K-Area Acid/CAustic Basin Groundwater Monitoring Report (U)

Second Quarter 1994

Publication Date: September 1994

Authorized Derivative Classifier:

UNCLASSIFIED
Does Not Contain Unclassified Controlled Nuclear Information

Westinghouse Savannah River Company
Savannah River Site
Aiken, SC 29808

Prepared for the U.S. Department of Energy under Control Contract No. DE-AC09-89SR18035
DISCLAIMER

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

This report has been reproduced directly from the best available copy.

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

Available to the public from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161.
K-AREA ACID/CAUSTIC BASIN GROUNDWATER MONITORING REPORT (U)

SECOND QUARTER 1994

Publication Date: September 1994

Authorized Derivative Classifier:

[Signature]

UNCLASSIFIED
Does Not Contain Unclassified Controlled Nuclear Information

Westinghouse Savannah River Company
Savannah River Site
Aiken, SC 29808

Prepared for the U.S. Department of Energy under Control Contract No. DE-AC09-89SR18035
Abstract

During second quarter 1994, samples from the KAC monitoring wells at the K-Area Acid/Caustic Basin were collected and analyzed for herbicides/pesticides, indicator parameters, metals, nitrate, radionuclide indicators, and other constituents. Monitoring results that exceeded the final Primary Drinking Water Standards (PDWS), other Savannah River Site (SRS) Flag 2 criteria, or the SRS turbidity standard are provided in this report.

No constituents exceeded the final PDWS in the KAC wells. Aluminum, iron, and specific conductance exceeded other SRS flagging criteria in one or more of the downgradient wells. Total organic halogens was elevated in upgradient well KAC 3.

Groundwater flow direction and rate in the water table beneath the K-Area Acid/Caustic Basin were similar to past quarters.
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>iii</td>
</tr>
<tr>
<td>List of Figures</td>
<td>vi</td>
</tr>
<tr>
<td>List of Tables</td>
<td>vi</td>
</tr>
<tr>
<td>Executive Summary</td>
<td>1</td>
</tr>
<tr>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>Discussion</td>
<td>4</td>
</tr>
<tr>
<td>Groundwater Monitoring Data</td>
<td>4</td>
</tr>
<tr>
<td>Analytical Results Exceeding Standards</td>
<td>4</td>
</tr>
<tr>
<td>Turbidity Results Exceeding Standards</td>
<td>5</td>
</tr>
<tr>
<td>Water Elevations, Flow Directions, and Flow Rates</td>
<td>5</td>
</tr>
<tr>
<td>Results for Upgradient vs. Downgradient Wells</td>
<td>6</td>
</tr>
<tr>
<td>Conclusions</td>
<td>7</td>
</tr>
<tr>
<td>References Cited</td>
<td>8</td>
</tr>
<tr>
<td>Errata</td>
<td>9</td>
</tr>
<tr>
<td>Appendix A—Final Primary Drinking Water Standards</td>
<td>A-1</td>
</tr>
<tr>
<td>Appendix B—Flagging Criteria</td>
<td>B-1</td>
</tr>
<tr>
<td>Appendix C—Figures</td>
<td>C-1</td>
</tr>
<tr>
<td>Appendix D—Groundwater Monitoring Results Tables</td>
<td>D-1</td>
</tr>
<tr>
<td>Appendix E—Data Quality/Useability Assessment</td>
<td>E-1</td>
</tr>
</tbody>
</table>
# List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Location of the K-Area Acid/Caustic Basin at the Savannah River Site</td>
<td>C-3</td>
</tr>
<tr>
<td>2.</td>
<td>Location of Groundwater Monitoring Wells at the K-Area Acid/Caustic Basin</td>
<td>C-4</td>
</tr>
<tr>
<td>3.</td>
<td>Piezometer Surface Map of the Water Table at the K-Area Acid/Caustic Basin</td>
<td>C-5</td>
</tr>
</tbody>
</table>

# List of Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Maximum Results for Constituents Exceeding Final Primary Drinking Water</td>
<td>D-6</td>
</tr>
<tr>
<td></td>
<td>Standards</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Maximum Results for Constituents Exceeding Other Flag 2 Criteria or the SRS</td>
<td>D-6</td>
</tr>
<tr>
<td></td>
<td>Turbidity Standard</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Groundwater Monitoring Results for Individual Wells</td>
<td>D-7</td>
</tr>
</tbody>
</table>
Executive Summary

The KAC monitoring wells at the K-Area Acid/Caustic Basin are sampled quarterly as part of the Savannah River Site (SRS) Groundwater Monitoring Program and to comply with the terms of a consent decree signed May 26, 1988, by the U.S. District Court (District of South Carolina, Aiken Division).

During second quarter 1994, samples from the KAC wells were analyzed for herbicides/pesticides, indicator parameters, metals, nitrate, radionuclide indicators, and other constituents. Monitoring results that exceeded final Primary Drinking Water Standards, other SRS Flag 2 criteria, or the SRS turbidity standard are discussed in this report.

During second quarter 1994, no constituents exceeded standards in upgradient well KAC 5. Total organic halogens exceeded its SRS Flag 2 criterion in upgradient well KAC 3. Aluminum, iron, and specific conductance exceeded Flag 2 criteria in one or more of the downgradient wells. No well samples exceeded the SRS turbidity standard of 50 NTU.

Groundwater flow direction and rate in the water table beneath the K-Area Acid/Caustic Basin were similar to the flow directions and rates of previous quarters.
THIS PAGE LEFT BLANK INTENTIONALLY.
Introduction

The K-Area Acid/Caustic Basin is located in the eastern portion of K Area at the Savannah River Site (SRS) (Figure 1, Appendix C) near a tributary of Pen Branch. The following description outlines important events at the basin:

- The K-Area Acid/Caustic Basin was constructed in the early 1950s as an unlined earthen pit that received dilute sulfuric acid and sodium hydroxide solutions and other wastes from several areas within SRS. The basin provided an area for the mixing and neutralization of the dilute solutions before their discharge to nearby streams (Heffner and Exploration Resources, 1991).

- The basin remained in service until new neutralization facilities became operational in 1982 (Heffner and Exploration Resources, 1991).

- Monitoring wells KAC 1, 2, 3, and 4 (Figure 2, Appendix C) were installed at the basin between October 1983 and July 1984 (EPD/EMS, 1994).

- Under the terms of a consent decree signed May 26, 1988, by the U.S. District Court (Civil Action 1:85-2583-6, District of South Carolina, Aiken Division), the basin became subject to requirements of Subtitle C of the Resource Conservation and Recovery Act (RCRA), the South Carolina Hazardous Waste Management Regulations (SCHWMR), and associated regulations on June 1, 1988.

- The KAC monitoring wells were reevaluated during the summer of 1988 to ensure compliance with SCHWMR. As part of this compliance effort, wells KAC 5, 6, and 7 (Figure 2, Appendix C) were installed at the basin in the fall of 1988 (EPD/EMS, 1994).

- The revised Groundwater Quality Assessment Plan (WSRC, 1991), submitted to the South Carolina Department of Health and Environmental Control on April 30, 1991, proposed the installation of two additional water-table wells (KAC 8 and 9) at the basin.

- Wells KAC 8 and 9 (Figure 2, Appendix C) were installed in first quarter 1992 (EPD/EMS, 1994) and first sampled during second quarter 1992.

Each quarter, the Environmental Protection Department/Environmental Monitoring Section (EPD/EMS) samples the KAC monitoring wells as part of the SRS Groundwater Monitoring Program. The Environmental Restoration Department provides a quarterly report describing the monitoring results to SCDHEC in compliance with the consent decree.
Discussion

Groundwater Monitoring Data

The EPD/EMS groundwater sampling procedure (EPD/EMS, 1992) requires evacuation of a minimum of two well volumes and stabilization of pH, specific conductance, and turbidity prior to sample collection. Stability is established when a minimum of three successive measurements, taken within a given time period, are within a specified tolerance range. If a well pumps dry before two well volumes are purged or before stabilization is achieved, it must be revisited within 24 hours for the data to be considered the result of a single sampling event. On the second visit within 24 hours, samples are taken without purging or stability measurements; thus, these samples may not be representative of the groundwater quality.

A variable-speed pump was installed during fourth quarter 1992 in well KAC 1, which had a history of elevated metals. Samples from wells with variable-speed pumps are collected at slower rates to minimize turbidity, which has been associated with elevated metals levels. Decreased aluminum and iron concentrations as well as lower turbidity values have been observed for samples from wells with variable-speed pumps.

During second quarter 1994, samples from the KAC monitoring wells were analyzed for herbicides/pesticides, indicator parameters, metals, nitrate, radionuclide indicators, and other constituents. This report describes results that equaled or exceeded the Safe Drinking Water Act final Primary Drinking Water Standards (PDWS) or drinking water screening levels, as established by the U.S. Environmental Protection Agency (EPA) (Appendix A); the South Carolina final PDWS for lead (Appendix A); SRS flagging criteria that are based on final and proposed PDWS, Secondary Drinking Water Standards, and method detection limits (Appendix B); or the SRS turbidity standard. Constituent levels that equaled or exceeded the final PDWS, screening levels, or other Flag 2 criteria are described as exceeding or above standards or as elevated.

The final PDWS for individual analytes presented in Appendix A may not always match the SRS flagging criteria presented in Appendix B. The final PDWS generally are used in this compliance report as guidelines to meet regulatory requirements; the flagging criteria are used by EPD/EMS to identify relative levels of constituents in the groundwater and as guides for scheduling groundwater monitoring.

Analytical Results Exceeding Standards

Results for analytes that exceeded the final PDWS (see Appendix A) during second quarter 1994 are summarized in Table 1 (Appendix D). No constituents exceeded the final PDWS during the quarter.

Constituents that exceeded other Flag 2 criteria (see Appendix B) during second quarter 1994 are summarized in Table 2 (Appendix D). Aluminum exceeded the Flag 2 criterion in wells KAC 6, 7, and 9, with a maximum concentration of 1,310 μg/L in well KAC 7. Iron exceeded the Flag 2 criterion in wells KAC 6 and 7, with a maximum concentration of 1,120 μg/L in well KAC 6. Specific conductance was elevated in well KAC 9 at 520 μS/cm, and total organic halogens exceeded the Flag 2 criterion in well KAC 3 at 120 μg/L.
Table 3 (Appendix D) presents all of the results for individual wells and indicates the analytical laboratories that conducted the analyses, the dilution factors used in the analyses, and the analyses that received modifiers (which help identify laboratory accuracy and precision) or that exceeded the EPA-approved holding times during second quarter 1994. Constituent results in Table 3 that appear to equal the final PDWS but are not marked in the D column (exceeded final PDWS or screening level) are below the final PDWS in the database. Database results, the results that are compared to the final PDWS, are entered with more significant digits than the results given in this report. Apparent discrepancies are the result of the rounding of reported results.

Table 3 also lists the number of well volumes purged from each well during second quarter 1994 and provides a statement that describes incomplete or unsuccessful sampling events. Wells KAC 1, 6, and 7 failed to yield enough water to meet the purging and stabilization criteria; thus, samples from these wells may not be representative of the groundwater at the basin.

Appendix D provides definitions of the abbreviations and the modifiers used in the results tables as well as descriptions of holding times, data rounding, and data qualification practices.

Appendix E provides a general assessment of the quality and useability of the data provided by EPD/EMS.

**Turbidity Results Exceeding Standards**

A value of 5 nephelometric turbidity units (NTU), established by EPA (1986) as a general standard for acceptability of groundwater samples, is considered unrealistic for monitoring wells at SRS. Gass (1989) has documented turbidity measurements ranging up to 5,000 NTU from properly designed wells screened in poorly productive formations. During the 1989 RCRA Compliance Evaluation Inspection, officials from EPA Region IV indicated that the SRS turbidity standard of 50 NTU is conservative. These officials also agreed that water-table wells in this area often correspond to nonaquifer formations, rendering development of these wells more difficult due to the low yield and high proportion of mobile fines typical of these formations (Bergren and Bennett, 1989).

During second quarter 1994, wells KAC 6 and 7 had laboratory turbidity measurements between 5 NTU and the SRS standard of 50 NTU. Laboratory turbidity measurements for the remaining wells were less than 5 NTU.

**Water Elevations, Flow Directions, and Flow Rates**

Water-level elevations and groundwater flow direction beneath the K-Area Acid/Caustic Basin are shown in Figure 3 (Appendix C). Wells KAC 4, 8, and 9 are screened below the water table; their water-level elevations were not contoured or considered in the determination of groundwater flow direction or rate. However, these wells are downgradient from the basin (Figure 3, Appendix C) and are suitable for detecting groundwater contamination.

Well KAC 8 has consistently exhibited higher water elevations than the other submerged wells, KAC 4 and 9. Historical data indicate a ponding or losing stream effect in the area of well KAC 8, creating a mound of groundwater to the east of the basin. This mound could be attributed to the influx of water into the water table from the nearby K-Area outfall effluent stream south of well KAC 8, resulting in a higher water elevation for well KAC 8.
The groundwater flow direction (using universal transverse Mercator coordinates) determined from this quarter's water-level elevations for wells KAC 1, 2, 3, 5, 6, and 7 is southwest.

The groundwater flow rate in the water table (Aquifer Zone IIIB) beneath the K-Area Acid/Caustic Basin is estimated using the following equation:

\[
\text{Flow (ft/day)} = \frac{\text{Hydraulic Conductivity (ft/day)}}{\text{Porosity (unitless)}} \times \frac{dh (ft)}{di (ft)}
\]

A hydraulic conductivity constant of 10 ft/day (Geraghty & Miller, Inc., 1990) is a conservative estimate (i.e., the actual hydraulic conductivity should be somewhat less than 10 ft/day). The effective porosity value is estimated at 20% (Killian et al., 1987); \(dh\) is the difference in head, and \(di\) is the length of the flow path to the nearest 10 ft. Flow rate estimates vary depending on the vertical gradient between wells, the size of the area under consideration, and the number of data points. For this reason, the estimation of flow rate should be considered accurate only to an order of magnitude.

Flow rate estimates are calculated as follows: flow rate per day is calculated to two significant figures using the above equation. This value is then multiplied by 365 and rounded to two significant figures for the flow rate per year.

Using the above equation with data from the six non-submerged KAC monitoring wells, the flow rate estimate for groundwater in the water table beneath the K-Area Acid/Caustic Basin (Figure 3, Appendix C) is as follows:

\[
\frac{10}{0.20} \times \frac{3}{110} = 1.4 \text{ ft/day}
\]

\[
1.4 \text{ ft/day} \times 365 \text{ days} = 510 \text{ ft/yr}
\]

**Results for Upgradient vs. Downgradient Wells**

Wells KAC 3 and 5 are upgradient of the basin; the remaining KAC wells are downgradient. During second quarter 1994, no constituents exceeded the final PDWS or the SRS turbidity standard in either upgradient or downgradient wells. Total organic halogens exceeded its Flag 2 criterion in upgradient well KAC 3. Aluminum, iron, and specific conductance exceeded Flag 2 criteria in one or more of the downgradient wells.
Conclusions

No constituents exceeded the final PDWS in monitoring wells at the K-Area Acid/Caustic Basin during second quarter 1994. Historically, few constituents have exceeded final PDWS in these wells. Tritium appeared to be elevated in well KAC 7 during fourth quarter 1993; however, this value was considered to be the result of laboratory error.

Total organic halogens was elevated in one upgradient well, and aluminum, iron, and specific conductance exceeded Flag 2 criteria in one or more of the downgradient wells. Generally, constituents found in downgradient wells but not upgradient wells at a waste management unit are considered products of the waste management unit. Aluminum and iron have consistently exceeded standards in some KAC wells in past quarters.

Groundwater flow in the water table beneath the K-Area Acid/Caustic Basin was to the southwest at approximately 510 ft/yr.
References Cited


EPD/EMS (Environmental Protection Department/Environmental Monitoring Section), 1994. Environmental Protection Department's Well Inventory (through the fourth quarter of 1993), ESH-EMS-930262, March 1994. Westinghouse Savannah River Company, Savannah River Site, Aiken, SC.


Errata

In tables with four quarters of data, some values for earlier quarters may differ from values for those same quarters presented in earlier reports because some reanalyses may have been performed by the laboratories after the reports were printed.

Second Quarter 1993 through Fourth Quarter 1993:

- No errata have been reported.

First Quarter 1994:

- Page 4, Groundwater Monitoring Data: The copper standard is the final PDWS established by EPA.
THIS PAGE LEFT BLANK INTENTIONALLY.
Appendix A

Final Primary Drinking Water Standards
THIS PAGE LEFT BLANK INTENTIONALLY.
## Final Primary Drinking Water Standards

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Unit</th>
<th>Level</th>
<th>Status</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alachlor</td>
<td>µg/L</td>
<td>2</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Aldicarb&lt;sup&gt;a&lt;/sup&gt;</td>
<td>µg/L</td>
<td>3</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Aldicarb sulfone&lt;sup&gt;a&lt;/sup&gt;</td>
<td>µg/L</td>
<td>2</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Aldicarb sulfone&lt;sup&gt;a&lt;/sup&gt;</td>
<td>µg/L</td>
<td>4</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Antimony</td>
<td>µg/L</td>
<td>6</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Antimony, dissolved</td>
<td>µg/L</td>
<td>6</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Antimony, total recoverable</td>
<td>µg/L</td>
<td>6</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Arsenic</td>
<td>µg/L</td>
<td>50</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Arsenic, dissolved</td>
<td>µg/L</td>
<td>50</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Arsenic, total recoverable</td>
<td>µg/L</td>
<td>50</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Asbestos</td>
<td>Fibers/L</td>
<td>7,000,000</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Atrazine</td>
<td>µg/L</td>
<td>3</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Barium</td>
<td>µg/L</td>
<td>2,000</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Barium, dissolved</td>
<td>µg/L</td>
<td>2,000</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Barium, total recoverable</td>
<td>µg/L</td>
<td>2,000</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Benzene</td>
<td>µg/L</td>
<td>5</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Benzo[a]pyrene</td>
<td>µg/L</td>
<td>0.2</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Beryllium</td>
<td>µg/L</td>
<td>4</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Beryllium, dissolved</td>
<td>µg/L</td>
<td>4</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Beryllium, total recoverable</td>
<td>µg/L</td>
<td>4</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Bis(2-ethylhexyl) phthalate</td>
<td>µg/L</td>
<td>6</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Bromodichloromethane</td>
<td>µg/L</td>
<td>100</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Bromoform</td>
<td>µg/L</td>
<td>100</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>2-sec-Butyl-4,6-dinitrophenol</td>
<td>µg/L</td>
<td>7</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Cadmium</td>
<td>µg/L</td>
<td>5</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Cadmium, dissolved</td>
<td>µg/L</td>
<td>5</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Cadmium, total recoverable</td>
<td>µg/L</td>
<td>5</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Carbofuran</td>
<td>µg/L</td>
<td>40</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Carbon tetrachloride</td>
<td>µg/L</td>
<td>5</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Chlor dane</td>
<td>µg/L</td>
<td>2</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Chlorobenzene</td>
<td>µg/L</td>
<td>100</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Chloroethene (Vinyl chloride)</td>
<td>µg/L</td>
<td>2</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Chloroform</td>
<td>µg/L</td>
<td>100</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Chromium</td>
<td>µg/L</td>
<td>100</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Chromium, dissolved</td>
<td>µg/L</td>
<td>100</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Chromium, total recoverable</td>
<td>µg/L</td>
<td>100</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Copper</td>
<td>µg/L</td>
<td>1,300</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Copper, dissolved</td>
<td>µg/L</td>
<td>1,300</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Copper, total recoverable</td>
<td>µg/L</td>
<td>1,300</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Cyanide</td>
<td>µg/L</td>
<td>200</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Dalapon&lt;sup&gt;a&lt;/sup&gt;</td>
<td>µg/L</td>
<td>200</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Dibromochloromethane</td>
<td>µg/L</td>
<td>100</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>1,2-Dibromo-3-chloropropane</td>
<td>µg/L</td>
<td>0.2</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>1,2-Dibromopropane</td>
<td>µg/L</td>
<td>0.05</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>1,2-Dichlorobenzene</td>
<td>µg/L</td>
<td>600</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>1,4-Dichlorobenzene</td>
<td>µg/L</td>
<td>75</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>1,2-Dichloroethane</td>
<td>µg/L</td>
<td>5</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>1,1-Dichloroethylene</td>
<td>µg/L</td>
<td>7</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>1,2-Dichloroethylene</td>
<td>µg/L</td>
<td>50</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>cis-1,2-Dichloroethylene</td>
<td>µg/L</td>
<td>70</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>trans-1,2-Dichloroethylene</td>
<td>µg/L</td>
<td>100</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Dichloromethane (Methylene chloride)</td>
<td>µg/L</td>
<td>5</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>2,4-Dichlorophenoxyacetic acid</td>
<td>µg/L</td>
<td>70</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Analyte</td>
<td>Unit</td>
<td>Level</td>
<td>Status</td>
<td>Source</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>----------</td>
<td>-------</td>
<td>--------</td>
<td>----------------</td>
</tr>
<tr>
<td>1,2-Dichloropropane</td>
<td>μg/L</td>
<td>5</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Di(2-ethylhexyl) adipate&lt;sup&gt;a&lt;/sup&gt;</td>
<td>μg/L</td>
<td>400</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Diquat dibromide&lt;sup&gt;a&lt;/sup&gt;</td>
<td>μg/L</td>
<td>20</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Endothal&lt;sup&gt;a&lt;/sup&gt;</td>
<td>μg/L</td>
<td>100</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Endrin</td>
<td>μg/L</td>
<td>2</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>μg/L</td>
<td>700</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Fluoride</td>
<td>μg/L</td>
<td>4,000</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Glyphosate&lt;sup&gt;a&lt;/sup&gt;</td>
<td>μg/L</td>
<td>700</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Gross alpha&lt;sup&gt;b&lt;/sup&gt;</td>
<td>pCi/L</td>
<td>1.5E+01</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Heptachlor</td>
<td>μg/L</td>
<td>0.4</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Heptachlor epoxide</td>
<td>μg/L</td>
<td>0.2</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Hexachlorobenzene</td>
<td>μg/L</td>
<td>1</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Hexachlorocyclopentadiene</td>
<td>μg/L</td>
<td>50</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Lead</td>
<td>μg/L</td>
<td>50</td>
<td>Final</td>
<td>SCDHEC, 1981</td>
</tr>
<tr>
<td>Lead, dissolved</td>
<td>μg/L</td>
<td>50</td>
<td>Final</td>
<td>SCDHEC, 1981</td>
</tr>
<tr>
<td>Lead, total recoverable</td>
<td>μg/L</td>
<td>50</td>
<td>Final</td>
<td>SCDHEC, 1981</td>
</tr>
<tr>
<td>Lindane</td>
<td>μg/L</td>
<td>0.2</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Mercury</td>
<td>μg/L</td>
<td>2</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Mercury, dissolved</td>
<td>μg/L</td>
<td>2</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Mercury, total recoverable</td>
<td>μg/L</td>
<td>2</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Methoxychlor</td>
<td>μg/L</td>
<td>40</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Nickel</td>
<td>μg/L</td>
<td>100</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Nickel, dissolved</td>
<td>μg/L</td>
<td>100</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Nickel, total recoverable</td>
<td>μg/L</td>
<td>100</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Nitrate as nitrogen</td>
<td>μg/L</td>
<td>10,000</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Nitrate-nitrite as nitrogen</td>
<td>μg/L</td>
<td>10,000</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Nitrite as nitrogen</td>
<td>μg/L</td>
<td>1,000</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Nonvolatile beta</td>
<td>pCi/L</td>
<td>5E+01</td>
<td>Interim Final</td>
<td>EPA, 1977</td>
</tr>
<tr>
<td>Oxamyl&lt;sup&gt;a&lt;/sup&gt;</td>
<td>μg/L</td>
<td>200</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>PCB 1016</td>
<td>μg/L</td>
<td>0.5</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>PCB 1221</td>
<td>μg/L</td>
<td>0.5</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>PCB 1232</td>
<td>μg/L</td>
<td>0.5</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>PCB 1242</td>
<td>μg/L</td>
<td>0.5</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>PCB 1248</td>
<td>μg/L</td>
<td>0.5</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>PCB 1254</td>
<td>μg/L</td>
<td>0.5</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>PCB 1260</td>
<td>μg/L</td>
<td>0.5</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>PCB 1262</td>
<td>μg/L</td>
<td>0.5</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Pentachlorophenol</td>
<td>μg/L</td>
<td>1</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Picloram&lt;sup&gt;a&lt;/sup&gt;</td>
<td>μg/L</td>
<td>500</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Selenium</td>
<td>μg/L</td>
<td>50</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Selenium, dissolved</td>
<td>μg/L</td>
<td>50</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Selenium, total recoverable</td>
<td>μg/L</td>
<td>50</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Simazine&lt;sup&gt;a&lt;/sup&gt;</td>
<td>μg/L</td>
<td>4</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Strontium-89/90&lt;sup&gt;c&lt;/sup&gt;</td>
<td>pCi/L</td>
<td>8E+00</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Strontium-90</td>
<td>pCi/L</td>
<td>8E+00</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Styrene</td>
<td>μg/L</td>
<td>100</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>2,3,7,8-TCDD</td>
<td>μg/L</td>
<td>0.00003</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Tetrachloroethylene</td>
<td>μg/L</td>
<td>5</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Thallium</td>
<td>μg/L</td>
<td>2</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Thallium, dissolved</td>
<td>μg/L</td>
<td>2</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Thallium, total recoverable</td>
<td>μg/L</td>
<td>2</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Toluene</td>
<td>μg/L</td>
<td>1,000</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Toxaphene</td>
<td>μg/L</td>
<td>3</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>2,4,5-TP (Silvex)</td>
<td>μg/L</td>
<td>50</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>1,2,4-Trichlorobenzene</td>
<td>μg/L</td>
<td>70</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Analyte</td>
<td>Unit</td>
<td>Level</td>
<td>Status</td>
<td>Source</td>
</tr>
<tr>
<td>----------------------</td>
<td>------</td>
<td>-------</td>
<td>--------</td>
<td>----------------</td>
</tr>
<tr>
<td>1,1,1-Trichloroethane</td>
<td>μg/L</td>
<td>200</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>1,1,2-Trichloroethane</td>
<td>μg/L</td>
<td>5</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Trichloroethylene</td>
<td>μg/L</td>
<td>5</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Tritium</td>
<td>pCi/mL</td>
<td>2E+01</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
<tr>
<td>Xylenes</td>
<td>μg/L</td>
<td>10,000</td>
<td>Final</td>
<td>EPA, 1993</td>
</tr>
</tbody>
</table>

Note: Final PDWS were assigned to alachlor, aldicarb, aldicarb sulfone, aldicarb sulfoxide, atrazine, carbofuran, dalapon, di(2-ethylhexyl) adipate, diquat dibromide, endothall, glyphosate, oxamyl, picloram, and simazine in the SRS Groundwater Monitoring Program for the first time beginning first quarter 1994.

a At present, EMS does not perform this analysis because the constituent is not in the current contract.
b The standard given is for gross alpha including radium-226 but excluding radon and uranium.
c For double radionuclide analyses where each separate radionuclide has its own standard, the more stringent standard is used.

References


Appendix B

Flagging Criteria
Flagging Criteria

The Savannah River Site Environmental Protection Department/Environmental Monitoring Section (EPD/EMS) flagging criteria are as follows:

- Flag 2 criteria for constituents equal the Safe Drinking Water Act (SDWA) final Primary Drinking Water Standard (PDWS), the SDWA proposed PDWS, or the SDWA Secondary Drinking Water Standard (SDWS). If a constituent does not have a drinking water standard, the Flag 2 criterion equals 10 times the method detection limit (MDL) calculated as the 90th percentile detection limit obtained recently by one of the primary analytical laboratories.

- Flag 1 criteria for constituents equal one-half of the final PDWS, one-half the proposed PDWS, or one-half the SDWS. If a constituent does not have a drinking water standard, the Flag 1 criterion equals 5 times the MDL calculated as the 90th percentile detection limit obtained recently by one of the primary analytical laboratories.

- Flag 0 criteria are assigned to constituent levels below Flag 1 criteria, constituent levels below the sample detection limits, or constituents having no flagging criteria.

The following parameters are exceptions to the flagging rules:

- EPD/EMS sets flagging criteria for specific conductance and pH. No flags are set for alkalinity, calcium, carbonate, magnesium, potassium, silica, sodium, total dissolved solids, total phosphates (as P), and total phosphorus. Analyses for these parameters are conducted as part of the biennial comprehensive analyses or by special request.

- Aesthetic parameters such as color, corrosivity, Eh, odor, surfactants, and turbidity are not assigned flagging criteria but are analyzed by special request.

- Common laboratory contaminants and cleaners such as dichloromethane (methylene chloride), ketones, phthalates, and toluene are not assigned flagging criteria unless they have primary drinking water standards. These constituents are analyzed by special request.

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Unit</th>
<th>Flag 1</th>
<th>Flag 2</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acenaphthene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Acenaphthylene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Acetone</td>
<td>µg/L</td>
<td>500</td>
<td>1,000</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>Acetonitrile (Methyl cyanide)</td>
<td>µg/L</td>
<td>500</td>
<td>1,000</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>Acetophenone</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>2-Acetylaminofluorene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Acrolein</td>
<td>µg/L</td>
<td>100</td>
<td>200</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>Acrylonitrile</td>
<td>µg/L</td>
<td>100</td>
<td>200</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>Actinium-228</td>
<td>pCi/L</td>
<td>1.64E+03</td>
<td>3.27E+03</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Alachlor</td>
<td>µg/L</td>
<td>1</td>
<td>2</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Aldicarb</td>
<td>µg/L</td>
<td>1.5</td>
<td>3</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Aldicarb sulfone</td>
<td>µg/L</td>
<td>1</td>
<td>2</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Aldicarb sulfoxide</td>
<td>µg/L</td>
<td>2</td>
<td>4</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Aldrin</td>
<td>µg/L</td>
<td>0.25</td>
<td>0.5</td>
<td>EPA Method 8080</td>
</tr>
<tr>
<td>Alkalinity (as CaCO₃)</td>
<td>No flag</td>
<td>No flag</td>
<td></td>
<td>Set by EPD/EMS</td>
</tr>
<tr>
<td>Alkyl chloride</td>
<td>µg/L</td>
<td>250</td>
<td>500</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>Aluminum</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>SDWS (EPA, 1993b)</td>
</tr>
<tr>
<td>Aluminum, dissolved</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>SDWS (EPA, 1993b)</td>
</tr>
<tr>
<td>Aluminum, total recoverable</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>SDWS (EPA, 1993b)</td>
</tr>
<tr>
<td>Analyte</td>
<td>Unit</td>
<td>Flag 1</td>
<td>Flag 2</td>
<td>Source</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-------</td>
<td>------------</td>
<td>------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Americium-241</td>
<td>pCi/L</td>
<td>3.17E+00</td>
<td>6.34E+00</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Americium-243</td>
<td>pCi/L</td>
<td>3.19E+00</td>
<td>6.37E+00</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>4-Aminobiphenyl</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Ammonia</td>
<td>µg/L</td>
<td>500</td>
<td>1,000</td>
<td>APHA Method 417B</td>
</tr>
<tr>
<td>Ammonia nitrogen</td>
<td>µg/L</td>
<td>500</td>
<td>1,000</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Aniline</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Anthracene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Antimony</td>
<td>µg/L</td>
<td>3</td>
<td>6</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Antimony, dissolved</td>
<td>µg/L</td>
<td>3</td>
<td>6</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Antimony, total recoverable</td>
<td>µg/L</td>
<td>3</td>
<td>6</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Antimony-125</td>
<td>µCi/L</td>
<td>1.5E+02</td>
<td>3E+02</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Aramite</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Arsenic</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Arsenic, dissolved</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Arsenic, total recoverable</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Asbestos</td>
<td>Fibers/L</td>
<td>3,500,000</td>
<td>7,000,000</td>
<td>EPA Method 625</td>
</tr>
<tr>
<td>Atrazine</td>
<td>µg/L</td>
<td>1.5</td>
<td>3</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Azobenzene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Barium</td>
<td>µg/L</td>
<td>1,000</td>
<td>2,000</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Barium, dissolved</td>
<td>µg/L</td>
<td>1,000</td>
<td>2,000</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Barium, total recoverable</td>
<td>µg/L</td>
<td>1,000</td>
<td>2,000</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Barium-140C</td>
<td>µCi/L</td>
<td>4.5E+01</td>
<td>9E+01</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Benzene</td>
<td>µg/L</td>
<td>2.5</td>
<td>5</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>alpha-Benzene hexachloride</td>
<td>µg/L</td>
<td>0.25</td>
<td>0.5</td>
<td>EPA Method 8080</td>
</tr>
<tr>
<td>beta-Benzene hexachloride</td>
<td>µg/L</td>
<td>0.25</td>
<td>0.5</td>
<td>EPA Method 8080</td>
</tr>
<tr>
<td>delta-Benzene hexachloride</td>
<td>µg/L</td>
<td>0.25</td>
<td>0.5</td>
<td>EPA Method 8080</td>
</tr>
<tr>
<td>Benzidine</td>
<td>µg/L</td>
<td>250</td>
<td>500</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Benzo(a)anthracene</td>
<td>µg/L</td>
<td>0.05</td>
<td>0.1</td>
<td>Proposed PDWS (EPA, 1990)</td>
</tr>
<tr>
<td>Benzo(b)fluoranthene</td>
<td>µg/L</td>
<td>0.1</td>
<td>0.2</td>
<td>Proposed PDWS (EPA, 1990)</td>
</tr>
<tr>
<td>Benzo(k)fluoranthene</td>
<td>µg/L</td>
<td>0.1</td>
<td>0.2</td>
<td>Proposed PDWS (EPA, 1990)</td>
</tr>
<tr>
<td>Benzoy acid</td>
<td>µg/L</td>
<td>250</td>
<td>500</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Benzo(g,h,i)pyrrole</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Benzo[a]pyrene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>1,4-Benzoquinone</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Beryllium</td>
<td>µg/L</td>
<td>2</td>
<td>4</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Beryllium, dissolved</td>
<td>µg/L</td>
<td>2</td>
<td>4</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Beryllium, total recoverable</td>
<td>µg/L</td>
<td>2</td>
<td>4</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Beryllium-7</td>
<td>µCi/L</td>
<td>3E+03</td>
<td>6E+03</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Bis(2-chloroethoxy) methan</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Bis(2-chloroethyl) ether</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Bis(2-chloroisopropyl) ether</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Bis(chloromethyl) ether</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Bis(2-ethylhexyl) phthalate</td>
<td>µg/L</td>
<td>3</td>
<td>6</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Bismuth-214</td>
<td>µCi/L</td>
<td>9.4E+03</td>
<td>1.89E+04</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Boron</td>
<td>µg/L</td>
<td>150</td>
<td>300</td>
<td>EPA Method 6010</td>
</tr>
<tr>
<td>Boron, dissolved</td>
<td>µg/L</td>
<td>150</td>
<td>300</td>
<td>EPA Method 6010</td>
</tr>
<tr>
<td>Boron, total recoverable</td>
<td>µg/L</td>
<td>150</td>
<td>300</td>
<td>EPA Method 6010</td>
</tr>
<tr>
<td>Bromide</td>
<td>µg/L</td>
<td>5,000</td>
<td>10,000</td>
<td>EPA Method 300.0</td>
</tr>
<tr>
<td>Bromodichloromethane</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Bromoform</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Bromomethane (Methyl bromide)</td>
<td>µg/L</td>
<td>5</td>
<td>10</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>4-Bromophenyl phenyl ether</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>2-sec-Butyl-4,6-dinitrophenol</td>
<td>µg/L</td>
<td>3.5</td>
<td>7</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Butylbenzyl phthalate</td>
<td>µg/L</td>
<td>No flag</td>
<td>No flag</td>
<td>Set by EPD/EMS</td>
</tr>
</tbody>
</table>

K-Area Acid/Caustic Basin

Second Quarter 1994
<table>
<thead>
<tr>
<th>Analyte</th>
<th>Unit</th>
<th>Flag 1</th>
<th>Flag 2</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadmium</td>
<td>µg/L</td>
<td>2.5</td>
<td>5</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Cadmium, dissolved</td>
<td>µg/L</td>
<td>2.5</td>
<td>5</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Cadmium, total recoverable</td>
<td>µg/L</td>
<td>2.5</td>
<td>5</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Calcium</td>
<td></td>
<td>No</td>
<td>No</td>
<td>Set by EPD/EMS</td>
</tr>
<tr>
<td>Calcium, dissolved</td>
<td></td>
<td>No</td>
<td>No</td>
<td>Set by EPD/EMS</td>
</tr>
<tr>
<td>Calcium, total recoverable</td>
<td></td>
<td>No</td>
<td>No</td>
<td>Set by EPD/EMS</td>
</tr>
<tr>
<td>Carbon disulfide</td>
<td>µg/L</td>
<td>5</td>
<td>10</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>Carbofuran</td>
<td>µg/L</td>
<td>20</td>
<td>40</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Carbon tetrachloride</td>
<td>µg/L</td>
<td>2.5</td>
<td>5</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Carbon-14</td>
<td>pCi/L</td>
<td>1E+03</td>
<td>2E+03</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Carbonate</td>
<td></td>
<td>No</td>
<td>No</td>
<td>Set by EPD/EMS</td>
</tr>
<tr>
<td>Cerium-141 C</td>
<td>pCi/L</td>
<td>1.5E+02</td>
<td>3E+02</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Cerium-144</td>
<td>pCi/L</td>
<td>1.31E+02</td>
<td>2.61E+02</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Cesium-134 d</td>
<td>pCi/L</td>
<td>4.07E+01</td>
<td>8.13E+01</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Cesium-137</td>
<td>pCi/L</td>
<td>1E+02</td>
<td>2E+02</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Chlorodane</td>
<td>µg/L</td>
<td>1</td>
<td>2</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Chloride</td>
<td>µg/L</td>
<td>125,000</td>
<td>250,000</td>
<td>SDWS (EPA, 1993b)</td>
</tr>
<tr>
<td>4-Chloroaniline</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Chlorobenzene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Chlorobenzilate</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Chloroethane</td>
<td>µg/L</td>
<td>5</td>
<td>10</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>Chloroethene (Vinyl chloride)</td>
<td>µg/L</td>
<td>1</td>
<td>2</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Chloroethyl vinyl ether</td>
<td>µg/L</td>
<td>5</td>
<td>10</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>2-Chloroethyl vinyl ether</td>
<td>µg/L</td>
<td>5</td>
<td>10</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>Chloroform</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>4-Chloro-m-cresol</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Chloromethane (Methyl chloride)</td>
<td>µg/L</td>
<td>5</td>
<td>10</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>2-Chloronaphthaleene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>2-Chlorophenol</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>4-Chlorophenol phenyl ether</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Chloroprene</td>
<td>µg/L</td>
<td>1,000</td>
<td>2,000</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>Chromium</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Chromium, dissolved</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Chromium, total recoverable</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Chromium-51 C</td>
<td>pCi/L</td>
<td>3E+03</td>
<td>6E+03</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Chrysene</td>
<td>µg/L</td>
<td>0.1</td>
<td>0.2</td>
<td>Proposed PDWS (EPA, 1990)</td>
</tr>
<tr>
<td>Cobalt</td>
<td>µg/L</td>
<td>20</td>
<td>40</td>
<td>EPA Method 6010</td>
</tr>
<tr>
<td>Cobalt, dissolved</td>
<td>µg/L</td>
<td>20</td>
<td>40</td>
<td>EPA Method 6010</td>
</tr>
<tr>
<td>Cobalt, total recoverable</td>
<td>µg/L</td>
<td>20</td>
<td>40</td>
<td>EPA Method 6010</td>
</tr>
<tr>
<td>Cobalt-57</td>
<td>pCi/L</td>
<td>5E+02</td>
<td>1E+03</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Cobalt-58 d</td>
<td>pCi/L</td>
<td>4.5E+03</td>
<td>9E+03</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Cobalt-60</td>
<td>pCi/L</td>
<td>5E+01</td>
<td>1E+02</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Color</td>
<td></td>
<td>No</td>
<td>No</td>
<td>Set by EPD/EMS</td>
</tr>
<tr>
<td>Copper</td>
<td>µg/L</td>
<td>500</td>
<td>1,000</td>
<td>Final PDWS (SCDHEC, 1981)</td>
</tr>
<tr>
<td>Copper, dissolved</td>
<td>µg/L</td>
<td>500</td>
<td>1,000</td>
<td>Final PDWS (SCDHEC, 1981)</td>
</tr>
<tr>
<td>Copper, total recoverable</td>
<td>µg/L</td>
<td>500</td>
<td>1,000</td>
<td>Final PDWS (SCDHEC, 1981)</td>
</tr>
<tr>
<td>Corrosivity</td>
<td></td>
<td>No</td>
<td>No</td>
<td>Set by EPD/EMS</td>
</tr>
<tr>
<td>m-Cresol (3-Methylphenol)</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>o-Cresol (2-Methylphenol)</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>p-Cresol (4-Methylphenol)</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Curium-242</td>
<td>pCi/L</td>
<td>6.65E+01</td>
<td>1.33E+02</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Curium-243</td>
<td>pCi/L</td>
<td>4.15E+00</td>
<td>8.3E+00</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Curium-243/244</td>
<td>pCi/L</td>
<td>4.15E+00</td>
<td>8.3E+00</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Curium-244</td>
<td>pCi/L</td>
<td>4.92E+00</td>
<td>9.84E+00</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Curium-245/246</td>
<td>pCi/L</td>
<td>3.12E+00</td>
<td>6.23E+00</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Analyte</td>
<td>Unit</td>
<td>Flag 1</td>
<td>Flag 2</td>
<td>Source</td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>-----------</td>
<td>--------</td>
<td>--------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Curium-246</td>
<td>pCi/L</td>
<td>3.14E+00</td>
<td>6.27E+00</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Cyanide</td>
<td>µg/L</td>
<td>100</td>
<td>200</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Dalapon&lt;sup&gt;b&lt;/sup&gt;</td>
<td>µg/L</td>
<td>100</td>
<td>200</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>p,p'-DDD</td>
<td>µg/L</td>
<td>0.5</td>
<td>1</td>
<td>EPA Method 8080</td>
</tr>
<tr>
<td>p,p'-DDE</td>
<td>µg/L</td>
<td>0.5</td>
<td>1</td>
<td>EPA Method 8080</td>
</tr>
<tr>
<td>p,p'-DDT</td>
<td>µg/L</td>
<td>0.5</td>
<td>1</td>
<td>EPA Method 8080</td>
</tr>
<tr>
<td>Di-n-butyl phthalate</td>
<td>No flag</td>
<td>No flag</td>
<td></td>
<td>Set by EPD/EMS</td>
</tr>
<tr>
<td>Di-n-octyl phthalate</td>
<td>No flag</td>
<td>No flag</td>
<td></td>
<td>Set by EPD/EMS</td>
</tr>
<tr>
<td>Diallate</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Dibenz[a,h]anthracene</td>
<td>µg/L</td>
<td>0.15</td>
<td>0.3</td>
<td>Proposed PDWS (EPA, 1990)</td>
</tr>
<tr>
<td>Dibenzofuran</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Dibromochloromethane</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>1,2-Dibromo-3-chloropropane</td>
<td>µg/L</td>
<td>0.1</td>
<td>0.2</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>1,2-Dibromoethane</td>
<td>µg/L</td>
<td>0.025</td>
<td>0.05</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Dibromomethane</td>
<td>µg/L</td>
<td>5</td>
<td>10</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>(Methylene bromide)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,2-Dichlorobenzene</td>
<td>µg/L</td>
<td>300</td>
<td>600</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>1,3-Dichlorobenzene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>1,4-Dichlorobenzene</td>
<td>µg/L</td>
<td>37.5</td>
<td>75</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>3,3'-Dichlorobenzidine</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>trans-1,4-Dichloro-2-butene</td>
<td>µg/L</td>
<td>150</td>
<td>300</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>Dichlorodifluoromethane</td>
<td>µg/L</td>
<td>5</td>
<td>10</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>1,1-Dichloroethane</td>
<td>µg/L</td>
<td>5</td>
<td>10</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>1,2-Dichloroethane</td>
<td>µg/L</td>
<td>2.5</td>
<td>5</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>1,1-Dichloroethylene</td>
<td>µg/L</td>
<td>3.5</td>
<td>7</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>1,2-Dichloroethylene</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>cis-1,2-Dichloroethylene</td>
<td>µg/L</td>
<td>35</td>
<td>70</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>trans-1,2-Dichloroethylene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Dichloromethane</td>
<td>µg/L</td>
<td>2.5</td>
<td>5</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>(Methylene chloride)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,4-Dichlorophenol</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>2,6-Dichlorophenol</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>2,4-Dichlorophenoxyacetic acid</td>
<td>µg/L</td>
<td>35</td>
<td>70</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>1,2-Dichloropropane</td>
<td>µg/L</td>
<td>2.5</td>
<td>5</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>cis-1,3-Dichloropropene</td>
<td>µg/L</td>
<td>5</td>
<td>10</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>trans-1,3-Dichloropropene</td>
<td>µg/L</td>
<td>5</td>
<td>10</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>Di(2-ethylhexyl) adipate</td>
<td>µg/L</td>
<td>200</td>
<td>400</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Dieldrin</td>
<td>µg/L</td>
<td>2.5</td>
<td>5</td>
<td>EPA Method 8080</td>
</tr>
<tr>
<td>Diethyl phthalate</td>
<td>No flag</td>
<td>No flag</td>
<td></td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Dimethoate</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>p-Dimethylaminoazobenzene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>p-(Dimethylamino)ethylbenzene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>7,12-Dimethylbenz[a]anthracene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>3,3'‐Dimethylbenzidine</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>a,a-Dimethylenethylylamine</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>2,4-Dimethyl phenol</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Dimethyl phthalate</td>
<td>No flag</td>
<td>No flag</td>
<td></td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>1,3-Dinitrobenzene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>2,4-Dinitrophenol</td>
<td>µg/L</td>
<td>250</td>
<td>500</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>2,4-Dinitrotoluene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>2,6-Dinitrotoluene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Diquat dibromide&lt;sup&gt;b&lt;/sup&gt;</td>
<td>µg/L</td>
<td>10</td>
<td>20</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>1,4-Dioxane</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Diphenylamine</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>1,2-Diphenyldiazine</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Analyte</td>
<td>Unit</td>
<td>Flag 1</td>
<td>Flag 2</td>
<td>Source</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Dissolved organic carbon</td>
<td>µg/L</td>
<td>5,000</td>
<td>10,000</td>
<td>EPA Method 9060</td>
</tr>
<tr>
<td>Disulfoton</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Eh</td>
<td>No flag</td>
<td>No flag</td>
<td>No flag</td>
<td>Set by EPO/EMS</td>
</tr>
<tr>
<td>Endosulfan I</td>
<td>µg/L</td>
<td>0.5</td>
<td>1</td>
<td>EPA Method 8080</td>
</tr>
<tr>
<td>Endosulfan II</td>
<td>µg/L</td>
<td>0.5</td>
<td>1</td>
<td>EPA Method 8080</td>
</tr>
<tr>
<td>Endosulfan sulfate</td>
<td>µg/L</td>
<td>0.5</td>
<td>1</td>
<td>EPA Method 8080</td>
</tr>
<tr>
<td>Endothall b</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Endrin</td>
<td>µg/L</td>
<td>1</td>
<td>2</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Endrin aldehyde</td>
<td>µg/L</td>
<td>0.5</td>
<td>1</td>
<td>EPA Method 8080</td>
</tr>
<tr>
<td>Endrin ketone</td>
<td>No flag</td>
<td>No flag</td>
<td>No flag</td>
<td>Set by EPO/EMS</td>
</tr>
<tr>
<td>Ethybenzene</td>
<td>µg/L</td>
<td>350</td>
<td>700</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Ethyl methacrylate</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Ethyl methanesulfonate</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Europium-152</td>
<td>pCi/L</td>
<td>3E+01</td>
<td>6E+01</td>
<td>Interim Final PDWS (EPA, 1997)</td>
</tr>
<tr>
<td>Europium-154</td>
<td>pCi/L</td>
<td>1E+02</td>
<td>2E+02</td>
<td>Interim Final PDWS (EPA, 1997)</td>
</tr>
<tr>
<td>Europium-155</td>
<td>pCi/L</td>
<td>3E+02</td>
<td>6E+02</td>
<td>Interim Final PDWS (EPA, 1997)</td>
</tr>
<tr>
<td>Fampur</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Fluoranthene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Fluorene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Fluoride</td>
<td>µg/L</td>
<td>2,000</td>
<td>4,000</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Glyphosateb</td>
<td>µg/L</td>
<td>350</td>
<td>700</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Gross alpha</td>
<td>pCi/L</td>
<td>7.5E+00</td>
<td>1.5E+01</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Heptachlor</td>
<td>µg/L</td>
<td>0.2</td>
<td>0.4</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Heptachlor epoxide</td>
<td>µg/L</td>
<td>0.1</td>
<td>0.2</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Heptachlorodibenzo-p-dioxin isomers</td>
<td>µg/L</td>
<td>0.00325</td>
<td>0.0065</td>
<td>EPA Method 8280</td>
</tr>
<tr>
<td>1,2,3,4,6,7,8-HPCDD</td>
<td>µg/L</td>
<td>0.00025</td>
<td>0.00065</td>
<td>EPA Method 8280</td>
</tr>
<tr>
<td>Heptachlorodibenzo-p-furan isomers</td>
<td>µg/L</td>
<td>0.00025</td>
<td>0.00045</td>
<td>EPA Method 8280</td>
</tr>
<tr>
<td>1,2,3,4,6,7,8-HPCDF</td>
<td>µg/L</td>
<td>0.00225</td>
<td>0.0045</td>
<td>EPA Method 8280</td>
</tr>
<tr>
<td>Hexachlorobenzene</td>
<td>µg/L</td>
<td>0.5</td>
<td>1</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Hexachlorobutadiene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Hexachlorocyclopentadiene</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Hexachlorodibenzo-p-dioxin isomers</td>
<td>µg/L</td>
<td>0.00225</td>
<td>0.0045</td>
<td>EPA Method 8280</td>
</tr>
<tr>
<td>1,2,3,4,7,8-HXCCD</td>
<td>µg/L</td>
<td>0.00225</td>
<td>0.0045</td>
<td>EPA Method 8280</td>
</tr>
<tr>
<td>Hexachlorodibenzo-p-furan isomers</td>
<td>µg/L</td>
<td>0.002</td>
<td>0.004</td>
<td>EPA Method 8280</td>
</tr>
<tr>
<td>1,2,3,4,7,8-HXCDF</td>
<td>µg/L</td>
<td>0.002</td>
<td>0.004</td>
<td>EPA Method 8280</td>
</tr>
<tr>
<td>Hexachloroethane</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Hexachlorophene</td>
<td>µg/L</td>
<td>250</td>
<td>500</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Hexachloropropene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>2-Hexanone</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>Indeno[1,2,3-c,d]pyrene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Iodine</td>
<td>µg/L</td>
<td>250</td>
<td>500</td>
<td>APHA Method 415A</td>
</tr>
<tr>
<td>Iodine-129</td>
<td>pCi/L</td>
<td>5E-01</td>
<td>1E+00</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Iodine-131C</td>
<td>pCi/L</td>
<td>1.5E+00</td>
<td>3E+00</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Iodomethane (Methyl iodide)</td>
<td>µg/L</td>
<td>75</td>
<td>150</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>Iron</td>
<td>µg/L</td>
<td>150</td>
<td>300</td>
<td>SDWS (EPA, 1993b)</td>
</tr>
<tr>
<td>Iron, dissolved</td>
<td>µg/L</td>
<td>150</td>
<td>300</td>
<td>SDWS (EPA, 1993b)</td>
</tr>
<tr>
<td>Iron, total recoverable</td>
<td>µg/L</td>
<td>150</td>
<td>300</td>
<td>SDWS (EPA, 1993b)</td>
</tr>
<tr>
<td>Iron-55C</td>
<td>pCi/L</td>
<td>1E+03</td>
<td>2E+03</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Iron-59C</td>
<td>pCi/L</td>
<td>1E+02</td>
<td>2E+02</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Isobutyl alcohol</td>
<td>µg/L</td>
<td>500</td>
<td>1,000</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>Isodrin</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Analyte</td>
<td>Unit</td>
<td>Flag 1</td>
<td>Flag 2</td>
<td>Source</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>------</td>
<td>--------</td>
<td>--------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Isophorone</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Isosafrole</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Kepone</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Lanthanum-140°C</td>
<td>pCi/L</td>
<td>3E+01</td>
<td>6E+01</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Lead</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>Final PDWS (SCDHEC, 1981)</td>
</tr>
<tr>
<td>Lead, dissolved</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>Final PDWS (SCDHEC, 1981)</td>
</tr>
<tr>
<td>Lead, total recoverable</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>Final PDWS (SCDHEC, 1981)</td>
</tr>
<tr>
<td>Lead-212</td>
<td>pCi/L</td>
<td>6.2E+01</td>
<td>1.23E+02</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Lindane</td>
<td>µg/L</td>
<td>0.1</td>
<td>0.2</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Lithium</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>EPA Method 6010</td>
</tr>
<tr>
<td>Lithium, dissolved</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>EPA Method 6010</td>
</tr>
<tr>
<td>Lithium, total recoverable</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>EPA Method 6010</td>
</tr>
<tr>
<td>Magnesium</td>
<td>µg/L</td>
<td>No flag</td>
<td>No flag</td>
<td>Set by EPD/EMS</td>
</tr>
<tr>
<td>Magnesium, dissolved</td>
<td>µg/L</td>
<td>No flag</td>
<td>No flag</td>
<td>Set by EPD/EMS</td>
</tr>
<tr>
<td>Magnesium, total recoverable</td>
<td>µg/L</td>
<td>No flag</td>
<td>No flag</td>
<td>Set by EPD/EMS</td>
</tr>
<tr>
<td>Manganese</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>SDWS (EPA, 1993b)</td>
</tr>
<tr>
<td>Manganese, dissolved</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>SDWS (EPA, 1993b)</td>
</tr>
<tr>
<td>Manganese, total recoverable</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>SDWS (EPA, 1993b)</td>
</tr>
<tr>
<td>Manganese-54</td>
<td>pCi/L</td>
<td>1.5E+02</td>
<td>3E+02</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Mercury</td>
<td>µg/L</td>
<td>1</td>
<td>2</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Mercury, dissolved</td>
<td>µg/L</td>
<td>1</td>
<td>2</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Mercury, total recoverable</td>
<td>µg/L</td>
<td>1</td>
<td>2</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Methacrylonitrile</td>
<td>µg/L</td>
<td>250</td>
<td>500</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>Methapyrilene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Methoxychlor</td>
<td>µg/L</td>
<td>20</td>
<td>40</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>3-Methylcholanthrene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>2-Methyl-4,6-dinitrophenol</td>
<td>µg/L</td>
<td>250</td>
<td>500</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Methyl ethyl ketone</td>
<td>µg/L</td>
<td>No flag</td>
<td>No flag</td>
<td>Set by EPD/EMS</td>
</tr>
<tr>
<td>Methyl isobutyl ketone</td>
<td>µg/L</td>
<td>No flag</td>
<td>No flag</td>
<td>Set by EPD/EMS</td>
</tr>
<tr>
<td>Methyl methacrylate</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Methyl methanesulfonate</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>2-Methylnapthalene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Molybdenum</td>
<td>µg/L</td>
<td>250</td>
<td>500</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Molybdenum, dissolved</td>
<td>µg/L</td>
<td>250</td>
<td>500</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Molybdenum, total recoverable</td>
<td>µg/L</td>
<td>250</td>
<td>500</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>1,4-Naphthoquinone</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>1-Naphthylamine</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>2-Naphthylamine</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Neptunium-237</td>
<td>pCi/L</td>
<td>3.53E+00</td>
<td>7.06E+00</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Nickel</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Nickel, dissolved</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Nickel, total recoverable</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Nickel-59°C</td>
<td>pCi/L</td>
<td>1.5E+02</td>
<td>3E+02</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Nickel-63°C</td>
<td>pCi/L</td>
<td>2.5E+01</td>
<td>5E+01</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Niobium-95°C</td>
<td>pCi/L</td>
<td>1.5E+02</td>
<td>3E+02</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Nitrate as nitrogen</td>
<td>µg/L</td>
<td>5,000</td>
<td>10,000</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Nitrate-nitrite as nitrogen</td>
<td>µg/L</td>
<td>5,000</td>
<td>10,000</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Nitrite as nitrogen</td>
<td>µg/L</td>
<td>500</td>
<td>1,000</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>m-Nitroaniline</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>o-Nitroaniline</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>p-Nitroaniline</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Nitrobenzene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Nitrogen by Kjeldahl method</td>
<td>µg/L</td>
<td>500</td>
<td>1,000</td>
<td>EPA Method 351.2</td>
</tr>
<tr>
<td>2 Nitrophenol</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Analyte</td>
<td>Unit</td>
<td>Flag 1</td>
<td>Flag 2</td>
<td>Source</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>----------</td>
<td>--------</td>
<td>--------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>4-Nitrophenol</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>4-Nitroquinoline-1-oxide</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>N-Nitrosodi-n-butylamine</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>N-Nitrosodiethylamine</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>N-Nitrosodimethylamine</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>N-Nitrosodiphenylamine</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>N-Nitrosodipropylamine</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>N-Nitrosomethylurea</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>N-Nitrosomorpholine</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>N-Nitrosopiperidine</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>N-Nitroso-p-toluidine</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Nonvolatile beta</td>
<td>pCi/L</td>
<td>2.5E+01</td>
<td>5E+01</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Octachlorodibenzo-p-dioxin isomers</td>
<td>µg/L</td>
<td>0.005</td>
<td>0.01</td>
<td>EPA Method 8280</td>
</tr>
<tr>
<td>Octachlorodibenzo-p-furan isomers</td>
<td>µg/L</td>
<td>0.005</td>
<td>0.01</td>
<td>EPA Method 8280</td>
</tr>
<tr>
<td>Odor</td>
<td></td>
<td>No flag</td>
<td>No flag</td>
<td>Set by EPD/EMS</td>
</tr>
<tr>
<td>Oil &amp; Grease</td>
<td>µg/L</td>
<td>5,000</td>
<td>10,000</td>
<td>EPA Method 413.1</td>
</tr>
<tr>
<td>Oxamylb</td>
<td>µg/L</td>
<td>100</td>
<td>200</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Parathion</td>
<td>µg/L</td>
<td>0.25</td>
<td>0.5</td>
<td>EPA Method 8080</td>
</tr>
<tr>
<td>Parathion methyl</td>
<td>µg/L</td>
<td>0.25</td>
<td>0.5</td>
<td>EPA Method 8080</td>
</tr>
<tr>
<td>PCB 1016</td>
<td>µg/L</td>
<td>0.25</td>
<td>0.5</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>PCB 1221</td>
<td>µg/L</td>
<td>0.25</td>
<td>0.5</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>PCB 1232</td>
<td>µg/L</td>
<td>0.25</td>
<td>0.5</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>PCB 1242</td>
<td>µg/L</td>
<td>0.25</td>
<td>0.5</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>PCB 1248</td>
<td>µg/L</td>
<td>0.25</td>
<td>0.5</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>PCB 1254</td>
<td>µg/L</td>
<td>0.25</td>
<td>0.5</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>PCB 1260</td>
<td>µg/L</td>
<td>0.25</td>
<td>0.5</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>PCB 1262</td>
<td>µg/L</td>
<td>0.25</td>
<td>0.5</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Pentachlorobenzene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Pentachlorodibenzo-p-dioxin isomers</td>
<td>µg/L</td>
<td>0.00275</td>
<td>0.0055</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Pentachlorodibenzo-p-furan isomers</td>
<td>µg/L</td>
<td>0.00275</td>
<td>0.0055</td>
<td>EPA Method 8280</td>
</tr>
<tr>
<td>1,2,3,7,8-PCDD</td>
<td>µg/L</td>
<td>0.00275</td>
<td>0.0055</td>
<td>EPA Method 8280</td>
</tr>
<tr>
<td>Pentachlorodibenzo-p-furan isomers</td>
<td>µg/L</td>
<td>0.00275</td>
<td>0.0055</td>
<td>EPA Method 8280</td>
</tr>
<tr>
<td>1,2,3,7,8-PCDF</td>
<td>µg/L</td>
<td>0.00275</td>
<td>0.0055</td>
<td>EPA Method 8280</td>
</tr>
<tr>
<td>Pentachloroethane</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Pentachloronitrobenzene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Pentachlorophenol</td>
<td>µg/L</td>
<td>0.5</td>
<td>1</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>pH</td>
<td>pH</td>
<td>8</td>
<td>10</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>pH</td>
<td>pH</td>
<td>4</td>
<td>3</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Phenacetin</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Phenanthrene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Phenol</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Phenols</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>EPA Method 420.1</td>
</tr>
<tr>
<td>p-Phenylenediamine</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Phorate</td>
<td>µg/L</td>
<td>0.5</td>
<td>1</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Picloramb</td>
<td>µg/L</td>
<td>250</td>
<td>500</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>2 Picoline</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Plutonium-238</td>
<td>pCi/L</td>
<td>3.51E+00</td>
<td>7.02E+00</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Plutonium-239</td>
<td>pCi/L</td>
<td>3.11E+01</td>
<td>6.21E+01</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Plutonium-239/240º</td>
<td>pCi/L</td>
<td>3.11E+01</td>
<td>6.21E+01</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Plutonium-240</td>
<td>pCi/L</td>
<td>3.11E+01</td>
<td>6.22E+01</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Plutonium-241c</td>
<td>pCi/L</td>
<td>3.13E+01</td>
<td>6.28E+01</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
</tbody>
</table>

*K-Area Acid/Caustic Basin*  
B-9  
Second Quarter 1994
<table>
<thead>
<tr>
<th>Analyte</th>
<th>Unit</th>
<th>Flag 1</th>
<th>Flag 2</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plutonium-242&lt;sup&gt;C&lt;/sup&gt;</td>
<td>pCi/L</td>
<td>3.27E+01</td>
<td>6.54E+01</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Potassium</td>
<td>mg/L</td>
<td>No flag</td>
<td>No flag</td>
<td>Set by EPD/EMS</td>
</tr>
<tr>
<td>Potassium, dissolved</td>
<td>pCi/L</td>
<td>1.5E+02</td>
<td>3E+02</td>
<td>Proposed PDWS (EPA, 1986)</td>
</tr>
<tr>
<td>Potassium, total recoverable</td>
<td>pCi/L</td>
<td>5E+01</td>
<td>1E+02</td>
<td>EPA Method 901.1</td>
</tr>
<tr>
<td>Potassium-40</td>
<td>pCi/L</td>
<td>5E+01</td>
<td>1E+02</td>
<td>EPA Method 901.1</td>
</tr>
<tr>
<td>Promethium-144</td>
<td>pCi/L</td>
<td>5.24E+03</td>
<td>5.24E+03</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Promethium-146</td>
<td>pCi/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Pranamid</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>Propionitrile</td>
<td>µg/L</td>
<td>1000</td>
<td>2000</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Pyrene</td>
<td>µg/L</td>
<td>1000</td>
<td>2000</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Pyridine</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Radium (alpha-emitting)&lt;sup&gt;f&lt;/sup&gt;</td>
<td>µg/L</td>
<td>1E+01</td>
<td>2E+01</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Radium-226</td>
<td>µg/L</td>
<td>1E+01</td>
<td>2E+01</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Radium-228</td>
<td>µg/L</td>
<td>1E+01</td>
<td>2E+01</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Radon-222</td>
<td>µg/L</td>
<td>1E+02</td>
<td>2E+02</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Ruthenium-103&lt;sup&gt;C&lt;/sup&gt;</td>
<td>µg/L</td>
<td>1E+01</td>
<td>3E+01</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Ruthenium-106</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Safrole</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Selenium</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Selenium, dissolved</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Selenium, total recoverable</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Silica</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Silica, dissolved</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Silica, total recoverable</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Silver</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Silver, dissolved</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Silver, total recoverable</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Simazine&lt;sup&gt;b&lt;/sup&gt;</td>
<td>µg/L</td>
<td>2</td>
<td>4</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Sodium</td>
<td>µg/L</td>
<td>No flag</td>
<td>No flag</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Sodium, dissolved</td>
<td>µg/L</td>
<td>No flag</td>
<td>No flag</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Sodium, total recoverable</td>
<td>µg/L</td>
<td>No flag</td>
<td>No flag</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Sodium-22</td>
<td>µg/L</td>
<td>233E+02</td>
<td>4.66E+02</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Specific conductance</td>
<td>µS/cm</td>
<td>250</td>
<td>500</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Strontium-89</td>
<td>µg/L</td>
<td>100</td>
<td>500</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Strontium-89/90&lt;sup&gt;9&lt;/sup&gt;</td>
<td>µg/L</td>
<td>8E+00</td>
<td>8E+00</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Strontium-90</td>
<td>µg/L</td>
<td>8E+00</td>
<td>8E+00</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Styrene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Sulfate</td>
<td>µg/L</td>
<td>200,000</td>
<td>400,000</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Sulfide</td>
<td>µg/L</td>
<td>5,000</td>
<td>10,000</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Sulfoatep</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Surfactants</td>
<td>µg/L</td>
<td>No flag</td>
<td>No flag</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>2,3,7,8-TCDD</td>
<td>µg/L</td>
<td>0.000015</td>
<td>0.00003</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>2,3,7,8-TCDF</td>
<td>µg/L</td>
<td>0.002</td>
<td>0.004</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Technetium-99</td>
<td>µg/L</td>
<td>4.5E+02</td>
<td>9E+02</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>1,2,4,5-Tetrachlorobenzene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Tetrachlorodibenzo-p-dioxin isomers</td>
<td>µg/L</td>
<td>0.00225</td>
<td>0.0045</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Tetrachlorodibenzo-p-furan isomers</td>
<td>µg/L</td>
<td>0.002</td>
<td>0.004</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>1,1,1,2-Tetrachloroethane</td>
<td>µg/L</td>
<td>5</td>
<td>10</td>
<td>Proposed PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>1,1,2,2-Tetrachloroethane</td>
<td>µg/L</td>
<td>5</td>
<td>10</td>
<td>Proposed PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Tetrachloroethylene</td>
<td>µg/L</td>
<td>2.5</td>
<td>5</td>
<td>Proposed PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>2,3,4,6-Tetrachlorophenol</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>Proposed PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Thallium</td>
<td>µg/L</td>
<td>1</td>
<td>2</td>
<td>Proposed PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Analyte</td>
<td>Unit</td>
<td>Flag 1</td>
<td>Flag 2</td>
<td>Source</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>----------</td>
<td>--------</td>
<td>--------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>Thallium, dissolved</td>
<td>µg/L</td>
<td>1</td>
<td>2</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Thallium, total recoverable</td>
<td>µg/L</td>
<td>1</td>
<td>2</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Thionazin</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Thorium-228</td>
<td>pCi/L</td>
<td>6.25E+01</td>
<td>1.25E+02</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Thorium-230</td>
<td>pCi/L</td>
<td>3.98E+01</td>
<td>7.92E+01</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Thorium-232</td>
<td>pCi/L</td>
<td>4.4E+01</td>
<td>8.8E+01</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Thorium-234</td>
<td>pCi/L</td>
<td>2E+02</td>
<td>4.01E+02</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Tin</td>
<td>µg/L</td>
<td>10</td>
<td>20</td>
<td>EPA Method 282.2</td>
</tr>
<tr>
<td>Tin, dissolved</td>
<td>µg/L</td>
<td>10</td>
<td>20</td>
<td>EPA Method 282.2</td>
</tr>
<tr>
<td>Tin, total recoverable</td>
<td>µg/L</td>
<td>10</td>
<td>20</td>
<td>EPA Method 282.2</td>
</tr>
<tr>
<td>Tin-113C</td>
<td>pCi/L</td>
<td>1.5E+02</td>
<td>3E+02</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Toluene</td>
<td>µg/L</td>
<td>500</td>
<td>1,000</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>n-Toluidine</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Total carbon</td>
<td>µg/L</td>
<td>5,000</td>
<td>10,000</td>
<td>EPA Method 8060</td>
</tr>
<tr>
<td>Total coliform</td>
<td></td>
<td>0</td>
<td>0</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Total dissolved solids</td>
<td></td>
<td>No flag</td>
<td>No flag</td>
<td>Set by EPD/EMS</td>
</tr>
<tr>
<td>Total hydrocarbons</td>
<td>µg/L</td>
<td>5,000</td>
<td>10,000</td>
<td>EPA Method 418.1</td>
</tr>
<tr>
<td>Total inorganic carbon</td>
<td>µg/L</td>
<td>5,000</td>
<td>10,000</td>
<td>EPA Method 9060</td>
</tr>
<tr>
<td>Total organic carbon</td>
<td>µg/L</td>
<td>5,000</td>
<td>10,000</td>
<td>EPA Method 9060</td>
</tr>
<tr>
<td>Total organic halogens</td>
<td>µg/L</td>
<td>50</td>
<td>50</td>
<td>APAH Method 420</td>
</tr>
<tr>
<td>Total organic nitrogen</td>
<td>µg/L</td>
<td>500</td>
<td>1,000</td>
<td>EPA Method 418.1</td>
</tr>
<tr>
<td>Total petroleum hydrocarbons</td>
<td>µg/L</td>
<td>5,000</td>
<td>10,000</td>
<td>EPA Method 418.1</td>
</tr>
<tr>
<td>Total phosphates (as P)</td>
<td></td>
<td>No flag</td>
<td>No flag</td>
<td>Set by EPD/EMS</td>
</tr>
<tr>
<td>Total phosphorus</td>
<td></td>
<td>No flag</td>
<td>No flag</td>
<td>Set by EPD/EMS</td>
</tr>
<tr>
<td>Toxaphene</td>
<td>µg/L</td>
<td>1.5</td>
<td>3</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>2,4,5-TP (Silvex)</td>
<td>µg/L</td>
<td>25</td>
<td>50</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Tributyl phosphate</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>1,2,4-Trichlorobenzene</td>
<td>µg/L</td>
<td>35</td>
<td>70</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>1,1,1-Trichloroethane</td>
<td>µg/L</td>
<td>100</td>
<td>200</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>1,1,2-Trichloroethane</td>
<td>µg/L</td>
<td>2.5</td>
<td>5</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Trichloroethylene</td>
<td>µg/L</td>
<td>2.5</td>
<td>5</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Trichlorofluoromethane</td>
<td>µg/L</td>
<td>5</td>
<td>10</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>2,4,5-Trichlorophenol</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>2,4,6-Trichlorophenol</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>2,4,5-Trichlorophenoxyacetic acid</td>
<td>µg/L</td>
<td>2.5</td>
<td>5</td>
<td>EPA Method 8150</td>
</tr>
<tr>
<td>1,2,3-Trichloropropane</td>
<td>µg/L</td>
<td>5</td>
<td>10</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>O,O,O-Triethyl phosphorothioate</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>1,3,5-Trinitrobenzene</td>
<td>µg/L</td>
<td>50</td>
<td>100</td>
<td>EPA Method 8270</td>
</tr>
<tr>
<td>Tritium</td>
<td>pCi/mL</td>
<td>1E+01</td>
<td>2E+01</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Turbidity&lt;sup&gt;9&lt;/sup&gt;</td>
<td></td>
<td>No flag</td>
<td>No flag</td>
<td>Set by EPD/EMS</td>
</tr>
<tr>
<td>Uranium</td>
<td>µg/L</td>
<td>10</td>
<td>20</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Uranium, dissolved</td>
<td>µg/L</td>
<td>10</td>
<td>20</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Uranium, total recoverable</td>
<td>µg/L</td>
<td>10</td>
<td>20</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Uranium alpha activity</td>
<td>pCi/L</td>
<td>1.5E+01</td>
<td>3E+01</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Uranium-233/234&lt;sup&gt;6&lt;/sup&gt;</td>
<td>pCi/L</td>
<td>6.9E+00</td>
<td>1.38E+01</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Uranium-234</td>
<td>pCi/L</td>
<td>6.95E+00</td>
<td>1.39E+01</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Uranium-235</td>
<td>pCi/L</td>
<td>7.25E+00</td>
<td>1.45E+01</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Uranium-238</td>
<td>pCi/L</td>
<td>7.3E+00</td>
<td>1.46E+01</td>
<td>Proposed PDWS (EPA, 1991)</td>
</tr>
<tr>
<td>Vanadium</td>
<td>µg/L</td>
<td>40</td>
<td>80</td>
<td>EPA Method 6010</td>
</tr>
<tr>
<td>Vanadium, dissolved</td>
<td>µg/L</td>
<td>40</td>
<td>80</td>
<td>EPA Method 6010</td>
</tr>
<tr>
<td>Vanadium, total recoverable</td>
<td>µg/L</td>
<td>40</td>
<td>80</td>
<td>EPA Method 6010</td>
</tr>
<tr>
<td>Vinyl acetate</td>
<td>µg/L</td>
<td>5</td>
<td>10</td>
<td>EPA Method 8240</td>
</tr>
<tr>
<td>Analyte</td>
<td>Unit</td>
<td>Flag 1</td>
<td>Flag 2</td>
<td>Source</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------</td>
<td>--------</td>
<td>--------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Xylenes</td>
<td>µg/L</td>
<td>5,000</td>
<td>10,000</td>
<td>Final PDWS (EPA, 1993a)</td>
</tr>
<tr>
<td>Yttrium-88</td>
<td>pCi/L</td>
<td>5E+01</td>
<td>1E+02</td>
<td>EPA Method 901.1</td>
</tr>
<tr>
<td>Zinc</td>
<td>µg/L</td>
<td>2,500</td>
<td>5,000</td>
<td>SDWS (EPA, 1993b)</td>
</tr>
<tr>
<td>Zinc, dissolved</td>
<td>µg/L</td>
<td>2,500</td>
<td>5,000</td>
<td>SDWS (EPA, 1993b)</td>
</tr>
<tr>
<td>Zinc, total recoverable</td>
<td>µg/L</td>
<td>2,500</td>
<td>5,000</td>
<td>SDWS (EPA, 1993b)</td>
</tr>
<tr>
<td>Zinc-65</td>
<td>pCi/L</td>
<td>1.5E+02</td>
<td>3E+02</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Zirconium-95c</td>
<td>pCi/L</td>
<td>1E+02</td>
<td>2E+02</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
<tr>
<td>Zirconium/Niobium-95c</td>
<td>pCi/L</td>
<td>1E+02</td>
<td>2E+02</td>
<td>Interim Final PDWS (EPA, 1977)</td>
</tr>
</tbody>
</table>

a References for methods are in Appendix E: references for dated sources are at the end of this appendix.
b EMS is currently unable to perform this analysis.
c EMS discontinued monitoring this radionuclide because it is inappropriate for the SRS Groundwater Monitoring Program.
d EPD/EMS set this flagging criterion using the 1991 proposed PDWS because the final PDWS in 1977 may have been in error.
e For double radionuclide analyses where each separate radionuclide has its own standard, the more stringent standard is used.
f The applied standard is for radium-226.
g The primary maximum contaminant level range for turbidity is 1–5 NTU, which is inappropriate for the SRS Groundwater Monitoring Program.

References


K-Area Acid/Caustic Basin

B-12

Second Quarter 1994
Appendix C

Figures
THIS PAGE LEFT BLANK INTENTIONALLY.
Figure 1. Location of the K-Area Acid/Caustic Basin at the Savannah River Site
Figure 2. Location of Groundwater Monitoring Wells at the K-Area Acid/Caustic Basin
Figure 3. Piezometric Surface Map of the Water Table at the K-Area Acid/Caustic Basin
Appendix D

Groundwater Monitoring Results Tables
Key to Reading the Tables

The following abbreviations may appear in the data tables:

**Constituents**

- 1,2,3,4,6,7,8-HPDD
- 1,2,3,4,6,7,8-HPCDF
- 1,2,3,4,7,8-HXCDD
- 1,2,3,4,7,8-HXCDF
- Lindane
- PCB
- 1,2,3,7,8-PCDD
- 1,2,3,7,8-PCDF
- Sp. conductance
- TCDD
- TCDF

- 1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin
- 1,2,3,4,6,7,8-heptachlorodibenzo-p-furan
- 1,2,3,4,7,8-hexachlorodibenzo-p-dioxin
- 1,2,3,4,7,8-hexachlorodibenzo-p-furan
- gamma-benzene hexachloride
- polychlorinated biphenyl
- 1,2,3,7,8-pentachlorodibenzo-p-dioxin
- 1,2,3,7,8-pentachlorodibenzo-p-furan
- specific conductance
- tetrachlorodibenzo-p-dioxin
- tetrachlorodibenzo-p-furan

**Laboratories**

- CN: Clemson Technical Center, Inc.
- EM: Environmental Protection Department/Environmental Monitoring Section (EPD/EMS) Laboratory
- GE and GP: General Engineering Laboratories
- SC: Savannah River Technology Center
- SP: Spencer Testing Services, Inc.
- TM: TMA/Eberline
- WA and WS: Roy F. Weston, Inc.

**Sampling Codes**

- B: blank sample was collected
- C: well was pumping continuously
- D: well was dry
- E: equipment blank was collected
- I: well went dry during sampling; insufficient water to collect all samples
- L: well went dry before sampling began; only depth to water can be determined
- P: inaccessibility or mechanical failure prevented sample collection and field analysis of the water
- S: no water in standpipe; for water level events only
- X: well went dry during purging; samples collected after well recovered

**Sampling Methods**

- B: sample collected using an open-bucket bailer
- P: sample collected using a bladder pump
- S: sample collected using a single-speed centrifugal downhole pump
- V: sample collected using a variable-speed pump
Units

E  exponential notation (e.g., 1.1E-09 = 1.1 x 10^{-9} = 0.0000000011)
mg/L  milligrams per liter
msl  mean sea level
MSL  million structures per liter
NTU  turbidity unit
pCi/L  picocuries per liter
pCi/mL  picocuries per milliliter
pH  pH unit
µg/L  micrograms per liter
µS/cm  microsiemens per centimeter

Other

CS  carbon steel
D  exceeded final Primary Drinking Water Standard (PDWS) or screening level column in data tables
DF  dilution factor column in data tables
GS  groundwater protection standard column in data tables
H  holding time column in data tables
Mod  modifier column in data tables
PDWS  primary drinking water standard
PVC  polyvinyl chloride
TOC  top of casing

Holding Times

Standard analytical methods include a limit, called holding time, on the maximum elapsed time between sample collection and extraction or analysis by the laboratory. In the data tables, a large bullet (•) in the H (holding time) column indicates that holding time was exceeded. Analyses performed beyond holding times may not yield valid results.

The South Carolina Department of Health and Environmental Control allows only 15 minutes to elapse between sampling and analysis for pH. Thus, only field pH measurements can meet the holding time criterion; laboratory pH analyses always will exceed it.

The laboratory procedure used for the determination of specific conductance allows one day to elapse between sampling and analysis. Thus, laboratory specific conductance measurements may exceed the holding time criterion.

Data Rounding

Constituent results in analytical results tables that appear to equal the final PDWS but are not marked in the D (exceeded the final PDWS or screening level) column are below the final PDWS in the database. Values stored in the database contain more significant digits than the reported results. Apparent discrepancies in the tables are due to the rounding of reported results.
Data Qualification

The contract laboratories continually assess their own accuracy and precision according to U.S. Environmental Protection Agency (EPA) guidelines. They submit sample- or batch-specific quality assurance/quality control information either at the same time as analytical results or in a quarterly summary. Properly defined and used result modifiers (also referred to as qualifiers) can be a key component in assessing data usability. Result modifiers designed by the Environmental Protection Department/Environmental Monitoring Section and provided to the primary laboratories are defined below. These modifiers appear in the data tables under the column Mod. The lettered modifiers are based on EPA's STORET codes.

Result modifier

(Blank) Data are not qualified. Numbers should be interpreted exactly as reported.

J Value is estimated because quantitation in the sample or in associated quality control samples did not meet specifications.

I The value in the result field is the instrument reading, not the sample quantification limit. Always used with the result qualifier U.

L Value is off-scale high. The actual value is not known but is known to be greater than the value shown.

M Presence of the analyte is verified but not quantified.

R Result was rejected because performance requirements in the sample analysis or associated quality control analyses were not met.

T Analyte was not detected; if present, it was below the criteria for detection.

U Material analyzed for but not detected. Analytical result reported is less than the sample quantitation limit.

V Analyte was detected in an associated method blank.

Y Result was obtained from an unpreserved or improperly preserved sample. Data may not be accurate.

1 Result may be an underestimation of the true value due to analytical bias.

2 Result may be an overestimation of the true value due to analytical bias.

3 The associated result may be of poor precision (high variability) due to analytical bias.

4 Result is associated with QA results indicating matrix interference.

6 The associated result is from a reanalysis performed out of holding time due to problems with an earlier analysis.
Table 1. Maximum Results for Constituents Exceeding Final Primary Drinking Water Standards

<table>
<thead>
<tr>
<th>Well</th>
<th>Constituent</th>
<th>Unit</th>
<th>3Q93</th>
<th>4Q93</th>
<th>1Q94</th>
<th>2Q94</th>
<th>Mod</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAC 7</td>
<td>Tritium</td>
<td>pCi/mL</td>
<td>-</td>
<td>3.6E+02</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>KAC 8</td>
<td>Dichloromethane</td>
<td>µg/L</td>
<td>5.4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Note: The modifier column applies to second quarter 1994 data only.

- = Not above final PDWS.

Table 2. Maximum Results for Constituents Exceeding Other Flag 2 Criteria or the SRS Turbidity Standard

<table>
<thead>
<tr>
<th>Well</th>
<th>Constituent</th>
<th>Unit</th>
<th>2Q94</th>
<th>Mod</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAC 3</td>
<td>Total organic halogens</td>
<td>µg/L</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>KAC 6</td>
<td>Aluminum</td>
<td>µg/L</td>
<td>654</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Iron</td>
<td>µg/L</td>
<td>1,120</td>
<td></td>
</tr>
<tr>
<td>KAC 7</td>
<td>Aluminum</td>
<td>µg/L</td>
<td>1,310</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Iron</td>
<td>µg/L</td>
<td>619</td>
<td></td>
</tr>
<tr>
<td>KAC 9</td>
<td>Aluminum</td>
<td>µg/L</td>
<td>279</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specific conductance</td>
<td>µS/cm</td>
<td>520</td>
<td></td>
</tr>
</tbody>
</table>

Notes: These results do not include field data.

The groundwater samples are unfiltered. Thus, the results for metals are for total recoverable metals.

Flags are established by EPD/EMS and are based on final PDWS, Secondary Drinking Water Standards, or method detection limits. (see Appendix B.)
Table 3. Groundwater Monitoring Results for Individual Wells

**WELL KAC 1**

<table>
<thead>
<tr>
<th>SRS Coord.</th>
<th>Lat/Longitude</th>
<th>Screen Zone Elevation</th>
<th>Top of Casing</th>
<th>Casing</th>
<th>Pump</th>
<th>Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>N53167.0</td>
<td>33.212893°N</td>
<td>229.0-199.0 ft msl</td>
<td>266 ft msl</td>
<td>4&quot; PVC</td>
<td>V</td>
<td>Water Table</td>
</tr>
<tr>
<td>E42614.8</td>
<td>81.657866°W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FIELD MEASUREMENTS**

- Sample date: 04/04/94
- Depth to water: 45.79 ft (13.96 m) below TOC
- Water elevation: 220.21 ft (67.12 m) msl
- Sp. conductance: 128 µS/cm
- Turbidity: 0.7 NTU
- Water evacuated before sampling: 22 gal

**LABORATORY ANALYSES**

<table>
<thead>
<tr>
<th>H</th>
<th>D</th>
<th>Analyte</th>
<th>Result</th>
<th>DF</th>
<th>Mod</th>
<th>Unit</th>
<th>Flag</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>pH</td>
<td>6.5</td>
<td>1</td>
<td>J</td>
<td>pH</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Specific conductance</td>
<td>111</td>
<td>1</td>
<td></td>
<td>µS/cm</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Specific conductance</td>
<td>111</td>
<td>1</td>
<td></td>
<td>µS/cm</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Turbidity</td>
<td>0.53</td>
<td>1</td>
<td></td>
<td>NTU</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aluminum, total recoverable</td>
<td>&lt;20</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aluminum, total recoverable</td>
<td>25</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arsenic, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arsenic, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barium, total recoverable</td>
<td>&lt;4.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barium, total recoverable</td>
<td>&lt;4.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cadmium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cadmium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Calcium, total recoverable</td>
<td>43</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Calcium, total recoverable</td>
<td>48</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chloride</td>
<td>5.390</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chromium, total recoverable</td>
<td>&lt;4.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chromium, total recoverable</td>
<td>4.5</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,4-Dichlorophenoxyacetic acid</td>
<td>&lt;1.1</td>
<td>1.1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Endrin</td>
<td>&lt;0.11</td>
<td>1</td>
<td>1.09</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Endrin</td>
<td>&lt;0.22</td>
<td>2.15</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fluoride</td>
<td>&lt;100</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fluoride</td>
<td>&lt;100</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Iron, total recoverable</td>
<td>34</td>
<td>1</td>
<td>J3</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Iron, total recoverable</td>
<td>47</td>
<td>1</td>
<td>3</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead, total recoverable</td>
<td>&lt;3.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead, total recoverable</td>
<td>&lt;3.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lindane</td>
<td>&lt;0.055</td>
<td>1.09</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lindane</td>
<td>&lt;0.11</td>
<td>2.15</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Magnesium, total recoverable</td>
<td>47</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Magnesium, total recoverable</td>
<td>52</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manganese, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manganese, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mercury, total recoverable</td>
<td>&lt;0.20</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mercury, total recoverable</td>
<td>&lt;0.20</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Methoxychlor</td>
<td>&lt;1.1</td>
<td>2.15</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Methoxychlor</td>
<td>&lt;1.1</td>
<td>2.15</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Methoxychlor</td>
<td>&lt;0.55</td>
<td>1.09</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nitrate as nitrogen</td>
<td>201</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
</tbody>
</table>

* = exceeded holding time.  † = exceeded screening level or final primary drinking water standard.
WELL KAC 1 collected on 04/04/94, laboratory analyses (cont.)

<table>
<thead>
<tr>
<th>H</th>
<th>D</th>
<th>Analyte</th>
<th>Result</th>
<th>DF</th>
<th>Mod</th>
<th>Unit</th>
<th>Flag</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Phenols</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Phenols</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Potassium, total recoverable</td>
<td>&lt;500</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Potassium, total recoverable</td>
<td>&lt;500</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Selenium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Selenium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Silica, total recoverable</td>
<td>3,820</td>
<td>2.1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Silica, total recoverable</td>
<td>4,000</td>
<td>2.1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Silver, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Silver, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sodium, total recoverable</td>
<td>23,000</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sodium, total recoverable</td>
<td>23,300</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sulfate</td>
<td>17,300</td>
<td>2</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sulfate</td>
<td>19,100</td>
<td>2</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total dissolved solids</td>
<td>58,000</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total organic carbon</td>
<td>&lt;1,000</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total organic halogens</td>
<td>19</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total phosphates (as P)</td>
<td>&lt;50</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Toxaphene</td>
<td>&lt;1.1</td>
<td>1.09</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Toxaphene</td>
<td>&lt;2.2</td>
<td>2.15</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Toxaphene</td>
<td>&lt;2.2</td>
<td>2.15</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,4,5-TP (Silvex)</td>
<td>&lt;0.55</td>
<td>1.1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gross alpha</td>
<td>&lt;4.9E-01</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nonvolatile beta</td>
<td>&lt;6.4E-01</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Radium-226</td>
<td>&lt;1.2E-01</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Radium-226</td>
<td>2.6E+00</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tntium</td>
<td>8.7E-01</td>
<td>1</td>
<td></td>
<td>pCi/mL</td>
<td>0</td>
<td>TM</td>
</tr>
</tbody>
</table>

WELL KAC 2

<table>
<thead>
<tr>
<th>SRS Coord.</th>
<th>Lat/Longitude</th>
<th>Screen Zone Elevation</th>
<th>Top of Casing</th>
<th>Casing</th>
<th>Pump</th>
<th>Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>N53255.5</td>
<td>33.213191 °N</td>
<td>225.4-195.4 ft msl</td>
<td>257.5 ft msl</td>
<td>4&quot; PVC</td>
<td>S</td>
<td>Water Table</td>
</tr>
<tr>
<td>E42677.2</td>
<td>81.657873 °W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FIELD MEASUREMENTS

Sample date: 04/04/94  
Depth to water: 34.44 ft (10.50 m) below TOC  
Water elevation: 223.06 ft (67.99 m) msl  
Sp. conductance: 326 μS/cm  
Turbidity: 0.7 NTU  
Water evacuated before sampling: 83 gal  
Time: 12:48  
ph: 6.4  
Alkalinity: 35 mg/L  
Water temperature: 19.4 °C  
Volumes purged: 4.6 well volumes

LABORATORY ANALYSES

<table>
<thead>
<tr>
<th>H</th>
<th>D</th>
<th>Analyte</th>
<th>Result</th>
<th>DF</th>
<th>Mod</th>
<th>Unit</th>
<th>Flag</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>pH</td>
<td>6.6</td>
<td>1</td>
<td>J</td>
<td>pH</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Specific conductance</td>
<td>311</td>
<td>10</td>
<td></td>
<td>μS/cm</td>
<td>1</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Turbidity</td>
<td>0.63</td>
<td>1</td>
<td></td>
<td>NTU</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aluminum, total recoverable</td>
<td>&lt;20</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arsenic, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barium, total recoverable</td>
<td>&lt;4.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cadmium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Calcium, total recoverable</td>
<td>73</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
</tbody>
</table>

* = exceeded holding time.  ** = exceeded screening level or final primary drinking water standard.
<table>
<thead>
<tr>
<th>H</th>
<th>D</th>
<th>Analyte</th>
<th>Result</th>
<th>DF</th>
<th>Mod</th>
<th>Unit</th>
<th>Flag</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Chloride</td>
<td>5.900</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chromium, total recoverable</td>
<td>&lt;4.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,4-Dichlorophenoxyacetic acid</td>
<td>&lt;1.1</td>
<td>1</td>
<td>1.1</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,4-Dichlorophenoxyacetic acid</td>
<td>&lt;1.1</td>
<td>1</td>
<td>1.11</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Endrin</td>
<td>&lt;0.11</td>
<td>1</td>
<td>1.1</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fluoride</td>
<td>&lt;100</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Iron, total recoverable</td>
<td>22</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead, total recoverable</td>
<td>&lt;3.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lindane</td>
<td>&lt;0.055</td>
<td>1</td>
<td>1.1</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Magnesium, total recoverable</td>
<td>86</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manganese, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mercury, total recoverable</td>
<td>&lt;0.20</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Methoxychlor</td>
<td>&lt;0.55</td>
<td>1</td>
<td>1.1</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nitrate as nitrogen</td>
<td>271</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Phenols</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Potassium, total recoverable</td>
<td>&lt;500</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Selenium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Silica, total recoverable</td>
<td>4,580</td>
<td>1</td>
<td>2.1</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Silver, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sodium, total recoverable</td>
<td>63,900</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sulfate</td>
<td>116,000</td>
<td>10</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total dissolved solids</td>
<td>181,000</td>
<td>10</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total organic carbon</td>
<td>&lt;1,000</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total organic halogens</td>
<td>6.7</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total phosphates (as P)</td>
<td>&lt;50</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Toxaphene</td>
<td>&lt;1.1</td>
<td>1</td>
<td>1.1</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,4,5-TP (Silvex)</td>
<td>&lt;0.55</td>
<td>1</td>
<td>1.1</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,4,5-TP (Silvex)</td>
<td>&lt;0.56</td>
<td>1</td>
<td>1.11</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gross alpha</td>
<td>6.0E-01</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nonvolatile beta</td>
<td>&lt;6.6E-01</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Radium-226</td>
<td>1.4E-01</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Radium-228</td>
<td>5.0E-01</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tritium</td>
<td>3.4E+00</td>
<td>1</td>
<td></td>
<td>pCi/mL</td>
<td>0</td>
<td>TM</td>
</tr>
</tbody>
</table>

* = exceeded holding time.  ■ = exceeded screening level or final primary drinking water standard.
## WELL KAc 3

### SRS Coord. Lat/Longitude
N53201.8  33.213148°N  
E42723.9  81.657646°W

### Screen Zone Elevation
225.8-195.8 ft msl

### Top of Casing
257.8 ft msl

### Casing
4" PVC

### Pump
S

### Formation
Water Table

### FIELD MEASUREMENTS

- **Time:** 04/04/94  
- **Sample date:** 13:42  
- **pH:** 5.8  
- **Alkalinity:** 11 mg/L  
- **Water temperature:** 20.1 °C

### Water evacuation before sampling: 78 gal

### LABORATORY ANALYSES

<table>
<thead>
<tr>
<th>H</th>
<th>D</th>
<th>Analyte</th>
<th>Result</th>
<th>DF</th>
<th>Mod</th>
<th>Unit</th>
<th>Flag</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>2</td>
<td>pH</td>
<td>6.2</td>
<td>1</td>
<td>J</td>
<td>pH</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>pH</td>
<td>6.2</td>
<td>1</td>
<td>J</td>
<td>pH</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>5</td>
<td>Specific conductance</td>
<td>85</td>
<td>2</td>
<td></td>
<td>μS/cm</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>5</td>
<td>Turbidity</td>
<td>0.36</td>
<td>3.33</td>
<td></td>
<td>NTU</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>Aluminum, total recoverable</td>
<td>&lt;20</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>Arsenic, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>Barium, total recoverable</td>
<td>&lt;4.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>Cadmium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Calcium, total recoverable</td>
<td>642</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Chloride</td>
<td>5,890</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Chromium, total recoverable</td>
<td>&lt;4.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>2,4-Dichlorophenoxyacetic acid</td>
<td>&lt;1.1</td>
<td>1.1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Endrin</td>
<td>&lt;0.11</td>
<td>1.06</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Fluoride</td>
<td>&lt;100</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Iron, total recoverable</td>
<td>81</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Lead, total recoverable</td>
<td>6.8</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Lindane</td>
<td>&lt;0.053</td>
<td>1.06</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Magnesium, total recoverable</td>
<td>159</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Manganese, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Mercury, total recoverable</td>
<td>&lt;0.20</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Methoxychlor</td>
<td>&lt;0.53</td>
<td>1.06</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Nitrate as nitrogen</td>
<td>32</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Phenols</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Potassium, total recoverable</td>
<td>&lt;500</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Selenium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Silica, total recoverable</td>
<td>4,970</td>
<td>2.1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Silver, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Sodium, total recoverable</td>
<td>15,700</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Sulfate</td>
<td>16,100</td>
<td>2</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Total dissolved solids</td>
<td>43,000</td>
<td>2</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Total organic carbon</td>
<td>&lt;1,000</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Total organic halogens</td>
<td>114</td>
<td>3.33</td>
<td></td>
<td>μg/L</td>
<td>2</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Total organic halogens</td>
<td>120</td>
<td>3.33</td>
<td></td>
<td>μg/L</td>
<td>2</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Total phosphates (as P)</td>
<td>&lt;50</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Toxaphene</td>
<td>&lt;1.1</td>
<td>1.06</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>2,4,5-TP (Silvex)</td>
<td>&lt;0.56</td>
<td>1.11</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>Gross alpha</td>
<td>&lt;8.9E-01</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>Nonvolatile beta</td>
<td>&lt;1.2E+00</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>Radium-226</td>
<td>1.1E-01</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>TM</td>
</tr>
</tbody>
</table>

- * = exceeded holding time.  ** = exceeded screening level or final primary drinking water standard.
WELL KAC 3 collected on 04/04/94, laboratory analyses (cont.)

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Result</th>
<th>DF</th>
<th>Unit</th>
<th>Flag</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radium-226</td>
<td>&lt;1.3E-01</td>
<td>1</td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td>Tritium</td>
<td>1.6E+00</td>
<td>1</td>
<td>pCi/mL</td>
<td>0</td>
<td>TM</td>
</tr>
</tbody>
</table>

**WELL KAC 4**

<table>
<thead>
<tr>
<th>SRS Coord.</th>
<th>Lat/Longitude</th>
<th>Screen Zone Elevation</th>
<th>Top of Casing</th>
<th>Casing</th>
<th>Pump</th>
<th>Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>N53053.5</td>
<td>33.212743 °N</td>
<td>208.0-178.0 ft msl</td>
<td>260 ft msl</td>
<td>4&quot; PVC</td>
<td>S</td>
<td>Water Table</td>
</tr>
<tr>
<td>E42876.4</td>
<td>81.657484 °W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FIELD MEASUREMENTS**

- Sample date: 04/05/94
- Depth to water: 40.95 ft (12.48 m) below TOC
- Water elevation: 219.05 ft (66.77 m) msl
- Sp. conductance: 70 μS/cm
- Turbidity: 0.1 NTU
- Water evacuated before sampling: 131 gal

**Laboratory Analyses**

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Result</th>
<th>DF</th>
<th>Mod</th>
<th>Unit</th>
<th>Flag</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>5.7</td>
<td>1</td>
<td>J</td>
<td>pH</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Specific conductance</td>
<td>70</td>
<td>1</td>
<td></td>
<td>μS/cm</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Turbidity</td>
<td>&lt;0.20</td>
<td>1</td>
<td>1.33</td>
<td>NTU</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Aluminum, total recoverable</td>
<td>&lt;20</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Aluminum, total recoverable</td>
<td>&lt;20</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Arsenic, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Arsenic, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Barium, total recoverable</td>
<td>4.3</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Barium, total recoverable</td>
<td>4.3</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Cadmium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Cadmium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Calcium, total recoverable</td>
<td>272</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Calcium, total recoverable</td>
<td>273</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Chloride</td>
<td>7,820</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Chromium, total recoverable</td>
<td>&lt;4.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Chromium, total recoverable</td>
<td>&lt;4.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>2,4-Dichlorophenoxyacetic acid</td>
<td>&lt;1.1</td>
<td>1</td>
<td>1.11</td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Endrin</td>
<td>&lt;0.11</td>
<td>1</td>
<td>1.09</td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Endrin</td>
<td>&lt;0.22</td>
<td>2.17</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Fluoride</td>
<td>&lt;100</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Iron, total recoverable</td>
<td>14</td>
<td>1</td>
<td>J3</td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Iron, total recoverable</td>
<td>21</td>
<td>1</td>
<td>3</td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Lead, total recoverable</td>
<td>&lt;3.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Lead, total recoverable</td>
<td>&lt;3.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Lindane</td>
<td>&lt;0.055</td>
<td>1</td>
<td>1.09</td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Lindane</td>
<td>&lt;0.11</td>
<td>2.17</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Magnesium, total recoverable</td>
<td>376</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Magnesium, total recoverable</td>
<td>376</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Manganese, total recoverable</td>
<td>2.4</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Manganese, total recoverable</td>
<td>2.5</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Mercury, total recoverable</td>
<td>&lt;0.20</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Mercury, total recoverable</td>
<td>&lt;0.20</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
</tbody>
</table>

* = exceeded holding time. ** = exceeded screening level or final primary drinking water standard.

**K-Area Acid/Caustic Basin**

**D-11**

**Second Quarter 1994**
WELL KAC  4 collected on 04/05/94, laboratory analyses (cont.)

<table>
<thead>
<tr>
<th>H</th>
<th>D</th>
<th>Analyte</th>
<th>Result</th>
<th>DF</th>
<th>Mod</th>
<th>Unit</th>
<th>Flag</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Methoxychlor</td>
<td>&lt;1.1</td>
<td>2.17</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Methoxychlor</td>
<td>&lt;1.1</td>
<td>2.17</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Methoxychlor</td>
<td>&lt;0.55</td>
<td>1.09</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nitrate as nitrogen</td>
<td>118</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nitrate as nitrogen</td>
<td>119</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Phenols</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Potassium, total recoverable</td>
<td>&lt;500</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Potassium, total recoverable</td>
<td>&lt;500</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Selenium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Selenium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Silica, total recoverable</td>
<td>6,000</td>
<td>2.1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Silica, total recoverable</td>
<td>6,110</td>
<td>2.1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Silver, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Silver, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sodium, total recoverable</td>
<td>11,100</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sodium, total recoverable</td>
<td>11,200</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sulfate</td>
<td>12,400</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total dissolved solids</td>
<td>48,000</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total organic carbon</td>
<td>&lt;1,000</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total organic halogens</td>
<td>48.1</td>
<td>1.33</td>
<td>J</td>
<td>µg/L</td>
<td>1</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total phosphates (as P)</td>
<td>&lt;50</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Toxaphene</td>
<td>&lt;1.1</td>
<td>1.09</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Toxaphene</td>
<td>&lt;2.2</td>
<td>2.17</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Toxaphene</td>
<td>&lt;2.2</td>
<td>2.17</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,4,5-TF (Silvex)</td>
<td>&lt;0.56</td>
<td>1.11</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gross alpha</td>
<td>1.1E+00</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nonvolatile beta</td>
<td>1.4E+00</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Radium-226</td>
<td>1.9E-01</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Radium-228</td>
<td>5.0E-01</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tritium</td>
<td>2.2E+00</td>
<td>1</td>
<td></td>
<td>pCi/mL</td>
<td>0</td>
<td>TM</td>
</tr>
</tbody>
</table>

WELL KAC  5

<table>
<thead>
<tr>
<th>SRS Coord.</th>
<th>Lat/Longitude</th>
<th>Screen Zone Elevation</th>
<th>Top of Casing</th>
<th>Casing</th>
<th>Pump</th>
<th>Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>N53161.7</td>
<td>33.213047° N</td>
<td>224.3-204.3 ft msl</td>
<td>259 ft msl</td>
<td>4&quot; PVC</td>
<td>S</td>
<td>Water Table</td>
</tr>
<tr>
<td>E42716.3</td>
<td>81.657589° W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FIELD MEASUREMENTS

Sample date: 04/04/94
Depth to water: 35.78 ft (10.91 m) below TOC
Water elevation: 223.22 ft (68.04 m) msl
Sp. conductance: 61 µS/cm
Turbidity: 0.6 NTU
Water evacuated before sampling: 41 gal

LABORATORY ANALYSES

<table>
<thead>
<tr>
<th>H</th>
<th>D</th>
<th>Analyte</th>
<th>Result</th>
<th>DF</th>
<th>Mod</th>
<th>Unit</th>
<th>Flag</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>pH</td>
<td>5.7</td>
<td>1</td>
<td>J</td>
<td>pH</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Specific conductance</td>
<td>58</td>
<td>1</td>
<td></td>
<td>µS/cm</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Turbidity</td>
<td>0.28</td>
<td>1.66</td>
<td></td>
<td>NTU</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aluminum, total recoverable</td>
<td>36</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>1</td>
<td>WA</td>
</tr>
</tbody>
</table>

* = exceeded holding time.  ** = exceeded screening level or final primary drinking water standard.
<table>
<thead>
<tr>
<th>Analyte</th>
<th>Result</th>
<th>DF</th>
<th>Mod</th>
<th>Unit</th>
<th>Flag</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Barium, total recoverable</td>
<td>&lt;4.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Cadmium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Calcium, total recoverable</td>
<td>560</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Chloride</td>
<td>4,550</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Chromium, total recoverable</td>
<td>&lt;4.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>2,4-Dichlorophenoxyacetic acid</td>
<td>&lt;1.1</td>
<td>1.11</td>
<td>1.08</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Endrin</td>
<td>&lt;0.11</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Fluoride</td>
<td>&lt;100</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Iron, total recoverable</td>
<td>48</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Lead, total recoverable</td>
<td>&lt;3.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Lindane</td>
<td>&lt;0.054</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Magnesium, total recoverable</td>
<td>185</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Manganese, total recoverable</td>
<td>3.8</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Mercury, total recoverable</td>
<td>&lt;0.20</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Methoxylchlor</td>
<td>&lt;0.54</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Nitrate as nitrogen</td>
<td>68</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Phenols</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Potassium, total recoverable</td>
<td>1,080</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Selenium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Silica, total recoverable</td>
<td>7.220</td>
<td>2.1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Silver, total recoverable</td>
<td>3.2</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Sodium, total recoverable</td>
<td>9,070</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Sulfate</td>
<td>12,200</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Total dissolved solids</td>
<td>24,000</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Total dissolved solids</td>
<td>25,000</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Total organic carbon</td>
<td>&lt;1,000</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Total organic halogens</td>
<td>31</td>
<td>1.66</td>
<td></td>
<td>µg/L</td>
<td>1</td>
<td>WA</td>
</tr>
<tr>
<td>Total phosphates (as P)</td>
<td>&lt;50</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Toxaphene</td>
<td>&lt;1.1</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>2,4,5-TP (Silvex)</td>
<td>&lt;0.56</td>
<td>1.11</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Gross alpha</td>
<td>&lt;4.3E-01</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td>Nonvolatile beta</td>
<td>&lt;6.0E-01</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td>Radium-226</td>
<td>&lt;9.0E-02</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td>Radium-228</td>
<td>2.0E-01</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td>Tritium</td>
<td>4.2E-01</td>
<td>1</td>
<td></td>
<td>pCi/mL</td>
<td>0</td>
<td>TM</td>
</tr>
</tbody>
</table>

* = exceeded holding time. • = exceeded screening level or final primary drinking water standard.
WELL KAC 6

SRS Coord. Lat/Longitude Screen Zone Elevation Top of Casing Casing Pump Formation
N53139.9 33.212962°N 224.6-204.6 ft msl 259 ft msl 4" PVC S Water Table
E4293.5 81.657606°W

FIELD MEASUREMENTS
Sample date: 04/05/94
Depth to water: 32.89 ft (10.02 m) below TOC
Water elevation: 226.11 ft (68.92 m) msl
Sp. conductance: 89 µS/cm
Turbidity: 21.4 NTU
Water evacuated before sampling: 8 gal
The well went dry during purging.

Time: 10:14
pH: 4.9
Alkalinity: 4 mg/L
Water temperature: 18.5 °C
Volumes purged: 0.6 well volumes

LABORATORY ANALYSES

<table>
<thead>
<tr>
<th>H</th>
<th>D</th>
<th>Analyte</th>
<th>Result</th>
<th>DF</th>
<th>Mod</th>
<th>Unit</th>
<th>Flag</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>Specific conductance</td>
<td>5.5</td>
<td>1</td>
<td>J</td>
<td>µS/cm</td>
<td>0</td>
<td>WA</td>
<td></td>
</tr>
<tr>
<td>Turbidity</td>
<td></td>
<td>39</td>
<td>1</td>
<td>J</td>
<td>NTU</td>
<td>0</td>
<td>WA</td>
<td></td>
</tr>
<tr>
<td>Aluminum, total recoverable</td>
<td>654</td>
<td>1</td>
<td>J</td>
<td>µg/L</td>
<td>2</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arsenic, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barium, total recoverable</td>
<td>5.8</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cadmium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calcium, total recoverable</td>
<td>358</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chloride</td>
<td>5,990</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chromium, total recoverable</td>
<td>11</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,4-Dichlorophenoxyacetic acid</td>
<td>&lt;1.1</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,4-Dichlorophenoxyacetic acid</td>
<td>&lt;2.2</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endrin</td>
<td>&lt;0.1</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fluoride</td>
<td>100</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead, total recoverable</td>
<td>1.12</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>2</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lindane</td>
<td>&lt;0.055</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnesium, total recoverable</td>
<td>213</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manganese, total recoverable</td>
<td>11</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mercury, total recoverable</td>
<td>&lt;0.20</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methoxychlor</td>
<td>&lt;0.55</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrate as nitrogen</td>
<td>85</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phenols</td>
<td>5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium, total recoverable</td>
<td>500</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selenium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silica, total recoverable</td>
<td>7,380</td>
<td>2.1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silver, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium, total recoverable</td>
<td>13,700</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfate</td>
<td>15,100</td>
<td>2</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total dissolved solids</td>
<td>43,000</td>
<td>2</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total organic carbon</td>
<td>&lt;1,000</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total organic carbon</td>
<td>&lt;1,000</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total organic halogens</td>
<td>12</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total phosphates (as P)</td>
<td>79</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toxaphene</td>
<td>&lt;1.1</td>
<td>1.1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,4,5-TP (Silvex)</td>
<td>&lt;1.1</td>
<td>2.17</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,4,5-TP (Silvex)</td>
<td>&lt;0.55</td>
<td>1.1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross alpha</td>
<td>&lt;6.8E-01</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* = exceeded holding time. ** = exceeded screening level or final primary drinking water standard.

K-Area Acid/Caustic Basin D-14 Second Quarter 1994
## WELL KAC 7

<table>
<thead>
<tr>
<th>SRS Coord.</th>
<th>Lat/Longitude</th>
<th>Screen Zone Elevation</th>
<th>Top of Casing</th>
<th>Casing</th>
<th>Pump</th>
<th>Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>NS3252.9</td>
<td>33.213018° N</td>
<td>223.0-203.0 ft msl</td>
<td>265.1 ft msl</td>
<td>4&quot; PVC</td>
<td>S</td>
<td>Water Table</td>
</tr>
<tr>
<td>E42574.5</td>
<td>81.658139° W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### FIELD MEASUREMENTS

- Sample date: 04/05/94
- Depth to water: 45.24 ft (13.79 m) below TOC
- Water elevation: 219.86 ft (67.01 m) msl
- Sp. conductance: 137 μS/cm
- Turbidity: 3.2 NTU
- Water evacuated before sampling: 7 gal
- Volumes purged: 0.6 well volumes
- Time: 9:44
- pH: 5.6
- Alkalinity: 18 mg/L
- Water temperature: 18.4 °C
- The well went dry during purging.

### LABORATORY ANALYSES

<table>
<thead>
<tr>
<th>H D Analyte</th>
<th>Result</th>
<th>DF</th>
<th>Mod</th>
<th>Unit</th>
<th>Flag</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>6.0</td>
<td>1</td>
<td>J</td>
<td>pH</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Specific conductance</td>
<td>199</td>
<td>1</td>
<td></td>
<td>μS/cm</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Turbidity</td>
<td>9.1</td>
<td>1</td>
<td>J</td>
<td>NTU</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Aluminum, total recoverable</td>
<td>1.310</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>2</td>
<td>WA</td>
</tr>
<tr>
<td>Arsenic, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Barium, total recoverable</td>
<td>4.3</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Cadmium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Calcium, total recoverable</td>
<td>1.590</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Chloride</td>
<td>6,880</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Chromium, total recoverable</td>
<td>&lt;4.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>2,4-Dichlorophenoxyacetic acid</td>
<td>&lt;1.1</td>
<td>1.1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Endrin</td>
<td>&lt;0.11</td>
<td>1.12</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Fluoride</td>
<td>&lt;100</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Iron, total recoverable</td>
<td>619</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>2</td>
<td>WA</td>
</tr>
<tr>
<td>Lead, total recoverable</td>
<td>28</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>1</td>
<td>WA</td>
</tr>
<tr>
<td>Lindane</td>
<td>&lt;0.056</td>
<td>1.12</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Magnesium, total recoverable</td>
<td>104</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Manganese, total recoverable</td>
<td>15</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Mercury, total recoverable</td>
<td>&lt;0.20</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Methoxychlor</td>
<td>&lt;0.56</td>
<td>1.12</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Nitrate as nitrogen</td>
<td>1,380</td>
<td>5</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Phenols</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Potassium, total recoverable</td>
<td>&lt;500</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Selenium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Silica, total recoverable</td>
<td>4,670</td>
<td>2.1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Silver, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Sodium, total recoverable</td>
<td>38,800</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Sulfate</td>
<td>60,100</td>
<td>20</td>
<td>J</td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Sulfate</td>
<td>60,600</td>
<td>20</td>
<td>J</td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Total dissolved solids</td>
<td>137,000</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
</tbody>
</table>

* = exceeded holding time.  ** = exceeded screening level or final primary drinking water standard.
### WELL KAC 7

Collected on 04/05/94, laboratory analyses (cont.)

<table>
<thead>
<tr>
<th>H</th>
<th>D</th>
<th>Analyte</th>
<th>Result</th>
<th>DF</th>
<th>Mod</th>
<th>Unit</th>
<th>Flag</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total organic carbon</td>
<td>&lt;1,000</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total organic halogens</td>
<td>6.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total phosphates (as P)</td>
<td>&lt;50</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Toxaphene</td>
<td>&lt;1.1</td>
<td>1</td>
<td>.12</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,4,5-TP (Silvex)</td>
<td>&lt;0.55</td>
<td>1</td>
<td>.1</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gross alpha</td>
<td>&lt;8.3E-01</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nonvolatile beta</td>
<td>1.6E+00</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Radium-226</td>
<td>&lt;1.6E-01</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Radium-228</td>
<td>&lt;1.6E-01</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total activity</td>
<td>1.3E+04</td>
<td>10</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>EM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tritium</td>
<td>7.5E+00</td>
<td>1</td>
<td></td>
<td>pCi/mL</td>
<td>0</td>
<td>TM</td>
</tr>
</tbody>
</table>

### WELL KAC 8

<table>
<thead>
<tr>
<th>SRS Coord.</th>
<th>Lat/Longitude</th>
<th>Screen Zone Elevation</th>
<th>Top of Casing</th>
<th>Casing</th>
<th>Pump</th>
<th>Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>N53136.0</td>
<td>33.212869 °N</td>
<td>212.3-192.3′ ft msf</td>
<td>262.2 ft msf</td>
<td>4′ PVC</td>
<td>S</td>
<td>Water Table</td>
</tr>
<tr>
<td>E42641.9</td>
<td>81.657734 °W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FIELD MEASUREMENTS**

- Sample date: 04/04/94
- Depth to water: 42.23 ft (12.87 m) below TOC
- Water elevation: 224.87 ft (68.54 m) msf
- Sp. conductance: 192 µS/cm
- Turbidity: 0.2 NTU
- Water evacuated before sampling: 112 gal

**Time:** 15:47
- pH: 6.4
- Alkalinity: 3 mg/L
- Water temperature: 19.5 °C
- Volumes purged: 6.1 well volumes

### LABORATORY ANALYSES

<table>
<thead>
<tr>
<th>H</th>
<th>D</th>
<th>Analyte</th>
<th>Result</th>
<th>DF</th>
<th>Mod</th>
<th>Unit</th>
<th>Flag</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>pH</td>
<td>5.6</td>
<td>1</td>
<td>J</td>
<td>pH</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Specific conductance</td>
<td>173</td>
<td>1</td>
<td></td>
<td>µS/cm</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Turbidity</td>
<td>0.25</td>
<td>1</td>
<td></td>
<td>NTU</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Aluminum, total recoverable</td>
<td>33</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>1</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Arsenic, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barium, total recoverable</td>
<td>7.6</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Benzene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bromodichloromethane</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bromoform</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bromomethane (Methyl bromide)</td>
<td>&lt;10</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cadmium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Calcium, total recoverable</td>
<td>630</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Carbon tetrachloride</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chloride</td>
<td>7,700</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chlorobenzene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chloroethylene</td>
<td>&lt;10</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chloroethene (Vinyl chloride)</td>
<td>&lt;10</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2-Chloroethyl vinyl ether</td>
<td>&lt;10</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chloroform</td>
<td>1.5</td>
<td>1</td>
<td>J</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chloromethane (Methyl chloride)</td>
<td>&lt;10</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chromium, total recoverable</td>
<td>&lt;4.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dibromochloromethane</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,1-Dichloroethane</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
</tbody>
</table>

* = exceeded holding time.  • = exceeded screening level or final primary drinking water standard.
<table>
<thead>
<tr>
<th>H</th>
<th>D</th>
<th>Analyte</th>
<th>Result</th>
<th>DF</th>
<th>Mod</th>
<th>Unit</th>
<th>Flag</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>1,2-Dichloroethane</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,1-Dichloroethylene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>trans-1,2-Dichloroethylene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dichloromethane (Methylene chloride)</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,4-Dichlorophenoxyacetic acid</td>
<td>&lt;1.1</td>
<td>1.08</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,2-Dichloropropylene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>cis-1,3-Dichloropropene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>trans-1,3-Dichloropropene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Endrin</td>
<td>&lt;0.11</td>
<td>1.09</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ethylbenzene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fluoride</td>
<td>&lt;100</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Iron, total recoverable</td>
<td>&lt;148</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead, total recoverable</td>
<td>&lt;3.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lindane</td>
<td>&lt;0.055</td>
<td>1.09</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lithium, total recoverable</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Magnesium, total recoverable</td>
<td>444</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manganese, total recoverable</td>
<td>11</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mercury, total recoverable</td>
<td>&lt;0.20</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Methoxychlor</td>
<td>&lt;0.55</td>
<td>1.09</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nitrate as nitrogen</td>
<td>181</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Phenols</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Potassium, total recoverable</td>
<td>548</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Selenium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Silica, total recoverable</td>
<td>5,620</td>
<td>2.1</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Silver, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sodium, total recoverable</td>
<td>33,100</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sulfate</td>
<td>82,800</td>
<td>10</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,1,2,2-Tetrachloroethane</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tetrachloroethylene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Toluene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total dissolved solids</td>
<td>98,000</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total organic carbon</td>
<td>&lt;1,000</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total organic halogens</td>
<td>17</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total phosphates (as P)</td>
<td>&lt;50</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Toxaphene</td>
<td>&lt;1.1</td>
<td>1.09</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,4,5-TP (Silvex)</td>
<td>&lt;0.54</td>
<td>1.08</td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,1,1-Trichloroethane</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1,1,2-Trichloroethane</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Trichloroethylene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Trichlorofluoromethane</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gross alpha</td>
<td>1.5 E+00</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nonvolatile beta</td>
<td>1.4 E+00</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Radium-226</td>
<td>5.1E-01</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Radium-228</td>
<td>2.1 E+00</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tritium</td>
<td>9.3 E-01</td>
<td>1</td>
<td></td>
<td>pCi/mL</td>
<td>0</td>
<td>TM</td>
</tr>
</tbody>
</table>

* = exceeded holding time. ** = exceeded screening level or final primary drinking water standard.
WELL KAC 9

SRS Coord. Lat/Longitude Screen Zone Elevation Top of Casing Casing Pump Formation
N53197.8 33.212918°N 215.7-195.7 ft msl 267.1 ft msl 4" PVC S Water Table
E42588.1 81.657996°W

FIELD MEASUREMENTS

Sample date: 04/04/94
Depth to water: 47.24 ft (14.40 m) below TOC
Water elevation: 214.96 ft (65.52 m) msl
Sp. conductance: 552 μS/cm
Turbidity: 1.0 NTU
Water evacuated before sampling: 69 gal

Time: 11:19
pH: 7.2
Alkalinity: 43 mg/L
Water temperature: 19.5 °C
Volumes purged: 4.4 well volumes

LABORATORY ANALYSES

<table>
<thead>
<tr>
<th></th>
<th>Result</th>
<th>DF</th>
<th>Mod</th>
<th>Unit</th>
<th>Flag</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>7.0</td>
<td>1</td>
<td>J</td>
<td>pH</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Specific conductance</td>
<td>520</td>
<td>20</td>
<td></td>
<td>μS/cm</td>
<td>2</td>
<td>WA</td>
</tr>
<tr>
<td>Turbidity</td>
<td>1.3</td>
<td>1</td>
<td></td>
<td>NTU</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Aluminum, total recoverable</td>
<td>279</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>2</td>
<td>WA</td>
</tr>
<tr>
<td>Arsenic, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Barium, total recoverable</td>
<td>12</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Benzene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Bromodichloromethane</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Bromoform</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Bromomethane (Methyl bromide)</td>
<td>&lt;10</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Cadmium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Calcium, total recoverable</td>
<td>14,400</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Carbon tetrachloride</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Chloride</td>
<td>9,370</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Chlorobenzene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Chloroethane</td>
<td>&lt;10</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Chloroethene (Vinyl chloride)</td>
<td>&lt;10</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>2-Chloroethyl vinyl ether</td>
<td>&lt;10</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Chloroform</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Chloromethane (Methyl chloride)</td>
<td>&lt;10</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Chromium, total recoverable</td>
<td>&lt;4.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Dibromochloromethane</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>1,1-Dichloroethene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>1,2-Dichloroethene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>1,1-Dichloroethylene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>trans-1,2-Dichloroethylene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Dichloromethane (Methylene chloride)</td>
<td>&lt;60</td>
<td>1</td>
<td>JV</td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>2,4-Dichlorophenoxyacetic acid</td>
<td>&lt;1.1</td>
<td>1.1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>1,2-Dichloropropane</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>cis-1,3-Dichloropropene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>trans-1,3-Dichloropropene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Endrin</td>
<td>&lt;0.11</td>
<td>1.08</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Fluoride</td>
<td>&lt;100</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Iron, total recoverable</td>
<td>&lt;41</td>
<td>1</td>
<td>JV</td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Lead, total recoverable</td>
<td>&lt;3.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Lindane</td>
<td>0.054</td>
<td>1.08</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Lithium, total recoverable</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Magnesium, total recoverable</td>
<td>758</td>
<td>1</td>
<td></td>
<td>μg/L</td>
<td>0</td>
<td>WA</td>
</tr>
</tbody>
</table>

* = exceeded holding time. ** = exceeded screening level or final primary drinking water standard.

K-Area Acid/Caustic Basin

D-18

Second Quarter 1994
<table>
<thead>
<tr>
<th>Analyte</th>
<th>Result</th>
<th>DF</th>
<th>Mod</th>
<th>Unit</th>
<th>Flag</th>
<th>Lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manganese, total recoverable</td>
<td>10</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Mercury, total recoverable</td>
<td>&lt;0.20</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Methoxychlor</td>
<td>&lt;0.54</td>
<td>1.08</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Nitrate as nitrogen</td>
<td>7.15</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Phenols</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Potassium, total recoverable</td>
<td>1,210</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Selenium, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Silica, total recoverable</td>
<td>7,950</td>
<td>2.1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Silver, total recoverable</td>
<td>&lt;2.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Sodium, total recoverable</td>
<td>95,000</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Sulfate</td>
<td>165,000</td>
<td>20</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>1,1,2,2-Tetrachloroethane</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Tetrachloroethylene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Toluene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Total dissolved solids</td>
<td>313,000</td>
<td>20</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Total organic carbon</td>
<td>&lt;1,000</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Total organic halogens</td>
<td>15</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Total phosphates (as P)</td>
<td>&lt;50</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Toxaphene</td>
<td>&lt;1.1</td>
<td>1.08</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>2,4,5-TP (Silvex)</td>
<td>&lt;0.55</td>
<td>1.1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>1,1,1-Trichloroethane</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>1,1,2-Trichloroethane</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Trichloroethylene</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Trichlorofluoromethane</td>
<td>&lt;5.0</td>
<td>1</td>
<td></td>
<td>µg/L</td>
<td>0</td>
<td>WA</td>
</tr>
<tr>
<td>Gross alpha</td>
<td>&lt;1.2E+00</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td>Nonvolatile beta</td>
<td>1.8E+00</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td>Radium-226</td>
<td>6.8E-01</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td>Radium-228</td>
<td>3.0E-01</td>
<td>1</td>
<td></td>
<td>pCi/L</td>
<td>0</td>
<td>TM</td>
</tr>
<tr>
<td>Tritium</td>
<td>2.6E+00</td>
<td>1</td>
<td></td>
<td>pCi/mL</td>
<td>0</td>
<td>TM</td>
</tr>
</tbody>
</table>

* = exceeded holding time.  ■ = exceeded screening level or final primary drinking water standard.
THIS PAGE LEFT BLANK INTENTIONALLY.
Appendix E

Data Quality/Useability Assessment
Data Quality/Useability Assessment

Quality assurance/quality control (QA/QC) procedures relating to accuracy and precision of analyses performed on groundwater samples are followed in the field and laboratory and are reviewed prior to publication of results. The review by the Environmental Protection Department/Environmental Monitoring Section (EPD/EMS) of the volume of analytical data acquired each quarter and presented in various reports is an ongoing process; its review of the QA/QC data cannot be completed in time to meet the deadlines for the reports required by the Resource Conservation and Recovery Act and associated regulations. Other site and regulatory personnel can obtain further information on the data quality and useability in a variety of ways, including those described below.

Data Qualification

The contract laboratories continually assess their own accuracy and precision according to U.S. Environmental Protection Agency (EPA) guidelines. They submit sample- or batch-specific QA/QC information either at the same time as analytical results or in quarterly summaries. Properly defined and used result modifiers (also referred to as qualifiers) can be a key component in assessing data useability. Result modifiers designed by EPD/EMS and used by the primary laboratories are presented in Appendix D.

Assessment of Accuracy of the Data

Accuracy, or the nearness of the reported result to the true concentration of a constituent in a sample, can be assessed in several ways.

A laboratory's general accuracy can be judged by analysis of results obtained from known samples. The non-radiouclide contract laboratories analyze commercial reference samples every quarter at EPD/EMS' request. The results of these analyses are presented in the EPD/EMS groundwater monitoring quarterly reports. The primary laboratories also seek or maintain state certification by participating periodically in performance studies; reference samples and analysis of results are provided by EPA. Results of these studies also are published in the EPD/EMS quarterly reports.

Analysis of blanks provides a tool for assessing the accuracy of both sampling and laboratory analysis. Results for all field blanks for the quarter can be found in the EPD/EMS quarterly reports. Any field or laboratory blanks that exceed established minimums are identified in the same reports, in tables associating them with groundwater samples analyzed in the same batches.

Surrogates, organic compounds similar in chemical behavior to the compounds of interest but not normally found in environmental samples, are used to monitor the effect of the matrix on the accuracy of analyses for organic parameters. For example, for analyses of volatile organics by EPA Method 8240, three surrogate compounds are added to all samples and blanks in each analytical batch. In analyses of semivolatile organics, three acid compounds and three base/neutral compounds are used. Two surrogates are used in organochlorine pesticides analyses. Percent recoveries for surrogate analyses are calculated by laboratory personnel, reported to EPD/EMS, reviewed, and entered into the database, but they are not published. If recoveries are not within specified limits, the laboratory is expected to reanalyze the samples or attach qualifiers to the data identifying the anomalous results.
Sample-specific accuracy for both organic and inorganic parameters can be assessed by examination of matrix spike/matrix spike duplicate results. A sample is analyzed unspiked to determine a baseline set of values. A second portion of the sample is spiked with known concentrations of compounds appropriate to the analyses being performed, typically five volatile organic compounds for volatile organics analyses, eleven semivolatile compounds for semivolatiles, six pesticide compounds for pesticides, all metals for metals analyses by SW-846 methods (EPA, 1986), and a known quantity of cyanide for cyanide analysis. The percentage of the spike compound that is recovered (i.e., measured in excess of the value obtained for the unspiked sample) is a direct measure of analytical accuracy. EPA requires matrix spike/matrix spike duplicates to be run at least once per 20 samples of similar matrix.

Matrix spike/matrix spike duplicate results are reported to EPD/EMS but are not published. For organic compounds, according to EPA guidelines, no action is taken on the basis of matrix spike/matrix spike duplicate data alone (i.e., no result modifiers are assigned solely on the basis of matrix spike results); however, the results can indicate if a laboratory is having a systematic problem in the analysis of one or more analytes.

In the case of inorganic compounds, such as metals, the matrix spike sample analysis provides information about the effect of each sample matrix on the digestion and measurement methodology. Data qualifiers assigned by the laboratories on the basis of the percentage of spike recovery are reported in the published results tables.

Assessment of Precision

Precision of the analyses, or agreement of a set of replicate results among themselves, is assessed through the use of duplicates initiated by the laboratory and blind replicates (provided by EPD/EMS). The results of duplicate and replicate analyses are presented in the results tables of these reports for the first, second, and third quarters of each year. Duplicate and replicate results are not presented in fourth-quarter reports; the results tables present instead only the highest result for each analyte for each quarter of the year.

The laboratories assess precision by calculating the relative percent difference, or RPD, for each pair of laboratory-initiated duplicate results. One of the contract laboratories uses a data qualifier (J3) to modify metals analyses when the RPD for laboratory duplicates is greater than 20%.

Additional statistical comparisons of laboratory duplicate and blind replicate results, both intra- and interlaboratory, are presented in the EPD/EMS quarterly reports. The calculation used for these reports is the MRD, or mean relative difference, which is similar to EPA's RPD except that the MRD provides a single value for all of the analyses of a particular compound, either intra- or interlaboratory, during one quarter. Because detection limits may vary among samples, the MRD requires calculation of a reference detection limit, which is the detection limit at the 90th percentile of the array of limits in the population of all duplicate and replicate analyses for a given analyte during a particular quarter. The MRD is not method-specific.

Method-Specific Accuracy and Precision

The contract laboratories' EPA-approved laboratory procedures include QA/QC requirements as an integral part of the methods. Thus, knowledge of the method used in obtaining data is an important component of determining data useability. EPA has conducted extensive research and development on the methods approved for the analysis of water and waste water; information on the accuracy and precision of a method is available from EPA publications, as is full information on required QA/QC procedures. A listing of the methods used by the primary laboratories during
Methods Used by the Contract Laboratories

<table>
<thead>
<tr>
<th>Method</th>
<th>Used to Analyze</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPA120.1</td>
<td>Specific conductance</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA150.1</td>
<td>pH</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA160.1</td>
<td>Total dissolved solids</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA160.2</td>
<td>Total dissolved solids, total suspended solids</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA180.1</td>
<td>Turbidity</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA200.7</td>
<td>Metals</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA204.2</td>
<td>Antimony</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA206.2</td>
<td>Arsenic</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA239.2</td>
<td>Lead</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA245.1</td>
<td>Mercury</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA270.2</td>
<td>Selenium</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA279.2</td>
<td>Thallium</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA300.0</td>
<td>Chloride, nitrite, sulfate</td>
<td>EPA EMSL 1991</td>
</tr>
<tr>
<td>EPA310.1</td>
<td>Alkalinity</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA325.2</td>
<td>Chloride</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA335.3</td>
<td>Cyanide</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA340.2</td>
<td>Fluoride</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA353.1</td>
<td>Nitrogen, nitrate-nitrite</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA353.2</td>
<td>Nitrogen, nitrate, nitrite, or combined</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA365.1</td>
<td>Phosphorus, all forms (reported as total phosphates)</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA365.2</td>
<td>Phosphorus, all forms (reported as total phosphates)</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA376.2</td>
<td>Sulfide</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA413.1</td>
<td>Oil &amp; grease</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA415.1</td>
<td>Dissolved organic carbon, total inorganic carbon, total organic carbon</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA418.1</td>
<td>Total petroleum hydrocarbons</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA420.2</td>
<td>Phenols</td>
<td>EPA EMSL 1983</td>
</tr>
<tr>
<td>EPA900.0</td>
<td>Gross alpha, nonvolatile beta</td>
<td>EPA EMSL 1980</td>
</tr>
<tr>
<td>EPA900.1</td>
<td>Total alpha-emitting radium</td>
<td>EPA EMSL 1980</td>
</tr>
<tr>
<td>EPA906.0</td>
<td>Tritium</td>
<td>EPA EMSL 1980</td>
</tr>
<tr>
<td>EPA6010</td>
<td>Metals</td>
<td>EPA 1986</td>
</tr>
<tr>
<td>EPA7041</td>
<td>Antimony</td>
<td>EPA 1986</td>
</tr>
<tr>
<td>EPA7060</td>
<td>Arsenic</td>
<td>EPA 1986</td>
</tr>
<tr>
<td>EPA7421</td>
<td>Lead</td>
<td>EPA 1986</td>
</tr>
<tr>
<td>EPA7470</td>
<td>Mercury</td>
<td>EPA 1986</td>
</tr>
<tr>
<td>EPA7740</td>
<td>Selenium</td>
<td>EPA 1986</td>
</tr>
<tr>
<td>EPA7841</td>
<td>Thallium</td>
<td>EPA 1986</td>
</tr>
<tr>
<td>EPA8010</td>
<td>Chlorinated volatile organics</td>
<td>EPA 1986</td>
</tr>
<tr>
<td>EPA8080</td>
<td>Organochlorine pesticides and PCBs</td>
<td>EPA 1986</td>
</tr>
<tr>
<td>EPA8150</td>
<td>Chlorinated herbicides</td>
<td>EPA 1986</td>
</tr>
<tr>
<td>EPA8240</td>
<td>GCMS volatiles</td>
<td>EPA 1986</td>
</tr>
<tr>
<td>EPA8270</td>
<td>GCMS semivolatiles</td>
<td>EPA 1986</td>
</tr>
<tr>
<td>EPA8280</td>
<td>Dioxins and furans</td>
<td>EPA 1986</td>
</tr>
<tr>
<td>EPA9012</td>
<td>Cyanide</td>
<td>EPA 1986</td>
</tr>
<tr>
<td>EPA9020</td>
<td>Total organic halogens</td>
<td>EPA 1986</td>
</tr>
<tr>
<td>EPA9020A</td>
<td>Total organic halogens</td>
<td>EPA 1986</td>
</tr>
<tr>
<td>EPA9030</td>
<td>Sulfide</td>
<td>EPA 1986</td>
</tr>
<tr>
<td>EPA9060</td>
<td>Dissolved organic carbon, total inorganic carbon, total organic carbon</td>
<td>EPA 1986</td>
</tr>
</tbody>
</table>
An example of available method-specific QA/QC information is that for the analysis of metals by EPA Method 6010/200 7 (EPA, 1986/EPA EMSL, 1983). The primary laboratories, General Engineering Laboratories (GE) and Roy F. Weston, Inc. (Weston), use this inductively coupled plasma (ICP) atomic emission spectrometric method.

The following precision and accuracy data are based on the experience of seven laboratories that applied the ICP technique to acid-distilled water matrices that had been spiked with various metal concentrates. (Note: Not all seven laboratories analyzed all 14 elements.) The references give results for samples having three concentration ranges; the results here are for samples having the lowest values, similar to actual groundwater results for SRS.

**ICP Precision and Accuracy Data**

<table>
<thead>
<tr>
<th>Element</th>
<th>True value (μg/L)</th>
<th>Mean reported value (μg/L)</th>
<th>Mean percent RSD a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>60</td>
<td>62</td>
<td>33</td>
</tr>
<tr>
<td>Arsenic</td>
<td>22</td>
<td>19</td>
<td>23</td>
</tr>
<tr>
<td>Beryllium</td>
<td>20</td>
<td>20</td>
<td>9.8</td>
</tr>
<tr>
<td>Cadmium</td>
<td>2.5</td>
<td>2.9</td>
<td>16</td>
</tr>
<tr>
<td>Chromium</td>
<td>10</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>Cobalt</td>
<td>20</td>
<td>20</td>
<td>4.1</td>
</tr>
<tr>
<td>Copper</td>
<td>11</td>
<td>11</td>
<td>40</td>
</tr>
<tr>
<td>Iron</td>
<td>20</td>
<td>19</td>
<td>15</td>
</tr>
<tr>
<td>Lead</td>
<td>24</td>
<td>30</td>
<td>32</td>
</tr>
<tr>
<td>Manganese</td>
<td>15</td>
<td>15</td>
<td>6.7</td>
</tr>
<tr>
<td>Nickel</td>
<td>30</td>
<td>28</td>
<td>11</td>
</tr>
<tr>
<td>Selenium</td>
<td>6</td>
<td>8.5</td>
<td>42</td>
</tr>
<tr>
<td>Vanadium</td>
<td>70</td>
<td>69</td>
<td>2.9</td>
</tr>
<tr>
<td>Zinc</td>
<td>16</td>
<td>19</td>
<td>45</td>
</tr>
</tbody>
</table>

a Relative standard deviation. In EPA (1986), the column heading is Mean Standard Deviation (%).

As another example, EPA Method 601/8010 (EPA, 1991/EPA, 1986) is used by both GE and Weston for analyses of halogenated volatile organics. In the presentation of the method in both references, the following table gives method-specific accuracy and precision as functions of concentration. Contract laboratories are expected to achieve or at least approach these limits.

**Accuracy and Precision as Functions of Concentration for EPA Method 601/8010**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Accuracy as recovery, X a (μg/L)</th>
<th>Single analyst precision (μg/L) [b]</th>
<th>Overall precision (μg/L) [c]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bromodichloromethane</td>
<td>1.12C−1.02 d</td>
<td>0.11X+0.04 e</td>
<td>0.20X+1.00</td>
</tr>
<tr>
<td>Bromoform</td>
<td>0.96C−2.05</td>
<td>0.12X+0.58</td>
<td>0.21X+2.41</td>
</tr>
<tr>
<td>Bromomethane</td>
<td>0.76C−1.27</td>
<td>0.28X+0.27</td>
<td>0.36X+0.94</td>
</tr>
<tr>
<td>Carbon tetrachloride</td>
<td>0.98C−1.04</td>
<td>0.15X+0.38</td>
<td>0.20X+0.39</td>
</tr>
<tr>
<td>Chlorobenzene</td>
<td>1.00C−1.23</td>
<td>0.15X−0.02</td>
<td>0.18X+1.21</td>
</tr>
<tr>
<td>Chloroethane</td>
<td>0.99C−1.53</td>
<td>0.14X−0.13</td>
<td>0.17X+0.63</td>
</tr>
<tr>
<td>2-Chloroethyl vinyl ether f</td>
<td>1.00C</td>
<td>0.20X</td>
<td>0.35X</td>
</tr>
<tr>
<td>Chloroform</td>
<td>0.93C−0.39</td>
<td>0.13X+0.15</td>
<td>0.19X−0.02</td>
</tr>
<tr>
<td>Chloromethane</td>
<td>0.77C+0.18</td>
<td>0.28X−0.31</td>
<td>0.52X+1.31</td>
</tr>
<tr>
<td>Dibromochloromethane</td>
<td>0.94C+2.72</td>
<td>0.11X+1.10</td>
<td>0.24X+1.68</td>
</tr>
<tr>
<td>1,2-Dichlorobenzene</td>
<td>0.93C+1.70</td>
<td>0.20X+0.97</td>
<td>0.13X+6.13</td>
</tr>
<tr>
<td>1,3-Dichlorobenzene</td>
<td>0.95C+0.43</td>
<td>0.14X+2.33</td>
<td>0.26X+2.34</td>
</tr>
<tr>
<td>1,4-Dichlorobenzene</td>
<td>0.93C−0.09</td>
<td>0.15X+0.29</td>
<td>0.20X+0.41</td>
</tr>
</tbody>
</table>

K-Area Acid/Caustic Basin E-6

Second Quarter 1994
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Accuracy as recovery $X^*$ (µg/L)</th>
<th>Single analyst precision (µg/L)</th>
<th>Overall precision (µg/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,1-Dichloroethane</td>
<td>0.95C-1.08</td>
<td>0.09X+0.17</td>
<td>0.14X+0.94</td>
</tr>
<tr>
<td>1,2-Dichloroethane</td>
<td>1.04C-1.06</td>
<td>0.11X+0.70</td>
<td>0.15X+0.94</td>
</tr>
<tr>
<td>1,1-Dichloroethene</td>
<td>0.98C-0.87</td>
<td>0.21X-0.23</td>
<td>0.29X-0.40</td>
</tr>
<tr>
<td>trans-1,2-Dichloroethylene</td>
<td>0.97C-0.16</td>
<td>0.11X+1.46</td>
<td>0.17X+1.46</td>
</tr>
<tr>
<td>Dichloromethane</td>
<td>0.91C-0.93</td>
<td>0.11X+0.33</td>
<td>0.21X+1.43</td>
</tr>
<tr>
<td>(Methylene chloride)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,2-Dichloropropene</td>
<td>1.00C</td>
<td>0.13X</td>
<td>0.23X</td>
</tr>
<tr>
<td>cis-1,3-Dichloropropene</td>
<td>1.00C</td>
<td>0.18X</td>
<td>0.32X</td>
</tr>
<tr>
<td>trans-1,3-Dichloropropene</td>
<td>1.00C</td>
<td>0.18X</td>
<td>0.32X</td>
</tr>
<tr>
<td>1,1,2,2-Tetrachloroethane</td>
<td>0.95C+0.19</td>
<td>0.14X+2.41</td>
<td>0.23X+2.79</td>
</tr>
<tr>
<td>Tetrachloroethylene</td>
<td>0.94C+0.06</td>
<td>0.14X+0.38</td>
<td>0.18X+2.21</td>
</tr>
<tr>
<td>1,1,1-Trichloroethane</td>
<td>0.90C-0.16</td>
<td>0.15X-0.04</td>
<td>0.20X+0.37</td>
</tr>
<tr>
<td>1,1,2-Trichloroethane</td>
<td>0.86C+0.30</td>
<td>0.13X-0.14</td>
<td>0.19X+0.67</td>
</tr>
<tr>
<td>Trichloroethylene</td>
<td>0.87C+0.48</td>
<td>0.13X-0.03</td>
<td>0.23X+0.30</td>
</tr>
<tr>
<td>Trichlorofluoromethane</td>
<td>0.89C-0.07</td>
<td>0.15X-0.67</td>
<td>0.26X+0.91</td>
</tr>
<tr>
<td>Vinyl chloride</td>
<td>0.97C-0.36</td>
<td>0.13X+0.65</td>
<td>0.27X+0.40</td>
</tr>
</tbody>
</table>

a $X^* =$ expected recovery for one or more measurements of a sample containing a concentration of C, in µg/L.

b Expected single analyst standard deviation of measurements.

c Expected interlaboratory standard deviation of measurements.

d $C =$ true value for the concentration, in µg/L.

e $\bar{X} =$ average recovery found for measurements of samples containing a concentration of C, in µg/L.
f Estimates based on performance of a single laboratory.

References


**Record Indexing**

<table>
<thead>
<tr>
<th>Document Number</th>
<th>WSR-TE-94-0349</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Document Number(s), if Appropriate</td>
<td></td>
</tr>
<tr>
<td>Date (YY/MM/DD)</td>
<td>1994 SEPTEMBER</td>
</tr>
<tr>
<td>Circle One (Lifetime)</td>
<td>Nonpermanent</td>
</tr>
<tr>
<td>Retention Period (If Nonpermanent)</td>
<td>99</td>
</tr>
<tr>
<td>Classification (If Unclassified, so state. Also include UCNI)</td>
<td>UNCLASSIFIED</td>
</tr>
<tr>
<td>Authors</td>
<td>SITE GEO-TECHNICAL SERVICES / EXPLORATION RESOURCES</td>
</tr>
<tr>
<td>Originating Department or Corporate Author</td>
<td>SITE GEO-TECHNICAL SERVICES</td>
</tr>
<tr>
<td>Title</td>
<td>K-AREA ACID/CAUSTIC BASIN - SECOND QUARTER 1994 - GROUNDWATER MONITORING REPORT</td>
</tr>
<tr>
<td>Addressee</td>
<td>DISTRIBUTION</td>
</tr>
</tbody>
</table>

**Keywords**

- Must be listed in the Master Thesaurus for acceptance
- Must relate specifically to the topic covered
- Should not be a repeat of the title or other items listed above
- Acronyms are discouraged, for sake of accuracy
- Should be unambiguous
- May be up to 30 characters long; or phrases
- May be a maximum of twenty (20); minimum of five (5)

1. ALUMINUM
2. IRON
3. KAC WELLS
4. SPECIFIC CONDUCTANCE
5. TOTAL ORGANIC HALOGENS