2-W10-3	113	500.0	PCI/L
Tritium	2-W10-4	74	500.0	PCI/L
Tritium	2-W10-5	9	500.0	PCI/L
Tritium	2-W10-8	3	500.0	PCI/L
Tritium	2-W10-9	54	500.0	PCI/L
Tritium	2-W11-14	7	500.0	PCI/L
Tritium	2-W11-15	226	500.0	PCI/L
Tritium	2-W11-23	1	500.0	PCI/L
Tritium	2-W11-3	0	500.0	PCI/L
Tritium	2-W11-7	42	500.0	PCI/L
Tritium	2-W11-9	2	500.0	PCI/L
Tritium	2-W12-1	6	500.0	PCI/L
Tritium	2-W14-10	1	500.0	PCI/L
Tritium	2-W14-2	68	500.0	PCI/L
Tritium	2-W14-5	3	500.0	PCI/L
Tritium	2-W14-6	7	500.0	PCI/L
Tritium	2-W15-10	5	500.0	PCI/L
Tritium	2-W15-11	14	500.0	PCI/L
Tritium	2-W15-12	51	500.0	PCI/L
Tritium	2-W15-15	0	500.0	PCI/L
Tritium	2-W15-16	4	500.0	PCI/L
Tritium	2-W15-17	0	500.0	PCI/L
Tritium	2-W15-18	0	500.0	PCI/L
Tritium	2-W15-19	0	500.0	PCI/L
Tritium	2-W15-2	1	500.0	PCI/L
Tritium	2-W15-20	0	500.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Tritium	2-W15-22	7	500.0	PCI/L
Tritium	2-W15-23	0	500.0	PCI/L
Tritium	2-W15-24	0	500.0	PCI/L
Tritium	2-W15-3	45	500.0	PCI/L
Tritium	2-W15-4	239	500.0	PCI/L
Tritium	2-W15-6	0	500.0	PCI/L
Tritium	2-W15-7	1	500.0	PCI/L
Tritium	2-W15-8	0	500.0	PCI/L
Tritium	2-W18-15	0	500.0	PCI/L
Tritium	2-W18-17	1	500.0	PCI/L
Tritium	2-W18-2	0	500.0	PCI/L
Tritium	2-W18-20	0	500.0	PCI/L
Tritium	2-W18-21	0	500.0	PCI/L
Tritium	2-W18-22	0	500.0	PCI/L
Tritium	2-W18-23	0	500.0	PCI/L
Tritium	2-W18-24	0	500.0	PCI/L
Tritium	2-W18-25	0	500.0	PCI/L
Tritium	2-W18-26	0	500.0	PCI/L
Tritium	2-W18-3	0	500.0	PCI/L
Tritium	2-W18-4	0	500.0	PCI/L
Tritium	2-W18-5	0	500.0	PCI/L
Tritium	2-W18-9	0	500.0	PCI/L
Tritium	2-W19-1	0	500.0	PCI/L
Tritium	2-W19-11	1	500.0	PCI/L
Tritium	2-W19-12	0	500.0	PCI/L
Tritium	2-W19-13	0	500.0	PCI/L
Tritium	2-W19-14	0	500.0	PCI/L
Tritium	2-W19-15	1	500.0	PCI/L
Tritium	2-W19-16	1	500.0	PCI/L
Tritium	2-W19-17	0	500.0	PCI/L
Tritium	2-W19-18	2	500.0	PCI/L
Tritium	2-W19-19	2	500.0	PCI/L
Tritium	2-W19-2	58	500.0	PCI/L
Tritium	2-W19-20	2	500.0	PCI/L
Tritium	2-W19-21	0	500.0	PCI/L
Tritium	2-W19-23	1	500.0	PCI/L
Tritium	2-W19-24	2	500.0	PCI/L
Tritium	2-W19-25	2	500.0	PCI/L
Tritium	2-W19-26	1	500.0	PCI/L
Tritium	2-W19-27	0	500.0	PCI/L
Tritium	2-W19-28	0	500.0	PCI/L
Tritium	2-W19-29	4	500.0	PCI/L
Tritium	2-W19-3	1	500.0	PCI/L
Tritium	2-W19-30	1	500.0	PCI/L
Tritium	2-W19-31	1	500.0	PCI/L
Tritium	2-W19-32	1	500.0	PCI/L
Tritium	2-W19-5	1	500.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Tritium	2-W19-9	0	500.0	PCI/L
Tritium	2-W21-1	86	500.0	PCI/L
Tritium	2-W22-1	2	500.0	PCI/L
Tritium	2-W22-10	104	500.0	PCI/L
Tritium	2-W22-12	20	500.0	PCI/L
Tritium	2-W22-18	0	500.0	PCI/L
Tritium	2-W22-2	20	500.0	PCI/L
Tritium	2-W22-20	255	500.0	PCI/L
Tritium	2-W22-21	76	500.0	PCI/L
Tritium	2-W22-22	1	500.0	PCI/L
Tritium	2-W22-26	73	500.0	PCI/L
Tritium	2-W22-39	1	500.0	PCI/L
Tritium	2-W22-40	4	500.0	PCI/L
Tritium	2-W22-41	3	500.0	PCI/L
Tritium	2-W22-42	12	500.0	PCI/L
Tritium	2-W22-7	350	500.0	PCI/L
Tritium	2-W22-9	6193	500.0	PCI/L
Tritium	2-W23-1	0	500.0	PCI/L
Tritium	2-W23-10	605	500.0	PCI/L
Tritium	2-W23-11	1	500.0	PCI/L
Tritium	2-W23-13	0	500.0	PCI/L
Tritium	2-W23-14	206	500.0	PCI/L
Tritium	2-W23-3	3	500.0	PCI/L
Tritium	2-W23-4	893	500.0	PCI/L
Tritium	2-W23-7	1	500.0	PCI/L
Tritium	2-W23-8	178	500.0	PCI/L
Tritium	2-W23-9	1218	500.0	PCI/L
Tritium	2-W26-10	0	500.0	PCI/L
Tritium	2-W26-12	0	500.0	PCI/L
Tritium	2-W26-3	0	500.0	PCI/L
Tritium	2-W26-6	0	500.0	PCI/L
Tritium	2-W26-7	0	500.0	PCI/L
Tritium	2-W27-1	3	500.0	PCI/L
Tritium	2-W6-1	60	500.0	PCI/L
Tritium	2-W6-2	13	500.0	PCI/L
Tritium	2-W6-4	25	500.0	PCI/L
Tritium	2-W6-5	35	500.0	PCI/L
Tritium	2-W6-6	0	500.0	PCI/L
Tritium	2-W6-7	46	500.0	PCI/L
Tritium	2-W6-8	1	500.0	PCI/L
Tritium	2-W7-1	0	500.0	PCI/L
Tritium	2-W7-10	0	500.0	PCI/L
Tritium	2-W7-11	0	500.0	PCI/L
Tritium	2-W7-12	0	500.0	PCI/L
Tritium	2-W7-2	0	500.0	PCI/L
Tritium	2-W7-3	0	500.0	PCI/L
Tritium	2-W7-4	0	500.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Tritium	2-W7-5	0	500.0	PCI/L
Tritium	2-W7-6	1	500.0	PCI/L
Tritium	2-W7-7	0	500.0	PCI/L
Tritium	2-W7-8	0	500.0	PCI/L
Tritium	2-W7-9	0	500.0	PCI/L
Tritium	2-W8-1	0	500.0	PCI/L
Tritium	2-W9-1	0	500.0	PCI/L
Tritium	6-20-20	142	500.0	PCI/L
Tritium	6-20-39	0	500.0	PCI/L
Tritium	6-23-34	107	500.0	PCI/L
Tritium	6-24-33	285	500.0	PCI/L
Tritium	6-24-34A	153	500.0	PCI/L
Tritium	6-24-34B	264	500.0	PCI/L
Tritium	6-24-34C	299	500.0	PCI/L
Tritium	6-24-35	112	500.0	PCI/L
Tritium	6-24-46	0	500.0	PCI/L
Tritium	6-25-33A	1	500.0	PCI/L
Tritium	6-25-34A	261	500.0	PCI/L
Tritium	6-25-34B	658	500.0	PCI/L
Tritium	6-25-34C	286	500.0	PCI/L
Tritium	6-25-55	1	500.0	PCI/L
Tritium	6-25-70	1	500.0	PCI/L
Tritium	6-26-33	251	500.0	PCI/L
Tritium	6-26-34	261	500.0	PCI/L
Tritium	6-26-35A	286	500.0	PCI/L
Tritium	6-26-35C	51	500.0	PCI/L
Tritium	6-28-40	60	500.0	PCI/L
Tritium	6-28-40P	0	500.0	PCI/L
Tritium	6-28-52A	0	500.0	PCI/L
Tritium	6-29-78	0	500.0	PCI/L
Tritium	6-31-31	14	500.0	PCI/L
Tritium	6-31-31P	0	500.0	PCI/L
Tritium	6-32-22	169	500.0	PCI/L
Tritium	6-32-43	298	500.0	PCI/L
Tritium	6-32-62	2	500.0	PCI/L
Tritium	6-32-70B	237	500.0	PCI/L
Tritium	6-32-72	137	500.0	PCI/L
Tritium	6-32-77	0	500.0	PCI/L
Tritium	6-33-42	283	500.0	PCI/L
Tritium	6-33-56	0	500.0	PCI/L
Tritium	6-34-39A	6	500.0	PCI/L
Tritium	6-34-41B	37	500.0	PCI/L
Tritium	6-34-42	76	500.0	PCI/L
Tritium	6-34-51	0	500.0	PCI/L
Tritium	6-34-88	0	500.0	PCI/L
Tritium	6-35-66	1128	500.0	PCI/L
Tritium	6-35-70	782	500.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Tritium	6-35-78A	0	500.0	PCI/L
Tritium	6-36-46P	0	500.0	PCI/L
Tritium	6-36-46Q	0	500.0	PCI/L
Tritium	6-36-46R	0	500.0	PCI/L
Tritium	6-36-46S	70	500.0	PCI/L
Tritium	6-36-61A	31	500.0	PCI/L
Tritium	6-36-61B	17	500.0	PCI/L
Tritium	6-36-93	0	500.0	PCI/L
Tritium	6-37-82A	0	500.0	PCI/L
Tritium	6-38-65	437	500.0	PCI/L
Tritium	6-38-70	1	500.0	PCI/L
Tritium	6-39-39	0	500.0	PCI/L
Tritium	6-39-79	0	500.0	PCI/L
Tritium	6-40-33A	1	500.0	PCI/L
Tritium	6-40-40A	1	500.0	PCI/L
Tritium	6-40-40B	2	500.0	PCI/L
Tritium	6-40-62	78	500.0	PCI/L
Tritium	6-41-23	90	500.0	PCI/L
Tritium	6-42-39A	98	500.0	PCI/L
Tritium	6-42-39B	115	500.0	PCI/L
Tritium	6-42-40A	0	500.0	PCI/L
Tritium	6-42-40B	1	500.0	PCI/L
Tritium	6-42-41	0	500.0	PCI/L
Tritium	6-42-42B	71	500.0	PCI/L
Tritium	6-43-40	64	500.0	PCI/L
Tritium	6-43-41E	75	500.0	PCI/L
Tritium	6-43-41F	39	500.0	PCI/L
Tritium	6-43-41G	71	500.0	PCI/L
Tritium	6-43-42J	6	500.0	PCI/L
Tritium	6-43-43	0	500.0	PCI/L
Tritium	6-43-45	0	500.0	PCI/L
Tritium	6-43-88	0	500.0	PCI/L
Tritium	6-44-42	1	500.0	PCI/L
Tritium	6-44-43B	33	500.0	PCI/L
Tritium	6-44-64	1	500.0	PCI/L
Tritium	6-45-42	46	500.0	PCI/L
Tritium	6-45-69A	0	500.0	PCI/L
Tritium	6-46-21B	48	500.0	PCI/L
Tritium	6-47-35A	0	500.0	PCI/L
Tritium	6-47-46A	0	500.0	PCI/L
Tritium	6-47-60	0	500.0	PCI/L
Tritium	6-48-18	0	500.0	PCI/L
Tritium	6-48-50	0	500.0	PCI/L
Tritium	6-48-71	0	500.0	PCI/L
Tritium	6-49-100C	0	500.0	PCI/L
Tritium	6-49-28	2	500.0	PCI/L
Tritium	6-49-55A	7	500.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Tritium	6-49-57A	5	500.0	PCI/L
Tritium	6-49-79	2	500.0	PCI/L
Tritium	6-50-30	0	500.0	PCI/L
Tritium	6-50-42	4	500.0	PCI/L
Tritium	6-50-48B	0	500.0	PCI/L
Tritium	6-50-53A	5	500.0	PCI/L
Tritium	6-50-85	0	500.0	PCI/L
Tritium	6-51-63	0	500.0	PCI/L
Tritium	6-51-75	0	500.0	PCI/L
Tritium	6-52-19	0	500.0	PCI/L
Tritium	6-52-54	1	500.0	PCI/L
Tritium	6-52-57	0	500.0	PCI/L
Tritium	6-53-103	0	500.0	PCI/L
Tritium	6-53-47A	0	500.0	PCI/L
Tritium	6-53-47B	0	500.0	PCI/L
Tritium	6-53-48B	0	500.0	PCI/L
Tritium	6-53-55A	0	500.0	PCI/L
Tritium	6-54-34	0	500.0	PCI/L
Tritium	6-54-45A	0	500.0	PCI/L
Tritium	6-54-48	0	500.0	PCI/L
Tritium	6-54-49	0	500.0	PCI/L
Tritium	6-55-40	0	500.0	PCI/L
Tritium	6-55-44	0	500.0	PCI/L
Tritium	6-55-50A	0	500.0	PCI/L
Tritium	6-55-50C	0	500.0	PCI/L
Tritium	6-55-50D	0	500.0	PCI/L
Tritium	6-55-55	1	500.0	PCI/L
Tritium	6-55-57	8	500.0	PCI/L
Tritium	6-55-70	0	500.0	PCI/L
Tritium	6-55-76	1	500.0	PCI/L
Tritium	6-55-89	0	500.0	PCI/L
Tritium	6-56-43	0	500.0	PCI/L
Tritium	6-57-29A	1	500.0	PCI/L
Tritium	6-59-58	1	500.0	PCI/L
Tritium	6-59-80B	0	500.0	PCI/L
Tritium	6-60-57	0	500.0	PCI/L
Tritium	6-60-60	7	500.0	PCI/L
Tritium	6-61-37	0	500.0	PCI/L
Tritium	6-61-41	0	500.0	PCI/L
Tritium	6-61-62	14	500.0	PCI/L
Tritium	6-61-66	0	500.0	PCI/L
Tritium	6-62-31	0	500.0	PCI/L
Tritium	6-63-25A	0	500.0	PCI/L
Tritium	6-63-55	1	500.0	PCI/L
Tritium	6-63-58	2	500.0	PCI/L
Tritium	6-63-90	0	500.0	PCI/L
Tritium	6-64-62	8	500.0	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Tritium	6-65-23	0	500.0	PCI/L
Tritium	6-65-50	1	500.0	PCI/L
Tritium	6-65-59A	1	500.0	PCI/L
Tritium	6-65-72	3	500.0	PCI/L
Tritium	6-65-83	1	500.0	PCI/L
Tritium	6-66-103	0	500.0	PCI/L
Tritium	6-66-23	0	500.0	PCI/L
Tritium	6-66-58	1	500.0	PCI/L
Tritium	6-66-64	6	500.0	PCI/L
Tritium	6-67-51	1	500.0	PCI/L
Tritium	6-67-86	1	500.0	PCI/L
Tritium	6-67-98	0	500.0	PCI/L
Tritium	6-68-105	0	500.0	PCI/L
Tritium	6-69-38	0	500.0	PCI/L
Uranium	2-W10-1	0	.5	PCI/L
Uranium	2-W10-13	0	.5	PCI/L
Uranium	2-W10-14	0	.5	PCI/L
Uranium	2-W10-3	0	.5	PCI/L
Uranium	2-W10-4	0	.5	PCI/L
Uranium	2-W10-8	0	.5	PCI/L
Uranium	2-W10-9	0	.5	PCI/L
Uranium	2-W11-14	207	.5	PCI/L
Uranium	2-W11-3	0	.5	PCI/L
Uranium	2-W11-9	0	.5	PCI/L
Uranium	2-W14-10	0	.5	PCI/L
Uranium	2-W14-2	0	.5	PCI/L
Uranium	2-W14-5	0	.5	PCI/L
Uranium	2-W14-6	0	.5	PCI/L
Uranium	2-W15-15	0	.5	PCI/L
Uranium	2-W15-16	0	.5	PCI/L
Uranium	2-W15-17	0	.5	PCI/L
Uranium	2-W15-18	0	.5	PCI/L
Uranium	2-W15-19	0	.5	PCI/L
Uranium	2-W15-20	0	.5	PCI/L
Uranium	2-W15-24	0	.5	PCI/L
Uranium	2-W15-4	0	.5	PCI/L
Uranium	2-W18-17	0	.5	PCI/L
Uranium	2-W18-20	0	.5	PCI/L
Uranium	2-W18-21	20	.5	PCI/L
Uranium	2-W18-22	0	.5	PCI/L
Uranium	2-W18-23	0	.5	PCI/L
Uranium	2-W18-24	0	.5	PCI/L
Uranium	2-W18-26	0	.5	PCI/L
Uranium	2-W19-1	0	.5	PCI/L
Uranium	2-W19-11	1030	.5	PCI/L
Uranium	2-W19-15	27	.5	PCI/L
Uranium	2-W19-16	478	.5	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Uranium	2-W19-18	1130	.5	PCI/L
Uranium	2-W19-19	547	.5	PCI/L
Uranium	2-W19-2	0	.5	PCI/L
Uranium	2-W19-20	0	.5	PCI/L
Uranium	2-W19-21	0	.5	PCI/L
Uranium	2-W19-23	126	.5	PCI/L
Uranium	2-W19-24	397	.5	PCI/L
Uranium	2-W19-25	311	.5	PCI/L
Uranium	2-W19-26	340	.5	PCI/L
Uranium	2-W19-27	0	.5	PCI/L
Uranium	2-W19-28	40	.5	PCI/L
Uranium	2-W19-3	737	.5	PCI/L
Uranium	2-W19-5	0	.5	PCI/L
Uranium	2-W21-1	0	.5	PCI/L
Uranium	2-W22-1	0	.5	PCI/L
Uranium	2-W22-10	0	.5	PCI/L
Uranium	2-W22-12	0	.5	PCI/L
Uranium	2-W22-2	0	.5	PCI/L
Uranium	2-W22-20	0	.5	PCI/L
Uranium	2-W22-26	0	.5	PCI/L
Uranium	2-W22-7	0	.5	PCI/L
Uranium	2-W22-9	0	.5	PCI/L
Uranium	2-W23-1	0	.5	PCI/L
Uranium	2-W23-10	0	.5	PCI/L
Uranium	2-W23-11	0	.5	PCI/L
Uranium	2-W23-2	0	.5	PCI/L
Uranium	2-W23-4	0	.5	PCI/L
Uranium	2-W23-9	0	.5	PCI/L
Uranium	2-W26-3	0	.5	PCI/L
Uranium	2-W26-6	0	.5	PCI/L
Uranium	2-W27-1	0	.5	PCI/L
Uranium	2-W6-2	0	.5	PCI/L
Uranium	2-W7-1	0	.5	PCI/L
Uranium	2-W7-2	0	.5	PCI/L
Uranium	2-W7-3	0	.5	PCI/L
Uranium	2-W7-4	0	.5	PCI/L
Uranium	2-W7-5	0	.5	PCI/L
Uranium	2-W7-6	0	.5	PCI/L
Uranium	2-W7-7	0	.5	PCI/L
Uranium	2-W7-8	0	.5	PCI/L
Uranium	2-W7-9	0	.5	PCI/L
Uranium	2-W8-1	0	.5	PCI/L
Uranium	2-W9-1	0	.5	PCI/L
Uranium	6-32-70B	0	.5	PCI/L
Uranium	6-32-72	0	.5	PCI/L
Uranium	6-35-66	0	.5	PCI/L
Uranium	6-35-70	0	.5	PCI/L

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Constituent	Well	Average of Result	D.L.	Units
Uranium	6-36-61A	0	.5	PCI/L
Uranium	6-38-65	0	.5	PCI/L
Uranium	6-44-64	0	.5	PCI/L
Uranium	6-45-69A	0	.5	PCI/L
Uranium	6-47-60	0	.5	PCI/L
Uranium	6-51-63	0	.5	PCI/L
Uranium	6-55-70	0	.5	PCI/L
Uranium	6-55-89	0	.5	PCI/L

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APPENDIX C: SELECTED ANALYTICAL RESULTS (FY 1991-1992)

This appendix consists of Table C-1 (pages C-1 through C-149). Analytical results for those wells identified in the operational groundwater surveillance well network are listed by waste site or area and by well in this table. The time period covered is from January 1, 1991 through the present (i.e., the results present in the database as of 9/24/92). This data listing thus provides an account of all analytical results for the operational groundwater surveillance or monitoring program since the last reported results that were included in the *Liquid Effluent Study Final Project Report: Groundwater Characterization Data* (WHC 1990a; August 1990). Similar data listings for the RCRA sites are provided in the quarterly reports of RCRA groundwater monitoring data (e.g. DOE-RL 1991d).

Notes on Use of Data Table

The fourth column of Table C-1 provides the sample identification. Qualifiers concerning the data are indicated with a letter code under the "flag" column defined as follows:

- B - blank associated with analyte is elevated
- D - sample was diluted prior to analysis
- E - concentration is out of instrument calibration range
- J - concentration is estimated
- U - analyte concentration is below CRQL
- H - laboratory holding time exceeded
- R - suspect data; currently under review
- Q - result associated with suspect quality control data
- P - potential problem

The CRQL is the contract required quantitation limit.

It should also be noted that not all of the data included in Table C-1 was reviewed at the time this report was prepared. Thus some unflagged "suspect" data may exist in the listing.

Significant Figures. No more than three significant figures are justified; any additional places are format related.

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
100 K GENERAL	1-K-11	9/26/91	B00LX1	Conductivity, field	374.00		umhos
				Antimony-125	3.62	U	pCi/L
				Cesium-137	-1.49	U	pCi/L
				Cobalt-60	1.23	U	pCi/L
				Ruthenium-106	25.20	U	pCi/L
				Beryllium-7	-19.90	U	pCi/L
				Cerium/Praseodymium-144	-5.84	U	pCi/L
				Cesium-134	.55	U	pCi/L
				Europium-154	3.97	U	pCi/L
				Europium-155	2.56	U	pCi/L
				Potassium-40	142.00	R	pCi/L
				Zinc-65	4.22	U	pCi/L
				Zirconium/Niobium-95	-3.67	U	pCi/L
				pH, field	6.97		
				Strontium-90	.24	U	pCi/L
				Technetium-99	.41	U	pCi/L
				Temperature, field	20.40		Deg C
			B00LZ0	Gross alpha	2.92	U	pCi/L
				Ammonium ion	100.00	U	ppb
				Bromide	500.00	U	ppb
				Chloride	6500.00		ppb
				Fluoride	390.00		ppb
				Phosphate	400.00	U	ppb
				Sulfate	32000.00		ppb
				Nitrate	28400.00		ppb
				Gross beta	4.28	U	pCi/L
				Conductivity, lab	380.00		umhos
				Antimony	200.00	U	ppb
				Barium	22.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	32000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	UQ	ppb
				Iron	22.00	Q	ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
100 K GENERAL	1-K-11	9/26/91	B00L20	Magnesium	8500.00		ppb
				Manganese	10.00	U	ppb
				Nickel	30.00	U	ppb
				Potassium	4400.00		ppb
				Silver	20.00	U	ppb
				Sodium	33000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	30.00	U	ppb
				Zinc	10.00	U	ppb
				pH, lab	7.50		
				Total Organic Halogen	10.00	H	ppb
					18.00	H	ppb
				Tritium	655.00		pCi/L
				1,1,1-Trichloroethane	.50	U	ppb
				1,1,2-Trichloroethane	.50	U	ppb
				1,1-Dichloroethane	1.00	U	ppb
				1,4-Dichlorobenzene	2.00	U	ppb
				Benzene	2.00	U	ppb
				Carbon tetrachloride	1.00	U	ppb
				Chloroform	10.00		ppb
				Ethylbenzene	2.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	.50	U	ppb
				Toluene	2.00	U	ppb
				Trichloroethene	2.90		ppb
				Vinyl chloride	2.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				cis-1,2-Dichloroethylene	1.00	U	ppb
				trans-1,2-Dichloroethylen	1.00	U	ppb
				1,1-Dichloroethene	.50	U	ppb
		3/23/92	B06519				
				Gross alpha	3.83	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	6400.00		ppb
				Fluoride	400.00		ppb
				Nitrate	25000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	34000.00		ppb
				Gross beta	7.66	U	pCi/L
				Conductivity, field	375.00		umhos

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
100 K GENERAL	1-K-11	3/23/92	B06519	Conductivity, lab	370.00		umhos
				pH, field	7.73		
				pH, lab	8.00		
				Temperature, field	17.30		Deg C
				Total Organic Halogen	20.00		ppb
				Tritium	1360.00		pCi/L
			B06520	Antimony, filtered	200.00 U		ppb
				Barium, filtered	21.00		ppb
				Beryllium, filtered	3.00 U		ppb
				Cadmium, filtered	10.00 U		ppb
				Calcium, filtered	29000.00		ppb
				Chromium, filtered	20.00 U		ppb
				Cobalt, filtered	20.00 U		ppb
				Copper, filtered	20.00 U		ppb
				Iron, filtered	20.00 U		ppb
				Magnesium, filtered	7800.00		ppb
				Manganese, filtered	10.00 U		ppb
				Nickel, filtered	30.00 U		ppb
				Potassium, filtered	5800.00		ppb
				Silver, filtered	20.00 U		ppb
				Sodium, filtered	29000.00		ppb
				Tin, filtered	100.00 U		ppb
				Vanadium, filtered	30.00 U		ppb
				Zinc, filtered	10.00 U		ppb
			B06538	Cyanide	20.00 U		ppb
	1-K-19	1/24/92	B00LX2	Antimony-125	-3.60 U		pCi/L
				Cesium-137	-.17 U		pCi/L
				Cobalt-60	1.31 U		pCi/L
				Ruthenium-106	-11.50 U		pCi/L
				Technetium-99	-.41 U		pCi/L
		3/23/92	B06521	Gross alpha	.78 U		pCi/L
				Bromide	500.00 U		ppb
				Chloride	6700.00		ppb
				Fluoride	100.00		ppb
				Nitrate	38000.00		ppb
				Nitrite	200.00 U		ppb
				Phosphate	400.00 U		ppb
				Sulfate	56000.00		ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
100 K GENERAL	1-K-19	3/23/92	806521	Gross beta	32.40		pCi/L
				Conductivity, field	385.00		umhos
				Conductivity, lab	380.00		umhos
				pH, field	7.83		
				pH, lab	8.10		
				Temperature, field	23.30		Deg C
				Total Organic Halogen	10.00		ppb
				Tritium	4640.00		pCi/L
			806522	Antimony, filtered	200.00	U	ppb
				Barium, filtered	20.00	U	ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	51000.00		ppb
				Chromium, filtered	120.00		ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	26.00		ppb
				Magnesium, filtered	7000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	2800.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	5200.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	130.00		ppb
	1-K-20	1/24/92	B00LX3	Antimony-125	-6.18	U	pCi/L
				Cesium-137	3.71	U	pCi/L
				Cobalt-60	-3.05	U	pCi/L
				Ruthenium-106	23.70	U	pCi/L
				Technetium-99	-.14	U	pCi/L
		3/23/92	806523	Gross alpha	1.02	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	4500.00		ppb
				Fluoride	100.00		ppb
				Nitrate	15000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	50000.00		ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
100 K GENERAL	1-K-20	3/23/92	806523	Gross beta	23.00		pCi/L
				Conductivity, field	295.00		umhos
				Conductivity, lab	320.00		umhos
				pH, field	8.23		
				pH, lab	7.90		
				Temperature, field	19.80		Deg C
				Total Organic Halogen	10.00	U	ppb
				Tritium	531.00		pCi/L
			806524	Antimony, filtered	200.00	U	ppb
				Barium, filtered	20.00	U	ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	42000.00		ppb
				Chromium, filtered	160.00		ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	6900.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	3100.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	4100.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
	1-K-22	1/23/92	800LX4	Antimony-125	6.62	U	pCi/L
				Cesium-137	.55	U	pCi/L
				Cobalt-60	-2.32	U	pCi/L
				Ruthenium-106	33.50	U	pCi/L
				Technetium-99	2.25	U	pCi/L
		3/23/92	806525	Gross alpha	.63	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	6200.00		ppb
				Fluoride	100.00		ppb
				Nitrate	9100.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
100 K GENERAL	1-K-22	3/23/92	B06525	Sulfate	51000.00		ppb
				Gross beta	14.80		pCi/L
				Conductivity, field	280.00		umhos
				Conductivity, lab	320.00		umhos
				pH, field	8.12		
				pH, lab	7.80		
				Temperature, field	19.60		Deg C
				Total Organic Halogen	10.00	U	ppb
				Tritium	441.00	U	pCi/L
			B06526	Antimony, filtered	200.00	U	ppb
				Barium, filtered	20.00	U	ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	42000.00		ppb
				Chromium, filtered	160.00		ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	7200.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	2600.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	5900.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	130.00		ppb
200 E AREA	2-E26-6	3/21/91	H0007316	Gross alpha	-.18	U	pCi/L
				Gross beta	1.60	U	pCi/L
				Conductivity, field	160.00		umhos
				pH, field	6.69		
				Temperature, field	8.00		Deg C
				Tritium	932.00		pCi/L
				Uranium	.69		ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
400 POND	6-1-18	12/03/90	H0007092	Iodine-129, low detection	.64	U	pCi/L
				Technetium-99	27.40		pCi/L
				Tritium	31100.00		pCi/L
				Uranium	3.13		ppb
		7/30/91	B00K46	Nitrate	19.80		
				Tritium	30400.00		pCi/L
			B00K47	Nitrate	19.60		
				Tritium	30700.00		pCi/L
		12/23/91	B00N13	Bromide	500.00	U	ppb
				Chloride	8500.00		ppb
				Fluoride	400.00		ppb
				Nitrate	4300.00	P	ppb
				Nitrite	200.00	UP	ppb
				Phosphate	400.00	UP	ppb
				Sulfate	55000.00		ppb
				Tritium	31600.00		pCi/L
			B00N57	Antimony, filtered	200.00	U	ppb
				Barium, filtered	42.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	48000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	12000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	6600.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	24000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	UQ	ppb
			B01CP5	Gross alpha	2.88	U	pCi/L

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
400 POND	6-1-18	12/23/91	801CP5	Bromide	500.00	U	ppb
				Chloride	8500.00		ppb
				Fluoride	400.00		ppb
				Nitrate	19000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	56000.00		ppb
				Gross beta	13.40		pCi/L
				Conductivity, lab	450.00		umhos
				pH, lab	8.20		
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00	U	ppb
				Tritium	30800.00		pCi/L
	2/06/92		801W00	Gross alpha	3.94	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	9300.00		ppb
				Fluoride	400.00		ppb
				Nitrate	19000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	62000.00		ppb
				Gross beta	12.10		pCi/L
				Conductivity, field	420.00		umhos
				Conductivity, lab	440.00		umhos
				pH, field	7.70		
				pH, lab	7.80		
				Temperature, field	18.60		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00	U	ppb
				Tritium	30200.00		pCi/L
			801W01	Antimony, filtered	200.00	U	ppb
				Barium, filtered	43.00		ppb
				Beryllium, filtered	3.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
400 POND	6-1-18	2/06/92	B01W01	Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	47000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	12000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	6900.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	23000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
		4/30/92	B06DY7	Gross alpha	3.70	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	9100.00		ppb
				Fluoride	400.00		ppb
				Nitrate	20000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	59000.00		ppb
				Gross beta	9.04		pCi/L
				Coliforms, membrane filte	1.00	U	COL
				Conductivity, field	447.00		umhos
				Conductivity, lab	430.00		umhos
				pH, field	8.07		
				pH, lab	7.60		
				Temperature, field	18.50		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00	U	ppb
				Tritium	32000.00		pCi/L
			B06DY9	Antimony, filtered	200.00	U	ppb
				Barium, filtered	42.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	47000.00		ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
400 POND	6-1-18	4/30/92	B06DY9	Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	12000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	6000.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	23000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
		8/14/92	B074N7	pH, lab	8.40		
	6-2-3	7/29/91	B00K48	Nitrate	32.20		
				Tritium	97500.00		pCi/L
		1/23/92	B00N14	Bromide	500.00	U	ppb
				Chloride	9800.00		ppb
				Fluoride	300.00		ppb
				Nitrate	5900.00	P	ppb
				Nitrite	200.00	UP	ppb
				Phosphate	400.00	UP	ppb
				Sulfate	52000.00		ppb
				Conductivity, field	456.00		umhos
				pH, field	7.86		
				Technetium-99	53.20		pCi/L
				Temperature, field	18.70		Deg C
				Tritium	97600.00		pCi/L
			B00N58	Antimony, filtered	200.00	U	ppb
				Barium, filtered	41.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	49000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	12000.00		ppb
				Manganese, filtered	10.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
400 POND	6-2-3	1/23/92	B00N58	Nickel, filtered	30.00	U	ppb
				Potassium, filtered	4200.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	21000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
			B01CP8	Gross alpha	2.42	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	9900.00		ppb
				Fluoride	300.00		ppb
				Nitrate	27500.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	54000.00		ppb
				Gross beta	22.70		pCi/L
				Conductivity, field	456.00		umhos
				Conductivity, lab	440.00		umhos
				pH, field	7.86		
				pH, lab	7.90		
				Temperature, field	18.70		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00	U	ppb
				Tritium	98500.00		pCi/L
		2/06/92	B01W06	Gross alpha	2.07	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	10000.00		ppb
				Fluoride	300.00		ppb
				Nitrate	30000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	59000.00		ppb
				Gross beta	22.10		pCi/L
				Conductivity, field	416.00		umhos
				Conductivity, lab	440.00		umhos

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
400 POND	6-2-3	2/06/92	B01W06	pH, field	7.22		
				pH, lab	7.90		
				Temperature, field	18.50		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00	U	ppb
				Tritium	94700.00		pCi/L
		4/30/92	B06D23	Antimony, filtered	200.00	U	ppb
				Barium, filtered	41.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	47000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	23.00		ppb
				Magnesium, filtered	12000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	6800.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	20000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	16.00		ppb
				Gross alpha	2.92	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	11000.00		ppb
				Fluoride	400.00		ppb
				Nitrate	32000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	57000.00		ppb
				Gross beta	18.50		pCi/L
				Coliforms, membrane filte	1.00	U	COL
				Conductivity, field	438.00		umhos
				Conductivity, lab	420.00		umhos
				pH, field	8.09		
				pH, lab	7.80		

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
400 POND	6-2-3	4/30/92	806023	Temperature, field	18.30		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00	U	ppb
				Tritium	101000.00		pCi/L
			806025	Antimony, filtered	200.00	U	ppb
				Barium, filtered	40.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	46000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	11000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	5600.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	20000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
		8/12/92	8074P0	Gross alpha	1.29		pCi/L
				Gross beta	23.30		pCi/L
				pH, lab	8.00		
				Tritium	94300.00		pCi/L
	6-2-7	3/21/91	H0007306	Gross alpha	5.36		pCi/L
				Gross beta	11.40		pCi/L
				Conductivity, field	737.00		umhos
				pH, field	6.81		
				Temperature, field	17.50		Deg C
				Tritium	11900.00		pCi/L
		12/18/91	B00N64	Conductivity, field	685.00		umhos

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
400 POND	6-2-7	12/18/91	B00N64	Antimony, filtered	200.00	U	ppb
				Barium, filtered	58.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	75000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	110.00		ppb
				Magnesium, filtered	20000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	7800.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	38000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	12.00	Q	ppb
				pH, field	7.48		
				Temperature, field	17.20		Deg C
			B01CP7	Gross alpha	4.03		pCi/L
				Bromide	100.00	U	ppb
				Chloride	25000.00		ppb
				Fluoride	600.00		ppb
				Nitrate	15000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	71000.00		ppb
				Gross beta	10.10		pCi/L
				Coliforms, membrane filte	0.00	U	COL
				Conductivity, lab	730.00		umhos
				pH, lab	7.70		
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00	UH	ppb
				Tritium	12300.00		pCi/L
	2/07/92		B01W02	Gross alpha	3.30		pCi/L

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
400 POND	6-2-7	2/07/92	B01W02	Bromide	500.00	U	ppb
				Chloride	27000.00		ppb
				Fluoride	500.00		ppb
				Nitrate	69000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	78000.00		ppb
				Gross beta	7.11		pCi/L
				Coliforms, membrane filte	1.00	U	COL
				Conductivity, field	715.00		umhos
				Conductivity, lab	710.00		umhos
				pH, field	7.37		
				pH, lab	7.90		
				Temperature, field	17.00		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00	U	ppb
				Tritium	11700.00		pCi/L
			B01W04	Antimony, filtered	200.00	U	ppb
				Barium, filtered	67.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	87000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	110.00		ppb
				Magnesium, filtered	24000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	2100.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	44000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
		4/30/92	B06DZ6	Gross alpha	6.28		pCi/L
				Bromide	500.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
400 POND	6-2-7	4/30/92	806026	Chloride	28000.00		ppb
				Fluoride	600.00		ppb
				Nitrate	78000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	69000.00		ppb
				Gross beta	10.40		pCi/L
				Coliforms, membrane filte	1.00	U	COL
				Conductivity, field	723.00		umhos
				Conductivity, lab	680.00		umhos
				pH, field	7.67		
				pH, lab	7.70		
				Temperature, field	17.70		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	30.00		ppb
				Tritium	13100.00		pCi/L
			806027	Antimony, filtered	200.00	U	ppb
				Barium, filtered	62.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	75000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	38.00		ppb
				Magnesium, filtered	20000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	7600.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	40000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
A-30	2-E25-11	3/21/91	H0007315	Gross alpha	.26	U	pCi/L
				Gross beta	13.60		pCi/L

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-30	2-E25-11	3/21/91	H0007315	Conductivity, field	294.00		umhos
					240.00		umhos
				pH, field	6.75		
					6.45		
		3/25/91	H0007315X	Temperature, field	22.20		Deg C
					20.00		Deg C
				Tritium	111000.00		pCi/L
				Conductivity, field	294.00		umhos
		7/11/91	H00071W8	pH, field	6.75		
				Temperature, field	22.20		Deg C
				Nitrate	7180.00		ppb
				Conductivity, field	220.00		umhos
		1/17/92	B01400	pH, field	7.57		
				Temperature, field	20.10		Deg C
				Tritium	82900.00		pCi/L
				Gross alpha	1.15 U		pCi/L
				Ammonium ion	20.00 U		ppb
				Bromide	500.00 U		ppb
				Chloride	2300.00		ppb
				Fluoride	200.00		ppb
				Nitrate	4430.00		ppb
				Nitrite	200.00 U		ppb
				Phosphate	400.00 U		ppb
				Sulfate	13000.00		ppb
				Arsenic	7.20		ppb
				Gross beta	4.87 U		pCi/L
				Coliforms, membrane filte	1.00 U		COL
				Conductivity, field	225.00		umhos
				2,4,5-T	2.00 U		ppb
				2,4,5-TP	2.00 U		ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-30	2-E25-11	1/17/92	B01Q00	2,4-D	10.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	1.00	U	ppb
				Hydrazine	30.00	U	ppb
				Antimony	200.00	U	ppb
				Barium	33.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	20000.00		ppb
				Chromium	43.00		ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	14000.00		ppb
				Magnesium	5200.00		ppb
				Manganese	480.00		ppb
				Nickel	30.00	U	ppb
				Potassium	6000.00		ppb
				Silver	20.00	U	ppb
				Sodium	14000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	52.00		ppb
				Zinc	12.00		ppb
				Lead	6.80	H	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb
				Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				pH, field	8.08		
				2,4,6-Trichlorophenol	5.00	U	ppb

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-30	2-E25-11	1/17/92	B01Q00	2,4-Dichlorophenol	5.00	U	ppb
				2,4-Dimethylphenol	5.00	U	ppb
				2,4-Dinitrophenol	150.00	U	ppb
				2,6-Dichlorophenol	5.00	U	ppb
				2-Chlorophenol	5.00	U	ppb
				2-Nitrophenol	5.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	5.00	U	ppb
				4,6-Dinitro-2-methylpheno	200.00	U	ppb
				4-Chloro-3-methylphenol	5.00	U	ppb
				4-Nitrophenol	30.00	U	ppb
				Cresols	10.00	U	ppb
				Pentachlorophenol	100.00	U	ppb
				Phenol	1.00	U	ppb
				Tetrachlorophenols	10.00	U	ppb
				Trichlorophenols	5.00	U	ppb
				Total Radium	.14	U	pCi/L
				Selenium	10.00	U	ppb
				Temperature, field	22.30		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00	U	ppb
				Tritium	68500.00		pCi/L
				Turbidity	37.00		NTU
		4/21/92	B06576	Bromide	500.00	U	ppb
				Chloride	2800.00		ppb
				Fluoride	300.00		ppb
				Nitrate	5500.00	P	ppb
				Nitrite	200.00	UP	ppb
				Phosphate	400.00	UP	ppb
				Sulfate	14000.00		ppb
			B065J5	Gross alpha	.92	U	pCi/L
				Ammonium ion	100.00	U	ppb
				Bromide	500.00	U	ppb
				Chloride	2700.00		ppb
				Fluoride	500.00		ppb
				Nitrate	5500.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	14000.00		ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-30	2-E25-11	4/21/92	8065J5	Arsenic	13.00	H	ppb
				Gross beta	7.52	U	pCi/L
				Coliforms, membrane filte	1.00	U	COL
				Conductivity, field	236.00		umhos
				2,4,5-T	2.00	U	ppb
				2,4,5-TP	2.00	U	ppb
				2,4-D	10.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	1.00	U	ppb
				Hydrazine	30.00	U	ppb
				Antimony	200.00	U	ppb
				Barium	21.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	22000.00		ppb
				Chromium	120.00		ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	1100.00		ppb
				Magnesium	5400.00		ppb
				Manganese	17.00		ppb
				Nickel	54.00		ppb
				Potassium	6000.00		ppb
				Silver	20.00	U	ppb
				Sodium	13000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	46.00		ppb
				Zinc	10.00	U	ppb
				Lead	5.00	UH	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-30	2-E25-11	4/21/92	B065J5	Endrin	.10	U	ppb
				Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				pH, field	8.18		
				2,4,6-Trichlorophenol	5.00	U	ppb
				2,4-Dichlorophenol	5.00	U	ppb
				2,4-Dimethylphenol	5.00	U	ppb
				2,4-Dinitrophenol	150.00	U	ppb
				2,6-Dichlorophenol	5.00	U	ppb
				2-Chlorophenol	5.00	U	ppb
				2-Nitrophenol	5.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	5.00	U	ppb
				4,6-Dinitro-2-methylpheno	200.00	U	ppb
				4-Chloro-3-methylphenol	5.00	U	ppb
				4-Nitrophenol	30.00	U	ppb
				Cresols	10.00	U	ppb
				Pentachlorophenol	100.00	U	ppb
				Phenol	1.00	U	ppb
				Tetrachlorophenols	10.00	U	ppb
				Trichlorophenols	5.00	U	ppb
				Total Radium	-.04	U	pCi/L
				Selenium	10.00	U	ppb
				Temperature, field	24.00		Deg C
				Total Organic Carbon	1000.00	UH	ppb
				Total Organic Halogen	10.00	U	ppb
				Tritium	60900.00		pCi/L
				Turbidity	1.50		NTU
			B065J6	Arsenic, filtered	5.00	UH	ppb
				Antimony, filtered	200.00	U	ppb
				Barium, filtered	21.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	22000.00		ppb
				Chromium, filtered	20.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-30	2-E25-11	4/21/92	B065J6	Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	89.00		ppb
				Magnesium, filtered	5400.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	5700.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	13000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	44.00		ppb
				Zinc, filtered	16.00		ppb
				Lead, filtered	5.00	UH	ppb
				Selenium, filtered	10.00	U	ppb
		6/26/92	B070Q6	Gross alpha	.75	U	pCi/L
				Ammonium ion	100.00	U	ppb
				Bromide	500.00	U	ppb
				Chloride	2400.00		ppb
				Fluoride	300.00		ppb
				Nitrate	5800.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	14000.00		ppb
				Arsenic	9.10		ppb
				Gross beta	7.04	U	pCi/L
				Coliforms, membrane filte	1.00	U	COL
				Conductivity, field	233.00		umhos
				2,4,5-T	2.00	U	ppb
				2,4,5-TP	2.00	U	ppb
				2,4-D	10.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	1.00	U	ppb
				Hydrazine	30.00	U	ppb
				Antimony	200.00	U	ppb
				Barium	23.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	21000.00		ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-30	2-E25-11	6/26/92	B07006	Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	350.00		ppb
				Magnesium	5500.00		ppb
				Manganese	18.00		ppb
				Nickel	30.00	U	ppb
				Potassium	6600.00		ppb
				Silver	20.00	U	ppb
				Sodium	14000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	48.00		ppb
				Zinc	10.00	U	ppb
				Lead	5.00	U	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb
				Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				pH, field	8.23		
				2,4,6-Trichlorophenol	5.00	U	ppb
				2,4-Dichlorophenol	5.00	U	ppb
				2,4-Dimethylphenol	5.00	U	ppb
				2,4-Dinitrophenol	150.00	U	ppb
				2,6-Dichlorophenol	5.00	U	ppb
				2-Chlorophenol	5.00	U	ppb
				2-Nitrophenol	5.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	5.00	U	ppb
				4,6-Dinitro-2-methylpheno	200.00	U	ppb
				4-Chloro-3-methylphenol	5.00	U	ppb
				4-Nitrophenol	30.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-30	2-E25-11	6/26/92	8070Q6	Pentachlorophenol	100.00	U	ppb
				Phenol	1.00	U	ppb
				Cresols (methylphenols)	10.00	U	ppb
				Tetrachlorophenols	10.00	U	ppb
				Trichlorophenols	5.00	U	ppb
				Total Radium	-.04	U	pCi/L
				Selenium	10.00	U	ppb
				Temperature, field	24.00		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00		ppb
				Tritium	73600.00		pCi/L
				Turbidity	2.60		NTU
			8070Q8	Arsenic, filtered	9.20		ppb
				Lead, filtered	5.00	U	ppb
				Selenium, filtered	10.00	U	ppb
A-37-1	2-E25-18	7/12/91	H00071W9	Gross alpha	.56	U	pCi/L
				Ammonium ion	100.00	U	ppb
				Bromide	500.00	U	ppb
				Chloride	3300.00		ppb
				Fluoride	500.00		ppb
				Phosphate	400.00	U	ppb
				Sulfate	28000.00		ppb
				Nitrate	47800.00		ppb
				Arsenic	7.00		ppb
					10.00		ppb
				Gross beta	4.61	U	pCi/L
				Conductivity, field	330.00		umhos
				Conductivity, lab	320.00		umhos
				2,4,5-T	2.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-18	7/12/91	H00071W9	2,4,5-TP	2.00	U	ppb
				2,4-D	10.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	1.00	U	ppb
				Hydrazine	30.00	U	ppb
				Antimony	200.00	UH	ppb
				Barium	20.00	UH	ppb
				Beryllium	3.00	UH	ppb
				Cadmium	10.00	UH	ppb
				Calcium	30000.00	H	ppb
				Chromium	20.00	UH	ppb
				Cobalt	20.00	UH	ppb
				Copper	20.00	UH	ppb
				Iron	270.00	H	ppb
				Magnesium	8200.00	H	ppb
				Manganese	10.00	UH	ppb
				Nickel	30.00	UH	ppb
				Potassium	6000.00	HQ	ppb
				Silver	20.00	UH	ppb
				Sodium	21000.00	H	ppb
				Tin	100.00	UH	ppb
				Vanadium	33.00	H	ppb
				Zinc	11.00	H	ppb
				Lead	5.00	U	ppb
					5.00	U	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb
				Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				pH, field	8.04		

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-18	7/12/91	H00071W9	pH, lab	7.95		
				Phenol	1.00	U	ppb
				Total Radium	.01	U	pCi/L
				Selenium	10.00	U	ppb
					10.00	U	ppb
				Temperature, field	18.20		Deg C
				Total Organic Carbon	1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb
				Total Organic Halogen	10.00	UH	ppb
					10.00	UH	ppb
				Tritium	464000.00		pCi/L
				Turbidity	1.10		NTU
			H00071W9F	Arsenic, filtered	10.00		ppb
				Antimony, filtered	200.00	UH	ppb
				Barium, filtered	20.00	UH	ppb
				Beryllium, filtered	3.00	UH	ppb
				Cadmium, filtered	10.00	UH	ppb
				Calcium, filtered	30000.00	H	ppb
				Chromium, filtered	20.00	UH	ppb
				Cobalt, filtered	20.00	UH	ppb
				Copper, filtered	20.00	UH	ppb
				Iron, filtered	36.00	H	ppb
				Magnesium, filtered	8100.00	H	ppb
				Manganese, filtered	10.00	UH	ppb
				Nickel, filtered	30.00	UH	ppb
				Potassium, filtered	5700.00	HQ	ppb
				Silver, filtered	20.00	UH	ppb
				Sodium, filtered	20000.00	H	ppb
				Tin, filtered	100.00	UH	ppb
				Vanadium, filtered	33.00	H	ppb
				Zinc, filtered	10.00	UH	ppb
				Lead, filtered	5.00	U	ppb
				Selenium, filtered	10.00	U	ppb
		7/31/91	H00072B8	Gross alpha	.20	U	pCi/L

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-18	7/31/91	H0007288	Ammonium ion	100.00	U	ppb
				Bromide	500.00	U	ppb
				Chloride	3700.00		ppb
				Fluoride	590.00		ppb
				Phosphate	400.00	U	ppb
				Sulfate	28000.00		ppb
				Nitrate	64000.00		ppb
				Arsenic	9.00		ppb
					9.00		ppb
				Gross beta	7.92	U	pCi/L
				Conductivity, field	374.00		umhos
				Conductivity, lab	360.00		umhos
				Cyanide	20.00	UH	ppb
				2,4,5-T	2.00	U	ppb
				2,4,5-TP	2.00	U	ppb
				2,4-D	10.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	1.00	U	ppb
				Hydrazine	30.00	U	ppb
				Antimony	200.00	UH	ppb
				Barium	20.00	UH	ppb
				Beryllium	3.00	UH	ppb
				Cadmium	10.00	UH	ppb
				Calcium	32000.00	H	ppb
				Chromium	20.00	UH	ppb
				Cobalt	20.00	UH	ppb
				Copper	20.00	UH	ppb
				Iron	75.00	H	ppb
				Magnesium	9000.00	H	ppb
				Manganese	10.00	UH	ppb
				Nickel	30.00	UH	ppb
				Potassium	5400.00	H	ppb
				Silver	20.00	UH	ppb
				Sodium	21000.00	H	ppb
				Tin	100.00	UH	ppb
				Vanadium	30.00	UH	ppb
				Zinc	10.00	H	ppb
				Iodine-129, low detection	2.37		pCi/L

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-18	7/31/91	H0007288	Lead	5.00	UH	ppb
					5.00	UH	ppb
				Mercury	.20	U	ppb
					.20	U	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb
				Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				pH, field	8.01		
				pH, lab	7.90		
				Phenol	20.00	U	ppb
				Total Radium	.17	U	pCi/L
				Selenium	10.00	U	ppb
					10.00	U	ppb
				Sulfide	10000.00	U	ppb
				Total Carbon	23000.00		ppb
				Technetium-99	1.68	U	pCi/L
				Thallium	5.00	U	ppb
					5.00	U	ppb
				Total Organic Carbon	1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-18	7/31/91	H0007288	Total Organic Halogen	10.00	UH	ppb
					10.00	UH	ppb
				Tritium	563000.00		pCi/L
				Turbidity	.30		NTU
			H0007288F	Uranium	2.13		ppb
				Arsenic, filtered	9.00		ppb
				Antimony, filtered	200.00	UH	ppb
				Barium, filtered	20.00	H	ppb
				Beryllium, filtered	3.00	UH	ppb
				Cadmium, filtered	10.00	UH	ppb
				Calcium, filtered	32000.00	H	ppb
				Chromium, filtered	23.00	H	ppb
				Cobalt, filtered	20.00	UH	ppb
				Copper, filtered	20.00	UH	ppb
				Iron, filtered	51.00	H	ppb
				Magnesium, filtered	8900.00	H	ppb
				Manganese, filtered	10.00	UH	ppb
				Nickel, filtered	30.00	UH	ppb
				Potassium, filtered	6100.00	H	ppb
				Silver, filtered	20.00	UH	ppb
				Sodium, filtered	21000.00	H	ppb
				Tin, filtered	100.00	UH	ppb
				Vanadium, filtered	34.00	H	ppb
				Zinc, filtered	10.00	H	ppb
				Lead, filtered	5.00	UH	ppb
				Mercury, filtered	.20	U	ppb
				Selenium, filtered	10.00	U	ppb
				Thallium, filtered	5.00	U	ppb
			H0007289	Conductivity, field	372.00		umhos
				Conductivity, lab	360.00		umhos
				pH, field	8.02		
				pH, lab	7.90		
				Total Organic Carbon	1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb

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Groundwater Data Report
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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units	
A-37-1	2-E25-18	7/31/91	H00072B9	Total Organic Halogen	10.00	UH	ppb	
					10.00	UH	ppb	
			H00072C0	Conductivity, field	372.00		umhos	
				Conductivity, lab	360.00		umhos	
				pH, field	8.02			
				pH, lab	7.90			
			Total Organic Carbon	1000.00	U	ppb		
				1000.00	U	ppb		
				1000.00	U	ppb		
				1000.00	U	ppb		
			Total Organic Halogen	10.00	UH	ppb		
				10.00	UH	ppb		
			H00072C1	Conductivity, field	372.00		umhos	
					Conductivity, lab	360.00		umhos
				pH, field	8.02			
				pH, lab	7.90			
		Total Organic Carbon		1000.00	U	ppb		
				1000.00	U	ppb		
				1000.00	U	ppb		
				1000.00	U	ppb		
		Total Organic Halogen		10.00	UH	ppb		
				10.00	UH	ppb		
		10/01/91		B00LD5	Gross alpha	1.02	U	pCi/L
					Ammonium ion	100.00	U	ppb
					Bromide	500.00	U	ppb
					Chloride	3400.00		ppb
			Fluoride		530.00		ppb	
			Phosphate		400.00	U	ppb	
Sulfate	30000.00				ppb			
Nitrate	55000.00				ppb			
Arsenic	11.00		H		ppb			
Gross beta	7.69		U		pCi/L			
Conductivity, field	335.00				umhos			

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-18	10/01/91	B00LD5	2,4,5-T	2.00	U	ppb
				2,4,5-TP	2.00	U	ppb
				2,4-D	10.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	1.00	U	ppb
				Hydrazine	30.00	U	ppb
				Antimony	200.00	U	ppb
				Barium	20.00	U	ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	31000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	120.00		ppb
				Magnesium	8600.00		ppb
				Manganese	10.00	U	ppb
				Nickel	30.00	U	ppb
				Potassium	4600.00		ppb
				Silver	20.00	U	ppb
				Sodium	22000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	30.00	U	ppb
				Zinc	10.00	U	ppb
				Lead	5.00	UH	ppb
				Mercury	.20	U	ppb
				4,4'-DDB	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb
				Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-18	10/01/91	B00LD5	gamma-BHC (Lindane)	.05	U	ppb
				pH, field	8.03		
				Phenol	20.00	U	ppb
				Total Radium	-.00	U	pCi/L
				Selenium	10.00	UH	ppb
				Temperature, field	19.90		Deg C
				Total Organic Carbon	1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb
				Total Organic Halogen	10.00	U	ppb
					10.00	U	ppb
				Tritium	474000.00		pCi/L
				Turbidity	.50		NTU
			B00LD5F	Arsenic, filtered	12.00	H	ppb
				Antimony, filtered	200.00	U	ppb
				Barium, filtered	20.00	U	ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	30000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	8300.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	3600.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	21000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	12.00	Q	ppb
				Lead, filtered	5.00	UH	ppb
				Mercury, filtered	.20	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-18	10/01/91	B00LD5F	Selenium, filtered	10.00	UH	ppb
			B00LZ9	Conductivity, lab	350.00		umhos
				Antimony-125	-3.83	U	pCi/L
				Cesium-137	2.44	U	pCi/L
				Cobalt-60	1.94	U	pCi/L
				Ruthenium-106	27.10	U	pCi/L
				Beryllium-7	-13.60	U	pCi/L
				Cerium/Praseodymium-144	2.81	U	pCi/L
				Cesium-134	-1.15	U	pCi/L
				Europium-154	.40	U	pCi/L
				Europium-155	-.29	U	pCi/L
				Potassium-40	154.00	R	pCi/L
				Zinc-65	3.73	U	pCi/L
				Zirconium/Niobium-95	-.32	U	pCi/L
				Iodine-129, low detection	2.78		pCi/L
				pH, lab	7.60		
				Total Dissolved Solids	240.00		ppm
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	5.00	U	ppb
				Chloroform	5.00	U	ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				1,1,1,2-Tetrachloroethane	5.00	U	ppb
				1,1,2,2-Tetrachloroethane	5.00	U	ppb
				1,1-Dichloroethene	5.00	U	ppb
				1,2,3-Trichloropropane	5.00	U	ppb
				1,2-Dibromo-3-chloropropa	5.00	U	ppb
				1,2-Dibromoethane	5.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-18	10/01/91	B00L29	1,2-Dichloropropane	5.00	U	ppb
				1,4-Dioxane	1000.00	U	ppb
				2-Hexanone	50.00	U	ppb
				Acetonitrile	200.00	U	ppb
				Acrolein	10.00	U	ppb
				Acrylonitrile	200.00	U	ppb
				Bromodichloromethane	5.00	U	ppb
				Bromoform	5.00	U	ppb
				Carbon disulfide	5.00	U	ppb
				Chlorobenzene	5.00	U	ppb
				Chloroethane	10.00	U	ppb
				Chloroprene	5.00	U	ppb
				Dibromochloromethane	5.00	U	ppb
				Dibromomethane	5.00	U	ppb
				Dichlorodifluoromethane	5.00	U	ppb
				Ethyl cyanide	5.00	U	ppb
				Ethyl methacrylate	50.00	U	ppb
				Ethylbenzene	5.00	U	ppb
				Isobutyl alcohol	1000.00	U	ppb
				Methacrylonitrile	5.00	U	ppb
				Methyl iodide	5.00	U	ppb
				Methyl bromide	10.00	U	ppb
				Methyl chloride	10.00	U	ppb
				Methyl methacrylate	5.00	U	ppb
				Styrene	5.00	U	ppb
				Trichloromonofluoromethan	5.00	U	ppb
				Vinyl acetate	10.00	U	ppb
				allylchloride	100.00	U	ppb
				cis-1,3-Dichloropropene	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
				trans-1,3-Dichloropropene	5.00	U	ppb
				trans-1,4-dichloro-2-bute	5.00	U	ppb
		1/09/92	B01Q06	Gross alpha	2.63	U	pCi/L
				Ammonium ion	100.00	U	ppb
				Bromide	500.00	U	ppb
				Chloride	3000.00		ppb
				Fluoride	500.00		ppb
				Nitrate	66400.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	32000.00		ppb
				Arsenic	9.90		ppb
				Gross beta	8.20		pCi/L

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Groundwater Data Report
Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-18	1/09/92	B01Q06	Coliforms, membrane filte	1.00	U	COL
				Conductivity, field	356.00		umhos
				2,4,5-T	2.00	U	ppb
				2,4,5-TP	2.00	U	ppb
				2,4-D	10.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	1.00	U	ppb
				Hydrazine	30.00	U	ppb
				Antimony	200.00	U	ppb
				Barium	20.00	U	ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	30000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	250.00	Q	ppb
				Magnesium	8500.00		ppb
				Manganese	10.00	U	ppb
				Nickel	30.00	U	ppb
				Potassium	5500.00	Q	ppb
				Silver	20.00	U	ppb
				Sodium	22000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	31.00		ppb
				Zinc	10.00	UQ	ppb
				Lead	5.00	UH	ppb
				4,4'-DDD		Q	ppb
				4,4'-DDE			ppb
				4,4'-DDT		Q	ppb
				Aldrin		Q	ppb
				Alpha-BHC			ppb
				Beta-BHC			ppb
				Chlordane			ppb
				Delta-BHC			ppb
				Dieldrin		Q	ppb
				Endosulfan I			ppb
				Endosulfan II			ppb
				Endosulfan sulfate			ppb
				Endrin		Q	ppb
				Endrin Aldehyde		Q	ppb
				Heptachlor		Q	ppb
				Heptachlor epoxide			ppb
				Methoxychlor			ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-18	1/09/92	B01Q06	Toxaphene			ppb
				gamma-BHC (Lindane)		Q	ppb
				pH, field	7.88		
				2,4,6-Trichlorophenol	5.00 U		ppb
				2,4-Dichlorophenol	5.00 U		ppb
				2,4-Dimethylphenol	5.00 U		ppb
				2,4-Dinitrophenol	150.00 U		ppb
				2,6-Dichlorophenol	5.00 U		ppb
				2-Chlorophenol	5.00 U		ppb
				2-Nitrophenol	5.00 U		ppb
				2-sec-Butyl-4,6-dinitroph	5.00 U		ppb
				4,6-Dinitro-2-methylpheno	200.00 U		ppb
				4-Chloro-3-methylphenol	5.00 U		ppb
				4-Nitrophenol	30.00 U		ppb
				Cresols	10.00 U		ppb
				Pentachlorophenol	100.00 U		ppb
				Phenol	1.00 U		ppb
				Tetrachlorophenols	10.00 U		ppb
				Trichlorophenols	5.00 U		ppb
				Total Radium	.08 U		pCi/L
				Selenium	10.00 U		ppb
				Temperature, field	17.90		Deg C
				Total Organic Carbon	1000.00 U		ppb
				Total Organic Halogen	10.00 U		ppb
				Tritium	438000.00		pCi/L
				Turbidity	1.30		NTU
			B01Q07	Arsenic, filtered	11.00		ppb
				Antimony, filtered	200.00 U		ppb
				Barium, filtered	20.00 U		ppb
				Beryllium, filtered	3.00 U		ppb
				Cadmium, filtered	10.00 U		ppb
				Calcium, filtered	30000.00		ppb
				Chromium, filtered	20.00 U		ppb
				Cobalt, filtered	20.00 U		ppb
				Copper, filtered	20.00 U		ppb
				Iron, filtered	20.00 U		ppb
				Magnesium, filtered	8500.00		ppb
				Manganese, filtered	10.00 U		ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-18	1/09/92	B01Q07	Nickel, filtered	30.00	U	ppb
				Potassium, filtered	5400.00	Q	ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	22000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	32.00		ppb
				Zinc, filtered	10.00	UQ	ppb
				Lead, filtered	5.00	UH	ppb
				Selenium, filtered	10.00	U	ppb
		4/17/92	B06511	Cyanide	20.00	U	ppb
			B065J7	Gross alpha	1.14	U	pCi/L
				Ammonium ion	100.00	U	ppb
				Bromide	500.00	U	ppb
				Chloride	3300.00		ppb
				Fluoride	600.00		ppb
				Nitrate	52000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	31000.00		ppb
				Arsenic	5.60		ppb
				Gross beta	5.26	U	pCi/L
				Coliforms, membrane filte	1.00	UQ	COL
				Conductivity, field	341.00		umhos
				2,4,5-T	2.00	U	ppb
				2,4,5-TP	2.00	U	ppb
				2,4-D	10.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	1.00	U	ppb
				Hydrazine	30.00	U	ppb
				Antimony	200.00	U	ppb
				Barium	20.00	U	ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	31000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-18	4/17/92	3065J7	Iron	180.00	Q	ppb
				Magnesium	8500.00		ppb
				Manganese	10.00	U	ppb
				Nickel	30.00	U	ppb
				Potassium	5300.00		ppb
				Silver	20.00	U	ppb
				Sodium	21000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	30.00	U	ppb
				Zinc	17.00		ppb
				Lead	5.00	U	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb
				Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				pH, field	8.02		
				2,4,6-Trichlorophenol	5.00	U	ppb
				2,4-Dichlorophenol	5.00	U	ppb
				2,4-Dimethylphenol	5.00	U	ppb
				2,4-Dinitrophenol	150.00	U	ppb
				2,6-Dichlorophenol	5.00	U	ppb
				2-Chlorophenol	5.00	U	ppb
				2-Nitrophenol	5.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	5.00	U	ppb
				4,6-Dinitro-2-methylpheno	200.00	U	ppb
				4-Chloro-3-methylphenol	5.00	U	ppb
				4-Nitrophenol	30.00	U	ppb
				Cresols	10.00	U	ppb
				Pentachlorophenol	100.00	U	ppb
				Phenol	1.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-18	4/17/92	8065J7	Tetrachlorophenols	10.00	U	ppb
				Trichlorophenols	5.00	U	ppb
				Total Radium	.01	U	pCi/L
				Selenium	10.00	U	ppb
				Temperature, field	18.70		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	20.00		ppb
				Tritium	424000.00		pCi/L
				Turbidity	1.30		NTU
			8065J8	Arsenic, filtered	10.00		ppb
				Antimony, filtered	200.00	U	ppb
				Barium, filtered	20.00	U	ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	30000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	8400.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	5400.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	21000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	33.00		ppb
				Zinc, filtered	16.00		ppb
				Lead, filtered	5.00	U	ppb
				Selenium, filtered	10.00	U	ppb
		6/26/92	8070R2	Gross alpha	1.34	U	pCi/L
				Ammonium ion	100.00	U	ppb
				Bromide	500.00	U	ppb
				Chloride	3000.00		ppb
				Fluoride	500.00		ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-18	6/26/92	B070R2	Nitrate	45000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	30000.00		ppb
				Arsenic	7.90		ppb
				Gross beta	6.98	U	pCi/L
				Coliforms, membrane filte	1.00	U	COL
				Conductivity, field	340.00		umhos
				2,4,5-T	2.00	U	ppb
				2,4,5-TP	2.00	U	ppb
				2,4-D	10.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	1.00	U	ppb
				Hydrazine	30.00	U	ppb
				Antimony	200.00	U	ppb
				Barium	20.00	U	ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	30000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	310.00		ppb
				Magnesium	8500.00		ppb
				Manganese	10.00	U	ppb
				Nickel	30.00	U	ppb
				Potassium	6000.00		ppb
				Silver	20.00	U	ppb
				Sodium	21000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	32.00		ppb
				Zinc	20.00		ppb
				Lead	5.00	U	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-18	6/26/92	B070R2	Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb
				Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				pH, field	8.11		
				2,4,6-Trichlorophenol	5.00	U	ppb
				2,4-Dichlorophenol	5.00	U	ppb
				2,4-Dimethylphenol	5.00	U	ppb
				2,4-Dinitrophenol	150.00	U	ppb
				2,6-Dichlorophenol	5.00	U	ppb
				2-Chlorophenol	5.00	U	ppb
				2-Nitrophenol	5.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	5.00	U	ppb
				4,6-Dinitro-2-methylpheno	200.00	U	ppb
				4-Chloro-3-methylphenol	5.00	U	ppb
				4-Nitrophenol	30.00	U	ppb
				Pentachlorophenol	100.00	U	ppb
				Phenol	1.00	U	ppb
				Cresols (methylphenols)	10.00	U	ppb
				Tetrachlorophenols	10.00	U	ppb
				Trichlorophenols	5.00	U	ppb
				Total Radium	.07	U	pCi/L
				Selenium	10.00	U	ppb
				Temperature, field	19.30		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00	U	ppb
				Tritium	378000.00		pCi/L
				Turbidity	2.30		NTU
			B070R3	Arsenic, filtered	8.10		ppb
				Lead, filtered	5.00	U	ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-18	6/26/92	B070R3	Selenium, filtered	10.00	U	ppb
	2-E25-20	7/16/91	H00071X1	Gross alpha	.61	U	pCi/L
				Ammonium ion	100.00	U	ppb
				Bromide	500.00	U	ppb
				Chloride	3600.00		ppb
				Fluoride	910.00		ppb
				Phosphate	400.00	U	ppb
				Sulfate	33000.00		ppb
				Nitrate	118000.00		ppb
				Arsenic	11.00	M	ppb
					10.00	H	ppb
				Gross beta	9.95		pCi/L
				Conductivity, field	486.00		umhos
				Conductivity, lab	480.00		umhos
				2,4,5-T	2.00	U	ppb
				2,4,5-TP	2.00	U	ppb
				2,4-D	10.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	1.00	U	ppb
				Hydrazine	30.00	U	ppb
				Antimony	200.00	U	ppb
				Barium	37.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	38000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	50.00		ppb
				Iron	2300.00		ppb
				Magnesium	9800.00		ppb
				Manganese	44.00		ppb
				Nickel	30.00	U	ppb
				Potassium	8600.00		ppb
				Silver	20.00	U	ppb
				Sodium	36000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	44.00		ppb
				Zinc	40.00		ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-20	7/16/91	H00071X1	Lead	7.00	H	ppb
					5.00	UH	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.20	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb
				Endrin Aldehyde	2.00	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				pH, field	8.02		
				pH, lab	8.00		
				Phenol	20.00	U	ppb
				Total Radium	.05	U	pCi/L
				Selenium	10.00	UH	ppb
					10.00	UH	ppb
				Temperature, field	20.30		Deg C
				Total Organic Carbon	1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb
				Total Organic Halogen	10.00	UH	ppb
					10.00	UH	ppb
				Tritium	718000.00		pCi/L
				Turbidity	.50		NTU
			H00071X1F	Arsenic, filtered	10.00	H	ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-20	7/16/91	H00071X1F	Antimony, filtered	200.00	U	ppb
				Barium, filtered	37.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	38000.00		ppb
				Chromium, filtered	130.00		ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	40.00		ppb
				Iron, filtered	20.00		ppb
				Magnesium, filtered	9800.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	8400.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	36000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	43.00		ppb
				Zinc, filtered	16.00		ppb
				Lead, filtered	5.00	UH	ppb
				Selenium, filtered	10.00	UH	ppb
		10/03/91	800LD7	Gross alpha	.60	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	3200.00		ppb
				Fluoride	260.00		ppb
				Phosphate	400.00	U	ppb
				Sulfate	12000.00		ppb
				Nitrate	1440.00		ppb
				Arsenic	9.00	H	ppb
				Gross beta	3.19	U	pCi/L
				Conductivity, field	202.00		umhos
				2,4,5-T	2.00	U	ppb
				2,4,5-TP	2.00	U	ppb
				2,4-D	10.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	1.00	U	ppb
				Antimony	200.00	U	ppb
				Barium	20.00	U	ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	23000.00		ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-20	10/03/91	B00LD7	Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	460.00		ppb
				Magnesium	6300.00		ppb
				Manganese	10.00	U	ppb
				Nickel	30.00	U	ppb
				Potassium	4300.00		ppb
				Silver	20.00	U	ppb
				Sodium	9700.00		ppb
				Tin	100.00	U	ppb
				Vanadium	33.00		ppb
				Zinc	29.00		ppb
				Lead	5.00	UH	ppb
				Mercury	.20	U	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb
				Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				pH, field	7.39		
				Phenol	20.00	U	ppb
				Total Radium	.14	U	pCi/L
				Selenium	10.00	UH	ppb
				Temperature, field	17.30		Deg C
				Tritium	1570.00		pCi/L

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-20	10/03/91	B00LD7F	Arsenic, filtered	11.00	H	ppb
				Antimony, filtered	200.00	U	ppb
				Barium, filtered	20.00	U	ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	22000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	6100.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	4200.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	9200.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	11.00		ppb
				Lead, filtered	5.00	UH	ppb
				Mercury, filtered	.20	U	ppb
				Selenium, filtered	10.00	UH	ppb
			B00M01	Conductivity, lab	200.00		umhos
				Antimony-125	-1.14	U	pCi/L
				Cesium-137	-.65	U	pCi/L
				Cobalt-60	-2.22	U	pCi/L
				Ruthenium-106	32.40	U	pCi/L
				Beryllium-7	-5.13	U	pCi/L
				Cerium/Praseodymium-144	5.59	U	pCi/L
				Europium-154	5.29	U	pCi/L
				Europium-155	1.89	U	pCi/L
				Potassium-40	214.00	R	pCi/L
				Zinc-65	-7.50	U	pCi/L
				Zirconium/Niobium-95	-5.00	U	pCi/L
				Iodine-129, low detection	3.00		pCi/L
				pH, lab	7.80		
				Total Dissolved Solids	130.00		ppm

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-20	10/03/91	800M01	1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	5.00	U	ppb
				Chloroform	5.00	U	ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				1,1,1,2-Tetrachloroethane	5.00	U	ppb
				1,1,2,2-Tetrachloroethane	5.00	U	ppb
				1,1-Dichloroethene	5.00	U	ppb
				1,2,3-Trichloropropane	5.00	U	ppb
				1,2-Dibromo-3-chloropropa	5.00	U	ppb
				1,2-Dibromoethane	5.00	U	ppb
				1,2-Dichloropropane	5.00	U	ppb
				1,4-Dioxane	1000.00	U	ppb
				2-Hexanone	50.00	U	ppb
				Acetonitrile	200.00	U	ppb
				Acrolein	10.00	U	ppb
				Acrylonitrile	200.00	U	ppb
				Bromodichloromethane	5.00	U	ppb
				Bromoform	5.00	U	ppb
				Carbon disulfide	5.00	U	ppb
				Chlorobenzene	5.00	U	ppb
				Chloroethane	10.00	U	ppb
				Chloroprene	5.00	U	ppb
				Dibromochloromethane	5.00	U	ppb
				Dibromomethane	5.00	U	ppb
				Dichlorodifluoromethane	5.00	U	ppb
				Ethyl cyanide	5.00	U	ppb
				Ethyl methacrylate	50.00	U	ppb
				Ethylbenzene	5.00	U	ppb
				Isobutyl alcohol	1000.00	U	ppb
				Methacrylonitrile	5.00	U	ppb
				Methyl Iodide	5.00	U	ppb
				Methyl bromide	10.00	U	ppb
				Methyl chloride	10.00	U	ppb
				Methyl methacrylate	5.00	U	ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-20	10/03/91	800M01	Styrene	5.00	U	ppb
				Trichloromonofluoromethan	5.00	U	ppb
				Vinyl acetate	10.00	U	ppb
				allylchloride	100.00	U	ppb
				cis-1,3-Dichloropropene	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
				trans-1,3-Dichloropropene	5.00	U	ppb
				trans-1,4-dichloro-2-bute	5.00	U	ppb
		1/08/92	801Q15	Gross alpha	.23	U	pCi/L
				Ammonium ion	100.00	U	ppb
				Bromide	500.00	U	ppb
				Chloride	3600.00		ppb
				Fluoride	700.00		ppb
				Nitrate	93000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	40000.00		ppb
				Arsenic	8.20		ppb
				Gross beta	8.99		pCi/L
				Coliforms, membrane filte	1.00	U	COL
				Conductivity, field	516.00		umhos
				2,4,5-T	2.00	U	ppb
				2,4,5-TP	2.00	U	ppb
				2,4-D	10.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	1.00	U	ppb
				Hydrazine	30.00	U	ppb
				Antimony	200.00	U	ppb
				Barium	37.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	39000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	350.00	q	ppb
				Magnesium	10000.00		ppb
				Manganese	10.00	U	ppb
				Nickel	30.00	U	ppb
				Potassium	8600.00	q	ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-20	1/08/92	B01015	Silver	20.00	U	ppb
				Sodium	37000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	45.00		ppb
				Zinc	10.00	UQ	ppb
				Lead	5.00	UH	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb
				Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				pH, field	7.88		
				2,4,6-Trichlorophenol	5.00	U	ppb
				2,4-Dichlorophenol	5.00	U	ppb
				2,4-Dimethylphenol	5.00	U	ppb
				2,4-Dinitrophenol	150.00	U	ppb
				2,6-Dichlorophenol	5.00	U	ppb
				2-Chlorophenol	5.00	U	ppb
				2-Nitrophenol	5.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	5.00	U	ppb
				4,6-Dinitro-2-methylpheno	200.00	U	ppb
				4-Chloro-3-methylphenol	5.00	U	ppb
				4-Nitrophenol	30.00	U	ppb
				Cresols	10.00	U	ppb
				Pentachlorophenol	100.00	U	ppb
				Phenol	1.00	U	ppb
				Tetrachlorophenols	10.00	U	ppb
				Trichlorophenols	5.00	U	ppb
				Total Radium	-.04	U	pCi/L

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-20	1/08/92	B01Q15	Selenium	10.00	U	ppb
				Temperature, field	19.50		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00	U	ppb
				Tritium	734000.00		pCi/L
				Turbidity	.60		NTU
			B01Q17	Arsenic, filtered	9.90		ppb
				Antimony, filtered	200.00	U	ppb
				Barium, filtered	36.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	38000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	Ua	ppb
				Magnesium, filtered	10000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	8500.00	a	ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	37000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	46.00		ppb
				Zinc, filtered	10.00	Ua	ppb
				Lead, filtered	5.00	UH	ppb
				Selenium, filtered	10.00	U	ppb
		4/17/92	B06513	Cyanide	20.00	U	ppb
				Gross alpha	1.58	U	pCi/L
			B065K1	Ammonium ion	100.00	U	ppb
				Bromide	500.00	U	ppb
				Chloride	3600.00		ppb
				Fluoride	1000.00		ppb
				Nitrate	95000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-20	4/17/92	B065K1	Sulfate	32000.00		ppb
				Arsenic	12.00		ppb
				Gross beta	5.51	U	pCi/L
				Coliforms, membrane filte	1.00	UQ	COL
				Conductivity, field	436.00		umhos
				2,4,5-T	2.00	U	ppb
				2,4,5-TP	2.00	U	ppb
				2,4-D	10.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	1.00	U	ppb
				Hydrazine	30.00	U	ppb
				Antimony	200.00	U	ppb
				Barium	30.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	35000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	160.00	Q	ppb
				Magnesium	9100.00		ppb
				Manganese	10.00	U	ppb
				Nickel	30.00	U	ppb
				Potassium	7700.00		ppb
				Silver	20.00	U	ppb
				Sodium	34000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	42.00		ppb
				Zinc	18.00		ppb
				Lead	5.00	U	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-20	4/17/92	B065K1	Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb
				Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				pH, field	8.13		
				2,4,6-Trichlorophenol	5.00	U	ppb
				2,4-Dichlorophenol	5.00	U	ppb
				2,4-Dimethylphenol	5.00	U	ppb
				2,4-Dinitrophenol	150.00	U	ppb
				2,6-Dichlorophenol	5.00	U	ppb
				2-Chlorophenol	5.00	U	ppb
				2-Nitrophenol	5.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	5.00	U	ppb
				4,6-Dinitro-2-methylpheno	200.00	U	ppb
				4-Chloro-3-methylphenol	5.00	U	ppb
				4-Nitrophenol	30.00	U	ppb
				Cresols	10.00	U	ppb
				Pentachlorophenol	100.00	U	ppb
				Phenol	1.00	U	ppb
				Tetrachlorophenols	10.00	U	ppb
				Trichlorophenols	5.00	U	ppb
				Total Radium	.13	U	pCi/L
				Selenium	10.00	U	ppb
				Temperature, field	20.00		Deg C
				Total Organic Carbon	1000.00		ppb
				Total Organic Halogen	10.00	U	ppb
				Tritium	590000.00		pCi/L
				Turbidity	2.00		NTU
			B065K2	Arsenic, filtered	10.00		ppb
				Antimony, filtered	200.00	U	ppb
				Barium, filtered	29.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	34000.00		ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-20	4/17/92	B065K2	Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	8900.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	7600.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	33000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	49.00		ppb
				Zinc, filtered	11.00		ppb
				Lead, filtered	5.00	U	ppb
				Selenium, filtered	10.00	U	ppb
	6/26/92	B070R6	Gross alpha	2.09	U	pCi/L	
			Ammonium ion	300.00		ppb	
			Bromide	500.00	U	ppb	
			Chloride	3400.00		ppb	
			Fluoride	800.00		ppb	
			Nitrate	88000.00		ppb	
			Nitrite	200.00	U	ppb	
			Phosphate	400.00	U	ppb	
			Sulfate	32000.00		ppb	
			Arsenic	8.30		ppb	
			Gross beta	10.90		pCi/L	
			Coliforms, membrane filte	1.00	U	COL	
			Conductivity, field	453.00		umhos	
			2,4,5-T	2.00	U	ppb	
			2,4,5-TP	2.00	U	ppb	
			2,4-D	10.00	U	ppb	
			2-sec-Butyl-4,6-dinitroph	1.00	U	ppb	
			Hydrazine	30.00	U	ppb	
			Antimony	200.00	U	ppb	
			Barium	33.00		ppb	
			Beryllium	3.00	U	ppb	
			Cadmium	10.00	U	ppb	

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-20	6/26/92	B070R6	Calcium	35000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	370.00		ppb
				Magnesium	9600.00		ppb
				Manganese	16.00		ppb
				Nickel	30.00	U	ppb
				Potassium	9100.00		ppb
				Silver	20.00	U	ppb
				Sodium	36000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	44.00		ppb
				Zinc	28.00		ppb
				Lead	5.00	U	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb
				Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				pH, field	7.99		
				2,4,6-Trichlorophenol	5.00	U	ppb
				2,4-Dichlorophenol	5.00	U	ppb
				2,4-Dimethylphenol	5.00	U	ppb
				2,4-Dinitrophenol	150.00	U	ppb
				2,6-Dichlorophenol	5.00	U	ppb
				2-Chlorophenol	5.00	U	ppb
				2-Nitrophenol	5.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	5.00	U	ppb
				4,6-Dinitro-2-methylpheno	200.00	U	ppb
				4-Chloro-3-methylphenol	5.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-1	2-E25-20	6/26/92	B070R6	4-Nitrophenol	30.00	U	ppb
				Pentachlorophenol	100.00	U	ppb
				Phenol	1.00	U	ppb
				Cresols (methylphenols)	10.00	U	ppb
				Tetrachlorophenols	10.00	U	ppb
				Trichlorophenols	5.00	U	ppb
				Total Radium	.10	U	pCi/L
				Selenium	10.00	U	ppb
				Temperature, field	20.40		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00	U	ppb
				Tritium	678000.00		pCi/L
				Turbidity	.80		NTU
			B070R7	Arsenic, filtered	8.20		ppb
				Lead, filtered	5.00	U	ppb
				Selenium, filtered	10.00	U	ppb
A-37-2	2-E25-22	12/12/91	B00N37	Plutonium-238	-.00	U	pCi/L
				Plutonium-239/40	.00	U	pCi/L
				Technetium-99	5.52	U	pCi/L
		3/10/92	B063B1	Gross alpha	1.26	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	3000.00		ppb
				Fluoride	300.00		ppb
				Nitrate	6800.00	q	ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	17000.00		ppb
				Gross beta	2.58	U	pCi/L
				Conductivity, field	213.00		umhos
				Conductivity, lab	220.00		umhos

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-37-2	2-E25-22	3/10/92	B063B1	pH, field	8.10		
				pH, lab	6.80		
				Temperature, field	20.00		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00	U	ppb
				Tritium	5180.00		pCi/L
			B063B2	Antimony, filtered	200.00	U	ppb
				Barium, filtered	20.00	U	ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	21000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	5900.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	5400.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	14000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	38.00		ppb
				Zinc, filtered	10.00	U	ppb
			B063H6	Cyanide	20.00	U	ppb
A-45	2-E17-12	3/25/91	H0007314	Gross alpha	2.47	U	pCi/L
				Gross beta	13.20		pCi/L
				Conductivity, field	362.00		umhos
				Iodine-129, low detection	7.76		pCi/L
				pH, field	7.70		
				Temperature, field	19.50		Deg C
				Tritium	1190000.00		pCi/L
		9/13/91	B00L24	Gross alpha	3.75	U	pCi/L

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-45	2-E17-12	9/13/91	B00LZ4	Bromide	500.00	U	ppb
				Chloride	5100.00		ppb
				Fluoride	540.00		ppb
				Phosphate	400.00	U	ppb
				Sulfate	33000.00		ppb
				Nitrate	35000.00		ppb
				Arsenic	7.00		ppb
				Gross beta	33.30		pCi/L
				Conductivity, field	331.00		umhos
				Conductivity, lab	320.00		umhos
				Antimony-125	.73	U	pCi/L
				Cesium-137	1.71	U	pCi/L
				Cobalt-60	-.59	U	pCi/L
				Ruthenium-106	17.00	U	pCi/L
				Beryllium-7	-9.32	U	pCi/L
				Cerium/Praseodymium-144	11.60	U	pCi/L
				Cesium-134	-3.33	U	pCi/L
				Europium-154	-3.70	U	pCi/L
				Europium-155	5.58	U	pCi/L
				Potassium-40	175.00	R	pCi/L
				Zinc-65	3.42	U	pCi/L
				Zirconium/Niobium-95	-.83	U	pCi/L
				2,4,5-T	2.00	U	ppb
				2,4,5-TP	2.00	U	ppb
				2,4-D	10.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	1.00	U	ppb
				Antimony	200.00	U	ppb
				Barium	34.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	29000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	25.00		ppb
				Iron	20.00	U	ppb
				Magnesium	9300.00		ppb
				Manganese	10.00	U	ppb
				Nickel	30.00	U	ppb
				Potassium	5000.00		ppb
				Silver	20.00	U	ppb
				Sodium	20000.00		ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-45	2-E17-12	9/13/91	800L24	Tin	100.00	U	ppb
				Vanadium	30.00	U	ppb
				Zinc	12.00		ppb
				Iodine-129, low detection	4.22		pCi/L
				Lead	5.00	U	ppb
				Mercury	.20	U	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb
				Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				pH, field	7.87		
				pH, lab	7.95		
				Selenium	10.00	U	ppb
				Total Dissolved Solids	240.00		ppm
				Technetium-99	128.00		pCi/L
				Temperature, field	18.90		Deg C
				Total Organic Halogen	10.00	UH	ppb
					10.00	UH	ppb
				Tritium	641000.00		pCi/L
				Turbidity	.10		NTU
				1,1,1-Trichloroethane	5.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-45	2-E17-12	9/13/91	800L24	1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	5.00	U	ppb
				Chloroform	5.00	U	ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				1,1,1,2-Tetrachloroethane	5.00	U	ppb
				1,1,2,2-Tetrachloroethane	5.00	U	ppb
				1,1-Dichloroethene	5.00	U	ppb
				1,2,3-Trichloropropane	5.00	U	ppb
				1,2-Dibromo-3-chloropropa	5.00	U	ppb
				1,2-Dibromoethane	5.00	U	ppb
				1,2-Dichloropropane	5.00	U	ppb
				1,4-Dioxane	1000.00	U	ppb
				2-Hexanone	50.00	U	ppb
				Acetonitrile	200.00	U	ppb
				Acrolein	10.00	U	ppb
				Acrylonitrile	200.00	U	ppb
				Bromodichloromethane	5.00	U	ppb
				Bromoform	5.00	U	ppb
				Carbon disulfide	5.00	U	ppb
				Chlorobenzene	5.00	U	ppb
				Chloroethane	10.00	U	ppb
				Chloroprene	5.00	U	ppb
				Dibromochloromethane	5.00	U	ppb
				Dibromomethane	5.00	U	ppb
				Dichlorodifluoromethane	5.00	U	ppb
				Ethyl cyanide	5.00	U	ppb
				Ethyl methacrylate	50.00	U	ppb
				Ethylbenzene	5.00	U	ppb
				Isobutyl alcohol	1000.00	U	ppb
				Methacrylonitrile	5.00	U	ppb
				Methyl Iodide	5.00	U	ppb
				Methyl bromide	10.00	U	ppb
				Methyl chloride	10.00	U	ppb
				Methyl methacrylate	5.00	U	ppb
				Styrene	5.00	U	ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-45	2-E17-12	9/13/91	B00L24	Trichloromonofluoromethan	5.00	U	ppb
				Vinyl acetate	10.00	U	ppb
				allylchloride	100.00	U	ppb
				cis-1,3-Dichloropropene	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
				trans-1,3-Dichloropropene	5.00	U	ppb
				trans-1,4-dichloro-2-bute	5.00	U	ppb
		3/10/92	B00L24F	Arsenic, filtered	7.00		ppb
				Lead, filtered	6.00		ppb
				Mercury, filtered	.20	U	ppb
				Selenium, filtered	10.00	U	ppb
			B06395	Gross alpha	2.22	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	5200.00		ppb
				Fluoride	500.00		ppb
				Nitrate	39000.00	Q	ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	38000.00		ppb
				Gross beta	26.30		pCi/L
				Conductivity, field	345.00		umhos
				Conductivity, lab	350.00		umhos
				pH, field	7.84		
				pH, lab	7.10		
				Temperature, field	18.00		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00	U	ppb
				Tritium	831000.00		pCi/L
			B06396	Antimony, filtered	200.00	U	ppb
				Barium, filtered	35.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	32000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-45	2-E17-12	3/10/92	B06396	Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	9700.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	5900.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	21000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
	2-E17-13	6/18/91	B063J2	Cyanide	20.00	U	ppb
			H00071B5	Gross alpha	3.11	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	4700.00		ppb
				Fluoride	700.00		ppb
				Phosphate	400.00	U	ppb
				Sulfate	31000.00		ppb
				Nitrate	39500.00		ppb
				Arsenic	6.00		ppb
				Gross beta	13.70		pCi/L
				Conductivity, field	332.00		umhos
				Conductivity, lab	320.00		umhos
				Antimony-125	6.97	U	pCi/L
				Cesium-137	-.65	U	pCi/L
				Cobalt-60	3.95	U	pCi/L
				Ruthenium-106	-14.40	U	pCi/L
				Beryllium-7	9.95	U	pCi/L
				Cerium/Praseodymium-144	20.80	U	pCi/L
				Cesium-134	1.10	U	pCi/L
				Europium-154	5.29	U	pCi/L
				Europium-155	3.30	U	pCi/L
				Potassium-40	162.00	R	pCi/L
				Zinc-65	-15.60	U	pCi/L
				Zirconium/Niobium-95	8.19	U	pCi/L
				2,4,5-T	2.00	U	ppb
				2,4,5-TP	2.00	U	ppb
				2,4-D	10.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	1.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-45	2-E17-13	6/18/91	H0007185	Antimony	200.00	UH	ppb
				Barium	38.00	H	ppb
				Beryllium	3.00	UH	ppb
				Cadmium	10.00	UH	ppb
				Calcium	30000.00	H	ppb
				Chromium	20.00	UH	ppb
				Cobalt	20.00	UH	ppb
				Copper	20.00	UH	ppb
				Iron	33.00	H	ppb
				Magnesium	8400.00	H	ppb
				Manganese	10.00	UH	ppb
				Nickel	30.00	UH	ppb
				Potassium	5400.00	H	ppb
				Silver	20.00	UH	ppb
				Sodium	19000.00	H	ppb
				Tin	100.00	UH	ppb
				Vanadium	30.00	UH	ppb
				Zinc	16.00	H	ppb
				Iodine-129, low detection	6.23		pCi/L
				Lead	7.00		ppb
				Mercury	.20	U	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb
				Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				pH, field	7.82		
				pH, lab	7.80		

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-45	2-E17-13	6/18/91	H0007185	Selenium	10.00	U	ppb
				Total Dissolved Solids	220.00		ppm
				Technetium-99	37.70		pCi/L
				Temperature, field	19.40		Deg C
				Total Organic Halogen	10.00	UH	ppb
					10.00	UH	ppb
				Tritium	648000.00		pCi/L
				Turbidity	.30		NTU
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	5.00	U	ppb
				Chloroform	5.00	U	ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				1,1,1,2-Tetrachloroethane	5.00	U	ppb
				1,1,2,2-Tetrachloroethane	5.00	U	ppb
				1,1-Dichloroethene	5.00	U	ppb
				1,2,3-Trichloropropane	5.00	U	ppb
				1,2-Dibromo-3-chloropropa	5.00	U	ppb
				1,2-Dibromoethane	5.00	U	ppb
				1,2-Dichloropropane	5.00	U	ppb
				1,4-Dioxane	1000.00	U	ppb
				2-Hexanone	50.00	U	ppb
				Acetonitrile	200.00	U	ppb
				Acrolein	5.00	U	ppb
				Acrylonitrile	5.00	U	ppb
				Bromodichloromethane	5.00	U	ppb
				Bromoform	5.00	U	ppb
				Carbon disulfide	5.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-45	2-E17-13	9/13/91	B00L25	Europium-154	-8.96	U	pCi/L
				Europium-155	-2.50	U	pCi/L
				Potassium-40	217.00	R	pCi/L
				Zinc-65	1.71	U	pCi/L
				Zirconium/Niobium-95	1.86	U	pCi/L
				2,4,5-T	2.00	U	ppb
				2,4,5-TP	2.00	U	ppb
				2,4-D	10.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	1.00	U	ppb
				Antimony	200.00	U	ppb
				Barium	35.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	28000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	23.00		ppb
				Iron	33.00		ppb
				Magnesium	8500.00		ppb
				Manganese	10.00	U	ppb
				Nickel	30.00	U	ppb
				Potassium	5100.00		ppb
				Silver	20.00	U	ppb
				Sodium	19000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	30.00	U	ppb
				Zinc	13.00		ppb
				Iodine-129, low detection	5.45		pCi/L
				Lead	5.00	U	ppb
				Mercury	.20	U	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-45	2-E17-13	9/13/91	800L25	Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				pH, field	7.80		
				pH, lab	8.00		
				Selenium	10.00	U	ppb
				Total Dissolved Solids	220.00		ppm
				Technetium-99	59.60		pCi/L
				Temperature, field	19.70		Deg C
				Total Organic Halogen	10.00	UH	ppb
					10.00	UH	ppb
				Tritium	574000.00		pCi/L
				Turbidity	.10		NTU
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	5.00	U	ppb
				Chloroform	5.00	U	ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				1,1,1,2-Tetrachloroethane	5.00	U	ppb
				1,1,2,2-Tetrachloroethane	5.00	U	ppb
				1,1-Dichloroethene	5.00	U	ppb
				1,2,3-Trichloropropane	5.00	U	ppb
				1,2-Dibromo-3-chloropropane	5.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-45	2-E17-13	9/13/91	800LZ5	1,2-Dibromoethane	5.00	U	ppb
				1,2-Dichloropropane	5.00	U	ppb
				1,4-Dioxane	1000.00	U	ppb
				2-Hexanone	50.00	U	ppb
				Acetonitrile	200.00	U	ppb
				Acrolein	10.00	U	ppb
				Acrylonitrile	200.00	U	ppb
				Bromodichloromethane	5.00	U	ppb
				Bromoform	5.00	U	ppb
				Carbon disulfide	5.00	U	ppb
				Chlorobenzene	5.00	U	ppb
				Chloroethane	10.00	U	ppb
				Chloroprene	5.00	U	ppb
				Dibromochloromethane	5.00	U	ppb
				Dibromomethane	5.00	U	ppb
				Dichlorodifluoromethane	5.00	U	ppb
				Ethyl cyanide	5.00	U	ppb
				Ethyl methacrylate	50.00	U	ppb
				Ethylbenzene	5.00	U	ppb
				Isobutyl alcohol	1000.00	U	ppb
				Methacrylonitrile	5.00	U	ppb
				Methyl iodide	5.00	U	ppb
				Methyl bromide	10.00	U	ppb
				Methyl chloride	10.00	U	ppb
				Methyl methacrylate	5.00	U	ppb
				Styrene	5.00	U	ppb
				Trichloromonofluoromethane	5.00	U	ppb
				Vinyl acetate	10.00	U	ppb
				allylchloride	100.00	U	ppb
				cis-1,3-Dichloropropene	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
				trans-1,3-Dichloropropene	5.00	U	ppb
				trans-1,4-dichloro-2-bute	5.00	U	ppb
			800LZ5F	Arsenic, filtered	7.00		ppb
				Lead, filtered	5.00	U	ppb
				Mercury, filtered	.20	U	ppb
				Selenium, filtered	10.00	U	ppb
		12/31/91	H00072R1	Plutonium-238	.00	U	pCi/L
					.00	U	pCi/L
				Plutonium-239/40	.00	U	pCi/L
					.00	U	pCi/L
A-8	2-E25-6	3/13/92	806385	Gross alpha	31.50		pCi/L

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-8	2-E25-6	3/13/92	806385	Bromide	500.00	U	ppb
				Chloride	4600.00		ppb
				Fluoride	300.00		ppb
				Nitrate	2300.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	19000.00		ppb
				Gross beta	11.90		pCi/L
				Conductivity, field	839.00		umhos
				Conductivity, lab	240.00		umhos
				Antimony	200.00	U	ppb
				Barium	56.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	24000.00		ppb
				Chromium	59.00		ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	25000.00		ppb
				Magnesium	6800.00		ppb
				Manganese	440.00		ppb
				Nickel	30.00	U	ppb
				Potassium	4700.00		ppb
				Silver	20.00	U	ppb
				Sodium	12000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	48.00		ppb
				Zinc	12.00		ppb
				pH, field	8.73		
				pH, lab	8.20		
				Temperature, field	17.70		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	20.00		ppb
				Tritium	3380.00		pCi/L
			806388	Cyanide	20.00	U	ppb
2-E25-9	12/18/90	H0007050	Tritium		2730.00		pCi/L
					236000.00	H	pCi/L

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
A-8	2-E25-9	6/02/92	806P88	Bromide	500.00	U	ppb
				Chloride	3200.00		ppb
				Fluoride	200.00		ppb
				Nitrate	1700.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	13000.00		ppb
B-5	2-E28-23	12/18/90	H00070H5	Antimony-125	-48.10	UH	pCi/L
				Cesium-137	1570.00	H	pCi/L
				Cobalt-60	2.09	UH	pCi/L
				Ruthenium-106	-34.70	UH	pCi/L
				Beryllium-7	7240.00	U	pCi/L
				Cerium/Praseodymium-144	-82.40	U	pCi/L
				Cesium-134	9.25	U	pCi/L
				Europium-155	2.45	U	pCi/L
				Potassium-40	11.50	UR	pCi/L
				Zinc-65	-7.58	U	pCi/L
				Zirconium/Niobium-95	135.00	U	pCi/L
				Iodine-129, low detection	2.49	H	pCi/L
				Plutonium-238	2.13	H	pCi/L
				Plutonium-239/40	449.00	H	pCi/L
				Strontium-90	2330.00	H	pCi/L
				Technetium-99	21.90	H	pCi/L
				Tritium	5970.00	H	pCi/L
				Uranium	17.30	H	ppb
		3/27/92	B01GB6	Gross alpha	40.40		pCi/L
				Bromide	500.00	U	ppb
				Chloride	14000.00		ppb
				Fluoride	500.00		ppb
				Nitrate	6600.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	30000.00		ppb
				Gross beta	20000.00		pCi/L
				Conductivity, field	309.00		umhos

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
B-5	2-E28-23	3/27/92	B01GB6	Conductivity, lab	310.00		umhos
				pH, field	8.11		
				pH, lab	8.30		
				Plutonium-238	.15		pCi/L
				Plutonium-239/40	33.00		pCi/L
				Strontium-90	5200.00		pCi/L
				Temperature, field	17.60		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00		ppb
				Tritium	3800.00		pCi/L
			B01GB7	Antimony, filtered	200.00	U	ppb
				Barium, filtered	20.00	U	ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	22000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	25.00		ppb
				Magnesium, filtered	7700.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	7300.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	20000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	13.00		ppb
B-55	2-E24-13	1/28/91	H0007121	Iodine-129, low detection	7.44	H	pCi/L
		6/01/92	B06P86	Gross alpha	.02	U	pCi/L
				Gross beta	-.37	U	pCi/L
				Tritium	181.00	U	pCi/L
B-62	2-E28-18	3/21/91	H0007312	Gross alpha	14.10		pCi/L

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
B-62	2-E28-18	3/21/91	H0007312	Gross beta	10.90		pCi/L
				Conductivity, field	521.00		umhos
				Antimony-125	.53	U	pCi/L
				Cesium-137	1.35	U	pCi/L
				Cobalt-60	-1.33	U	pCi/L
				Ruthenium-106	-28.80	U	pCi/L
				Beryllium-7	-12.10	U	pCi/L
				Cerium/Praseodymium-144	12.50	U	pCi/L
				Cesium-134	.32	U	pCi/L
				Europium-154	-.79	U	pCi/L
				Europium-155	-1.14	U	pCi/L
				Potassium-40	150.00	R	pCi/L
				Zinc-65	-1.92	U	pCi/L
				Zirconium/Niobium-95	1.63	U	pCi/L
				pH, field	7.43		
				Temperature, field	19.10		Deg C
				Tritium	35000.00		pCi/L
				Uranium	15.30		ppb
		9/13/91	B00M04	Gross alpha	12.90		pCi/L
				Bromide	500.00	U	ppb
				Chloride	7300.00		ppb
				Fluoride	420.00		ppb
				Phosphate	400.00	U	ppb
				Sulfate	57000.00		ppb
				Nitrate	35000.00		ppb
				Arsenic	5.00	U	ppb
				Gross beta	12.90		pCi/L
				Conductivity, field	417.00		umhos
				Conductivity, lab	410.00		umhos
				2,4,5-T	2.00	U	ppb
				2,4,5-TP	2.00	U	ppb
				2,4-D	10.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	1.00	U	ppb
				Antimony	200.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
B-62	2-E28-18	9/13/91	800M04	Barium	21.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	43000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	33.00		ppb
				Magnesium	12000.00		ppb
				Manganese	10.00	U	ppb
				Nickel	30.00	U	ppb
				Potassium	4900.00		ppb
				Silver	20.00	U	ppb
				Sodium	20000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	30.00	U	ppb
				Zinc	28.00		ppb
				Iodine-129, low detection	.52	U	pCi/L
				Lead	6.00		ppb
				Mercury	.20	U	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb
				Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				pH, field	7.59		
				pH, lab	7.80		
				Selenium	10.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
B-62	2-E28-18	9/13/91	B00M04	Total Dissolved Solids	290.00		ppm
				Temperature, field	20.50		Deg C
				Total Organic Halogen	10.00	UH	ppb
					10.00	UH	ppb
				Tritium	26500.00		pCi/L
				Turbidity	.40		NTU
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	5.00	U	ppb
				Chloroform	5.00	U	ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				1,1,1,2-Tetrachloroethane	5.00	U	ppb
				1,1,2,2-Tetrachloroethane	5.00	U	ppb
				1,1-Dichloroethene	5.00	U	ppb
				1,2,3-Trichloropropane	5.00	U	ppb
				1,2-Dibromo-3-chloropropane	5.00	U	ppb
				1,2-Dibromoethane	5.00	U	ppb
				1,2-Dichloropropane	5.00	U	ppb
				1,4-Dioxane	1000.00	U	ppb
				2-Hexanone	50.00	U	ppb
				Acetonitrile	200.00	U	ppb
				Acrolein	10.00	U	ppb
				Acrylonitrile	200.00	U	ppb
				Bromodichloromethane	5.00	U	ppb
				Bromoform	5.00	U	ppb
				Carbon disulfide	5.00	U	ppb
				Chlorobenzene	5.00	U	ppb
				Chloroethane	10.00	U	ppb
				Chloroprene	5.00	U	ppb
				Dibromochloromethane	5.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
B-62	2-E28-18	9/13/91	B00M04	Dibromomethane	5.00	U	ppb
				Dichlorodifluoromethane	5.00	U	ppb
				Ethyl cyanide	5.00	U	ppb
				Ethyl methacrylate	50.00	U	ppb
				Ethylbenzene	5.00	U	ppb
				Isobutyl alcohol	1000.00	U	ppb
				Methacrylonitrile	5.00	U	ppb
				Methyl iodide	5.00	U	ppb
				Methyl bromide	10.00	U	ppb
				Methyl chloride	10.00	U	ppb
				Methyl methacrylate	5.00	U	ppb
				Styrene	5.00	U	ppb
				Trichloromonofluoromethan	5.00	U	ppb
				Vinyl acetate	10.00	U	ppb
				allylchloride	100.00	U	ppb
				cis-1,3-Dichloropropene	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
				trans-1,3-Dichloropropene	5.00	U	ppb
				trans-1,4-dichloro-2-bute	5.00	U	ppb
			B00M04F	Arsenic, filtered	5.00	U	ppb
				Lead, filtered	5.00	U	ppb
				Mercury, filtered	.20	U	ppb
				Selenium, filtered	10.00	U	ppb
			B00M09	Gross alpha	10.30		pCi/L
				Nitrate	36000.00		ppb
				Gross beta	10.10		pCi/L
				Antimony	200.00	U	ppb
				Barium	20.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	43000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	39.00		ppb
				Iron	20.00	U	ppb
				Magnesium	12000.00		ppb
				Manganese	10.00	U	ppb
				Nickel	30.00	U	ppb
				Potassium	4600.00		ppb
				Silver	20.00	U	ppb
				Sodium	20000.00		ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
B-62	2-E28-18	9/13/91	800M09	Tin	100.00	U	ppb
				Vanadium	30.00	U	ppb
				Zinc	34.00		ppb
				Iodine-129, low dettion	.33	U	pCi/L
				Tritium	27000.00		pCi/L
		3/10/92	806387	Gross alpha	13.50		pCi/L
				Bromide	500.00	U	ppb
				Chloride	7800.00		ppb
				Fluoride	400.00		ppb
				Nitrate	31000.00	Q	ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	61000.00		ppb
				Gross beta	4.14	U	pCi/L
				Conductivity, field	424.00		umhos
				Conductivity, lab	430.00		umhos
				pH, field	7.01		
				pH, lab	7.23		
				Temperature, field	19.10		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00	U	ppb
				Tritium	23300.00		pCi/L
			806388	Antimony, filtered	200.00	U	ppb
				Barium, filtered	24.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	48000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	22.00		ppb
				Iron, filtered	20.00	UQ	ppb
				Magnesium, filtered	13000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	5800.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	20000.00		ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
B-62	2-E28-18	3/10/92	B06388	Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
			B063H9	Cyanide	20.00	U	ppb
	2-E28-21	9/20/91	B00K20	Plutonium-238	- .00	U	pCi/L
				Plutonium-239/40	- .00	U	pCi/L
				Uranium	30.30		ppb
	4/13/92	B06389		Gross alpha	15.80		pCi/L
				Bromide	500.00	U	ppb
				Chloride	8300.00		ppb
				Fluoride	600.00		ppb
				Nitrate	33000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	66000.00		ppb
				Gross beta	8.44		pCi/L
				Conductivity, field	461.00		umhos
				Conductivity, lab	460.00		umhos
				pH, field	7.99		
				pH, lab	7.60		
				Temperature, field	20.70		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00	U	ppb
				Tritium	34000.00		pCi/L
			B063C0	Antimony, filtered	200.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
B-62	2-E28-21	4/13/92	B063C0	Nickel, filtered	30.00	U	ppb
				Potassium, filtered	5200.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	21000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	17.00		ppb
			B063J5	Cyanide	20.00	U	ppb
GABLE POND	6-53-488	10/02/91	B00K57	Nitrate	113.00		
				Plutonium-238	-.00	U	pCi/L
				Plutonium-239/40	.01	U	pCi/L
				Strontium-90	171.00		pCi/L
				Technetium-99	1.55	U	pCi/L
				Tritium	245.00	U	pCi/L
	6-55-50C	1/03/92	B00NM8	Technetium-99	38.70		pCi/L
			B00NQ6	Gross alpha	.52	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	5700.00		ppb
				Fluoride	200.00		ppb
				Nitrate	6640.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	14000.00		ppb
				Arsenic	5.00	UH	ppb
				Gross beta	6.64	U	pCi/L
				Coliforms, membrane filte	1.00	U	COL
				Cyanide	20.00	U	ppb
				Antimony-125	-12.50	U	pCi/L
				Cesium-137	-1.29	U	pCi/L
				Cobalt-60	-1.16	U	pCi/L
				Ruthenium-106	2.88	U	pCi/L
				Hydrazine	30.00	U	ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
GABLE POND	6-55-50C	1/03/92	800N06	Antimony	200.00	U	ppb
				Barium	20.00	U	ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	33000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	1200.00	q	ppb
				Magnesium	9300.00		ppb
				Manganese	19.00		ppb
				Nickel	30.00	U	ppb
				Potassium	3700.00	q	ppb
				Silver	20.00	U	ppb
				Sodium	5300.00		ppb
				Tin	100.00	U	ppb
				Vanadium	30.00	U	ppb
				Zinc	10.00	Uq	ppb
				Lead	5.00	UH	ppb
				Mercury	.20	U	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb
				Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				Selenium	10.00	UH	ppb
				2-Methylphenol	10.00	U	ppb
				4-Methylphenol	10.00	U	ppb
				Decane	10.00	U	ppb
				Dodecane	10.00	U	ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
GABLE POND	6-55-50C	1/03/92	800NQ6	Naphthalene	10.00	U	ppb
				Pentachlorophenol	50.00	U	ppb
				Phenol	10.00	U	ppb
				Tetradecane	10.00	U	ppb
				Tributyl Phosphate	10.00	U	ppb
				m-Cresol	10.00	U	ppb
				Total Dissolved Solids	160.00		ppm
				Technetium-99	-.48	U	pCi/L
				Tritium	-8.26	U	pCi/L
				Uranium	1.28		ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	8.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	5.00	U	ppb
				Chloroform	5.00	U	ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				1,1-Dichloroethene	5.00	U	ppb
				Chlorobenzene	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
			800NQ7	Arsenic, filtered	5.00	UH	ppb
				Antimony, filtered	200.00	U	ppb
				Barium, filtered	20.00	U	ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	33000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
GABLE POND	6-55-50C	1/03/92	800NQ7	Iron, filtered	55.00	Q	ppb
				Magnesium, filtered	9400.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	4800.00	Q	ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	5400.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	UQ	ppb
				Lead, filtered	8.00	H	ppb
				Mercury, filtered	.20	U	ppb
				Selenium, filtered	10.00	UH	ppb
KE BASIN	1-K-27	2/26/91	H0007193	Antimony-125	103.00		pCi/L
				Cesium-137	-.09	U	pCi/L
				Cobalt-60	0.00	U	pCi/L
				Ruthenium-106	-10.40	U	pCi/L
				Beryllium-7	-5.82	U	pCi/L
				Cerium/Praseodymium-144	.25	U	pCi/L
				Cesium-134	-8.17	U	pCi/L
				Europium-154	-7.77	U	pCi/L
				Europium-155	-6.02	U	pCi/L
				Potassium-40	139.00	R	pCi/L
				Zinc-65	.42	U	pCi/L
				Zirconium/Niobium-95	-3.80	U	pCi/L
				Tritium	60500.00		pCi/L
	4/17/91	800JC4		Gross alpha	2.31	U	pCi/L
				Gross beta	8.27		pCi/L
				Conductivity, field	320.00		umhos
				Antimony-125	75.90		pCi/L
				Cesium-137	.26	U	pCi/L
				Cobalt-60	-.22	U	pCi/L
				Ruthenium-106	-17.70	U	pCi/L
				Beryllium-7	28.40	U	pCi/L
				Cerium/Praseodymium-144	9.18	U	pCi/L
				Cesium-134	-4.93	U	pCi/L
				Europium-154	-2.96	U	pCi/L

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
KE BASIN	1-K-27	4/17/91	B00JC4	Europium-155	2.29	U	pCi/L
				Potassium-40	35.10	UR	pCi/L
				Zinc-65	4.38	U	pCi/L
				Zirconium/Niobium-95	-2.45	U	pCi/L
				pH, field	7.33		
				Temperature, field	15.10		Deg C
				Tritium	40400.00		pCi/L
		1/24/92	B01QK2	Gross alpha	3.31	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	4900.00		ppb
				Fluoride	200.00		ppb
				Nitrate	5600.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	22000.00		ppb
				Gross beta	20.20		pCi/L
				Conductivity, field	347.00		umhos
				Conductivity, lab	330.00		umhos
				pH, field	8.11		
				pH, lab	7.70		
				Temperature, field	15.60		Deg C
				Total Organic Halogen	10.00		ppb
				Tritium	51000.00		pCi/L
			B01QK3	Gross alpha	2.91	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	4800.00		ppb
				Fluoride	200.00		ppb
				Nitrate	5800.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	23000.00		ppb
				Gross beta	13.80		pCi/L
				Conductivity, field	347.00		umhos
				Conductivity, lab	330.00		umhos

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
KE BASIN	1-K-27	1/24/92	801QK3	pH, field	8.11		
				pH, lab	7.60		
				Temperature, field	15.60		Deg C
				Total Organic Halogen	10.00	U	ppb
				Tritium	47400.00		pCi/L
			801QK4	Antimony, filtered	200.00	U	ppb
				Barium, filtered	22.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	45000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	38.00	Q	ppb
				Magnesium, filtered	9200.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	4900.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	6400.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
			801QK5	Antimony, filtered	200.00	U	ppb
				Barium, filtered	22.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	44000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	UQ	ppb
				Magnesium, filtered	9100.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	4200.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	6300.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
		3/23/92	806527	Gross alpha	2.25	U	pCi/L

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
KE BASIN	1-K-27	3/23/92	806527	Bromide	500.00	U	ppb
				Chloride	4700.00		ppb
				Fluoride	200.00		ppb
				Nitrate	4600.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	19000.00		ppb
				Gross beta	14.00		pCi/L
				Conductivity, field	317.00		umhos
				Conductivity, lab	320.00		umhos
				pH, field	7.65		
				pH, lab	8.00		
				Temperature, field	15.30		Deg C
				Total Organic Halogen	10.00		ppb
				Tritium	34900.00		pCi/L
		7/01/92	806528	Antimony, filtered	200.00	U	ppb
				Barium, filtered	20.00	U	ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	36000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	26.00		ppb
				Magnesium, filtered	7600.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	4700.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	5300.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
			806535	Cyanide	20.00	U	ppb
			8071W6	Antimony, filtered	200.00	U	ppb
				Barium, filtered	20.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	40000.00		ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
KE BASIN	1-K-27	7/01/92	8071W6	Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	26.00		ppb
				Magnesium, filtered	8200.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	4600.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	6000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
	1-K-28	2/26/91	H0007195	Antimony-125	6.39	U	pCi/L
				Cesium-137	-.60	U	pCi/L
				Cobalt-60	-.44	U	pCi/L
				Ruthenium-106	4.02	U	pCi/L
		4/17/91	B00JC5	Beryllium-7	-12.50	U	pCi/L
				Cerium/Praseodymium-144	-5.66	U	pCi/L
				Cesium-134	-2.01	U	pCi/L
				Europium-154	-11.20	U	pCi/L
				Europium-155	2.40	U	pCi/L
				Potassium-40	61.50	R	pCi/L
				Zinc-65	1.90	U	pCi/L
				Zirconium/Niobium-95	.52	U	pCi/L
				Tritium	2280.00		pCi/L
				Gross alpha	2.32	U	pCi/L
				Gross beta	10.10		pCi/L
				Conductivity, field	481.00		umhos
				Antimony-125	20.30		pCi/L
				Cesium-137	-.51	U	pCi/L
				Cobalt-60	-4.16	U	pCi/L
				Ruthenium-106	20.60	U	pCi/L
				Beryllium-7	-13.90	U	pCi/L
				Cerium/Praseodymium-144	-15.90	U	pCi/L
				Cesium-134	-8.24	U	pCi/L
				Europium-154	-3.29	U	pCi/L
				Europium-155	2.97	U	pCi/L
				Potassium-40	65.50	UR	pCi/L
				Zinc-65	9.72		pCi/L
				Zirconium/Niobium-95	.40	U	pCi/L

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
KE BASIN	1-K-28	4/17/91	800JC5	pH, field	7.26		
				Temperature, field	15.10		Deg C
				Tritium	1850.00		pCi/L
		1/24/92	801QL0	Gross alpha	3.00 U		pCi/L
				Bromide	500.00 U		ppb
				Chloride	28000.00		ppb
				Fluoride	200.00		ppb
				Nitrate	22000.00		ppb
				Nitrite	200.00 U		ppb
				Phosphate	400.00 U		ppb
				Sulfate	27000.00		ppb
				Gross beta	7.87 U		pCi/L
				Conductivity, field	502.00		umhos
				Conductivity, lab	520.00		umhos
				pH, field	7.08		
				pH, lab	7.50		
				Temperature, field	15.70		Deg C
				Total Organic Halogen	10.00		ppb
				Tritium	1880.00		pCi/L
			801QL2	Antimony, filtered	200.00 U		ppb
				Barium, filtered	37.00		ppb
				Beryllium, filtered	3.00 U		ppb
				Cadmium, filtered	10.00 U		ppb
				Calcium, filtered	66000.00		ppb
				Chromium, filtered	20.00 U		ppb
				Cobalt, filtered	20.00 U		ppb
				Copper, filtered	20.00 U		ppb
				Iron, filtered	29.00		ppb
				Magnesium, filtered	14000.00		ppb
				Manganese, filtered	10.00 U		ppb
				Nickel, filtered	30.00 U		ppb
				Potassium, filtered	5200.00		ppb
				Silver, filtered	20.00 U		ppb
				Sodium, filtered	12000.00		ppb
				Tin, filtered	100.00 U		ppb
				Vanadium, filtered	30.00 U		ppb
				Zinc, filtered	10.00 U		ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
KE BASIN	1-K-28	3/23/92	806529	Gross alpha	5.19		pCi/L
				Bromide	500.00	U	ppb
				Chloride	33000.00		ppb
				Fluoride	200.00		ppb
				Nitrate	19000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	25000.00		ppb
				Gross beta	6.69	U	pCi/L
				Conductivity, field	504.00		umhos
				Conductivity, lab	510.00		umhos
				Antimony	200.00	U	ppb
				Barium	36.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	60000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	24.00		ppb
				Magnesium	13000.00		ppb
				Manganese	10.00	U	ppb
				Nickel	30.00	U	ppb
				Potassium	6200.00		ppb
				Silver	20.00	U	ppb
				Sodium	11000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	30.00	U	ppb
				Zinc	10.00	U	ppb
				pH, field	7.29		
				pH, lab	7.40		
				Temperature, field	15.50		Deg. C
				Total Organic Halogen	20.00		ppb
				Tritium	1120.00		pCi/L
			806536	Cyanide	20.00	U	ppb
		7/01/92	8071X0	Antimony, filtered	200.00	U	ppb
				Barium, filtered	40.00		ppb
				Beryllium, filtered	3.00	U	ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
KE BASIN	1-K-28	7/01/92	B071X0	Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	69000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	21.00		ppb
				Magnesium, filtered	14000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	5800.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	12000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
	1-K-29	2/26/91	H0007197	Antimony-125	-1.11	U	pCi/L
				Cobalt-60	-.31	U	pCi/L
				Ruthenium-106	.78	U	pCi/L
				Beryllium-7	30.00	U	pCi/L
				Cerium/Praseodymium-144	2.06	U	pCi/L
				Cesium-134	-.45	U	pCi/L
				Europium-154	-11.60	U	pCi/L
				Europium-155	-1.70	U	pCi/L
				Potassium-40	93.50	R	pCi/L
				Zinc-65	-4.02	U	pCi/L
				Zirconium/Niobium-95	.43	U	pCi/L
				Tritium	6050.00		pCi/L
		4/18/91	B00JC6	Gross alpha	1.11	U	pCi/L
				Gross beta	4.65	U	pCi/L
				Conductivity, field	346.00		umhos
				Antimony-125	1.48	U	pCi/L
				Cesium-137	-1.64	U	pCi/L
				Cobalt-60	-.22	U	pCi/L
				Ruthenium-106	2.26	U	pCi/L
				Beryllium-7	16.10	U	pCi/L
				Cerium/Praseodymium-144	-21.80	U	pCi/L
				Cesium-134	-2.43	U	pCi/L
				Europium-154	4.73	U	pCi/L
				Europium-155	5.34	U	pCi/L
				Potassium-40	81.20	R	pCi/L

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
KE BASIN	1-K-29	4/18/91	B00JC6	Zinc-65	-5.17	U	pCi/L
				Zirconium/Niobium-95	-6.32	U	pCi/L
				pH, field	7.50		
				Temperature, field	15.50		Deg C
				Tritium	5680.00		pCi/L
		1/24/92	B01QL5	Gross alpha	2.75	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	25000.00		ppb
				Fluoride	300.00		ppb
				Nitrate	11000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	24000.00		ppb
				Gross beta	3.19	U	pCi/L
				Conductivity, field	354.00		umhos
				Conductivity, lab	350.00		umhos
				pH, field	8.47		
				pH, lab	7.30		
				Temperature, field	16.60		Deg C
				Total Organic Halogen	10.00		ppb
				Tritium	11700.00		pCi/L
			B01QL6	Antimony, filtered	200.00	U	ppb
				Barium, filtered	20.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	41000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	41.00		ppb
				Magnesium, filtered	9700.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	3800.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	7200.00		ppb
				Tin, filtered	100.00	U	ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
KE BASIN	1-K-29	1/24/92	801QL6	Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
		3/23/92	806531	Gross alpha	2.62	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	23000.00		ppb
				Fluoride	200.00		ppb
				Nitrate	12000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	22000.00		ppb
				Gross beta	4.11	U	pCi/L
				Conductivity, field	329.00		umhos
				Conductivity, lab	340.00		umhos
				pH, field	7.39		
				pH, lab	7.30		
				Temperature, field	16.00		Deg C
				Total Organic Halogen	20.00		ppb
				Tritium	14800.00		pCi/L
			806532	Antimony, filtered	200.00	U	ppb
				Barium, filtered	26.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	45000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	1100.00		ppb
				Magnesium, filtered	9600.00		ppb
				Manganese, filtered	54.00		ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	4600.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	7200.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00		ppb
			806539	Cyanide	20.00	U	ppb
		7/01/92	8071X4	Antimony, filtered	200.00	U	ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
KE BASIN	1-K-29	7/01/92	8071X4	Barium, filtered	20.00	U	ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	40000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	43.00		ppb
				Magnesium, filtered	9400.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	4300.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	7200.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
	1-K-30	2/29/91	H0007199	Antimony-125	2.42	U	pCi/L
				Cesium-137	.65	U	pCi/L
				Cobalt-60	-2.27	U	pCi/L
				Ruthenium-106	3.53	U	pCi/L
				Beryllium-7	15.50	U	pCi/L
				Cerium/Praseodymium-144	2.00	U	pCi/L
				Cesium-134	-3.06	U	pCi/L
				Europium-154	1.75	U	pCi/L
				Europium-155	-4.51	U	pCi/L
				Potassium-40	148.00	R	pCi/L
				Zinc-65	-1.83	U	pCi/L
				Zirconium/Niobium-95	3.58	U	pCi/L
				Tritium	704000.00		pCi/L
	4/17/91	800JC7		Gross alpha	1.08	U	pCi/L
				Gross beta	4.91	U	pCi/L
				Conductivity, field	352.00		umhos
				Antimony-125	5.55	U	pCi/L
				Cesium-137	-4.09	U	pCi/L
				Cobalt-60	-5.39	U	pCi/L
				Ruthenium-106	-23.00	U	pCi/L
				Beryllium-7	33.40	U	pCi/L
				Cerium/Praseodymium-144	1.85	U	pCi/L
				Cesium-134	-3.41	U	pCi/L
				Europium-154	-4.61	U	pCi/L

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
KE BASIN	1-K-30	4/17/91	B00JC7	Europium-155	-3.03	U	pCi/L
				Potassium-40	218.00	R	pCi/L
				Zinc-65	-5.30	U	pCi/L
				Zirconium/Niobium-95	-6.26	U	pCi/L
				pH, field	7.83		
				Temperature, field	15.10		Deg C
				Tritium	798000.00		pCi/L
		1/24/92	B01QM4	Gross alpha	2.40	U	pCi/L
				Bromide	100.00	U	ppb
				Chloride	4400.00		ppb
				Fluoride	300.00		ppb
				Nitrate	95000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	37000.00		ppb
				Gross beta	4.96	U	pCi/L
				Conductivity, field	477.00		umhos
				Conductivity, lab	490.00		umhos
				pH, field	8.00		
				pH, lab	7.70		
				Temperature, field	15.40		Deg C
				Total Organic Halogen	10.00		ppb
				Tritium	1470000.00		pCi/L
			B01QM5	Antimony, filtered	200.00	U	ppb
				Barium, filtered	27.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	58000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	12000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	5300.00		ppb
				Silver, filtered	20.00	U	ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
KE BASIN	1-K-30	1/24/92	B01QM5	Sodium, filtered	10000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
		3/23/92	B06533	Gross alpha	2.45	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	4600.00		ppb
				Fluoride	200.00		ppb
				Nitrate	110000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	35000.00		ppb
				Gross beta	5.15	U	pCi/L
				Conductivity, field	499.00		umhos
				Conductivity, lab	480.00		umhos
				pH, field	7.54		
				pH, lab	7.80		
				Temperature, field	15.10		Deg C
				Total Organic Halogen	20.00		ppb
				Tritium	1530000.00		pCi/L
			B06534	Antimony, filtered	200.00	U	ppb
				Barium, filtered	28.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	54000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	31.00		ppb
				Magnesium, filtered	12000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	5400.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	9900.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
			B06537	Cyanide	20.00	U	ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
KE BASIN	1-K-30	7/01/92	B071X6	Antimony, filtered	200.00	U	ppb
				Barium, filtered	25.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	53000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	11000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	4700.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	9900.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
S-26	2-W27-1	1/14/92	B00MF8	Plutonium-238	.00	U	pCi/L
				Plutonium-239/40	.00	U	pCi/L
	2-W27-1	2/03/92	B01RF8	Gross alpha	6.39		pCi/L
				Bromide	500.00	U	ppb
				Chloride	5300.00		ppb
				Fluoride	300.00		ppb
				Nitrate	18000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	30000.00		ppb
				Gross beta	8.72		pCi/L
				Conductivity, field	327.00		umhos
				Conductivity, lab	370.00		umhos
				pH, field	8.57		
				pH, lab	8.20		
				Temperature, field	19.50		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00	U	ppb
				Tritium	2120.00		pCi/L

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
S-26	2-W27-1	2/03/92	B01RF8	Uranium	7.14		ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	5.00	U	ppb
				Chloroform	12.00		ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				1,1-Dichloroethene	5.00	U	ppb
				Chlorobenzene	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
			B01RF9	Antimony, filtered	200.00	U	ppb
				Barium, filtered	20.00	U	ppb
				Beryllium, filtered	3.00		ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	32000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	130.00		ppb
				Magnesium, filtered	8100.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	4500.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	26000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	37.00		ppb
		3/23/92	B06540	Gross alpha	4.24		pCi/L
				Bromide	500.00	U	ppb

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
S-26	2-W27-1	3/23/92	806540	Chloride	5200.00		ppb
				Fluoride	300.00		ppb
				Nitrate	17000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	28000.00		ppb
				Gross beta	2.14	U	pCi/L
				Conductivity, field	310.00		umhos
				Conductivity, lab	360.00		umhos
				Antimony-125	8.70	U	pCi/L
				Cesium-137	5.58	U	pCi/L
				Cobalt-60	-1.39	U	pCi/L
				Ruthenium-106	-50.40	U	pCi/L
				pH, field	8.20		
				pH, lab	8.20		
				Selenium	10.00	U	ppb
				Strontium-90	-.22	U	pCi/L
				Temperature, field	19.00		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00		ppb
				Tritium	1710.00		pCi/L
				Uranium	6.59		ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	5.00	U	ppb
				Chloroform	13.00		ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
S-26	2-W27-1	3/23/92	806540	Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
		7/01/92	806541	Antimony, filtered	200.00	U	ppb
				Barium, filtered	20.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	30000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	24.00		ppb
				Magnesium, filtered	7500.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	5300.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	26000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
				Selenium, filtered	10.00	U	ppb
			8071W8	Antimony, filtered	200.00	U	ppb
				Barium, filtered	22.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	33000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	8000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	4700.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	27000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
			8071X2	Antimony, filtered	200.00	U	ppb
				Barium, filtered	20.00	U	ppb

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
S-26	2-W27-1	7/01/92	B071X2	Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	100.00	U	ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	100.00	U	ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	300.00	U	ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	300.00	U	ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
U-12	2-W19-28	10/10/91	B00MD8	Cyanide	20.00	U	ppb
				Nitrate	368.00		
				Tritium	302.00	U	pCi/L
				Uranium	40.10		ppb
	2-W19-28	2/03/92	B00N65	Antimony, filtered	200.00	U	ppb
				Barium, filtered	91.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	130000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	39000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	6200.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	28000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
	2-W19-28		B01CQ0	Gross alpha	25.00		pCi/L
				Bromide	500.00	U	ppb
				Chloride	27000.00		ppb

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-12	2-W19-28	2/03/92	B01CQ0	Fluoride	600.00		ppb
				Nitrate	450000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	75000.00		ppb
				Gross beta	729.00		pCi/L
				Conductivity, field	1120.00		umhos
				Conductivity, lab	1200.00		umhos
				pH, field	8.04		
				pH, lab	7.60		
				Technetium-99	6180.00		pCi/L
				Temperature, field	18.60		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	70.00		ppb
				Tritium	174.00	U	pCi/L
				Uranium	47.60		ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	80.00		ppb
				Chloroform	5.20		ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	2.50	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				1,1-Dichloroethene	5.00	U	ppb
				Chlorobenzene	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-12	2-W19-28	2/26/92	801VF0	Conductivity, field	1966.00		umhos
				Cyanide	20.00	U	ppb
				pH, field	7.21		
				Temperature, field	18.20		Deg C
			801VZ8	Gross alpha	28.70		pCi/L
				Bromide	500.00	U	ppb
				Chloride	33000.00		ppb
				Fluoride	1400.00		ppb
				Nitrate	620000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	81000.00		ppb
				Gross beta	2150.00		pCi/L
				nductivity, field	1966.00		umhos
				Conductivity, lab	1600.00		umhos
				pH, field	7.21		
				pH, lab	7.40		
				Technetium-99	8450.00		pCi/L
				Temperature, field	18.20		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	50.00		ppb
				Tritium	289.00	UQ	pCi/L
				Uranium	50.10	Q	ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	82.00		ppb

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-12	2-W19-28	2/26/92	801VZ8	Chloroform	5.30		ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	3.20	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
	2-W19-29	6/14/91	H00071C6	Antimony, filtered	200.00	U	ppb
				Barium, filtered	130.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	180000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	30.00		ppb
				Magnesium, filtered	53000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	6700.00	q	ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	33000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
				Gross alpha	928.00		pCi/L
				Bromide	5000.00	U	ppb
				Chloride	19000.00		ppb
				Fluoride	2100.00		ppb
				Phosphate	4000.00	U	ppb
				Sulfate	62000.00		ppb
				Nitrate	496000.00		ppb
				Arsenic	5.00	U	ppb
				Gross beta	1480.00		pCi/L
				Conductivity, field	1402.00		umhos
				Conductivity, lab	1200.00		umhos
				Cyanide	20.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-12	2-W19-29	6/14/91	H00071C6	Antimony-125	1.68	U	pCi/L
				Cesium-137	1.62	U	pCi/L
				Cobalt-60	.91	U	pCi/L
				Ruthenium-106	45.00		pCi/L
				Beryllium-7	0.00	U	pCi/L
				Cerium/Praseodymium-144	-7.51	U	pCi/L
				Cesium-134	-3.26	U	pCi/L
				Europium-154	-2.62	U	pCi/L
				Europium-155	-.54	U	pCi/L
				Potassium-40	140.00	R	pCi/L
				Zinc-65	-8.03	U	pCi/L
				Zirconium/Niobium-95	15.10	U	pCi/L
				2,4,5-T	2.00	U	ppb
				2,4,5-TP	2.00	U	ppb
				2,4-D	10.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	1.00	U	ppb
				Antimony	200.00	UH	ppb
				Barium	110.00	H	ppb
				Beryllium	3.00	UH	ppb
				Cadmium	10.00	UH	ppb
				Calcium	140000.00	H	ppb
				Chromium	20.00	UH	ppb
				Cobalt	20.00	UH	ppb
				Copper	20.00	UH	ppb
				Iron	24.00	H	ppb
				Magnesium	41000.00	H	ppb
				Manganese	10.00	UH	ppb
				Nickel	30.00	UH	ppb
				Potassium	6900.00	H	ppb
				Silver	20.00	UH	ppb
				Sodium	35000.00	H	ppb
				Tin	100.00	UH	ppb
				Vanadium	30.00	UH	ppb
				Zinc	10.00	UH	ppb
				Iodine-129, low detection	.93	U	pCi/L
				Lead	5.00	U	ppb
				Mercury	.20	U	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-12	2-W19-29	6/14/91	H00071C6	Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb
				Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				pH, field	7.36		
				pH, lab	7.70		
				Plutonium-238	-.00	U	pCi/L
				Plutonium-239/40	-.00	U	pCi/L
				Selenium	10.00	U	ppb
				Strontium-90	-.30	U	pCi/L
				Total Dissolved Solids	870.00		ppm
				Technetium-99	10000.00		pCi/L
				Temperature, field	19.80		Deg C
				Total Organic Halogen	76.00	H	ppb
					65.00	H	ppb
				Tritium	4310.00		pCi/L
				Turbidity	1.30		NTU
				Uranium	3250.00		ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	19.00		ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-12	2-W19-29	6/14/91	H00071C6	Chloroform	5.00	U	ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				1,1,1,2-Tetrachloroethane	5.00	U	ppb
				1,1,2,2-Tetrachloroethane	5.00	U	ppb
				1,1-Dichloroethene	5.00	U	ppb
				1,2,3-Trichloropropane	5.00	U	ppb
				1,2-Dibromoethane	5.00	U	ppb
				1,2-Dichloropropane	5.00	U	ppb
				1,4-Dioxane	1000.00	U	ppb
				2-Hexanone	50.00	U	ppb
				Acetonitrile	200.00	U	ppb
				Acrolein	5.00	U	ppb
				Acrylonitrile	5.00	U	ppb
				Bromodichloromethane	5.00	U	ppb
				Bromoform	5.00	U	ppb
				Carbon disulfide	5.00	U	ppb
				Chlorobenzene	5.00	U	ppb
				Chloroethane	10.00	U	ppb
				Chloroprene	5.00	U	ppb
				Dibromochloromethane	5.00	U	ppb
				Dibromomethane	5.00	U	ppb
				Dichlorodifluoromethane	5.00	U	ppb
				Ethyl cyanide	5.00	U	ppb
				Ethylbenzene	5.00	U	ppb
				Isobutyl alcohol	1000.00	U	ppb
				Methacrylonitrile	5.00	U	ppb
				Methyl Iodide	5.00	U	ppb
				Methyl bromide	10.00	U	ppb
				Methyl chloride	10.00	U	ppb
				Methyl methacrylate	5.00	U	ppb
				Styrene	5.00	U	ppb
				Trichloromonofluoromethane	5.00	U	ppb
				Vinyl acetate	5.00	U	ppb
				allylchloride	100.00	U	ppb
				cis-1,3-Dichloropropene	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
				trans-1,3-Dichloropropene	5.00	U	ppb
				trans-1,4-dichloro-2-bute	5.00	U	ppb
		11/25/91	B00MP9	Arsenic, filtered	5.00	UH	ppb
				Conductivity, field	965.00		umho

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-12	2-W19-29	11/25/91	B00MP9	Antimony, filtered	200.00	U	ppb
				Barium, filtered	72.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	100000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	33.00		ppb
				Magnesium, filtered	30000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	5000.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	31000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
			B00N51	Lead, filtered	5.00	UH	ppb
				Mercury, filtered	.20	U	ppb
				pH, field	7.28		
				Selenium, filtered	10.00	UH	ppb
				Arsenic	5.00	UH	ppb
				Coliforms, membrane filte	1.00	U	COL
				Cyanide	20.00	U	ppb
				Antimony-125	-7.13	U	pCi/L
				Cesium-137	-.93	U	pCi/L
				Cobalt-60	-2.43	U	pCi/L
				Ruthenium-106	25.36	U	pCi/L
				Hydrazine	30.00	U	ppb
				Antimony	200.00	U	ppb
				Barium	74.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	100000.00		ppb
				Chromium	180.00		ppb
				Cobalt	20.00	U	ppb
				Copper	27.00		ppb

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Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-12	2-W19-29	11/25/91	800N51	Iron	840.00		ppb
				Magnesium	30000.00		ppb
				Manganese	21.00		ppb
				Nickel	77.00		ppb
				Potassium	5200.00		ppb
				Silver	20.00	U	ppb
				Sodium	30000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	30.00	U	ppb
				Zinc	10.00	U	ppb
				Lead	5.00	UH	ppb
				Mercury	.20	U	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb
				Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				Selenium	10.00	UH	ppb
				2-Methylphenol	10.00	U	ppb
				4-Methylphenol	10.00	U	ppb
				Decane	10.00	U	ppb
				Dodecane	10.00	U	ppb
				Naphthalene	10.00	U	ppb
				Pentachlorophenol	50.00	U	ppb
				Phenol	10.00	U	ppb
				Tetradecane	10.00	U	ppb
				Tributyl Phosphate	10.00	U	ppb
				m-Cresol	10.00	U	ppb
				Total Dissolved Solids	740.00		ppm

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-12	2-W19-29	11/25/91	B00N66	Antimony, filtered	200.00	U	ppb
				Barium, filtered	74.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	100000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	81.00		ppb
				Magnesium, filtered	30000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	5500.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	31000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
			B01CQ2	Gross alpha	1030.00		pCi/L
				Bromide	500.00	U	ppb
				Chloride	18000.00		ppb
				Fluoride	800.00		ppb
				Nitrate	301000.00		ppb
				Nitrite	1710.00		ppb
				Phosphate	400.00	U	ppb
				Sulfate	57000.00		ppb
				Gross beta	2110.00		pCi/L
				Conductivity, lab	950.00		umhos
				pH, lab	8.00		
				Technetium-99	3470.00		pCi/L
				Total Organic Carbon	1000.00		ppb
				Total Organic Halogen	60.00		ppb
				Tritium	4670.00		pCi/L
				Uranium	3120.00		ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-12	2-W19-29	11/25/91	B01CQ2	1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	110.00		ppb
				Chloroform	6.30		ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	1.40	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.50		ppb
				Vinyl chloride	10.00	U	ppb
				Xylene(m)	5.00	U	ppb
				Xylene(o)	5.00	U	ppb
				Xylene(p)	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
		2/26/92	B01VF1	Conductivity, field	1130.00		umhos
				Cyanide	20.00	U	ppb
				pH, field	7.25		
				Temperature, field	18.00		Deg C
			B01W03	Gross alpha	2120.00		pCi/L
				Bromide	500.00	U	ppb
				Chloride	18000.00		ppb
				Fluoride	600.00		ppb
				Nitrate	390000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	59000.00		ppb
				Gross beta	2230.00		pCi/L
				Conductivity, field	1130.00		umhos
				Conductivity, lab	1200.00		umhos
				pH, field	7.25		
				pH, lab	7.70		
				Technetium-99	2520.00		pCi/L

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-12	2-W19-29	2/26/92	B01W03	Temperature, field	18.00		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	100.00		ppb
				Tritium	3360.00	Q	pCi/L
				Uranium	416.00	Q	ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	130.00		ppb
				Chloroform	6.20		ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	6.20		ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
			B01W05	Antimony, filtered	200.00	U	ppb
				Barium, filtered	98.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	130000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	31.00		ppb
				Magnesium, filtered	39000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	6200.00	Q	ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	32000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-12	2-W19-29	2/26/92	801W05	Zinc, filtered	10.00	U	ppb
U-14	2-W19-1	12/03/91	800N02	Bromide	500.00	U	ppb
				Chloride	5400.00		ppb
				Fluoride	800.00		ppb
				Nitrate	200.00	UP	ppb
				Nitrite	200.00	UP	ppb
				Phosphate	400.00	UP	ppb
				Sulfate	20000.00		ppb
				Tritium	-16.50	U	pCi/L
		2/26/92	801VC7	Conductivity, field	297.00		umhos
				Cyanide	20.00	U	ppb
				pH, field	9.39		
				Temperature, field	13.30		Deg C
			801VX8	Gross alpha	6.26		pCi/L
				Americium-241	.77		pCi/L
				Bromide	500.00	U	ppb
				Chloride	7300.00		ppb
				Fluoride	300.00		pb
				Nitrate	800.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	34000.00		ppb
				Gross beta	19.00		pCi/L
				Conductivity, field	297.00		umhos
				Conductivity, lab	290.00		umhos
				pH, field	9.39		
				pH, lab	9.50		
				Temperature, field	13.30		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	20.00		ppb
				Tritium	330.00	Ua	pCi/L

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-14	2-W19-1	2/26/92	B01VX8	Uranium	2.42	Q	ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	5.00	U	ppb
				Chloroform	.76	U	ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
		5/05/92	B06DX7	Gross alpha	1.81	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	8800.00		ppb
				Fluoride	400.00		ppb
				Nitrate	400.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	55000.00		ppb
				Gross beta	4.05	U	pCi/L
				Conductivity, field	280.00		umhos
				pH, field	9.42		
				Temperature, field	17.60		Deg C
				Tritium	113.00	U	pCi/L
				Uranium	1.39		ppb
	2-W19-21	3/09/92	B01VD1	Cyanide	20.00	U	ppb
			B01VY2	Gross alpha	18.20		pCi/L

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-14	2-W19-21	3/09/92	B01VY2	Americium-241	- .00	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	1000.00		ppb
				Fluoride	200.00		ppb
				Nitrate	300.00	Q	ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	10000.00		ppb
				Gross beta	3.91	U	pCi/L
				Conductivity, field	189.00		umhos
				Conductivity, lab	200.00		umhos
				pH, field	8.38		
				pH, lab			
				Temperature, field	16.00		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00		ppb
				Tritium	31.40	U	pCi/L
				Uranium	27.00		ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	2.90	U	ppb
				Chloroform	5.00	U	ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-14	2-W19-21	3/09/92	B01VY2	trans-1,2-Dichloroethylen	5.00	U	ppb
		4/30/92	B060X9	Gross alpha	12.30		pCi/L
				Bromide	500.00	U	ppb
				Chloride	1200.00		ppb
				Fluoride	200.00		ppb
				Nitrate	500.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	9600.00		ppb
				Gross beta	7.05	U	pCi/L
				Conductivity, field	198.00		umhos
				Conductivity, lab	190.00		umhos
				pH, field	8.60		
				pH, lab	8.20		
				Temperature, field	16.60		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00		ppb
				Tritium	57.60	U	pCi/L
				Uranium	25.00		ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	2.70		ppb
				Chloroform	5.00	U	ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-14	2-W19-21	4/30/92	B06DX9	trans-1,2-Dichloroethylen	5.00	U	ppb
			B06DY1	Antimony, filtered	200.00	U	ppb
				Barium, filtered	20.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	20000.00		ppt
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	6800.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	2600.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	11000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	21.00		ppb
		8/12/92	B074M1	Gross alpha	15.00		pCi/L
				Gross beta	3.22		pCi/L
				pH, lab	8.40		
				Tritium	-24.90	U	pCi/L
	2-W19-27	2/27/92	B01VD9	Conductivity, field	230.00		umhos
				Cyanide	20.00	U	ppb
				pH, field	7.92		
				Temperature, field	16.90		Deg C
			B01VY6	Gross alpha	14.90		pCi/L
				Americium-241	-.00	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	1100.00		ppb
				Fluoride	400.00		ppb
				Nitrate	900.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	9600.00		ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-14	2-W19-27	2/27/92	801VY6	Gross beta	4.95	U	pCi/L
				Conductivity, field	230.00		umhos
				Conductivity, lab	210.00		umhos
				pH, field	7.92		
				pH, lab	8.10		
				Temperature, field	16.90		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	20.00		ppb
				Tritium	104.00	U	pCi/L
				Uranium	23.30		ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	11.00		ppb
				Chloroform	5.00	U	ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
		4/30/92	806DY3	Gross alpha	11.30		pCi/L
				Bromide	500.00	U	ppb
				Chloride	1200.00		ppb
				Fluoride	400.00		ppb
				Nitrate	800.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-14	2-W19-27	4/30/92	B06DY3	Sulfate	9300.00		ppb
				Gross beta	.97	U	pCi/L
				Conductivity, field	208.00		umhos
				Conductivity, lab	200.00		umhos
				pH, field	8.20		
				pH, lab	7.70		
				Temperature, field	17.70		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	20.00		ppb
				Tritium	144.00	U	pCi/L
				Uranium	22.50		ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	17.00		ppb
				Chloroform	5.00	U	ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
			B06DY4	Antimony, filtered	200.00	U	ppb
				Barium, filtered	20.00	U	ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	18000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-14	2-W19-27	4/30/92	B06DY4	Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	5500.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	3000.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	18000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	33.00		ppb
				Zinc, filtered	18.00		ppb
		8/12/92	B074N1	Gross alpha	12.70		pCi/L
				Gross beta	2.92		pCi/L
				pH, lab	8.20		
				Tritium	67.40	U	pCi/L
			B074N2	Gross alpha	13.70		pCi/L
				Gross beta	4.71		pCi/L
				pH, lab	8.20		
				Tritium	138.00	U	pCi/L
	2-W19-91	3/25/92	B06544	Gross alpha	900.00		pCi/L
				Bromide	500.00	U	ppb
				Chloride	1400.00		ppb
				Fluoride	100.00		ppb
				Nitrate	1400.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	1000.00		ppb
				Sulfate	11000.00		ppb
				Gross beta	413.00		pCi/L
				Conductivity, field	232.00		umhos
				Conductivity, lab	190.00		umhos
				Antimony	200.00	U	ppb
				Barium	7200.00		ppb
				Beryllium	4	50	ppb
				Cadmium	10.00	U	ppb
				Calcium	290000.00		ppb
				Chromium	56.00		ppb

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WHC-EP-0595**Groundwater Data Report**

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-14	2-W19-91	3/25/92	806544	Cobalt	68.00		ppb
				Copper	250.00		ppb
				Iron	600000.00		ppb
				Magnesium	35000.00		ppb
				Manganese	15000.00		ppb
				Nickel	380.00		ppb
				Potassium	9100.00		ppb
				Silver	20.00	U	ppb
				Sodium	6100.00		ppb
				Tin	100.00	U	ppb
				Vanadium	330.00		ppb
				Zinc	660.00		ppb
				pH, field	8.46		
				pH, lab	8.40		
				Temperature, field	17.70		Deg C
				Total Organic Carbon	2000.00		ppb
				Total Organic Halogen	40.00		ppb
				Tritium	182.00	U	pCi/L
				Uranium	89.60		ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	5.00	U	ppb
				Chloroform	5.00	U	ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vin chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
		5/05/92	8060Y5	Gross alpha	76.70		pCi/L

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AIM

Association for Information and Image Management

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Silver Spring, Maryland 20910

301/587-8202

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WHC-EP-0595**Groundwater Data Report**

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-14	2-W19-91	5/05/92	8060Y5	Bromide	500.00	U	ppb
				Chloride	1400.00		ppb
				Fluoride	100.00	U	ppb
				Nitrate	600.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	500.00		ppb
				Sulfate	15000.00		ppb
				Gross beta	27.00		pCi/L
				Conductivity, field	179.00		umhos
				pH, field	8.46		
				Temperature, field	17.90		Deg C
				Tritium	69.10	U	pCi/L
				Uranium	101.00		ppb
		8/12/92	8074N5	Gross alpha	126.00		pCi/L
				Gross beta	43.30		pCi/L
				pH, lab	8.30		
				Tritium	-8.31	U	pCi/L
	2-W19-92	3/25/92	806546	Gross alpha	182.00		pCi/L
				Bromide	500.00	U	ppb
				Chloride	1300.00		ppb
				Fluoride	200.00		ppb
				Nitrate	300.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	600.00		ppb
				Sulfate	12000.00		ppb
				Gross beta	166.00		pCi/L
				Conductivity, field	208.00		umhos
				Conductivity, lab	190.00		umhos
				Antimony	200.00	U	ppb
				Barium	210.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	30000.00		ppb

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-14	2-W19-92	3/25/92	806546	Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	29000.00		ppb
				Magnesium	4300.00		ppb
				Manganese	380.00		ppb
				Nickel	30.00	U	ppb
				Potassium	2400.00		ppb
				Silver	20.00	U	ppb
				Sodium	3200.00		ppb
				Tin	100.00	U	ppb
				Vanadium	39.00		ppb
				Zinc	10.00	U	ppb
				pH, field	8.06		
				pH, lab	8.30		
				Temperature, field	18.70		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00	U	ppb
				Tritium	134.00	U	pCi/L
				Uranium	27.90		ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	5.00	U	ppb
				Chloroform	5.00	U	ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb

WHC-EP-0595**Groundwater Data Report**

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-14	2-W19-92	5/05/92	B060Y6	Gross alpha	41.70		pCi/L
				Bromide	500.00	U	ppb
				Chloride	1500.00		ppb
				Fluoride	100.00		ppb
				Nitrate	200.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	13000.00		ppb
				Gross beta	49.00		pCi/L
				Conductivity, field	167.00		umhos
				pH, field	7.77		
				Temperature, field	14.00		Deg C
				Tritium	131.00	U	pCi/L
				Uranium	92.60		ppb
		8/12/92	B074W6	Gross alpha	33.30		pCi/L
				Gross beta	38.00		pCi/L
				pH, lab	8.00		
				Tritium	119.00	U	pCi/L
	2-W19-93	3/25/92	B06548	Gross alpha	125.00		pCi/L
				Bromide	500.00	U	ppb
				Chloride	1400.00		ppb
				Fluoride	100.00		ppb
				Nitrate	500.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	9900.00		ppb
				Gross beta	88.40		pCi/L
				Conductivity, field	163.00		umhos
				Conductivity, lab	180.00		umhos
				Antimony	200.00	U	ppb
				Barium	410.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb

WHC-EP-0595**Groundwater Data Report**

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-14	2-W19-93	3/25/92	806548	Calcium	43000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00		ppb
				Iron	41000.00		ppb
				Magnesium	7700.00		ppb
				Manganese	1800.00		ppb
				Nickel	30.00	U	ppb
				Potassium	3500.00		ppb
				Silver	20.00	U	ppb
				Sodium	2700.00		ppb
				Tin	100.00	U	ppb
				Vanadium	30.00	U	ppb
				Zinc	20.00		ppb
				pH, field	7.73		
				pH, lab	8.30		
				Temperature, field	17.40		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	10.00		ppb
				Tritium	353.00	U	pCi/L
				Uranium	139.00		ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	5.00	U	ppb
				Chloroform	1.00		ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-14	2-W19-93	5/05/92	B06DY8	Gross alpha	57.20		pCi/L
				Bromide	500.00	U	ppb
				Chloride	1500.00		ppb
				Fluoride	100.00		ppb
				Nitrate	400.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	13000.00		ppb
				Gross beta	19.60		pCi/L
				Conductivity, field	154.00		umhos
				pH, field	7.77		
				Temperature, field	13.20		Deg C
				Tritium	302.00	U	pCi/L
				Uranium	70.50		ppb
		8/12/92	B074N9	Gross alpha	22.80		pCi/L
				Gross beta	13.00		pCi/L
				pH, lab	8.40		
				Tritium	17.60	U	pCi/L
U-17	2-W19-20	1/14/92	B00LY0	Plutonium-238	-.00	U	pCi/L
				Plutonium-239/40	-.00	U	pCi/L
				Technetium-99	12200.00		pCi/L
		2/03/92	B00N60	Antimony, filtered	200.00	U	ppb
				Barium, filtered	210.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	240000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	160.00		ppb
				Magnesium, filtered	82000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-17	2-W19-20	2/03/92	800N60	Potassium, filtered	9900.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	42000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	12.00		ppb
			801CQ1	Gross alpha	358.00		pCi/L
				Bromide	500.00	U	ppb
				Chloride	18000.00		ppb
				Fluoride	1900.00		ppb
				Nitrate	1100000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	63000.00		ppb
				Gross beta	3210.00		pCi/L
				Conductivity, field	2240.00		umhos
				Conductivity, lab	2300.00		umhos
				Antimony	200.00	U	ppb
				Barium	210.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	240000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	430.00		ppb
				Magnesium	84000.00		ppb
				Manganese	10.00	U	ppb
				Nickel	30.00	U	ppb
				Potassium	9800.00		ppb
				Silver	20.00	U	ppb
				Sodium	42000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	30.00	U	ppb
				Zinc	31.00		ppb
				pH, field	7.47		
				pH, lab	7.50		
				Temperature, field	19.10		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	40.00		ppb

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-17	2-W19-20	2/03/92	801CQ1	Tritium	2600.00		pCi/L
				Uranium	665.00		ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	17.00		ppb
				Chloroform	4.80	U	ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	2.40	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				1,1-Dichloroethene	5.00	U	ppb
				Chlorobenzene	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
		2/26/92	801VY4	Gross alpha	452.00		pCi/L
				Bromide	500.00	U	ppb
				Chloride	18000.00		ppb
				Fluoride	1900.00		ppb
				Nitrate	1100000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	63000.00		ppb
				Gross beta	3690.00		pCi/L
				Conductivity, field	2630.00		umhos
				Conductivity, lab	2300.00		umhos
				pH, field	7.39		
				pH, lab	7.80		
				Temperature, field	19.20		Deg C

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-17	2-W19-20	2/26/92	B01VY4	Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	20.00		ppb
				Tritium	2420.00	Q	pCi/L
				Uranium	575.00	Q	ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	22.00		ppb
				Chloroform	5.40		ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	3.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
		5/28/92	B06P81	Gross alpha	242.00		pCi/L
				Bromide	500.00	U	ppb
				Chloride	17000.00		ppb
				Fluoride	1600.00		ppb
				Nitrate	1200000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	64000.00		ppb
				Gross beta	3990.00		pCi/L
				Conductivity, field	1000.00		umhos
				Conductivity, lab	2300.00		umhos
				Antimony	200.00	U	ppb
				Barium	250.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb

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WHC-EP-0595**Groundwater Data Report**

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-17	2-W19-20	5/28/92	B06P81	Calcium	260000.00		p
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	740.00		ppb
				Magnesium	90000.00		ppb
				Manganese	13.00		ppb
				Nickel	30.00	U	ppb
				Potassium	12000.00		ppb
				Silver	20.00	U	ppb
				Sodium	47000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	30.00	U	ppb
				Zinc	11.00		ppb
				pH, field	7.34		
				pH, lab	7.70		
				Temperature, field	20.50		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	20.00		ppb
				Tritium	2590.00		pCi/L
				Uranium	738.00		ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	26.00		ppb
				Chloroform	5.40		ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	2.80		ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-17	2-W19-20	5/28/92	806P82	Antimony, filtered	200.00	U	ppb
				Barium, filtered	240.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	260000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	130.00		ppb
				Magnesium, filtered	89000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	11000.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	46000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
	2-W19-23	8/12/92	8074L5	Gross alpha	-.29	U	pCi/L
				Gross beta	-.53	U	pCi/L
				pH, lab	7.00		
				Tritium	207.00	U	pCi/L
	2-W19-24	12/17/90	H0007089	Iodine-129, low detection	1.52		pCi/L
				Technetium-99	19100.00		pCi/L
				Tritium	1710.00		pCi/L
				Uranium	739.00		ppb
		3/20/91	H0007301	Gross alpha	223.00		pCi/L
				Gross beta	1640.00		pCi/L
				Conductivity, field	2650.00		umhos
				Antimony-125	6.52	U	pCi/L
				Cesium-137	.78	U	pCi/L
				Cobalt-60	-3.49	U	pCi/L
				Ruthenium-106	16.50	U	pCi/L
				Beryllium-7	-7.65	U	pCi/L
				Cerium/Praseodymium-144	15.30	U	pCi/L

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-17	2-W19-24	3/20/91	H0007301	Cesium-134	.14	U	pCi/L
				Europium-154	2.94	U	pCi/L
				Europium-155	-2.58	U	pCi/L
				Potassium-40	46.10	UR	pCi/L
				Zinc-65	3.34	U	pCi/L
				Zirconium/Niobium-95	7.97		pCi/L
				pH, field	7.29		
				Technetium-99	28500.00		pCi/L
				Temperature, field	19.30		Deg C
				Tritium	1530.00		pCi/L
	2/26/92	B01VD6		Uranium	749.00		ppb
				Conductivity, field	2480.00		umhos
				Cyanide	20.00	U	ppb
				pH, field	7.46		
				Temperature, field	19.10		Deg C
		B01VZ0		Gross alpha	489.00		pCi/L
				Bromide	500.00	U	ppb
				Chloride	16000.00		ppb
				Fluoride	1800.00		ppb
				Nitrate	990000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	58000.00		ppb
				Gross beta	3900.00		pCi/L
				Conductivity, field	2480.00		umhos
				Conductivity, lab	2200.00		umhos
				pH, field	7.46		
				pH, lab	7.70		
				Temperature, field	19.10		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	20.00		ppb

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-17	2-W19-24	2/26/92	801V20	Tritium	1780.00	Q	pCi/L
				Uranium	803.00	Q	ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	24.00		ppb
				Chloroform	5.90		ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	2.40	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
	2-W19-26	1/27/92	800M07	Plutonium-238	.00	U	pCi/L
				Plutonium-239/40	.02	U	pCi/L
				Technetium-99	2350.00		pCi/L
				Uranium	8.12		ppb
			800M67	Antimony, filtered	200.00	U	ppb
				Barium, filtered	190.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	220000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	38.00		ppb
				Magnesium, filtered	78000.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	9200.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	39000.00		ppb
				Tin, filtered	100.00	U	ppb

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-17	2-W19-26	1/27/92	B00N67	Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
			B01C06	Gross alpha	150.00		pCi/L
				Bromide	500.00	U	ppb
				Chloride	27000.00		ppb
				Fluoride	1800.00		ppb
				Nitrate	1000000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	61000.00		ppb
				Gross beta	909.00		pCi/L
				Conductivity, field	2350.00		umhos
				Conductivity, lab	2300.00		umhos
				Antimony	200.00	U	ppb
				Barium	200.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	230000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	430.00		ppb
				Magnesium	81000.00		ppb
				Manganese	10.00	U	ppb
				Nickel	30.00	U	ppb
				Potassium	9100.00		ppb
				Silver	20.00	U	ppb
				Sodium	40000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	30.00	U	ppb
				Zinc	21.00		ppb
				pH, field	7.33		
				pH, lab	7.50		
				Temperature, field	20.20		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	20.00		ppb
				Tritium	1040.00		pCi/L
				Uranium	10.90		ppb

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-17	2-W19-26	1/27/92	801C06	1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	32.00	Q	ppb
				Chloroform	3.50	U	ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	.60	U	ppb
				Trichloroethene	1.60	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				1,1-Dichloroethene	5.00	U	ppb
				Chlorobenzene	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
		2/27/92	801V08	Conductivity, field	2200.00		umhos
				Cyanide	20.00	U	ppb
				pH, field	6.88		
				Temperature, field	18.40		Deg C
		2/27/92	801V26	Gross alpha	100.00		pCi/L
				Bromide	500.00	U	ppb
				Chloride	27000.00		ppb
				Fluoride	1700.00		ppb
				Nitrate	920000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	59000.00		ppb
				Gross beta	813.00		pCi/L
				Conductivity, field	2200.00		umhos
				Conductivity, lab	2100.00		umhos
				pH, field	6.88		

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
U-17	2-W19-26	2/27/92	801VZ6	pH, lab	7.70		
				Temperature, field	18.40		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Tritium	1270.00		pCi/L
				Uranium	22.90		ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	33.00		ppb
				Chloroform	3.10	U	ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	2.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
Z-20	2-W15-8	11/04/91	800MC2	Bromide	500.00	U	ppb
				Chloride	45000.00		ppb
				Fluoride	2500.00		ppb
				Nitrate	340000.00	P	ppb
				Nitrite	200.00	UP	ppb
				Phosphate	400.00	UP	ppb
				Sulfate	71000.00		ppb
				Tritium	405.00	U	pCi/L
		11/13/91	800MR2	Americium-241	5.90		pCi/L
				Conductivity, field	3720.00		umhos
				pH, field	7.07		

WHC-EP-0595**Groundwater Data Report**

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
Z-20	2-W15-8	11/13/91	800MR2	Plutonium-238	.03	U	pCi/L
					.01	U	pCi/L
				Plutonium-239/40	1.90		pCi/L
					-.00	U	pCi/L
				Temperature, field	18.30		Deg C
		1/13/92	800MN2	Bromide	500.00	U	ppb
				Chloride	36000.00		ppb
				Fluoride	1900.00		ppb
				Nitrate	260000.00	P	ppb
				Nitrite	200.00	UP	ppb
				Phosphate	400.00	UP	ppb
				Sulfate	100000.00		ppb
				Conductivity, field	2870.00		umhos
				pH, field	8.26		
				Temperature, field	17.30		Deg C
				Tritium	20.20	U	pCi/L
			800NP0	Bromide	500.00	U	ppb
				Chloride	35000.00		ppb
				Fluoride	1800.00		ppb
				Nitrate	23000.00		ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	96000.00		ppb
				Arsenic	5.00	UH	ppb
				Coliforms, membrane filte	1.00	U	COL
				Conductivity, field	2870.00		umhos
				Cyanide	20.00	U	ppb
				Antimony-125	1.57	U	pCi/L
				Cesium-137	6.93	U	pCi/L
				Cobalt-60	.44	U	pCi/L
				Ruthenium-106	-11.50	U	pCi/L
				Hydrazine	3.00	U	ppb
				Antimony	200.00	U	ppb
				Barium	660.00		ppb
				Beryllium	3.00	U	ppb

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
2-20	2-W15-8	1/13/92	800NPO	Cadmium	10.00	U	ppb
				Calcium	250000.00		ppb
				Chromium	340.00		ppb
				Cobalt	20.00	U	ppb
				Copper	83.00		ppb
				Iron	110000.00		ppb
				Magnesium	72000.00		ppb
				Manganese	1800.00		ppb
				Nickel	230.00		ppb
				Potassium	12000.00		ppb
				Silver	20.00	U	ppb
				Sodium	190000.00		ppb
				Tin	10.00	U	ppb
				Vanadium	56.00		ppb
				Zinc	210.00		ppb
				Lead	17.00	H	ppb
				Mercury	.20	U	ppb
				4,4'-DDD	.33	Q	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	4.30	Q	ppb
				Aldrin	1.80	Q	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	3.90	Q	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	4.60	Q	ppb
				Endrin Aldehyde	.42	Q	ppb
				Heptachlor	1.70	Q	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	1.70	Q	ppb
				pH, field	8.26		
				Selenium	10.00	UH	ppb
				2-Methylphenol	10.00	U	ppb
				4-Methylphenol	10.00	U	ppb
				Decane	10.00	U	ppb
				Dodecane	10.00	U	ppb
				Naphthalene	10.00	U	ppb

WHC-EP-0595**Groundwater Data Report**

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
Z-20	2-W15-8	1/13/92	B00NP0	Pentachlorophenol	50.00	U	ppb
				Phenol	10.00	U	ppb
				Tetradecane	10.00	U	ppb
				Tributyl Phosphate	10.00	U	ppb
				m-Cresol	10.00	U	ppb
			B00NR6	Total Dissolved Solids	2100.00		ppm
				Technetium-99	406.00		pCi/L
				Temperature, field	17.30		Deg C
				Uranium	7.68		ppb
				Arsenic, filtered	5.00	UH	ppb
			H0007166	Antimony, filtered	200.00	U	ppb
				Barium, filtered	410.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	240000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	140.00		ppb
				Magnesium, filtered	66000.00		ppb
				Manganese, filtered	680.00		ppb
				Nickel, filtered	32.00		ppb
				Potassium, filtered	12000.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	190000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
			H0007303	Lead, filtered	5.00	UH	ppb
				Mercury, filtered	.20	U	ppb
				Selenium, filtered	10.00	UH	ppb
				Nitrate	6.94		
	2-W18-17	1/29/91	H0007166	Tritium	9560.00	H	pCi/L
				Gross alpha	.17	U	pCi/L
		3/20/91	H0007303	Americium-241	.00	U	pCi/L

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
Z-20	2-W18-17	3/20/91	H0007303	Gross beta	3.40	U	pCi/L
				Conductivity, field	229.00		umhos
				Antimony-125	-.53	U	pCi/L
				Cesium-137	1.26	U	pCi/L
				Cobalt-60	-4.05	U	pCi/L
				Ruthenium-106	-22.80	U	pCi/L
				Beryllium-7	-30.70	U	pCi/L
				Cerium/Praseodymium-144	-4.86	U	pCi/L
				Cesium-134	-.57	U	pCi/L
				Europium-154	-1.99	U	pCi/L
				Europium-155	-6.10	U	pCi/L
				Lead-212	5.47		pCi/L
				Potassium-40	144.00	R	pCi/L
				Zinc-65	-.25	U	pCi/L
				Zirconium/Niobium-95	3.73	U	pCi/L
				pH, field	7.17		
				Plutonium-238	-.00	U	pCi/L
				Plutonium-239/40	.01	U	pCi/L
				Temperature, field	20.80		Deg C
				Tritium	149.00	U	pCi/L
				Uranium	1.31		ppb
	2-W18-20	2/06/91	H0007167	Conductivity, field	205.00		umhos
				Nitrate	.49		
				pH, field	7.49		
				Temperature, field	23.30		Deg C
		3/20/91	H0007305	Gross alpha	1.55	U	pCi/L
				Americium-241	.01	U	pCi/L
				Gross beta	7.86	U	pCi/L
				Conductivity, field	207.00		umhos
				Antimony-125	-3.18	U	pCi/L
				Cesium-137	1.09	U	pCi/L
				Cobalt-60	-.96	U	pCi/L

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
Z-20	2-W18-20	3/20/91	H0007305	Ruthenium-106	12.90	U	pCi/L
				Beryllium-7	-5.75	U	pCi/L
				Cerium/Praseodymium-144	4.27	U	pCi/L
				Cesium-134	-1.00	U	pCi/L
				Europium-154	-3.37	U	pCi/L
				Europium-155	5.72	U	pCi/L
				Potassium-40	66.60	R	pCi/L
				Zinc-65	-7.20	U	pCi/L
				Zirconium/Niobium-95	2.85	U	pCi/L
				pH, field	7.88		
				Plutonium-238	.00	U	pCi/L
				Plutonium-239/40	-.00	U	pCi/L
				Temperature, field	22.40		Deg C
				Tritium	168.00	U	pCi/L
				Uranium	2.25		ppb
		6/10/92	B06TN2	Gross alpha	1.51	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	3300.00		ppb
				Fluoride	400.00		ppb
				Nitrate	700.00	Q	ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	13000.00		ppb
				Gross beta	2.51	U	pCi/L
				Conductivity, field	206.00		umhos
				Conductivity, lab	200.00		umhos
				Antimony	200.00	U	ppb
				Barium	20.00	U	ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	20000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	30.00		ppb
				Magnesium	6400.00		ppb
				Manganese	10.00	U	ppb
				Nickel	30.00	U	ppb

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Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
Z-20	2-W18-20	6/10/92	806TN2	Potassium	3400.00		ppb
				Silver	20.00	U	ppb
				Sodium	8600.00		ppb
				Tin	100.00	U	ppb
				Vanadium	36.00		ppb
				Zinc	10.00	U	ppb
				pH, field	7.90		
				pH, lab	8.10		
				Temperature, field	23.20		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	160.00		ppb
				Tritium	137.00	UA	pCi/L
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	170.00		ppb
				Chloroform	20.00		ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
	2-W18-29	10/09/91	B00M61	Gross alpha	.32	U	pCi/L
				Americium-241	.04	U	pCi/L
				Ammonium ion	100.00	U	ppb
				Bromide	500.00	U	ppb
				Chloride	3200.00		ppb
				Fluoride	310.00		ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
Z-20	2-W18-29	10/09/91	800M61	Phosphate	400.00	U	ppb
				Sulfate	13000.00		ppb
				Nitrate	760.00		ppb
				Arsenic	27.00		ppb
				Gross beta	3.16	U	pCi/L
				Conductivity, field	192.00		umhos
				Cyanide	20.00	U	ppb
				Antimony-125	6.44	U	pCi/L
				Cesium-137	-1.28	U	pCi/L
				Cobalt-60	-5.64	U	pCi/L
				Ruthenium-106	-23.10	U	pCi/L
				Beryllium-7	-58.00	U	pCi/L
				Cerium/Praseodymium-144	-17.30	U	pCi/L
				Cesium-134	-1.55	U	pCi/L
				Europium-154	-3.79	U	pCi/L
				Europium-155	11.40	U	pCi/L
				Potassium-40	74.50	UR	pCi/L
				Zinc-65	-11.60	U	pCi/L
				Zirconium/Niobium-95	2.46	U	pCi/L
				2,4,5-T	2.00	U	ppb
				2,4,5-TP	2.00	U	ppb
				2,4-D	10.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	1.00	U	ppb
				Antimony	200.00	U	ppb
				Barium	28.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	24000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	400.00		ppb
				Magnesium	4900.00		ppb
				Manganese	11.00		ppb
				Nickel	30.00	U	ppb
				Potassium	3500.00	Q	ppb
				Silver	20.00	U	ppb
				Sodium	5900.00		ppb
				Tin	100.00	U	ppb
				Vanadium	30.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
2-20	2-W18-29	10/09/91	800M61	Zinc	22.00		ppb
				Lead	5.00	UH	ppb
				Mercury	.20	U	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb
				Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	2.00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				pH, field	7.50		
				Phenol	20.00	U	ppb
				Plutonium-238	.00	U	pCi/L
				Plutonium-239/40	.01	U	pCi/L
				Total Radium	-.03	U	pCi/L
				Selenium	10.00	U	ppb
				Strontium-90	-.33	U	pCi/L
				Total Carbon	20000.00	H	ppb
				Technetium-99	-.08	U	pCi/L
				Total Organic Carbon	1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb
				Total Organic Halogen	60.00		ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
Z-20	2-W18-29	10/09/91	B00M61	Total Organic Halogen	58.00		ppb
				Tritium	1710000.00		pCi/L
				Turbidity	2.90		NTU
				Uranium	.98		ppb
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethene	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	20.00		ppb
				Chloroform	16.00		ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
			B00M61F	Arsenic, filtered	25.00		ppb
				Lead, filtered	5.00	UH	ppb
				Mercury, filtered	.20	U	ppb
				Selenium, filtered	10.00	U	ppb
			B00M62	Conductivity, field	190.00		umhos
				pH, field	7.55		
				Total Organic Carbon	1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb
				Total Organic Halogen	69.00		ppb
					57.00		ppb
			B00M63	Conductivity, field	189.00		umhos

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
2-20	2-W18-29	10/09/91	800M63	pH, field	7.57		
				Total Organic Carbon	1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb
				Total Organic Halogen:	69.00		ppb
					57.00		ppb
					55.00	H	ppb
					52.00	H	ppb
			800M64	Conductivity, field	189.00		umhos
				pH, field	7.57		
				Total Organic Carbon	1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb
					1000.00	U	ppb
				Total Organic Halogen	53.00	H	ppb
					55.00	H	ppb
			800NW7	Antimony	200.00	U	ppb
				Barium	24.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	23000.00		ppb
				Chromium	20.00	U	ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	20.00		ppb
				Magnesium	4700.00		ppb
				Manganese	10.00	U	ppb
				Nickel	30.00	U	ppb
				Potassium	4200.00	Q	ppb
				Silver	20.00	U	ppb
				Sodium	5800.00		ppb
				Tin	100.00	U	ppb
				Vanadium	30.00		ppb
				Zinc	10.00	U	ppb
		10/28/91	800M61C	Conductivity, field	187.00		umhos

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
Z-20	2-W18-29	10/28/91	B00M61C	Conductivity, field	187.00		umhos
					187.00		umhos
					188.00		umhos
				pH, field	8.33		
					8.33		
					8.33		
					8.33		
				Temperature, field	22.70		Deg C
					22.60		Deg C
					22.90		Deg C
					22.80		Deg C
	2-W18-29	3/18/92	B01GC2	Conductivity, lab	190.00		umhos
				pH, lab	8.30		
			B064F6	Gross alpha	70 U		pCi/L
				Americium-241	.01 U		pCi/L
				Ammonium ion	100.00 U		ppb
				Bromide	500.00 U		ppb
				Chloride	3300.00		ppb
				Fluoride	200.00		ppb
				Nitrate	2600.00		ppb
				Nitrite	200.00 U		ppb
				Phosphate	400.00 U		ppb
				Sulfate	11000.00		ppb
				Arsenic	23.00		ppb
				Gross beta	2.15 U		pCi/L
				Coliforms, membrane filter	1.00 U		COL
				Conductivity, field	182.00		umhos
				Cyanide	20.00 U		ppb
				Antimony-125	.35 U		pCi/L
				Cesium-137	-2.25 U		pCi/L
				Cobalt-60	.59 U		pCi/L
				Ruthenium-106	-28.40 U		pCi/L
				2,4,5-T	2.00 UH		ppb
				2,4,5-TP	2.00 UH		ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
2-20	2-W18-29	3/18/92	8064F6	2,4-D	10.00	UH	ppb
				2-sec-Butyl-4,6-dinitroph	1.00	UH	ppb
				Antimony	200.00	U	ppb
				Barium	23.00		ppb
				Beryllium	3.00	U	ppb
				Cadmium	10.00	U	ppb
				Calcium	22000.00		ppb
				Chromium	41.00		ppb
				Cobalt	20.00	U	ppb
				Copper	20.00	U	ppb
				Iron	200.00		ppb
				Magnesium	4700.00		ppb
				Manganese	10.00	U	ppb
				Nicke.	30.00	U	ppb
				Potassium	3800.00		ppb
				Silver	20.00	U	ppb
				Sodium	5000.00		ppb
				Tin	100.00	U	ppb
				Vanadium	30.00	U	ppb
				Zinc	10.00	U	ppb
				Lead	5.00	U	ppb
				Mercury	.20	U	ppb
				4,4'-DDD	.10	U	ppb
				4,4'-DDE	.05	U	ppb
				4,4'-DDT	.10	U	ppb
				Aldrin	.05	U	ppb
				Alpha-BHC	.05	U	ppb
				Beta-BHC	.05	U	ppb
				Chlordane	.10	U	ppb
				Delta-BHC	.10	U	ppb
				Dieldrin	.05	U	ppb
				Endosulfan I	.10	U	ppb
				Endosulfan II	.05	U	ppb
				Endosulfan sulfate	.50	U	ppb
				Endrin	.10	U	ppb
				Endrin Aldehyde	.20	U	ppb
				Heptachlor	.05	U	ppb
				Heptachlor epoxide	1.00	U	ppb
				Methoxychlor	00	U	ppb
				Toxaphene	2.00	U	ppb
				gamma-BHC (Lindane)	.05	U	ppb
				pH, field	7.85		
				2,4,6-Trichlorophenol	5.00	U	ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
Z-20	2-W18-29	3/18/92	8064F6	2,4-Dichlorophenol	5.00	U	ppb
				2,4-Dimethylphenol	5.00	U	ppb
				2,4-Dinitrophenol	150.00	U	ppb
				2,6-Dichlorophenol	5.00	U	ppb
				2-Chlorophenol	5.00	U	ppb
				2-Nitrophenol	5.00	U	ppb
				2-sec-Butyl-4,6-dinitroph	5.00	U	ppb
				4,6-Dinitro-2-methylpheno	200.00	U	ppb
				4-Chloro-3-methylphenol	5.00	U	ppb
				4-Nitrophenol	30.00	U	ppb
				Cresols	10.00	U	ppb
				Pentachlorophenol	100.00	U	ppb
				Phenol	1.00	U	ppb
				Tetrachlorophenols	10.00	U	ppb
				Trichlorophenols	5.00	U	ppb
				Plutonium-238	-.00	U	pCi/L
				Plutonium-239/40	.01	U	pCi/L
				Total Radium	.05	U	pCi/L
				Selenium	10.00	U	ppb
				2-Methylphenol	10.00	U	ppb
				4-Methylphenol	10.00	U	ppb
				Decane	10.00	U	ppb
				Dodecane	10.00	U	ppb
				Naphthalene	10.00	U	ppb
				Pentachlorophenol	50.00	U	ppb
				Phenol	10.00	U	ppb
				Tetradecane	10.00	U	ppb
				Tributyl Phosphate	10.00	U	ppb
				m-Cresol	10.00	U	ppb
				Strontium-90	-.17	U	pCi/L
				Total Carbon	17000.00		ppb
				Technetium-99	1.33	U	pCi/L
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	30.00		ppb
				Tritium	74.30	U	pCi/L
				Turbidity	.70		NTU
				Uranium	1.38		ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
Z-20	2-W18-29	3/18/92	B064F6	1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	10.00		ppb
				Chloroform	15.00		ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
			B064F7	Conductivity, field	181.00		umhos
				pH, field	7.78		
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	20.00		ppb
			B064F8	Conductivity, field	181.00		umhos
				pH, field	7.70		
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	20.00		ppb
			B064F9	Conductivity, field	180.00		umhos
				pH, field	7.75		
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	30.00		ppb
			B064G0	Arsenic, filtered	23.00		ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
Z-20	2-W18-29	3/18/92	B064G0	Antimony, filtered	200.00	U	ppb
				Barium, filtered	22.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	22000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	4700.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	3900.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	5000.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
				Lead, filtered	5.00	U	ppb
				Mercury, filtered	.21		ppb
				Selenium, filtered	10.00	U	ppb
		6/09/92	B06TN5	Gross alpha	.92	U	pCi/L
				Bromide	500.00	U	ppb
				Chloride	3400.00		ppb
				Fluoride	200.00		ppb
				Nitrate	3600.00	Q	ppb
				Nitrite	200.00	U	ppb
				Phosphate	400.00	U	ppb
				Sulfate	12000.00		ppb
				Gross beta	2.76	U	pCi/L
				Conductivity, field	181.00		umhos
				Conductivity, lab	190.00		umhos
				pH, field	8.22		
				pH, lab	8.40		
				Temperature, field	22.30		Deg C
				Total Organic Carbon	1000.00	U	ppb
				Total Organic Halogen	20.00		ppb

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Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
Z-20	2-W18-29	6/09/92	B06TN5	Tritium	141.00	Uq	pCi/L
				1,1,1-Trichloroethane	5.00	U	ppb
				1,1,2-Trichloroethane	5.00	U	ppb
				1,1-Dichloroethane	5.00	U	ppb
				1,2-Dichloroethane	5.00	U	ppb
				1,4-Dichlorobenzene	5.00	U	ppb
				1-Butanol	1.00	U	ppm
				4-Methyl-2-pentanone	50.00	U	ppb
				Acetone	100.00	U	ppb
				Benzene	5.00	U	ppb
				Carbon tetrachloride	10.00		ppb
				Chloroform	13.00		ppb
				Methyl ethyl ketone	100.00	U	ppb
				Methylene chloride	5.00	U	ppb
				Tetrachloroethene	5.00	U	ppb
				Tetrahydrofuran	10.00	U	ppb
				Toluene	5.00	U	ppb
				Trichloroethene	5.00	U	ppb
				Vinyl chloride	10.00	U	ppb
				Xylenes (total)	5.00	U	ppb
				trans-1,2-Dichloroethylen	5.00	U	ppb
			B06TN7	Antimony, filtered	200.00	U	ppb
				Barium, filtered	23.00		ppb
				Beryllium, filtered	3.00	U	ppb
				Cadmium, filtered	10.00	U	ppb
				Calcium, filtered	23000.00		ppb
				Chromium, filtered	20.00	U	ppb
				Cobalt, filtered	20.00	U	ppb
				Copper, filtered	20.00	U	ppb
				Iron, filtered	20.00	U	ppb
				Magnesium, filtered	4800.00		ppb
				Manganese, filtered	10.00	U	ppb
				Nickel, filtered	30.00	U	ppb
				Potassium, filtered	3700.00		ppb
				Silver, filtered	20.00	U	ppb
				Sodium, filtered	5300.00		ppb
				Tin, filtered	100.00	U	ppb
				Vanadium, filtered	30.00	U	ppb
				Zinc, filtered	10.00	U	ppb
		8/12/92	B07486	Gross alpha	1.07		pCi/L
				Gross beta	2.46		pCi/L
				Tritium	171.00	U	pCi/L

WHC-EP-0595

Groundwater Data Report

Groundwater Data from Operational Monitoring Wells -- 1/1/91 - Present.

Site	Well	Sample Date	Sample Number	Constituent Name	Result	Flag	Units
-----	-----	-----	-----	-----	-----	-----	-----

Result Flags are:

- U - undetected
- H - holding time exceeded
- P - potential problem with sample
- Q - associated QC value is suspect
- R - suspect result, under review

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**WESTINGHOUSE HANFORD COMPANY OPERATIONAL GROUNDWATER
STATUS REPORT, 1990 - 1992**

EXECUTIVE SUMMARY

Evaluation of the status of groundwater conditions beneath the Hanford Site involves assessment of groundwater quality and geohydrologic conditions as required by U.S. Department of Energy Order 5400.1 (III/IV) (DOE 1988). This requirement is implemented in the Westinghouse Hanford Company-operated areas through the Operational Groundwater Program managed by the Geosciences Function of Westinghouse Hanford Company's Environmental Division. The Operational Groundwater Program also provides data for operational groundwater surveillance as described in the *Environmental Monitoring Plan* for the Hanford Site (DOE-RL 1991c). Field activities for these programs include periodic water-level measurements and collection of samples for analysis of a wide range of constituents from a large network of groundwater monitoring wells. Constituent concentrations are evaluated against state and federal water quality standards, and water levels are used to estimate the rate and direction of groundwater flow.

The Geosciences Function conducts field activities for several programs including the *Resource Conservation and Recovery Act of 1976*; *Comprehensive Environmental Response, Compensation, and Liability Act of 1980*; operational surveillance; discharge permit program; Expedited Response Actions; and the underground storage tank program. This report integrates groundwater results from these sources and covers a transition period from 1989 through September 1992, during which a major decrease in liquid wastewater discharge to the ground occurred. As a summary of groundwater conditions at the end of

the Hanford Site plutonium production mission, this report also serves as a benchmark against which improvement or changes in groundwater quality can be measured. Highlights and major findings for this "benchmark" period are summarized in the following paragraphs.

Groundwater Quality--Samples from nearly 300 groundwater monitoring wells at active or recently active liquid waste disposal and storage sites were analyzed for the complete list of hazardous waste constituents (Appendix IX, 40 CFR 264) and site-specific radionuclides. Of the 380 individual constituents, a relatively small number exceeded state groundwater protection, national drinking water, or equivalent standards. Those constituents that exceeded a standard and exhibited a definite plume include arsenic, chromium, fluoride, carbon tetrachloride, chloroform, trichlorethylene, cyanide, nitrate, sulfate, tritium, cobalt-60, iodine-129, cesium-137, technetium-99, strontium-90, uranium, and plutonium-239. Of these, the most significant contamination involves the widespread occurrence of carbon tetrachloride and related volatile organic compounds, resulting from past-practice disposal of plutonium processing waste from Z Plant activities in the 200 West Area. The contaminant plume covers an area of over 10 km^2 (4 mi^2) within which concentrations over 10,000 times higher than the state groundwater quality standard of 0.3 ppb occur (see Figure ES-1). The unknown distribution of the residual inventory in the soil column and uncertainty about the depth distribution in groundwater beneath the major disposal sites are of particular concern. If liquid carbon tetrachloride is present as a separate phase in the unconfined aquifer, it could dissolve slowly and persist indefinitely as a continuing source. The occurrence of carbon tetrachloride concentrations of about 3,000 ppb at a depth of 52 m below the water table in an older well near

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