

Quarterly Report of RCRA Groundwater Monitoring Data for Period October 1 through December 31, 1994

Earth and Environmental
Technical Services
Westinghouse Hanford Company

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LIST OF TERMS

A-10 Crib	216-A-10 Crib
A-29 Ditch	216-A-29 Ditch
A-36B Crib	216-A-36B Crib
APT	(300) Area Process Trenches
Basins	183-H Solar Evaporation Basins
CBML	Columbia Biomedical Laboratories
CFR	<i>Code of Federal Regulations</i>
CIP	Contamination Indicator Parameter
CRQL	contractually required quantitation limit
DOE	U.S. Department of Energy
DWS	drinking water standard
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
ICP	inductively coupled plasma
INC	Incident (report)
ITAS	International Technology Analytical Services
LERF	Liquid Effluent Retention Facility
LLBG	Low-Level Burial Grounds
LLWMA	Low-Level Waste Management Area
LWDF	Liquid Waste Disposal Facility
MDC	minimum detectable concentration
MDL	method detection limit
NCR	Nonconformance Report
NRDWL	Nonradioactive Dangerous Waste Landfill
NTU	nephelometric turbidity unit
PNL	Pacific Northwest Laboratory
PUREX	Plutonium-Uranium Extraction (Plant)
QA	quality assurance
QC	quality control
RADE	Request for Analytical Data Evaluation
RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
RCW	<i>Revised Code of Washington</i>
REDOX	Reduction-Oxidation (Plant)
RL	Richland Operations Office
RPD	relative percent difference
S-10 Facility	216-S-10 Pond and Ditch
SST	single-shell tank
TOC	total organic carbon
TOX	total organic halogen
Tri-Party Agreement	<i>Hanford Federal Facility Agreement and Consent Order</i>
U-12 Crib	216-U-12 Crib
WAC	<i>Washington Administrative Code</i>
WHC	Westinghouse Hanford Company
WMA	waste management area
WP	Water Pollution (Program)
WS	Water Supply (Program)

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QUARTERLY REPORT OF RCRA GROUNDWATER MONITORING DATA FOR
PERIOD OCTOBER 1, 1994 THROUGH DECEMBER 31, 1994

1.0 INTRODUCTION

Hanford Site interim-status groundwater monitoring projects are conducted as either background, indicator parameter evaluation, or groundwater quality assessment monitoring programs as defined in the *Resource Conservation and Recovery Act of 1976 (RCRA)*; and "Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities" (Title 40 *Code of Federal Regulations [CFR]* Part 265), as amended. Compliance with the 40 CFR 265 regulations is required by the *Washington Administrative Code (WAC)* 173-303. This report contains data from Hanford Site groundwater monitoring projects. The location of each facility is shown in Figure 1-1.

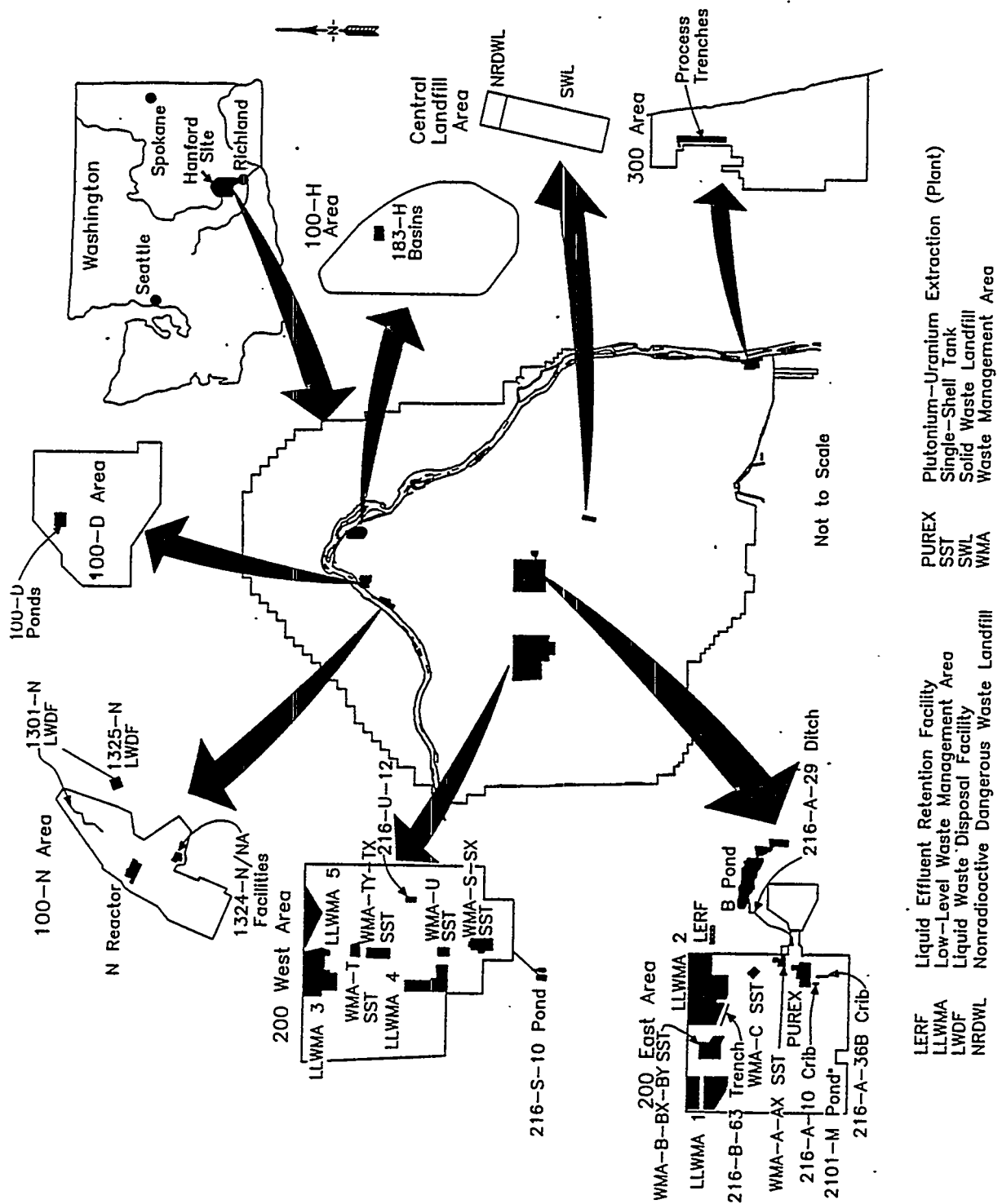
Westinghouse Hanford Company (WHC) manages the RCRA groundwater monitoring projects for federal facilities on the Hanford Site. Performing project management, preparing groundwater monitoring plans, well network design and installation, specifying groundwater data needs, performing quality control (QC) oversight, data management, and preparing project sampling schedules are all parts of this responsibility. Pacific Northwest Laboratory (PNL) administers the contract for analytical services and provides groundwater sampling services to WHC for the RCRA groundwater monitoring program.

This quarterly report contains data received between October and December 1994, which are the cutoff dates for this reporting period. This report may contain not only data from the October through December quarter, but also data from earlier sampling events that were not previously reported.

1.1 LABORATORY AND SAMPLING STATUS

DataChem Laboratories of Salt Lake City, Utah, performs the hazardous chemicals analyses for the Hanford Site. Analyses for coliform bacteria are performed by Columbia Biomedical Laboratories (CBML) and analyses for dioxin are performed by TMS Analytical Services, Inc.; both are under subcontract to DataChem Laboratories. International Technology Analytical Services (ITAS) Richland, Washington, performs the radiochemical analyses.

Figure 1-1. Locations of the RCRA Groundwater Monitoring Projects and Landmarks on the Hanford Site.



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1.2 QUALITY CONTROL PROGRAM

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1.2.1 Introduction

The QC Program is based on guidance from the U.S. Environmental Protection Agency (EPA), the *RCRA Groundwater Monitoring Technical Enforcement Guidance Document* (EPA 1986a), and Chapter 1.0, Quality Control, from *Test Methods for Evaluating Solid Waste* (EPA 1986b).

1.2.1.1 Data Quality Measures. The QC Program uses the five measures of data quality: precision, accuracy, representativeness, completeness, and comparability, along with applicable program-specific quality parameters to evaluate the quality of the data and the analytical laboratories analyzing the samples. Target values for precision and accuracy are specified in the *Quality Assurance Project Plan for RCRA Groundwater Monitoring Activities* (WHC 1992b).

1. Precision is evaluated using data results from laboratory duplicates, matrix spike duplicates (see Section 1.2.3), field duplicates, and blind samples (see Section 1.2.2).
2. Accuracy is evaluated using data results from laboratory matrix spikes; laboratory control samples; EPA Water Pollution (WP), Water Supply (WS), and Interlaboratory Performance Evaluation Programs (see Section 1.2.3); and by blind samples (see Section 1.2.2).
3. Representativeness expresses the degree to which RCRA facility groundwater monitoring data represent the real composition of the groundwater in the aquifer. Goals for data representativeness for groundwater monitoring programs are addressed qualitatively by the specification of well construction, sampling locations, sampling intervals, and sampling and analyses techniques in the groundwater monitoring plan for each RCRA facility.
4. Completeness is defined as the percentage of measurements that are judged to be valid. Completeness is determined by the number of data unflagged during validation, divided by the total number of data evaluated, and multiplied by 100. The calculated percentages used in reporting completeness are conservative figures and are based on the data flags 'P,' 'F,' 'Q,' and 'H.' Table 1-1 illustrates project completeness for the data presented in this report.
5. Comparability is used to ensure that samples analyzed by different laboratories or by the same laboratory over different time periods are comparable. For the October through December 1994 quarter, only the primary hazardous chemistry and radiochemistry laboratories were requested to analyze samples and submit data. Samples were analyzed in accordance with *Test Methods for Evaluating Solid Waste* (EPA 1986b) and other applicable approved

methods. Comparability of field measurements is determined by following approved sampling procedures that ensure consistency among sampling events.

Table 1-1. Completeness. (2 sheets)

Project	Total number of evaluated data	Number of unflagged results	Percent complete (unflagged)
100-D	38	36	95
100-N	835	777	93
183-H	1112	990	89
2101-M	368	368	100
216-A-10	593	538	91
216-A-29	1869	1752	94
216-A-36B	358	327	91
216-B-3	1246	1206	97
216-B-63	1299	1249	96
216-S-10	568	492	87
216-U-12	714	660	92
300 APT	973	872	90
LERF	0	0	N/A
LLBG WMA-1	1810	1661	92
LLBG WMA-2	1793	1721	96
LLBG WMA-3	339	299	88
LLBG WMA-4	1926	1729	90
LLBG WMA-5	178	166	93
NRDWL	0	0	N/A
SST A/AX	73	71	97
SST B/BX/BY	246	232	94
SST C	60	60	100
SST S/SX	124	109	88
SST T	746	683	92

Table 1-1. Completeness. (2 sheets)

Project	Total number of evaluated data	Number of unflagged results	Percent complete (unflagged)
SST TX/TY	396	368	93
SST U	73	72	99

APT = Area Process Trench.
 LERF = Liquid Effluent Retention Facility.
 LLBG = Low-Level Burial Grounds.
 NRDWL = Nonradioactive Dangerous Waste Landfill.
 SWL = Solid Waste Landfill.
 SST = single-shell tank.
 WMA = waste management area.

1.2.1.2 Program-Specific Validation Flags. Program-specific validation flags are assigned during the process of evaluating RCRA groundwater data. These flags include (1) H flags for samples exceeding holding times; (2) Q flags for field blank and duplicate data exceeding quality control limits; (3) F flags for data under the Request for Analytical Data Evaluation (RADE) process; and (4) P flags for data identified as a "potential problem."

1. Holding time exceedances have been flagged in the quarterly reports with an H flag. This flag means that the samples were analyzed after the method-required holding times stated in the contract. The H-flagged data may be used qualitatively, but no regulatory decisions should be made based on a single-flagged data point.
2. Data associated with field blanks that indicate contamination and data associated with field duplicate samples that show greater than 25% relative percent difference (RPD) are identified in the quarterly project data tables with a Q flag. This flag means that the field QC data associated with the sample data were outside limits established in the *Environmental Engineering and Geotechnology Function Procedures* (WHC-CM-7-8). The Q-flagged data can be used qualitatively, but no regulatory decisions should be made based on a single-flagged data point.
3. The RADE system is used to track and evaluate data that appear to be inconsistent with the current pattern or with historical trends. An 'F' flag indicates that the data point is submitted for data review through the RADE system.
4. Nonconformance Reports (NCR) and Incident (INC) Reports are received from the laboratory and are used to document occurrences that may affect data quality. Data points affected by these reports are flagged with 'Y,' or 'R'.
5. Data points related to isolated occurrences determined by the specific project scientist are flagged with a 'P,' indicating a

potential problem with the data. Explanations for use of the flag will be discussed in the specific project chapter.

1.2.2 External Quality Control Program

The external QC program uses three kinds of QC samples to evaluate the quality of data generated in the field and in the laboratory. These are field duplicates, field blanks, and blind samples. (See Section 1.3 for definitions of the QC samples.)

The analytical results of QC samples are judged to be acceptable if the following evaluation criteria are met.

- Field duplicates--Results of field duplicate pairs must have precision as measured by RPD within $\pm 25\%$.
- Blanks--Four kinds of blanks are used to check for contamination resulting from field activities and/or bottle preparation. These are full trip, daily trip, field transfer, and bottle blanks.

Except for common laboratory contaminants, results above the threshold of two times the method detection limit (MDL) are identified as suspected contamination. For common laboratory contaminants, such as acetone, methylene chloride, 2-butanone, toluene, and phthalate esters, sample results less than five times the MDL are qualified as nondetects.

- Blind samples--Results must fall within 2.0 standard deviations from the mean recovery of the known concentration of samples submitted to the laboratory.

Table 1-2 summarizes the analytical results of QC samples available for the October through December 1994 quarter.

Samples associated with duplicate or blank analytes that exceeded the QC limits are discussed in this section and are flagged with a 'Q' in the data tables.

Table 1-2. Field Duplicates and Field Blanks Evaluation Results, Fourth Quarter 1994.

Quality control sample	Number of analyses	Number of results outside of criteria	Acceptable (%)
Duplicates	879	52	94.1
Blanks	2784	137	95.1

Precision based on field duplicate analysis was determined to be acceptable. See Table 1-3 for a complete breakdown of field duplicates that did not meet QC acceptance criteria. The criteria for determining the acceptability of duplicate data are currently being reevaluated. Precision values for some field duplicate constituents (including both radiochemistry

and hazardous chemistry constituents) have been consistently outside the acceptable limit of 25% RPD for several quarters. However, the laboratories have not experienced similar problems with precision, based on their own limits. This led the QC team to believe that the 25% blanket RPD limit may need to be reevaluated to account more for instrument- and method-specific precision limits.

Of the 2,784 blanks analyzed during the October through December quarter, 137 exceeded the QC limit for 95.1% acceptability. Table 1-4 shows a breakdown of the constituents detected in the blanks. All the methylene chloride samples were qualified by the laboratory with a 'B,' which indicates contamination occurred at the laboratory in the laboratory blanks.

Table 1-5 shows the required and actual frequencies of the field QC samples for the October through December 1994 quarter. Sampling frequencies were slightly high this quarter for field duplicates and full trip blanks. Field transfer blank frequency came in below the required 5% at 4.1%. The frequency for daily trip blanks did not meet the requirement of one per day. In November, one daily trip blank was not taken into the field.

Table 1-3. Breakdown of Field Duplicates Exceeding Quality Control Limits.

Method analysis code	Method description	Number of flagged results	Total number of results	Percent of total out of limits
25	Volatile organics (gas chromatography)	3	85	3.5
34	Inductively coupled plasma metals	25	380	6.6
67	Total organic halogen	4	15	26.7
122	Total organic carbon	6	11	54.5
124	Anions	3	84	3.6
129	Ammonium ion	1	2	50.0
135	Gross alpha	1	7	14.3
136	Gross beta	3	6	50
137	Radium	1	1	100
139	Iodine-129, Low level	1	3	33.3
140	ITAS Gamma scan (Be-7, K-40, Ru-106)	3	28	10.7
145	Uranium	1	3	33.3

Table 1-4. Breakdown of Field Blanks Exceeding Quality Control Limits.

Method analysis code	Method description	Number of flagged results	Total number of results	Percent of total out of limits
16	Volatile organics (GC/MS 8240)	15	330	4.5
25	Volatile organics (GC)	3	85	3.5
34	Inductively coupled plasma metals	20	551	3.6
40	Lead by graphite furnace atomic absorption	3	10	30
41	Mercury by cold vapor atomic absorption	1	9	11.1
67	Total organic halogen	12	142	8.45
122	Total organic carbon	4	48	8.3
124	Anions	20	126	15.9
126	Turbidity	15	15	100
127	Total carbon	1	1	100
140	ITAS Gamma scan (Be-7, K-40)	4	64	6.3
182	Volatile organics (GC/MS 8260)	38	792	4.8
357	Alkalinity	1	9	11.1

Table 1-5. Frequency of Quality Control Samples.

Quality control samples	Required frequencies	Number of wells sampled	Number of samples taken	Actual frequency (%)
Duplicates	5%	219	12	5.5
Daily trip blank	One each sampling day (45)	44 (45 required)	44	97.8
Full trip blank	5%	219	12	5.5
Field transfer blank	5%	219	9	4.1
Bottle blanks	Per lot of bottles	N/A	2	N/A

N/A = not applicable.

1.2.3 Internal Quality Control Program

The internal QC program uses four types of QC data to establish and monitor performance in the laboratory. These data are laboratory blanks, matrix spikes, matrix duplicates, and EPA studies (WP and WS).

Every quarter each contracted laboratory supplies its own QC report, which includes data quality information on matrix spikes, matrix duplicates, and blanks in the form of precision and accuracy. Each contracted laboratory also supplies to WHC a report of its results of EPA's WP, WS, and radiochemical intercomparison studies on a quarterly basis. The results of EPA studies independently verify the continuation of laboratory performance and are expressed as the percentage of EPA-accepted results. In addition, every 6 months each contracted laboratory supplies an MDL/minimum detectable concentration (MDC) report. The MDLs and MDCs are required to be below the contractually required quantitation limit (CRQL). The CRQL is not associated with a quantitation limit as the name suggests; it is intended to be the lowest analyte concentration in a given matrix that a laboratory can be expected to detect consistently. The CRQL is agreed on under the contractual statement of work. A laboratory NCR is issued when the MDL is greater than the CRQL. WHC reviews each of these reports; the results are summarized in Table 1-6.

Radiochemistry precision and accuracy figures are gleaned from the radiochemistry laboratory's quarterly report, with percent acceptability calculated from duplicates and spikes, respectively. These results, along with radiochemistry blank data, are summarized in Table 1-6.

Precision and accuracy results from the radiochemistry laboratory, summarized in Table 1-6, indicate the performance of all customers submitting water matrix samples. WHC samples represent only a part of the performance summary. These figures represent samples analyzed during the period of October through December 1994.

For the October through December 1994 quarter, the radiochemistry laboratory analyzed 163 duplicates, of which 160 were within control limits ($\pm 3\sigma$), for an acceptability of 98.2%. The radiochemistry laboratory analyzed 265 spikes, of which 261 fell within control limits, for an acceptability of 98.5%.

The 95% confidence interval on the mean is used to establish acceptance limits for performance evaluation sample results (see WHC-CM-7-8, Section 2.4, "Evaluation of RCRA Groundwater Performance Evaluation Sample Data"). The hazardous chemistry laboratory's mean results for 15 of the 15 performance evaluation sample values fell within the limits of the 95% confidence interval and are acceptable.

TOX results could not be evaluated at this time because raw data were not available. TOX results shall be evaluated when these data arrive. Fourteen results from phenol and ICP metal analyses could not be evaluated per WHC-CM-7-8 because of a lack of results and differing analytical methods used by the laboratories. Three ICP metal results (iron, potassium, and sodium) could not be evaluated and were rejected because the percent bias and/or the relative standard deviation exceeds 100%, per WHC-CM-7-8. Based on this

information, WHC will resend ICP metal and phenol performance evaluation samples the next time standards are sent.

Table 1-6. Radiochemistry Quarterly Report Summary.

Fourth quarter 1994	Duplicates (precision, % acceptable)	Spikes (accuracy, % acceptable)	Blanks (% acceptable)
October through December	98.2	98.5	97.1

EPA intercomparison samples were analyzed by the radiochemistry laboratory during October and November 1994. Seven samples were analyzed for gross alpha, gross beta, cobalt-60, cesium-134 and -137, barium-133, and zinc-65. All sample results were within the $\pm 25\%$ bias acceptability criterion. This translates to seven out of seven acceptable results, or 100% acceptability.

Environmental Sciences sent out performance evaluation (PE) samples to four laboratories during November 1994. The PE samples were sent out in duplicate to each laboratory and contained known amounts TOC, TOX, nitrate, and carbon tetrachloride. The laboratories that participated in the analysis of these samples are the primary hazardous chemistry laboratory (Lab 1), two comparison laboratories (Labs 2 and 3), and the primary laboratory for TOX analysis (Lab 4). The laboratories received all four sample sets, with the exception of Lab 4, which only received TOX.

The results for these analyses are shown in Table 1-7. Lab 1's results were within the limits of the 95% confidence interval for all four analytes. A 95% confidence interval is used to establish acceptance limits for the PE samples. This is in accordance with WHC-CM-7-8, Section 2.4.

Lab 4's results were outside the acceptance limits for the TOX samples. Lab 4 has been analyzing RCRA groundwater samples for Environmental Sciences since November 1994. Lab 4 received TOX PE samples in May 1994 and had results within acceptable limits at that time. The PE procedure, WHC-CM-7-8, Section 2.4, requires that another set of PE samples be sent as soon as possible to a laboratory that does not get results in acceptable limits.

Table 1-7. Summary of Performance Evaluation Samples.

Analyte	"True value" (ppb)	Lab 1 (primary hazardous chemistry lab) mean result (ppb)	Lab 2 (comparison lab) mean result (ppb)	Lab 3 (comparison lab) mean result (ppb)	Lab 4 (primary TOX lab) mean result (ppb)	95% confidence interval (ppb)
TOC	978	1,000	1,300	2,370	-	901-2,213
TOX	17.97	17	17	14.75	22.75	15.39-20.36
Nitrate	295	350	327	69	-	112-386
Carbon-tetra-chloride	10.3	7.7	6.0	8.0	-	6.0-8.5

1.2.4 Nonconformance/Incident Reports

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NCR and INC Reports are methods of documentation by which contract laboratories inform laboratory contractors and their customers of any problems encountered with the analysis, data, and/or data deliverable. This method of documentation identifies occurrences, deficiencies, and/or issues that may potentially affect the data integrity. These may include, but are not limited to, the following:

- Lost sample
- Broken bottle
- Instrument malfunction
- Calibration standard out of acceptable range
- Laboratory control standard out of acceptable range
- Matrix spike recovery out of acceptable range
- Procedural noncompliance
- Chain-of-custody discrepancies
- Shipping temperature out of acceptable range
- Misreported data.

During the October through December quarter, 16 NCR/INC Reports were transmitted, affecting 35 data points. Fourteen NCR/INC Reports were transmitted by the hazardous chemistry laboratory and two were transmitted by the radiochemistry laboratory. These reports describe incidents that potentially affect the integrity of either groundwater samples or external QC samples (e.g., trip blanks, bottle blanks).

The incident reports transmitted by the hazardous chemistry laboratory affect 32 data points, 18 of which were rejected. The rejected data were attributed to sample containers received broken at the laboratories. In addition, eight analytical results were evaluated as being suspect. These data should be used for trending purposes only. Ninety percent of the suspect data are attributed to TOX samples received broken at the laboratory. The sample shipping department will be informed of the problem and instructed to package samples conscientiously.

The incident reports transmitted by the radiochemistry laboratory affect three data points. The incidents documented were determined to have had no adverse effect on the data. The radiochemistry laboratory had incorrectly calculated a result using sample weight rather than sample volume, the sample was recalculated and rereported. The two remaining data points were determined to have a high beta activity and, therefore, the sample sizes were reduced to a volume less than that prescribed by the analytical procedure.

Table 1-8 presents the sample numbers adversely affected by the NCR and incident reports, along with the associated well numbers, analytical methods, and flags assigned to these samples as a result of the WHC NCR and incident report evaluations (see Section 1.4.5 for definitions of flags found in Table 1-8).

1.2.5 Quality Assurance Occurrences

Quality assurance (QA) occurrences are situations that potentially affect the quality of the data. These situations are discussed through summaries of inspections of laboratory services and/or system and performance audits/surveillances.

Inspection of laboratory services and/or system and performance audits/surveillances for the RCRA groundwater monitoring program are performed throughout the year by the laboratory contractor, WHC, and/or the U.S. Department of Energy (DOE) on various aspects of this program. QA requirements and data quality objectives are defined in the *Quality Assurance Project Plan for RCRA Groundwater Monitoring Activities* (WHC 1992b). Results of these oversight activities are documented with the audit/surveillance and/or inspecting organization(s).

Table 1-8. RCRA Samples Flagged for Nonconformance Report. (2 sheets)

Flag Name	Flag	Method Name	Code	Well Name	Number
Rejected	R	TOC TOX	122 67	199-N-74	BOC9H4
				299-W11-27	BOC107
				299-W11-28	BOC122
					BOC124
				299-W22-22	BOCZK4
		TRITIUM		299-W6-3	BOC9Y4
				199-K-27	BOCYF2
Suspect	Y	ALPHA	135	199-K-109A	BO9H58
				199-N-16	BOCJ34
				199-N-17	BOCJ42
				199-N-21	BOCJ48
				199-N-25	BOCJ66
					BOCJ67
		ANIONS	124	299-W7-11	BOCB19
				299-W7-12	BOCB24
				299-W7-9	BOCB64
				299-W8-1	BOCB69
		HERBICIDES TOX	49 67	699-41-35	BOC6T9
				299-E25-46	BOCYM7
					BOCYM9
					BOCYN0
				299-E33-36	BOCYR6
				299-E33-42	BOCYS3
					BOCYS4
				299-E33-43	BOCYS5
					BOCYS6
					BOCYS7
					BOCYS8
					BOCYS5
					BOCYS6
					BOCYS7
					BOCYS8
				299-W10-17	BOCZH2
				299-W10-18	BOCZJ2
				299-W14-12	BOCZH6
				299-W15-22	BOCZJ4
				299-W18-25	BOCYT1
					BOCYT2
				299-W18-31	BOCYT9
					BOCYV0
				299-W22-23	BOCZK8
					BOCZK9
					BOCZL0
					BOCZL1

Table 1-8. RCRA Samples Flagged for Nonconformance Report. (2 sheets)

Flag Name	Flag	Method Name	Code	Well Name	Number
		TOX	67	299-W22-39	BOCYV9 BOCYW0 BOCYW1 BOCYW2 BOCYW5 BOCYW6 BOCYV9 BOCYW0 BOCYW1 BOCYW2 BOCYW3 BOCYW4 BOCYW5 BOCYW6
				299-W22-45	BOCYX1 BOCYX2 BOCYX3 BOCYX4 BOCYX1 BOCYX2 BOCYX3 BOCYX4
				299-W22-46	BOCYX5 BOCYX6 BOCYX7 BOCYX8 BOCYX5 BOCYX6 BOCYX7 BOCYX8
				299-W23-13	BOCYX9 BOCYY0 BOCYY1 BOCYY2 BOCYX9 BOCYY0 BOCYY1 BOCYY2
				299-W23-14	BOCYY3 BOCYY4 BOCYY5 BOCYY6
				299-W23-15	BOCYY8 BOCYY9 BOCYZ0
		VOA (GC)	25	299-W10-16	BOC0X5
				299-W15-16	BOC0Q0
				299-W15-22	BOC0Y6

Findings:

- The contractor failed to track and verify implementation of corrective actions, as required by the contract.
- Noncompliances were found with the laboratories procedures governing document control. Multiple instances were found of effective dates for procedures proceeding approval dates.
- Noncompliances were found with the implementation of the contractual requirement for annual review of procedures.
- Deficiencies exist in the traceability to specific procedures and standards used for the analysis of samples.
- Noncompliances were found to the laboratories procedural and contractual requirements for training.
- Deficiencies and inconsistencies exist in the control charting and tracking for both analysis and reporting purposes.

Observations:

- The contract laboratory was unable to clearly explain the responsibilities of its QA organization as applicable to WHC samples.
- It was unclear whether the laboratory has an effective program in place to control contamination.

The corrective action for the findings and observations is scheduled to be provided after the printing of this report.

The second inspection was performed at the radiochemistry laboratory on July 6-8, 1994. The official report has not been released at this time and a summary will be provided during the next reporting period.

A third inspection of services was performed at CBML on August 8-10, 1994. The purpose of the inspection was to determine compliance by CBML with the PNL contract regarding QA and QC for coliform and biological oxygen demand analyses.

The inspection team found evidence supporting two findings:

Finding #1: CBML had not followed the requirements delineated in their QA manual.

Finding #2: CBML had not met all PNL contract and CBML QA manual requirements for planning and implementing surveillances and audits.

The corrective action for the findings is scheduled to be provided after the printing of this report.

1.3 QUALITY CONTROL DEFINITIONS

Accuracy--The closeness of agreement between an observed value and a true value. Accuracy is assessed by means of reference samples and percent recoveries.

Blind sample--A sample that contains a concentration of analyte that is known to the supplier but unknown to the analyzing laboratory. The analyzing laboratory is informed that the sample is a QC sample and not a field sample. The blind, double blind, and matrix-matched double blind samples are used to assess accuracy and monitor the performance of the analytical laboratory(ies) with prepared or purchased materials from EPA QC samples/concentrates or primary materials.

Bottle blank--A sample that contains only Type II reagent water. The bottle blank contains one sample for each bottle size, with at least enough bottles to include all constituents analyzed by a specific project, except radionuclides. Bottle blanks shall be submitted to the primary laboratory per lot of bottles. Bottle blanks are filled in the analytical laboratory under the sample preparation procedures. Bottle blanks do not go into the field.

Contractually required quantitation limit--A value intended to be the lowest analyte concentration in a given matrix that the laboratory can be expected to achieve consistently; agreed upon under the contract statement of work.

Daily trip blank--A sample that contains only Type II reagent water. The daily trip blank is used to check for sample contamination by volatile organic compounds arising from conditions encountered during the collection of samples. The daily trip blank is not opened in the field. One daily trip blank is collected for each day that sampling occurs.

Double blind sample--A sample that contains a concentration of analyte that is known to the supplier but is unknown to the analyzing laboratory. The analyzing laboratory is not informed that the sample is a QC sample. All attempts are made to make this sample appear like a field sample. For example, the double blind sample should be submitted to the laboratory within the same time period and with a sample identification number similar to that of the field samples. The double blind sample does not include matrix matching.

External quality control sample--Any QC sample prepared without the knowledge of the analytical laboratory.

Field duplicate sample--A sample used to determine repeatability of an analytical measurement on identical samples collected as close as possible to the same time at the same location. These samples are stored in separate containers and are analyzed independently by the same laboratory.

Field transfer blank--A sample that contains only Type II reagent water. The field transfer blank is used to check for sample contamination by volatile organic compounds arising from conditions encountered during the collection of samples. The field transfer blank is taken during the collection of samples. The field transfer blank is filled at the sampling site by pouring Type II

reagent water from a cleaned container into a volatile organic analysis vial. At least 1 field transfer blank is collected for each 20 samples, or 1 per sampling batch.

Full trip blank--A sample that contains only Type II reagent water and preservative, as required. A full trip blank is used to check for contamination in sample bottles and sample preparation. The full trip blank is analyzed for all constituents of interest on all types of sample bottles used during that sampling period. The frequency of collection for a full trip blank is 1 per 20 samples, or 1 per sampling batch. A full trip blank is filled in the analytical laboratory under the sample preparation procedures. The full trip blank is not opened in the field.

Internal quality control sample--Any QC sample prepared by the analytical laboratory and used to establish and monitor the quality of the analytical laboratory.

Limit of detection--The lowest concentration level that is statistically different from a blank. This level is calculated by the average blank signal plus three standard deviations of the blank analyses.

Matrix-matched double blind sample--A matrix-matched double blind sample contains a concentration of analyte that is known to the supplier but unknown to the analyzing laboratory. The sample matrix has been altered to closely match that of the field samples.

Method detection limit--The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Minimum detectable concentration--Required level of analytical detection for radiochemical samples.

Precision--The agreement among a set of individual measurements of the same property, usually under prescribed similar conditions. Precision is calculated by using the RPD of the duplicate/replicate analyses. These samples should contain concentrations of analyte above the MDL and may involve the use of matrix spikes.

Reliable detection level--A detection limit set at two times the concentration of the MDL, so the risk of both false positives and false negatives falls below 1%.

Type II reagent water--Distilled or deionized water that is free of contaminants that may interfere with the analytical test in question.

1.4 DATA TABLES

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Four different formats are used to display water level measurements and groundwater sample analytical results. This section describes the meaning of each table column heading, defines the abbreviations used, explains the data qualifiers and flags, and lists analysis method codes and relevant regulatory standards.

1.4.1 Water Level Measurement Table

The water level measurement table has four columns as follows:

- Well--Well in which measurement was made.
- Date--Date of measurement.
- Depth to water--Depth, in feet, from well casing reference point to top of water in well.
- Water level--Elevation, in feet above mean sea level, of water level computed by subtracting depth to water from casing reference elevation.

Wells are grouped according to the zone that they monitor, beginning with the top of the unconfined aquifer and continuing downward to the confined aquifer.

Only measurements made during the reporting quarter are included in the tables. Measurements made during sampling are reported with an asterisk (*). Measurements are also routinely performed at other times to permit collection of data for an entire network within a 1- or 2-day time period.

Data that are judged to be suspect by the project scientist are flagged with a '+' in the table. Before data are designated as suspect, checks are conducted to determine if a transcription error occurred between the field sheet and the electronic database.

1.4.2 Constituent List and Summary of Results Table

The Constituent List and Summary of Results table (Summary table) is the first of three tables that present the results of groundwater sample analyses. The Summary table displays statistics based on the complete data set for the reporting period. The complete data set consists of all analysis results requested by the project associated with the samples collected before the end of the current reporting quarter, which arrived at WHC before the cutoff date for the current quarterly report (see Section 1.1 for the current cutoff date), and have not been reported in a previous quarterly report. Therefore, data collected during previous quarters may appear in this document if the laboratory did not report the data until the current reporting period.

The fields in the Summary table are as follows:

- **Constituent name**--Name of the analyzed constituent being summarized; the Short name is an abbreviation used in the Constituents with at Least One Detected Value table (Section 1.4.3); the (Method), when present, is a code (Section 1.4.5) used to distinguish between different analytical methods for the same constituent.
- **Units**--Units in which the MDL and drinking water standards (DWS) are reported in this table.
- **Laboratory MDL**--The MDL computed by the laboratory for a constituent. This field is blank for radionuclides where the MDL is defined as the value of the total error reported by the laboratory for each result.
- **DWS limit/agency**--The DWS used for comparison to the reported results; see Section 1.4.5 for Agency definitions and a complete listing of standards used.
- **Number of samples**--Total is the number of sample results from all wells in the project contained in the complete data set for that constituent; >MDL is the number of results that exceed the MDL; >DWS is the number of results that exceed the listed DWS.

Summarized constituents are grouped as Contamination Indicator Parameters (CIP), Drinking Water Parameters, Groundwater Quality Parameters, and Site-Specific and Other Constituents. Within groups, rows are ordered alphabetically by the full constituent name.

If a constituent has an MDL that exceeds the DWS, exceedance of the DWS cannot be determined, so an asterisk (*) is placed in the >DWS field. Some radionuclides do not have an explicit MDL; the asterisk is used if the DWS exceeds the total error associated with at least one of the results.

1.4.3 Constituents with at Least One Detected Value Table

The Constituents with at Least One Detected Value table (Detected table) is a subset of the complete data set. Only constituents that were detected above the MDL in at least one sample collected for the project during the current reporting period are reported in the Detected table.

The first three column headings are as follows:

- **Well name**--Well from which sample was collected.
- **Collection date**--Date on which the sample was collected.
- **Sample number**--Unique number assigned to a well sample.

The remaining columns contain analytical results and qualifiers for the constituent. The structure of the column header is as follows.

Constituent short name
Method code/reporting units
MDL/DWS (suffix).

The Summary table (Section 1.4.2) shows the relationship between the full constituent name and the short name. The analytical method code is defined in Table 1-9. Abbreviations used for reporting units are listed in Section 1.4.5. On the third line, a period appears in place of the MDL or DWS if a value does not exist. The one-letter suffix that may be added to the DWS identifies the regulation associated with the standard and is described in Section 1.4.5.

Analysis results are displayed with two digits to the right of the decimal point. This is a consequence of the generating software and does not reflect the precision of the results. The laboratories normally report the result with three significant digits. Radionuclide values may be negative because the laboratory subtracts a background reading from the measured result. The letter(s) that may follow the result are data qualifiers and flags. A complete explanation of what each flag means is provided in Section 1.4.5

1.4.4 Contamination Indicator Parameters Table

The CIP table has a format similar to the Detected table (see Section 1.4.3) but includes only data for pH, specific conductance, TOC, and TOX. All results for these parameters, whether detected or not, are listed in the CIP table. The analysis method code is not part of the column header in this report.

1.4.5 Codes and Abbreviations

Abbreviations--The abbreviations used in the data tables are as follows:

COL	coliform colonies per 100 milliliters
DWS	drinking water standard
ft	feet
MDL	method detection limit
msl	mean sea level
NTU	nephelometric turbidity unit
pCi/L	picocuries per liter
ppb	parts per billion
ppm	parts per million
μ mho/cm	micromhos per centimeter.

Table 1-9. Analysis Method Code Definitions. (2 sheets)

Method code	Method name
16	SW-846 8240 ^a
17	SW-846 8080 ^a
19	SW-846 8270 ^a
25	SW-846 8010/8020 ^a
29	SW-846 8140 ^a
30	SW-846 8040 ^a
34	SW-846 6010 ^a
36	ASTM D-1385 ^b
40	SW-846 7421 ^a
41	SW-846 7470 ^a
42	SW-846 7841 ^a
43	SW-846 7060 ^a
48	SW-846 7740 ^a
49	SW-846 8150 ^a
51	SW-846 8280 ^a
52	ASTM D-1067-A
54	ASTM D-1426-D
56	SW-846 9010 ^a
62	In-house ion chromatography
63	SW-846 9030 ^a
65	Standard Methods #209B ^c
67	SW-846 9020 ^a
69	SW-846 9131 ^a
73	ASTM D-1125-A
93	Field probe, pH
94	Field probe, conductivity
122	SW-846 9060 ^a
124	ASTM D-4327-88
125	ASTM D-1293
126	Standard Methods #214A ^c
127	ASTM D-2579-A
129	ASTM D-1426-C
130	EPA Method 300.0 ^d
135	SW-846 9310, Alpha ^a
136	SW-846 9310, Beta ^a
137	SW-846 9315, Radium ^a
139	ITAS I-129 Low level
140	ITAS Gamma scan

Table 1-9. Analysis Method Code Definitions. (2 sheets)

Method code	Method name
141	ITAS Sr-90
142	ITAS H-3
143	ITAS Tc-99
144	SW-846 9132 ^a
145	ITAS Gross U
146	ITAS Isotopic Pu
147	ITAS Am-241
148	ITAS Isotopic U
168	USEPA HACH COD ^c
357	EPA 600, 310.2
358	SW-846 9012 ^a

^a(EPA 1986b).^b(ASTM 1991).^c(EPA 1979).^d(APHA 1989).

Agencies and suffixes--Agency codes and DWS suffixes identify the regulatory origin of the standard of the DWS. Agency codes are used in the Summary tables, and DWS suffixes are used in the Detected and CIP tables. The codes are defined as follows:

<u>Agency</u>	<u>Suffix</u>	<u>Regulatory basis</u>
EPA	None	Maximum contaminant levels in 40 CFR 141, "National Primary Drinking Water Regulations."
EPAS	s	Secondary maximum contaminant levels in 40 CFR 143, "National Secondary Drinking Water Regulations."
EPAI	i	EPA interim primary DWSs in 40 CFR 265, Appendix III.

Data qualifiers and flags--Data qualifiers and flags used in the Detected and CIP tables are assigned by the laboratory and WHC personnel, respectively. Qualifiers reflect conditions occurring in the laboratory relating to the analytical procedure. Flags serve a wider function of alerting the data user to the limitations of the reported value. Qualifiers and flags can be appended to each other to form a string of letters when several factors apply to a result. The qualifiers and flags used are as follows:

Laboratory qualifiers:

- B - Blank associated with analyte is contaminated
- D - Analyzed sample is diluted
- E - Concentration is out of instrument calibration range
- J - Concentration is estimated

- L - Concentration is below the contractually required quantitation limit but above the MDL
- U - Concentration is below the indicated value.

Data flags:

- F - Suspect data currently under review
- H - Laboratory holding time exceeded
- G - Reviewed data that are considered valid
- P - Potential problem; see text associated with table
- Q - Result associated with suspect QC data
- R - Reviewed data that have been rejected
- Y - Reviewed data that continue to be suspect
- + - Suspect water level data
- * - MDL is greater than DWS, so exceedance of DWS is undetermined.

More complete descriptions of some of these qualifiers and flags are presented in Section 1.2, Quality Control Program.

Analysis method codes--Analysis method codes are used as an abbreviation for the laboratory method used to perform an analysis. A complete listing of the analysis method codes used in the Summary and Detected tables is shown in Table 1-10.

DWSs--DWSs are used in all of the chemistry tables to provide a standard with which to compare sample results. The DWSs are based on standards found in 40 CFR 265, 40 CFR 141, and 40 CFR 143. Where there is overlap in constituents addressed by these regulations, 40 CFR 265 takes precedence over 40 CFR 141, which, in turn, takes precedence over 40 CFR 143. A complete listing of the DWSs used in the Summary, Detected, and CIP tables is shown in Table 1-10.

1.5 DATA EVALUATION

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Data evaluation is a process through which suspect data are identified and/or investigated. At present, the data evaluation process consists of the evaluation of data called out in RADEs, submitted by data users, and the required statistical evaluation of CIP data. The statistical evaluations of CIP data are presented within the chapters for individual sites.

Eighteen RADEs were submitted during the third quarter of 1994. Of the submitted RADEs, two are for radionuclides, two are for field parameters (pH), five are for ICP metals, two are for TOC, five are for TOX, one is for turbidity, and one for ammonium ion.

Table 1-10. Drinking Water Standards. (2 sheets)

Constituent name	Short name	DWS	Units	Agency ^a
1,1,1-Trichloroethane	1,1,1-T	200	ppb	EPA
1,1-Dichloroethene	DICETHY	7	ppb	EPA
1,2-Dibromo-3-chloropropane	DIBRCHL	0.2	ppb	EPA
1,2-Dibromoethane	DIBRETH	0.05	ppb	EPA
1,2-Dichlorobenzene	12-dben	600	ppb	EPA
1,2-Dichloroethane	1,2-DIC	5	ppb	EPA
1,2-Dichloropropane	DICPANE	5	ppb	EPA
1,4-Dichlorobenzene	14-dben	75	ppb	EPA
2,4,5-TP	2,4,5TP	50	ppb	EPA
2,4-D	2,4-D	100	ppb	EPAI
Arsenic	ARSENIC	50	ppb	EPA
Barium	BARIUM	1,000	ppb	EPAI
Benzene	BENZENE	5	ppb	EPA
Cadmium	CADMIUM	10	ppb	EPAI
Carbon tetrachloride	TETRANE	5	ppb	EPA
Cesium-137	CS-137	200	pCi/L	EPA
Chlordane	CHLOANE	2	ppb	EPA
Chloride	CHLORID	250,000	ppb	EPAS
Chlorobenzene	CHLROB	100	ppb	EPA
Chromium	CHROMUM	50	ppb	EPAI
cis-1,2-Dichloroethylene	CIS12DE	70	ppb	EPA
Cobalt-60	CO-60	100	pCi/L	EPA
Coliforms	COLIFORM	1	COL	EPAI
Copper	COPPER	1,000	ppb	EPAS
Endrin	ENDRIN	0.2	ppb	EPA
Ethylbenzene	ETHBENZ	700	ppb	EPA
Fluoride	FLUORID	1,400	ppb	EPAI
gamma-BHC (Lindane)	g-BHC	4	ppb	EPAI
Gross alpha	ALPHA	15	pCi/L	EPA
Heptachlor	HEPTLOR	0.4	ppb	EPA
Heptachlor epoxide	HEPTIDE	0.2	ppb	EPA
Iodine-129	I-129	1	pCi/L	EPA
Iron	IRON	300	ppb	EPAS
Lead	LEAD	50	ppb	EPAI
Manganese	MANGESE	50	ppb	EPAS
Mercury	MERCURY	2	ppb	EPA
Methoxychlor	METHLOR	100	ppb	EPAI

Table 1-10. Drinking Water Standards. (2 sheets)

Constituent name	Short name	DWS	Units	Agency*
Nitrate	NITRATE	45,000	ppb	EPA
Nitrite	NITRITE	1,000	ppb	EPA
Pentachlorophenol	PENTCHP	1	ppb	EPA
pH	PH	6.5-8.5	pH	EPAS
Radium	RADIUM	5	pCi/L	EPAI
Ruthenium-106	RU-106	30	pCi/L	EPA
Selenium	SELENIUM	10	ppb	EPAI
Silver	SILVER	50	ppb	EPAI
Strontium-90	SR-90	8	pCi/L	EPA
Styrene	STYRENE	100	ppb	EPA
Sulfate	SULFATE	250,000	ppb	EPAS
Technetium-99	TC-99	900	pCi/L	EPA
Tetrachloroethene	PERCENE	5	ppb	EPA
Toluene	TOLUENE	1,000	ppb	EPA
Total dissolved solids	TDS	500	ppm	EPAS
Toxaphene	TOXAENE	5	ppb	EPAI
trans-1,2-Dichloroethylene	TRANDE	100	ppb	EPA
Trichloroethene	TRICENE	5	ppb	EPA
Tritium	TRITIUM	20,000	pCi/L	EPA
Vinyl chloride	VINYIDE	2	ppb	EPA
Xylenes (total)	XYLENE	10,000	ppb	EPA
Zinc	ZINC	5,000	ppb	EPAS

*See Section 1.4.5 for agency listing.
 COL = coliform colonies per 100 milliliters.
 pCi/L = picocuries per liter.
 ppb = parts per billion.

An F flag is used to indicate that a RADE has been submitted. Suspect analytical data shall be evaluated for the following, as applicable: historical trends, site geohydrology, contaminant distribution (e.g., plumes), and internal consistency to determine if the data are acceptable. After evaluation, the F flag will be changed to 'G,' indicating acceptable data; 'Y,' indicating suspect data; or 'R,' indicating unusable data. A summary of the results will be presented in the annual report.

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2.0 100-D PONDS

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2.1 INTRODUCTION

The 100-D Ponds system is an interim-status RCRA disposal unit located in the 100-D Area of the Hanford Site (Figure 2-1). Four wells make up the 100-D Ponds sampling network (Table 2-1). The 100-D Ponds are monitored under an indicator evaluation program (40 CFR 265).

The 100-D Ponds unit was constructed in 1977 for disposal of nonradioactive effluents derived from 100-D Area operating facilities. The 100-D Ponds are located in the former 188-D ash disposal basin and consist of a settling pond and a percolation pond separated by a dike.

Effluent to the 100-D Ponds originated from two sources: a filter plant and engineering testing laboratories. Some past discharges may have included corrosive waste or mercury (Hartman 1991). All discharges to the 100-D Ponds ceased in May 1994.

2.2 WATER LEVEL MEASUREMENTS

Water levels are measured monthly in wells in and near the 100-D Area to track changes caused by river-stage fluctuations and the cessation of effluent discharge. Water level data are listed in Table 2-2.

2.3 WATER CHEMISTRY DATA

Upgradient well D5-13 was sampled for field conductivity, field pH, and TOX; no other samples were scheduled during the reporting period. Data are reported in Tables 2-3 through 2-5. Field pH, conductivity, and temperature data from August 26, 1994, are also listed in the tables because they were not included in the last quarterly report. Field parameters and laboratory pH were measured in well D5-13 on that date to verify a pH exceedance. The August 26, 1994, data did not exceed the critical range for pH, indicating that the previous value was in error. Data flags are discussed in Sections 1.2 and 1.4. No DWSs were exceeded.

Figure 2-1. Monitoring Well Location Map for the 100-D Ponds.

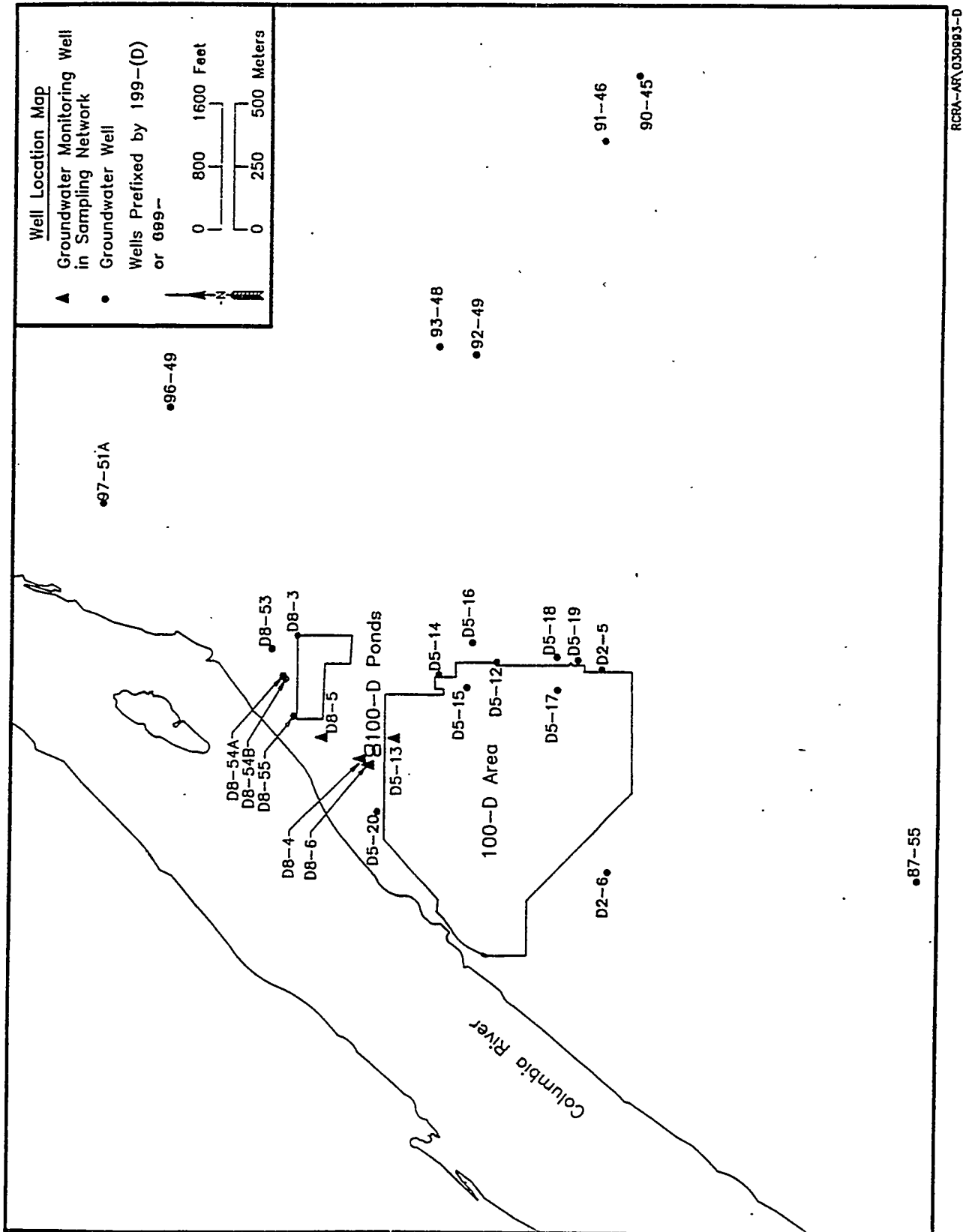


Table 2-1. Monitoring Well Purpose and Sampling Schedule
in the 100-D Ponds Network.

Well no. (199-)	Relative position	Sample frequency	Sample date, 4th Qtr 1994
D5-13	Upgradient	Quarterly	11/3/94
D8-4	Downgradient	Semiannually	Not scheduled
D8-5	Downgradient	Semiannually	Not scheduled
D8-6	Downgradient	Semiannually	Not scheduled

Note: The hydrogeologic unit monitored is the uppermost portion of the unconfined aquifer, which comprises unconsolidated sand and gravels of the Ringold Formation.

Table 2-2 . RCRA Water Level Measurement Report
 100-D Ponds - Fourth Quarter 1994.
 (sheet 1 of 3)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
Wells Monitoring the Top of the Unconfined Aquifer				
199-D2-5	10/17/94	75.56	384.74	117.27
	11/07/94	75.71	384.59	117.22
	12/06/94	75.79	384.51	117.20
199-D2-6	10/17/94	85.94	383.34	116.84
	11/07/94	86.04	383.24	116.81
	12/06/94	85.95	383.33	116.84
199-D5-12	10/17/94	85.89	383.72	116.96
	11/07/94	86.03	383.58	116.92
	12/06/94	86.05	383.56	116.91
199-D5-13	10/17/94	89.22	382.27	116.52
	11/07/94	89.21	382.28	116.52
	12/06/94	89.16	382.33	116.53
199-D5-17	10/17/94	85.15	384.34	117.15
	11/07/94	85.29	384.20	117.10
	12/06/94	85.37	384.12	117.08
199-D5-20	10/17/94	86.71	381.39	116.25
	11/07/94	86.43	381.67	116.33
	12/06/94	85.86	382.24	116.51
199-D8-3	10/17/94	69.11	379.85	115.78
	11/07/94	68.62	380.34	115.93
199-D8-4	10/17/94	87.13	381.60	116.31
	11/07/94	87.04	381.69	116.34
	12/06/94	86.79	381.94	116.42
199-D8-5	10/17/94	71.97	380.52	115.98
	11/07/94	71.52	380.97	116.12
	12/06/94	71.03	381.46	116.27
199-D8-53	10/17/94	56.42	379.61	115.71
	11/07/94	55.77	380.26	115.90
	12/06/94	54.91	381.12	116.17
199-D8-54A	10/17/94	63.09	379.69	115.73

Table 2-2. RCRA Water Level Measurement Report
 100-D Ponds - Fourth Quarter 1994.
 (sheet 2 of 3)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
Wells Monitoring the Top of the Unconfined Aquifer				
199-D8-54A	11/07/94	62.46	380.32	115.92
	12/06/94	61.65	381.13	116.17
199-D8-55	10/17/94	59.61	379.74	115.74
	11/07/94	58.97	380.38	115.94
	12/06/94	58.19	381.16	116.18
199-D8-6	10/17/94	95.01	381.49	116.28
	11/07/94	94.92	381.58	116.31
	12/06/94	94.61	381.89	116.40
699-87-55	10/17/94	73.34	386.27	117.74
	11/07/94	73.45	386.16	117.70
	12/06/94	73.46	386.15	117.70
699-90-45	10/17/94	37.93	383.59	116.92
	11/07/94	37.91	383.61	116.92
	12/06/94	37.95	383.57	116.91
699-92-49	10/17/94	49.04	382.82	116.68
699-96-49	10/17/94	38.28	380.93	116.11
	11/07/94	38.30	380.91	116.10
	12/06/94	38.32	380.89	116.10
699-97-51A	10/17/94	22.02	380.23	115.89
	11/07/94	21.87	380.38	115.94
	12/06/94	21.77	380.48	115.97
Wells Monitoring the Confined Aquifer				
199-D8-54B	10/17/94	62.23	380.28	115.91
	11/07/94	61.75	380.76	116.06
	12/06/94	60.70	381.81	116.38

Table 2-2. RCRA Water Level Measurement Report
100-D Ponds - Fourth Quarter 1994.
(sheet 3 of 3)

-
- NOTES:
1. Water level elevations are calculated by subtracting the measured depth-to-water from the surveyed elevation for the well.
 2. Depth-to-water values are transcribed from field records.
 3. Elevations marked with an '*' were measured at the time of sampling.
 4. Elevations marked with a '+' are outside of the expected range, and are suspected of error.

Table 2-3. Constituent List and Summary of Results for the 100-D Pond
Data for Reporting Period October 1 through December 31, 1994.

CONTAMINATION INDICATOR PARAMETERS										
Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
CONDUCT		Conductivity, field	umhos		1			12	12	
TOX		Total Organic Halogen	ppb		5			4	4	
PH	93	pH, field	pH		.01	6.5-8.5	EPAS	12	12	0
PH	125	pH, lab	pH			6.5-8.5	EPAS	2	2	0

SITE SPECIFIC AND OTHER CONSTITUENTS										
Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
TMP_C		Temperature, field	DegC		.1			8	8	

For explanation of this table, see Section 1.4 of report.

Table 2-4. Constituents with at Least One Detected Value for the 100-D Pond Data for Reporting Period October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	TMP_C 170/DegC .1/.
199-D5-13	8/26/94	B0CSQ4	16.90
199-D5-13	8/26/94	B0CSQ5	16.90
199-D5-13	8/26/94	B0D5D5	16.80
199-D5-13	8/26/94	B0D5D6	16.80
199-D5-13	8/26/94	B0D5D7	16.90
199-D5-13	8/26/94	B0D9J0	16.90
199-D5-13	8/26/94	B0D9J1	16.90
199-D5-13	8/26/94	B0D9J2	16.90

For explanation of this table, see Section 1.4 of report.

Table 2-5. Contamination Indicator Parameters for the 100-D Pond
Data for Reporting Period October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
199-D5-13	8/26/94	B0CSQ4	570		8.05	8.10 H		
		B0CSQ5	555		8.05	8.10 H		
		B0D5D5	542		8.07			
		B0D5D6	541		8.07			
		B0D5D7	527		8.07			
		B0D9J0	506		8.09			
		B0D9J1	526		8.07			
		B0D9J2	511		8.08			
	11/03/94	B0D6D4	473		8.02			10.8
		B0D6D5	468		8.01			14.1
		B0D6D6	469		7.98			11.0
		B0D6D7	470		8.06			13.3

For explanation of this table, see Section 1.4 of report.

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3.0 183-H SOLAR EVAPORATION BASINS

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3.1 INTRODUCTION

The 183-H Solar Evaporation Basins (Basins) are a RCRA-regulated facility located near the Columbia River in the 100-H Area of the Hanford Site. Originally the Basins were part of the water treatment facility that prepared coolant for the 105-H Reactor. Subsequent to that mission, between 1973 and 1985, the Basins were used for storage and volume reduction (by solar evaporation) of liquid waste from nuclear fuel processing activities conducted in the 300 Area. The predominant waste consisted of nitric acid solutions that had been neutralized with sodium hydroxide before discharge into the Basins. The solutions contained various metals and radioactive constituents (e.g., chromium, uranium, and technetium). Hazardous waste has been removed from the facility and the basin walls have been partially decontaminated.

Groundwater quality has been affected by leakage from the Basins. Groundwater monitoring has been conducted as an assessment-level program under 40 CFR 265 interim-status standards, as mandated by a consent agreement and compliance order (Ecology and EPA 1986). The 183-H Basins are included in the new Hanford Facility RCRA Permit and, in the future, will be monitored under final-status requirements (Ecology 1994). A final-status groundwater monitoring plan is being prepared.

The purpose of each RCRA well, its sampling frequency, and the dates sampled during the quarter, are summarized in Table 3-1. Well locations are shown in Figure 3-1.

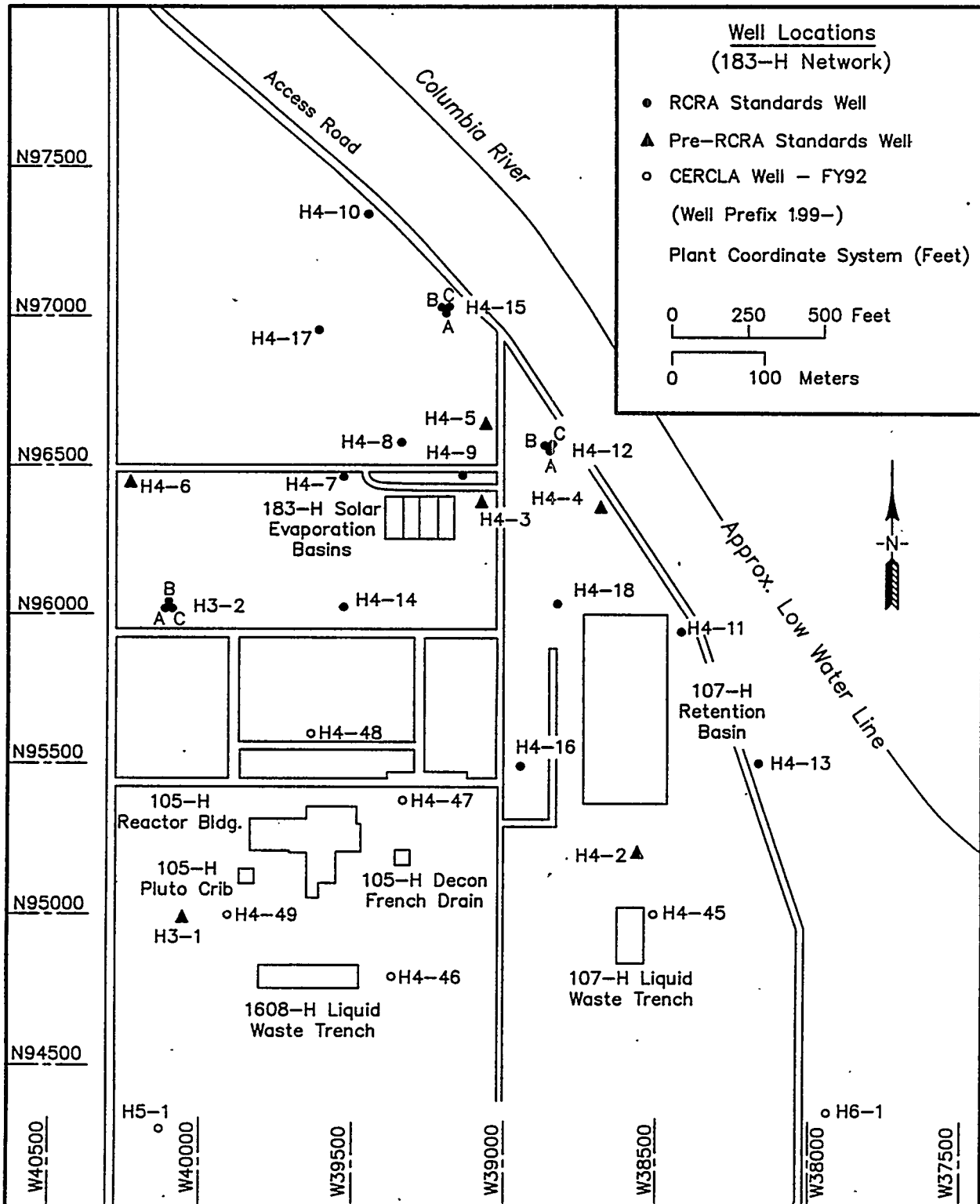
3.2 WATER LEVEL MEASUREMENTS

Water levels were measured monthly during the past quarter to track changes caused by river stage fluctuations. Water levels also were recorded at the time of sample collection for water quality analyses. Water levels are presented in Table 3-2.

3.3 WATER CHEMISTRY DATA

Quarterly sampling was completed as scheduled in 183-H network wells. Three wells were sampled monthly to provide enhanced monitoring of the contaminant plume. Results are presented in Tables 3-3 through 3-5. Data flags are discussed in Sections 1.2 and 1.4. DWSs exceeded are listed in Table 3-6. Several results appear anomalous, and RADEs have been submitted. Table 3-7 lists RADEs submitted for the past quarter and the reason for the request.

Figure 3-1. Well Location Map for the 183-H Solar Evaporation Basins Network.



RCRA-AR\122993J

Table 3-1. Monitoring Well Position and Sampling Schedule
for the 183-H Solar Evaporation Basins Network.

Well no. (199-)	Relative position	Hydrogeologic unit ^a	Sample frequency	Sample date, 4th Qtr 1994
H3-2A	Upgradient	Hanford: Water Table	Quarterly	12/2/94
H3-2C	Upgradient	Ringold: Silty Sand	Quarterly	12/2/94
H4-11	Downgradient	Hanford: Water Table	Quarterly	12/5/94
H4-12A	Downgradient	Hanford: Water Table	Quarterly	12/14/94
H4-12C	Downgradient	Ringold: Silty Sand	Quarterly	12/5/94
H4-14	Upgradient	Hanford: Water Table	Quarterly	12/5/94
H4-18	Downgradient	Hanford: Water Table	Quarterly	12/5/94
H4-3	Downgradient	Hanford: Water Table	Monthly	10/03/94 11/22/94 12/05/94
H4-4	Downgradient	Hanford: Water Table	Monthly	10/03/94 11/16/94 12/05/94
H4-5	Downgradient	Hanford: Water Table	Quarterly	12/05/94
H4-6	Upgradient	Hanford: Water Table	Quarterly	12/2/94
H4-7	Upgradient	Hanford: Water Table	Quarterly	12/5/94
H4-8	Upgradient	Hanford: Water Table	Quarterly	12/2/94
H4-9	Downgradient	Hanford: Water Table	Monthly	10/15/94 N.S. ^b 12/12/94

^aHydrogeologic units include the sandy gravels of the Hanford formation and silty sands of the Ringold Formation. Water levels are measured monthly in all wells.

^bNot sampled; pump above water. Pump was lowered before 12/94 sampling.

Table 3-2. RCRA Water Level Measurement Report
 183-H Solar Evaporation Basins, Fourth Quarter 1994.
 (sheet 1 of 4)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
Wells Monitoring the Top of the Unconfined Aquifer (Hanford Formation)				
199-H3-1	10/17/94	46.15	375.33	114.40
	11/07/94	46.39	375.09	114.33
	12/06/94	46.52	374.96	114.29
199-H3-2A	10/17/94	42.99	375.33	114.40
	11/07/94	43.20	375.12	114.34
	12/02/94	43.26	375.06*	114.32
	12/06/94	43.26	375.06	114.32
199-H3-2B	10/17/94	43.59	374.83	114.25
	11/07/94	43.78	374.64	114.19
	12/06/94	43.85	374.57	114.17
199-H4-10	10/17/94	31.96	372.48	113.53
	11/07/94	31.45	372.99	113.69
	12/06/94	30.95	373.49	113.84
199-H4-11	10/17/94	45.29	371.55	113.25
	11/07/94	44.54	372.30	113.48
	12/06/94	43.75	373.09	113.72
199-H4-12A	11/07/94	40.69	372.81	113.63
	12/06/94	40.09	373.41	113.82
199-H4-12B	10/17/94	41.29	372.23	113.46
	11/07/94	40.69	372.83	113.64
	12/06/94	40.09	373.43	113.82
199-H4-13	10/17/94	47.10	371.10	113.11
	11/07/94	46.20	372.00	113.39
	12/06/94	45.27	372.93	113.67
199-H4-14	10/17/94	46.14	374.94	114.28
	11/07/94	46.26	374.82	114.25
	12/05/94	45.15	375.93*+	114.58
	12/06/94	46.30	374.78	114.23
199-H4-15A	10/17/94	34.78	372.93	113.67
	11/07/94	34.22	373.49	113.84
	12/06/94	33.74	373.97	113.99

Table 3-2. RCRA Water Level Measurement Report
 183-H Solar Evaporation Basins - Fourth Quarter 1994.
 (sheet 2 of 4)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
Wells Monitoring the Top of the Unconfined Aquifer (Hanford Formation)				
199-H4-15B	10/17/94	34.51	372.41	113.51
	11/07/94	33.94	372.98	113.68
	12/06/94	33.44	373.48	113.84
199-H4-16	10/17/94	50.43	373.80	113.93
	11/07/94	50.49	373.74	113.92
	12/06/94	50.44	373.79	113.93
199-H4-17	10/17/94	45.95	373.64	113.89
	11/07/94	45.68	373.91	113.97
	12/06/94	45.70	373.89	113.96
199-H4-18	10/17/94	48.73	373.59	113.87
	11/07/94	48.54	373.78	113.93
	12/05/94	48.47	373.85*	113.95
	12/06/94	48.36	373.96	113.98
199-H4-3	10/03/94	47.85	372.44*	113.52
	10/17/94	47.40	372.89	113.66
	11/07/94	47.16	373.13	113.73
	11/22/94	47.00	373.29*	113.78
	12/05/94	48.45	371.84*+	113.34
	12/06/94	46.96	373.33	113.79
199-H4-4	10/03/94	42.72	371.52*	113.24
	10/17/94	41.77	372.47	113.53
	11/07/94	41.06	373.18	113.75
	11/16/94	41.02	373.22*	113.76
	12/05/94	40.92	373.32*	113.79
	12/06/94	40.38	373.86	113.95
199-H4-5	10/17/94	43.87	372.34	113.49
	11/07/94	43.37	372.84	113.64
	12/05/94	42.25	373.96*+	113.98
	12/06/94	43.01	373.20	113.75
199-H4-6	10/17/94	44.75	374.83	114.25
	11/07/94	44.95	374.63	114.19
	12/02/94	45.02	374.56*	114.17

Table 3-2. RCRA Water Level Measurement Report
 183-H Solar Evaporation Basins, Fourth Quarter 1994.
 (sheet 3 of 4)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
Wells Monitoring the Top of the Unconfined Aquifer (Hanford Formation)				
199-H4-6	12/06/94	45.00	374.58	114.17
199-H4-7	10/17/94	46.77	373.82	113.94
	11/07/94	46.75	373.84	113.95
	12/05/94	46.75	373.84*	113.95
	12/06/94	46.69	373.90	113.96
199-H4-8	10/17/94	46.78	373.22	113.76
	11/07/94	46.62	373.38	113.81
	12/02/94	46.55	373.45*	113.83
	12/06/94	46.45	373.55	113.86
199-H4-9	10/17/94	45.36	373.22	113.76
	11/07/94	44.97	373.61	113.88
	11/15/94	46.81	371.77*+	113.32
	12/06/94	44.78	373.80	113.93
Wells Monitoring Upper Levels in the Ringold Formation				
199-H3-2C	10/17/94	43.62	374.60	114.18
	11/07/94	43.73	374.49	114.14
	12/06/94	43.70	374.52	114.15
199-H4-12C	10/17/94	41.63	371.89	113.35
	11/07/94	40.84	372.68	113.59
	12/05/94	40.55	372.97*	113.68
	12/06/94	40.21	373.31	113.78
199-H4-15CS	10/17/94	35.39	372.05	113.40
	11/07/94	34.49	372.95	113.68
	12/06/94	34.73	372.71	113.60
Well Monitoring Mid-Level in the Ringold Formation				
199-H4-15CR	10/17/94	33.40	373.97	113.99
	11/07/94	33.46	373.91	113.97
	12/06/94	34.23	373.14	113.73

Table 3-2. RCRA Water Level Measurement Report
183-H Solar Evaporation Basins, Fourth Quarter 1994.
(sheet 4 of 4)

- NOTES:
1. Water level elevations are calculated by subtracting the measured depth-to-water from the surveyed elevation for the well.
 2. Depth-to-water values are transcribed from field records.
 3. Elevations marked with an '*' were measured at the time of sampling.
 4. Elevations marked with a '+' are outside of the expected range, and are suspected of error.

Table 3-3. Constituent List and Summary of Results for 183-H Solar
Evaporation Basins Data for Reporting Period
October 1 through December 31, 1994.
(sheet 1 of 2)

CONTAMINATION INDICATOR PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS Limit	Agency	Number of Samples		
		Full						Total	>MDL	>DWS
CONDUCT	94	Conductivity, field	unhos		1			19	19	
CONDUCT	73	Conductivity, lab	unhos					15	15	
TOC		Total Organic Carbon	ppb		110			15	15	
TOX		Total Organic Halogen	ppb		5			15	13	
PH		pH, field	pH		.01	6.5-8.5	EPAS	19	19	1

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS Limit	Agency	Number of Samples		
		Full						Total	>MDL	>DWS
BARIUM		Barium	ppb		.59	1000	EPAI	21	21	0
FBARIUM		Barium, filtered	ppb		.59	1000	EPAI	21	21	0
CADMIUM		Cadmium	ppb		3.3	10	EPAI	21	0	0
FCADMIU		Cadmium, filtered	ppb		3.3	10	EPAI	21	0	0
CHROMIUM		Chromium	ppb		4.5	50	EPAI	21	21	19
FCHROMI		Chromium, filtered	ppb		4.5	50	EPAI	21	21	16
FLUORID		Fluoride	ppb		36	1400	EPAI	21	21	0
ALPHA		Gross alpha	pCi/L			15	EPA	21	16	7
NITRATE		Nitrate	ppb		11	45000	EPA	21	21	7

GROUNDWATER QUALITY PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS Limit	Agency	Number of Samples		
		Full						Total	>MDL	>DWS
CHLORID		Chloride	ppb		14	250000	EPAS	21	21	0
IRON		Iron	ppb		5.24	300	EPAS	21	21	11
FIRON		Iron, filtered	ppb		5.24	300	EPAS	21	19	0
MANGESE		Manganese	ppb		.72	50	EPAS	21	19	3
FMANGAN		Manganese, filtered	ppb		.72	50	EPAS	21	14	0
SODIUM		Sodium	ppb		61			21	21	
FSODIUM		Sodium, filtered	ppb		61			21	21	
SULFATE		Sulfate	ppb		37	250000	EPAS	21	21	0

Table 3-3. Constituent List and Summary of Results for 183-H Solar
Evaporation Basins Data for Reporting Period
October 1 through December 31, 1994.
(sheet 2 of 2)

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name	Full	Units	Lab MDL	DWS Limit	Agency	Number of Samples		
								Total	>MDL	>DWS
ALUMNUM		Aluminum	ppb	26				21	11	
FALUMIN		Aluminum, filtered	ppb	26				21	4	
ANTIONY		Antimony	ppb	62				21	0	
FANTIMO		Antimony, filtered	ppb	62				21	0	
SB-125		Antimony-125	pCi/L					1	1	
BERYLUM		Beryllium	ppb	.17				21	3	
FBERYLL		Beryllium, filtered	ppb	.17				21	3	
BROMIDE		Bromide	ppb	100				21	0	
CALCIUM		Calcium	ppb	34				21	21	
FCALCIU		Calcium, filtered	ppb	34				21	21	
CS-137		Cesium-137	pCi/L			200	EPA	1	1	0
COBALT		Cobalt	ppb	5.9				21	0	
FCOBALT		Cobalt, filtered	ppb	5.9				21	0	
CO-60		Cobalt-60	pCi/L			100	EPA	1	1	0
COPPER		Copper	ppb	4.1	1000		EPAS	21	4	0
FCOPPER		Copper, filtered	ppb	4.1	1000		EPAS	21	1	0
BETA		Gross beta	pCi/L					21	21	
MAGNES		Magnesium	ppb	23				21	21	
FMAGNES		Magnesium, filtered	ppb	23				21	21	
NICKEL		Nickel	ppb	13				21	11	
FNICKEL		Nickel, filtered	ppb	13				21	1	
NITRITE		Nitrite	ppb	18	1000		EPA	21	1	0
PHOSPHA		Phosphate	ppb	82				21	0	
POTASUM		Potassium	ppb	850				21	21	
FPOTASS		Potassium, filtered	ppb	850				21	21	
RU-106		Ruthenium-106	pCi/L			30	EPA	1	1	0
SILVER		Silver	ppb	3.6	50		EPAI	21	0	0
FSILVER		Silver, filtered	ppb	3.6	50		EPAI	21	1	0
TC-99		Technetium-99	pCi/L			900	EPA	16	7	0
TIN		Tin	ppb	69				21	0	
FTIN		Tin, filtered	ppb	69				21	0	
TRITIUM		Tritium	pCi/L			20000	EPA	1	1	0
TURBID		Turbidity	NTU	.016				21	21	
URANIUM		Uranium	ppb					16	16	
VANADUM		Vanadium	ppb	6.6				21	6	
FVANADI		Vanadium, filtered	ppb	6.6				21	4	
ZINC		Zinc	ppb	6.3	5000		EPAS	21	13	0
FZINC		Zinc, filtered	ppb	6.3	5000		EPAS	21	3	0

For explanation of this table, see Section 1.4 of report.

Table 3-4. Constituents with at Least One Detected Value for the 183-H Solar Evaporation Basins Data for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 10)

Well Name	Collection Date	Sample Number	ALUMNUM 34/ppb 19/.	FALUMIN 34/ppb 19/.	SB-125 140/pCi/L ./.	BARIUM 34/ppb 1.3/1000i
199-H3-2A	12/02/94	B0DF53	26.00 U			20.00
199-H3-2A	12/02/94	B0DF54		26.00 U		
199-H3-2C	12/02/94	B0DF55	26.00 U			14.00 L
199-H3-2C	12/02/94	B0DF56		26.00 U		
199-H4-11	12/05/94	B0DF57	30.00 L			31.00 q
199-H4-11	12/05/94	B0DF58		26.00 U		
199-H4-12A	12/14/94	B0DF59	26.00 U			62.00
199-H4-12A	12/14/94	B0DF60		26.00 U		
199-H4-12C	12/05/94	B0DF61	26.00 U			14.00 Lq
199-H4-12C	12/05/94	B0DF62	26.00 U			13.00 Lq
199-H4-12C	12/05/94	B0DF63		26.00 U		
199-H4-12C	12/05/94	B0DF64		26.00 U		
199-H4-14	12/05/94	B0DF65	42.00 L			19.00 Lq
199-H4-14	12/05/94	B0DF66		27.00 L		
199-H4-18	12/05/94	B0DF67	150.00 L			25.00 q
199-H4-18	12/05/94	B0DF68		26.00 U		
199-H4-3	10/03/94	B0D0P4	320.00			62.00
199-H4-3	10/03/94	B0D0P5		26.00 U		
199-H4-3	11/22/94	B0D754	2800.00			81.00
199-H4-3	11/22/94	B0D755		31.00 L		
199-H4-3	12/05/94	B0DF69	64.00 L			36.00 q
199-H4-3	12/05/94	B0DF70		30.00 L		
199-H4-4	10/03/94	B0D0P6	26.00 U			83.00
199-H4-4	10/03/94	B0D0P7	26.00 U			85.00
199-H4-4	10/03/94	B0D0P8		26.00 U		
199-H4-4	10/03/94	B0D0P9		26.00 U		
199-H4-4	11/16/94	B0D6T8			1.52 U	
199-H4-4	11/16/94	B0D6T9		26.00 U		
199-H4-4	11/16/94	B0D756	26.00 U			56.00
199-H4-4	12/05/94	B0DF71	26.00 U			46.00 q
199-H4-4	12/05/94	B0DF72		26.00 U		
199-H4-5	12/05/94	B0DF73	28.00 L			61.00 q
199-H4-5	12/05/94	B0DF74		26.00 U		
199-H4-6	12/02/94	B0DF75	26.00 U			31.00
199-H4-6	12/02/94	B0DF76		26.00 U		
199-H4-7	12/05/94	B0DF77	67.00 L			41.00 q
199-H4-7	12/05/94	B0DF78		26.00 U		
199-H4-8	12/02/94	B0DF79	590.00			51.00
199-H4-8	12/02/94	B0DF80		26.00 U		
199-H4-9	10/15/94	B0D758	320.00			56.00
199-H4-9	10/15/94	B0D759		26.00 U		
199-H4-9	12/14/94	B0DF81	1000.00			58.00
199-H4-9	12/14/94	B0DF82		31.00 L		

Table 3-4. Constituents with at Least One Detected Value for the 183-H Solar Evaporation Basins Data for Reporting Period October 1 through December 31, 1994.
(sheet 2 of 10)

Well Name	Collection Date	Sample Number	FBARIUM 34/ppb 1.3/1000i	BERYLUM 34/ppb 1.5/.	FBERYLL 34/ppb 1.5/.	CALCIUM 34/ppb 47/.
199-H3-2A	12/02/94	B0DF53		.17 U		37000.00
199-H3-2A	12/02/94	B0DF54	20.00		.19 LB	
199-H3-2C	12/02/94	B0DF55		.17 U		24000.00
199-H3-2C	12/02/94	B0DF56	14.00 L		.17 U	
199-H4-11	12/05/94	B0DF57		.17 U		50000.00
199-H4-11	12/05/94	B0DF58	30.00 q		.17 U	
199-H4-12A	12/14/94	B0DF59		.17 U		62000.00
199-H4-12A	12/14/94	B0DF60	62.00		.17 U	
199-H4-12C	12/05/94	B0DF61		.17 U		30000.00
199-H4-12C	12/05/94	B0DF62		.18 L		30000.00
199-H4-12C	12/05/94	B0DF63	14.00 LQ		.17 U	
199-H4-12C	12/05/94	B0DF64	14.00 LQ		.18 L	
199-H4-14	12/05/94	B0DF65		.17 U		38000.00
199-H4-14	12/05/94	B0DF66	19.00 LQ		.17 U	
199-H4-18	12/05/94	B0DF67		.17 U		43000.00
199-H4-18	12/05/94	B0DF68	24.00 q		.17 U	
199-H4-3	10/03/94	B0D0P4		.17 U		56000.00
199-H4-3	10/03/94	B0D0P5	50.00		.17 U	
199-H4-3	11/22/94	B0D754		.30 L		44000.00
199-H4-3	11/22/94	B0D755	39.00		.17 U	
199-H4-3	12/05/94	B0DF69		.17 U		40000.00
199-H4-3	12/05/94	B0DF70	37.00 q		.17 U	
199-H4-4	10/03/94	B0D0P6		.17 U		64000.00
199-H4-4	10/03/94	B0D0P7		.17 U		67000.00
199-H4-4	10/03/94	B0D0P8	84.00		.17 U	
199-H4-4	10/03/94	B0D0P9	83.00		.17 U	
199-H4-4	11/16/94	B0D6T9	56.00		.27 L	
199-H4-4	11/16/94	B0D756		.17 U		47000.00
199-H4-4	12/05/94	B0DF71		.17 U		41000.00
199-H4-4	12/05/94	B0DF72	45.00 q		.17 U	
199-H4-5	12/05/94	B0DF73		.17 U		65000.00
199-H4-5	12/05/94	B0DF74	58.00 q		.17 U	
199-H4-6	12/02/94	B0DF75		.21 LB		37000.00
199-H4-6	12/02/94	B0DF76	30.00		.17 U	
199-H4-7	12/05/94	B0DF77		.17 U		57000.00
199-H4-7	12/05/94	B0DF78	40.00 q		.17 U	
199-H4-8	12/02/94	B0DF79		.17 U		63000.00
199-H4-8	12/02/94	B0DF80	46.00		.17 U	
199-H4-9	10/15/94	B0D758		.17 U		66000.00
199-H4-9	10/15/94	B0D759	52.00		.17 U	
199-H4-9	12/14/94	B0DF81		.17 U		57000.00
199-H4-9	12/14/94	B0DF82	47.00		.17 U	

Table 3-4. Constituents with at Least One Detected Value for the 183-H Solar Evaporation Basins Data for Reporting Period October 1 through December 31, 1994.
(sheet 3 of 10)

Well Name	Collection Date	Sample Number	FCALCIU 34/ppb 47/.	CS-137 140/pCi/L ./200	CHLORID 124/ppb 71/250000s	CHROMUM 34/ppb 11/50i
199-H3-2A	12/02/94	B0DF53			6000.00	43.00
199-H3-2A	12/02/94	B0DF54	35000.00			
199-H3-2C	12/02/94	B0DF55			2100.00	21.00
199-H3-2C	12/02/94	B0DF56	24000.00			
199-H4-11	12/05/94	B0DF57			4900.00	52.00
199-H4-11	12/05/94	B0DF58	50000.00			
199-H4-12A	12/14/94	B0DF59			8000.00 q	99.00
199-H4-12A	12/14/94	B0DF60	62000.00			
199-H4-12C	12/05/94	B0DF61			2400.00	290.00
199-H4-12C	12/05/94	B0DF62			2500.00	290.00
199-H4-12C	12/05/94	B0DF63	30000.00			
199-H4-12C	12/05/94	B0DF64	30000.00			
199-H4-14	12/05/94	B0DF65			5500.00	65.00
199-H4-14	12/05/94	B0DF66	38000.00			
199-H4-18	12/05/94	B0DF67			5000.00	66.00
199-H4-18	12/05/94	B0DF68	42000.00			
199-H4-3	10/03/94	B0D0P4			9800.00 D	190.00
199-H4-3	10/03/94	B0D0P5	55000.00			
199-H4-3	11/22/94	B0D754			9100.00 Bq	370.00
199-H4-3	11/22/94	B0D755	42000.00			
199-H4-3	12/05/94	B0DF69			9400.00	110.00
199-H4-3	12/05/94	B0DF70	40000.00			
199-H4-4	10/03/94	B0D0P6			9200.00	120.00
199-H4-4	10/03/94	B0D0P7			9200.00	120.00
199-H4-4	10/03/94	B0D0P8	66000.00			
199-H4-4	10/03/94	B0D0P9	64000.00			
199-H4-4	11/16/94	B0D6T8		-2.43 U	8200.00	
199-H4-4	11/16/94	B0D6T9	47000.00			
199-H4-4	11/16/94	B0D756				110.00
199-H4-4	12/05/94	B0DF71			8400.00	97.00
199-H4-4	12/05/94	B0DF72	41000.00			
199-H4-5	12/05/94	B0DF73			9300.00	140.00
199-H4-5	12/05/94	B0DF74	64000.00			
199-H4-6	12/02/94	B0DF75			9900.00	84.00
199-H4-6	12/02/94	B0DF76	37000.00			
199-H4-7	12/05/94	B0DF77			9700.00	100.00
199-H4-7	12/05/94	B0DF78	57000.00			
199-H4-8	12/02/94	B0DF79			10000.00 D	140.00
199-H4-8	12/02/94	B0DF80	63000.00			
199-H4-9	10/15/94	B0D758			7200.00 H	130.00 q
199-H4-9	10/15/94	B0D759	64000.00			
199-H4-9	12/14/94	B0DF81			6400.00 q	170.00
199-H4-9	12/14/94	B0DF82	57000.00			

Table 3-4. Constituents with at Least One Detected Value for the 183-H Solar Evaporation Basins Data for Reporting Period
October 1 through December 31, 1994.
(sheet 4 of 10)

Well Name	Collection Date	Sample Number	FCHROMI 34/ppb 11/50i	CO-60 140/pCi/L ./100	COPPER 34/ppb 2.6/1000s	FCOPPER 34/ppb 2.6/1000s
199-H3-2A	12/02/94	B0DF53			4.10 U	
199-H3-2A	12/02/94	B0DF54	28.00			4.10 U
199-H3-2C	12/02/94	B0DF55			4.10 U	
199-H3-2C	12/02/94	B0DF56	13.00 L			4.10 U
199-H4-11	12/05/94	B0DF57			4.10 U	
199-H4-11	12/05/94	B0DF58	40.00			4.10 U
199-H4-12A	12/14/94	B0DF59			4.10 U	
199-H4-12A	12/14/94	B0DF60	96.00			4.10 U
199-H4-12C	12/05/94	B0DF61			4.10 U	
199-H4-12C	12/05/94	B0DF62			4.10 U	
199-H4-12C	12/05/94	B0DF63	280.00			4.10 U
199-H4-12C	12/05/94	B0DF64	280.00			4.10 U
199-H4-14	12/05/94	B0DF65			4.10 U	
199-H4-14	12/05/94	B0DF66	61.00			4.10 U
199-H4-18	12/05/94	B0DF67			4.10 U	
199-H4-18	12/05/94	B0DF68	36.00			4.10 U
199-H4-3	10/03/94	B0D0P4			6.90 L	
199-H4-3	10/03/94	B0D0P5	82.00			4.10 U
199-H4-3	11/22/94	B0D754			12.00 L	
199-H4-3	11/22/94	B0D755	77.00			4.30 L
199-H4-3	12/05/94	B0DF69			4.10 U	
199-H4-3	12/05/94	B0DF70	86.00			4.10 U
199-H4-4	10/03/94	B0D0P6			4.10 U	
199-H4-4	10/03/94	B0D0P7			4.10 U	
199-H4-4	10/03/94	B0D0P8	110.00			4.10 U
199-H4-4	10/03/94	B0D0P9	110.00			4.10 U
199-H4-4	11/16/94	B0D6T8		.15 U		
199-H4-4	11/16/94	B0D6T9	96.00			4.10 U
199-H4-4	11/16/94	B0D756			4.10 U	
199-H4-4	12/05/94	B0DF71			4.10 U	
199-H4-4	12/05/94	B0DF72	88.00			4.10 U
199-H4-5	12/05/94	B0DF73			4.10 U	
199-H4-5	12/05/94	B0DF74	83.00			4.10 U
199-H4-6	12/02/94	B0DF75			4.10 U	
199-H4-6	12/02/94	B0DF76	42.00			4.10 U
199-H4-7	12/05/94	B0DF77			4.10 U	
199-H4-7	12/05/94	B0DF78	90.00			4.10 U
199-H4-8	12/02/94	B0DF79			4.10 U	
199-H4-8	12/02/94	B0DF80	100.00			4.10 U
199-H4-9	10/15/94	B0D758			6.80 L	
199-H4-9	10/15/94	B0D759	56.00 a			4.10 U
199-H4-9	12/14/94	B0DF81			5.80 L	
199-H4-9	12/14/94	B0DF82	55.00			4.10 U

Table 3-4. Constituents with at Least One Detected Value for the 183-H Solar Evaporation Basins Data for Reporting Period October 1 through December 31, 1994.
(sheet 5 of 10)

Well Name	Collection Date	Sample Number	FLUORID 124/ppb 51/1400i	ALPHA 135/pCi/L ./15	BETA 136/pCi/L ./.	IRON 34/ppb 18/300s
199-H3-2A	12/02/94	B0DF53	400.00	3.57	8.38	57.00 BQ
199-H3-2C	12/02/94	B0DF55	500.00	-.17 U	5.62	56.00 BQ
199-H4-11	12/05/94	B0DF57	200.00	3.71	36.00	130.00 B
199-H4-12A	12/14/94	B0DF59	500.00	2.48	13.90	40.00 BQ
199-H4-12C	12/05/94	B0DF61	200.00 q	.66 U	3.57	71.00 BQ
199-H4-12C	12/05/94	B0DF62	700.00 q	.82 U	4.15	38.00 BQ
199-H4-14	12/05/94	B0DF65	300.00	1.21	5.75	150.00 B
199-H4-18	12/05/94	B0DF67	300.00	1.30	8.57	300.00 B
199-H4-3	10/03/94	B0D0P4	1000.00	66.50	319.00	5100.00 q
199-H4-3	11/22/94	B0D754	500.00	51.50	266.00	22000.00 BQ
199-H4-3	12/05/94	B0DF69	1100.00	46.10	266.00	980.00 B
199-H4-4	10/03/94	B0D0P6	900.00	74.40	390.00	420.00 q
199-H4-4	10/03/94	B0D0P7	900.00	83.50	419.00	330.00 q
199-H4-4	11/16/94	B0D6T8	800.00	40.10	174.00	
199-H4-4	11/16/94	B0D756				630.00 B
199-H4-4	12/05/94	B0DF71	900.00	49.00	190.00	160.00 B
199-H4-5	12/05/94	B0DF73	300.00	2.01	5.04	2200.00 B
199-H4-6	12/02/94	B0DF75	300.00	2.01	9.00	3400.00 BQ
199-H4-7	12/05/94	B0DF77	300.00	2.84 U	4.71	140.00 B
199-H4-8	12/02/94	B0DF79	700.00	.98 U	6.97	950.00 BQ
199-H4-9	10/15/94	B0D758	700.00 H	6.91	32.70	800.00 q
199-H4-9	12/14/94	B0DF81	600.00	10.50	39.80	1900.00 BQ

Well Name	Collection Date	Sample Number	FIRON 34/ppb 18/300s	MAGNES 34/ppb 25/.	FMAGNES 34/ppb 25/.	MANGESE 34/ppb 1/50s
199-H3-2A	12/02/94	B0DF53		8400.00		1.70 L
199-H3-2A	12/02/94	B0DF54	5.20 LBQ		7900.00	
199-H3-2C	12/02/94	B0DF55		8300.00		1.50 L
199-H3-2C	12/02/94	B0DF56	11.00 LBQ		8200.00	
199-H4-11	12/05/94	B0DF57		7200.00		3.10 L
199-H4-11	12/05/94	B0DF58	11.00 LB		7300.00	
199-H4-12A	12/14/94	B0DF59		10000.00		.72 U
199-H4-12A	12/14/94	B0DF60	15.00 BLQ		10000.00	
199-H4-12C	12/05/94	B0DF61		11000.00		1.40 LQ
199-H4-12C	12/05/94	B0DF62		11000.00		.72 UQ
199-H4-12C	12/05/94	B0DF63	7.80 LBQ		11000.00	
199-H4-12C	12/05/94	B0DF64	5.24 UQ		11000.00	
199-H4-14	12/05/94	B0DF65		7300.00		3.40 L
199-H4-14	12/05/94	B0DF66	36.00 B		7300.00	
199-H4-18	12/05/94	B0DF67		7500.00		7.80 L
199-H4-18	12/05/94	B0DF68	14.00 LB		7400.00	
199-H4-3	10/03/94	B0D0P4		11000.00		220.00
199-H4-3	10/03/94	B0D0P5	85.00 q		10000.00	
199-H4-3	11/22/94	B0D754		8500.00		570.00
199-H4-3	11/22/94	B0D755	37.00 BQ		7700.00	
199-H4-3	12/05/94	B0DF69		7300.00		36.00
199-H4-3	12/05/94	B0DF70	19.00 LB		7300.00	
199-H4-4	10/03/94	B0D0P6		10000.00		6.10 LQ
199-H4-4	10/03/94	B0D0P7		11000.00		4.10 LQ
199-H4-4	10/03/94	B0D0P8	15.00 LQ		11000.00	
199-H4-4	10/03/94	B0D0P9	17.00 LQ		10000.00	
199-H4-4	11/16/94	B0D6T9	54.00 B		7400.00	

Table 3-4. Constituents with at Least One Detected Value for the 183-H Solar Evaporation Basins Data for Reporting Period October 1 through December 31, 1994.
(sheet 6 of 10)

Well Name	Collection Date	Sample Number	FIRON 34/ppb 18/300s	MAGNES 34/ppb 25/.	FMAGNES 34/ppb 25/.	MANGESE 34/ppb 1/50s
199-H4-4	11/16/94	BOD756		7500.00		3.10 L
199-H4-4	12/05/94	BODF71		6500.00		1.70 L
199-H4-4	12/05/94	BODF72	7.80 LB		6500.00	
199-H4-5	12/05/94	BODF73		12000.00		17.00
199-H4-5	12/05/94	BODF74	16.00 LB		12000.00	
199-H4-6	12/02/94	BODF75		13000.00		90.00
199-H4-6	12/02/94	BODF76	17.00 LBQ		13000.00	
199-H4-7	12/05/94	BODF77		11000.00		3.40 L
199-H4-7	12/05/94	BODF78	6.80 LB		12000.00	
199-H4-8	12/02/94	BODF79		12000.00		16.00
199-H4-8	12/02/94	BODF80	36.00 BQ		12000.00	
199-H4-9	10/15/94	BOD758		12000.00		19.00
199-H4-9	10/15/94	BOD759	8.70 LQ		11000.00	
199-H4-9	12/14/94	BODF81		10000.00		44.00
199-H4-9	12/14/94	BODF82	23.00 BQ		10000.00	

Well Name	Collection Date	Sample Number	FMANGAN 34/ppb 1/50s	NICKEL 34/ppb 16/.	FNICKEL 34/ppb 16/.	NITRATE 124/ppb 96/45000
199-H3-2A	12/02/94	BODF53		13.00 U		11000.00 D
199-H3-2A	12/02/94	BODF54	.72 U		13.00 U	
199-H3-2C	12/02/94	BODF55		14.00 L		3000.00
199-H3-2C	12/02/94	BODF56	.72 U		13.00 U	
199-H4-11	12/05/94	BODF57		13.00 U		21000.00 D
199-H4-11	12/05/94	BODF58	1.20 L		13.00 U	
199-H4-12A	12/14/94	BODF59		13.00 U		28000.00 DQ
199-H4-12A	12/14/94	BODF60	.72 U		13.00 U	
199-H4-12C	12/05/94	BODF61		13.00 U		6300.00
199-H4-12C	12/05/94	BODF62		13.00 U		6200.00
199-H4-12C	12/05/94	BODF63	.80 L		13.00 U	
199-H4-12C	12/05/94	BODF64	.81 L		13.00 U	
199-H4-14	12/05/94	BODF65		17.00 L		11000.00 D
199-H4-14	12/05/94	BODF66	1.10 L		13.00 U	
199-H4-18	12/05/94	BODF67		14.00 L		16000.00 D
199-H4-18	12/05/94	BODF68	.72 U		13.00 U	
199-H4-3	10/03/94	BODOP4		16.00 L		340000.00 D
199-H4-3	10/03/94	BODOP5	25.00		13.00 U	
199-H4-3	11/22/94	BOD754		52.00		170000.00 DQ
199-H4-3	11/22/94	BOD755	16.00		13.00 U	
199-H4-3	12/05/94	BODF69		19.00 L		160000.00 D
199-H4-3	12/05/94	BODF70	3.30 L		13.00 U	
199-H4-4	10/03/94	BODOP6		13.00 U		350000.00 D
199-H4-4	10/03/94	BODOP7		13.00 U		350000.00 D
199-H4-4	10/03/94	BODOP8	.72 U		13.00 U	
199-H4-4	10/03/94	BODOP9	.72 U		13.00 U	
199-H4-4	11/16/94	BOD6T8				150000.00 D
199-H4-4	11/16/94	BOD6T9	2.80 L		13.00 U	
199-H4-4	11/16/94	BOD756		13.00 U		
199-H4-4	12/05/94	BODF71		13.00 U		150000.00 D
199-H4-4	12/05/94	BODF72	.72 U		13.00 U	
199-H4-5	12/05/94	BODF73		14.00 L		30000.00 D
199-H4-5	12/05/94	BODF74	1.50 L		13.00 U	
199-H4-6	12/02/94	BODF75		24.00 L		18000.00 D
199-H4-6	12/02/94	BODF76	17.00		14.00 L	

Table 3-4. Constituents with at Least One Detected Value for the 183-H Solar Evaporation Basins Data for Reporting Period October 1 through December 31, 1994.
(sheet 7 of 10)

Well Name	Collection Date	Sample Number	FMANGAN 34/ppb 1/50s	NICKEL 34/ppb 16/.	FNICKEL 34/ppb 16/.	NITRATE 124/ppb 96/45000
199-H4-7	12/05/94	B0DF77		13.00 U		29000.00 D
199-H4-7	12/05/94	B0DF78	.92 L		13.00 U	
199-H4-8	12/02/94	B0DF79		25.00 L		30000.00 D
199-H4-8	12/02/94	B0DF80	1.80 L		13.00 U	
199-H4-9	10/15/94	B0D758		39.00		39000.00 DH
199-H4-9	10/15/94	B0D759	2.70 L		13.00 U	
199-H4-9	12/14/94	B0DF81		62.00		28000.00 DHQ
199-H4-9	12/14/94	B0DF82	1.60 L		13.00 U	

Well Name	Collection Date	Sample Number	NITRITE 124/ppb 110/1000	POTASUM 34/ppb 890/.	FPOTASS 34/ppb 890/.	RU-106 140/pCi/L ./30
199-H3-2A	12/02/94	B0DF53	18.00 U	4100.00		
199-H3-2A	12/02/94	B0DF54			4200.00	
199-H3-2C	12/02/94	B0DF55	18.00 U	4300.00		
199-H3-2C	12/02/94	B0DF56			4100.00	
199-H4-11	12/05/94	B0DF57	18.00 U	2600.00		
199-H4-11	12/05/94	B0DF58			2800.00	
199-H4-12A	12/14/94	B0DF59	18.00 U	5000.00		
199-H4-12A	12/14/94	B0DF60			5300.00	
199-H4-12C	12/05/94	B0DF61	18.00 U	4700.00		
199-H4-12C	12/05/94	B0DF62	18.00 U	4600.00		
199-H4-12C	12/05/94	B0DF63			4300.00	
199-H4-12C	12/05/94	B0DF64			4600.00	
199-H4-14	12/05/94	B0DF65	18.00 U	3900.00		
199-H4-14	12/05/94	B0DF66			4500.00	
199-H4-18	12/05/94	B0DF67	18.00 U	3800.00		
199-H4-18	12/05/94	B0DF68			3700.00	
199-H4-3	10/03/94	B0D0P4	18.00 U	6600.00		
199-H4-3	10/03/94	B0D0P5			6300.00	
199-H4-3	11/22/94	B0D754	400.00 F	6100.00		
199-H4-3	11/22/94	B0D755			5600.00	
199-H4-3	12/05/94	B0DF69	18.00 U	5300.00		
199-H4-3	12/05/94	B0DF70			5700.00	
199-H4-4	10/03/94	B0D0P6	18.00 U	6700.00		
199-H4-4	10/03/94	B0D0P7	18.00 U	6700.00		
199-H4-4	10/03/94	B0D0P8			6700.00	
199-H4-4	10/03/94	B0D0P9			6500.00	
199-H4-4	11/16/94	B0D6T8	18.00 U			14.20 U
199-H4-4	11/16/94	B0D6T9			5700.00	
199-H4-4	11/16/94	B0D756		5300.00		
199-H4-4	12/05/94	B0DF71	18.00 U	5100.00		
199-H4-4	12/05/94	B0DF72			5300.00	
199-H4-5	12/05/94	B0DF73	18.00 U	5000.00		
199-H4-5	12/05/94	B0DF74			4800.00	
199-H4-6	12/02/94	B0DF75	18.00 U	6800.00		
199-H4-6	12/02/94	B0DF76			6900.00	
199-H4-7	12/05/94	B0DF77	18.00 U	5200.00		
199-H4-7	12/05/94	B0DF78			5400.00	
199-H4-8	12/02/94	B0DF79	18.00 U	5400.00		
199-H4-8	12/02/94	B0DF80			5600.00	

Table 3-4. Constituents with at Least One Detected Value for the 183-H Solar Evaporation Basins Data for Reporting Period October 1 through December 31, 1994.
(sheet 8 of 10)

Well Name	Collection Date	Sample Number	NITRITE 124/ppb 110/1000	POTASUM. 34/ppb 890/.	FPOTASS 34/ppb 890/.	RU-106 140/pCi/L ./30
199-H4-9	10/15/94	B0D758	18.00 UH	5200.00		
199-H4-9	10/15/94	B0D759			5100.00	
199-H4-9	12/14/94	B0DF81	18.00 UH	5200.00		
199-H4-9	12/14/94	B0DF82			5200.00	

Well Name	Collection Date	Sample Number	SILVER 34/ppb 3.4/50i	FSILVER 34/ppb 3.4/50i	SODIUM 34/ppb 150/.	FSODIUM 34/ppb 150/.
199-H3-2A	12/02/94	B0DF53	3.60 U		13000.00 BQ	
199-H3-2A	12/02/94	B0DF54		3.60 U		12000.00 BQ
199-H3-2C	12/02/94	B0DF55	3.60 U		10000.00 BQ	
199-H3-2C	12/02/94	B0DF56		3.60 U		10000.00 BQ
199-H4-11	12/05/94	B0DF57	3.60 U		9200.00 BQ	
199-H4-11	12/05/94	B0DF58		3.60 U		9200.00 BQ
199-H4-12A	12/14/94	B0DF59	3.60 U		13000.00 Q	
199-H4-12A	12/14/94	B0DF60		3.60 U		13000.00 Q
199-H4-12C	12/05/94	B0DF61	3.60 U		4100.00 BQ	
199-H4-12C	12/05/94	B0DF62	3.60 U		4100.00 BQ	
199-H4-12C	12/05/94	B0DF63		3.60 U		4300.00 BQ
199-H4-12C	12/05/94	B0DF64		3.60 U		4100.00 BQ
199-H4-14	12/05/94	B0DF65	3.60 U		11000.00 BQ	
199-H4-14	12/05/94	B0DF66		3.60 U		11000.00 BQ
199-H4-18	12/05/94	B0DF67	3.60 U		11000.00 BQ	
199-H4-18	12/05/94	B0DF68		3.60 U		10000.00 BQ
199-H4-3	10/03/94	B0D0P4	3.60 U		140000.00	
199-H4-3	10/03/94	B0D0P5		3.60 U		140000.00
199-H4-3	11/22/94	B0D754	3.60 U		120000.00 BQ	
199-H4-3	11/22/94	B0D755		3.60 U		120000.00 BQ
199-H4-3	12/05/94	B0DF69	3.60 U		110000.00 BQ	
199-H4-3	12/05/94	B0DF70		3.60 U		110000.00 BQ
199-H4-4	10/03/94	B0D0P6	3.60 U		130000.00	
199-H4-4	10/03/94	B0D0P7	3.60 U		130000.00	
199-H4-4	10/03/94	B0D0P8		3.60 U		130000.00
199-H4-4	10/03/94	B0D0P9		3.60 U		130000.00
199-H4-4	11/16/94	B0D6T9		8.30 LF		95000.00 B
199-H4-4	11/16/94	B0D756	3.60 U		96000.00 B	
199-H4-4	12/05/94	B0DF71	3.60 U		91000.00 BQ	
199-H4-4	12/05/94	B0DF72		3.60 U		91000.00 BQ
199-H4-5	12/05/94	B0DF73	3.60 U		13000.00 BQ	
199-H4-5	12/05/94	B0DF74		3.60 U		13000.00 BQ
199-H4-6	12/02/94	B0DF75	3.60 U		26000.00 BQ	
199-H4-6	12/02/94	B0DF76		3.60 U		26000.00 BQ
199-H4-7	12/05/94	B0DF77	3.60 U		17000.00 BQ	
199-H4-7	12/05/94	B0DF78		3.60 U		17000.00 BQ
199-H4-8	12/02/94	B0DF79	3.60 U		18000.00 BQ	
199-H4-8	12/02/94	B0DF80		3.60 U		18000.00 BQ
199-H4-9	10/15/94	B0D758	3.60 U		23000.00	
199-H4-9	10/15/94	B0D759		3.60 U		23000.00
199-H4-9	12/14/94	B0DF81	3.60 U		22000.00 Q	
199-H4-9	12/14/94	B0DF82		3.60 U		22000.00 Q

Table 3-4. Constituents with at Least One Detected Value for the 183-H Solar Evaporation Basins Data for Reporting Period October 1 through December 31, 1994.
(sheet 9 of 10)

Well Name	Collection Date	Sample Number	SULFATE 124/ppb 89/250000s	TC-99 143/pCi/L ./900	TRITIUM 142/pCi/L ./20000	TURBID 126/NTU .016/.
199-H3-2A	12/02/94	B0DF53	31000.00 D	-.33 U		.73
199-H3-2C	12/02/94	B0DF55	14000.00 D	-.42 U		.36
199-H4-11	12/05/94	B0DF57	38000.00 D	14.00		1.70 q
199-H4-12A	12/14/94	B0DF59	53000.00 D	6.25		.28 q
199-H4-12C	12/05/94	B0DF61	24000.00 D	-.07 U		.28 q
199-H4-12C	12/05/94	B0DF62	24000.00 D	.61 U		.29 q
199-H4-14	12/05/94	B0DF65	31000.00 D	.50 U		1.60 q
199-H4-18	12/05/94	B0DF67	35000.00 D	11.50		3.80 q
199-H4-3	10/03/94	B0D0P4	75000.00 D			34.00
199-H4-3	11/22/94	B0D754	67000.00 D			140.00 q
199-H4-3	12/05/94	B0DF69	65000.00 D	754.00		9.90 q
199-H4-4	10/03/94	B0D0P6	78000.00 D			3.40
199-H4-4	10/03/94	B0D0P7	78000.00 D			1.90
199-H4-4	11/16/94	B0D6T8	59000.00 D	703.00	2230.00	
199-H4-4	11/16/94	B0D756				4.90
199-H4-4	12/05/94	B0DF71	58000.00 D	651.00		2.50 q
199-H4-5	12/05/94	B0DF73	60000.00 D	1.35 U		11.00 q
199-H4-6	12/02/94	B0DF75	61000.00 D	-.75 U		30.00
199-H4-7	12/05/94	B0DF77	59000.00 D	.57 U		2.40 q
199-H4-8	12/02/94	B0DF79	64000.00 D	-.45 U		19.00
199-H4-9	10/15/94	B0D758	45000.00 DH			9.50 H
199-H4-9	12/14/94	B0DF81	37000.00 D	53.10		19.00 HQ

Well Name	Collection Date	Sample Number	URANIUM 145/ppb ./.	VANADIUM 34/ppb 6.4/.	FVANADI 34/ppb 6.4/.	ZINC 34/ppb 4.4/5000s
199-H3-2A	12/02/94	B0DF53	2.39	6.60 U		6.30 U
199-H3-2A	12/02/94	B0DF54			6.90 L	
199-H3-2C	12/02/94	B0DF55	1.01	36.00		6.30 U
199-H3-2C	12/02/94	B0DF56			33.00	
199-H4-11	12/05/94	B0DF57	2.30	6.60 U		6.30 U
199-H4-11	12/05/94	B0DF58			6.60 U	
199-H4-12A	12/14/94	B0DF59	3.83	6.60 U		23.00
199-H4-12A	12/14/94	B0DF60			6.60 U	
199-H4-12C	12/05/94	B0DF61	1.70 q	25.00 L		6.30 U
199-H4-12C	12/05/94	B0DF62	1.18 q	27.00 L		6.30 U
199-H4-12C	12/05/94	B0DF63			26.00 L	
199-H4-12C	12/05/94	B0DF64			26.00 L	
199-H4-14	12/05/94	B0DF65	1.35	6.70 L		6.30 U
199-H4-14	12/05/94	B0DF66			6.60 U	
199-H4-18	12/05/94	B0DF67	2.27	6.60 U		8.00 L
199-H4-18	12/05/94	B0DF68			6.60 U	
199-H4-3	10/03/94	B0D0P4		6.60 U		15.00 q
199-H4-3	10/03/94	B0D0P5			6.60 U	
199-H4-3	11/22/94	B0D754		15.00 L		12.00
199-H4-3	11/22/94	B0D755			6.60 U	
199-H4-3	12/05/94	B0DF69	59.70	6.60 U		7.40 L
199-H4-3	12/05/94	B0DF70			6.60 U	

Table 3-4. Constituents with at Least One Detected Value for the 183-H Solar Evaporation Basins Data for Reporting Period October 1 through December 31, 1994.
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Well Name	Collection Date	Sample Number	URANIUM 145/ppb ./.	VANADIUM 34/ppb 6.4/.	FVANADI 34/ppb 6.4/.	ZINC 34/ppb 4.4/5000s
199-H4-4	10/03/94	BOD0P6		6.60 U		13.00 q
199-H4-4	10/03/94	BOD0P7		6.60 U		28.00 q
199-H4-4	10/03/94	BOD0P8			6.60 U	
199-H4-4	10/03/94	BOD0P9			6.60 U	
199-H4-4	11/16/94	BOD6T8	23.90			
199-H4-4	11/16/94	BOD6T9			6.60 U	
199-H4-4	11/16/94	BOD756		6.60 U		13.00
199-H4-4	12/05/94	BODF71	46.60	6.60 U		9.80 L
199-H4-4	12/05/94	BODF72			6.60 U	
199-H4-5	12/05/94	BODF73	4.23	6.60 U		17.00
199-H4-5	12/05/94	BODF74			6.60 U	
199-H4-6	12/02/94	BODF75	2.95	6.60 U		18.00
199-H4-6	12/02/94	BODF76			6.60 U	
199-H4-7	12/05/94	BODF77	2.77	6.60 U		6.30 U
199-H4-7	12/05/94	BODF78			6.60 U	
199-H4-8	12/02/94	BODF79	4.07	6.60 U		6.30 U
199-H4-8	12/02/94	BODF80			6.60 U	
199-H4-9	10/15/94	BOD758		6.60 U		32.00
199-H4-9	10/15/94	BOD759			6.60 U	
199-H4-9	12/14/94	BODF81	6.25	7.60 L		11.00
199-H4-9	12/14/94	BODF82			6.60 U	

Well Name	Collection Date	Sample Number	FZINC 34/ppb 4.4/5000s
199-H3-2A	12/02/94	BODF54	6.30 U
199-H3-2C	12/02/94	BODF56	6.30 U
199-H4-11	12/05/94	BODF58	6.30 U
199-H4-12A	12/14/94	BODF60	6.30 U
199-H4-12C	12/05/94	BODF63	6.30 U
199-H4-12C	12/05/94	BODF64	6.30 U
199-H4-14	12/05/94	BODF66	6.30 U
199-H4-18	12/05/94	BODF68	6.30 U
199-H4-3	10/03/94	BOD0P5	6.30 Uq
199-H4-3	11/22/94	BOD755	6.30 U
199-H4-3	12/05/94	BODF70	6.80 L
199-H4-4	10/03/94	BOD0P8	17.00 q
199-H4-4	10/03/94	BOD0P9	16.00 q
199-H4-4	11/16/94	BOD6T9	6.30 U
199-H4-4	12/05/94	BODF72	6.30 U
199-H4-5	12/05/94	BODF74	6.30 U
199-H4-6	12/02/94	BODF76	6.30 U
199-H4-7	12/05/94	BODF78	6.30 U
199-H4-8	12/02/94	BODF80	6.30 U
199-H4-9	10/15/94	BOD759	6.30 U
199-H4-9	12/14/94	BODF82	6.30 U

For explanation of this table, see Section 1.4 of report.

Table 3-5. Contamination Indicator Parameters for the 183-H Solar Evaporation Basins Data for Reporting Period October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
199-H3-2A	12/02/94	80DF53	298	320	7.80		400 L	21.0
199-H3-2C	12/02/94	80DF55	232	230	7.86		300 L	5.0 U
199-H4-11	12/05/94	80DF57	350	360	7.94		500 L	24.7
199-H4-12A	12/14/94	80DF59	460	460	7.44		600 L	6.2
199-H4-12C	12/05/94	80DF61	273	270	7.99		200 Lq	10.0
		80DF62		270			140 Lq	8.4
199-H4-14	12/05/94	80DF65	305	310	8.09		300 L	24.7
199-H4-18	12/05/94	80DF67	351	330	8.04		500 L	24.4
199-H4-3	10/03/94	80D0P4	1129		7.57			
	11/22/94	80D754	790		7.25			
	12/05/94	80DF69	814	790	8.20		600 L	12.1
199-H4-4	10/03/94	80D0P6	1077		7.90			
	11/16/94	80D756	753		8.02			
	12/05/94	80DF71	722	700	8.04		500 L	7.5
199-H4-5	12/05/94	80DF73	463	480	8.04		400 L	7.9
199-H4-6	12/02/94	80DF75	319 F	420	8.85 F		500 L	5.0 U
199-H4-7	12/05/94	80DF77	474	470	7.79		400 L	11.0
199-H4-8	12/02/94	80DF79	481	490	7.04		400 L	6.5
199-H4-9	10/15/94	80D758	405		7.80			
	12/14/94	80DF81	467	460	7.63		600 L	7.8

For explanation of this table, see Section 1.4 of report.

Table 3-6. Drinking Water Standards Exceeded for the 183-H Basins, Fourth Quarter 1994.

Constituent (DWS)	Wells exceeding DWS (number of samples)
Field conductivity (700 μ mho/cm)	H4-3 (3); H4-4 (3)
Lab conductivity (700 μ mho/cm)	H4-3 (1)
Field pH (6.5 - 8.5)	H4-6 ^a
Chromium, unfiltered samples (50 ppb)	All wells except H3-2A and H3-2C
Chromium, filtered samples (50 ppb)	All wells except H3-2A, H3-2C, H4-11, H4-18, and H4-6.
Gross alpha (15 pCi/L)	H4-3 (3), H4-4 (3)
Iron, unfiltered samples (300 ppb)	H4-3 (3), H4-4 (3), H4-5, H4-6, H4-8, H4-9 (2)
Iron, filtered sample (300 ppb)	none.
Manganese, unfiltered samples (50 ppb)	H4-3(2), H4-6
Manganese, filtered sample (50 ppb)	none.
Nitrate (45,000 ppb)	H4-3 (3), H4-4 (3)

^aData are in question. Requests for Analytical Data Evaluation were submitted.

DWS = drinking water standard.

Table 3-7. Requests for Analytical Data Evaluation Submitted for the 183-H Solar Evaporation Basins, Fourth Quarter 1994.

Well no.	Sample date	Constituent	Reason
H4-3	11/22/94	Nitrite	Higher than historical trend.
H4-6	12/2/94	Conductivity (field)	Lower than historical trend.
H4-6	12/2/94	pH (field)	Higher than historical trend.
H4-4	11/16/94	Silver (filtered)	First detection in this well; higher than unfiltered result.

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4.0 100-N RCRA SITES

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4.1 INTRODUCTION

Four interim-status RCRA disposal units are located in the 100-N Area of the Hanford Site: (1) the 1301-N Liquid Waste Disposal Facility (LWDF), (2) the 1324-N Surface Impoundment, (3) the 1324-NA Percolation Pond, and (4) the 1325-N LWDF (Figure 4-1). The 1324-N and 1324-NA units are monitored as a single site. RCRA monitoring began in late 1987. The 1324-N/NA site is monitored under a groundwater quality assessment program because of elevated levels of TOX (40 CFR 265.93). The 1325-N LWDF is monitored under an indicator parameter evaluation program (40 CFR 265.92). Background concentrations are being reestablished for the 1301-N LWDF.

The 1301-N and 1325-N LWDFs were used for disposal of liquid effluent from the N Reactor and associated facilities. Primary waste constituents were radionuclides, including strontium-90, tritium, and cobalt-60. Minor amounts of hazardous waste also were present in the waste streams (e.g., hydrazine). The 1324-N/NA units received corrosive waste. The 100-N RCRA units are currently not in use.

Well locations in the 100-N Area are illustrated in Figure 4-1. Many of these wells are monitored monthly for water levels. Fewer wells are used for groundwater sampling. Sampling networks are listed in Table 4-1.

4.2 WATER LEVEL MEASUREMENTS

Water levels are measured monthly in most 100-N Area wells to track changes caused by river-stage fluctuations. Data are listed in Table 4-2.

4.3 WATER CHEMISTRY DATA

All the wells in the 1324-N/NA network were scheduled for sampling this quarter, but well N-59 had insufficient water. Only the upgradient wells for the 1301-N LWDF were scheduled for sampling. Well N-34 was sampled, but well N-57 had a broken pump. Well N-74, upgradient of the 1325-N LWDF, was sampled only for field conductivity, field pH, and TOX, as planned. Well N-43, downgradient of the 1325-N LWDF, was sampled on October 31, 1994, because it had been rescheduled the previous quarter.

Groundwater chemistry data from samples collected during the fourth quarter of 1994 are listed in Tables 4-3 through 4-5. These tables also include data from earlier quarters that were not reported previously. Data qualifiers and data flags are discussed in Sections 1.2 and 1.4, respectively. DWSs were exceeded for the constituents listed in Table 4-6. Several analytical results appear anomalous and RADEs were submitted (Table 4-7).



Table 4-1. Monitoring Well Purpose and Sampling Schedule for the 100-N Area.

Well no. (199-)	RCRA site	Relative position	Sample frequency	Sample date, 4th Qtr 1994
N-2	1301-N	Downgradient	Quarterly	Not scheduled
N-3	1301-N	Downgradient	Quarterly	Not scheduled
N-14	1301-N	Downgradient	Quarterly	Not scheduled
N-27	1325-N	Downgradient	Semiannually	Not scheduled
N-29	1325-N	Downgradient	Semiannually	Not scheduled
N-32	1325-N	Downgradient	Semiannually	Not scheduled
N-34	1301-N	Upgradient	Quarterly	11/4/94
N-41	1325-N	Downgradient	Semiannually	Not scheduled
N-43	1325-N	Downgradient	Semiannually	10/31/94 ^a
N-57	1301-N	Upgradient	Quarterly	Not sampled ^b
N-59	1324-N/NA	Downgradient	Quarterly	Not sampled ^c
N-67	1301-N	Downgradient	Quarterly	Not scheduled
N-70	1325-N	Downgradient; bottom of aquifer	Quarterly	Not scheduled
N-71	1324-N/NA	Upgradient	Quarterly	11/4/94
N-72	1324-N/NA	Downgradient	Quarterly	11/7/94
N-73	1324-N/NA	Downgradient	Quarterly	11/7/94
N-74	1325-N	Upgradient	Quarterly	11/4/94
N-75	1301-N	Downgradient	Quarterly	Not scheduled
N-76	1301-N	Downgradient	Quarterly	Not scheduled
N-77	1324-N/NA	Downgradient; bottom of aquifer	Quarterly	11/7/94
N-81	1325-N	Downgradient	Semiannually	Not scheduled

Note: The hydrogeologic unit monitored is the unconfined aquifer, which comprises sands and gravels of the Ringold Formation.

^aRescheduled because of logistical problems during 3rd quarter.

^bPump broken.

^cInsufficient water in well.

RCRA = Resource Conservation and Recovery Act of 1976.

Table 4-2. RCRA Water Level Measurement Report
 100-N Area, Fourth Quarter 1994.
 (sheet 1 of 5)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
Wells Monitoring the Top of the Unconfined Aquifer				
199-N-14	11/09/94	70.16	383.50	116.89
	12/07/94	69.50	384.16	117.09
199-N-16	10/17/94	72.48	384.74	117.27
	11/08/94	72.31	384.91	117.32
	12/07/94	71.99	385.23	117.42
199-N-19	10/17/94	71.87	382.55	116.60
	11/08/94	71.27	383.15	116.78
	12/07/94	69.91	384.51	117.20
199-N-2	10/18/94	76.16	383.58	116.92
	11/09/94	76.22	383.52	116.90
	12/07/94	75.56	384.18	117.10
199-N-20	10/17/94	73.21	383.12	116.77
	11/08/94	72.81	383.52	116.90
	12/07/94	71.69	384.64	117.24
199-N-21	10/17/94	74.42	383.03	116.75
	11/08/94	73.94	383.51	116.89
	12/07/94	72.94	384.51	117.20
199-N-23	10/17/94	73.93	382.84	116.69
	11/08/94	73.39	383.38	116.85
	12/07/94	72.37	384.40	117.17
199-N-25	10/17/94	44.91	381.32	116.23
	11/08/94	43.98	382.25	116.51
	12/07/94	41.66	384.57	117.22
199-N-26	10/17/94	74.20	382.04	116.45
	11/08/94	73.82	382.42	116.56
199-N-26	12/07/94	71.76	384.48	117.19
199-N-27	10/18/94	62.53	387.04	117.97
	11/08/94	62.69	386.88	117.92
	12/07/94	62.80	386.77	117.89

Table 4-2. RCRA Water Level Measurement Report
 100-N Area, Fourth Quarter 1994.
 (sheet 2 of 5)

Well	Date	Depth to water (ft)	Water level elevation above msl	
			(ft)	(m)
Wells Monitoring the Top of the Unconfined Aquifer				
199-N-28	10/18/94	77.29	387.43	118.09
	11/08/94	77.07	387.65	118.16
	12/07/94	77.00	387.72	118.18
199-N-29	10/18/94	77.97	387.76	118.19
	11/08/94	78.12	387.61	118.14
	12/07/94	78.28	387.45	118.09
199-N-3	10/18/94	76.47	382.90	116.71
	11/09/94	75.90	383.47	116.88
	12/07/94	75.18	384.19	117.10
199-N-31	10/18/94	76.78	386.33	117.75
	12/07/94	76.83	386.28	117.74
199-N-32	10/18/94	76.04	386.52	117.81
	11/08/94	76.19	386.37	117.77
	12/07/94	76.23	386.33	117.75
199-N-33	10/18/94	74.71	385.64	117.54
199-N-34	10/18/94	73.45	386.68	117.86
	11/04/94	78.83	381.30*+	116.22
	11/08/94	73.55	386.58	117.83
	12/07/94	74.00	386.13	117.69
199-N-41	10/18/94	74.56	383.53	116.90
	11/08/94	74.25	383.84	116.99
	12/07/94	74.08	384.01	117.05
199-N-42	10/18/94	71.57	384.05	117.06
	11/08/94	71.52	384.10	117.07
	12/07/94	71.23	384.39	117.16
199-N-43	10/18/94	65.79	383.73	116.96
	10/31/94	61.89	387.63*+	118.15
	11/09/94	65.51	384.01	117.05
	12/07/94	65.08	384.44	117.18

Table 4-2. RCRA Water Level Measurement Report
 100-N Area, Fourth Quarter 1994.
 (sheet 3 of 5)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
Wells Monitoring the Top of the Unconfined Aquifer				
199-N-50	11/08/94	80.62	383.26	116.82
	12/07/94	80.20	383.68	116.95
199-N-51	10/18/94	80.38	382.31	116.53
	11/08/94	79.79	382.90	116.71
	12/07/94	79.02	383.67	116.94
199-N-52	10/18/94	76.18	388.00	118.26
	11/08/94	76.25	387.93	118.24
	12/07/94	76.38	387.80	118.20
199-N-54	10/17/94	73.55	384.43	117.17
	11/08/94	73.42	384.56	117.21
	12/07/94	73.04	384.94	117.33
199-N-55	10/17/94	73.89	384.44	117.18
	11/08/94	73.78	384.55	117.21
	12/07/94	73.76	384.57	117.22
199-N-56	10/17/94	74.57	384.00	117.04
	11/08/94	74.42	384.15	117.09
	12/07/94	74.01	384.56	117.21
199-N-57	10/17/94	72.20	386.04	117.66
	11/08/94	72.26	385.98	117.65
	12/07/94	72.14	386.10	117.68
199-N-59	10/18/94	74.79	385.26	117.43
199-N-62	10/18/94	76.31	387.78	118.20
	11/08/94	76.48	387.61	118.14
	12/07/94	76.65	387.44	118.09
199-N-63	10/18/94	79.86	387.34	118.06
	11/08/94	80.03	387.17	118.01
	12/07/94	79.94	387.26	118.04
199-N-64	10/18/94	68.38	386.75	117.88
	11/09/94	68.48	386.65	117.85
	12/07/94	68.57	386.56	117.82

Table 4-2. RCRA Water Level Measurement Report
 100-N Area, Fourth Quarter 1994.
 (sheet 4 of 5)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
Wells Monitoring the Top of the Unconfined Aquifer				
199-N-65	10/18/94	70.73	386.23	117.72
	11/09/94	70.82	386.14	117.70
	12/07/94	70.81	386.15	117.70
199-N-67	10/18/94	74.80	384.15	117.09
	11/09/94	74.70	384.25	117.12
	12/07/94	74.39	384.56	117.21
199-N-71	10/18/94	73.97	389.02	118.57
	11/04/94	73.79	389.20*	118.63
	11/08/94	74.17	388.82	118.51
	12/07/94	74.48	388.51	118.42
199-N-72	10/17/94	72.49	386.46	117.79
	11/07/94	72.55	386.40*	117.77
	11/08/94	72.46	386.49	117.80
	12/07/94	72.43	386.52	117.81
199-N-73	10/18/94	76.59	386.64	117.85
	11/07/94	75.60	387.63*+	118.15
	11/08/94	76.61	386.62	117.84
	12/07/94	76.67	386.56	117.82
199-N-74	10/18/94	68.65	388.97	118.56
	11/04/94	68.68	388.94*	118.55
	11/08/94	68.77	388.85	118.52
	12/07/94	68.94	388.68	118.47
199-N-75	10/18/94	74.37	382.41	116.56
	11/09/94	73.70	383.08	116.76
	12/07/94	72.93	383.85	117.00
199-N-76	10/18/94	69.74	382.38	116.55
	11/08/94	69.09	383.03	116.75
	12/07/94	68.33	383.79	116.98
199-N-81	10/18/94	77.30	385.41	117.47
	11/08/94	77.43	385.28	117.43
	12/07/94	76.54	386.17	117.70

Table 4-2. RCRA Water Level Measurement Report
 100-N Area, Fourth Quarter 1994.
 (sheet 5 of 5)

Well	Date	Depth to water (ft)	Water level elevation above msl	
			(ft)	(m)
Wells Monitoring the Top of the Unconfined Aquifer				
199-N-8S	10/18/94	24.10	381.00	116.13
	11/09/94	23.32	381.78	116.37
	12/07/94	21.17	383.93	117.02
699-81-58	10/18/94	47.30	392.19	119.54
	11/08/94	47.31	392.18	119.54
	12/07/94	47.40	392.09	119.51
Wells Monitoring the Bottom of the Unconfined Aquifer				
199-N-69	10/18/94	75.35	383.98	117.04
	11/09/94	75.18	384.15	117.09
	12/07/94	74.85	384.48	117.19
199-N-70	10/18/94	69.44	385.24	117.42
	11/08/94	69.55	385.13	117.39
	12/07/94	69.50	385.18	117.40
199-N-77	10/17/94	72.83	386.61	117.84
	11/07/94	72.79	386.65*	117.85
	11/08/94	72.80	386.64	117.85
	12/07/94	72.80	386.64	117.85

- NOTES: 1. Water level elevations are calculated by subtracting the measured depth-to-water from the surveyed elevation for the well.
2. Depth-to-water values are transcribed from field records.
3. Elevations marked with an '*' were measured at the time of sampling.
4. Elevations marked with a '+' are outside of the expected range, and are suspected of error.

Table 4-3. Constituent List and Summary of Results for 100-N RCRA Sites
Data for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 3)

CONTAMINATION INDICATOR PARAMETERS

Short	(Method)	Constituent Name		Units	DWS			Number of Samples		
		Full			Lab MDL	Limit	Agency	Total	>MDL	>DWS
CONDUCT	94	Conductivity, field	umhos		1			19	19	
CONDUCT	73	Conductivity, lab	umhos					7	7	
TOC		Total Organic Carbon	ppb		110			16	16	
TOX		Total Organic Halogen	ppb		5			20	20	
PH	93	pH, field	pH		.01	6.5-8.5	EPAS	19	19	1
PH	125	pH, lab	pH			6.5-8.5	EPAS	7	7	0

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name		Units	DWS			Number of Samples		
		Full			Lab MDL	Limit	Agency	Total	>MDL	>DWS
ARSENIC		Arsenic	ppb		2.8	50	EPA	7	2	0
FARSENIC		Arsenic, filtered	ppb		2.8	50	EPA	7	1	0
BARIUM		Barium	ppb		.59	1000	EPAI	13	13	0
FBARIUM		Barium, filtered	ppb		.59	1000	EPAI	13	13	0
CADMIUM		Cadmium	ppb		3.3	10	EPAI	13	0	0
FCADMIU		Cadmium, filtered	ppb		3.3	10	EPAI	13	1	0
CHROMIUM		Chromium	ppb		4.5	50	EPAI	13	9	2
FCHROMI		Chromium, filtered	ppb		4.5	50	EPAI	13	5	0
FLUORID		Fluoride	ppb		36	1400	EPAI	8	8	0
ALPHA		Gross alpha	pCi/L			15	EPA	4	4	0
MERCURY		Mercury	ppb		.05	2	EPA	1	0	0
FMERCUR		Mercury, filtered	ppb		.05	2	EPA	1	1	0
NITRATE		Nitrate	ppb		11	45000	EPA	8	8	0
RADIUM		Radium	pCi/L			5	EPAI	1	0	0
SELENIUM		Selenium	ppb		.65	10	EPAI	1	0	0
FSELENI		Selenium, filtered	ppb		.65	10	EPAI	1	0	0

GROUNDWATER QUALITY PARAMETERS

Short	(Method)	Constituent Name		Units	DWS			Number of Samples		
		Full			Lab MDL	Limit	Agency	Total	>MDL	>DWS
CHLORID		Chloride	ppb		14	250000	EPAS	8	8	0
IRON		Iron	ppb		5.24	300	EPAS	13	13	6
FIRON		Iron, filtered	ppb		5.24	300	EPAS	13	7	0
MANGESE		Manganese	ppb		.72	50	EPAS	13	12	0
FMANGAN		Manganese, filtered	ppb		.72	50	EPAS	13	9	0
LPHENOL		Phenol	ppb		.31			1	0	
SODIUM		Sodium	ppb		61			13	13	
FSODIUM		Sodium, filtered	ppb		61			13	13	
SULFATE		Sulfate	ppb		37	250000	EPAS	8	8	2

Table 4-3. Constituent List and Summary of Results for 100-N RCRA Sites
Data for Reporting Period October 1 through December 31, 1994.
(sheet 2 of 3)

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name Full	Units	Lab MDL	DWS Limit	Agency	Number of Samples		
							Total	>MDL	>DWS
1,1,1-T		1,1,1-Trichloroethane	ppb	.036	200	EPA	5	0	0
1,1,2-T		1,1,2-Trichloroethane	ppb	.078			5	0	
1,1-DIC		1,1-Dichloroethane	ppb	.058			5	0	
1,2-DIC		1,2-Dichloroethane	ppb	.029	5	EPA	5	0	0
14-dben		1,4-Dichlorobenzene	ppb	.055	75	EPA	5	0	0
246-trp		2,4,6-Trichlorophenol	ppb	1.3			1	0	
24-dchp		2,4-Dichlorophenol	ppb	1.3			1	0	
DIMPEN		2,4-Dimethylphenol	ppb	1.2			1	0	
DINPHEN		2,4-Dinitrophenol	ppb	3			1	0	
26-dchp		2,6-Dichlorophenol	ppb	1.4			1	0	
CHLPHEN		2-Chlorophenol	ppb	1.6			1	0	
2NITPH		2-Nitrophenol	ppb	1.3			1	0	
BUTDINP		2-sec-Butyl-4,6-dinitrophenol(DN	ppb	1.3			1	0	
46DN2MP		4,6-Dinitro-2-methylphenol	ppb	1.3			1	0	
CHLCRES		4-Chloro-3-methylphenol	ppb	1.3			1	0	
NITPHEN		4-Nitrophenol	ppb	3			1	0	
ALKALIN		Alkalinity	ppm	2.8			5	5	
ALUMNUM		Aluminum	ppb	26			13	8	
FALUMIN		Aluminum, filtered	ppb	26			13	0	
ANTIONY		Antimony	ppb	62			13	0	
FANTIMO		Antimony, filtered	ppb	62			13	0	
SB-125		Antimony-125	pCi/L				4	2	
BENZENE		Benzene	ppb	.013	5	EPA	5	0	0
BERYLUM		Beryllium	ppb	.17			13	4	
FBERYLL		Beryllium, filtered	ppb	.17			13	3	
BROMIDE		Bromide	ppb	100			8	0	
CALCIUM		Calcium	ppb	34			13	13	
FCALCIU		Calcium, filtered	ppb	34			13	13	
TETRANE		Carbon tetrachloride	ppb	.075	5	EPA	5	0	0
CS-137		Cesium-137	pCi/L		200	EPA	4	2	0
CHLFORM		Chloroform	ppb	.041			5	5	
COBALT		Cobalt	ppb	5.9			13	1	
FCOBALT		Cobalt, filtered	ppb	5.9			13	0	
CO-60		Cobalt-60	pCi/L		100	EPA	4	3	0
COLIFORM		Coliforms	COL	1	1	EPAI	1	0	0
COPPER		Copper	ppb	4.1	1000	EPAS	13	4	0
FCOPPER		Copper, filtered	ppb	4.1	1000	EPAS	13	0	0
CRESOLS		Cresols (methylphenols)	ppb	4.8			1	0	
ETHBENZ		Ethylbenzene	ppb	.051	700	EPA	5	0	0
BETA		Gross beta	pCi/L				4	4	
LHYDRAZ		Hydrazine	ppb	1.6			2	0	
LEAD		Lead	ppb	1.5	50	EPAI	7	2	0
FLEAD		Lead, filtered	ppb	1.5	50	EPAI	7	1	0
MAGNES		Magnesium	ppb	23			13	13	
FMAGNES		Magnesium, filtered	ppb	23			13	13	
METHYCH		Methylene chloride	ppb	.09			5	0	
NICKEL		Nickel	ppb	13			13	7	
FNICKEL		Nickel, filtered	ppb	13			13	2	

Table 4-3. Constituent List and Summary of Results for 100-N RCRA Sites
 Data for Reporting Period October 1 through December 31, 1994.
 (sheet 3 of 3)

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
NITRITE		Nitrite	ppb	18	1000		EPA	8	0	0
PENTCHP		Pentachlorophenol	ppb	1.3	1		EPA	1	0	1*
PHOSPHA		Phosphate	ppb	82				8	0	
POTASUM		Potassium	ppb	850				13	13	
FPOTASS		Potassium, filtered	ppb	850				13	13	
RU-106		Ruthenium-106	pCi/L		30		EPA	4	2	1
SILVER		Silver	ppb	3.6	50		EPAI	13	0	0
FSILVER		Silver, filtered	ppb	3.6	50		EPAI	13	0	0
SR-90		Strontium-90	pCi/L		8		EPA	4	3	3
PERCENE		Tetrachloroethene	ppb	.22	5		EPA	5	0	0
TETPHNL		Tetrachlorophenols	ppb	1.5				1	0	
TIN		Tin	ppb	69				13	0	
FTIN		Tin, filtered	ppb	69				13	0	
TOLUENE		Toluene	ppb	.016	1000		EPA	5	0	0
TC		Total Carbon	ppb	320				5	5	
TDS		Total Dissolved Solids	ppm	10	500		EPAS	5	5	2
TRICENE		Trichloroethene	ppb	.11	5		EPA	5	0	0
TRIPHNL		Trichlorophenols	ppb	1.7				1	0	
TRITIUM		Tritium	pCi/L		20000		EPA	4	4	4
TURBID		Turbidity	NTU	.016				6	6	
URANIUM		Uranium	ppb					1	1	
VANADIUM		Vanadium	ppb	6.6				13	7	
FVANADI		Vanadium, filtered	ppb	6.6				13	6	
VINYIDE		Vinyl chloride	ppb	.13	2		EPA	5	0	0
XYLENE		Xylenes (total)	ppb	.035	10000		EPA	5	0	0
ZINC		Zinc	ppb	6.3	5000		EPAS	13	9	0
FZINC		Zinc, filtered	ppb	6.3	5000		EPAS	13	4	0
CIS12DE		cis-1,2-Dichloroethylene	ppb	.11	70		EPA	5	0	0
TRANDCE		trans-1,2-Dichloroethylene	ppb	.073	100		EPA	5	0	0

For explanation of this table, see Section 1.4 of report.

Table 4-4. Constituents with at Least One Detected Value for
the 100-N RCRA Sites Data for Reporting Period
October 1 through December 31, 1994.
(sheet 1 of 9)

Well Name	Collection Date	Sample Number	ALKALIN 357/ppm 1.96/.	ALUMNUM 34/ppb 19/.	FALUMIN 34/ppb 19/.	SB-125 140/pCi/L ./.
199-N-14	9/09/94	B0C945		29.00 L		
199-N-14	9/09/94	B0C949			19.00 U	
199-N-14	9/09/94	B0CCL7				16.90
199-N-2	9/09/94	B0C970		19.00 U		
199-N-2	9/09/94	B0C974			19.00 U	
199-N-27	9/09/94	B0C9D3		19.00 U		
199-N-27	9/09/94	B0C9D7			19.00 U	
199-N-29	9/09/94	B0C9D8		19.00 U		
199-N-29	9/09/94	B0C9F2			19.00 U	
199-N-3	9/09/94	B0C975		34.00 L		
199-N-3	9/09/94	B0C979			19.00 U	
199-N-3	9/09/94	B0CCD2				2.47
199-N-34	11/04/94	B0D624		60.00 L		6.91 U
199-N-34	11/04/94	B0D628			26.00 U	
199-N-43	10/31/94	B0D613		140.00 L		1.34 U
199-N-43	10/31/94	B0D617			26.00 U	
199-N-70	9/09/94	B0C9G8		22.00 L		
199-N-70	9/09/94	B0C9H2			19.00 U	
199-N-71	11/04/94	B0D714	110.00	31.00 L		
199-N-71	11/04/94	B0D718			26.00 U	
199-N-72	11/07/94	B0D719	90.00	150.00 LQ		
199-N-72	11/07/94	B0D720	90.00	200.00 LQ		
199-N-72	11/07/94	B0D721			26.00 U	
199-N-72	11/07/94	B0D722			26.00 U	
199-N-73	11/07/94	B0D723	110.00	320.00		
199-N-73	11/07/94	B0D724			26.00 U	
199-N-77	11/07/94	B0D725	100.00	26.00 U		
199-N-77	11/07/94	B0D726			26.00 U	

Well Name	Collection Date	Sample Number	ARSENIC 43/ppb .64/50	FARSENIC 43/ppb .64/50	BARIUM 34/ppb 1.3/1000i	FBARIUM 34/ppb 1.3/1000i
199-N-14	9/09/94	B0C945			14.00 L	
199-N-14	9/09/94	B0C949				13.00 L
199-N-2	9/09/94	B0C970			26.00	
199-N-2	9/09/94	B0C974				26.00
199-N-27	9/09/94	B0C9D3			31.00	
199-N-27	9/09/94	B0C9D7				31.00
199-N-29	9/09/94	B0C9D8			25.00	
199-N-29	9/09/94	B0C9F2				25.00
199-N-3	9/09/94	B0C975			120.00	

Table 4-4. Constituents with at Least One Detected Value for
the 100-N RCRA Sites Data for Reporting Period
October 1 through December 31, 1994.
(sheet 2 of 9)

Well Name	Collection Date	Sample Number	ARSENIC 43/ppb .64/50	FARSENIC 43/ppb .64/50	BARIUM 34/ppb 1.3/1000i	FBARIUM 34/ppb 1.3/1000i
199-N-3	9/09/94	B0C979				120.00
199-N-34	11/04/94	B0D624	2.80 U		32.00	
199-N-34	11/04/94	B0D628		2.80 U		31.00
199-N-43	10/31/94	B0D613	2.90 L		31.00	
199-N-43	10/31/94	B0D617		2.80 U		27.00
199-N-70	9/09/94	B0C9G8			28.00	
199-N-70	9/09/94	B0C9H2				29.00
199-N-71	11/04/94	B0D714	4.20 L		16.00 L	
199-N-71	11/04/94	B0D718		4.10 L		16.00 L
199-N-72	11/07/94	B0D719	2.80 U		41.00	
199-N-72	11/07/94	B0D720	2.80 U		42.00	
199-N-72	11/07/94	B0D721		2.80 U		37.00
199-N-72	11/07/94	B0D722		2.80 U		37.00
199-N-73	11/07/94	B0D723	2.80 U		53.00	
199-N-73	11/07/94	B0D724		2.80 U		48.00
199-N-77	11/07/94	B0D725	2.80 U		59.00	
199-N-77	11/07/94	B0D726		2.80 U		60.00

Well Name	Collection Date	Sample Number	BERYLUM 34/ppb 1.5/.	FBERYLL 34/ppb 1.5/.	CADMIUM 34/ppb 3/10i	FCADMIU 34/ppb 3/10i
199-N-14	9/09/94	B0C945	1.50 U		3.00 U	
199-N-14	9/09/94	B0C949		1.50 U		3.00 U
199-N-2	9/09/94	B0C970	1.50 U		3.00 U	
199-N-2	9/09/94	B0C974		1.50 U		3.00 U
199-N-27	9/09/94	B0C9D3	1.50 U		3.00 U	
199-N-27	9/09/94	B0C9D7		1.50 U		3.00 U
199-N-29	9/09/94	B0C9D8	1.50 U		3.00 U	
199-N-29	9/09/94	B0C9F2		1.50 U		3.00 U
199-N-3	9/09/94	B0C975	1.50 U		3.00 U	
199-N-3	9/09/94	B0C979		1.50 U		3.00 U
199-N-34	11/04/94	B0D624	.26 L		3.30 U	
199-N-34	11/04/94	B0D628		.17 U		3.90 L
199-N-43	10/31/94	B0D613	.32 LB		3.30 U	
199-N-43	10/31/94	B0D617		.19 LB		3.30 U
199-N-70	9/09/94	B0C9G8	1.50 U		3.00 U	
199-N-70	9/09/94	B0C9H2		1.50 U		3.00 U
199-N-71	11/04/94	B0D714	.17 U		3.30 U	
199-N-71	11/04/94	B0D718		.17 U		3.30 U
199-N-72	11/07/94	B0D719	.18 BL		3.30 U	
199-N-72	11/07/94	B0D720	.20 BL		3.30 U	
199-N-72	11/07/94	B0D721		.40 BLQ		3.30 U
199-N-72	11/07/94	B0D722		.19 BLQ		3.30 U
199-N-73	11/07/94	B0D723	.17 U		3.30 U	
199-N-73	11/07/94	B0D724		.17 U		3.30 U
199-N-77	11/07/94	B0D725	.17 U		3.30 U	
199-N-77	11/07/94	B0D726		.17 U		3.30 U

Table 4-4. Constituents with at Least One Detected Value for
the 100-N RCRA Sites Data for Reporting Period
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(sheet 3 of 9)

Well Name	Collection Date	Sample Number	CALCIUM 34/ppb 47/.	FCALCIU 34/ppb 47/.	CS-137 140/pCi/L ./200	CHLORID 124/ppb 71/250000s
199-N-14	9/09/94	B0C945	27000.00			
199-N-14	9/09/94	B0C949		27000.00		
199-N-14	9/09/94	B0CCL7			6.08	1800.00
199-N-2	9/09/94	B0C970	36000.00			
199-N-2	9/09/94	B0C974		36000.00		
199-N-27	9/09/94	B0C9D3	53000.00			
199-N-27	9/09/94	B0C9D7		53000.00		
199-N-29	9/09/94	B0C9D8	47000.00			
199-N-29	9/09/94	B0C9F2		47000.00		
199-N-3	9/09/94	B0C975	140000.00			
199-N-3	9/09/94	B0C979		140000.00		
199-N-3	9/09/94	B0CCD2			-4.18	
199-N-34	11/04/94	B0D6Z4	53000.00		.43 U	4600.00
199-N-34	11/04/94	B0D6Z8		53000.00		
199-N-43	10/31/94	B0D613	37000.00		.28 U	6800.00
199-N-43	10/31/94	B0D617		35000.00		
199-N-70	9/09/94	B0C9G8	33000.00			
199-N-70	9/09/94	B0C9H2		33000.00		
199-N-71	11/04/94	B0D714	17000.00			3100.00
199-N-71	11/04/94	B0D718		17000.00		
199-N-72	11/07/94	B0D719	60000.00			7100.00
199-N-72	11/07/94	B0D720	61000.00			7100.00
199-N-72	11/07/94	B0D721		58000.00		
199-N-72	11/07/94	B0D722		58000.00		
199-N-73	11/07/94	B0D723	32000.00			7100.00
199-N-73	11/07/94	B0D724		32000.00		
199-N-77	11/07/94	B0D725	56000.00			5600.00
199-N-77	11/07/94	B0D726		58000.00		

Table 4-4. Constituents with at Least One Detected Value for
the 100-N RCRA Sites Data for Reporting Period
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(sheet 4 of 9)

Well Name	Collection Date	Sample Number	CHLFORM 25/ppb .05/.	CHROMIUM 34/ppb 11/50i	FCHROMI 34/ppb 11/50i	COBALT 34/ppb 6.5/.
199-N-14	9/09/94	B0C945		11.00 U		6.50 U
199-N-14	9/09/94	B0C949			11.00 U	
199-N-2	9/09/94	B0C970		11.00 U		6.50 U
199-N-2	9/09/94	B0C974			11.00 U	
199-N-27	9/09/94	B0C9D3		14.00 L		6.50 U
199-N-27	9/09/94	B0C9D7			15.00 L	
199-N-29	9/09/94	B0C9D8		11.00 U		6.50 U
199-N-29	9/09/94	B0C9F2			11.00 U	
199-N-3	9/09/94	B0C975		11.00 U		6.50 U
199-N-3	9/09/94	B0C979			11.00 U	
199-N-34	11/04/94	B0D624		9.50 BL		5.90 U
199-N-34	11/04/94	B0D628			6.20 BL	
199-N-43	10/31/94	B0D613		43.00		5.90 U
199-N-43	10/31/94	B0D617			24.00	
199-N-70	9/09/94	B0C9G8		73.00		6.50 U
199-N-70	9/09/94	B0C9H2			11.00 U	
199-N-71	11/04/94	B0D714	4.10	41.00 B		5.90 U
199-N-71	11/04/94	B0D718			5.90 BL	
199-N-72	11/07/94	B0D719	23.00	37.00		8.70 LQ
199-N-72	11/07/94	B0D720	22.00	39.00		5.90 UQ
199-N-72	11/07/94	B0D721			5.90 LQ	
199-N-72	11/07/94	B0D722			4.50 UQ	
199-N-73	11/07/94	B0D723	6.30	74.00		5.90 U
199-N-73	11/07/94	B0D724			4.50 U	
199-N-77	11/07/94	B0D725	8.80	6.90 L		5.90 U
199-N-77	11/07/94	B0D726			4.50 U	

Well Name	Collection Date	Sample Number	FCOBALT 34/ppb 6.5/.	CO-60 140/pCi/L ./100	COPPER 34/ppb 2.6/1000s	FCOPPER 34/ppb 2.6/1000s
199-N-14	9/09/94	B0C945			2.60 U	
199-N-14	9/09/94	B0C949	6.50 U			2.60 U
199-N-14	9/09/94	B0CCL7		-5.09		
199-N-2	9/09/94	B0C970			2.60 U	
199-N-2	9/09/94	B0C974	6.50 U			2.60 U
199-N-27	9/09/94	B0C9D3			2.60 U	
199-N-27	9/09/94	B0C9D7	6.50 U			2.60 U
199-N-29	9/09/94	B0C9D8			3.00 L	
199-N-29	9/09/94	B0C9F2	6.50 U			2.60 U
199-N-3	9/09/94	B0C975			2.60 U	
199-N-3	9/09/94	B0C979	6.50 U			2.60 U

Table 4-4. Constituents with at Least One Detected Value for
the 100-N RCRA Sites Data for Reporting Period
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(sheet 5 of 9)

Well Name	Collection Date	Sample Number	FCOBALT 34/ppb 6.5/.	CO-60 140/pCi/L ./100	COPPER 34/ppb 2.6/1000s	FCOPPER 34/ppb 2.6/1000s
199-N-3	9/09/94	B0CCD2		3.68		
199-N-34	11/04/94	B0D624		10.10	4.10 U	
199-N-34	11/04/94	B0D628	5.90 U			4.10 U
199-N-43	10/31/94	B0D613		1.24 U	22.00	
199-N-43	10/31/94	B0D617	5.90 U			4.10 U
199-N-70	9/09/94	B0C9G8			2.60 U	
199-N-70	9/09/94	B0C9H2	6.50 U			3.50 L
199-N-71	11/04/94	B0D714			4.10 U	
199-N-71	11/04/94	B0D718	5.90 U			4.10 U
199-N-72	11/07/94	B0D719			4.60 L	
199-N-72	11/07/94	B0D720			5.60 L	
199-N-72	11/07/94	B0D721	5.90 U			4.10 U
199-N-72	11/07/94	B0D722	5.90 U			4.10 U
199-N-73	11/07/94	B0D723			5.70 L	
199-N-73	11/07/94	B0D724	5.90 U			4.10 U
199-N-77	11/07/94	B0D725			4.10 U	
199-N-77	11/07/94	B0D726	5.90 U			4.10 U

Well Name	Collection Date	Sample Number	FLUORID 124/ppb 51/1400i	ALPHA 135/pCi/L ./15	BETA 136/pCi/L ./.	IRON 34/ppb 18/300s
199-N-14	9/09/94	B0C945				510.00 Q
199-N-14	9/09/94	B0CCL7	500.00	.02	1920.00	
199-N-2	9/09/94	B0C970				99.00 Q
199-N-27	9/09/94	B0C9D3				120.00 Q
199-N-29	9/09/94	B0C9D8				33.00 Q
199-N-3	9/09/94	B0C975				280.00 Q
199-N-3	9/09/94	B0CCD2		7.25	1680.00	
199-N-34	11/04/94	B0D624	500.00	1.94	85.10	240.00
199-N-43	10/31/94	B0D613	400.00	1.63	3.74	940.00 Q
199-N-70	9/09/94	B0C9G8				370.00 Q
199-N-71	11/04/94	B0D714	500.00			190.00
199-N-72	11/07/94	B0D719	600.00			440.00 B
199-N-72	11/07/94	B0D720	600.00			560.00 B
199-N-73	11/07/94	B0D723	700.00			860.00 B
199-N-77	11/07/94	B0D725	800.00			45.00 B

Table 4-4. Constituents with at Least One Detected Value for
the 100-N RCRA Sites Data for Reporting Period
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Well Name	Collection Date	Sample Number	FIRON 34/ppb 18/300s	LEAD 40/ppb .86/50i	FLEAD 40/ppb .86/50i	MAGNES 34/ppb 25/.
199-N-14	9/09/94	B0C945				4400.00
199-N-14	9/09/94	B0C949	18.00 UQ			
199-N-2	9/09/94	B0C970				6800.00
199-N-2	9/09/94	B0C974	18.00 UQ			
199-N-27	9/09/94	B0C9D3				10000.00
199-N-27	9/09/94	B0C9D7	18.00 UQ			
199-N-29	9/09/94	B0C9D8				7900.00
199-N-29	9/09/94	B0C9F2	18.00 UQ			
199-N-3	9/09/94	B0C975				24000.00
199-N-3	9/09/94	B0C979	18.00 UQ			
199-N-34	11/04/94	B0D6Z4		1.50 U		9300.00
199-N-34	11/04/94	B0D6Z8	5.24 U		1.50 U	
199-N-43	10/31/94	B0D613		2.20 L		11000.00
199-N-43	10/31/94	B0D617	18.00 LQ		1.50 U	
199-N-70	9/09/94	B0C9G8				9100.00
199-N-70	9/09/94	B0C9H2	57.00 Q			
199-N-71	11/04/94	B0D714		2.10 BL		4700.00
199-N-71	11/04/94	B0D718	12.00 L		1.50 U	
199-N-72	11/07/94	B0D719		1.50 U		13000.00 B
199-N-72	11/07/94	B0D720		1.50 U		13000.00 B
199-N-72	11/07/94	B0D721	23.00 B		1.50 U	
199-N-72	11/07/94	B0D722	28.00 B		1.50 BL	
199-N-73	11/07/94	B0D723		1.50 U		6400.00 B
199-N-73	11/07/94	B0D724	16.00 BL		1.50 U	
199-N-77	11/07/94	B0D725		1.50 U		14000.00 B
199-N-77	11/07/94	B0D726	14.00 BL		1.50 U	

Well Name	Collection Date	Sample Number	FMAGNES 34/ppb 25/.	MANGESE 34/ppb 1/50s	FMANGAN 34/ppb 1/50s	MERCURY 41/ppb .095/2
199-N-14	9/09/94	B0C945		4.20 L		
199-N-14	9/09/94	B0C949	4400.00		1.00 U	
199-N-2	9/09/94	B0C970		4.00 L		
199-N-2	9/09/94	B0C974	6800.00		1.00 U	
199-N-27	9/09/94	B0C9D3		1.70 L		
199-N-27	9/09/94	B0C9D7	10000.00		1.40 L	
199-N-29	9/09/94	B0C9D8		1.00 U		
199-N-29	9/09/94	B0C9F2	7900.00		1.00 U	
199-N-3	9/09/94	B0C975		5.20 L		
199-N-3	9/09/94	B0C979	24000.00		1.00 U	
199-N-34	11/04/94	B0D6Z4		7.50 L		.05 U
199-N-34	11/04/94	B0D6Z8	9300.00		2.30 L	
199-N-43	10/31/94	B0D613		48.00		
199-N-43	10/31/94	B0D617	12000.00		3.30 L	
199-N-70	9/09/94	B0C9G8		6.70 L		
199-N-70	9/09/94	B0C9H2	9000.00		2.70 L	
199-N-71	11/04/94	B0D714		6.30 L		
199-N-71	11/04/94	B0D718	4700.00		2.50 L	
199-N-72	11/07/94	B0D719		11.00		
199-N-72	11/07/94	B0D720		14.00		
199-N-72	11/07/94	B0D721	12000.00 B		2.70 L	
199-N-72	11/07/94	B0D722	12000.00 B		2.80 L	
199-N-73	11/07/94	B0D723		21.00		
199-N-73	11/07/94	B0D724	6200.00 B		3.90 L	

Table 4-4. Constituents with at Least One Detected Value for
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Well Name	Collection Date	Sample Number	FMERCUR 41/ppb .095/2	NICKEL 34/ppb 16/.	FNICKEL 34/ppb 16/.	NITRATE 124/ppb 96/45000
199-N-77	11/07/94	B0D725		2.30 L		
199-N-77	11/07/94	B0D726	14000.00 B		1.60 L	
199-N-14	9/09/94	B0C945		16.00 U		
199-N-14	9/09/94	B0C949			16.00 U	
199-N-14	9/09/94	B0CCL7				13000.00 D
199-N-2	9/09/94	B0C970		16.00 U		
199-N-2	9/09/94	B0C974			16.00 U	
199-N-27	9/09/94	B0C9D3		16.00 U		
199-N-27	9/09/94	B0C9D7			16.00 U	
199-N-29	9/09/94	B0C9D8		16.00 U		
199-N-29	9/09/94	B0C9F2			16.00 U	
199-N-3	9/09/94	B0C975		16.00 U		
199-N-3	9/09/94	B0C979			16.00 U	
199-N-34	11/04/94	B0D624		13.00 L		14000.00 D
199-N-34	11/04/94	B0D628	.05 L		13.00 U	
199-N-43	10/31/94	B0D613		13.00 U		19000.00 D
199-N-43	10/31/94	B0D617			13.00 U	
199-N-70	9/09/94	B0C9G8		27.00 L		
199-N-70	9/09/94	B0C9H2			16.00 U	
199-N-71	11/04/94	B0D714		21.00 L		1700.00
199-N-71	11/04/94	B0D718			13.00 L	
199-N-72	11/07/94	B0D719		28.00 L		3900.00
199-N-72	11/07/94	B0D720		24.00 L		4000.00
199-N-72	11/07/94	B0D721			13.00 U	
199-N-72	11/07/94	B0D722			15.00 L	
199-N-73	11/07/94	B0D723		37.00		5600.00
199-N-73	11/07/94	B0D724			13.00 U	
199-N-77	11/07/94	B0D725		13.00 L		2700.00
199-N-77	11/07/94	B0D726			13.00 U	

Table 4-4. Constituents with at Least One Detected Value for
the 100-N RCRA Sites Data for Reporting Period
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(sheet 8 of 9)

Well Name	Collection Date	Sample Number	POTASUM 34/ppb 890/.	FPOTASS 34/ppb 890/.	RU-106 140/pCi/L ./30	SODIUM 34/ppb 150/.
199-N-14	9/09/94	B0C945	1200.00			3400.00
199-N-14	9/09/94	B0C949		1500.00		
199-N-14	9/09/94	B0CCL7			-10.80	
199-N-2	9/09/94	B0C970	2000.00			3000.00
199-N-2	9/09/94	B0C974		1900.00		
199-N-27	9/09/94	B0C903	3700.00			8200.00
199-N-27	9/09/94	B0C907		3800.00		
199-N-29	9/09/94	B0C908	2900.00			3600.00
199-N-29	9/09/94	B0C9F2		2600.00		
199-N-3	9/09/94	B0C975	3700.00			16000.00
199-N-3	9/09/94	B0C979		3400.00		
199-N-3	9/09/94	B0CCD2			35.50	
199-N-34	11/04/94	B0D624	3700.00		-4.29 U	4200.00
199-N-34	11/04/94	B0D628		3600.00		
199-N-43	10/31/94	B0D613	3800.00		-18.50 U	13000.00
199-N-43	10/31/94	B0D617		3700.00		
199-N-70	9/09/94	B0C9G8	3200.00			6400.00
199-N-70	9/09/94	B0C9H2		3200.00		
199-N-71	11/04/94	B0D714	3800.00			35000.00
199-N-71	11/04/94	B0D718		3800.00		
199-N-72	11/07/94	B0D719	4900.00			30000.00 B
199-N-72	11/07/94	B0D720	4800.00			30000.00 B
199-N-72	11/07/94	B0D721		4700.00		
199-N-72	11/07/94	B0D722		4700.00		
199-N-73	11/07/94	B0D723	3500.00			240000.00 B
199-N-73	11/07/94	B0D724		3100.00		
199-N-77	11/07/94	B0D725	5300.00			160000.00 B
199-N-77	11/07/94	B0D726		5100.00		

Well Name	Collection Date	Sample Number	FSODIUM 34/ppb 150/.	SR-90 141/pCi/L ./8	SULFATE 124/ppb 89/250000s	TC 127/ppb 320/.
199-N-14	9/09/94	B0C949	3400.00			
199-N-14	9/09/94	B0CCL7		1210.00	15000.00 D	
199-N-2	9/09/94	B0C974	3100.00			
199-N-27	9/09/94	B0C907	8200.00			
199-N-29	9/09/94	B0C9F2	3500.00			
199-N-3	9/09/94	B0C979	16000.00			
199-N-3	9/09/94	B0CCD2		927.00		
199-N-34	11/04/94	B0D624		48.90	82000.00 D	
199-N-34	11/04/94	B0D628	4100.00			
199-N-43	10/31/94	B0D613		-.06 U	55000.00 D	
199-N-43	10/31/94	B0D617	13000.00			
199-N-70	9/09/94	B0C9H2	6400.00			
199-N-71	11/04/94	B0D714			25000.00 D	26000.00 BQ
199-N-71	11/04/94	B0D718	36000.00			
199-N-72	11/07/94	B0D719			140000.00 D	20000.00 BQ
199-N-72	11/07/94	B0D720			140000.00 D	20000.00 BQ
199-N-72	11/07/94	B0D721	29000.00 B			
199-N-72	11/07/94	B0D722	29000.00 B			
199-N-73	11/07/94	B0D723			530000.00 D	24000.00 BQ
199-N-73	11/07/94	B0D724	240000.00 B			
199-N-77	11/07/94	B0D725			460000.00 D	22000.00 BQ
199-N-77	11/07/94	B0D726	170000.00 B			

Table 4-4. Constituents with at Least One Detected Value for
the 100-N RCRA Sites Data for Reporting Period
October 1 through December 31, 1994.
(sheet 9 of 9)

Well Name	Collection Date	Sample Number	TDS 65/ppm 10/500s	TRITIUM 142/pCi/L ./20000	TURBID 126/NTU .016/.	URANIUM 145/ppb ./.
199-N-14	9/09/94	B0CCL7		63100.00		.32
199-N-3	9/09/94	B0CCD2		20800.00		
199-N-34	11/04/94	B0D624		23900.00	2.10	
199-N-43	10/31/94	B0D613		29600.00		
199-N-71	11/04/94	B0D714	190.00		2.10	
199-N-72	11/07/94	B0D719	380.00		9.10 Q	
199-N-72	11/07/94	B0D720	370.00		9.30 Q	
199-N-73	11/07/94	B0D723	910.00		14.00 Q	
199-N-77	11/07/94	B0D725	800.00		.73 Q	

Well Name	Collection Date	Sample Number	VANADIUM 34/ppb 6.4/.	FVANADI 34/ppb 6.4/.	ZINC 34/ppb 4.4/5000s	FZINC 34/ppb 4.4/5000s
199-N-14	9/09/94	B0C945	6.40 U		9.70 LQ	
199-N-14	9/09/94	B0C949		7.50 L		4.40 UQ
199-N-2	9/09/94	B0C970	6.40 U		4.90 LQ	
199-N-2	9/09/94	B0C974		6.40 U		4.40 UQ
199-N-27	9/09/94	B0C9D3	6.40 U		4.40 UQ	
199-N-27	9/09/94	B0C9D7		6.40 U		4.40 UQ
199-N-29	9/09/94	B0C9D8	7.10 L		15.00 Q	
199-N-29	9/09/94	B0C9F2		6.40 U		5.80 LQ
199-N-3	9/09/94	B0C975	6.40 U		20.00 Q	
199-N-3	9/09/94	B0C979		6.40 U		16.00 Q
199-N-34	11/04/94	B0D624	6.60 U		44.00	
199-N-34	11/04/94	B0D628		6.60 U		7.20 L
199-N-43	10/31/94	B0D613	30.00 L		56.00	
199-N-43	10/31/94	B0D617		25.00 L		12.00
199-N-70	9/09/94	B0C9G8	14.00 L		17.00 Q	
199-N-70	9/09/94	B0C9H2		14.00 L		4.40 UQ
199-N-71	11/04/94	B0D714	28.00 L		6.30 U	
199-N-71	11/04/94	B0D718		28.00 L		9.80 L
199-N-72	11/07/94	B0D719	7.40 L		7.20 LQ	
199-N-72	11/07/94	B0D720	6.60 U		14.00 Q	
199-N-72	11/07/94	B0D721		6.60 U		6.30 U
199-N-72	11/07/94	B0D722		6.60 U		6.30 U
199-N-73	11/07/94	B0D723	11.00 L		8.20 L	
199-N-73	11/07/94	B0D724		9.80 L		6.30 U
199-N-77	11/07/94	B0D725	10.00 L		6.30 U	
199-N-77	11/07/94	B0D726		7.60 L		6.30 U

For explanation of this table, see Section 1.4 of report.

Table 4-5. Contamination Indicator Parameters for the 100-N RCRA Sites.
 Data for Reporting Period October 1 through December 31, 1994.
 (sheet 1 of 1)

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
199-N-34	11/04/94	B0D624	340	370	7.89	8.20	200 LB	6.9
		B0D625	340		7.88		300 LB	7.3
		B0D626	340		7.89		200 LB	6.8
		B0D627	340		7.89		200 LB	9.9
199-N-43	10/31/94	B0D613	287	340	7.49 F	8.10 F	300 L	6.6
		B0D614	285		7.52 F		200 L	6.3
		B0D615	284		7.55 F		200 L	13.2
		B0D616	283		7.56 F		300 L	6.1
199-N-71	11/04/94	B0D714	238	280	8.16	8.30	300 LB	6.2
		B0D715	237		8.17		200 LB	6.9
		B0D716	236		8.16		200 LB	8.5
		B0D717	236		8.17		200 LB	8.4
199-N-72	11/07/94	B0D719	445	540	7.47 F	8.10	300 LBQ	28.2 q
		B0D720		540		8.10	400 LBQ	26.6 q
199-N-73	11/07/94	B0D723	1080	1300	6.37 F	8.20	400 LBQ	10.5 q
199-N-74	11/04/94	B0D703	391		7.47			11.7
		B0D704	390		7.49			9.2
		B0D705	390		7.51			6.9
		B0D706	390		7.52			10.8
199-N-77	11/07/94	B0D725	1009	1200	7.65	8.10	300 LBQ	15.4 q

For explanation of this table, see Section 1.4 of report.

Table 4-6. Drinking Water Standards Exceeded for 100-N Area RCRA Sites, Fourth Quarter 1994.

Constituent (DWS)	Wells exceeding DWS (number of samples)
Field pH (6.5 - 8.5)	N-73 ^a
Chromium, unfiltered samples (50 ppb)	1324-N/NA: N-72. 1325-N: N-70
Chromium, filtered samples (50 ppb)	none.
Iron, unfiltered samples (300 ppb)	1301-N: N-14 1324-N/NA: N-72 (2), N-73 1325-N: N-43, N-70
Iron, filtered sample (300 ppb)	none.
Ruthenium-106 (30 pCi/L)	1301-N: N-3.
Sulfate (250,000 ppb)	1324-N/NA: N-73, N-77.
Strontium-90 (8 pCi/L)	1301-N: N-14, N-3, N-34.
Tritium (20,000 pCi/L)	1301-N: N-14, N-3, N-34. 1325-N: N-43.

^aData are in question. Requests for Analytical Data Evaluation were submitted.

DWS = drinking water standard.

Table 4-7. Requests for Analytical Data Evaluation
for the 100-N RCRA Sites, Fourth Quarter 1994.

Well no.	Sample date	Constituent	Reason
1325-N LWDF			
N-43	10/31/94	pH (lab and field)	Lab and field values do not agree. Insufficient historical data to judge which is more representative.
1324-N/NA Facility.			
N-72	11/7/94	pH (field)	Lower than historical trend; lower than laboratory pH.
N-73	11/7/94	pH (field)	Lower than historical trend; lower than laboratory pH.

LWDF = Liquid Waste Disposal Facility.

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5.0 216-B-3 POND SYSTEM

D. B. Barnett
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5.1 INTRODUCTION

The 216-B-3 Pond System is located east of the 200 East Area and originally consisted of a main pond and three expansion ponds for wastewater disposal. Several ditches leading to the ponds and the main pond itself are no longer in use and are backfilled (Figures 1-1 and 5-1). These surface impoundments cover approximately 41.3 hectares (102 acres). Only the 3C expansion pond now receives wastewater. Table 5-1 lists the groundwater wells and their monitoring status.

The 216-B-3 Pond System groundwater monitoring well locations are shown in Figure 5-1. Detection monitoring began at the 216-B-3 Pond System in November 1988 and continued through June 1990, when assessment monitoring was scheduled to begin because of elevated levels of TOX in two downgradient monitoring wells (699-43-41E and 699-43-41F). Assessment monitoring actually began in June 1991 when groundwater sampling on the Hanford Site resumed, following a hiatus, as described in the *Groundwater Quality Assessment Plan for the 216-B-3 Pond System* (Harris 1990). Thus far, no specific constituents have been demonstrably linked to the elevated TOX results.

5.2 WATER LEVEL DATA

Water levels were measured monthly, and once during sample events, in all wells during the October through December 1994 period. Table 5-2 lists the results of the water level measurements. Results for some wells are outside of the expected range of water levels for those wells, and may be in error. The suspected measurements are in wells 299-E32-4, 699-40-40B, 699-41-42, 699-42-37, 699-42-40A, 699-43-41G, and 699-43-42J.

5.3 WATER CHEMISTRY DATA

All wells scheduled for the October through December 1994 sampling were sampled during October, except upgradient wells 299-E18-1 and 299-E32-4, which were sampled in December. Any results for the period that are unavailable as of the writing of this report will be reported in future quarterly reports.

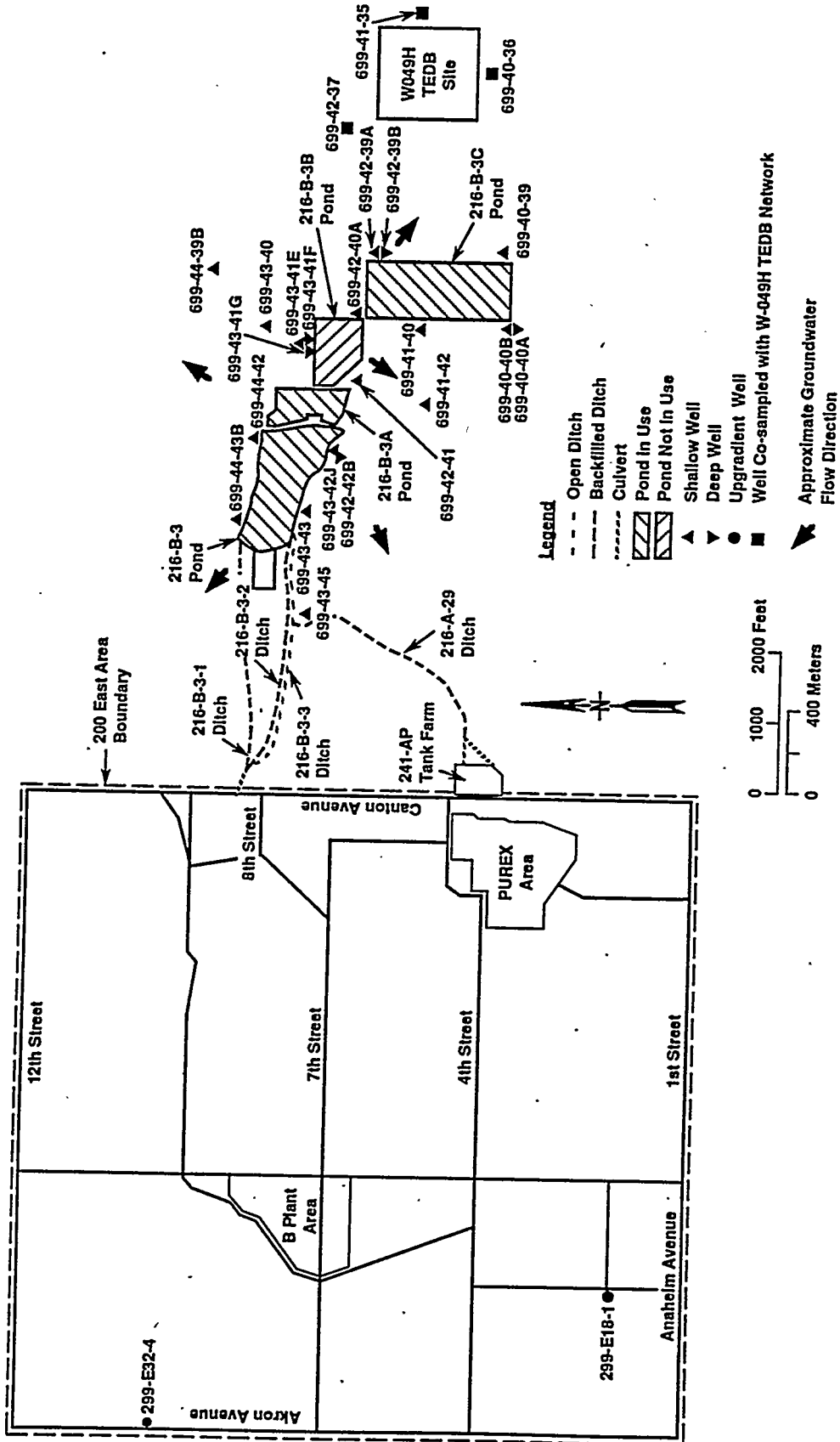
The list of constituents for which data were received and the summary of results available are given in Table 5-3. The results of the available analyses, for constituents with at least one value above the MDL, are reported in Table 5-4. Results of analyses for CIPs are reported in Table 5-5. Explanations of data flags and qualifiers are given in Section 1.4.

Constituents exceeding DWS during the October through December 1994 period are listed in Table 5-6. The constituent list for this quarter

includes those required by regulations and compounds under investigation for links to TOX occurrence. Groundwater monitoring requirements and strategy for the 216-B-3 Pond System are described by Sweeney (1995).

A RADE has been submitted for a result of 24 ppb diethyl phthalate in well 699-40-40B. This compound has not been previously detected in this well. This well also produced an elevated average result for TOX, but the diethyl phthalate cannot be directly correlated to TOX occurrence. A companion well, 699-40-40A, produced a result of 7.2 ppb of tris-2-chloroethyl phosphate. A RADE was also submitted for the tritium result in upgradient well 299-E18-1. This result is ten times higher than any previous tritium results from this well and may be erroneous.

Figure 5-1. 216-B-3 Pond Groundwater Monitoring Network.



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Table 5-1. Monitoring Well Purpose and Sampling Schedule
for the 216-B-3 Pond System Network.

Well no.	Relative position	Hydrogeologic unit	Sample frequency	Sample date, 4th Qtr 1994
299-E18-1 ^a	Upgradient	Hanford: Water Table	Quarterly	12/01/94
299-E32-4 ^b	Upgradient	Hanford: Water Table	Quarterly	12/13/94
699-40-36 ^c	Downgradient	Ringold: Top of Confined	Quarterly	10/27/94
699-40-39	Downgradient	Ringold: Upper Confined	Quarterly	10/25/94
699-40-40A	Downgradient	Ringold: Lower Confined	Quarterly	10/12/94
699-40-40B	Downgradient	Ringold: Upper Confined	Quarterly	10/14/94
699-41-35 ^c	Downgradient	Ringold: Top of Confined	Quarterly	10/27/94
699-41-40	Downgradient	Ringold: Upper Confined	Quarterly	10/24/94
699-41-42	Downgradient	Ringold: Top of Confined	Quarterly	10/20/94
699-42-37 ^c	Downgradient	Ringold: Top of Confined	Quarterly	10/27/94
699-42-39A	Downgradient	Ringold: Upper Confined	Quarterly	10/12/94
699-42-39B	Downgradient	Ringold: Lower Confined	Quarterly	10/12/94
699-42-40A	Downgradient	Ringold: Upper Confined	Quarterly	10/24/94
699-42-41	Downgradient	Ringold: Water Table	Quarterly	10/19/94
699-42-42B	Downgradient	Ringold: Lower Unconfined	Quarterly	10/20/94
699-43-40	Downgradient	Ringold: Water Table	Quarterly	10/19/94
699-43-41E	Downgradient	Ringold: Upper Confined	Quarterly	10/19/94
699-43-41F	Downgradient	Ringold: Lower Confined	Quarterly	10/20/94
699-43-41G	Downgradient	Ringold: Bottom of Confined	Quarterly	10/19/94
699-43-42J	Downgradient	Ringold: Water Table	Quarterly	10/20/94
699-43-43 ^d	Downgradient	Hanford/Ringold: Water Table	Quarterly	10/06/94
699-43-45 ^d	Downgradient	Hanford/Ringold: Water Table	Quarterly	10/06/94
699-44-39B	Downgradient	Ringold: Water Table	Quarterly	10/20/94
699-44-42	Downgradient	Ringold: Water Table	Quarterly	10/20/94
699-44-43B	Downgradient	Ringold: Water Table	Quarterly	10/21/94

^aWell shared with the 2101-M Pond network.

^bWell shared with the Low-Level Waste Burial Grounds network.

^cWells shared with the W-049H Treated Effluent Disposal Basin network.

^dWells shared with the 216-A-29 Ditch network.

Table 5-2. RCRA Water Level Measurement Report
 216-B-3 Pond System, Fourth Quarter 1994.
 (sheet 1 of 4)

Well	Date	Depth to water (ft)	Water level elevation above msl	
			(ft)	(m)
299-E18-1	10/27/94	318.89	401.35	122.33
	11/28/94	318.85	401.39	122.34
	12/01/94	318.99	401.25*	122.30
	12/15/94	318.67	401.57	122.40
299-E32-4	10/11/94	284.79	401.09*	122.25
	12/13/94	284.93	400.95*+	122.21
	12/14/94	284.53	401.35	122.33
699-40-36	10/24/94	118.17	410.75	125.20
	10/27/94	117.90	411.02*	125.28
	11/17/94	117.95	410.97	125.26
	12/12/94	118.03	410.89	125.24
699-40-39	10/24/94	129.23	412.61	125.76
	10/25/94	129.14	412.70*	125.79
	11/17/94	128.96	412.88	125.85
	12/12/94	129.29	412.55	125.75
699-40-40A	10/12/94	129.87	411.34*	125.38
	10/24/94	129.70	411.51	125.43
	11/17/94	129.50	411.71	125.49
	12/12/94	129.93	411.28	125.36
699-40-40B	10/14/94	129.45	412.73*+	125.80
	10/24/94	130.35	411.83	125.53
	11/17/94	130.16	412.02	125.58
	12/12/94	130.61	411.57	125.45
699-41-35	10/24/94	108.66	411.72	125.49
	10/27/94	108.30	412.08*	125.60
	11/17/94	108.37	412.01	125.58
	12/12/94	108.44	411.94	125.56
699-41-40	10/24/94	130.17	415.77	126.73
	10/24/94	130.15	415.79*	126.73
	11/17/94	129.93	416.01	126.80
	12/12/94	130.53	415.41	126.62
699-41-42	10/20/94	231.55	412.36*+	125.69
	10/24/94	232.44	411.47	125.42
	11/17/94	232.33	411.58	125.45

Table 5-2. RCRA Water Level Measurement Report
 216-B-3 Pond System, Fourth Quarter 1994.
 (sheet 2 of 4)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
699-41-42	12/12/94	232.86	411.05	125.29
699-42-37	10/24/94	104.55	414.85	126.45
	10/27/94	204.98	314.42*+	95.84
	11/17/94	104.20	415.20	126.55
	12/12/94	104.35	415.05	126.51
699-42-39A	10/12/94	139.85	418.29*	127.49
	10/24/94	138.54	419.60	127.89
	11/17/94	138.30	419.84	127.97
	12/12/94	138.59	419.55	127.88
699-42-39B	10/12/94	139.75	418.57*	127.58
	10/24/94	138.97	419.35	127.82
	11/17/94	138.71	419.61	127.90
	12/12/94	138.93	419.39	127.83
699-42-40A	10/24/94	123.64	421.89*+	128.59
	10/24/94	123.28	422.25	128.70
	11/17/94	122.58	422.95	128.92
	12/12/94	123.91	421.62	128.51
699-42-41	10/19/94	146.38	420.92*	128.30
	10/24/94	146.67	420.63	128.21
	11/17/94	146.13	421.17	128.37
	12/12/94	147.07	420.23	128.09
699-42-42B	10/20/94	166.50	416.73*	127.02
	10/24/94	166.85	416.38	126.91
	11/17/94	166.71	416.52	126.96
	12/12/94	167.38	415.85	126.75
699-43-40	10/19/94	120.63	421.57*	128.49
	10/24/94	120.91	421.29	128.41
	11/17/94	120.98	421.22	128.39
	12/12/94	121.61	420.59	128.20
699-43-41E	10/19/94	129.25	421.61*	128.51
	10/24/94	129.90	420.96	128.31
	11/17/94	129.74	421.12	128.36
	12/12/94	130.33	420.53	128.18

Table 5-2. RCRA Water Level Measurement Report
 216-B-3 Pond System, Fourth Quarter 1994.
 (sheet 3 of 4)

Well	Date	Depth to water (ft)	Water level elevation above msl	
			(ft)	(m)
699-43-41F	10/20/94	130.02	420.99*	128.32
	10/24/94	129.98	421.03	128.33
	11/17/94	129.77	421.24	128.39
	12/12/94	130.40	420.61	128.20
699-43-41G	10/19/94	133.67	417.67*+	127.31
	10/24/94	134.03	417.31	127.20
	11/17/94	134.02	417.32	127.20
	12/12/94	134.56	416.78	127.03
699-43-42J	10/20/94	163.21	418.47*+	127.55
	10/24/94	163.70	417.98	127.40
	11/17/94	163.58	418.10	127.44
	12/12/94	164.34	417.34	127.21
699-43-43	10/06/94	164.75	414.62*	126.38
	10/24/94	165.34	414.03	126.20
	11/17/94	165.28	414.09	126.21
	12/12/94	165.92	413.45	126.02
699-43-45	10/06/94	195.00	402.68*	122.74
	10/24/94	195.01	402.67	122.73
	11/17/94	195.04	402.64	122.72
	12/12/94	195.17	402.51	122.69
699-44-39B	10/20/94	91.46	421.94*+	128.61
	10/24/94	92.05	421.35	128.43
	11/17/94	92.01	421.39	128.44
	12/12/94	92.75	420.65	128.21
699-44-42	10/20/94	159.00	420.22*	128.08
	10/24/94	159.21	420.01	128.02
	11/17/94	159.13	420.09	128.04
	12/12/94	159.79	419.43	127.84
699-44-43B	10/21/94	165.65	414.47*	126.33
	10/24/94	165.83	414.29	126.28
	11/17/94	165.97	414.15	126.23
	12/12/94	166.20	413.92	126.16

Table 5-2. RCRA Water Level Measurement Report
216-B-3 Pond System, Fourth Quarter 1994.
(sheet 4 of 4)

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- NOTES:
1. Water level elevations are calculated by subtracting the measured depth-to-water from the surveyed elevation for the well.
 2. Depth-to-water values are transcribed from field records.
 3. Elevations marked with an '*' were measured at the time of sampling.
 4. Elevation marked with a '+' are outside of the expected range, and are suspected of error.

Table 5-3. Constituent List and Summary of Results for the 216-B-3 Pond
Data for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 3)

CONTAMINATION INDICATOR PARAMETERS

Short	(Method)	Constituent Name		Units	Lab		DWS	Agency	Number of Samples		
		Full			MDL	Limit			Total	>MDL	>DWS
CONDUCT	94	Conductivity, field	umhos		1				111	111	
CONDUCT	73	Conductivity, lab	umhos						3	3	
TOC		Total Organic Carbon	ppb		110				112	101	
TOX		Total Organic Halogen	ppb		5				111	41	
PH	93	pH, field	pH		.01	6.5-8.5	EPAS		111	111	0
PH	125	pH, lab	pH			6.5-8.5	EPAS		.28	28	1

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name		Units	Lab		DWS	Agency	Number of Samples		
		Full			MDL	Limit			Total	>MDL	>DWS
ARSENIC		Arsenic	ppb		2.8	50	EPA		1	0	0
FARSENIC		Arsenic, filtered	ppb		2.8	50	EPA		1	0	0
BARIUM		Barium	ppb		.59	1000	EPAI		4	4	0
FBARIUM		Barium, filtered	ppb		.59	1000	EPAI		4	4	0
CADMIUM		Cadmium	ppb		3.3	10	EPAI		4	0	0
FCADMIU		Cadmium, filtered	ppb		3.3	10	EPAI		4	0	0
CHROMIUM		Chromium	ppb		4.5	50	EPAI		4	4	0
FCHROMI		Chromium, filtered	ppb		4.5	50	EPAI		4	2	0
FLUORID		Fluoride	ppb		36	1400	EPAI		4	4	0
ALPHA		Gross alpha	pCi/L			15	EPA		4	3	0
MERCURY		Mercury	ppb		.05	2	EPA		1	1	0
FMERCUR		Mercury, filtered	ppb		.05	2	EPA		1	1	0
NITRATE		Nitrate	ppb		11	45000	EPA		4	4	0
RADIUM		Radium	pCi/L			5	EPAI		1	0	0
SELENIUM		Selenium	ppb		.65	10	EPAI		1	1	0
FSELENI		Selenium, filtered	ppb		.65	10	EPAI		1	1	0

GROUNDWATER QUALITY PARAMETERS

Short	(Method)	Constituent Name		Units	Lab		DWS	Agency	Number of Samples		
		Full			MDL	Limit			Total	>MDL	>DWS
CHLORID		Chloride	ppb		14	250000	EPAS		4	4	0
IRON		Iron	ppb		5.24	300	EPAS		4	4	2
FIRON		Iron, filtered	ppb		5.24	300	EPAS		4	4	0
MANGESE		Manganese	ppb		.72	50	EPAS		4	4	0
FMANGAN		Manganese, filtered	ppb		.72	50	EPAS		4	4	0
LPHENOL	19	Phenol	ppb		.54				28	0	
LPHENOL	30	Phenol	ppb		.31				3	0	
SODIUM		Sodium	ppb		61				4	4	
FSODIUM		Sodium, filtered	ppb		61				4	4	
SULFATE		Sulfate	ppb		37	250000	EPAS		4	4	0

Table 5-3. Constituent List and Summary of Results for the 216-B-3 Pond
Data for Reporting Period October 1 through December 31, 1994.
(sheet 2 of 3)

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name	Full	Units	Lab MDL	DWS Limit	Agency	Number of Samples		
								Total	>MDL	>DWS
1,1,1-T		1,1,1-Trichloroethane		ppb	.036	200	EPA	1	0	0
1,1,2-T		1,1,2-Trichloroethane		ppb	.078			1	0	
1,1-DIC		1,1-Dichloroethane		ppb	.058			1	0	
1,2-DIC		1,2-Dichloroethane		ppb	.029	5	EPA	1	0	0
14-dben		1,4-Dichlorobenzene		ppb	.055	75	EPA	1	0	0
246-trp		2,4,6-Trichlorophenol		ppb	1.3			3	0	
24-dchp	19	2,4-Dichlorophenol		ppb	4			28	0	
24-dchp	30	2,4-Dichlorophenol		ppb	1.3			3	0	
DIMPHEN		2,4-Dimethylphenol		ppb	1.2			3	0	
DINPHEN		2,4-Dinitrophenol		ppb	3			3	0	
26-dchp		2,6-Dichlorophenol		ppb	1.4			3	0	
CHLPHEN		2-Chlorophenol		ppb	1.6			3	0	
2METHPH		2-Methylphenol		ppb	5.1			28	0	
2NITPH	19	2-Nitrophenol		ppb	1.9			28	0	
2NITPH	30	2-Nitrophenol		ppb	1.3			3	0	
BUTDINP		2-sec-Butyl-4,6-dinitrophenol (DN)		ppb	1.3			3	0	
46DN2MP		4,6-Dinitro-2-methylphenol		ppb	1.3			3	0	
CHLCRES		4-Chloro-3-methylphenol		ppb	1.3			3	0	
4METHPH		4-Methylphenol		ppb	7			28	0	
NITPHEN		4-Nitrophenol		ppb	3			3	0	
ALUMNUM		Aluminum		ppb	26			4	1	
FALUMIN		Aluminum, filtered		ppb	26			4	0	
AMMONIU		Ammonium ion		ppb	37			2	0	
ANTIONY		Antimony		ppb	62			4	0	
FANTIMO		Antimony, filtered		ppb	62			4	0	
BENZENE		Benzene		ppb	.013	5	EPA	1	0	0
BENZOTH		Benzothiazole		ppb	1.3			28	0	
BERYLUM		Beryllium		ppb	.17			4	0	
FBERYLL		Beryllium, filtered		ppb	.17			4	0	
BIS2EPH		Bis(2-ethylhexyl) phthalate		ppb	5.3			28	0	
BROMIDE		Bromide		ppb	100			4	1	
CALCIUM		Calcium		ppb	34			4	4	
FCALCIU		Calcium, filtered		ppb	34			4	4	
TETRANE		Carbon tetrachloride		ppb	.075	5	EPA	1	0	0
CHLFORM		Chloroform		ppb	.041			1	0	
COBALT		Cobalt		ppb	5.9			4	0	
FCOBALT		Cobalt, filtered		ppb	5.9			4	0	
COLIFORM		Coliforms		COL	1	1	EPAI	24	0	0
COPPER		Copper		ppb	4.1	1000	EPAS	4	1	0
FCOPPER		Copper, filtered		ppb	4.1	1000	EPAS	4	0	0
CRESOLS		Cresols (methylphenols)		ppb	4.8			3	0	
CYANIDE		Cyanide		ppb	1			1	0	
DECANE		Decane		ppb	1.9			28	0	
DIEPHTH		Diethyl phthalate		ppb	5.5			1	1	
DODECAN		Dodecane		ppb	1.1			28	0	
ETHBENZ		Ethylbenzene		ppb	.051	700	EPA	1	0	0
BETA		Gross beta		pCi/L				4	4	
LHYDRAZ		Hydrazine		ppb	1.6			2	0	
LEAD		Lead		ppb	1.5	50	EPAI	1	1	0
FLEAD		Lead, filtered		ppb	1.5	50	EPAI	1	0	0
MAGNES		Magnesium		ppb	23			4	4	
FMAGNES		Magnesium, filtered		ppb	23			4	4	
METHYCH		Methylene chloride		ppb	.09			1	0	
NAPHTHA		Naphthalene		ppb	1.2			28	0	
NICKEL		Nickel		ppb	13			4	1	
FNICKEL		Nickel, filtered		ppb	13			4	0	

Table 5-3. Constituent List and Summary of Results for the 216-B-3 Pond
Data for Reporting Period October 1 through December 31, 1994.
(sheet 3 of 3)

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
NITRITE		Nitrite	ppb	18	1000		EPA	4	0	0
PENTCHP	19	Pentachlorophenol	ppb	8.3	1		EPA	28	0	28*
PENTCHP	30	Pentachlorophenol	ppb	1.3	1		EPA	3	0	3*
PHOSPHA		Phosphate	ppb	82				4	0	
POTASUM		Potassium	ppb	850				4	4	
FPOTASS		Potassium, filtered	ppb	850				4	4	
SILVER		Silver	ppb	3.6	50		EPAI	4	0	0
FSILVER		Silver, filtered	ppb	3.6	50		EPAI	4	0	0
PERCENE		Tetrachloroethene	ppb	.22	5		EPA	1	0	0
TETPHNL		Tetrachlorophenols	ppb	1.5				3	0	
TETRADE		Tetradecane	ppb	1.6				28	0	
TIN		Tin	ppb	69				4	0	
FTIN		Tin, filtered	ppb	69				4	0	
TOLUENE		Toluene	ppb	.016	1000		EPA	1	0	0
TRIBUTPH		Tributyl Phosphate	ppb	1.1				28	0	
TRICENE		Trichloroethene	ppb	.11	5		EPA	1	0	0
TRIPHNL		Trichlorophenols	ppb	1.7				3	0	
TDICHPH		Tris-2-chloroethyl phosphate	ppb	.61				28	1	
TRITIUM		Tritium	pCi/L		20000		EPA	28	20	9
TURBID		Turbidity	NTU	.016				28	28	
URANIUM		Uranium	ppb					2	2	
VANADUM		Vanadium	ppb	6.6				4	4	
FVANADI		Vanadium, filtered	ppb	6.6				4	4	
VINYIDE		Vinyl chloride	ppb	.13	2		EPA	1	0	0
XYLENE		Xylenes (total)	ppb	.035	10000		EPA	1	0	0
ZINC		Zinc	ppb	6.3	5000		EPAS	4	2	0
FZINC		Zinc, filtered	ppb	6.3	5000		EPAS	4	2	0
CIS12DE		cis-1,2-Dichloroethylene	ppb	.11	70		EPA	1	0	0
MCRESOL		m-Cresol	ppb	2.2				28	0	
TRANDE		trans-1,2-Dichloroethylene	ppb	.073	100		EPA	1	0	0

For explanation of this table, see Section 1.4 of report.

Table 5-4. Constituents with at Least One Detected Value for the 216-B-3 Pond
Data for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 4)

Well Name	Collection Date	Sample Number	ALUMNUM 34/ppb 19/.	FALUMIN 34/ppb 19/.	BARIUM 34/ppb 1.3/1000i	FBARIUM 34/ppb 1.3/1000i
299-E18-1	12/01/94	B0DC27	26.00 U		26.00	
299-E18-1	12/01/94	B0DD01		26.00 U		25.00
299-E32-4	12/13/94	B0DG01	64.00 BL		93.00	
299-E32-4	12/13/94	B0DG05		26.00 U		69.00
699-43-43	10/06/94	B0D2R5	26.00 U		9.30 L	
699-43-43	10/06/94	B0D2R9		26.00 U		9.30 L
699-43-45	10/06/94	B0D2S0	26.00 U		35.00	
699-43-45	10/06/94	B0D2S4		26.00 U		33.00

Well Name	Collection Date	Sample Number	BROMIDE 124/ppb 110/.	CALCIUM 34/ppb 47/.	FCALCIU 34/ppb 47/.	CHLORID 124/ppb 71/25000s
299-E18-1	12/01/94	B0DC27	70.00 L	49000.00		7500.00
299-E18-1	12/01/94	B0DD01			49000.00	
299-E32-4	12/13/94	B0DG01	100.00 L	39000.00		9200.00 q
299-E32-4	12/13/94	B0DG05			38000.00	
699-43-43	10/06/94	B0D2R5	100.00 U	22000.00		1600.00
699-43-43	10/06/94	B0D2R9			22000.00	
699-43-45	10/06/94	B0D2S0	100.00 U	30000.00		2400.00
699-43-45	10/06/94	B0D2S4			29000.00	

Well Name	Collection Date	Sample Number	CHROMUM 34/ppb 11/50i	FCHROMI 34/ppb 11/50i	COPPER 34/ppb 2.6/1000s	FCOPPER 34/ppb 2.6/1000s
299-E18-1	12/01/94	B0DC27	46.00		4.10 U	
299-E18-1	12/01/94	B0DD01		9.30 L		4.10 U
299-E32-4	12/13/94	B0DG01	27.00		4.10 U	
299-E32-4	12/13/94	B0DG05		4.50 U		4.10 U
699-43-43	10/06/94	B0D2R5	17.00 L		4.10 U	
699-43-43	10/06/94	B0D2R9		4.50 U		4.10 U
699-43-45	10/06/94	B0D2S0	24.00		8.40 L	
699-43-45	10/06/94	B0D2S4		5.10 L		4.10 U

Well Name	Collection Date	Sample Number	DIEPHTH 19/ppb 5/.	FLUORID 124/ppb 51/1400i	ALPHA 135/pCi/L ./15	BETA 136/pCi/L ./.
299-E18-1	12/01/94	B0DC27		600.00	4.33	8.93
299-E32-4	12/13/94	B0DG01		900.00	1.38	11.60
699-40-40B	10/14/94	B0D3B0	24.00			
699-43-43	10/06/94	B0D2R5		500.00	.32 U	3.60
699-43-45	10/06/94	B0D2S0		700.00	2.11	3.41

Table 5-4. Constituents with at Least One Detected Value for the 216-B-3 Pond
Data for Reporting Period October 1 through December 31, 1994.
(sheet 2 of 4)

Well Name	Collection Date	Sample Number	IRON 34/ppb 18/300s	FIRON 34/ppb 18/300s	LEAD 40/ppb .86/50i	FLEAD 40/ppb .86/50i
299-E18-1	12/01/94	B0DCZ7	310.00 B			
299-E18-1	12/01/94	B0DD01		17.00 LB		
299-E32-4	12/13/94	B0DG01	6400.00 BQ		6.00 B	
299-E32-4	12/13/94	B0DG05		98.00 BQ		1.50 U
699-43-43	10/06/94	B0D2R5	110.00 Q			
699-43-43	10/06/94	B0D2R9		31.00 Q		
699-43-45	10/06/94	B0D2S0	130.00 Q			
699-43-45	10/06/94	B0D2S4		33.00 Q		

Well Name	Collection Date	Sample Number	MAGNES 34/ppb 25/.	FMAGNES 34/ppb 25/.	MANGESE 34/ppb 1/50s	FMANGAN 34/ppb 1/50s
299-E18-1	12/01/94	B0DCZ7	13000.00		8.00 LB	
299-E18-1	12/01/94	B0DD01		13000.00		3.20 LB
299-E32-4	12/13/94	B0DG01	13000.00		17.00	
299-E32-4	12/13/94	B0DG05		12000.00		2.80 L
699-43-43	10/06/94	B0D2R5	5200.00		2.90 L	
699-43-43	10/06/94	B0D2R9		5300.00		2.20 L
699-43-45	10/06/94	B0D2S0	7200.00		3.80 L	
699-43-45	10/06/94	B0D2S4		7000.00		2.50 L

Well Name	Collection Date	Sample Number	MERCURY 41/ppb .095/2	FMERCUR 41/ppb .095/2	NICKEL 34/ppb 16/.	FNICKEL 34/ppb 16/.
299-E18-1	12/01/94	B0DCZ7			17.00 L	
299-E18-1	12/01/94	B0DD01				13.00 U
299-E32-4	12/13/94	B0DG01	.11 BLQ		13.00 U	
299-E32-4	12/13/94	B0DG05		.10 BLQ		13.00 U
699-43-43	10/06/94	B0D2R5			13.00 U	
699-43-43	10/06/94	B0D2R9				13.00 U
699-43-45	10/06/94	B0D2S0			13.00 U	
699-43-45	10/06/94	B0D2S4				13.00 U

Table 5-4. Constituents with at Least One Detected Value for the 216-B-3 Pond
Data for Reporting Period October 1 through December 31, 1994.
(sheet 3 of 4)

Well Name	Collection Date	Sample Number	NITRATE 124/ppb 96/45000	POTASUM 34/ppb 890/.	FPOTASS 34/ppb 890/.	SELENUM 48/ppb 1.4/10i
299-E18-1	12/01/94	B0DC27	14000.00 D	5500.00		4.40 L
299-E18-1	12/01/94	B0DD01			5500.00	
299-E32-4	12/13/94	B0DG01	27000.00 DQ	6300.00		
299-E32-4	12/13/94	B0DG05			6900.00	
699-43-43	10/06/94	B0D2R5	700.00	4600.00		
699-43-43	10/06/94	B0D2R9			4700.00	
699-43-45	10/06/94	B0D2S0	1200.00	4300.00		
699-43-45	10/06/94	B0D2S4			4400.00	

Well Name	Collection Date	Sample Number	FSELENI 48/ppb 1.4/10i	SODIUM 34/ppb 150/.	FSODIUM 34/ppb 150/.	SULFATE 124/ppb 89/250000s
299-E18-1	12/01/94	B0DC27		26000.00 B		110000.00 D
299-E18-1	12/01/94	B0DD01	4.50 L		26000.00 B	
299-E32-4	12/13/94	B0DG01		26000.00 Q		45000.00 D
299-E32-4	12/13/94	B0DG05			25000.00 Q	
699-43-43	10/06/94	B0D2R5		5500.00		9900.00 D
699-43-43	10/06/94	B0D2R9			5500.00	
699-43-45	10/06/94	B0D2S0		8800.00		9700.00
699-43-45	10/06/94	B0D2S4			8600.00	

Well Name	Collection Date	Sample Number	TDICHPH 19/ppb 2.2/.	TRITIUM 142/pCi/L ./20000	TURBID 126/NTU .016/.	URANIUM 145/ppb ./.
299-E18-1	12/01/94	B0DC27			3.30	3.77
299-E18-1	12/01/94	B0DD07	.61 U	12800.00		
299-E32-4	10/11/94	B0D388	.61 U	582.00	91.00 Q	
299-E32-4	12/13/94	B0DG01	.61 U	292.00	62.00 Q	2.99
699-40-36	10/27/94	B0D5F4	.61 U	16.60 U	8.10 Q	
699-40-39	10/25/94	B0D392	.61 U	-33.00 U	2.60 Q	
699-40-40A	10/12/94	B0D396	7.20 L	143.00 U	1.40 Q	
699-40-40B	10/14/94	B0D380	.61 U	117.00 U	9.50 Q	
699-41-35	10/27/94	B0D5F8	.61 U	102.00 U	28.00 Q	
699-41-40	10/24/94	B0D3B4	.61 U	140000.00	2.00 Q	
699-41-40	10/24/94	B0D3B5	.61 U	140000.00	2.00 Q	
699-41-42	10/20/94	B0D3C2	.61 U	19400.00	1.10 Q	
699-42-37	10/27/94	B0D5G2	.61 U	31.20 U	73.00 Q	
699-42-39A	10/12/94	B0D3C6	.61 U	69700.00	5.10 Q	
699-42-39B	10/12/94	B0D3D0	.61 U	94700.00	3.60 Q	
699-42-40A	10/24/94	B0D3D4	.61 U	132.00 U	5.10 Q	
699-42-40C	10/21/94	B0D3D8	.61 U	6500.00	.31 Q	
699-42-41	10/19/94	B0D3F2	.61 U	611.00	4.10	
699-42-42B	10/20/94	B0D3F6	.61 U	43200.00	1.00 Q	
699-43-40	10/19/94	B0D3P5	.61 U	28800.00	.95	
699-43-41E	10/19/94	B0D3P9	.61 U	68400.00	1.90	
699-43-41F	10/20/94	B0D3Q3	.61 U	44000.00	1.10 Q	
699-43-41G	10/19/94	B0D3Q7	.61 U	51800.00	1.20	
699-43-42J	10/20/94	B0D3R1	.61 U	8160.00	1.00 Q	
699-43-43	10/06/94	B0D2R5		273.00	1.60	
699-43-43	10/06/94	B0D386	.61 U			
699-43-45	10/06/94	B0D2S0		553.00	.63	

Table 5-4. Constituents with at Least One Detected Value for the 216-B-3 Pond
Data for Reporting Period October 1 through December 31, 1994.
(sheet 4 of 4)

Well Name	Collection Date	Sample Number	TDICHPH 19/ppb 2.2/.	TRITIUM 142/pCi/L ./20000	TURBID 126/NTU .016/.	URANIUM 145/ppb ./.
699-43-45	10/06/94	B0D387	.61 U			
699-44-39B	10/20/94	B0D3R5	.61 U	-196.00 U	1.70 Q	
699-44-42	10/20/94	B0D3R9	.61 U	593.00	.64 Q	
699-44-43B	10/21/94	B0D3S3	.61 U	15500.00	4.60 Q	

Well Name	Collection Date	Sample Number	VANADUM 34/ppb 6.4/.	FVANADI 34/ppb 6.4/.	ZINC 34/ppb 4.4/5000s	FZINC 34/ppb 4.4/5000s
299-E18-1	12/01/94	B0DCZ7	9.80 L		6.30 U	
299-E18-1	12/01/94	B0DD01		11.00 L		6.30 U
299-E32-4	12/13/94	B0DG01	39.00		6.30 U	
299-E32-4	12/13/94	B0DG05		19.00 L		6.30 U
699-43-43	10/06/94	B0D2R5	27.00 L		21.00 BQ	
699-43-43	10/06/94	B0D2R9		26.00 L		16.00 BQ
699-43-45	10/06/94	B0D2S0	33.00		21.00 BQ	
699-43-45	10/06/94	B0D2S4		29.00 L		17.00 BQ

For explanation of this table, see Section 1.4 of report.

Table 5-5. Contamination Indicator Parameters for the 216-B-3 Pond
 Data for Reporting Period October 1 through December 31, 1994.
 (sheet 1 of 3)

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-E18-1	12/01/94	B0DCZ7	457	470	8.23	8.30	110 U	5.1
		B0DCZ8	457		8.22		110 U	5.0 U
		B0DCZ9	459		8.21		200 L	5.0 U
		B0DD00	459		8.20		110 U	5.0 U
299-E32-4	10/11/94	B0D388	413		7.52	8.00	200 LB	5.0 U
		B0D389	413		7.54		150 LB	5.0 U
		B0D390	412		7.53		200 LB	5.0 U
		B0D391	412		7.54		200 LB	5.8
	12/13/94	B0DG01	420		7.71	8.30	140 L	5.0 U
		B0DG02	421		7.69		110 U	5.0 U
		B0DG03	422		7.71		110 U	5.0 U
		B0DG04	423		7.72		130 L	5.0 U
699-40-36	10/27/94	B0D5F4	313		8.03	8.10	200 L	10.9
		B0D5F5	313		8.03		200 L	9.1
		B0D5F6	313		8.02		200 L	10.9
		B0D5F7	313		8.02		200 L	14.2
699-40-39	10/25/94	B0D392	296		7.98	8.30	140 L	5.0 U
		B0D393	296		7.97		300 L	5.0 U
		B0D394	296		7.95		110 U	5.0 U
		B0D395	296		7.95		110 U	5.0 U
699-40-40A	10/12/94	B0D396	354		8.12	8.20	140 L	5.0 U
		B0D397	354		8.11		200 L	5.2
		B0D398	355		8.11		300 L	5.2
		B0D399	355		8.10		200 L	6.8
699-40-40B	10/14/94	B0D380	318		8.07	7.80	300 L	23.9
		B0D381	318		8.05		200 L	18.3
		B0D382	316		8.08		500 L	42.1
		B0D383	316		8.08		200 L	27.8
699-41-35	10/27/94	B0D5F8	314		7.72	8.10	110 U	5.0 U
		B0D5F9	312		7.72		110 L	13.2
		B0D5G0	312		7.73		300 L	5.0 U
		B0D5G1	313		7.72		200 L	5.0 U
699-41-40	10/24/94	B0D384	348		8.39	8.30	200 L	5.0 U
		B0D385	350		8.40	8.30	300 Lq	5.0 U
		B0D386	352		8.41		200 Lq	5.0 U
		B0D387	354		8.41		200 L	5.0 U
		B0D388					200 L	5.7
		B0D389					200 L	5.3
		B0D3C0					200 L	5.7
		B0D3C1					300 L	5.0 U
699-41-42	10/20/94	B0D3C2	242		8.32	8.40	300 L	5.0 U
		B0D3C3	249		8.33		300 L	5.0 U
		B0D3C4	244		8.33		300 L	5.0 U

Table 5-5. Contamination Indicator Parameters for the 216-B-3 Pond
Data for Reporting Period October 1 through December 31, 1994.
(sheet 2 of 3)

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
699-41-42	10/20/94	B0D3C5	246		8.33		300 L	5.0 U
699-42-37	10/27/94	B0D5G2	350		7.62	8.10	110 U	5.0 U
		B0D5G3	349		7.64		120 L	5.0 U
		B0D5G4	348		7.65		110 U	7.4
		B0D5G5	347		7.66		110 U	5.0 U
699-42-39A	10/12/94	B0D3C6	381		7.55	8.00	200 L	5.0 U
		B0D3C7	379		7.55		200 L	5.0 U
		B0D3C8	379		7.54		200 L	5.0 U
		B0D3C9	380		7.54		200 L	5.0 U
699-42-39B	10/12/94	B0D3D0	387		7.76	8.10	200 L	5.0 U
		B0D3D1	388		7.76		300 L	5.0 U
		B0D3D2	388		7.77		300 L	5.0 U
		B0D3D3	387		7.76		200 L	5.0 U
	10/15/94	B0D3D0	387		7.76	8.10	200 L	5.0 U
		B0D3D1	388		7.76		300 L	5.0 U
		B0D3D2	388		7.77		300 L	5.0 U
		B0D3D3	387		7.76		200 L	5.0 U
699-42-40A	10/24/94	B0D3D4	154		8.23	8.10	600 L	5.0 U
		B0D3D5	155		8.21		600 L	5.6
		B0D3D6	155		8.20		600 L	5.3
		B0D3D7	154		8.19		700 L	6.2
699-42-40C	10/21/94	B0D3D8	342		8.36	8.20	200 L	5.0 U
		B0D3D9	336		8.28		200 L	5.0 U
		B0D3F0	334		8.26		200 L	5.0 U
		B0D3F1	333		8.25		200 L	5.0 U
699-42-41	10/19/94	B0D3F2	150		7.24	8.10	600 L	8.2
		B0D3F3	148		7.25		800 L	8.3
		B0D3F4	148		7.27		600 L	5.2
		B0D3F5	148		7.31		1000	5.0 U
699-42-42B	10/20/94	B0D3F6	252		7.97	8.20	400 L	5.0 U
		B0D3F7	252		7.97		200 L	5.0 U
		B0D3F8	252		7.97		200 L	5.0 U
		B0D3F9	252		7.96		200 L	5.0 U
699-43-40	10/19/94	B0D3P5	244		8.11	8.10	600 L	8.9
		B0D3P6	242		8.11		500 L	
		B0D3P7	242		8.10		400 L	9.3
		B0D3P8	242		8.08		400 L	7.8
699-43-41E	10/19/94	B0D3P9	313		8.28	8.60	400 L	5.5
		B0D3Q0	312		8.26		200 L	8.9
		B0D3Q1	311		8.25		300 L	6.6
		B0D3Q2	307		8.24		400 L	11.5
699-43-41F	10/20/94	B0D3Q3	260		8.13	8.20	200 L	5.7
		B0D3Q4	254		8.11		200 L	5.0 U

Table 5-5. Contamination Indicator Parameters for the 216-B-3 Pond
Data for Reporting Period October 1 through December 31, 1994.
(sheet 3 of 3)

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
699-43-41F	10/20/94	B0D3Q5	251		8.11		200 L	5.0 U
		B0D3Q6	249		8.11		300 LB	5.0 U
699-43-41G	10/19/94	B0D3Q7	270		7.82	8.20	200 L	5.0 U
		B0D3Q8	269		7.80		200 L	5.0 U
		B0D3Q9	269		7.77		300 L	5.0 U
		B0D3R0	268		7.76		200 L	5.0 U
699-43-42J	10/20/94	B0D3R1	273		8.20	8.40	500 LB	5.0 U
		B0D3R2	274		8.20		300 LB	5.3
		B0D3R3	274		8.20		300 LB	5.0 U
		B0D3R4	274		8.20		300 LB	5.1
699-43-43	10/06/94	B0D2R5	214	180	7.94		600 L	5.0 U
		B0D2R6	210		7.92		600 L	5.0 U
		B0D2R7	208		7.92		700 L	5.0 U
		B0D2R8	207		7.92		600 L	5.0 U
		B0D386				8.30		
699-43-45	10/06/94	B0D2S0	248	240	7.84		400 L	5.0 U
		B0D2S1	248		7.86		400 L	5.0 U
		B0D2S2	248		7.84		400 L	5.0 U
		B0D2S3	249		7.88		500 L	5.0 U
		B0D387				8.20		
699-44-39B	10/20/94	B0D3R5	181		7.61	8.30	1000 B	8.6
		B0D3R6	179		7.61		800 LB	5.0 U
		B0D3R7	178		7.61		600 LB	7.2
		B0D3R8	179		7.61		600 LB	7.1
699-44-42	9/09/94	B09X64	230		8.28			
		B09X65	229		8.28			
		B09X66	226		8.24			
	10/20/94	B0D3R9	188		8.16	8.30	600 LB	7.0
		B0D3S0	190		8.15		500 LB	6.4
		B0D3S1	190		8.15		700 LB	6.6
		B0D3S2	190		8.15		600 LB	5.5
699-44-43B	10/21/94	B0D3S3	277		8.13	8.30	300 L	5.0 U
		B0D3S4	276		8.13		300 L	5.0 U
		B0D3S5	276		8.13		400 L	5.0 U
		B0D3S6	276		8.13		300 L	5.0 U

For explanation of this table, see Section 1.4 of report.

Table 5-6. Constituents Exceeding Drinking Water Standards for the
216-B-3 Pond System for Reporting Period
October 1 through December 31, 1994.

Constituent	DWS (units)	Wells with results exceeding DWS
Iron (unfiltered samples) ¹	300 (ppb)	299-E18-1 ^a , 699-E32-4 ^a
Tritium	20,000 (pCi/L)	299-E18-1, 699-41-40, 699-42-39A, 699-42-39B, 699-42-42B, 699-43-40, 699-43-41E, 699-43-41F, 699-43-41G

^aA laboratory qualifier or data flag is associated with this result.
DWS = drinking water standard.

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6.0 216-A-29 DITCH

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6.1 INTRODUCTION

The 216-A-29 Ditch (A-29 Ditch) is located immediately east of the 200 East Area in the central portion of the Hanford Site (Figure 6-1). From 1955 to July 1991, this unlined ditch received effluent from the Plutonium-Uranium Extraction (PUREX) Plant chemical sewer line and conducted it to the 216-B-3-3 Ditch and the B Pond System. After July 15, 1991, the effluent to the A-29 Ditch was rerouted to the PUREX cooling water line, the ditch was backfilled, and the site was graded and stabilized to meet Milestone M-17-10 of the *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) (Ecology et al. 1992).

Groundwater beneath the A-29 Ditch has been monitored by a RCRA groundwater monitoring network since 1988 because of earlier discharges of caustic and potentially hazardous chemicals to the ditch. The A-29 Ditch is currently in an interim-status groundwater quality assessment monitoring program because of elevated specific conductance levels in one monitoring well (299-E25-35) (Chou et al. 1990).

The RCRA groundwater monitoring network consists of 3 upgradient and 10 downgradient wells. Nine additional wells in the surrounding area are used to provide supplementary data for the groundwater quality assessment investigation. Figure 6-1 shows the locations of the wells used to monitor groundwater quality for the A-29 Ditch. Table 6-1 presents pertinent data about these wells.

6.2 WATER LEVEL MEASUREMENTS

Water levels are measured monthly in the 13 wells comprising the A-29 Ditch monitoring network, and are measured quarterly in the 9 additional wells that provide supplemental analytical data for the groundwater quality assessment investigation. Water level measurements are also recorded whenever the wells are sampled.

Water level measurements obtained during this quarter are presented in Table 6-2. Several inconsistencies were noted when recent data were compared to the water levels previously measured. Water levels reported for well 299-E26-13 on October 12, well 299-E26-28 on October 18, and well 299-E25-34 on October 19 fell outside of the expected ranges. Inspection of the field report sheets does not reveal any data transcription or retrieval errors. These data are flagged in Table 6-2.

6.3 WATER CHEMISTRY DATA

Groundwater beneath the A-29 Ditch is sampled quarterly in accordance with the groundwater quality assessment plan (Chou et al. 1990). The constituent list and summary of results are provided in Table 6-3. Reported analytical data are included in Tables 6-4 and 6-5. Table 6-4 provides a list of the wells and analytical results for chemical constituents with at least one detected value above the MDL. In many cases, the detected values are from wells that are monitored to provide comparative regional data for the groundwater quality assessment investigation. Results of analyses for CIPs are reported in Table 6-5. Previously nonreported and rereported analytical data for the A-29 groundwater monitoring network are included in the tables in this report.

One well (299-E25-42) had turbidity data results that were greater than 5 NTUs. RADEs have been submitted for this well. Data associated with these high-turbidity values may be affected. High turbidity is a laboratory interferant for many analytical techniques; therefore being able to separate good from suspect data results is unlikely.

Two other wells had individual constituent results that do not match the historical trends. Ammonium ion was identified at the 200-ppb level in well 299-E25-28 in the A-29 Ditch detection network. Cobalt-60 was identified in well 299-E25-36 in the A-29 Ditch supplemental network. This is the first sampling period where data results for these constituents have been above the laboratory contractual limits. RADEs have been submitted for this well.

Constituents reported in concentrations that exceed the DWS for the A-29 Ditch network wells include unfiltered chromium in wells 299-E25-32P, 299-E24-34, 299-E25-35, 299-E25-42, 299-E25-43, 299-E26-12, and 299-E256-13; unfiltered iron in wells 299-E25-32P, 299-E24-34, 299-E25-35, 299-E25-42, 299-E25-43, 299-E25-47, 299-E25-48, and 299-E256-13; and tritium in wells 299-E25-32P, 299-E25-35, 299-E25-47, and 299-E25-42.

Constituents reported in concentrations that exceed the DWS at the wells that provide regional data for the A-29 Ditch groundwater supplemental investigation include unfiltered chromium in wells 299-E17-15, 299-E17-20, 299-E25-11, 299-E25-31, and 299-E25-36; unfiltered iron in wells 299-17-15, 299-E17-20, 299-E25-11, 299-E25-21 and 299-E25-31; and tritium in wells 299-E17-15, 299-E17-20, 299-E25-11, 299-E25-18, 299-E25-19, and 299-E25-20, and pH in well 299-E25-21.

Wells with detections of Co-60 and I-129 are cosampled with the A-36B and A-10 networks. Discussion of these detections are contained in Sections 7 and 8, respectively.

Data are flagged in Tables 6-4 and 6-5 according to the explanation found in Sections 1.2 and 1.4.



Table 6-1. Monitoring Well Purpose and Sampling Schedule
for the 216-A-29 Ditch. (2 sheets)

Well no.	Relative position	Hydrogeologic unit ^a	Sample frequency	Sample date, 4th Qtr 1994
699-43-43 ^b	Upgradient	Hanford: Water Table	Quarterly	10/06/94
699-43-45 ^b	Upgradient	Hanford: Water Table	Quarterly	10/06/94
299-E25-32P	Downgradient	Hanford: Water Table	Quarterly	10/11/94
299-E25-26	Downgradient	Hanford: Mid-Depth	Quarterly	10/19/94
299-E25-28	Downgradient	Ringold: Deep	Quarterly	10/18/94
299-E25-34	Downgradient	Hanford: Water Table	Quarterly	10/19/94
299-E25-35	Downgradient	Hanford: Water Table	Quarterly	10/19/94
299-E25-42	Downgradient	Hanford: Water Table	Quarterly	10/11/94
299-E25-43	Downgradient	Hanford: Water Table	Quarterly	10/11/94
299-E25-47	Downgradient	Hanford: Water Table	Quarterly	10/12/94
299-E25-48	Downgradient	Hanford: Water Table	Quarterly	10/12/94
299-E26-12	Downgradient	Hanford: Water Table	Quarterly	10/11/94
299-E26-13	Downgradient	Hanford: Water Table	Quarterly	10/12/94
299-E17-15 ^{c,e}	Downgradient	Ringold: Water Table	Quarterly	12/06/94
299-E17-20 ^{d,e}	Downgradient	Ringold: Water Table	Quarterly	10/14/94
299-E25-11 ^e	Downgradient	Undifferentiated sediments: Mid-Depth	Quarterly	10/13/94
299-E25-18 ^e	Downgradient	Undifferentiated sediments: Mid-Depth	Quarterly	10/18/94

Table 6-1. Monitoring Well Purpose and Sampling Schedule
for the 216-A-29 Ditch. (2 sheets)

Well no.	Relative position	Hydrogeologic unit ^a	Sample frequency	Sample date, 4th Qtr 1994
299-E25-19 ^e	Downgradient	Undifferentiated sediments: Mid-Depth	Quarterly	10/18/94
299-E25-20 ^e	Downgradient	Undifferentiated sediments: Mid-Depth	Quarterly	10/21/94
299-E25-21 ^e	Downgradient	Hanford: Water Table	Quarterly	10/18/94
299-E25-31 ^e	Downgradient	Hanford: Water Table	Quarterly	10/12/94
299-E25-36 ^{d,e}	Downgradient	Ringold: Water Table	Quarterly	10/13/94

^aHydrogeologic units include the sandy gravels of the Hanford formation and the silty sands of the Ringold Formation.

^bWells shared with the 216-B-3 Pond monitoring network.

^cWells shared with the 216-A-36B monitoring network.

^dWells shared with the 216-A-10 monitoring network.

^eWells used for supplemental groundwater quality.

Table 6-2. RCRA Water Level Measurement Report
 216-A-29 Ditch - Fourth Quarter 1994.
 (sheet 1 of 3)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
Wells in the Monitoring System				
299-E25-26	10/19/94	266.91	401.61*	122.41
	10/24/94	266.64	401.88	122.49
	11/17/94	266.66	401.86	122.49
	12/12/94	266.54	401.98	122.52
299-E25-28	10/18/94	260.85	401.59*+	122.40
	10/24/94	260.21	402.23	122.60
	11/17/94	260.17	402.27	122.61
	12/12/94	260.48	401.96	122.52
299-E25-32P	10/11/94	267.99	402.05*	122.54
	10/24/94	267.91	402.13	122.57
	11/17/94	267.80	402.24	122.60
	12/13/94	268.28	401.76	122.46
299-E25-34	10/19/94	261.72	401.15*+	122.27
	10/24/94	260.78	402.09	122.56
	11/17/94	260.68	402.19	122.59
	12/12/94	260.75	402.12	122.57
299-E25-35	10/19/94	272.77	401.62*	122.41
	10/24/94	272.65	401.74	122.45
	11/17/94	272.69	401.70	122.44
	12/12/94	272.75	401.64	122.42
299-E25-42	10/11/94	281.56	401.73*	122.45
	10/24/94	281.42	401.87	122.49
	11/17/94	281.51	401.78	122.46
	12/12/94	281.56	401.73	122.45
299-E25-43	10/11/94	247.42	402.47*	122.67
	10/24/94	247.63	402.26	122.61
299-E25-47	10/12/94	271.62	402.15*	122.58
	10/24/94	271.68	402.09	122.56
	11/17/94	271.77	402.00	122.53
299-E25-48	10/12/94	280.50	401.81*	122.47
	10/24/94	280.29	402.02	122.54
	11/17/94	280.44	401.87	122.49

Table 6-2. RCRA Water Level Measurement Report
 216-A-29 Ditch - Fourth Quarter 1994.
 (sheet 2 of 3)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
Wells in the Monitoring System				
299-E26-12	10/11/94	228.25	402.49*	122.68
	10/24/94	228.34	402.40	122.65
	11/17/94	228.20	402.54	122.69
	12/12/94	228.59	402.15	122.58
299-E26-13	10/12/94	204.15	400.87*+	122.19
	10/24/94	202.68	402.34	122.63
	11/17/94	202.57	402.45	122.67
	12/12/94	202.70	402.32	122.63
699-43-43	10/06/94	164.75	414.62*	126.38
	10/24/94	165.34	414.03	126.20
	11/17/94	165.28	414.09	126.21
	12/12/94	165.92	413.45	126.02
699-43-45	10/06/94	195.00	402.68*	122.74
	10/24/94	195.01	402.67	122.73
	11/17/94	195.04	402.64	122.72
	12/12/94	195.17	402.51	122.69
Supplemental Wells for Monitoring				
299-E17-15	12/06/94	321.65	400.13*	121.96
	12/12/94	321.24	400.54	122.08
299-E17-20	10/14/94	318.70	400.53*	122.08
	12/12/94	317.80	401.43	122.36
299-E25-11	10/13/94	279.56	401.72*	122.44
	12/21/94	279.92	401.36	122.33
299-E25-18	10/18/94	277.85	401.20*	122.29
	12/21/94	277.58	401.47	122.37
299-E25-19	10/18/94	275.95	401.25*	122.30
	12/21/94	275.88	401.32	122.32
299-E25-20	10/12/94	274.96	401.34*	122.33

Table 6-2. RCRA Water Level Measurement Report
 216-A-29 Ditch - Fourth Quarter 1994.
 (sheet 3 of 3)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
Supplemental Wells for Monitoring				
299-E25-20	12/21/94	275.01	401.29	122.31
299-E25-21	10/18/94	275.49	401.78*	122.46
299-E25-31	10/12/94	272.55	402.09*	122.56
299-E25-36	10/13/94	305.96	401.43*	122.36
	12/12/94	306.03	401.36	122.33
299-E25-6	12/21/94	259.46	398.85	121.57
299-E25-9	12/21/94	255.51	399.35	121.72
299-E26-2	12/21/94	233.64	401.66	122.43

- NOTES: 1. Water level elevations are calculated by subtracting the measured depth-to-water from the surveyed elevation for the well.
2. Depth-to-water values are transcribed from field records.
3. Elevations marked with an '*' were measured at the time of sampling.
4. Elevations marked with a '+' are outside of the expected range, and are suspected of error.

Table 6-3. Constituent List and Summary of Results for the 216-A-29 Ditch
Data for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 3)

CONTAMINATION INDICATOR PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
CONDUCT	94	Conductivity, field	umhos	1				70	70	
CONDUCT	73	Conductivity, lab	umhos					23	23	
TOC		Total Organic Carbon	ppb	110				64	64	
TOX		Total Organic Halogen	ppb	5				61	28	
PH	93	pH, field	pH	.01	6.5-8.5	EPAS		70	70	1
PH	125	pH, lab	pH		6.5-8.5	EPAS		5	5	0

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
BARIUM		Barium	ppb	.59	1000	EPAI		23	23	0
FBARIUM		Barium, filtered	ppb	.59	1000	EPAI		22	22	0
CADMIUM		Cadmium	ppb	3.3	10	EPAI		23	0	0
FCADMIU		Cadmium, filtered	ppb	3.3	10	EPAI		22	0	0
CHROMIUM		Chromium	ppb	4.5	50	EPAI		23	18	10
FCHROMI		Chromium, filtered	ppb	4.5	50	EPAI		22	8	0
FLUORID		Fluoride	ppb	36	1400	EPAI		23	23	0
ALPHA		Gross alpha	pCi/L		15	EPA		23	10	0
NITRATE		Nitrate	ppb	11	45000	EPA		23	23	2

GROUNDWATER QUALITY PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
CHLORID		Chloride	ppb	14	250000	EPAS		23	23	0
IRON		Iron	ppb	5.24	300	EPAS		23	23	14
FIRON		Iron, filtered	ppb	5.24	300	EPAS		22	20	0
MANGESE		Manganese	ppb	.72	50	EPAS		23	22	0
FMANGAN		Manganese, filtered	ppb	.72	50	EPAS		22	21	0
LPHENOL	19	Phenol	ppb	.54				2	0	
LPHENOL	30	Phenol	ppb	.31				24	1	
SODIUM		Sodium	ppb	61				23	23	
FSODIUM		Sodium, filtered	ppb	61				22	22	
SULFATE		Sulfate	ppb	37	250000	EPAS		23	23	0

Table 6-3. Constituent List and Summary of Results for the 216-A-29 Ditch
Data for Reporting Period October 1 through December 31, 1994.
(sheet 2 of 3)

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name Full	Units	Lab MDL	DWS		Agency	Number of Samples		
					Limit			Total	>MDL	>DWS
246-trp		2,4,6-Trichlorophenol	ppb	1.3				24	0	
24-dchp	19	2,4-Dichlorophenol	ppb	4				2	0	
24-dchp	30	2,4-Dichlorophenol	ppb	1.3				24	0	
DIMPHEN		2,4-Dimethylphenol	ppb	1.2				24	0	
DINPHEN		2,4-Dinitrophenol	ppb	3				24	0	
26-dchp		2,6-Dichlorophenol	ppb	1.4				24	0	
CHLPHEN		2-Chlorophenol	ppb	1.6				24	0	
2METHPH		2-Methylphenol	ppb	5.1				2	0	
2NITPH	19	2-Nitrophenol	ppb	1.9				2	0	
2NITPH	30	2-Nitrophenol	ppb	1.3				24	0	
BUTDINP		2-sec-Butyl-4,6-dinitrophenol(DN	ppb	1.3				24	0	
46DN2MP		4,6-Dinitro-2-methylphenol	ppb	1.3				24	0	
CHLCRES		4-Chloro-3-methylphenol	ppb	1.3				24	0	
4METHPH		4-Methylphenol	ppb	7				2	0	
NITPHEN		4-Nitrophenol	ppb	3				24	0	
ALUMNUM		Aluminum	ppb	26				23	9	
FALUMIN		Aluminum, filtered	ppb	26				22	0	
AMMONIU		Ammonium ion	ppb	37				23	2	
ANTIONY		Antimony	ppb	62				23	0	
FANTIMO		Antimony, filtered	ppb	62				22	0	
SB-125		Antimony-125	pCi/L					3	0	
BENZOTH		Benzothiazole	ppb	1.3				2	0	
BERYLLUM		Beryllium	ppb	.17				23	9	
FBERYLL		Beryllium, filtered	ppb	.17				22	9	
BIS2EPH		Bis(2-ethylhexyl) phthalate	ppb	5.3				2	0	
BROMIDE		Bromide	ppb	100				23	0	
CALCIUM		Calcium	ppb	34				23	23	
FCALCIU		Calcium, filtered	ppb	34				22	22	
CS-137		Cesium-137	pCi/L		200		EPA	3	0	0
COBALT		Cobalt	ppb	5.9				23	0	
FCOBALT		Cobalt, filtered	ppb	5.9				22	0	
CO-60		Cobalt-60	pCi/L		100		EPA	3	1	0
COLIFORM		Coliforms	COL	1	1		EPAI	2	0	0
COPPER		Copper	ppb	4.1	1000		EPAS	23	11	0
FCOPPER		Copper, filtered	ppb	4.1	1000		EPAS	22	6	0
CRESOLS		Cresols (methylphenols)	ppb	4.8				24	0	
DECANE		Decane	ppb	1.9				2	0	
DODECAN		Dodecane	ppb	1.1				2	0	
BETA		Gross beta	pCi/L					23	23	
LHYDRAZ		Hydrazine	ppb	1.6				14	2	
I-129L		Iodine-129, Low level	pCi/L		1		EPA	3	3	3
MAGNES		Magnesium	ppb	23				23	23	
FMAGNES		Magnesium, filtered	ppb	23				22	22	

Table 6-3. Constituent List and Summary of Results for the 216-A-29 Ditch
Data for Reporting Period October 1 through December 31, 1994.
(sheet 3 of 3)

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
NAPHTHA		Naphthalene	ppb	1.2				2	0	
NICKEL		Nickel	ppb	13				23	14	
FNICKEL		Nickel, filtered	ppb	13				22	6	
NITRITE		Nitrite	ppb	18	1000		EPA	23	0	0
PENTCHP	19	Pentachlorophenol	ppb	8.3	1		EPA	2	0	2*
PENTCHP	30	Pentachlorophenol	ppb	1.3	1		EPA	24	0	23*
PHOSPHA		Phosphate	ppb	82				23	0	
POTASUM		Potassium	ppb	850				23	23	
FPOTASS		Potassium, filtered	ppb	850				22	22	
RU-106		Ruthenium-106	pCi/L			30	EPA	3	0	0
SILVER		Silver	ppb	3.6		50	EPAI	23	0	0
FSILVER		Silver, filtered	ppb	3.6		50	EPAI	22	0	0
TETPHNL		Tetrachlorophenols	ppb	1.5				24	0	
TETRADE		Tetradecane	ppb	1.6				2	0	
TIN		Tin	ppb	69				23	0	
FTIN		Tin, filtered	ppb	69				22	0	
TRIBUTPH		Tributyl Phosphate	ppb	1.1				2	0	
TRIPHNL		Trichlorophenols	ppb	1.7				24	0	
TDICHPH		Tris-2-chloroethyl phosphate	ppb	.61				2	0	
TRITIUM		Tritium	pCi/L		20000		EPA	23	23	9
TURBID		Turbidity	NTU	.016				23	23	
VANADUM		Vanadium	ppb	6.6				23	23	
RVANADI		Vanadium, filtered	ppb	6.6				22	22	
ZINC		Zinc	ppb	6.3	5000		EPAS	23	18	0
FZINC		Zinc, filtered	ppb	6.3	5000		EPAS	22	12	0
MCRESOL		m-Cresol	ppb	2.2				2	0	

For explanation of this table, see Section 1.4 of report.

Table 6-4. Constituents with at Least One Detected Value for
the 216-A-29 Ditch Data for Reporting Period
October 1 through December 31, 1994.
(sheet 1 of 11)

Well Name	Collection Date	Sample Number	ALUMNUM 34/ppb 19/.	FALUMIN 34/ppb 19/.	AMMONIU 129/ppb 38.5/.	BARIUM 34/ppb 1.3/1000i
299-E17-15	12/06/94	B0DFD9	26.00 U		37.00 U	47.00
299-E17-20	10/14/94	B0D0Q2			37.00 U	
299-E17-20	10/14/94	B0D0Q3		26.00 U		
299-E17-20	10/14/94	B0D234	26.00 U			54.00
299-E25-11	10/13/94	B0D0Q4	26.00 Uq		37.00 U	16.00 Lq
299-E25-11	10/13/94	B0D0Q5		26.00 Uq		
299-E25-18	10/18/94	B0D0Q6	26.00 U		37.00 U	13.00 L
299-E25-18	10/18/94	B0D0Q7		26.00 U		
299-E25-19	10/18/94	B0D0Q8	26.00 L		60.00 Lq	29.00
299-E25-19	10/18/94	B0D0Q9	26.00 U		37.00 Uq	30.00
299-E25-19	10/18/94	B0D0R0		26.00 U		
299-E25-19	10/18/94	B0D0R1		26.00 U		
299-E25-20	10/12/94	B0D0R2	26.00 U		37.00 U	22.00
299-E25-20	10/12/94	B0D0R3		26.00 U		
299-E25-21	10/18/94	B0D0R4	26.00 L		37.00 U	13.00 L
299-E25-21	10/18/94	B0D0R5		26.00 U		
299-E25-26	10/19/94	B0D2L0	26.00 U		37.00 U	11.00 L
299-E25-26	10/19/94	B0D2L4		26.00 U		
299-E25-28	10/18/94	B0D2L5	26.00 U		200.00 F	15.00 L
299-E25-28	10/18/94	B0D2L9		26.00 U		
299-E25-31	10/12/94	B0D0R6	110.00 L		37.00 U	27.00
299-E25-31	10/12/94	B0D0R7		26.00 U		
299-E25-32P	10/11/94	B0D2M0	27.00 Lq		37.00 U	13.00 Lq
299-E25-32P	10/11/94	B0D2M4		26.00 Uq		
299-E25-34	10/19/94	B0D2M5	26.00 U		37.00 U	14.00 L
299-E25-34	10/19/94	B0D2M9		26.00 U		
299-E25-35	10/19/94	B0D2N0	26.00 U		37.00 U	25.00
299-E25-35	10/19/94	B0D2N4		26.00 U		
299-E25-36	10/13/94	B0D254	26.00 Uq			21.00 q
299-E25-36	10/13/94	B0D356			37.00 U	
299-E25-36	10/13/94	B0D357		26.00 Uq		
299-E25-42	10/11/94	B0D2N5	420.00 q		37.00 U	30.00 q
299-E25-42	10/11/94	B0D2N9		26.00 Uq		
299-E25-43	10/11/94	B0D2P0	57.00 Lq		37.00 U	18.00 Lq
299-E25-43	10/11/94	B0D2P4		26.00 Uq		
299-E25-47	10/12/94	B0D2P5	90.00 L		37.00 U	21.00
299-E25-47	10/12/94	B0D2P9		26.00 U		
299-E25-48	10/12/94	B0D2Q0	130.00 L		37.00 U	26.00
299-E25-48	10/12/94	B0D2Q4		26.00 U		
299-E26-12	10/11/94	B0D2Q5	36.00 Lq		37.00 U	13.00 Lq
299-E26-12	10/11/94	B0D2Q9		26.00 Uq		
299-E26-13	10/12/94	B0D2R0	26.00 U		37.00 U	13.00 L
299-E26-13	10/12/94	B0D2R4		26.00 U		
699-43-43	10/06/94	B0D2R5	26.00 U		37.00 U	9.30 L
699-43-43	10/06/94	B0D2R9		26.00 U		
699-43-45	10/06/94	B0D2S0	26.00 U		37.00 U	35.00
699-43-45	10/06/94	B0D2S4		26.00 U		

Table 6-4. Constituents with at Least One Detected Value for
the 216-A-29 Ditch Data for Reporting Period
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Well Name	Collection Date	Sample Number	FBARIUM 34/ppb 1.3/1000i	BERYLUM 34/ppb 1.5/.	FBERYLL 34/ppb 1.5/.	CALCIUM 34/ppb 47/.
299-E17-15	12/06/94	B0DFD9		.17 U		52000.00
299-E17-20	10/14/94	B0D0Q3	64.00		.57 BL	
299-E17-20	10/14/94	B0D234		.64 BL		46000.00
299-E25-11	10/13/94	B0D0Q4		.17 U		21000.00
299-E25-11	10/13/94	B0D0Q5	16.00 LQ		.17 U	
299-E25-18	10/18/94	B0D0Q6		.56 BL		24000.00
299-E25-18	10/18/94	B0D0Q7	13.00 L		.55 BL	
299-E25-19	10/18/94	B0D0Q8		.51 BL		26000.00
299-E25-19	10/18/94	B0D0Q9		.64 BL		27000.00
299-E25-19	10/18/94	B0D0R0	30.00		.64 BL	
299-E25-19	10/18/94	B0D0R1	30.00		.58 BL	
299-E25-20	10/12/94	B0D0R2		.17 U		27000.00
299-E25-20	10/12/94	B0D0R3	21.00		.17 U	
299-E25-21	10/18/94	B0D0R4		.52 BL		20000.00
299-E25-21	10/18/94	B0D0R5	13.00 L		.52 BL	
299-E25-26	10/19/94	B0D2L0		.21 LB		20000.00
299-E25-26	10/19/94	B0D2L4	11.00 L		.21 LB	
299-E25-28	10/18/94	B0D2L5		.54 BL		20000.00
299-E25-28	10/18/94	B0D2L9	14.00 L		.54 BL	
299-E25-31	10/12/94	B0D0R6		.17 U		23000.00
299-E25-31	10/12/94	B0D0R7	24.00		.17 U	
299-E25-32P	10/11/94	B0D2M0		.17 U		21000.00
299-E25-32P	10/11/94	B0D2M4	11.00 LQ		.17 U	
299-E25-34	10/19/94	B0D2M5		.30 LB		20000.00
299-E25-34	10/19/94	B0D2M9	14.00 L		.24 LB	
299-E25-35	10/19/94	B0D2N0		.17 LB		32000.00
299-E25-35	10/19/94	B0D2N4	25.00		.24 LB	
299-E25-36	10/13/94	B0D254		.17 U		30000.00
299-E25-36	10/13/94	B0D357	21.00 Q		.17 U	
299-E25-42	10/11/94	B0D2N5		.17 U		29000.00
299-E25-42	10/11/94	B0D2N9	26.00 Q		.17 U	
299-E25-43	10/11/94	B0D2P0		.17 U		22000.00
299-E25-43	10/11/94	B0D2P4	16.00 LQ		.17 U	
299-E25-47	10/12/94	B0D2P5		.17 U		25000.00
299-E25-47	10/12/94	B0D2P9	21.00		.17 U	
299-E25-48	10/12/94	B0D2Q0		.17 U		23000.00
299-E25-48	10/12/94	B0D2Q4	24.00		.17 U	
299-E26-12	10/11/94	B0D2Q5		.17 U		22000.00
299-E26-12	10/11/94	B0D2Q9	13.00 LQ		.17 U	
299-E26-13	10/12/94	B0D2R0		.17 U		26000.00
299-E26-13	10/12/94	B0D2R4	13.00 L		.17 U	
699-43-43	10/06/94	B0D2R5		.17 U		22000.00
699-43-43	10/06/94	B0D2R9	9.30 L		.17 U	
699-43-45	10/06/94	B0D2S0		.17 U		30000.00
699-43-45	10/06/94	B0D2S4	33.00		.17 U	

Table 6-4. Constituents with at Least One Detected Value for
the 216-A-29 Ditch Data for Reporting Period
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Well Name	Collection Date	Sample Number	FBARIUM 34/ppb 1.3/1000i	BERYLUM 34/ppb 1.5/.	FBERYLL 34/ppb 1.5/.	CALCIUM 34/ppb 47/.
Well Name	Collection Date	Sample Number	FCALCIU 34/ppb 47/.	CHLORID 124/ppb 71/250000s	CHROMUM 34/ppb 11/50i	FCHROMI 34/ppb 11/50i
299-E17-15	12/06/94	B0D0D9		3400.00	79.00	
299-E17-20	10/14/94	B0D0Q3	56000.00			9.60 L
299-E17-20	10/14/94	B0D234		5000.00	190.00	
299-E25-11	10/13/94	B0D0Q4		2700.00	88.00 q	
299-E25-11	10/13/94	B0D0Q5	21000.00			4.50 UQ
299-E25-18	10/18/94	B0D0Q6		2800.00	4.50 U	
299-E25-18	10/18/94	B0D0Q7	24000.00			4.50 U
299-E25-19	10/18/94	B0D0Q8		2800.00	5.10 L	
299-E25-19	10/18/94	B0D0Q9		2800.00	6.10 L	
299-E25-19	10/18/94	B0D0R0	27000.00			4.50 U
299-E25-19	10/18/94	B0D0R1	27000.00			4.50 U
299-E25-20	10/12/94	B0D0R2		3500.00	4.50 U	
299-E25-20	10/12/94	B0D0R3	28000.00			4.50 U
299-E25-21	10/18/94	B0D0R4		2700.00	4.50 U	
299-E25-21	10/18/94	B0D0R5	20000.00			4.50 U
299-E25-26	10/19/94	B0D2L0		2000.00	4.50 U	
299-E25-26	10/19/94	B0D2L4	20000.00			4.50 U
299-E25-28	10/18/94	B0D2L5		1900.00	4.50 U	
299-E25-28	10/18/94	B0D2L9	20000.00			4.50 U
299-E25-31	10/12/94	B0D0R6		2600.00	33.00	
299-E25-31	10/12/94	B0D0R7	23000.00			4.50 U
299-E25-32P	10/11/94	B0D2M0		2100.00 q	190.00 q	
299-E25-32P	10/11/94	B0D2M4	20000.00			13.00 LQ
299-E25-34	10/19/94	B0D2M5		1900.00	100.00	
299-E25-34	10/19/94	B0D2M9	20000.00			4.50 U
299-E25-35	10/19/94	B0D2N0		4200.00	50.00	
299-E25-35	10/19/94	B0D2N4	32000.00			5.00 L
299-E25-36	10/13/94	B0D254		4600.00	100.00 q	
299-E25-36	10/13/94	B0D357	29000.00			4.50 LQ
299-E25-42	10/11/94	B0D2N5		4600.00 q	330.00 q	
299-E25-42	10/11/94	B0D2N9	29000.00			15.00 LQ
299-E25-43	10/11/94	B0D2P0		2600.00 q	180.00 q	
299-E25-43	10/11/94	B0D2P4	22000.00			14.00 LQ
299-E25-47	10/12/94	B0D2P5		3000.00	35.00	
299-E25-47	10/12/94	B0D2P9	25000.00			4.50 U
299-E25-48	10/12/94	B0D2Q0		3200.00	35.00	
299-E25-48	10/12/94	B0D2Q4	23000.00			4.50 U
299-E26-12	10/11/94	B0D2Q5		1800.00 q	63.00 q	
299-E26-12	10/11/94	B0D2Q9	23000.00			14.00 LQ
299-E26-13	10/12/94	B0D2R0		2100.00	76.00	
299-E26-13	10/12/94	B0D2R4	26000.00			4.50 U
699-43-43	10/06/94	B0D2R5		1600.00	17.00 L	
699-43-43	10/06/94	B0D2R9	22000.00			4.50 U
699-43-45	10/06/94	B0D2S0		2400.00	24.00	
699-43-45	10/06/94	B0D2S4	29000.00			5.10 L

Table 6-4. Constituents with at Least One Detected Value for
the 216-A-29 Ditch Data for Reporting Period
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Well Name	Collection Date	Sample Number	CO-60 140/pCi/L ./100	COPPER 34/ppb 2.6/1000s	FCOPPER 34/ppb 2.6/1000s	FLUORID 124/ppb 51/1400i
299-E17-15	12/06/94	B0DFD9	5.39 U	4.10 U		1000.00
299-E17-20	10/14/94	B0D0Q3			4.10 U	
299-E17-20	10/14/94	B0D234	-4.85 U	11.00 L		800.00
299-E25-11	10/13/94	B0D0Q4		6.00 L		600.00
299-E25-11	10/13/94	B0D0Q5			8.10 L	
299-E25-18	10/18/94	B0D0Q6		4.20 L		600.00
299-E25-18	10/18/94	B0D0Q7			4.10 U	
299-E25-19	10/18/94	B0D0Q8		4.10 U		1000.00
299-E25-19	10/18/94	B0D0Q9		4.10 U		1000.00
299-E25-19	10/18/94	B0D0R0			4.10 U	
299-E25-19	10/18/94	B0D0R1			4.10 U	
299-E25-20	10/12/94	B0D0R2		4.10 U		1000.00
299-E25-20	10/12/94	B0D0R3			4.10 U	
299-E25-21	10/18/94	B0D0R4		4.10 U		600.00
299-E25-21	10/18/94	B0D0R5			4.10 U	
299-E25-26	10/19/94	B0D2L0		4.10 U		500.00
299-E25-26	10/19/94	B0D2L4			4.10 U	
299-E25-28	10/18/94	B0D2L5		4.10 U		600.00
299-E25-28	10/18/94	B0D2L9			4.10 U	
299-E25-31	10/12/94	B0D0R6		4.10 U		700.00
299-E25-31	10/12/94	B0D0R7			4.10 U	
299-E25-32P	10/11/94	B0D2M0		5.50 L		600.00 q
299-E25-32P	10/11/94	B0D2M4			6.00 L	
299-E25-34	10/19/94	B0D2M5		7.20 L		500.00
299-E25-34	10/19/94	B0D2M9			16.00 L	
299-E25-35	10/19/94	B0D2N0		4.70 L		1000.00
299-E25-35	10/19/94	B0D2N4			4.10 U	
299-E25-36	10/13/94	B0D254	24.40 F	6.00 L		600.00
299-E25-36	10/13/94	B0D357			4.10 U	
299-E25-42	10/11/94	B0D2N5		15.00 L		1000.00 q
299-E25-42	10/11/94	B0D2N9			5.00 L	
299-E25-43	10/11/94	B0D2P0		12.00 L		800.00 q
299-E25-43	10/11/94	B0D2P4			6.00 L	
299-E25-47	10/12/94	B0D2P5		4.10 U		800.00
299-E25-47	10/12/94	B0D2P9			4.10 U	
299-E25-48	10/12/94	B0D2Q0		4.10 U		600.00
299-E25-48	10/12/94	B0D2Q4			4.10 U	
299-E26-12	10/11/94	B0D2Q5		5.00 L		600.00 q
299-E26-12	10/11/94	B0D2Q9			5.00 L	
299-E26-13	10/12/94	B0D2R0		4.10 U		600.00
299-E26-13	10/12/94	B0D2R4			4.10 U	
699-43-43	10/06/94	B0D2R5		4.10 U		500.00
699-43-43	10/06/94	B0D2R9			4.10 U	
699-43-45	10/06/94	B0D2S0		8.40 L		700.00
699-43-45	10/06/94	B0D2S4			4.10 U	

Table 6-4. Constituents with at Least One Detected Value for
the 216-A-29 Ditch Data for Reporting Period
October 1 through December 31, 1994.
(sheet 5 of 11)

Well Name	Collection Date	Sample Number	ALPHA 135/pCi/L ./15	BETA 136/pCi/L ./.	LHYDRAZ 36/ppb 2.3/.	I-129 139/pCi/L ./1
299-E17-15	12/06/94	B0DFD9	4.44	92.60		9.25
299-E17-20	10/14/94	B0D234	4.11	27.60		8.94
299-E25-11	10/13/94	B0D0Q4	1.04	7.83		
299-E25-18	10/18/94	B0D0Q6	.17 U	6.15		
299-E25-19	10/18/94	B0D0Q8	.66 U	6.27		
299-E25-19	10/18/94	B0D0Q9	.31 U	8.69		
299-E25-20	10/12/94	B0D0R2	1.01 U	4.50		
299-E25-21	10/18/94	B0D0R4	.82 U	4.06		
299-E25-26	10/19/94	B0D2L0	.74 U	3.05	1.60 U	
299-E25-28	10/18/94	B0D2L5	.95	4.17	1.60 U	
299-E25-31	10/12/94	B0D0R6	2.02	7.06		
299-E25-32P	10/11/94	B0D2M0	1.06	3.01	1.60 U	
299-E25-34	10/19/94	B0D2M5	.57 U	4.37	1.60 U	
299-E25-35	10/19/94	B0D2N0	.79 U	7.90	1.60 U	
299-E25-36	10/13/94	B0D254	.06 U	5.13		1.20
299-E25-36	10/13/94	B0D356			1.60 U	
299-E25-42	10/11/94	B0D2N5	3.57	7.24	7.00 L	
299-E25-43	10/11/94	B0D2P0	1.53	5.92	1.60 U	
299-E25-47	10/12/94	B0D2P5	.40 U	6.17	1.60 U	
299-E25-48	10/12/94	B0D2Q0	1.77	4.45	1.80 L	
299-E26-12	10/11/94	B0D2Q5	.19 U	3.72	1.60 U	
299-E26-13	10/12/94	B0D2R0	.82 U	3.83	1.60 U	
699-43-43	10/06/94	B0D2R5	.32 U	3.60	1.60 U	
699-43-45	10/06/94	B0D2S0	2.11	3.41	1.60 U	

Table 6-4. Constituents with at Least One Detected Value for
the 216-A-29 Ditch Data for Reporting Period
October 1 through December 31, 1994.
(sheet 6 of 11)

Well Name	Collection Date	Sample Number	IRON 34/ppb 18/300s	FIRON 34/ppb 18/300s	MAGNES 34/ppb 25/.	FMAGNES 34/ppb 25/.
299-E17-15	12/06/94	B0DFD9	370.00 B		13000.00	
299-E17-20	10/14/94	B0D0Q3		63.00 B		16000.00
299-E17-20	10/14/94	B0D234	850.00 B		14000.00	
299-E25-11	10/13/94	B0D0Q4	480.00 BQ		5600.00	
299-E25-11	10/13/94	B0D0Q5		25.00 BQ		5700.00
299-E25-18	10/18/94	B0D0Q6	230.00 B		6700.00	
299-E25-18	10/18/94	B0D0Q7		11.00 BL		6700.00
299-E25-19	10/18/94	B0D0Q8	78.00 B		6700.00	
299-E25-19	10/18/94	B0D0Q9	89.00 B		6800.00	
299-E25-19	10/18/94	B0D0R0		25.00 B		6900.00
299-E25-19	10/18/94	B0D0R1		25.00 B		6800.00
299-E25-20	10/12/94	B0D0R2	160.00		7000.00	
299-E25-20	10/12/94	B0D0R3		5.24 U		7300.00
299-E25-21	10/18/94	B0D0R4	490.00 B		5500.00	
299-E25-21	10/18/94	B0D0R5		24.00 B		5500.00
299-E25-26	10/19/94	B0D2L0	100.00 BQ		5400.00	
299-E25-26	10/19/94	B0D2L4		13.00 LBQ		5500.00
299-E25-28	10/18/94	B0D2L5	64.00 B		5900.00	
299-E25-28	10/18/94	B0D2L9		16.00 BL		6100.00
299-E25-31	10/12/94	B0D0R6	930.00		6500.00	
299-E25-31	10/12/94	B0D0R7		5.24 U		6600.00
299-E25-32P	10/11/94	B0D2M0	800.00		5700.00	
299-E25-32P	10/11/94	B0D2M4		77.00		5700.00
299-E25-34	10/19/94	B0D2M5	520.00 BQ		5500.00	
299-E25-34	10/19/94	B0D2M9		34.00 BQ		5600.00
299-E25-35	10/19/94	B0D2N0	460.00 BQ		10000.00	
299-E25-35	10/19/94	B0D2N4		26.00 BQ		10000.00
299-E25-36	10/13/94	B0D254	480.00 BQ		8200.00	
299-E25-36	10/13/94	B0D357		31.00 BQ		8100.00
299-E25-42	10/11/94	B0D2N5	2200.00		7800.00	
299-E25-42	10/11/94	B0D2N9		88.00		7700.00
299-E25-43	10/11/94	B0D2P0	800.00		5800.00	
299-E25-43	10/11/94	B0D2P4		79.00		5600.00
299-E25-47	10/12/94	B0D2P5	330.00		7100.00	
299-E25-47	10/12/94	B0D2P9		13.00 L		7000.00
299-E25-48	10/12/94	B0D2Q0	500.00		7000.00	
299-E25-48	10/12/94	B0D2Q4		30.00		6800.00
299-E26-12	10/11/94	B0D2Q5	220.00		5500.00	
299-E26-12	10/11/94	B0D2Q9		11.00 L		5600.00
299-E26-13	10/12/94	B0D2R0	320.00		6500.00	
299-E26-13	10/12/94	B0D2R4		12.00 L		6500.00
699-43-43	10/06/94	B0D2R5	110.00 Q		5200.00	
699-43-43	10/06/94	B0D2R9		31.00 Q		5300.00
699-43-45	10/06/94	B0D2S0	130.00 Q		7200.00	
699-43-45	10/06/94	B0D2S4		33.00 Q		7000.00

Table 6-4. Constituents with at Least One Detected Value for
the 216-A-29 Ditch Data for Reporting Period
October 1 through December 31, 1994.
(sheet 7 of 11)

Well Name	Collection Date	Sample Number	MANGESE 34/ppb 1/50s	FMANGAN 34/ppb 1/50s	NICKEL 34/ppb 16/.	FNICKEL 34/ppb 16/.
299-E17-15	12/06/94	B0DFD9	7.30 L		33.00	
299-E17-20	10/14/94	B0D0Q3		2.30 L		13.00 U
299-E17-20	10/14/94	B0D234	14.00		87.00	
299-E25-11	10/13/94	B0D0Q4	14.00		51.00	
299-E25-11	10/13/94	B0D0Q5		1.40 L		13.00 U
299-E25-18	10/18/94	B0D0Q6	5.80 L		13.00 U	
299-E25-18	10/18/94	B0D0Q7		3.70 L		13.00 U
299-E25-19	10/18/94	B0D0Q8	5.40 L		13.00 U	
299-E25-19	10/18/94	B0D0Q9	5.50 L		13.00 U	
299-E25-19	10/18/94	B0D0R0		5.30 L		13.00 U
299-E25-19	10/18/94	B0D0R1		5.30 L		13.00 U
299-E25-20	10/12/94	B0D0R2	5.70 L		13.00 U	
299-E25-20	10/12/94	B0D0R3		2.50 L		13.00 U
299-E25-21	10/18/94	B0D0R4	6.70 L		13.00 U	
299-E25-21	10/18/94	B0D0R5		2.80 L		13.00 U
299-E25-26	10/19/94	B0D2L0	1.20 LB		13.00 U	
299-E25-26	10/19/94	B0D2L4		.81 LB		13.00 U
299-E25-28	10/18/94	B0D2L5	.72 U		13.00 U	
299-E25-28	10/18/94	B0D2L9		.72 U		19.00 L
299-E25-31	10/12/94	B0D0R6	49.00		25.00 L	
299-E25-31	10/12/94	B0D0R7		3.00 L		13.00 U
299-E25-32P	10/11/94	B0D2M0	17.00		96.00	
299-E25-32P	10/11/94	B0D2M4		2.20 L		17.00 L
299-E25-34	10/19/94	B0D2M5	12.00 B		45.00	
299-E25-34	10/19/94	B0D2M9		2.80 LB		13.00 U
299-E25-35	10/19/94	B0D2N0	10.00 B		25.00 L	
299-E25-35	10/19/94	B0D2N4		2.30 LB		13.00 U
299-E25-36	10/13/94	B0D254	10.00		61.00	
299-E25-36	10/13/94	B0D357		2.30 L		13.00 L
299-E25-42	10/11/94	B0D2N5	37.00		160.00	
299-E25-42	10/11/94	B0D2N9		3.50 L		25.00 L
299-E25-43	10/11/94	B0D2P0	16.00		99.00	
299-E25-43	10/11/94	B0D2P4		2.50 L		24.00 L
299-E25-47	10/12/94	B0D2P5	8.30 L		17.00 L	
299-E25-47	10/12/94	B0D2P9		1.50 L		13.00 U
299-E25-48	10/12/94	B0D2Q0	15.00		30.00	
299-E25-48	10/12/94	B0D2Q4		3.10 L		13.00 U
299-E26-12	10/11/94	B0D2Q5	5.90 L		36.00	
299-E26-12	10/11/94	B0D2Q9		2.30 L		14.00 L
299-E26-13	10/12/94	B0D2R0	7.60 L		42.00	
299-E26-13	10/12/94	B0D2R4		2.60 L		13.00 U
699-43-43	10/06/94	B0D2R5	2.90 L		13.00 U	
699-43-43	10/06/94	B0D2R9		2.20 L		13.00 U
699-43-45	10/06/94	B0D2S0	3.80 L		13.00 U	
699-43-45	10/06/94	B0D2S4		2.50 L		13.00 U

Table 6-4. Constituents with at Least One Detected Value for
the 216-A-29 Ditch Data for Reporting Period
October 1 through December 31, 1994.
(sheet 8 of 11)

Well Name	Collection Date	Sample Number	NITRATE 124/ppb 96/45000	LPHENOL 30/ppb .57/.	POTASUM 34/ppb 890/.	FPOTASS 34/ppb 890/.
299-E17-15	12/06/94	B0DFD9	110000.00 DH	.46 LB	5400.00	
299-E17-20	10/14/94	B0D0Q3				6800.00
299-E17-20	10/14/94	B0D234	100000.00 DH	.31 U	6600.00	
299-E25-11	10/13/94	B0D0Q4	6800.00 Q	.31 U	5000.00	
299-E25-11	10/13/94	B0D0Q5				5000.00
299-E25-18	10/18/94	B0D0Q6	11000.00 D	.31 U	5100.00	
299-E25-18	10/18/94	B0D0Q7				4900.00
299-E25-19	10/18/94	B0D0Q8	37000.00 D	.31 U	6600.00	
299-E25-19	10/18/94	B0D0Q9	37000.00 D	.31 U	7100.00	
299-E25-19	10/18/94	B0D0R0				6800.00
299-E25-19	10/18/94	B0D0R1				6900.00
299-E25-20	10/12/94	B0D0R2	34000.00 D	.31 U	6500.00	
299-E25-20	10/12/94	B0D0R3				6800.00
299-E25-21	10/18/94	B0D0R4	1800.00	.31 U	4800.00	
299-E25-21	10/18/94	B0D0R5				5000.00
299-E25-26	10/19/94	B0D2L0	900.00	.31 U	3500.00	
299-E25-26	10/19/94	B0D2L4				3700.00
299-E25-28	1/07/94	B09PR5		.31 U		
299-E25-28	10/18/94	B0D2L5	800.00	.31 U	3900.00	
299-E25-28	10/18/94	B0D2L9				3900.00
299-E25-31	10/12/94	B0D0R6	1900.00	.31 U	4400.00	
299-E25-31	10/12/94	B0D0R7				4300.00
299-E25-32P	10/11/94	B0D2M0	900.00 Q	.31 U	3600.00	
299-E25-32P	10/11/94	B0D2M4				3600.00
299-E25-34	10/19/94	B0D2M5	1000.00	.31 U	3700.00	
299-E25-34	10/19/94	B0D2M9				3600.00
299-E25-35	10/19/94	B0D2N0	3900.00	.31 U	5200.00	
299-E25-35	10/19/94	B0D2N4				5500.00
299-E25-36	10/13/94	B0D254	14000.00 DQ	.31 U	5000.00	
299-E25-36	10/13/94	B0D357				4900.00
299-E25-42	10/11/94	B0D2N5	6100.00 Q	.31 U	5600.00	
299-E25-42	10/11/94	B0D2N9				5700.00
299-E25-43	10/11/94	B0D2P0	1200.00 Q	.31 U	4300.00	
299-E25-43	10/11/94	B0D2P4				4200.00
299-E25-47	10/12/94	B0D2P5	4700.00	.31 U	5100.00	
299-E25-47	10/12/94	B0D2P9				5100.00
299-E25-48	10/12/94	B0D2Q0	2200.00	.31 U	4600.00	
299-E25-48	10/12/94	B0D2Q4				4600.00
299-E26-12	10/11/94	B0D2Q5	900.00 Q	.31 U	4300.00	
299-E26-12	10/11/94	B0D2Q9				4100.00
299-E26-13	10/12/94	B0D2R0	1000.00	.31 U	4000.00	
299-E26-13	10/12/94	B0D2R4				4000.00
699-43-43	10/06/94	B0D2R5	700.00	.31 U	4600.00	
699-43-43	10/06/94	B0D2R9				4700.00
699-43-45	10/06/94	B0D2S0	1200.00	.31 U	4300.00	
699-43-45	10/06/94	B0D2S4				4400.00

Table 6-4. Constituents with at Least One Detected Value for
the 216-A-29 Ditch Data for Reporting Period
October 1 through December 31, 1994.
(sheet 9 of 11)

Well Name	Collection Date	Sample Number	SODIUM 34/ppb 150/.	FSODIUM 34/ppb 150/.	SULFATE 124/ppb 89/250000s	TRITIUM 142/pCi/L ./20000
299-E17-15	12/06/94	B0DFD9	18000.00 B		28000.00 D	1000000.00
299-E17-20	10/14/94	B0D0Q3		24000.00		
299-E17-20	10/14/94	B0D234	20000.00		33000.00 D	1180000.00
299-E25-11	10/13/94	B0D0Q4	12000.00 q		15000.00 D	55800.00
299-E25-11	10/13/94	B0D0Q5		12000.00 q		
299-E25-18	10/18/94	B0D0Q6	14000.00		23000.00 D	60600.00
299-E25-18	10/18/94	B0D0Q7		15000.00		
299-E25-19	10/18/94	B0D0Q8	23000.00		24000.00 D	338000.00
299-E25-19	10/18/94	B0D0Q9	23000.00		24000.00 D	346000.00
299-E25-19	10/18/94	B0D0R0		24000.00		
299-E25-19	10/18/94	B0D0R1		24000.00		
299-E25-20	10/12/94	B0D0R2	23000.00		27000.00 D	145000.00
299-E25-20	10/12/94	B0D0R3		24000.00		
299-E25-21	10/18/94	B0D0R4	14000.00		14000.00 D	3780.00
299-E25-21	10/18/94	B0D0R5		15000.00		
299-E25-26	10/19/94	B0D2L0	6500.00		10000.00 D	938.00
299-E25-26	10/19/94	B0D2L4		6700.00		
299-E25-28	10/18/94	B0D2L5	8700.00		10000.00 D	719.00
299-E25-28	10/18/94	B0D2L9		8900.00		
299-E25-31	10/12/94	B0D0R6	14000.00		20000.00 D	6720.00
299-E25-31	10/12/94	B0D0R7		15000.00		
299-E25-32P	10/11/94	B0D2M0	5500.00 q		11000.00 D	535.00
299-E25-32P	10/11/94	B0D2M4		5500.00 q		
299-E25-34	10/19/94	B0D2M5	7900.00		11000.00 D	685.00
299-E25-34	10/19/94	B0D2M9		8200.00		
299-E25-35	10/19/94	B0D2N0	25000.00		65000.00 D	25800.00
299-E25-35	10/19/94	B0D2N4		26000.00		
299-E25-36	10/13/94	B0D254	15000.00 q		34000.00 D	9340.00
299-E25-36	10/13/94	B0D357		15000.00 q		
299-E25-42	10/11/94	B0D2N5	25000.00 q		45000.00 D	25100.00
299-E25-42	10/11/94	B0D2N9		25000.00 q		
299-E25-43	10/11/94	B0D2P0	8800.00 q		11000.00 D	599.00
299-E25-43	10/11/94	B0D2P4		8500.00 q		
299-E25-47	10/12/94	B0D2P5	20000.00		28000.00 D	12500.00
299-E25-47	10/12/94	B0D2P9		20000.00		
299-E25-48	10/12/94	B0D2Q0	13000.00		21000.00 D	5590.00
299-E25-48	10/12/94	B0D2Q4		13000.00		
299-E26-12	10/11/94	B0D2Q5	7600.00 q		11000.00 D	873.00
299-E26-12	10/11/94	B0D2Q9		7700.00 q		
299-E26-13	10/12/94	B0D2R0	7400.00		11000.00 D	623.00
299-E26-13	10/12/94	B0D2R4		7400.00		
699-43-43	10/06/94	B0D2R5	5500.00		9900.00 D	273.00
699-43-43	10/06/94	B0D2R9		5500.00		
699-43-45	10/06/94	B0D2S0	8800.00		9700.00	553.00
699-43-45	10/06/94	B0D2S4		8600.00		

Table 6-4. Constituents with at Least One Detected Value for
the 216-A-29 Ditch Data for Reporting Period
October 1 through December 31, 1994.
(sheet 10 of 11)

Well Name	Collection Date	Sample Number	TURBID 126/NTU .016/.	VANADUM 34/ppb 6.4/.	FVANADI 34/ppb 6.4/.	ZINC 34/ppb 4.4/5000s
299-E17-15	12/06/94	B0DFD9	1.90	23.00 L		6.30 U
299-E17-20	10/14/94	B0D0Q3			27.00 L	
299-E17-20	10/14/94	B0D234	2.80 H	27.00 L		6.30 L
299-E25-11	10/13/94	B0D0Q4	1.30 Q	37.00		24.00
299-E25-11	10/13/94	B0D0Q5			36.00	
299-E25-18	10/18/94	B0D0Q6	1.90	30.00		14.00
299-E25-18	10/18/94	B0D0Q7			32.00	
299-E25-19	10/18/94	B0D0Q8	.61	44.00		15.00 Q
299-E25-19	10/18/94	B0D0Q9	.62	45.00		22.00 Q
299-E25-19	10/18/94	B0D0R0			45.00	
299-E25-19	10/18/94	B0D0R1			42.00	
299-E25-20	10/12/94	B0D0R2	1.30 Q	47.00		27.00
299-E25-20	10/12/94	B0D0R3			47.00	
299-E25-21	10/18/94	B0D0R4	2.50	41.00		29.00
299-E25-21	10/18/94	B0D0R5			40.00	
299-E25-26	10/19/94	B0D2L0	.50	19.00 L		18.00
299-E25-26	10/19/94	B0D2L4			19.00 L	
299-E25-28	10/18/94	B0D2L5	.61	36.00		10.00
299-E25-28	10/18/94	B0D2L9			35.00	
299-E25-31	10/12/94	B0D0R6	14.00 Q	29.00 L		47.00
299-E25-31	10/12/94	B0D0R7			27.00 L	
299-E25-32P	10/11/94	B0D2M0	2.30 Q	11.00 L		6.30 U
299-E25-32P	10/11/94	B0D2M4			8.20 L	
299-E25-34	10/19/94	B0D2M5	2.60	34.00		11.00
299-E25-34	10/19/94	B0D2M9			31.00	
299-E25-35	10/19/94	B0D2N0	3.60	31.00		8.00 L
299-E25-35	10/19/94	B0D2N4			31.00	
299-E25-36	10/13/94	B0D254	1.40 Q	27.00 L		6.30 U
299-E25-36	10/13/94	B0D357			25.00 L	
299-E25-42	10/11/94	B0D2N5	15.00 QF	33.00		11.00
299-E25-42	10/11/94	B0D2N9			27.00 L	
299-E25-43	10/11/94	B0D2P0	2.80 Q	40.00		8.80 L
299-E25-43	10/11/94	B0D2P4			37.00	
299-E25-47	10/12/94	B0D2P5	4.10 Q	30.00		13.00
299-E25-47	10/12/94	B0D2P9			30.00	
299-E25-48	10/12/94	B0D2Q0	5.60 Q	27.00 L		6.30 U
299-E25-48	10/12/94	B0D2Q4			25.00 L	
299-E26-12	10/11/94	B0D2Q5	1.10 Q	37.00		6.30 U
299-E26-12	10/11/94	B0D2Q9			35.00	
299-E26-13	10/12/94	B0D2R0	.95 Q	29.00 L		8.00 L
299-E26-13	10/12/94	B0D2R4			29.00 L	
699-43-43	10/06/94	B0D2R5	1.60	27.00 L		21.00 BQ
699-43-43	10/06/94	B0D2R9			26.00 L	
699-43-45	10/06/94	B0D2S0	.63	33.00		21.00 BQ
699-43-45	10/06/94	B0D2S4			29.00 L	

Table 6-4. Constituents with at Least One Detected Value for
the 216-A-29 Ditch Data for Reporting Period
October 1 through December 31, 1994.
(sheet 11 of 11)

Well Name	Collection Date	Sample Number	FZINC 34/ppb 4.4/5000s
299-E17-20	10/14/94	B0D0Q3	6.30 U
299-E25-11	10/13/94	B0D0Q5	15.00
299-E25-18	10/18/94	B0D0Q7	6.70 L
299-E25-19	10/18/94	B0D0R0	14.00
299-E25-19	10/18/94	B0D0R1	16.00
299-E25-20	10/12/94	B0D0R3	6.40 L
299-E25-21	10/18/94	B0D0R5	14.00
299-E25-26	10/19/94	B0D2L4	9.10 L
299-E25-28	10/18/94	B0D2L9	6.30 U
299-E25-31	10/12/94	B0D0R7	6.30 U
299-E25-32P	10/11/94	B0D2M4	8.20 L
299-E25-34	10/19/94	B0D2M9	6.30 U
299-E25-35	10/19/94	B0D2N4	6.30 U
299-E25-36	10/13/94	B0D357	6.30 U
299-E25-42	10/11/94	B0D2N9	9.00 L
299-E25-43	10/11/94	B0D2P4	8.60 L
299-E25-47	10/12/94	B0D2P9	6.30 U
299-E25-48	10/12/94	B0D2Q4	6.30 U
299-E26-12	10/11/94	B0D2Q9	6.30 U
299-E26-13	10/12/94	B0D2R4	6.30 U
699-43-43	10/06/94	B0D2R9	16.00 BQ
699-43-45	10/06/94	B0D2S4	17.00 BQ

For explanation of this table, see Section 1.4 of report.

Table 6-5. Contamination Indicator Parameters for the 216-A-29 Ditch
Data for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 2)

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-E17-15	12/06/94	B0DFD9	486	500	8.02	7.90 H	200 L	
		B0DFF0	483		8.00		200 L	
		B0DFF1	486		7.99		200 L	5.0 U
		B0DFF2	483		7.98		300 L	
299-E17-20	10/14/94	B0D234	481	470	8.25	8.30 H	300 L	5.8
		B0D235	478		8.25		200 L	5.0 U
		B0D236	484		8.25		400 L	5.0 U
		B0D237	482		8.24		300 L	5.0 U
299-E25-11	10/13/94	B0D0Q4	223	220	8.01			
299-E25-18	10/18/94	B0D0Q6	254	250	8.34			
299-E25-19	10/18/94	B0D0Q8	315	310	8.44			
		B0D0Q9		310				
299-E25-20	10/12/94	B0D0R2	303	310	7.39			
299-E25-21	10/18/94	B0D0R4	210	210	8.94 F			
299-E25-26	10/19/94	B0D2L0	182	180	8.22		500 L	5.0 U
		B0D2L1	182		8.21		600 L	5.5
		B0D2L2	179		8.22		600 L	5.0 U
		B0D2L3	177		8.21		500 LQ	5.0 U
299-E25-28	10/18/94	B0D2L5	182	190	8.39		600 L	8.9
		B0D2L6	181		8.40		400 L	10.3
		B0D2L7	182		8.39		600 L	6.4
		B0D2L8	181		8.40		600 L	5.3
299-E25-31	10/12/94	B0D0R6	224	240	7.68			
299-E25-32P	10/11/94	B0D2M0	189	180	7.46		600 L	5.0 U
		B0D2M1	188		7.46		700 L	5.0 U
		B0D2M2	189		7.47		700 L	6.6
		B0D2M3	189		7.48		700 L	5.0 U
299-E25-34	10/19/94	B0D2M5	181	190	7.72		700 LQ	5.0 U
		B0D2M6	180		7.72		500 LQ	5.4
		B0D2M7	180		7.72		500 LQ	5.7
		B0D2M8	180		7.72		500 LQ	7.8
299-E25-35	10/19/94	B0D2N0	352	380	8.01		200 LQ	5.7
		B0D2N1	354		8.02		200 LQ	5.5
		B0D2N2	357		8.05		200 LQ	5.5
		B0D2N3	357		8.05		300 LQ	5.0 U
299-E25-36	10/13/94	B0D254	289	300	7.54	8.30	500 LQ	5.0 U
		B0D255	288		7.54		400 LQ	6.2
		B0D256	288		7.54		600 LQ	5.9
		B0D257	287		7.55		400 LQ	5.1
299-E25-42	10/11/94	B0D2N5	344	330	7.48		400 L	13.9
		B0D2N6	344		7.46		300 L	5.0 U
		B0D2N7	344		7.45		300 L	5.0 U
		B0D2N8	345		7.46		300 L	5.0 U

Table 6-5. Contamination Indicator Parameters for the 216-A-29 Ditch
Data for Reporting Period October 1 through December 31, 1994.
(sheet 2 of 2)

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-E25-43	10/11/94	B0D2P0	207	190	7.85		500 L	9.3
		B0D2P1	208		7.84		500 L	5.0 U
		B0D2P2	207		7.85		600 L	5.0 U
		B0D2P3	208		7.82		600 L	5.0 U
299-E25-47	10/12/94	B0D2P5	268	270	7.78		300 L	5.1
		B0D2P6	267		7.78		400 L	5.8
		B0D2P7	266		7.80		300 L	5.0 U
		B0D2P8	267		7.79		300 L	5.0 U
299-E25-48	10/12/94	B0D2Q0	215	230	7.93		400 L	7.1
		B0D2Q1	214		7.94		400 L	5.4
		B0D2Q2	216		7.94		400 L	5.4
		B0D2Q3	216		7.93		500 L	10.5
299-E26-12	10/11/94	B0D2Q5	186	190	7.97		600 LB	6.3
		B0D2Q6	185		7.97		500 LB	6.0
		B0D2Q7	186		7.97		500 LB	5.3
		B0D2Q8	186		7.97		500 LB	5.0 U
299-E26-13	10/12/94	B0D2R0	206	220	7.85		500 L	5.0 U
		B0D2R1	206		7.85		600 L	5.0 U
		B0D2R2	205		7.85		500 L	5.0 U
		B0D2R3	205		7.85		500 L	8.8
699-43-43	10/06/94	B0D2R5	214	180	7.94		600 L	5.0 U
		B0D2R6	210		7.92		600 L	5.0 U
		B0D2R7	208		7.92		700 L	5.0 U
		B0D2R8	207		7.92		600 L	5.0 U
699-43-45	10/06/94	B0D386				8.30		
		B0D2S0	248	240	7.84		400 L	5.0 U
		B0D2S1	248		7.86		400 L	5.0 U
		B0D2S2	248		7.84		400 L	5.0 U
		B0D2S3	249		7.88		500 L	5.0 U
		B0D387				8.20		

For explanation of this table, see Section 1.4 of report.

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7.0 216-A-36B CRIB

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7.1 INTRODUCTION

The 216-A-36B Crib (A-36B Crib) is a retired liquid waste disposal facility for the PUREX Plant. The crib is located in the 200 East Area approximately 365 m (1,200 ft) south of the PUREX Plant (Figures 1-1 and 7-1). The A-36B Crib is the southernmost 152 m (500 ft) of a crib originally known as the 216-A-36 Crib. The ammonia scrubber distillate waste stream that resulted from PUREX operations was discharged to the crib to percolate through the soil column. The original crib received liquid effluent from September 1965 to March 1966. Because a substantial inventory of radionuclides was disposed of in the crib and was assumed to have infiltrated the sediments near the inlet of the crib, a grout curtain was emplaced to partition the crib into two sections, known as A and B. Discharge to the A-36B Crib section resumed in March 1966 and continued until 1972 when the crib was temporarily removed from service. The crib was placed back in service in November 1982 and operated until it was retired in October 1987.

Ammonia scrubber distillate effluent disposed of in the A-36B Crib was the condensate from the fuel-rod decladding operation. In this process, the zircalloy cladding was removed from the irradiated fuel by dissolving the cladding in a boiling solution of ammonium fluoride and ammonium nitrate. Waste stream constituents are known to have included radionuclides (tritium, strontium-90, cesium-137, ruthenium-106, cobalt-60, and uranium) and hazardous substances (ammonium, fluoride, and nitrate).

In accordance with the *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) (Ecology et al. 1994), Milestone M-20-34, RCRA closure/post-closure plans for the A-36B Crib are to be submitted to Ecology and the EPA in March 1996. An interim-status detection-level RCRA groundwater monitoring network has been in place at the A-36B Crib since May 1988.

The RCRA groundwater monitoring system consists of five downgradient wells and three upgradient wells, as listed in Table 7-1. This is a change from the previous reporting period when the monitoring network consisted of six downgradient wells and one upgradient well. The Groundwater Monitoring Plan for A-36B has been revised. The two upgradient wells from the 216-A-10 Crib monitoring network, 299-E24-18 and 299-E25-36, have been added as upgradient wells and 299-E17-5 is no longer sampled and is used for water level information only.

Well locations for the A-36B monitoring network are shown in Figure 7-1. CIP critical means were calculated using four quarters of data from September 1988 to June 1989. As shown in Table 7-1, data from well 299-E17-15 are also used by the 216-A-29 Ditch groundwater quality assessment.

7.2 WATER LEVEL MEASUREMENTS

Water level measurements are made quarterly and during semiannual RCRA sample collection. Water level data collected during the October through December 1994 period are reported in Table 7-2. Three wells have water level measurements that are out of the expected range. These measurements occurred at the time of sampling.

7.3 WATER CHEMISTRY DATA

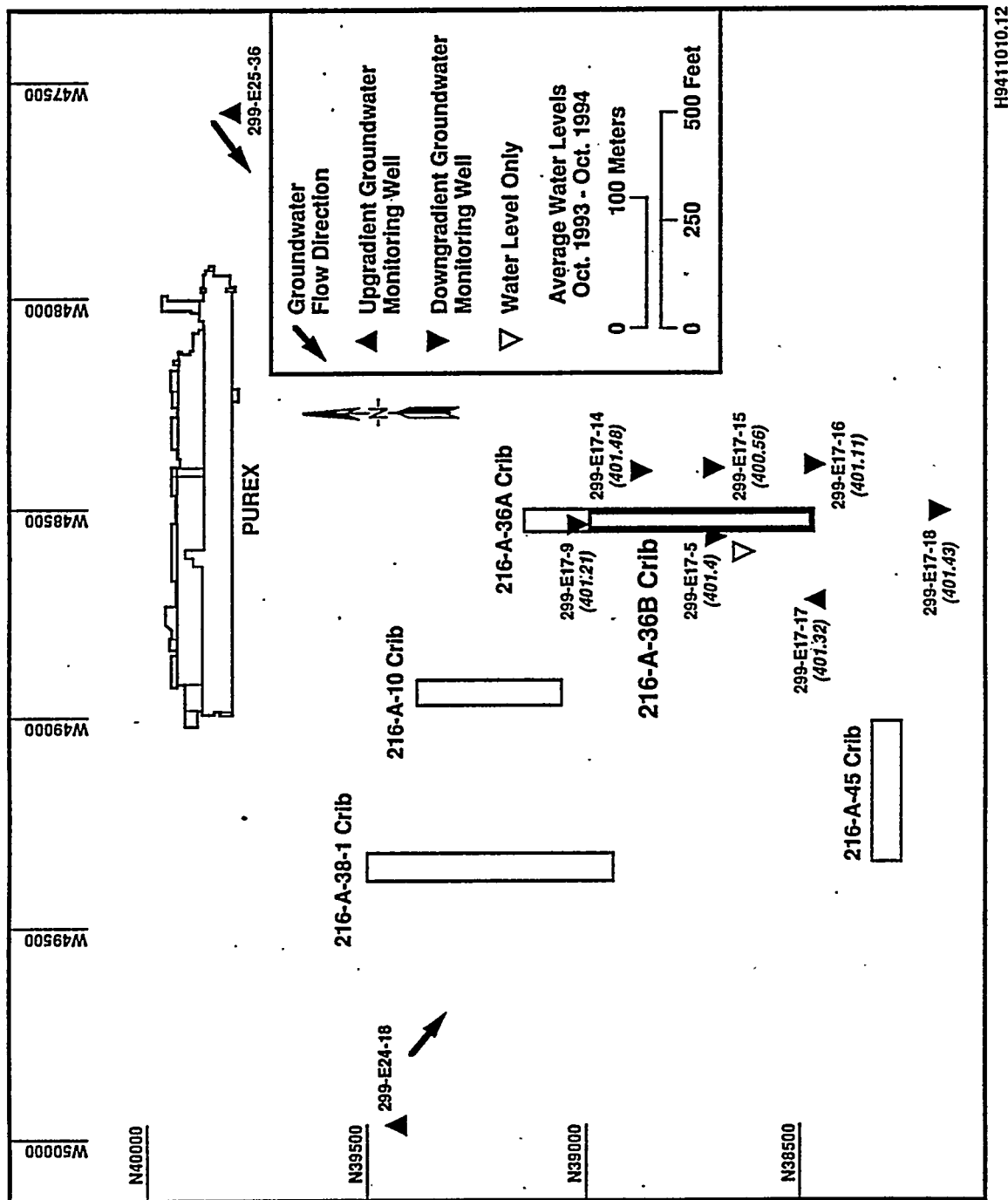
Groundwater samples were collected from the 216-A-36B Crib monitoring network during October and December 1994. The constituent list and summary of results are provided in Table 7-3. Constituents with at least one value above the MDL for all available data are presented in Table 7-4. Table 7-5 lists the results of the CIPs. Data flags are discussed in Section 1.2 and 1.4.

No CIP replicate average exceeded the calculated critical mean during the reporting period. A RADE was submitted for field pH results from well 299-E17-18. The field measurements taken in quadruplicate for this well ranged between 6.67 and 6.75, while the lab pH for one of these samples was 8.1. Past field pH measurements for this well have been between 7.5 and 8.0.

Constituents exceeding the drinking water standards during the reporting period were iodine-129, tritium, chromium, nitrate, and iron. For details on specific wells, see Table 7-6.

Samples from well 299-E17-9 were misplaced in the samplers holding area for 55 days before they were sent to the laboratory for analysis. Therefore, not all of the sample results are contained in this report and holding times were missed for laboratory pH, laboratory conductivity, turbidity, anions, and phenols. A field analysis was done of pH, conductivity, and nitrate the last week of January 1995 to use as comparison results. This will be discussed in the January-March 1995 quarterly report when the rest of the data have been reported.

Figure 7-1. Well Location Map
for the 216-A-36B Crib.



H9411010.12

Table 7-1. Well Identification and Sampling Schedule
for the 216-A-36B Crib Groundwater Monitoring Network.

Well no. (299-)	Relative position	Hydrogeologic unit	Sample frequency	Sample date, 4th Qtr 1994
E17-17	Upgradient	Ringold: Water Table	Semiannually	12/6/94
E24-17	Upgradient	Ringold: Water Table	Semiannually	10/14/94
E25-36 ^a	Upgradient	Ringold: Water Table	Semiannually	10/13/94
E17-5	Downgradient	Ringold: Water Table	water level only	—
E17-9	Downgradient	Ringold: Water Table	Semiannually	12/7/94
E17-14	Downgradient	Ringold: Water Table	Semiannually	12/6/94
E17-15 ^a	Downgradient	Ringold: Water Table	Semiannually	12/6/94
E17-16	Downgradient	Ringold: Water Table	Semiannually	12/6/94
E17-18	Downgradient	Ringold: Water Table	Semiannually	12/7/94

^aWell shared with the 216-A-29 Ditch network.

Table 7-2. RCRA Water Level Measurement Report
216-A-36B Crib, Fourth Quarter 1994.

Well	Date	Depth to water (ft)	Water level elevation above msl	
			(ft)	(m)
299-E17-14	12/06/94	320.88	401.30*	122.32
	12/12/94	320.80	401.38	122.34
299-E17-15	12/06/94	321.65	400.13*	121.96
	12/12/94	321.24	400.54	122.08
299-E17-16	12/06/94	319.48	401.10*	122.26
	12/12/94	319.47	401.11	122.26
299-E17-17	12/06/94	320.13	399.79*+	121.86
	12/12/94	318.64	401.28	122.31
299-E17-18	12/07/94	320.76	399.89*+	121.89
	12/12/94	319.36	401.29	122.31
299-E17-5	12/12/94	317.86	400.83	122.17
299-E17-9	12/07/94	316.87	400.77*	122.15
	12/12/94	316.52	401.12	122.26
299-E24-18	10/14/94	400.75	318.53*+	97.09
	12/12/94	317.93	401.35	122.33
299-E25-36	10/13/94	305.96	401.43*	122.36
	12/12/94	306.03	401.36	122.33

- NOTES:
1. Water level elevations are calculated by subtracting the measured depth-to-water from the surveyed elevation for the well.
 2. Depth-to-water values are transcribed from field records.
 3. Elevations marked with an '*' were measured at the time of sampling.
 4. Elevation marked with a '+' are outside of the expected range, and are suspected of error.

Table 7-3. Constituent List and Summary of Results for the 216-A-36B Crib
Data for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 3)

CONTAMINATION INDICATOR PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS Limit	Agency	Number of Samples		
		Full						Total	>MDL	>DWS
CONDUCT	94	Conductivity, field	umhos		1			32	32	
CONDUCT	73	Conductivity, lab	umhos					8	8	
TOC		Total Organic Carbon	ppb		110			32	32	
TOX		Total Organic Halogen	ppb		5			21	6	
PH	93	pH, field	pH		.01	6.5-8.5	EPAS	32	32	0
PH	125	pH, lab	pH			6.5-8.5	EPAS	8	8	0

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS Limit	Agency	Number of Samples		
		Full						Total	>MDL	>DWS
BARIUM		Barium	ppb		.59	1000	EPAI	7	7	0
FBARIUM		Barium, filtered	ppb		.59	1000	EPAI	1	1	0
CADMIUM		Cadmium	ppb		3.3	10	EPAI	7	0	0
FCADMIU		Cadmium, filtered	ppb		3.3	10	EPAI	1	0	0
CHROMIUM		Chromium	ppb		4.5	50	EPAI	7	7	6
FCHROMI		Chromium, filtered	ppb		4.5	50	EPAI	1	1	0
FLUORID		Fluoride	ppb		36	1400	EPAI	7	7	0
ALPHA		Gross alpha	pCi/L			15	EPA	7	6	1
NITRATE		Nitrate	ppb		11	45000	EPA	7	7	3

GROUNDWATER QUALITY PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS Limit	Agency	Number of Samples		
		Full						Total	>MDL	>DWS
CHLORID		Chloride	ppb		14	250000	EPAS	7	7	0
IRON		Iron	ppb		5.24	300	EPAS	7	7	5
FIRO		Iron, filtered	ppb		5.24	300	EPAS	1	1	0
MANGESE		Manganese	ppb		.72	50	EPAS	7	7	0
FMANGAN		Manganese, filtered	ppb		.72	50	EPAS	1	1	0
LPHENOL		Phenol	ppb		.31			7	3	
SODIUM		Sodium	ppb		61			7	7	
FSODIUM		Sodium, filtered	ppb		61			1	1	
SULFATE		Sulfate	ppb		37	250000	EPAS	7	7	0

Table 7-3. Constituent List and Summary of Results for the 216-A-36B Crib
Data for Reporting Period October 1 through December 31, 1994.
(sheet 2 of 3)

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name Full	Units	Lab MDL	DWS Limit	Agency	Number of Samples		
							Total	>MDL	>DWS
246-trp		2,4,6-Trichlorophenol	ppb	1.3			7	0	
24-dchp		2,4-Dichlorophenol	ppb	1.3			7	0	
DIMPEN		2,4-Dimethylphenol	ppb	1.2			7	0	
DINPHEN		2,4-Dinitrophenol	ppb	3			7	0	
26-dchp		2,6-Dichlorophenol	ppb	1.4			7	0	
CHLPHEN		2-Chlorophenol	ppb	1.6			7	0	
2NITPH		2-Nitrophenol	ppb	1.3			7	0	
BUTDINP		2-sec-Butyl-4,6-dinitrophenol (DN	ppb	1.3			7	0	
46DN2MP		4,6-Dinitro-2-methylphenol	ppb	1.3			7	0	
CHLCRES		4-Chloro-3-methylphenol	ppb	1.3			7	0	
NITPHEN		4-Nitrophenol	ppb	3			7	0	
ALUMNUM		Aluminum	ppb	26			7	1	
FALUMIN		Aluminum, filtered	ppb	26			1	0	
AMMONIU		Ammonium ion	ppb	37			6	0	
ANTIONY		Antimony	ppb	62			7	0	
FANTIMO		Antimony, filtered	ppb	62			1	0	
SB-125		Antimony-125	pCi/L				7	0	
BERYLUM		Beryllium	ppb	.17			7	1	
FBERYLL		Beryllium, filtered	ppb	.17			1	0	
BROMIDE		Bromide	ppb	100			7	0	
CALCIUM		Calcium	ppb	34			7	7	
FCALCIU		Calcium, filtered	ppb	34			1	1	
CS-137		Cesium-137	pCi/L		200	EPA	7	0	0
COBALT		Cobalt	ppb	5.9			7	0	
FCOBALT		Cobalt, filtered	ppb	5.9			1	0	
CO-60		Cobalt-60	pCi/L		100	EPA	7	4	0
COPPER		Copper	ppb	4.1	1000	EPAS	7	5	0
FCOPPER		Copper, filtered	ppb	4.1	1000	EPAS	1	0	0
CRESOLS		Cresols (methylphenols)	ppb	4.8			7	0	
BETA		Gross beta	pCi/L				7	7	
LHYDRAZ		Hydrazine	ppb	1.6			1	0	
I-129L		Iodine-129, Low level	pCi/L		1	EPA	7	6	7*
MAGNES		Magnesium	ppb	23			7	7	
FMAGNES		Magnesium, filtered	ppb	23			1	1	
NICKEL		Nickel	ppb	13			7	7	
FNICKEL		Nickel, filtered	ppb	13			1	1	
NITRITE		Nitrite	ppb	18	1000	EPA	7	0	0
PENTCHP		Pentachlorophenol	ppb	1.3	1	EPA	7	0	7*
PHOSPHA		Phosphate	ppb	82			7	0	
POTASSUM		Potassium	ppb	850			7	7	
FPOTASS		Potassium, filtered	ppb	850			1	1	
RU-106		Ruthenium-106	pCi/L		30	EPA	7	0	0
SILVER		Silver	ppb	3.6	50	EPAI	7	1	0

Table 7-3. Constituent List and Summary of Results for the 216-A-36B Crib
Data for Reporting Period October 1 through December 31, 1994.
(sheet 3 of 3)

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
FSILVER		Silver, filtered	ppb	3.6		50	EPAI	1	0	0
TETPHNL		Tetrachlorophenols	ppb	1.5				7	0	
TIN		Tin	ppb	69				7	0	
FTIN		Tin, filtered	ppb	69				1	0	
TRIPHNL		Trichlorophenols	ppb	1.7				7	0	
TRITIUM		Tritium	pCi/L			20000	EPA	7	7	6
TURBID		Turbidity	NTU	.016				8	8	
VANADUM		Vanadium	ppb	6.6				7	7	
FVANADI		Vanadium, filtered	ppb	6.6				1	1	
ZINC		Zinc	ppb	6.3		5000	EPAS	7	2	0
FZINC		Zinc, filtered	ppb	6.3		5000	EPAS	1	0	0

For explanation of this table, see Section 1.4 of report.

Table 7-4. Constituents with at Least One Detected Value for
the 216-A-36B Crib Data for Reporting Period
October 1 through December 31, 1994.
(sheet 1 of 3)

Well Name	Collection Date	Sample Number	ALUMNUM 34/ppb 19/.	FALUMIN 34/ppb 19/.	BARIUM 34/ppb 1.3/1000i	FBARIUM 34/ppb 1.3/1000i
299-E17-14	12/06/94	B0DFD5	39.00 L		53.00	
299-E17-15	12/06/94	B0DFD9	26.00 U		47.00	
299-E17-16	12/06/94	B0DFF3	26.00 U		39.00 q	
299-E17-17	12/06/94	B0DFF7	26.00 U		36.00	
299-E17-18	12/07/94	B0DFG1	26.00 U		37.00 q	
299-E24-18	10/14/94	B0D246	26.00 U		51.00	
299-E25-36	10/13/94	B0D254	26.00 Uq		21.00 q	
299-E25-36	10/13/94	B0D357		26.00 Uq		21.00 q

Well Name	Collection Date	Sample Number	BERYLUM 34/ppb 1.5/.	FBERYLL 34/ppb 1.5/.	CALCIUM 34/ppb 47/.	FCALCIU 34/ppb 47/.
299-E17-14	12/06/94	B0DFD5	.17 U		47000.00	
299-E17-15	12/06/94	B0DFD9	.17 U		52000.00	
299-E17-16	12/06/94	B0DFF3	.17 U		38000.00	
299-E17-17	12/06/94	B0DFF7	.17 U		28000.00	
299-E17-18	12/07/94	B0DFG1	.17 U		26000.00	
299-E24-18	10/14/94	B0D246	.37 L		35000.00	
299-E25-36	10/13/94	B0D254	.17 U		30000.00	
299-E25-36	10/13/94	B0D357		.17 U		29000.00

Well Name	Collection Date	Sample Number	CHLORID 124/ppb 71/250000s	CHROMUM 34/ppb 11/50i	FCHROMI 34/ppb 11/50i	CO-60 140/pCi/L ./100
299-E17-14	12/06/94	B0DFD5	3200.00	59.00		11.10
299-E17-15	12/06/94	B0DFD9	3400.00	79.00		5.39 U
299-E17-16	12/06/94	B0DFF3	3300.00	98.00		15.30
299-E17-17	12/06/94	B0DFF7	3400.00	91.00		3.62 U
299-E17-18	12/07/94	B0DFG1	2900.00 Bq	38.00		9.67
299-E24-18	10/14/94	B0D246	7600.00	220.00		2.13 U
299-E25-36	10/13/94	B0D254	4600.00	100.00 q		24.40 F
299-E25-36	10/13/94	B0D357			4.50 Lq	

Well Name	Collection Date	Sample Number	COPPER 34/ppb 2.6/1000s	FCOPPER 34/ppb 2.6/1000s	FLUORID 124/ppb 51/1400i	ALPHA 135/pCi/L ./15
299-E17-14	12/06/94	B0DFD5	8.00 L		1000.00	4.26
299-E17-15	12/06/94	B0DFD9	4.10 U		1000.00	4.44
299-E17-16	12/06/94	B0DFF3	4.10 U		300.00	3.95
299-E17-17	12/06/94	B0DFF7	5.30 L		1000.00	4.45
299-E17-18	12/07/94	B0DFG1	6.40 L		400.00	4.92
299-E24-18	10/14/94	B0D246	15.00 L		900.00	16.40
299-E25-36	10/13/94	B0D254	6.00 L		600.00	.06 U
299-E25-36	10/13/94	B0D357		4.10 U		

Table 7-4. Constituents with at Least One Detected Value for
the 216-A-36B Crib Data for Reporting Period
October 1 through December 31, 1994.
(sheet 2 of 3)

Well Name	Collection Date	Sample Number	BETA 136/pCi/L ./.	I-129 139/pCi/L ./1	IRON 34/ppb 18/300s	FIROn 34/ppb 18/300s
299-E17-14	12/06/94	B0DFD5	88.60	9.15	270.00 B	
299-E17-15	12/06/94	B0DFD9	92.60	9.25	370.00 B	
299-E17-16	12/06/94	B0DFF3	62.90	6.11	440.00 B	
299-E17-17	12/06/94	B0DFF7	14.30	5.98 U	390.00 B	
299-E17-18	12/07/94	B0DFG1	21.90	4.79	190.00 B	
299-E24-18	10/14/94	B0D246	26.70	2.66	870.00 BQ	
299-E25-36	10/13/94	B0D254	5.13	1.20	480.00 BQ	
299-E25-36	10/13/94	B0D357				31.00 BQ

Well Name	Collection Date	Sample Number	MAGNES 34/ppb 25/.	FMAGNES 34/ppb 25/.	MANGESE 34/ppb 1/50s	FMANGAN 34/ppb 1/50s
299-E17-14	12/06/94	B0DFD5	15000.00		5.80 L	
299-E17-15	12/06/94	B0DFD9	13000.00		7.30 L	
299-E17-16	12/06/94	B0DFF3	11000.00		8.90 L	
299-E17-17	12/06/94	B0DFF7	8300.00		8.60 L	
299-E17-18	12/07/94	B0DFG1	7700.00		4.30 L	
299-E24-18	10/14/94	B0D246	11000.00		18.00	
299-E25-36	10/13/94	B0D254	8200.00		10.00	
299-E25-36	10/13/94	B0D357		8100.00		2.30 L

Well Name	Collection Date	Sample Number	NICKEL 34/ppb 16/.	FNICKEL 34/ppb 16/.	NITRATE 124/ppb 96/45000	LPHENOL 30/ppb .57/.
299-E17-14	12/06/94	B0DFD5	23.00 L		110000.00 DH	.49 LB
299-E17-15	12/06/94	B0DFD9	33.00		110000.00 DH	.46 LB
299-E17-16	12/06/94	B0DFF3	54.00		71000.00 D	.31 U
299-E17-17	12/06/94	B0DFF7	34.00		29000.00 DH	.36 LB
299-E17-18	12/07/94	B0DFG1	30.00		17000.00 DQ	.31 U
299-E24-18	10/14/94	B0D246	100.00		22000.00 DQ	.31 U
299-E25-36	10/13/94	B0D254	61.00		14000.00 DQ	.31 U
299-E25-36	10/13/94	B0D357		13.00 L		

Well Name	Collection Date	Sample Number	POTASUM 34/ppb 890/.	FPOTASS 34/ppb 890/.	SILVER 34/ppb 3.4/50i	FSILVER 34/ppb 3.4/50i
299-E17-14	12/06/94	B0DFD5	5600.00		3.70 L	
299-E17-15	12/06/94	B0DFD9	5400.00		3.60 U	
299-E17-16	12/06/94	B0DFF3	5700.00		3.60 U	
299-E17-17	12/06/94	B0DFF7	5300.00		3.60 U	
299-E17-18	12/07/94	B0DFG1	4800.00		3.60 U	
299-E24-18	10/14/94	B0D246	5900.00		3.60 U	
299-E25-36	10/13/94	B0D254	5000.00		3.60 U	
299-E25-36	10/13/94	B0D357		4900.00		3.60 U

Table 7-4. Constituents with at Least One Detected Value for
the 216-A-36B Crib Data for Reporting Period
October 1 through December 31, 1994.
(sheet 3 of 3)

Well Name	Collection Date	Sample Number	SODIUM 34/ppb 150/.	FSODIUM 34/ppb 150/.	SULFATE 124/ppb 89/250000s	TRITIUM 142/pCi/L ./20000
299-E17-14	12/06/94	B0DFD5	18000.00 B		28000.00 D	918000.00
299-E17-15	12/06/94	B0DFD9	18000.00 B		28000.00 D	1000000.00
299-E17-16	12/06/94	B0DFF3	17000.00 BQ		32000.00 D	501000.00
299-E17-17	12/06/94	B0DFF7	17000.00 B		22000.00 D	705000.00
299-E17-18	12/07/94	B0DFG1	16000.00 Q		22000.00 D	301000.00
299-E24-18	10/14/94	B0D246	21000.00		32000.00 D	123000.00
299-E25-36	10/13/94	B0D254	15000.00 Q		34000.00 D	9340.00
299-E25-36	10/13/94	B0D357		15000.00 Q		

Well Name	Collection Date	Sample Number	TURBID 126/NTU .016/.	VANADIUM 34/ppb 6.4/.	FVANADI 34/ppb 6.4/.	ZINC 34/ppb 4.4/5000s
299-E17-14	12/06/94	B0DFD5	1.10	24.00 L		6.30 U
299-E17-15	12/06/94	B0DFD9	1.90	23.00 L		6.30 U
299-E17-16	12/06/94	B0DFF3	1.50 Q	27.00 L		6.30 U
299-E17-17	12/06/94	B0DFF7	1.20	25.00 L		6.30 U
299-E17-18	12/07/94	B0DFG1	1.50 Q	27.00 L		7.90 L
299-E17-9	12/07/94	B0DFG9	2.10 QH			
299-E24-18	10/14/94	B0D246	1.40 Q	21.00 L		8.40 L
299-E25-36	10/13/94	B0D254	1.40 Q	27.00 L		6.30 U
299-E25-36	10/13/94	B0D357			25.00 L	

Well Name	Collection Date	Sample Number	FZINC 34/ppb 4.4/5000s
299-E25-36	10/13/94	B0D357	6.30 U

For explanation of this table, see Section 1.4 of report.

Table 7-5. Contamination Indicator Parameters for the 216-A-36B Crib
Data for Reporting Period October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-E17-14	12/06/94	B0DFD5	450	470	8.00	7.90 H	300 L	5.0 U
		B0DFD6	451		7.97		400 L	
		B0DFD7	449		7.95		300 L	
		B0DFD8	448		7.92		300 L	
299-E17-15	12/06/94	B0DFD9	486	500	8.02	7.90 H	200 L	6.4
		B0DFF0	483		8.00		200 L	
		B0DFF1	486		7.99		200 L	
		B0DFF2	483		7.98		300 L	
299-E17-16	12/06/94	B0DFF3	387	390	8.01	8.00	200 L	6.2
		B0DFF4	381		8.00		200 L	
		B0DFF5	378		7.96		300 L	
		B0DFF6	376		7.92		200 L	
299-E17-17	12/06/94	B0DFF7	289	300	7.88	8.10 H	200 L	5.0 U
		B0DFF8	291		7.84		200 L	
		B0DFF9	292		7.78		200 L	
		B0DFG0	290		7.77		300 L	
299-E17-18	12/07/94	B0DFG1	278	270	6.75 F	8.10	400 LB	5.0 UQ
		B0DFG2	263		6.72 F		500 LB	
		B0DFG3	258		6.69 F		400 LB	
		B0DFG4	249		6.67 F		300 LB	
299-E17-9	12/07/94	B0DFG9	594	530 H	7.60	8.00 H	800 LH	5.5 Q
		B0DFH0	592		7.61		800 LH	
		B0DFH1	592		7.61		900 LH	
		B0DFH2	590		7.63		800 LH	
299-E24-18	10/14/94	B0D246	371	380	7.58	8.10	200 L	5.0 U
		B0D247	370		7.58		300 L	
		B0D248	370		7.57		200 L	
		B0D249	370		7.57		200 L	
299-E25-36	10/13/94	B0D254	289	300	7.54	8.30	500 LQ	5.0 U
		B0D255	288		7.54		400 LQ	
		B0D256	288		7.54		600 LQ	
		B0D257	287		7.55		400 LQ	

For explanation of this table, see Section 1.4 of report.

Table 7-6. Drinking Water Standards Exceeded in the 216-A-36B Cib
Groundwater Monitoring Network.

Constituent (DWS)	Wells exceeding DWS (299-)
Chromium, unfiltered samples (50ppb)	E17-14, E17-15, E17-16, E17-17
Iron, unfiltered samples (300 ppb)	E17-15, E17-16, E17-17
Nitrate (45,000 ppb)	E17-14, E17-15, E17-16
Tritium (20,000 pCi/L)	E17-14, E17-15, E17-16, E17-17, E17-18
Iodine-129 (1 pCi/L)	E17-14, E17-15, E17-16, E17-17, E17-18

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8.0 216-A-10 CRIB

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8.1 INTRODUCTION

The 216-A-10 Crib (A-10 Crib) is a retired liquid waste disposal facility that was used during the operation of the PUREX Plant. The crib is located in the 200 East Area approximately 120 m (400 ft) south of the PUREX Plant (Figures 1-1 and 8-1).

Several waste streams, collectively referred to as the process distillate discharge, were disposed of in the A-10 Crib for soil-column disposal during PUREX Plant operations. Process distillate discharge waste was first disposed of in the crib for 4 months during the 1956 PUREX startup. In 1961, the A-10 Crib replaced the 216-A-5 Crib and received PUREX effluent continuously until 1973. Periodic discharges were received in 1977, 1978, and 1981. From 1982 to 1987, continuous effluent discharges to the A-10 Crib were resumed. Effluent volumes from 1981 to 1986 averaged 1×10^8 L (2.6×10^6 gal) per year. In 1987, the A-10 Crib was removed from service and replaced by the 216-A-45 Crib.

The process distillate discharge waste stream sent to the A-10 Crib was characteristically acidic and contained concentrated salts. Waste stream constituents included aliphatic hydrocarbon compounds, organic complexants, and radionuclides (plutonium, uranium, strontium-90, cobalt-60, cesium-134 and -137, ruthenium-103 and -106, and tritium).

In accordance with the *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement) (Ecology et al. 1992), Milestone M-20-33, RCRA closure/post-closure plans for the A-10 Crib are to be submitted to Ecology and EPA in March 1996. An interim-status detection-level RCRA groundwater monitoring network has been operational since November 1988.

The RCRA groundwater monitoring system consists of six downgradient wells and two upgradient wells, as listed in Table 8-1. Two wells in the 216-A-10 network are shared with the groundwater monitoring network for the A-29 Ditch facility. Well locations are shown in Figure 8-1. Background monitoring was completed in the fourth quarter of 1989, following the first four quarters of groundwater sampling.

8.2 WATER LEVEL MEASUREMENTS

Water level measurements are made quarterly and during semiannual RCRA sample collection. Water level data collected during the October through December 1994 period are reported in Table 8-2.

8.3 WATER CHEMISTRY DATA

Groundwater samples were collected from the 216-A-10 Crib monitoring network during October 1994. The constituent list and summary of results are provided in Table 8-3. Constituents with at least one value above the MDL for all available data are presented in Table 8-4. Table 8-5 lists the results of the CIPs. Data flags are discussed in Sections 1.2 and 1.4.

No CIP replicate average exceeded the calculated critical mean during the reporting period. A RADE was submitted for unfiltered iron and turbidity results from well 299-E17-19. Results were several orders of magnitude higher than previous semi-annual sampling results. This well has been put on the list for remediation for this year.

Constituents exceeding the drinking water standards during the reporting period were iodine-129, tritium, unfiltered chromium, nitrate, unfiltered manganese, gross alpha, and unfiltered iron. For details on specific wells, see Table 8-6.

Ruthenium-106 was detected at 70.5 pCi/L, which exceeds the drinking water standard of 30 pCi/L. Based on the limit of detection (LOD) calculations in the 1993 RCRA Annual Report, ruthenium-106 has an LOD of approximately 130 to 150 pCi/L. Therefore, the value of 70.5 pCi/L is not a meaningful value and is undetected.

Figure 8-1. Well Location Map for the 216-A-10 Crib.

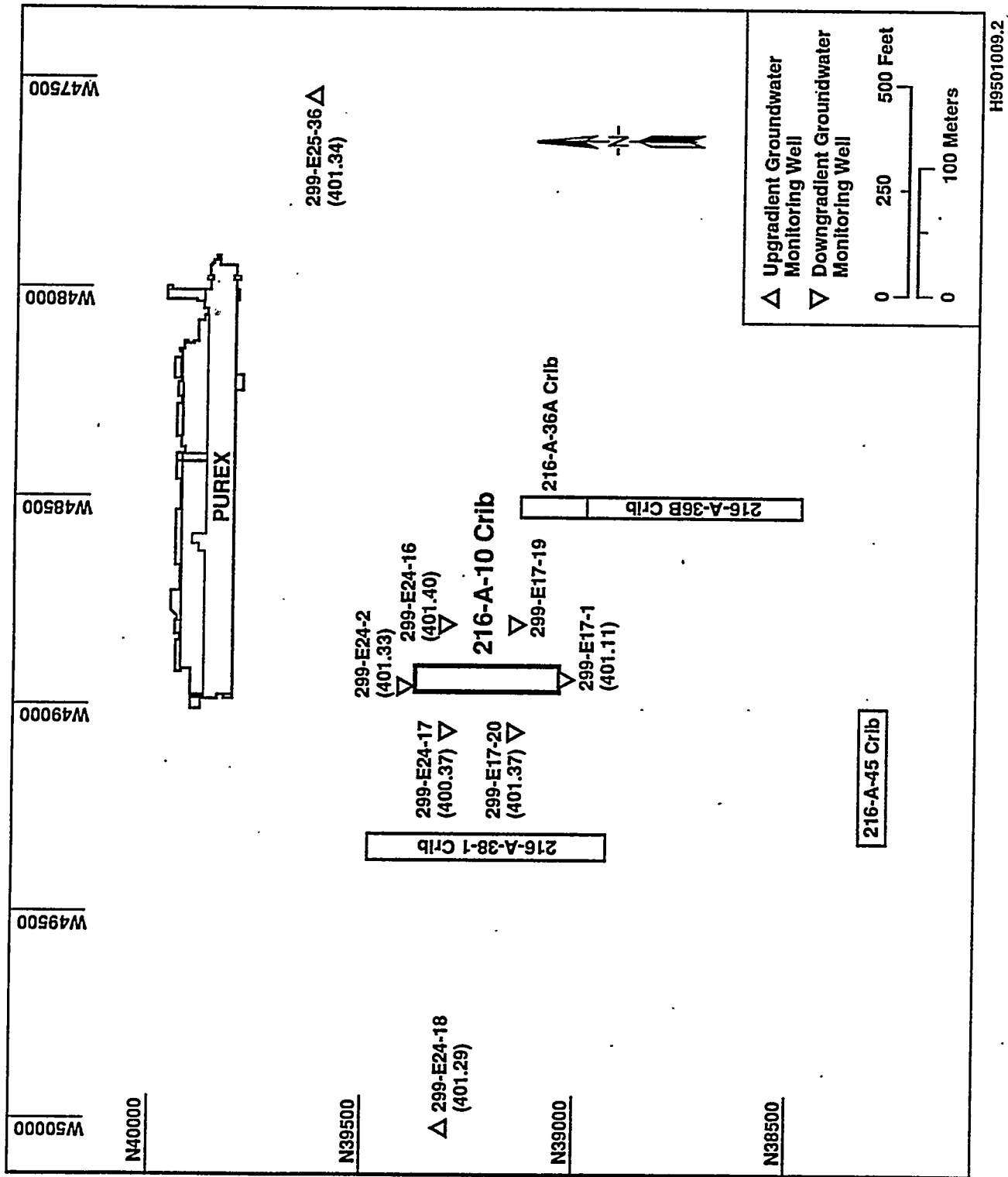


Table 8-1. Well Identification and Sampling Schedule for
the 216-A-10 Crib Groundwater Monitoring Network.

Well no. (299-)	Relative position	Hydrogeologic unit	Sample frequency	Sample date, 4th Qtr 1994
E24-18	Upgradient	Ringold: Water Table	Semiannually	10/14/94
E25-36 ^a	Upgradient	Ringold: Water Table	Semiannually	10/13/94
E17-1	Downgradient	Ringold: Water Table	Semiannually	10/21/94
E17-19	Downgradient	Ringold: Water Table	Semiannually	10/14/94
E17-20 ^a	Downgradient	Ringold: Water Table	Semiannually	10/14/94
E24-2	Downgradient	Ringold: Water Table	Semiannually	10/14/94
E24-16	Downgradient	Ringold: Water Table	Semiannually	10/13/94
E24-17	Downgradient	Ringold: Water Table	Semiannually	10/13/94

^aWell sampled during period for 216-A-29 Ditch groundwater quality assessment.

Table 8-2. RCRA Water Level Measurement Report
216-A-10 Crib, Fourth Quarter 1994.

Well	Date	Depth to water (ft)	Water level elevation above msl	
			(ft)	(m)
299-E17-1	10/21/94	318.68	400.49*+	122.07
	12/12/94	318.13	401.04	122.24
299-E17-19	12/12/94	318.49	400.84	122.18
299-E17-20	10/14/94	318.70	400.53*	122.08
	12/12/94	317.80	401.43	122.36
299-E24-16	10/13/94	316.70	401.57*	122.40
	12/12/94	316.89	401.38	122.34
299-E24-17	10/13/94	318.27	400.42*	122.05
	12/12/94	318.22	400.47	122.06
299-E24-18	10/14/94	400.75	318.53*+	97.09
	12/12/94	317.93	401.35	122.33
299-E24-2	10/14/94	316.16	401.31*	122.32
	12/12/94	315.96	401.51	122.38
299-E25-36	10/13/94	305.96	401.43*	122.36
	12/12/94	306.03	401.36	122.33

- NOTES:
1. Water level elevations are calculated by subtracting the measured depth-to-water from the surveyed elevation for the well.
 2. Depth-to-water values are transcribed from field records.
 3. Elevations marked with an '*' were measured at the time of sampling.
 4. Elevation marked with a '+' are outside of the expected range, and are suspected of error.

Table 8-3. Constituent List and Summary of Results for the 216-A-10 Crib
Data for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 3)

CONTAMINATION INDICATOR PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
CONDUCT	94	Conductivity, field	umhos		1			32	32	
CONDUCT	73	Conductivity, lab	umhos					8	8	
TOC		Total Organic Carbon	ppb		110			32	32	
TOX		Total Organic Halogen	ppb		5			32	10	
PH	93	pH, field	pH		.01	6.5-8.5	EPAS	32	32	0
PH	125	pH, lab	pH			6.5-8.5	EPAS	8	8	0

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
BARIUM		Barium	ppb		.59	1000	EPAI	8	8	0
FBARIUM		Barium, filtered	ppb		.59	1000	EPAI	2	2	0
CADMIUM		Cadmium	ppb		3.3	10	EPAI	8	0	0
FCADMIU		Cadmium, filtered	ppb		3.3	10	EPAI	2	0	0
CHROMIUM		Chromium	ppb		4.5	50	EPAI	8	6	6
FCHROMI		Chromium, filtered	ppb		4.5	50	EPAI	2	2	0
FLUORID		Fluoride	ppb		36	1400	EPAI	8	8	0
ALPHA		Gross alpha	pCi/L			15	EPA	8	7	1
NITRATE		Nitrate	ppb		11	45000	EPA	8	8	4

GROUNDWATER QUALITY PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
CHLORID		Chloride	ppb		14	250000	EPAS	8	8	0
IRON		Iron	ppb		5.24	300	EPAS	8	8	6
FIRON		Iron, filtered	ppb		5.24	300	EPAS	2	2	0
MANGESE		Manganese	ppb		.72	50	EPAS	8	8	1
FMANGAN		Manganese, filtered	ppb		.72	50	EPAS	2	2	0
LPHENOL		Phenol	ppb		.31			8	0	
SODIUM		Sodium	ppb		61			8	8	
FSODIUM		Sodium, filtered	ppb		61			2	2	
SULFATE		Sulfate	ppb		37	250000	EPAS	8	8	0

Table 8-3. Constituent List and Summary of Results for the 216-A-10 Crib
Data for Reporting Period October 1 through December 31, 1994.
(sheet 2 of 3)

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name Full	Units	Lab MDL	DWS Limit	Agency	Number of Samples		
							Total	>MDL	>DWS
246-trp		2,4,6-Trichlorophenol	ppb	1.3			8	0	
24-dchp		2,4-Dichlorophenol	ppb	1.3			8	0	
DIMPEN		2,4-Dimethylphenol	ppb	1.2			8	0	
DINPEN		2,4-Dinitrophenol	ppb	3			8	0	
26-dchp		2,6-Dichlorophenol	ppb	1.4			8	0	
CHLPEN		2-Chlorophenol	ppb	1.6			8	0	
2NITPH		2-Nitrophenol	ppb	1.3			8	0	
BUTDINP		2-sec-Butyl-4,6-dinitrophenol (DN	ppb	1.3			8	0	
46DN2MP		4,6-Dinitro-2-methylphenol	ppb	1.3			8	0	
CHLCRES		4-Chloro-3-methylphenol	ppb	1.3			8	0	
NITPHEN		4-Nitrophenol	ppb	3			8	0	
ALUMNUM		Aluminum	ppb	26			8	3	
FALUMIN		Aluminum, filtered	ppb	26			2	0	
AMMONIU		Ammonium ion	ppb	37			2	0	
ANTIONY		Antimony	ppb	62			8	0	
FANTIMO		Antimony, filtered	ppb	62			2	0	
SB-125		Antimony-125	pCi/L				8	0	
BERYLLUM		Beryllium	ppb	.17			8	6	
FBERYLL		Beryllium, filtered	ppb	.17			2	1	
BROMIDE		Bromide	ppb	100			8	0	
CALCIUM		Calcium	ppb	34			8	8	
FCALCIU		Calcium, filtered	ppb	34			2	2	
CS-137		Cesium-137	pCi/L		200	EPA	8	0	0
COBALT		Cobalt	ppb	5.9			8	0	
FCOBALT		Cobalt, filtered	ppb	5.9			2	0	
CO-60		Cobalt-60	pCi/L		100	EPA	8	3	0
COPPER		Copper	ppb	4.1	1000	EPAS	8	7	0
FCOPPER		Copper, filtered	ppb	4.1	1000	EPAS	2	0	0
CRESOLS		Cresols (methylphenols)	ppb	4.8			8	0	
BETA		Gross beta	pCi/L				8	8	
LHYDRAZ		Hydrazine	ppb	1.6			1	0	
I-129L		Iodine-129, Low level	pCi/L		1	EPA	8	8	8
MAGNES		Magnesium	ppb	23			8	8	
FMAGNES		Magnesium, filtered	ppb	23			2	2	
NICKEL		Nickel	ppb	13			8	6	
FNICKEL		Nickel, filtered	ppb	13			2	1	
NITRITE		Nitrite	ppb	18	1000	EPA	8	0	0
PENTCHP		Pentachlorophenol	ppb	1.3	1	EPA	8	0	8*
PHOSPHA		Phosphate	ppb	82			8	0	
POTASUM		Potassium	ppb	850			8	8	
FPOTASS		Potassium, filtered	ppb	850			2	2	
RU-106		Ruthenium-106	pCi/L		30	EPA	8	1	2*
SILVER		Silver	ppb	3.6	50	EPAI	8	0	0

Table 8-3. Constituent List and Summary of Results for the 216-A-10 Crib
 Data for Reporting Period October 1 through December 31, 1994.
 (sheet 3 of 3)

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
FSILVER		Silver, filtered	ppb		3.6	50	EPAI	2	0	0
TETPHNL		Tetrachlorophenols	ppb		1.5			8	0	
TIN		Tin	ppb		69			8	0	
FTIN		Tin, filtered	ppb		69			2	0	
TRIPHNL		Trichlorophenols	ppb		1.7			8	0	
TRITIUM		Tritium	pCi/L			20000	EPA	8	8	7
TURBID		Turbidity	NTU		.016			8	8	
VANADUM		Vanadium	ppb		6.6			8	8	
FVANADI		Vanadium, filtered	ppb		6.6			2	2	
ZINC		Zinc	ppb		6.3	5000	EPAS	8	7	0
FZINC		Zinc, filtered	ppb		6.3	5000	EPAS	2	0	0

For explanation of this table, see Section 1.4 of report.

Table 8-4. Constituents with at Least One Detected Value for
the 216-A-10 Crib Data for Reporting Period
October 1 through December 31, 1994.
(sheet 1 of 4)

Well Name	Collection Date	Sample Number	ALUMNUM 34/ppb 19/.	FALUMIN 34/ppb 19/.	BARIUM 34/ppb 1.3/1000i	FBARIUM 34/ppb 1.3/1000i
299-E17-1	10/21/94	B0D226	26.00 U		44.00	
299-E17-19	10/14/94	B0D230	100.00 L		77.00	
299-E17-20	10/14/94	B0D0Q3		26.00 U		64.00
299-E17-20	10/14/94	B0D234	26.00 U		54.00	
299-E24-16	10/13/94	B0D238	65.00 L		42.00	
299-E24-17	10/13/94	B0D242	37.00 L		45.00	
299-E24-18	10/14/94	B0D246	26.00 U		51.00	
299-E24-2	10/14/94	B0D250	26.00 U		33.00	
299-E25-36	10/13/94	B0D254	26.00 UQ		21.00 Q	
299-E25-36	10/13/94	B0D357		26.00 UQ		21.00 Q

Well Name	Collection Date	Sample Number	BERYLUM 34/ppb 1.5/.	FBERYLL 34/ppb 1.5/.	CALCIUM 34/ppb 47/.	FCALCIU 34/ppb 47/.
299-E17-1	10/21/94	B0D226	.61 L		47000.00	
299-E17-19	10/14/94	B0D230	.53 BL		35000.00	
299-E17-20	10/14/94	B0D0Q3		.57 BL		56000.00
299-E17-20	10/14/94	B0D234	.64 BL		46000.00	
299-E24-16	10/13/94	B0D238	.33 L		35000.00	
299-E24-17	10/13/94	B0D242	.17 U		33000.00	
299-E24-18	10/14/94	B0D246	.37 L		35000.00	
299-E24-2	10/14/94	B0D250	.21 L		36000.00	
299-E25-36	10/13/94	B0D254	.17 U		30000.00	
299-E25-36	10/13/94	B0D357		.17 U		29000.00

Well Name	Collection Date	Sample Number	CHLORID 124/ppb .71/250000s	CHROMUM 34/ppb 11/50i	FCHROMI 34/ppb 11/50i	CO-60 140/pCi/L ./100
299-E17-1	10/21/94	B0D226	4300.00 B	4.50 U		11.50
299-E17-19	10/14/94	B0D230	3700.00	320.00		5.32 U
299-E17-20	10/14/94	B0D0Q3			9.60 L	
299-E17-20	10/14/94	B0D234	5000.00	190.00		-4.85 U
299-E24-16	10/13/94	B0D238	3400.00	210.00		7.53 U
299-E24-17	10/13/94	B0D242	3300.00	160.00		7.44
299-E24-18	10/14/94	B0D246	7600.00	220.00		2.13 U
299-E24-2	10/14/94	B0D250	4900.00	4.50 U		-.44 U
299-E25-36	10/13/94	B0D254	4600.00	100.00 Q		24.40 F
299-E25-36	10/13/94	B0D357			4.50 LQ	

Table 8-4. Constituents with at Least One Detected Value for
the 216-A-10 Crib Data for Reporting Period
October 1 through December 31, 1994.
(sheet 2 of 4)

Well Name	Collection Date	Sample Number	COPPER 34/ppb 2.6/1000s	FCOPPER 34/ppb 2.6/1000s	FLUORID 124/ppb 51/1400i	ALPHA 135/pCi/L ./15
299-E17-1	10/21/94	B0D226	4.10 U		1000.00 q	3.18
299-E17-19	10/14/94	B0D230	19.00 L		800.00	7.00
299-E17-20	10/14/94	B0D0Q3		4.10 U		
299-E17-20	10/14/94	B0D234	11.00 L		800.00	4.11
299-E24-16	10/13/94	B0D238	10.00 L		700.00	5.36
299-E24-17	10/13/94	B0D242	6.40 L		700.00	10.80
299-E24-18	10/14/94	B0D246	15.00 L		900.00	16.40
299-E24-2	10/14/94	B0D250	7.40 L		800.00	3.77
299-E25-36	10/13/94	B0D254	6.00 L		600.00	.06 U
299-E25-36	10/13/94	B0D357		4.10 U		

Well Name	Collection Date	Sample Number	BETA 136/pCi/L ./.	I-129 139/pCi/L ./1	IRON 34/ppb 18/300s	FIRON 34/ppb 18/300s
299-E17-1	10/21/94	B0D226	13.90	9.22	160.00 q	
299-E17-19	10/14/94	B0D230	14.80	6.34	120000.00 BF	
299-E17-20	10/14/94	B0D0Q3				63.00 B
299-E17-20	10/14/94	B0D234	27.60	8.94	850.00 B	
299-E24-16	10/13/94	B0D238	15.40	7.43	2000.00 BQ	
299-E24-17	10/13/94	B0D242	13.70	7.16	3100.00 BQ	
299-E24-18	10/14/94	B0D246	26.70	2.66	870.00 BQ	
299-E24-2	10/14/94	B0D250	3.93	3.17	80.00 BQ	
299-E25-36	10/13/94	B0D254	5.13	1.20	480.00 BQ	
299-E25-36	10/13/94	B0D357				31.00 BQ

Well Name	Collection Date	Sample Number	MAGNES 34/ppb 25/.	FMAGNES 34/ppb 25/.	MANGESE 34/ppb 1/50s	FMANGAN 34/ppb 1/50s
299-E17-1	10/21/94	B0D226	14000.00 B		5.30 L	
299-E17-19	10/14/94	B0D230	10000.00		270.00	
299-E17-20	10/14/94	B0D0Q3		16000.00		2.30 L
299-E17-20	10/14/94	B0D234	14000.00		14.00	
299-E24-16	10/13/94	B0D238	10000.00		26.00	
299-E24-17	10/13/94	B0D242	9500.00		28.00	
299-E24-18	10/14/94	B0D246	11000.00		18.00	
299-E24-2	10/14/94	B0D250	11000.00		2.40 L	
299-E25-36	10/13/94	B0D254	8200.00		10.00	
299-E25-36	10/13/94	B0D357		8100.00		2.30 L

Table 8-4. Constituents with at Least One Detected Value for
the 216-A-10 Crib Data for Reporting Period
October 1 through December 31, 1994.
(sheet 3 of 4)

Well Name	Collection Date	Sample Number	NICKEL 34/ppb 16/.	FNICKEL 34/ppb 16/.	NITRATE 124/ppb 96/45000	POTASUM 34/ppb 890/.
299-E17-1	10/21/94	B0D226	13.00 U		110000.00 DH	6700.00
299-E17-19	10/14/94	B0D230	160.00		47000.00 DH	5200.00
299-E17-20	10/14/94	B0D0Q3		13.00 U		
299-E17-20	10/14/94	B0D234	87.00		100000.00 DH	6600.00
299-E24-16	10/13/94	B0D238	100.00		48000.00 DQ	5000.00
299-E24-17	10/13/94	B0D242	82.00		39000.00 DQ	4800.00
299-E24-18	10/14/94	B0D246	100.00		22000.00 DQ	5900.00
299-E24-2	10/14/94	B0D250	13.00 U		45000.00 DQ	5400.00
299-E25-36	10/13/94	B0D254	61.00		14000.00 DQ	5000.00
299-E25-36	10/13/94	B0D357		13.00 L		

Well Name	Collection Date	Sample Number	FPOTASS 34/ppb 890/.	RU-106 140/pCi/L ./30	SODIUM 34/ppb 150/.	FSODIUM 34/ppb 150/.
299-E17-1	10/21/94	B0D226		-38.10 U	20000.00	
299-E17-19	10/14/94	B0D230		10.80 U	16000.00	
299-E17-20	10/14/94	B0D0Q3	6800.00			24000.00
299-E17-20	10/14/94	B0D234		-24.90 U	20000.00	
299-E24-16	10/13/94	B0D238		70.50	15000.00	
299-E24-17	10/13/94	B0D242		30.90 U	15000.00	
299-E24-18	10/14/94	B0D246		-14.00 U	21000.00	
299-E24-2	10/14/94	B0D250		21.80 U	17000.00	
299-E25-36	10/13/94	B0D254		-24.40 U	15000.00 Q	
299-E25-36	10/13/94	B0D357	4900.00			15000.00 Q

Well Name	Collection Date	Sample Number	SULFATE 124/ppb 89/250000s	TRITIUM 142/pCi/L ./20000	TURBID 126/NTU .016/.	VANADUM 34/ppb 6.4/.
299-E17-1	10/21/94	B0D226	29000.00 D	1490000.00	1.00 HQ	22.00 L
299-E17-19	10/14/94	B0D230	23000.00 D	755000.00	790.00 HF	110.00
299-E17-20	10/14/94	B0D234	33000.00 D	1180000.00	2.80 H	27.00 L
299-E24-16	10/13/94	B0D238	23000.00 D	738000.00	13.00 Q	29.00 L
299-E24-17	10/13/94	B0D242	23000.00 D	819000.00	31.00 Q	34.00
299-E24-18	10/14/94	B0D246	32000.00 D	123000.00	1.40 Q	21.00 L
299-E24-2	10/14/94	B0D250	30000.00 D	526000.00	.32 Q	24.00 L
299-E25-36	10/13/94	B0D254	34000.00 D	9340.00	1.40 Q	27.00 L

Table 8-4. Constituents with at Least One Detected Value for
the 216-A-10 Crib Data for Reporting Period
October 1 through December 31, 1994.
(sheet 4 of 4)

Well Name	Collection Date	Sample Number	FVANADI 34/ppb 6.4/.	ZINC 34/ppb 4.4/5000s	FZINC 34/ppb 4.4/5000s
299-E17-1	10/21/94	B0D226		21.00	
299-E17-19	10/14/94	B0D230		25.00	
299-E17-20	10/14/94	B0D0Q3	27.00 L		6.30 U
299-E17-20	10/14/94	B0D234		6.30 L	
299-E24-16	10/13/94	B0D238		16.00	
299-E24-17	10/13/94	B0D242		28.00	
299-E24-18	10/14/94	B0D246		8.40 L	
299-E24-2	10/14/94	B0D250		30.00	
299-E25-36	10/13/94	B0D254		6.30 U	
299-E25-36	10/13/94	B0D357	25.00 L		6.30 U

For explanation of this table, see Section 1.4 of report.

Table 8-5. Contamination Indicator Parameters for the 216-A-10 Crib
Data for Reporting Period October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-E17-1	10/21/94	B0D226	427	480	7.98	8.10 H	700 L	5.0 U
		B0D227	429		7.99		700 L	5.0 U
		B0D228	432		7.99		700 L	5.0 U
		B0D229	435		8.00		700 L	5.0 U
299-E17-19	10/14/94	B0D230	328	340	7.79	8.00 H	800 L	9.2
		B0D231	327		7.79		700 L	9.4
		B0D232	327		7.79		700 L	9.6
		B0D233	327		7.79		800 L	7.1
299-E17-20	10/14/94	B0D234	481	470	8.25	8.30 H	300 L	5.8
		B0D235	478		8.25		200 L	5.0 U
		B0D236	484		8.25		400 L	5.0 U
		B0D237	482		8.24		300 L	5.0 U
299-E24-16	10/13/94	B0D238	335	350	7.80	8.10 H	300 LQ	5.0 U
		B0D239	334		7.80		500 LQ	5.8
		B0D240	333		7.82		300 LQ	5.0 U
		B0D241	334		7.80		300 LQ	5.0 U
299-E24-17	10/13/94	B0D242	322	330	8.10	8.20 H	500 LQ	5.0 U
		B0D243	321		8.10		300 LQ	5.0 U
		B0D244	318		8.09		400 LQ	5.0 U
		B0D245	319		8.09		300 LQ	5.0 U
299-E24-18	10/14/94	B0D246	371	380	7.58	8.10	200 L	5.0 U
		B0D247	370		7.58		300 L	5.0 U
		B0D248	370		7.57		200 L	5.0 U
		B0D249	370		7.57		200 L	5.0 U
299-E24-2	10/14/94	B0D250	359	370	7.97	8.10	300 L	5.0 U
		B0D251	360		7.96		300 L	6.8
		B0D252	358		7.96		300 L	5.0 U
		B0D253	359		7.94		300 L	5.0 U
299-E25-36	10/13/94	B0D254	289	300	7.54	8.30	500 LQ	5.0 U
		B0D255	288		7.54		400 LQ	6.2
		B0D256	288		7.54		600 LQ	5.9
		B0D257	287		7.55		400 LQ	5.1

For explanation of this table, see Section 1.4 of report.

Table 8-6. Drinking Water Standards Exceeded in the 216-A-36B Crib Groundwater Monitoring Network.

Constituent (DWS)	Wells exceeding DWS (299-)
Chromium, unfiltered (50ppb)	E17-19, E17-20, E24-16, E24-17, E24-18
Iron, unfiltered (300 ppb)	E17-19, E17-20, E24-16, E24-17, E24-18, E25-36
Nitrate (45,000 ppb)	E17-19, E17-20, E24-16, E17-1
Tritium (20,000 pCi/L)	All wells in network
Gross Alpha (15 pCi/L)	E24-18
Manganese, unfiltered (50 ppb)	E17-19
Iodine-129 (1 pCi/L)	All wells in network

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9.0 216-B-63 TRENCH

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9.1 INTRODUCTION

A RCRA interim-status detection-level groundwater monitoring network is being established for the 216-B-63 Trench. The 216-B-63 Trench received wastewater containing hazardous waste and radioactive materials from the B Plant located in the 200 East Area (Figures 1-1 and 9-1). Liquid effluent discharge to the 216-B-63 Trench ceased in February 1992.

The 216-B-63 Trench was an open, unlined earthen trench that was in service from March 1970 until February 1992. The trench received 4.0×10^5 to 1.5×10^6 L/day (100,000 to 400,000 gal/day) of liquid effluent from the B Plant chemical sewer, none of which is now designated as dangerous waste. The effluent was a mixture of steam condensate and raw water. Documented hazardous discharges occurred from 1970 to October 1985 and consisted of aqueous sulfuric acid and sodium hydroxide solutions exceeding the pH limits of 2.0 and 12.5, respectively. Radioactive soils were dredged from the trench in August 1970. In 1985, physical controls, radiation monitors, and operating procedures were modified to avoid inadvertent discharge of chemicals or radioactive substances to the wastewater stream. The trench has been subsequently backfilled and stabilized and the diversion box leading to it has been filled with concrete.

Four quarters of groundwater background sampling have been completed for all the wells in the network. Background sampling is done to establish background water quality, in accordance with the requirements outlined in *40 CFR 265 Interim-Status Indicator-Evaluation Groundwater Monitoring Plan for the 216-B-63 Trench* (PNL 1989). The 12 wells within the network are now sampled semiannually. Based on the present groundwater flow direction, seven of the wells are downgradient and five are upgradient of the trench (see Figure 9-1). The purpose of the wells, their sampling schedule, and the dates sampled are summarized in Table 9-1. As indicated in Table 9-1, some wells in the 216-B-63 Trench network are shared with the Low-Level Burial Grounds (LLBG) and single-shell tanks (SST) groundwater monitoring networks.

9.2 WATER LEVEL MEASUREMENTS

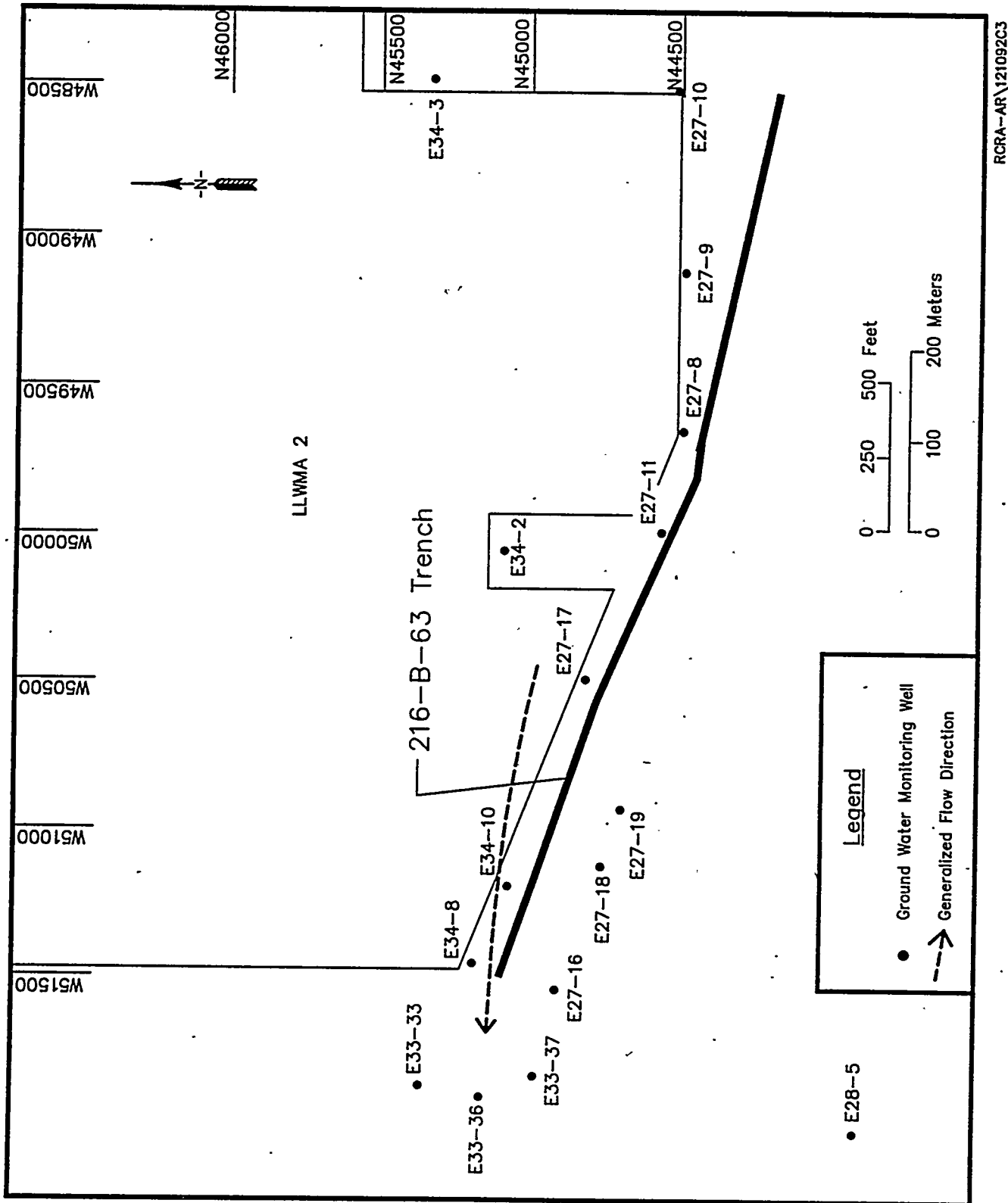
Water level measurements obtained during the October 1 through December 31, 1994 period are presented in Table 9-2. Water measurements in well 299-E33-36 indicate water levels lower than in nearby wells in the network. Reasons for the apparent discrepancy are still under investigation.

9.3 WATER CHEMISTRY DATA

Chemistry data received before the cutoff date for this report are reported in Tables 9-3 through 9-5. Concentrations of unfiltered chromium and

iron in some wells continue to fluctuate above the DWS for these constituents. Analysis of filtered samples for these parameters yields concentrations well below the DWS. Iodine-129 is also above DWS for this quarter, but the values do not exceed historical trends for these wells. A statistical evaluation has been completed for indicator parameters for the 216-B-63 Trench. A pH exceedance was noted during sampling in well 299-E33-36. The pH measurements were obtained during sampling with field-grade instrumentation. It is possible that these readings are in error because they are not consistent with the historical trend. This well has been resampled and the verification analysis will be performed by a laboratory to determine the validity of the data. An explanation of data flags can be found in Section 1.4.

Figure 9-1. Well Location Map for the 216-B-63 Trench.



RCRA-AR\121092C3

Table 9-1. Monitoring Well Purpose and Sampling Schedule
for the 216-B-63 Trench Network.

Well no. (299-)	Relative position	Hydrogeologic unit	Sample frequency	Sample date, 4th Qtr 1994
E27-8 ^a	Upgradient	Hanford: Water Table	Semiannually	11-17-94
E27-9 ^a	Upgradient	Hanford: Water Table	Semiannually	11-17-94
E27-11 ^a	Upgradient	Hanford: Water Table	Semiannually	11-18-94
E27-16	Downgradient	Hanford: Water Table	Semiannually	11-21-94
E27-17 ^a	Upgradient	Hanford: Water Table	Semiannually	11-18-94
E27-18	Downgradient	Hanford: Water Table	Semiannually	11-28-94
E27-19	Downgradient	Hanford: Water Table	Semiannually	11-28-94
E33-33 ^b	Downgradient	Hanford: Water Table	Semiannually	11-21-94
E33-36 ^b	Downgradient	Hanford: Water Table	Semiannually	11-21-94
E33-37	Downgradient	Hanford: Water Table	Semiannually	11-21-94
E34-8	Downgradient	Hanford: Water Table	Semiannually	11-21-94
E34-10 ^a	Upgradient	Hanford: Water Table	Semiannually	11-21-94

^aWell shared with the Low-Level Burial Grounds facility network.

^bWell shared with the single-shell tanks facility network.

Table 9-2. RCRA Water Level Measurement Report
 216-B-63 Trench, Fourth Quarter 1994.
 (sheet 1 of 2)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft) (m)	
Wells Monitoring the Top of the Unconfined Aquifer				
299-E27-11	11/18/94	241.89	401.40*	122.35
	12/14/94	241.88	401.41	122.35
299-E27-16	11/21/94	251.00	401.13*	122.26
	12/21/94	250.95	401.18	122.28
299-E27-17	11/18/94	233.00	401.72*	122.44
	12/14/94	232.94	401.78	122.46
299-E27-18	11/28/94	248.35	401.80*	122.47
299-E27-19	11/28/94	249.70	401.18*	122.28
299-E27-8	11/17/94	236.73	401.10*	122.26
	12/14/94	236.28	401.55	122.39
299-E27-9	11/17/94	227.66	401.55*	122.39
	12/14/94	227.50	401.71	122.44
299-E33-33	10/12/94	238.81	401.58	122.40
	11/15/94	238.65	401.74	122.45
	11/21/94	238.94	401.45*	122.36
	12/09/94	238.74	401.65	122.42
299-E33-36	11/21/94	248.25	398.42*	121.44
	12/21/94	246.76	399.91	121.89
299-E33-37	11/21/94	251.54	401.47*	122.37
	12/21/94	251.71	401.30	122.32
299-E34-10	11/21/94	238.10	401.67*	122.43
	12/14/94	238.01	401.76	122.46
299-E34-8	11/21/94	241.82	398.70*	121.52

Table 9-2. RCRA Water Level Measurement Report
216-B-63 Trench, Fourth Quarter 1994.
(sheet 2 of 2)

- NOTES:
1. Water level elevations are calculated by subtracting the measured depth-to-water from the surveyed elevation for the well.
 2. Depth-to-water values are transcribed from field records.
 3. Elevations marked with an '*' were measured at the time of sampling.
 4. Elevations marked with a '+' are outside of the expected range, and are suspected of error.

Table 9-3. Constituent List and Summary of Results for the 216-B-63 Trench
Data for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 4)

CONTAMINATION INDICATOR PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS Limit	Agency	Number of Samples		
		Full						Total	>MDL	>DWS
CONDUCT	94	Conductivity, field	umhos	1				48	48	
CONDUCT	73	Conductivity, lab	umhos					13	13	
TOC		Total Organic Carbon	ppb	110				52	52	
TOX		Total Organic Halogen	ppb	5				52	14	
PH	93	pH, field	pH	.01	6.5-8.5	EPAS		48	48	4
PH	125	pH, lab	pH		6.5-8.5	EPAS		5	5	0

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS Limit	Agency	Number of Samples		
		Full						Total	>MDL	>DWS
BARIUM		Barium	ppb	.59	1000	EPAI		13	13	0
FBARIUM		Barium, filtered	ppb	.59	1000	EPAI		5	5	0
CADMIUM		Cadmium	ppb	3.3	10	EPAI		13	0	0
FCADMIU		Cadmium, filtered	ppb	3.3	10	EPAI		5	0	0
CHROMIUM		Chromium	ppb	4.5	50	EPAI		13	13	8
FCHROMI		Chromium, filtered	ppb	4.5	50	EPAI		5	2	0
FLUORID		Fluoride	ppb	36	1400	EPAI		13	13	0
ALPHA		Gross alpha	pCi/L		15	EPA		13	9	0
MERCURY		Mercury	ppb	.05	2	EPA		5	2	0
FMERCUR		Mercury, filtered	ppb	.05	2	EPA		5	2	0
NITRATE		Nitrate	ppb	11	45000	EPA		13	13	0
RADIUM		Radium	pCi/L		5	EPAI		5	0	0

GROUNDWATER QUALITY PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS Limit	Agency	Number of Samples		
		Full						Total	>MDL	>DWS
CHLORID		Chloride	ppb	14	250000	EPAS		13	13	0
IRON		Iron	ppb	5.24	300	EPAS		13	13	7
FIRON		Iron, filtered	ppb	5.24	300	EPAS		5	5	0
MANGESE		Manganese	ppb	.72	50	EPAS		13	13	0
FMANGAN		Manganese, filtered	ppb	.72	50	EPAS		5	5	0
LPHENOL	19	Phenol	ppb	.54				5	0	
LPHENOL	30	Phenol	ppb	.31				13	0	
SODIUM		Sodium	ppb	61				13	13	
FSODIUM		Sodium, filtered	ppb	61				5	5	
SULFATE		Sulfate	ppb	37	250000	EPAS		13	13	0

Table 9-3. Constituent List and Summary of Results for the 216-B-63 Trench
Data for Reporting Period October 1 through December 31, 1994.
(sheet 2 of 4)

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
1,1,1-T		1,1,1-Trichloroethane	ppb	.036	200		EPA	13	3	0
1,1,2-T		1,1,2-Trichloroethane	ppb	.078				13	0	
1,1-DIC		1,1-Dichloroethane	ppb	.058				13	0	
1,2-DIC		1,2-Dichloroethane	ppb	.029	5		EPA	13	0	0
14-dben		1,4-Dichlorobenzene	ppb	.055	75		EPA	13	0	0
246-trp		2,4,6-Trichlorophenol	ppb	1.3				13	0	
24-dchp	19	2,4-Dichlorophenol	ppb	4				5	0	
24-dchp	30	2,4-Dichlorophenol	ppb	1.3				13	0	
DIMPHEN		2,4-Dimethylphenol	ppb	1.2				13	0	
DINPHEN		2,4-Dinitrophenol	ppb	3				13	0	
26-dchp		2,6-Dichlorophenol	ppb	1.4				13	0	
CHLPHEN		2-Chlorophenol	ppb	1.6				13	0	
2METHPH		2-Methylphenol	ppb	5.1				5	0	
2NITPH	19	2-Nitrophenol	ppb	1.9				5	0	
2NITPH	30	2-Nitrophenol	ppb	1.3				13	0	
BUTDINP		2-sec-Butyl-4,6-dinitrophenol (DN	ppb	1.3				13	0	
46DN2MP		4,6-Dinitro-2-methylphenol	ppb	1.3				13	0	
CHLCRES		4-Chloro-3-methylphenol	ppb	1.3				13	0	
4METHPH		4-Methylphenol	ppb	7				5	0	
NITPHEN		4-Nitrophenol	ppb	3				13	0	
ALUMNUM		Aluminum	ppb	26				13	10	
FALUMIN		Aluminum, filtered	ppb	26				5	0	
ANTIONY		Antimony	ppb	62				13	0	
FANTIMO		Antimony, filtered	ppb	62				5	0	
SB-125		Antimony-125	pCi/L					2	0	
AR1016		Aroclor-1016	ppb	.072				5	0	
AR1221		Aroclor-1221	ppb	.052				5	0	
AR1232		Aroclor-1232	ppb	.093				5	0	
AR1242		Aroclor-1242	ppb	.068				5	0	
AR1248		Aroclor-1248	ppb	.055				5	0	
AR1254		Aroclor-1254	ppb	.031				5	0	
AR1260		Aroclor-1260	ppb	.058				5	0	
BENZENE		Benzene	ppb	.013	5		EPA	13	0	0
BENZOTH		Benzothiazole	ppb	1.3				5	0	
BERYLUM		Beryllium	ppb	.17				13	6	
FBERYLL		Beryllium, filtered	ppb	.17				5	3	
BE-7		Beryllium-7	pCi/L					2	0	
BIS2EPH		Bis(2-ethylhexyl) phthalate	ppb	5.3				5	0	
BROMIDE		Bromide	ppb	100				13	0	
CALCIUM		Calcium	ppb	34				13	13	
FCALCIU		Calcium, filtered	ppb	34				5	5	
TETRANE		Carbon tetrachloride	ppb	.075	5		EPA	13	1	0
CEPR-144		Cerium/Praseodymium-144	pCi/L					2	0	

Table 9-3. Constituent List and Summary of Results for the 216-B-63 Trench
Data for Reporting Period October 1 through December 31, 1994.
(sheet 3 of 4)

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
CS-134		Cesium-134		pCi/L				2	0	
CS-137		Cesium-137		pCi/L		200	EPA	2	0	0
CHLFORM		Chloroform		ppb	.041			13	1	
COBALT		Cobalt		ppb	5.9			13	2	
FCOBALT		Cobalt, filtered		ppb	5.9			5	2	
CO-60		Cobalt-60		pCi/L		100	EPA	2	1	0
COPPER		Copper		ppb	4.1	1000	EPAS	13	8	0
FCOPPER		Copper, filtered		ppb	4.1	1000	EPAS	5	2	0
CRESOLS		Cresols (methylphenols)		ppb	4.8			13	0	
CYANIDE		Cyanide		ppb	1			5	0	
DECANE		Decane		ppb	1.9			5	0	
DODECAN		Dodecane		ppb	1.1			5	0	
ETHBENZ		Ethylbenzene		ppb	.051	700	EPA	13	0	0
EU-154		Europium-154		pCi/L				2	0	
EU-155		Europium-155		pCi/L				2	0	
BETA		Gross beta		pCi/L				5	5	
I-129L		Iodine-129, Low level		pCi/L		1	EPA	13	13	13
LEAD		Lead		ppb	1.5	50	EPAI	5	4	0
FLEAD		Lead, filtered		ppb	1.5	50	EPAI	5	2	0
MAGNES		Magnesium		ppb	23			13	13	
FMAGNES		Magnesium, filtered		ppb	23			5	5	
METHYCH		Methylene chloride		ppb	.09			13	0	
NAPHTHA		Naphthalene		ppb	1.2			5	0	
NICKEL		Nickel		ppb	13			13	10	
FNICKEL		Nickel, filtered		ppb	13			5	0	
NITRITE		Nitrite		ppb	18	1000	EPA	13	0	0
PENTCHP 19		Pentachlorophenol		ppb	8.3	1	EPA	5	0	5*
PENTCHP 30		Pentachlorophenol		ppb	1.3	1	EPA	13	0	13*
PHOSPHA		Phosphate		ppb	82			13	0	
POTASUM		Potassium		ppb	850			13	13	
FPOTASS		Potassium, filtered		ppb	850			5	5	
K-40		Potassium-40		pCi/L				2	2	
RU-106		Ruthenium-106		pCi/L		30	EPA	2	0	0
SILVER		Silver		ppb	3.6	50	EPAI	13	0	0
FSILVER		Silver, filtered		ppb	3.6	50	EPAI	5	0	0
TC-99		Technetium-99		pCi/L		900	EPA	1	0	0
PERCENE		Tetrachloroethene		ppb	.22	5	EPA	13	0	0
TETPHNL		Tetrachlorophenols		ppb	1.5			13	0	
TETRADE		Tetradecane		ppb	1.6			5	0	
TIN		Tin		ppb	69			13	0	
FTIN		Tin, filtered		ppb	69			5	0	
TOLUENE		Toluene		ppb	.016	1000	EPA	13	0	0
TRIBUTPH		Tributyl Phosphate		ppb	1.1			5	0	
TRICENE		Trichloroethene		ppb	.11	5	EPA	13	0	0
TRIPHNL		Trichlorophenols		ppb	1.7			13	0	
TDICHPH		Tris-2-chloroethyl phosphate		ppb	.61			5	0	

Table 9-3. Constituent List and Summary of Results for the 216-B-63 Trench.
Data for Reporting Period October 1 through December 31, 1994.
(sheet 4 of 4)

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
TRITIUM		Tritium	pCi/L			20000	EPA	13	13	0
TURBID		Turbidity	NTU		.016			5	5	
URANIUM		Uranium	ppb					5	5	
VANADUM		Vanadium	ppb		6.6			13	13	
FVANADI		Vanadium, filtered	ppb		6.6			5	5	
VINYIDE		Vinyl chloride	ppb		.13	2	EPA	13	0	0
XYLENE		Xylenes (total)	ppb		.035	10000	EPA	13	0	0
ZINC		Zinc	ppb		6.3	5000	EPAS	13	6	0
FZINC		Zinc, filtered	ppb		6.3	5000	EPAS	5	0	0
ZN-65		Zinc-65	pCi/L					2	0	
ZRNB-95		Zirconium/Niobium-95	pCi/L					2	0	
CIS12DE		cis-1,2-Dichloroethylene	ppb		.11	70	EPA	13	0	0
MCRESOL		m-Cresol	ppb		2.2			5	0	
TRANDCE		trans-1,2-Dichloroethylene	ppb		.073	100	EPA	13	0	0

For explanation of this table, see Section 1.4 of report.

Table 9-4. Constituents with at Least One Detected Value for
the 216-B-63 Trench Data for Reporting Period
October 1 through December 31, 1994.
(sheet 1 of 7)

Well Name	Collection Date	Sample Number	1,1,1-T 25/ppb .22/200	ALUMNUM 34/ppb 19/.	FALUMIN 34/ppb 19/.	BARIUM 34/ppb 1.3/1000i
299-E27-11	11/18/94	B0D7Y4	.04 U	78.00 L		39.00
299-E27-11	11/18/94	B0D7Y8			26.00 U	
299-E27-16	11/21/94	B0D760	.04 U	46.00 L		29.00
299-E27-17	11/18/94	B0D7Q9	.04 U	26.00 U		33.00
299-E27-17	11/18/94	B0D7R3			26.00 U	
299-E27-18	11/28/94	B0D764	.06 L	29.00 L		36.00
299-E27-18	11/28/94	B0D765	.05 L	26.00 U		35.00
299-E27-19	11/28/94	B0D772	.05 L	32.00 L		41.00
299-E27-8	11/17/94	B0D7R4	.04 U	26.00 U		25.00
299-E27-8	11/17/94	B0D7R8			26.00 U	
299-E27-9	11/17/94	B0D7R9	.04 U	35.00 L		23.00
299-E27-9	11/17/94	B0D7S3			26.00 U	
299-E33-33	11/21/94	B0D776	.04 U	32.00 L		31.00
299-E33-36	11/21/94	B0D780	.04 U	37.00 L		33.00
299-E33-37	11/21/94	B0D784	.04 U	51.00 L		37.00
299-E34-10	11/21/94	B0D7S4	.04 U	54.00 L		38.00
299-E34-10	11/21/94	B0D7S8			26.00 U	
299-E34-8	11/21/94	B0D788	.04 U	41.00 L		37.00

Well Name	Collection Date	Sample Number	FBARIUM 34/ppb 1.3/1000i	BERYLUM 34/ppb 1.5/.	FBERYLL 34/ppb 1.5/.	CALCIUM 34/ppb 47/.
299-E27-11	11/18/94	B0D7Y4		.27 L		38000.00
299-E27-11	11/18/94	B0D7Y8	39.00		.29 L	
299-E27-16	11/21/94	B0D760		.28 L		30000.00
299-E27-17	11/18/94	B0D7Q9		.43 L		39000.00
299-E27-17	11/18/94	B0D7R3	33.00		.58 L	
299-E27-18	11/28/94	B0D764		.17 U		31000.00
299-E27-18	11/28/94	B0D765		.17 U		31000.00
299-E27-19	11/28/94	B0D772		.17 U		33000.00
299-E27-8	11/17/94	B0D7R4		.17 U		35000.00
299-E27-8	11/17/94	B0D7R8	25.00		.17 U	
299-E27-9	11/17/94	B0D7R9		.17 U		36000.00
299-E27-9	11/17/94	B0D7S3	25.00		.34 L	
299-E33-33	11/21/94	B0D776		.17 U		31000.00
299-E33-36	11/21/94	B0D780		.28 L		29000.00
299-E33-37	11/21/94	B0D784		.21 L		28000.00
299-E34-10	11/21/94	B0D7S4		.21 L		38000.00
299-E34-10	11/21/94	B0D7S8	37.00		.17 U	
299-E34-8	11/21/94	B0D788		.17 U		32000.00

Table 9-4. Constituents with at Least One Detected Value for
the 216-B-63 Trench Data for Reporting Period
October 1 through December 31, 1994.
(sheet 2 of 7)

Well Name	Collection Date	Sample Number	FCALCIU 34/ppb 47/.	TETRANE 25/ppb .32/5	CHLORID 124/ppb 71/250000s	CHLFORM 25/ppb .05/.
299-E27-11	11/18/94	B0D7Y4		.08 U	7500.00	.04 U
299-E27-11	11/18/94	B0D7Y8	38000.00			
299-E27-16	11/21/94	B0D760		.08 U	4200.00 BQ	.04 U
299-E27-17	11/18/94	B0D7Q9		.08 U	8000.00	.04 U
299-E27-17	11/18/94	B0D7R3	38000.00			
299-E27-18	11/28/94	B0D764		.08 U	4800.00	.06 LQ
299-E27-18	11/28/94	B0D765		.08 U	4900.00	.04 UQ
299-E27-19	11/28/94	B0D772		.08 U	6100.00	.04 U
299-E27-8	11/17/94	B0D7R4		.08 U	6800.00	.04 U
299-E27-8	11/17/94	B0D7R8	35000.00			
299-E27-9	11/17/94	B0D7R9		1.00 B	7000.00	.04 U
299-E27-9	11/17/94	B0D7S3	37000.00			
299-E33-33	11/21/94	B0D776		.08 U	5900.00 BQ	.04 U
299-E33-36	11/21/94	B0D780		.08 U	4400.00 BQ	.04 U
299-E33-37	11/21/94	B0D784		.08 U	4000.00 BQ	.04 U
299-E34-10	11/21/94	B0D7S4		.08 U	8300.00 BQ	.04 U
299-E34-10	11/21/94	B0D7S8	38000.00			
299-E34-8	11/21/94	B0D788		.08 U	7900.00 BQ	.04 U

Well Name	Collection Date	Sample Number	CHROMUM 34/ppb 11/50i	FCHROMI 34/ppb 11/50i	COBALT 34/ppb 6.5/.	FCOBALT 34/ppb 6.5/.
299-E27-11	11/18/94	B0D7Y4	89.00		5.90 U	
299-E27-11	11/18/94	B0D7Y8		4.50 U		5.90 U
299-E27-16	11/21/94	B0D760	65.00		5.90 U	
299-E27-17	11/18/94	B0D7Q9	93.00		5.90 U	
299-E27-17	11/18/94	B0D7R3		4.50 U		5.90 U
299-E27-18	11/28/94	B0D764	20.00		5.90 U	
299-E27-18	11/28/94	B0D765	22.00		5.90 U	
299-E27-19	11/28/94	B0D772	17.00 L		5.90 U	
299-E27-8	11/17/94	B0D7R4	77.00		6.10 L	
299-E27-8	11/17/94	B0D7R8		8.00 L		8.20 L
299-E27-9	11/17/94	B0D7R9	29.00		5.90 U	
299-E27-9	11/17/94	B0D7S3		4.50 U		6.10 L
299-E33-33	11/21/94	B0D776	85.00		5.90 U	
299-E33-36	11/21/94	B0D780	120.00		8.80 L	
299-E33-37	11/21/94	B0D784	51.00		5.90 U	
299-E34-10	11/21/94	B0D7S4	30.00		5.90 U	
299-E34-10	11/21/94	B0D7S8		5.80 L		5.90 U
299-E34-8	11/21/94	B0D788	79.00		5.90 U	

Table 9-4. Constituents with at Least One Detected Value for
the 216-B-63 Trench Data for Reporting Period
October 1 through December 31, 1994.
(sheet 3 of 7)

Well Name	Collection Date	Sample Number	CO-60 140/pCi/L ./100	COPPER 34/ppb 2.6/1000s	FCOPPER 34/ppb 2.6/1000s	FLUORID 124/ppb 51/1400i
299-E27-11	11/18/94	B0D7Y4		12.00 L		400.00
299-E27-11	11/18/94	B0D7Y8			4.30 L	
299-E27-16	11/21/94	B0D760		9.60 L		400.00
299-E27-17	11/18/94	B0D7Q9		7.60 L		400.00
299-E27-17	11/18/94	B0D7R3			5.40 L	
299-E27-18	11/28/94	B0D764		4.10 U		400.00
299-E27-18	11/28/94	B0D765		4.10 U		400.00
299-E27-19	11/28/94	B0D772		4.10 U		400.00
299-E27-8	11/17/94	B0D7R4		4.10 U		400.00
299-E27-8	11/17/94	B0D7R8			4.10 U	
299-E27-9	11/17/94	B0D7R9		4.10 U		400.00
299-E27-9	11/17/94	B0D7S3			4.10 U	
299-E33-33	9/16/94	B0CYQ9	1.08			
299-E33-33	11/21/94	B0D776		6.90 L		400.00
299-E33-36	9/15/94	B0CYR3	-.46 U			
299-E33-36	11/21/94	B0D780		10.00 L		400.00
299-E33-37	11/21/94	B0D784		6.90 L		400.00
299-E34-10	11/21/94	B0D7S4		7.50 L		400.00
299-E34-10	11/21/94	B0D7S8			4.10 U	
299-E34-8	11/21/94	B0D788		8.60 L		600.00

Well Name	Collection Date	Sample Number	ALPHA 135/pCi/L ./15	BETA 136/pCi/L ./.	I-129 139/pCi/L ./1	IRON 34/ppb 18/300s
299-E27-11	11/18/94	B0D792			2.05	
299-E27-11	11/18/94	B0D7Y4	2.14	7.81		490.00 B
299-E27-16	11/21/94	B0D760	1.00 U		5.59	310.00 BQ
299-E27-17	11/18/94	B0D793			3.15	
299-E27-17	11/18/94	B0D7Q9	1.07	7.25		410.00 B
299-E27-18	11/28/94	B0D764	1.57 U		5.22	97.00 Q
299-E27-18	11/28/94	B0D765	1.57		5.36	110.00 Q
299-E27-19	11/28/94	B0D772	3.88		4.66	150.00 Q
299-E27-8	11/17/94	B0D794			3.03	
299-E27-8	11/17/94	B0D7R4	2.20	6.59		330.00 B
299-E27-9	11/17/94	B0D795			2.67	
299-E27-9	11/17/94	B0D7R9	.69 U	5.33		180.00 B
299-E33-33	11/21/94	B0D776	.56 U		2.76	360.00 BQ
299-E33-36	11/21/94	B0D780	1.11		5.93	510.00 BQ
299-E33-37	11/21/94	B0D784	2.60		6.34	220.00 BQ
299-E34-10	11/21/94	B0D796			1.74	
299-E34-10	11/21/94	B0D7S4	2.19	5.06		160.00 BQ
299-E34-8	11/21/94	B0D788	1.46		3.17	350.00 BQ

Table 9-4. Constituents with at Least One Detected Value for
the 216-B-63 Trench Data for Reporting Period
October 1 through December 31, 1994.
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Well Name	Collection Date	Sample Number	FIRON 34/ppb 18/300s	LEAD 40/ppb .86/50i	FLEAD 40/ppb .86/50i	MAGNES 34/ppb 25/.
299-E27-11	11/18/94	B0D7Y4		11.00		10000.00
299-E27-11	11/18/94	B0D7Y8	41.00 B		1.50 U	
299-E27-16	11/21/94	B0D760				8000.00
299-E27-17	11/18/94	B0D7Q9		2.30 L		10000.00
299-E27-17	11/18/94	B0D7R3	27.00 B		1.70 L	
299-E27-18	11/28/94	B0D764				8500.00
299-E27-18	11/28/94	B0D765				8400.00
299-E27-19	11/28/94	B0D772				9100.00
299-E27-8	11/17/94	B0D7R4		1.50 U		9600.00
299-E27-8	11/17/94	B0D7R8	39.00 B		1.50 U	
299-E27-9	11/17/94	B0D7R9		7.00		10000.00
299-E27-9	11/17/94	B0D7S3	27.00 B		1.50 U	
299-E33-33	11/21/94	B0D776				8700.00
299-E33-36	11/21/94	B0D780				8000.00
299-E33-37	11/21/94	B0D784				7800.00
299-E34-10	11/21/94	B0D7S4		7.90		9900.00
299-E34-10	11/21/94	B0D7S8	20.00 BQ		2.40 L	
299-E34-8	11/21/94	B0D788				9100.00

Well Name	Collection Date	Sample Number	FMAGNES 34/ppb 25/.	MANGESE 34/ppb 1/50s	FMANGAN 34/ppb 1/50s	MERCURY 41/ppb .095/2
299-E27-11	11/18/94	B0D7Y4		11.00		.10 BL
299-E27-11	11/18/94	B0D7Y8	10000.00		4.10 L	
299-E27-16	11/21/94	B0D760		8.20 L		
299-E27-17	11/18/94	B0D7Q9		9.30 L		.08 BL
299-E27-17	11/18/94	B0D7R3	10000.00		2.00 L	
299-E27-18	11/28/94	B0D764		2.70 L		
299-E27-18	11/28/94	B0D765		3.00 L		
299-E27-19	11/28/94	B0D772		4.30 L		
299-E27-8	11/17/94	B0D7R4		6.90 L		.05 U
299-E27-8	11/17/94	B0D7R8	9700.00		1.70 L	
299-E27-9	11/17/94	B0D7R9		3.20 L		.05 U
299-E27-9	11/17/94	B0D7S3	11000.00		1.50 L	
299-E33-33	11/21/94	B0D776		9.00 L		
299-E33-36	11/21/94	B0D780		13.00		
299-E33-37	11/21/94	B0D784		7.00 L		
299-E34-10	11/21/94	B0D7S4		4.10 L		.05 U
299-E34-10	11/21/94	B0D7S8	9900.00		2.00 L	
299-E34-8	11/21/94	B0D788		11.00		

Table 9-4. Constituents with at Least One Detected Value for
the 216-B-63 Trench Data for Reporting Period
October 1 through December 31, 1994.
(sheet 5 of 7)

Well Name	Collection Date	Sample Number	FMERCUR .41/ppb .095/2	NICKEL 34/ppb 16/.	FNICKEL 34/ppb 16/.	NITRATE 124/ppb 96/45000
299-E27-11	11/18/94	B0D7Y4		54.00		7000.00
299-E27-11	11/18/94	B0D7Y8	.13 BL		13.00 U	
299-E27-16	11/21/94	B0D760		33.00		3000.00 Q
299-E27-17	11/18/94	B0D7Q9		59.00		6600.00
299-E27-17	11/18/94	B0D7R3	.05 U		13.00 U	
299-E27-18	11/28/94	B0D764		13.00 U		3600.00
299-E27-18	11/28/94	B0D765		13.00 U		3700.00
299-E27-19	11/28/94	B0D772		13.00 U		4700.00
299-E27-8	11/17/94	B0D7R4		36.00		5900.00
299-E27-8	11/17/94	B0D7R8	.05 U		13.00 U	
299-E27-9	11/17/94	B0D7R9		29.00 L		6900.00
299-E27-9	11/17/94	B0D7S3	.05 U		13.00 U	
299-E33-33	11/21/94	B0D776		47.00		5100.00 Q
299-E33-36	11/21/94	B0D780		63.00		2800.00 Q
299-E33-37	11/21/94	B0D784		18.00 L		2500.00 Q
299-E34-10	11/21/94	B0D7S4		24.00 L		6600.00 Q
299-E34-10	11/21/94	B0D7S8	.06 BL		13.00 U	
299-E34-8	11/21/94	B0D788		34.00		5700.00 Q

Well Name	Collection Date	Sample Number	POTASUM 34/ppb 890/.	FPOTASS 34/ppb 890/.	SODIUM 34/ppb 150/.
299-E27-11	11/18/94	B0D7Y4	6200.00		14000.00 B
299-E27-11	11/18/94	B0D7Y8		6400.00	
299-E27-16	11/21/94	B0D760	5400.00		12000.00 BQ
299-E27-17	11/18/94	B0D7Q9	6000.00		14000.00 B
299-E27-17	11/18/94	B0D7R3		6100.00	
299-E27-18	11/28/94	B0D764	5500.00		13000.00 Q
299-E27-18	11/28/94	B0D765	5400.00		13000.00 Q
299-E27-19	11/28/94	B0D772	5600.00		14000.00 Q
299-E27-8	11/17/94	B0D7R4	6000.00		13000.00 B
299-E27-8	11/17/94	B0D7R8		6100.00	
299-E27-9	11/17/94	B0D7R9	5800.00		12000.00 B
299-E27-9	11/17/94	B0D7S3		5700.00	
299-E33-33	11/21/94	B0D776	5400.00		14000.00 BQ
299-E33-36	11/21/94	B0D780	5200.00		13000.00 BQ
299-E33-37	11/21/94	B0D784	5100.00		13000.00 BQ
299-E34-10	11/21/94	B0D7S4	6100.00		15000.00 BQ
299-E34-10	11/21/94	B0D7S8		6100.00	
299-E34-8	11/21/94	B0D788	5400.00		16000.00 BQ

Table 9-4. Constituents with at Least One Detected Value for
the 216-B-63 Trench Data for Reporting Period
October 1 through December 31, 1994.
(sheet 6 of 7)

Well Name	Collection Date	Sample Number	FSODIUM 34/ppb 150/.	SULFATE 124/ppb 89/250000s	TRITIUM 142/pCi/L ./20000	TURBID 126/NTU .016/.
299-E27-11	11/18/94	B0D7Y4		48000.00 D	2910.00	3.30
299-E27-11	11/18/94	B0D7Y8	14000.00 B			
299-E27-16	11/21/94	B0D760		22000.00 D	3030.00	
299-E27-17	11/18/94	B0D7Q9		51000.00 D	3000.00	1.00
299-E27-17	11/18/94	B0D7R3	15000.00 B			
299-E27-18	11/28/94	B0D764		20000.00 DQ	3450.00	
299-E27-18	11/28/94	B0D765		26000.00 DQ	3520.00	
299-E27-19	11/28/94	B0D772		36000.00 D	3540.00	
299-E27-8	11/17/94	B0D7R4		44000.00 D	3080.00	1.00
299-E27-8	11/17/94	B0D7R8	13000.00 B			
299-E27-9	11/17/94	B0D7R9		49000.00 D	2860.00	2.50
299-E27-9	11/17/94	B0D7S3	13000.00 B			
299-E33-33	11/21/94	B0D776		33000.00 D	4040.00	
299-E33-36	11/21/94	B0D780		19000.00 D	2600.00	
299-E33-37	11/21/94	B0D784		18000.00 D	2460.00	
299-E34-10	11/21/94	B0D7S4		53000.00 D	3240.00	1.60 Q
299-E34-10	11/21/94	B0D7S8	15000.00 BQ			
299-E34-8	11/21/94	B0D788		40000.00 D	2960.00	

Well Name	Collection Date	Sample Number	URANIUM 145/ppb ./.	VANADIUM 34/ppb 6.4/.	FVANADI 34/ppb 6.4/.	ZINC 34/ppb 4.4/5000s
299-E27-11	11/18/94	B0D7Y4	2.37	26.00 L		16.00
299-E27-11	11/18/94	B0D7Y8			22.00 L	
299-E27-16	11/21/94	B0D760		21.00 L		6.30 U
299-E27-17	11/18/94	B0D7Q9	2.60	23.00 L		6.30 U
299-E27-17	11/18/94	B0D7R3			21.00 L	
299-E27-18	11/28/94	B0D764		23.00 L		17.00
299-E27-18	11/28/94	B0D765		20.00 L		15.00
299-E27-19	11/28/94	B0D772		22.00 L		170.00
299-E27-8	11/17/94	B0D7R4	2.64	26.00 L		6.30 U
299-E27-8	11/17/94	B0D7R8			25.00 L	
299-E27-9	11/17/94	B0D7R9	2.45	27.00 L		6.30 U
299-E27-9	11/17/94	B0D7S3			27.00 L	
299-E33-33	11/21/94	B0D776		23.00 L		6.30 U
299-E33-36	11/21/94	B0D780		21.00 L		6.30 L
299-E33-37	11/21/94	B0D784		20.00 L		6.30 U
299-E34-10	11/21/94	B0D7S4	2.34	21.00 L		8.80 L
299-E34-10	11/21/94	B0D7S8			24.00 L	
299-E34-8	11/21/94	B0D788		20.00 L		6.30 U

Table 9-4. Constituents with at Least One Detected Value for
the 216-B-63 Trench Data for Reporting Period
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Well Name	Collection Date	Sample Number	FZINC 34/ppb 4.4/5000s
299-E27-11	11/18/94	B0D7Y8	6.30 U
299-E27-17	11/18/94	B0D7R3	6.30 U
299-E27-8	11/17/94	B0D7R8	6.30 U
299-E27-9	11/17/94	B0D7S3	6.30 U
299-E34-10	11/21/94	B0D7S8	6.30 U

For explanation of this table, see Section 1.4 of report.

Table 9-5.. Contamination Indicator Parameters for the 216-B-63 Trench
Data for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 2)

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-E27-11	11/18/94	B0D792		340				
		B0D7Y4	360		7.72	8.20	400 L	5.0 U
		B0D7Y5	359		7.73		300 L	5.0 U
		B0D7Y6	358		7.73		400 L	5.0 U
		B0D7Y7	357		7.74		400 L	5.0 U
299-E27-16	11/21/94	B0D760	261	270	7.33		400 L	6.7
		B0D761	264		7.34		200 L	5.9
		B0D762	262		7.35		400 L	6.3
		B0D763	260		7.33		300 L	8.9
299-E27-17	11/18/94	B0D793		350				
		B0D7Q9	459		7.18	8.20	300 L	5.0 U
		B0D7R0	457		7.15		300 L	5.0 U
		B0D7R1	456		7.15		300 L	5.0 U
		B0D7R2	458		7.16		300 L	5.4
299-E27-18	11/28/94	B0D764	290	290	7.49		300 L	5.0 U
		B0D765	290	290	7.50		300 L	5.0 U
		B0D766	288		7.51		300 L	5.0 U
		B0D767	288		7.53		200 L	5.0 U
		B0D768					300 L	7.1
		B0D769					200 L	5.0 U
		B0D770					200 L	8.6
		B0D771					300 L	7.9
299-E27-19	11/28/94	B0D772	301	310	7.89		200 L	6.5
		B0D773	303		7.90		300 L	9.2
		B0D774	304		7.91		400 L	5.0 U
		B0D775	303		7.92		300 L	5.0 U
299-E27-8	11/17/94	B0D794		330				
		B0D7R4	315		7.80	8.20	200 L	5.1
		B0D7R5	312		7.80		300 L	6.3
		B0D7R6	309		7.79		300 L	5.0 U
		B0D7R7	309		7.80		300 L	5.4
299-E27-9	11/17/94	B0D795		340				
		B0D7R9	322		8.08	8.20	200 L	5.0 U
		B0D7S0	322		8.07		200 L	5.0 U
		B0D7S1	321		8.09		300 L	5.0 U
		B0D7S2	321		8.10		200 L	7.3
299-E33-33	11/21/94	B0D776	240	300	8.04		200 L	5.0 U
		B0D777	240		8.04		300 L	5.0 U
		B0D778	237		8.02		300 L	5.0 U
		B0D779	236		8.02		200 L	5.0 U
299-E33-36	11/21/94	B0D780	255	270	6.42 F		300 L	5.0 U
		B0D781	253		6.46 F		300 L	5.0 U
		B0D782	253		6.46 F		300 L	5.0 U

Table 9-5. Contamination Indicator Parameters for the 216-B-63 Trench
Data for Reporting Period October 1 through December 31, 1994.
(sheet 2 of 2)

Well Name	Collection Date	Sample Number	COND FIELD μMho 1/.	COND LAB μMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-E33-36	11/21/94	B0D783	255		6.48 F		500 L	5.0 U
299-E33-37	11/21/94	B0D784	300	260	8.07		300 L	5.0 U
		B0D785	303		8.07		200 L	5.0 U
		B0D786	303		8.06		200 L	5.0 U
		B0D787	302		8.07		300 L	5.0 U
299-E34-10	11/21/94	B0D796		350				
		B0D7S4	280		7.90	8.10	400 L	5.0 U
		B0D7S5	281		7.91		300 L	5.0 U
		B0D7S6	282		7.93		300 L	5.0 U
		B0D7S7	283		7.93		300 L	5.0 U
299-E34-8	11/21/94	B0D788	299	310	7.82		200 L	5.0 U
		B0D789	298		7.83		300 L	5.0 U
		B0D790	298		7.83		300 L	5.0 U
		B0D791	299		7.90		300 L	5.0 U

For explanation of this table, see Section 1.4 of report.

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10.0 216-S-10 POND AND DITCH

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10.1 INTRODUCTION

The 216-S-10 Pond and Ditch (S-10 Facility) is located south-southwest of the 200 West Area, directly outside the perimeter fence. The S-10 Facility received wastewater from the Reduction-Oxidation (REDOX) Plant (202-S Building) located in the 200 West Area. In the past, wastewater disposed of at the S-10 Facility has contained hazardous waste and radioactive materials. Since 1985, physical controls and operating procedures have been modified to avoid inadvertent discharge of hazardous and radioactive substances to the wastewater stream. The facility has been monitored under interim status since August 1991. In October 1991, the effluent waste stream, including the water source, to the 216-S-10 Ditch was deactivated. Because the S-10 Facility is not expected to receive additional hazardous and radioactive substances, the facility will be closed in accordance with WAC 173-303-610 (final status).

The S-10 Facility initially comprised an open, unlined ditch 1.8 m (6 ft) deep, 1.2 m (4 ft) wide at the bottom, and 686 m (2,250 ft) long. In addition, an open, unlined percolation pond, approximately 2 hectares (5 acres) in size, was constructed at the southwest end of the ditch, and was active during part of the time the ditch was receiving waste.

The 216-S-10 Ditch began receiving wastewater from the REDOX Plant in August 1951, and the 216-S-10 Pond was dug and placed in service in February 1954. In October 1985, the 216-S-10 Pond and portions of the 216-S-10 Ditch were decommissioned, backfilled, and stabilized. The remaining portion of the 216-S-10 Ditch (approximately 594 m [1,950 ft]) received nonhazardous, nonregulated waste from the 202-S Building chemical sewer until deactivation in October 1991. This waste stream comprised cooling water, steam condensate, water tower overflow, and drain effluent. These source streams had been routed so that they would not come into contact with hazardous materials.

Releases of hazardous materials and constituents to the S-10 Facility are poorly documented. Radioactive waste was reportedly disposed to the S-10 Facility as a result of contaminated floor and sewer drains at the REDOX Plant. Chemical releases were documented in 1954 and 1983, and known constituents are $\text{Al}(\text{NO}_3)_3$, NaNO_3 , NaOH , Na_3PO_4 , NaF , NaCl , and $\text{K}_2\text{Cr}_2\text{O}_7$.

During 1991 the annual volume of effluent discharged to the 216-S-10 Ditch was between 1.9×10^8 and 5.7×10^8 L (5.0×10^7 and 1.5×10^8 gal). This volume of discharge created a localized recharge mound and an associated perched water table directly below the receiving (north) end of the ditch. This recharge mound has since dissipated, and the perched water zone has been dry since shortly after the ditch was deactivated.

Groundwater beneath the S-10 Facility is sampled semiannually in accordance with the *Interim-Status Groundwater Monitoring Plan for the 216-S-10 Pond and Ditch* (WHC 1990a). The site is currently in a detection-level indicator parameters evaluation program.

The monitoring network currently consists of two upgradient wells, three downgradient wells, and one downgradient well that monitors the base of the unconfined aquifer (Figure 10-1). Table 10-1 lists the wells and their sampling status. All of the wells now have at least four quarters of analytical data. The results of the background statistical calculations for the upgradient monitoring wells (based on the first four quarters of analytical data) were presented in the *Annual Report for RCRA Groundwater Monitoring Projects at Hanford Site Facilities for 1993* (DOE-RL 1994).

10.2 WATER LEVEL MEASUREMENTS

Water level measurements obtained during the fourth quarter of calendar year 1994 are presented in Table 10-2. Water levels are measured at all wells at the time of sampling. Also, quarterly water level measurements are made at six wells at the S-10 Facility including 299-W26-7, 299-W26-8, 299-W26-9, 299-W26-10, 299-W26-12, and 299-W27-2.

10.3 WATER CHEMISTRY DATA

Groundwater sampling during the fourth quarter of calendar year 1994 included the five wells of the monitoring network that are screened in the upper portion of the unconfined aquifer (299-W26-7, 8, 9, 10, and 12) (Figure 10-1). They were sampled on December 7, 1994. The sixth well (299-W27-2) (Figure 10-1) was not sampled in time to make the deadline for inclusion in the results for the fourth quarter. Results for this well will be reported in the first quarter report for 1995. Well 299-W27-2 monitors the base of the unconfined aquifer, and results are not used for statistical evaluation. Available data for the reporting period October 1 to December 31, 1994 are shown in Tables 10-3 through 10-5.

Drinking water parameters, groundwater quality parameters, and site-specific and other constituents (Table 10-3) did not exceed DWSs except for unfiltered chromium in two upgradient wells, filtered chromium in one upgradient well, unfiltered iron in four wells (two upgradient and two downgradient), and unfiltered manganese in two downgradient wells (Table 10-4). High levels of chromium, iron, and manganese have been reported in the past in Hanford wells and are assumed to be artifacts of well construction or the use of stainless steel well screens. The unusually high concentrations of aluminum in well 299-W26-10 probably indicate particulates in the sample, which suggests high well turbidity.

Indicator parameters did not exceed their critical range or mean values in the fourth quarter of 1994 except for field-measured pH values from wells 299-W26-8 (an upgradient well) and 299-W26-10 (a downgradient well) (Table 10-5). These field measurements are suspected to be in error because they are not consistent with laboratory pH measurements, and they are not

consistent with the historical trend. The wells will be resampled. A RADE has been submitted for these data.

Figure 10-1. Well Location Map for the 216-S-10 Facility.

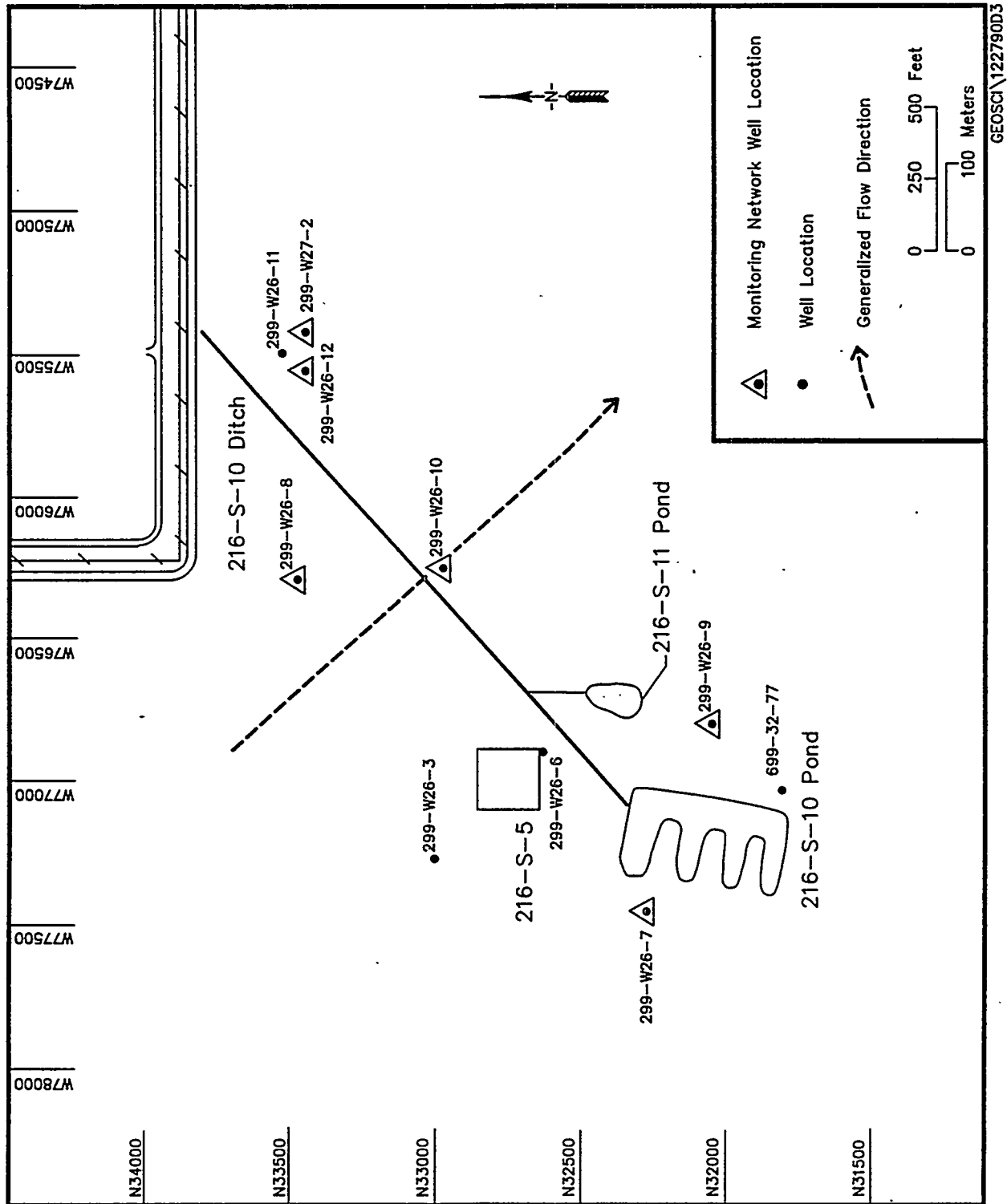


Table 10-1. Monitoring Well Purpose and Sampling Schedule for the 216-S-10 Facility.

Well no. (299-)	Relative position	Hydrogeologic unit	Sampling frequency	Last sampling date
W26-7	Upgradient	Ringold: Water Table	Semiannually	12/07/94
W26-8	Upgradient	Ringold: Water Table	Semiannually	12/07/94
W26-9	Downgradient	Ringold: Water Table	Semiannually	12/07/94
W26-10	Downgradient	Ringold: Water Table	Semiannually	12/07/94
W26-12	Downgradient	Ringold: Water Table	Semiannually	12/07/94
W27-2	Downgradient	Ringold: Base of Unconfined Aquifer	Semiannually	06/20/94

Table 10-2. RCRA Water Level Measurement Report
216-S-10 Facility, Fourth Quarter 1994.

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
Wells Monitoring the Top of the Unconfined Aquifer				
299-W26-10	12/07/94	216.85	454.02*	138.39
	12/20/94	215.74	455.13	138.72
299-W26-12	12/07/94	220.48	455.21*	138.75
	12/20/94	220.22	455.47	138.83
299-W26-7	12/07/94	195.26	456.73*	139.21
	12/20/94	194.95	457.04	139.31
299-W26-8	12/07/94	210.72	455.59*	138.86
	12/20/94	210.53	455.78	138.92
299-W26-9	12/07/94	199.02	455.14*	138.73
	12/20/94	198.58	455.58	138.86
299-W27-2	12/20/94	221.99	455.12	138.72

- NOTES:
1. Water level elevations are calculated by subtracting the measured depth-to-water from the surveyed elevation for the well.
 2. Depth-to-water values are transcribed from field records.
 3. Elevations marked with an '*' were measured at the time of sampling.
 4. Elevations marked with a '+' are outside of the expected range, and are suspected of error.

Table 10-3. Constituent List and Summary of Results for the 216-S-10 Facility
Data for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 3)

CONTAMINATION INDICATOR PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS Limit	Agency	Number of Samples		
		Full						Total	>MDL	>DWS
CONDUCT	94	Conductivity, field	umhos		1			5	5	
CONDUCT	73	Conductivity, lab	umhos					6	6	
TOC		Total Organic Carbon	ppb		110			24	24	
TOX		Total Organic Halogen	ppb		5			24	8	
PH	93	pH, field	pH		.01	6.5-8.5	EPAS	5	5	2
PH	125	pH, lab	pH			6.5-8.5	EPAS	6	6	0

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS Limit	Agency	Number of Samples		
		Full						Total	>MDL	>DWS
BARIUM		Barium	ppb		.59	1000	EPAI	6	6	0
FBARIUM		Barium, filtered	ppb		.59	1000	EPAI	6	6	0
CADMIUM		Cadmium	ppb		3.3	10	EPAI	6	0	0
FCADMIU		Cadmium, filtered	ppb		3.3	10	EPAI	6	0	0
CHROMIUM		Chromium	ppb		4.5	50	EPAI	6	6	6
FCHROMI		Chromium, filtered	ppb		4.5	50	EPAI	6	5	2
FLUORID		Fluoride	ppb		36	1400	EPAI	6	6	0
ALPHA		Gross alpha	pCi/L			15	EPA	6	4	0
NITRATE		Nitrate	ppb		11	45000	EPA	6	6	0

GROUNDWATER QUALITY PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS Limit	Agency	Number of Samples		
		Full						Total	>MDL	>DWS
CHLORID		Chloride	ppb		14	250000	EPAS	6	6	0
IRON		Iron	ppb		5.24	300	EPAS	6	6	5
FIRON		Iron, filtered	ppb		5.24	300	EPAS	6	6	0
MANGESE		Manganese	ppb		.72	50	EPAS	6	6	2
FMANGAN		Manganese, filtered	ppb		.72	50	EPAS	6	6	0
LPHENOL		Phenol	ppb		.31			6	0	
SODIUM		Sodium	ppb		61			6	6	
FSODIUM		Sodium, filtered	ppb		61			6	6	
SULFATE		Sulfate	ppb		37	250000	EPAS	6	6	0

Table 10-3. Constituent List and Summary of Results for the 216-S-10 Facility
Data for Reporting Period October 1 through December 31, 1994.
(sheet 2 of 3)

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name Full	Units	Lab MDL	DWS		Number of Samples		
					Limit	Agency	Total	>MDL	>DWS
1,1,1-T		1,1,1-Trichloroethane	ppb	.036	200	EPA	6	0	0
1,1,2-T		1,1,2-Trichloroethane	ppb	.078			6	0	
1,1-DIC		1,1-Dichloroethane	ppb	.058			6	0	
1,2-DIC		1,2-Dichloroethane	ppb	.029	5	EPA	6	0	0
14-dben		1,4-Dichlorobenzene	ppb	.055	75	EPA	6	0	0
246-trp		2,4,6-Trichlorophenol	ppb	1.3			6	0	
24-dchp		2,4-Dichlorophenol	ppb	1.3			6	0	
DIMPHEM		2,4-Dimethylphenol	ppb	1.2			6	0	
DINPHEM		2,4-Dinitrophenol	ppb	3			6	0	
26-dchp		2,6-Dichlorophenol	ppb	1.4			6	0	
CHLPHEM		2-Chlorophenol	ppb	1.6			6	0	
2NITPH		2-Nitrophenol	ppb	1.3			6	0	
BUTDINP		2-sec-Butyl-4,6-dinitrophenol (DN	ppb	1.3			6	0	
46DN2MP		4,6-Dinitro-2-methylphenol	ppb	1.3			6	0	
CHLCRES		4-Chloro-3-methylphenol	ppb	1.3			6	0	
NITPHEM		4-Nitrophenol	ppb	3			6	0	
ALUMNUM		Aluminum	ppb	26			6	6	
FALUMIN		Aluminum, filtered	ppb	26			6	3	
ANTIONY		Antimony	ppb	62			6	0	
FANTIMO		Antimony, filtered	ppb	62			6	0	
BENZENE		Benzene	ppb	.013	5	EPA	6	0	0
BERYLUM		Beryllium	ppb	.17			6	1	
FBERYLL		Beryllium, filtered	ppb	.17			6	0	
BROMIDE		Bromide	ppb	100			6	0	
CALCIUM		Calcium	ppb	34			6	6	
FCALCIU		Calcium, filtered	ppb	34			6	6	
TETRANE		Carbon tetrachloride	ppb	.075	5	EPA	6	2	0
CHLFORM		Chloroform	ppb	.041			6	1	
COBALT		Cobalt	ppb	5.9			6	0	
FCOBALT		Cobalt, filtered	ppb	5.9			6	0	
COPPER		Copper	ppb	4.1	1000	EPAS	6	4	0
FCOPPER		Copper, filtered	ppb	4.1	1000	EPAS	6	1	0
CRESOLS		Cresols (methylphenols)	ppb	4.8			6	0	
ETHBENZ		Ethylbenzene	ppb	.051	700	EPA	6	0	0
BETA		Gross beta	pCi/L				6	5	
MAGNES		Magnesium	ppb	23			6	6	
FMAGNES		Magnesium, filtered	ppb	23			6	6	
METHYCH		Methylene chloride	ppb	.09			6	0	
NICKEL		Nickel	ppb	13			6	6	
FNICKEL		Nickel, filtered	ppb	13			6	2	
NITRITE		Nitrite	ppb	18	1000	EPA	6	0	0
PENTCHP		Pentachlorophenol	ppb	1.3	1	EPA	6	0	6*
PHOSPHA		Phosphate	ppb	82			6	0	

Table 10-3. Constituent List and Summary of Results for the 216-S-10 Facility
Data for Reporting Period October 1 through December 31, 1994.
(sheet 3 of 3)

Short	(Method)	Constituent Name Full	Units	Lab MDL	DWS		Number of Samples		
					Limit	Agency	Total	>MDL	>DWS
POTASUM		Potassium	ppb	850			6	6	
FPOTASS		Potassium, filtered	ppb	850			6	6	
SILVER		Silver	ppb	3.6	50	EPAI	6	0	0
FSILVER		Silver, filtered	ppb	3.6	50	EPAI	6	0	0
TC-99		Technetium-99	pCi/L		900	EPA	6	0	0
PERCENE		Tetrachloroethene	ppb	.22	5	EPA	6	0	0
TETPHNL		Tetrachlorophenols	ppb	1.5			6	0	
TIN		Tin	ppb	69			6	1	
FTIN		Tin, filtered	ppb	69			6	0	
TOLUENE		Toluene	ppb	.016	1000	EPA	6	0	0
TRICENE		Trichloroethene	ppb	.11	5	EPA	6	0	0
TRIPHNL		Trichlorophenols	ppb	1.7			6	0	
TRITIUM		Tritium	pCi/L		20000	EPA	6	0	0
URANIUM		Uranium	ppb				6	6	
VANADIUM		Vanadium	ppb	6.6			6	6	
FVANADI		Vanadium, filtered	ppb	6.6			6	6	
VINYIDE		Vinyl chloride	ppb	.13	2	EPA	6	0	0
XYLENE		Xylenes (total)	ppb	.035	10000	EPA	6	0	0
ZINC		Zinc	ppb	6.3	5000	EPAS	6	4	0
FZINC		Zinc, filtered	ppb	6.3	5000	EPAS	6	1	0
CIS12DE		cis-1,2-Dichloroethylene	ppb	.11	70	EPA	6	0	0
TRANDCE		trans-1,2-Dichloroethylene	ppb	.073	100	EPA	6	0	0

For explanation of this table, see Section 1.4 of report.

Table 10-4. Constituents with at Least One Detected Value for
the 216-S-10 Facility Data for Reporting Period
October 1 through December 31, 1994.
(sheet 1 of 4)

Well Name	Collection Date	Sample Number	ALUMNUM 34/ppb 19/.	FALUMIN 34/ppb 19/.	BARIUM 34/ppb 1.3/1000i	FBARIUM 34/ppb 1.3/1000i
299-W26-10	12/07/94	B0DFH9	2600.00		54.00 Q	
299-W26-10	12/07/94	B0DFJ3		37.00 L		26.00 Q
299-W26-12	12/07/94	B0DFJ4	460.00		26.00 Q	
299-W26-12	12/07/94	B0DFJ8		26.00 U		21.00 Q
299-W26-7	12/07/94	B0DFJ9	110.00 L		24.00 Q	
299-W26-7	12/07/94	B0DFK0	96.00 L		22.00 Q	
299-W26-7	12/07/94	B0DFK7		26.00 U		20.00 Q
299-W26-7	12/07/94	B0DFK8		26.00 L		21.00 Q
299-W26-8	12/07/94	B0DFL4	71.00 L		36.00 Q	
299-W26-8	12/07/94	B0DFL8		26.00 U		33.00 Q
299-W26-9	12/07/94	B0DFL9	58.00 L		19.00 LQ	
299-W26-9	12/07/94	B0DFM3		32.00 L		20.00 Q

Well Name	Collection Date	Sample Number	BERYLUM 34/ppb 1.5/.	FBERYLL 34/ppb 1.5/.	CALCIUM 34/ppb 47/.	FCALCIU 34/ppb 47/.
299-W26-10	12/07/94	B0DFH9	.27 L		26000.00	
299-W26-10	12/07/94	B0DFJ3		.17 U		24000.00
299-W26-12	12/07/94	B0DFJ4	.17 U		17000.00	
299-W26-12	12/07/94	B0DFJ8		.17 U		16000.00
299-W26-7	12/07/94	B0DFJ9	.17 U		23000.00	
299-W26-7	12/07/94	B0DFK0	.17 U		23000.00	
299-W26-7	12/07/94	B0DFK7		.17 U		23000.00
299-W26-7	12/07/94	B0DFK8		.17 U		23000.00
299-W26-8	12/07/94	B0DFL4	.17 U		21000.00	
299-W26-8	12/07/94	B0DFL8		.17 U		20000.00
299-W26-9	12/07/94	B0DFL9	.17 U		23000.00	
299-W26-9	12/07/94	B0DFM3		.17 U		23000.00

Well Name	Collection Date	Sample Number	TETRANE 25/ppb .32/5	CHLORID 124/ppb 71/250000s	CHLFORM 25/ppb .05/.	CHROMUM 34/ppb 11/100
299-W26-10	12/07/94	B0DFH9	.64 L	5900.00 BQ	.04 U	74.00
299-W26-12	12/07/94	B0DFJ4	.08 U	1600.00 BQ	.28 L	78.00
299-W26-7	12/07/94	B0DFJ9	.08 U	5700.00 BQ	.04 U	250.00
299-W26-7	12/07/94	B0DFK0	.08 U	5600.00 BQ	.04 U	230.00
299-W26-8	12/07/94	B0DFL4	2.50	3100.00 BQ	.04 U	340.00
299-W26-9	12/07/94	B0DFL9	.08 U	6500.00 BQ	.04 U	58.00

Table 10-4. Constituents with at Least One Detected Value for
the 216-S-10 Facility Data for Reporting Period
October 1 through December 31, 1994.
(sheet 2 of 4)

Well Name	Collection Date	Sample Number	FCHROMI 34/ppb 11/100	COPPER 34/ppb 2.6/1000s	FCOPPER 34/ppb 2.6/1000s	FLUORID 124/ppb 51/1400i
299-W26-10	12/07/94	BODFH9		13.00 L		500.00
299-W26-10	12/07/94	BODFJ3	4.50 U		4.30 L	
299-W26-12	12/07/94	BODFJ4		4.80 L		700.00
299-W26-12	12/07/94	BODFJ8	6.60 L		4.10 U	
299-W26-7	12/07/94	BODFJ9		16.00 LQ		600.00
299-W26-7	12/07/94	BODFK0		4.10 UQ		600.00
299-W26-7	12/07/94	BODFK7	170.00		4.10 U	
299-W26-7	12/07/94	BODFK8	170.00		4.10 U	
299-W26-8	12/07/94	BODFL4		16.00 L		500.00
299-W26-8	12/07/94	BODFL8	4.60 L		4.10 U	
299-W26-9	12/07/94	BODFL9		4.10 U		600.00
299-W26-9	12/07/94	BODFM3	9.50 L		4.10 U	

Well Name	Collection Date	Sample Number	ALPHA 135/pCi/L ./15	BETA 136/pCi/L ./.	IRON 34/ppb 18/300s	FIROX 34/ppb 18/300s
299-W26-10	12/07/94	BODFH9	3.19	6.40	5000.00 B	
299-W26-10	12/07/94	BODFJ3				17.00 LB
299-W26-12	12/07/94	BODFJ4	2.48	6.24	1200.00 B	
299-W26-12	12/07/94	BODFJ8				14.00 LB
299-W26-7	12/07/94	BODFJ9	1.58 Q	3.69	660.00 B	
299-W26-7	12/07/94	BODFK0	.03 UQ	3.57	520.00 B	
299-W26-7	12/07/94	BODFK7				34.00 B
299-W26-7	12/07/94	BODFK8				40.00 B
299-W26-8	12/07/94	BODFL4	9.39	10.10	1500.00 B	
299-W26-8	12/07/94	BODFL8				20.00 LB
299-W26-9	12/07/94	BODFL9	.88 U	.62 U	270.00 B	
299-W26-9	12/07/94	BODFM3				8.90 LB

Well Name	Collection Date	Sample Number	MAGNES 34/ppb 25/.	FMAGNES 34/ppb 25/.	MANGESE 34/ppb 1/50s	FMANGAN 34/ppb 1/50s
299-W26-10	12/07/94	BODFH9	8000.00		100.00	
299-W26-10	12/07/94	BODFJ3		7100.00		2.40 L
299-W26-12	12/07/94	BODFJ4	5000.00		52.00	
299-W26-12	12/07/94	BODFJ8		4700.00		2.00 L
299-W26-7	12/07/94	BODFJ9	6800.00		13.00	
299-W26-7	12/07/94	BODFK0	6900.00		11.00	
299-W26-7	12/07/94	BODFK7		6900.00		5.90 L
299-W26-7	12/07/94	BODFK8		6800.00		5.30 L
299-W26-8	12/07/94	BODFL4	5400.00		32.00	
299-W26-8	12/07/94	BODFL8		5300.00		3.60 L
299-W26-9	12/07/94	BODFL9	6700.00		5.90 L	
299-W26-9	12/07/94	BODFM3		6700.00		1.10 L

Table 10-4. Constituents with at Least One Detected Value for
the 216-S-10 Facility Data for Reporting Period
October 1 through December 31, 1994.
(sheet 3 of 4)

Well Name	Collection Date	Sample Number	NICKEL 34/ppb 16/.	FNICKEL 34/ppb 16/.	NITRATE 124/ppb 96/45000	POTASUM 34/ppb 890/.
299-W26-10	12/07/94	BODFH9	44.00		2400.00 q	3800.00
299-W26-10	12/07/94	BODFJ3		13.00 U		
299-W26-12	12/07/94	BODFJ4	44.00		1300.00 q	3400.00
299-W26-12	12/07/94	BODFJ8		13.00 U		
299-W26-7	12/07/94	BODFJ9	56.00		6700.00 q	3300.00
299-W26-7	12/07/94	BODFK0	57.00		6700.00 q	3200.00
299-W26-7	12/07/94	BODFK7		30.00		
299-W26-7	12/07/94	BODFK8		33.00		
299-W26-8	12/07/94	BODFL4	180.00		700.00 q	5000.00
299-W26-8	12/07/94	BODFL8		13.00 U		
299-W26-9	12/07/94	BODFL9	24.00 L		5700.00 q	3200.00
299-W26-9	12/07/94	BODFM3		13.00 U		

Well Name	Collection Date	Sample Number	FPOTASS 34/ppb 890/.	SODIUM 34/ppb 150/.	FSODIUM 34/ppb 150/.	SULFATE 124/ppb 89/250000s
299-W26-10	12/07/94	BODFH9		18000.00 q		13000.00 D
299-W26-10	12/07/94	BODFJ3	3700.00		17000.00 q	
299-W26-12	12/07/94	BODFJ4		24000.00 q		13000.00 D
299-W26-12	12/07/94	BODFJ8	3400.00		24000.00 q	
299-W26-7	12/07/94	BODFJ9		19000.00 q		17000.00 D
299-W26-7	12/07/94	BODFK0		19000.00 q		18000.00 D
299-W26-7	12/07/94	BODFK7	4100.00 q		19000.00 q	
299-W26-7	12/07/94	BODFK8	3100.00 q		19000.00 q	
299-W26-8	12/07/94	BODFL4		23000.00 q		11000.00 D
299-W26-8	12/07/94	BODFL8	4700.00		23000.00 q	
299-W26-9	12/07/94	BODFL9		23000.00 q		18000.00 D
299-W26-9	12/07/94	BODFM3	3200.00		23000.00 q	

Well Name	Collection Date	Sample Number	TIN 34/ppb 24/.	FTIN 34/ppb 24/.	URANIUM 145/ppb ./.	VANADUM 34/ppb 6.4/.
299-W26-10	12/07/94	BODFH9	73.00 L		1.91	41.00
299-W26-10	12/07/94	BODFJ3		69.00 U		
299-W26-12	12/07/94	BODFJ4	69.00 U		3.80	30.00 L
299-W26-12	12/07/94	BODFJ8		69.00 U		
299-W26-7	12/07/94	BODFJ9	69.00 U		1.51	34.00
299-W26-7	12/07/94	BODFK0	69.00 U		1.39	35.00
299-W26-7	12/07/94	BODFK7		69.00 U		
299-W26-7	12/07/94	BODFK8		69.00 U		
299-W26-8	12/07/94	BODFL4	69.00 U		16.20	16.00 L
299-W26-8	12/07/94	BODFL8		69.00 U		
299-W26-9	12/07/94	BODFL9	69.00 U		1.77	38.00
299-W26-9	12/07/94	BODFM3		69.00 U		

Table 10-4. Constituents with at Least One Detected Value for
the 216-S-10 Facility Data for Reporting Period
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Well Name	Collection Date	Sample Number	FVANADI 34/ppb 6.4/.	ZINC 34/ppb 4.4/5000s	FZINC 34/ppb 4.4/5000s
299-W26-10	12/07/94	B0DFH9		27.00	
299-W26-10	12/07/94	B0DFJ3	34.00		6.30 U
299-W26-12	12/07/94	B0DFJ4		26.00	
299-W26-12	12/07/94	B0DFJ8	27.00 L		8.10 L
299-W26-7	12/07/94	B0DFJ9		9.60 LQ	
299-W26-7	12/07/94	B0DFK0		6.70 LQ	
299-W26-7	12/07/94	B0DFK7	37.00		6.30 U
299-W26-7	12/07/94	B0DFK8	34.00		6.30 U
299-W26-8	12/07/94	B0DFL4		6.30 U	
299-W26-8	12/07/94	B0DFL8	17.00 L		6.30 U
299-W26-9	12/07/94	B0DFL9		6.30 U	
299-W26-9	12/07/94	B0DFM3	40.00		6.30 U

For explanation of this table, see Section 1.4 of report.

Table 10-5. Contamination Indicator Parameters for the 216-S-10 Facility
Data for Reporting Period October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-W26-10	12/07/94	B0DFH9	158	260	4.11 F	8.00	300 LB	5.0 UQ
		B0DFJ0					300 LB	9.5 Q
		B0DFJ1					300 LB	9.2 Q
		B0DFJ2					200 LB	6.8 Q
299-W26-12	12/07/94	B0DFJ4	232	230	7.84	8.10	500 LB	5.0 UQ
		B0DFJ5					400 LB	5.0 UQ
		B0DFJ6					400 LB	5.0 UQ
		B0DFJ7					400 LB	6.1 Q
299-W26-7	12/07/94	B0DFJ9	266	260	7.67	8.10	300 LB	5.0 UQ
		B0DFK0		260		8.10	200 L	5.0 UQ
		B0DFK1					300 L	5.0 UQ
		B0DFK2					200 L	5.0 UQ
		B0DFK3					150 L	5.0 UQ
		B0DFK4					140 L	5.0 UQ
		B0DFK5					140 LQ	5.0 UQ
		B0DFK6					200 LQ	5.0 Q
299-W26-8	12/07/94	B0DFL4	161	250	4.51 F	8.50	500 L	7.6 Q
		B0DFL5					300 L	7.1 Q
		B0DFL6					300 L	6.9 Q
		B0DFL7					400 L	5.0 UQ
299-W26-9	12/07/94	B0DFL9	280	270	7.67	8.10	150 L	5.0 UQ
		B0DFM0					200 L	5.0 UQ
		B0DFM1					300 L	5.0 UQ
		B0DFM2					200 L	5.0 UQ

For explanation of this table, see Section 1.4 of report.

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11.0 216-U-12 CRIB

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11.1 INTRODUCTION

The 216-U-12 Crib (U-12 Crib) is located approximately 609 m (1,998 ft) south of the U Plant in the 200 West Area (see Figure 1-1). The crib is an unlined, gravel-bottom percolation crib that is 3 by 30.5 m (10 by 100 ft) wide and 4 m (13 ft) deep. The crib has a plastic barrier cover and is backfilled with the original excavated soil. A vitrified clay distribution pipe buried in the gravel dispersed the effluent across the bottom of the crib.

A RCRA interim-status assessment-level groundwater monitoring network was established for the U-12 Crib in 1993 (WHC 1993a). The U-12 Crib received wastewater from the U Plant in the 200 West Area from April 1960 until February 1988, when it was replaced by the 216-U-17 Crib. Wastewater disposed of in the U-12 Crib contained hazardous waste and radioactive materials. The DOE, Richland Operations Office (RL) has proposed that the facility be closed under RCRA interim status (40 CFR 265). This closure will be coordinated with the CERCLA Past Practice activity (200 UP-2 Operable Unit cleanup).

The waste was composed of effluent from the U Plant and included 291-U-1 Stack drainage and process condensate from the 224-U Building. The U-12 Crib received this waste stream from April 1960 until 1972, when it was deactivated. The U-12 Crib was reactivated in November 1981 and received U-Plant waste until it was permanently retired in February 1988. An average of over 1,000,000 L (264,200 gal) of effluent was disposed of in the crib during each year of its active life. The U-12 Crib has received low-level radioactive waste that is known to have included chemicals such as nitric acid in addition to plutonium, strontium, ruthenium, and uranium. In 1985, physical controls and operating procedures were modified to avoid inadvertent discharge of hazardous chemicals to the wastewater stream. Hydrogeologic evaluation of the crib in 1983 indicated radioactive contamination to a depth of at least 43 m (140 ft). The depth to water below the crib is approximately 72 m (236 ft).

The RCRA *Interim-Status Groundwater Monitoring Plan for the 216-U-12 Crib* (WHC 1990b) presents the program used to establish the background levels for the CIPs. The document summarizes the available data for the disposal facility. In accordance with the plan, four RCRA groundwater monitoring wells were installed in 1990. The monitoring network consisted of one upgradient and three downgradient wells (Figure 11-1).

The sample results for the fourth quarter of 1994 represent the fourteenth calendar quarter of RCRA data collected at the U-12 Crib. Data collected during the third quarter of 1992 from downgradient wells 299-W22-41 and 299-W22-42 showed elevated specific conductivity. Verification sampling and analysis during that and subsequent quarters corroborated these findings. Currently the U-12 Crib groundwater monitoring well network is sampled quarterly for assessment monitoring in accordance with the *Interim-Status Groundwater Quality Assessment Plan for the 216-U-12 Crib* (WHC 1993a). Monthly sampling has been conducted since November 1993 for the field parameters pH and specific conductivity. The

data from the monthly sampling will be reported as they become available.

Two existing wells, 299-W22-22 and 299-W22-23, were remediated for inclusion in the monitoring network, but well 299-W22-22 has been dropped from the network because of sampling complications. The new assessment well, 699-36-70A, was added to the network and sampled for the first time on January 3, 1995. Table 11-1 lists the network wells and their sampling status during the reporting period; currently the network consists of six wells.

11.2 WATER LEVEL MEASUREMENTS

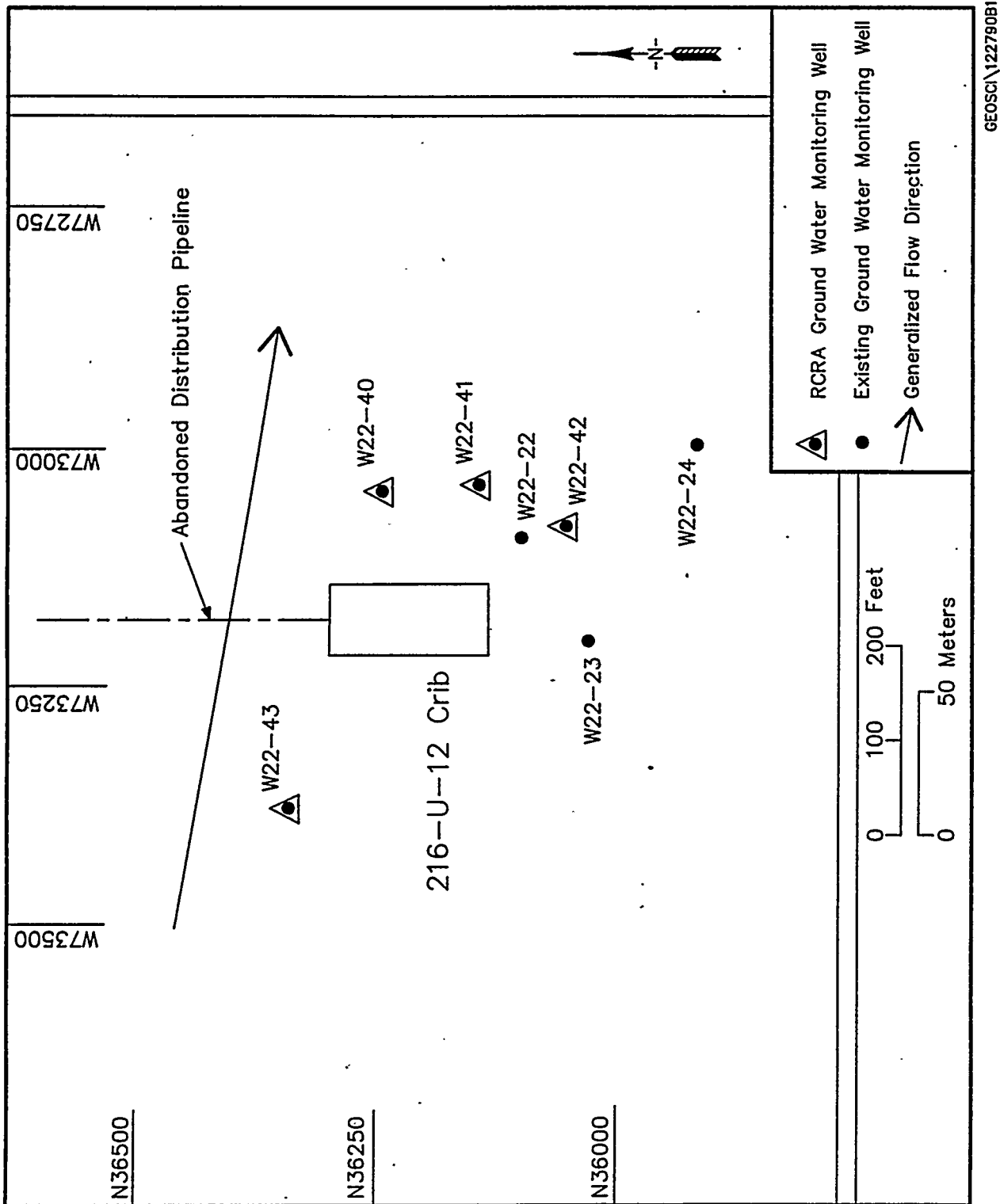
Water levels in each network well are measured at least quarterly and when water samples are collected. Water level measurements obtained during the quarter are presented in Table 11-2.

11.3 WATER CHEMISTRY DATA

Groundwater samples were collected in December 1994 from all network wells. All data currently available from this and previous unreported sampling periods are shown in Tables 11-3 through 11-5. Table 11-3 includes the constituent list and a summary of results. Tables 11-4 and 11-5 show results for specific constituents. Analytical data unavailable at the time this report was prepared will be included in future quarterly reports.

Specific conductivity in downgradient wells 299-W22-41 and 299-W22-42 continues to exceed the critical mean of 437 $\mu\text{mho/cm}$. Results for nitrate (DWS = 45,000 ppb), the principal constituent suspected of causing elevated conductivity, are 130,000 and 520,000 ppb, respectively. Technetium-99 also had elevated results in these two wells, which is consistent with previous data. Filtered chromium, iron, and manganese are reported above the DWS in well 299-W22-23. These values are being investigated. Most of the network wells had values exceeding the DWS for unfiltered iron and chromium. Carbon tetrachloride will not be reported in future quarterly reports, but it should be noted that this constituent has been consistently above or at the DWS in all network wells. An explanation of any data flags can be found in Sections 1.2 and 1.4.

Figure 11-1. Well Location Map for 216-U-12 Crib.



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Table 11-1. Monitoring Well Purpose and Sampling Schedule for the 216-U-12 Crib.

Well no. (229-)	Relative position	Hydrogeologic unit	Sample frequency	Sample date, 4th Qtr 1994
W22-43	Upgradient	Ringold: Water Table	Quarterly	12/15/94
W22-40	Downgradient	Ringold: Water Table	Quarterly	12/15/94
W22-41	Downgradient	Ringold: Water Table	Quarterly	12/15/94
W22-42	Downgradient	Ringold: Water Table	Quarterly	12/15/94
699-36-70A	Downgradient	Ringold: Water Table	Quarterly	1/03/95
W22-23	Upgradient	Ringold: Water Table	Quarterly	12/15/94

Note: Hydrogeologic units include the sandy gravels of the Hanford formation and silty sands of the Ringold Formation.

Table 11-2. RCRA Water Level Measurement Report
216-U-12 Crib, Fourth Quarter 1994.

Well	Date	Depth to water (ft)	Water level elevation above msl (ft) (m)	
Wells Monitoring the Top of the Unconfined Aquifer				
299-W22-22	11/01/94	234.22	455.83*	138.94
299-W22-23	12/15/94	236.27	454.43*	138.51
299-W22-40	12/15/94	237.75	454.48*	138.53
	12/20/94	238.04	454.19	138.44
299-W22-41	11/01/94	237.34	454.40*	138.50
	12/15/94	237.14	454.60*	138.56
	12/20/94	237.58	454.16	138.43
299-W22-42	11/01/94	236.82	454.60*	138.56
	12/15/94	236.90	454.26*	138.46
	12/20/94	237.32	454.10	138.41
299-W22-43	11/01/94	236.07	455.28*	138.77
	12/15/94	236.25	455.10*	138.71
	12/20/94	236.41	454.94	138.67
699-36-70A	10/11/94	262.10	443.33*	135.13
	10/16/94	260.95	444.58*	135.51
	10/21/94	262.00	443.43*	135.16
	11/02/94	256.00	449.43*+	136.99

- NOTES:
1. Water level elevations are calculated by subtracting the measured depth-to-water from the surveyed elevation for the well.
 2. Depth-to-water values are transcribed from field records.
 3. Elevations marked with an '*' were measured at the time of sampling.
 4. Elevations marked with a '+' are outside of the expected range, and are suspected of error.

Table 11-3. Constituent List and Summary of Results for the 216-U-12 Crib
Data for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 3)

CONTAMINATION INDICATOR PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
CONDUCT	94	Conductivity, field	umhos		1			8	8	
CONDUCT	73	Conductivity, lab	umhos					5	5	
TOC		Total Organic Carbon	ppb		110			8	8	
TOX		Total Organic Halogen	ppb		5			8	8	
PH		pH, field	pH		.01	6.5-8.5	EPAS	8	8	0

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
BARIUM		Barium	ppb		.59	1000	EPAI	5	5	0
FBARIUM		Barium, filtered	ppb		.59	1000	EPAI	5	5	0
CADMIUM		Cadmium	ppb		3.3	10	EPAI	5	0	0
FCADMIU		Cadmium, filtered	ppb		3.3	10	EPAI	5	1	0
CHROMIUM		Chromium	ppb		4.5	50	EPAI	5	5	2
FCHROMI		Chromium, filtered	ppb		4.5	50	EPAI	5	0	0
FLUORID		Fluoride	ppb		36	1400	EPAI	5	5	0
ALPHA		Gross alpha	pCi/L			15	EPA	10	8	0
NITRATE		Nitrate	ppb		11	45000	EPA	5	5	2

GROUNDWATER QUALITY PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
CHLORID		Chloride	ppb		14	250000	EPAS	5	5	0
IRON		Iron	ppb		5.24	300	EPAS	5	5	2
FIRON		Iron, filtered	ppb		5.24	300	EPAS	5	5	0
MANGESE		Manganese	ppb		.72	50	EPAS	5	4	1
FMANGAN		Manganese, filtered	ppb		.72	50	EPAS	5	2	1
SODIUM		Sodium	ppb		61			5	5	
FSODIUM		Sodium, filtered	ppb		61			5	5	
SULFATE		Sulfate	ppb		37	250000	EPAS	5	5	0

Table 11-3. Constituent List and Summary of Results for the 216-U-12 Crib
Data for Reporting Period October 1 through December 31, 1994.
(sheet 2 of 3)

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name Full	Units	Lab MDL	DWS		Number of Samples		
					Limit	Agency	Total	>MDL	>DWS
1,1,1-T		1,1,1-Trichloroethane	ppb	.036	200	EPA	1	0	0
1,1,2-T		1,1,2-Trichloroethane	ppb	.078			1	0	
1,1-DIC		1,1-Dichloroethane	ppb	.058			1	0	
1,2-DIC		1,2-Dichloroethane	ppb	.029	5	EPA	1	0	0
14-dben		1,4-Dichlorobenzene	ppb	.055	75	EPA	1	0	0
ALUMNUM		Aluminum	ppb	26			5	4	
FALUMIN		Aluminum, filtered	ppb	26			5	3	
ANTIONY		Antimony	ppb	62			5	0	
FANTIMO		Antimony, filtered	ppb	62			5	0	
BENZENE		Benzene	ppb	.013	5	EPA	1	0	0
BERYLLUM		Beryllium	ppb	.17			5	1	
FBERYLL		Beryllium, filtered	ppb	.17			5	1	
BROMIDE		Bromide	ppb	100			5	0	
CALCIUM		Calcium	ppb	34			5	5	
FCALCIU		Calcium, filtered	ppb	34			5	5	
TETRANE		Carbon tetrachloride	ppb	.075	5	EPA	1	1	1
CHLFORM		Chloroform	ppb	.041			1	1	
COBALT		Cobalt	ppb	5.9			5	1	
FCOBALT		Cobalt, filtered	ppb	5.9			5	0	
COPPER		Copper	ppb	4.1	1000	EPAS	5	3	0
FCOPPER		Copper, filtered	ppb	4.1	1000	EPAS	5	0	0
ETHBENZ		Ethylbenzene	ppb	.051	700	EPA	1	0	0
BETA		Gross beta	pCi/L				10	10	
I-129L		Iodine-129, Low level	pCi/L		1	EPA	12	7	7
MAGNES		Magnesium	ppb	23			5	5	
FMAGNES		Magnesium, filtered	ppb	23			5	5	
METHYCH		Methylene chloride	ppb	.09			1	0	
NICKEL		Nickel	ppb	13			5	4	
FNICKEL		Nickel, filtered	ppb	13			5	3	
NITRITE		Nitrite	ppb	18	1000	EPA	5	0	0
PHOSPHA		Phosphate	ppb	82			5	0	
POTASUM		Potassium	ppb	850			5	5	
FPOTASS		Potassium, filtered	ppb	850			5	5	
SILVER		Silver	ppb	3.6	50	EPAI	5	0	0
FSILVER		Silver, filtered	ppb	3.6	50	EPAI	5	0	0
SR-90		Strontium-90	pCi/L		8	EPA	12	0	0
TC-99		Technetium-99	pCi/L		900	EPA	5	4	0
PERCENE		Tetrachloroethene	ppb	.22	5	EPA	1	0	0
TIN		Tin	ppb	69			5	0	
FTIN		Tin, filtered	ppb	69			5	0	
TOLUENE		Toluene	ppb	.016	1000	EPA	1	0	0
TRICENE		Trichloroethene	ppb	.11	5	EPA	1	1	0
TRITIUM		Tritium	pCi/L		20000	EPA	10	10	2

Table 11-3. Constituent List and Summary of Results for the 216-U-12 Crib
Data for Reporting Period October 1 through December 31, 1994.
(sheet 3 of 3)

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
TURBID		Turbidity	NTU		.016			5	5	
U-234		Uranium-234	pCi/L					5	4	
U-235		Uranium-235	pCi/L					5	4	
U-238		Uranium-238	pCi/L					5	4	
VANADIUM		Vanadium	ppb		6.6			5	5	
FVANADI		Vanadium, filtered	ppb		6.6			5	4	
VINYIDE		Vinyl chloride	ppb		.13	2	EPA	1	0	0
XYLENE		Xylenes (total)	ppb		.035	10000	EPA	1	0	0
ZINC		Zinc	ppb		6.3	5000	EPAS	5	1	0
FZINC		Zinc, filtered	ppb		6.3	5000	EPAS	5	0	0
CIS12DE		cis-1,2-Dichloroethylene	ppb		.11	70	EPA	1	0	0
TRANDE		trans-1,2-Dichloroethylene	ppb		.073	100	EPA	1	0	0

For explanation of this table, see Section 1.4 of report.

Table 11-4. Constituents with at Least One Detected Value for the 216-U-12 Crib
Data for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 4)

Well Name	Collection Date	Sample Number	ALUMNUM 34/ppb 19/.	FALUMIN 34/ppb 19/.	BARIUM 34/ppb 1.3/1000i	FBARIUM 34/ppb 1.3/1000i
299-W22-23	12/15/94	BODFT6	4200.00 B		62.00	
299-W22-23	12/15/94	BODFT7		38.00 BL		27.00
299-W22-40	12/15/94	BODFV7	26.00 U		35.00	
299-W22-40	12/15/94	BODFV8		35.00 BL		35.00
299-W22-41	12/15/94	BODFT8	36.00 BL		49.00	
299-W22-41	12/15/94	BODFT9		29.00 BL		49.00
299-W22-42	12/15/94	BODFV0	33.00 BL		120.00	
299-W22-42	12/15/94	BODFV1		26.00 U		120.00
299-W22-43	12/15/94	BODFV2	38.00 BL		27.00	
299-W22-43	12/15/94	BODFV6		26.00 U		27.00

Well Name	Collection Date	Sample Number	BERYLUM 34/ppb 1.5/.	FBERYLL 34/ppb 1.5/.	CADMIUM 34/ppb 3/10i	FCADMIU 34/ppb 3/10i
299-W22-23	12/15/94	BODFT6	.70 L		3.30 U	
299-W22-23	12/15/94	BODFT7		.21 L		3.30 U
299-W22-40	12/15/94	BODFV7	.17 U		3.30 U	
299-W22-40	12/15/94	BODFV8		.17 U		3.30 U
299-W22-41	12/15/94	BODFT8	.17 U		3.30 U	
299-W22-41	12/15/94	BODFT9		.17 U		3.30 U
299-W22-42	12/15/94	BODFV0	.17 U		3.30 U	
299-W22-42	12/15/94	BODFV1		.17 U		3.30 U
299-W22-43	12/15/94	BODFV2	.17 U		3.30 U	
299-W22-43	12/15/94	BODFV6		.17 U		3.90 L

Well Name	Collection Date	Sample Number	CALCIUM 34/ppb 47/.	FCALCIU 34/ppb 47/.	TETRANE 25/ppb .32/5	CHLORID 124/ppb 71/250000s
299-W22-23	12/15/94	BODFT6	15000.00			17000.00 DQ
299-W22-23	12/15/94	BODFT7		14000.00		
299-W22-40	12/15/94	BODD37			10.00	17000.00 DQ
299-W22-40	12/15/94	BODFV7	35000.00			
299-W22-40	12/15/94	BODFV8		35000.00		
299-W22-41	12/15/94	BODFT8	58000.00			14000.00 DQ
299-W22-41	12/15/94	BODFT9		58000.00		
299-W22-42	12/15/94	BODFV0	130000.00			14000.00 DQ
299-W22-42	12/15/94	BODFV1		140000.00		
299-W22-43	12/15/94	BODFV2	30000.00			15000.00 DQ
299-W22-43	12/15/94	BODFV6		29000.00		

Table 11-4. Constituents with at Least One Detected Value for the 216-U-12 Crib
Data for Reporting Period October 1 through December 31, 1994.
(sheet 2 of 4)

Well Name	Collection Date	Sample Number	CHLFORM 25/ppb .05/.	CHROMUM 34/ppb 11/50i	FCHROMI 34/ppb 11/50i	COBALT 34/ppb 6.5/.
299-W22-23	12/15/94	BODFT6		2000.00		23.00
299-W22-23	12/15/94	BODFT7			4.50 U	
299-W22-40	12/15/94	BODD37	.81			
299-W22-40	12/15/94	BODFV7		16.00 L		5.90 U
299-W22-40	12/15/94	BODFV8			4.50 U	
299-W22-41	12/15/94	BODFT8		23.00		5.90 U
299-W22-41	12/15/94	BODFT9			4.50 U	
299-W22-42	12/15/94	BODFV0		22.00		5.90 U
299-W22-42	12/15/94	BODFV1			4.50 U	
299-W22-43	12/15/94	BODFV2		89.00		5.90 U
299-W22-43	12/15/94	BODFV6			4.50 U	

Well Name	Collection Date	Sample Number	FCOBALT 34/ppb 6.5/.	COPPER 34/ppb 2.6/1000s	FCOPPER 34/ppb 2.6/1000s	FLUORID 124/ppb 51/1400i
299-W22-23	12/15/94	BODFT6		120.00		700.00
299-W22-23	12/15/94	BODFT7	5.90 U		4.10 U	
299-W22-40	12/15/94	BODD37				700.00
299-W22-40	12/15/94	BODFV7		4.10 U		
299-W22-40	12/15/94	BODFV8	5.90 U		4.10 U	
299-W22-41	12/15/94	BODFT8		4.10 U		700.00
299-W22-41	12/15/94	BODFT9	5.90 U		4.10 U	
299-W22-42	12/15/94	BODFV0		4.80 L		1200.00
299-W22-42	12/15/94	BODFV1	5.90 U		4.10 U	
299-W22-43	12/15/94	BODFV2		4.80 L		600.00
299-W22-43	12/15/94	BODFV6	5.90 U		4.10 U	

Well Name	Collection Date	Sample Number	ALPHA 135/pCi/L ./15	BETA 136/pCi/L ./.	I-129 139/pCi/L ./1	IRON 34/ppb 18/300s
299-W22-22	9/26/94	B0CZJ8			1.93 Q	
299-W22-22	9/26/94	B0CZJ9			1.42 Q	
299-W22-23	9/22/94	B0CZK8	-.14 UQ	5.18	9.37	
299-W22-23	12/15/94	BODFT6	2.34	6.66	7.37	88000.00 B
299-W22-40	9/23/94	B0CZL3	2.31 Q	7.29	.19 U	
299-W22-40	12/15/94	BODD37	2.98	10.30		
299-W22-40	12/15/94	BODFV7			-.35 U	100.00 B
299-W22-41	9/23/94	B0CZL8	.38 U	21.00	.39	
299-W22-41	12/15/94	BODFT8	5.36	20.00	-.12 U	120.00 B
299-W22-42	9/23/94	B0CZM3	3.30	28.80	5.83	
299-W22-42	12/15/94	BODFV0	4.05	59.50	8.08	100.00 B
299-W22-43	9/22/94	B0CZM8	2.21 Q	7.97	.11 U	
299-W22-43	12/15/94	BODFV2	1.52	9.42	1.14 U	400.00 B

Table 11-4. Constituents with at Least One Detected Value for the 216-U-12 Crib
Data for Reporting Period October 1 through December 31, 1994.
(sheet 3 of 4)

Well Name	Collection Date	Sample Number	FIROX 34/ppb 18/300s	MAGNES 34/ppb 25/.	FMAGNES 34/ppb 25/.	MANGESE 34/ppb 1/50s
299-W22-23	12/15/94	BODFT6		7300.00		1800.00
299-W22-23	12/15/94	BODFT7	23.00 B		6300.00	
299-W22-40	12/15/94	BODFV7		12000.00		2.20 L
299-W22-40	12/15/94	BODFV8	19.00 BL		12000.00	
299-W22-41	12/15/94	BODFT8		19000.00		2.00 L
299-W22-41	12/15/94	BODFT9	18.00 BL		19000.00	
299-W22-42	12/15/94	BODFV0		47000.00		.72 U
299-W22-42	12/15/94	BODFV1	22.00 B		48000.00	
299-W22-43	12/15/94	BODFV2		11000.00		11.00
299-W22-43	12/15/94	BODFV6	16.00 BL		11000.00	

Well Name	Collection Date	Sample Number	FMANGAN 34/ppb 1/50s	NICKEL 34/ppb 16/.	FNICKEL 34/ppb 16/.	NITRATE 124/ppb 96/45000
299-W22-23	12/15/94	BODFT6		950.00		300.00 Q
299-W22-23	12/15/94	BODFT7	480.00		22.00 L	
299-W22-40	12/15/94	BODD37				25000.00 DQ
299-W22-40	12/15/94	BODFV7		13.00 U		
299-W22-40	12/15/94	BODFV8	.72 U		22.00 L	
299-W22-41	12/15/94	BODFT8		14.00 L		130000.00 DQ
299-W22-41	12/15/94	BODFT9	.72 U		13.00 U	
299-W22-42	12/15/94	BODFV0		17.00 L		520000.00 DQ
299-W22-42	12/15/94	BODFV1	.72 U		13.00 U	
299-W22-43	12/15/94	BODFV2		60.00		16000.00 DQ
299-W22-43	12/15/94	BODFV6	.85 L		16.00 L	

Well Name	Collection Date	Sample Number	POTASUM 34/ppb 890/.	FPOTASS 34/ppb 890/.	SODIUM 34/ppb 150/.	FSODIUM 34/ppb 150/.
299-W22-23	12/15/94	BODFT6	3800.00		28000.00 BQ	
299-W22-23	12/15/94	BODFT7		3000.00		26000.00 BQ
299-W22-40	12/15/94	BODFV7	4200.00		22000.00 BQ	
299-W22-40	12/15/94	BODFV8		4200.00		22000.00 BQ
299-W22-41	12/15/94	BODFT8	4100.00		23000.00 BQ	
299-W22-41	12/15/94	BODFT9		4200.00		24000.00 BQ
299-W22-42	12/15/94	BODFV0	7500.00		33000.00 BQ	
299-W22-42	12/15/94	BODFV1		7600.00		34000.00 BQ
299-W22-43	12/15/94	BODFV2	4100.00		23000.00 BQ	
299-W22-43	12/15/94	BODFV6		4000.00		23000.00 BQ

Table 11-4. Constituents with at Least One Detected Value for the 216-U-12 Crib
Data for Reporting Period October 1 through December 31, 1994.
(sheet 4 of 4)

Well Name	Collection Date	Sample Number	SULFATE 124/ppb 89/250000s	TC-99 143/pCi/L ./900	TRICENE 25/ppb .043/5	TRITIUM 142/pCi/L ./20000
299-W22-23	9/22/94	BOCZK8				28900.00
299-W22-23	12/15/94	BODFT6	7300.00	-.34 U		27900.00
299-W22-40	9/23/94	BOCZL3				1030.00
299-W22-40	12/15/94	BODD37	32000.00 D		.16 L	1630.00
299-W22-40	12/15/94	BODFV7		20.40		
299-W22-41	9/23/94	BOCZL8				1250.00
299-W22-41	12/15/94	BODFT8	32000.00 D	102.00		1620.00
299-W22-42	9/23/94	BOCZM3				15500.00
299-W22-42	12/15/94	BODFV0	31000.00 D	219.00		15900.00
299-W22-43	9/22/94	BQCZM8				1460.00
299-W22-43	12/15/94	BODFV2	29000.00 D	19.10		2030.00

Well Name	Collection Date	Sample Number	TURBID 126/NTU .016/.	U-234 148/pCi/L ./.	U-235 148/pCi/L ./.	U-238 148/pCi/L ./.
299-W22-23	12/15/94	BODFT6	290.00 Q	.31	.08	.13
299-W22-40	12/15/94	BODFV7	1.10 Q	1.98	.07	1.46
299-W22-41	12/15/94	BODFT8	1.20 Q	-.02 U	-.01 U	-.00 U
299-W22-42	12/15/94	BODFV0	1.10 Q	2.13	.05	1.54
299-W22-43	12/15/94	BODFV2	1.20 Q	1.10	.04	.85

Well Name	Collection Date	Sample Number	VANADIUM 34/ppb 6.4/.	FVANADI 34/ppb 6.4/.	ZINC 34/ppb 4.4/5000s	FZINC 34/ppb 4.4/5000s
299-W22-23	12/15/94	BODFT6	9.10 L		20.00	
299-W22-23	12/15/94	BODFT7		6.60 U		6.30 U
299-W22-40	12/15/94	BODFV7	30.00		6.30 U	
299-W22-40	12/15/94	BODFV8		29.00 L		6.30 U
299-W22-41	12/15/94	BODFT8	25.00 L		6.30 U	
299-W22-41	12/15/94	BODFT9		25.00 L		6.30 U
299-W22-42	12/15/94	BODFV0	17.00 L		6.30 U	
299-W22-42	12/15/94	BODFV1		17.00 L		6.30 U
299-W22-43	12/15/94	BODFV2	27.00 L		6.30 U	
299-W22-43	12/15/94	BODFV6		29.00 L		6.30 U

For explanation of this table, see Section 1.4 of report.

Table 11-5. Contamination Indicator Parameters for the 216-U-12 Crib
 Data for Reporting Period October 1 through December 31, 1994.
 (sheet 1 of 1)

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-W22-23	12/15/94	B0DFT6	261	240	7.64		600 LB	8.8
299-W22-40	12/15/94	B0DD37		390				
		B0DFV7	595		7.16		300 LB	10.4
299-W22-41	12/15/94	B0DFT8	626	590	7.57		400 LB	10.3
299-W22-42	12/15/94	B0DFV0	1308	1300	6.51		300 LB	7.5
299-W22-43	12/15/94	B0DFV2	367	360	7.48		300 LB	15.2
		B0DFV3	366		7.48		300 LB	11.9
		B0DFV4	367		7.49		200 LB	10.1
		B0DFV5	366		7.49		300 LB	13.1

For explanation of this table, see Section 1.4 of report.

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12.0 LIQUID EFFLUENT RETENTION FACILITY

M. D. Sweeney
Westinghouse Hanford Company

12.1 INTRODUCTION

The Liquid Effluent Retention Facility (LERF) was constructed to provide interim storage of 242-A Evaporator process condensate effluent suspected of containing listed and dangerous (ammonia) waste constituents. Construction of the LERF began in May 1990. The LERF, classified as a surface impoundment for mixed waste storage, will be permitted as a RCRA TSD facility. The evaporator was shut down in 1989 and restarted on April 14, 1994. The LERF basins currently serve as temporary storage for evaporator process condensate until the Effluent Treatment Facility is operational.

The facility is classified as a surface impoundment and was originally planned to have four basins arranged side by side. Four excavations were made; only three of the four basins are lined and are currently scheduled for use. The basins are located immediately east of the northeast corner of the 200 East Area. The liquid effluent may contain spent nonhalogenated solvents (F003 and F005, WAC 173-303-9004, "Dangerous Waste Source List"), namely acetone, methyl ethyl ketone, and methyl isobutyl ketone. The ammonia content in the liquid effluent may also justify handling the effluent as a dangerous waste.

An interim-status, detection-level groundwater monitoring network was installed around the LERF in 1990 in accordance with the *Interim Status Groundwater Monitoring Plan for the 200 East Area Liquid Effluent Retention Facility* (WHC 1991). Four quarters of background groundwater sampling and analysis were completed. Three downgradient wells and one upgradient well constitute the monitoring network. Figure 12-1 shows the well locations. Table 12-1 provides the last sampling date and frequency and identifies the upgradient and downgradient groundwater monitoring wells. Table 12-2 shows current water table elevations for three of the four monitoring wells.

12.2 WATER LEVEL MEASUREMENTS

Water levels are measured quarterly and when groundwater samples are collected at each of the four wells in the network. Water level measurements obtained during the quarter are presented in Table 12-2. Well 299-E26-11 was inadvertently skipped during the fourth quarter. Water level measurements for this well will be taken during the next scheduled sampling event. The water level in well 299-E26-9 has been below the level where conventional equipment could operate properly. However, recently, a slight rise in water level has been sufficient to allow for conventional sampling.

12.3 WATER CHEMISTRY DATA

Wells in the LERF groundwater monitoring network are sampled semiannually. Samples were not taken from the wells during this quarter.

Figure 12-1. Well Location Map for the Liquid Effluent Retention Facility.

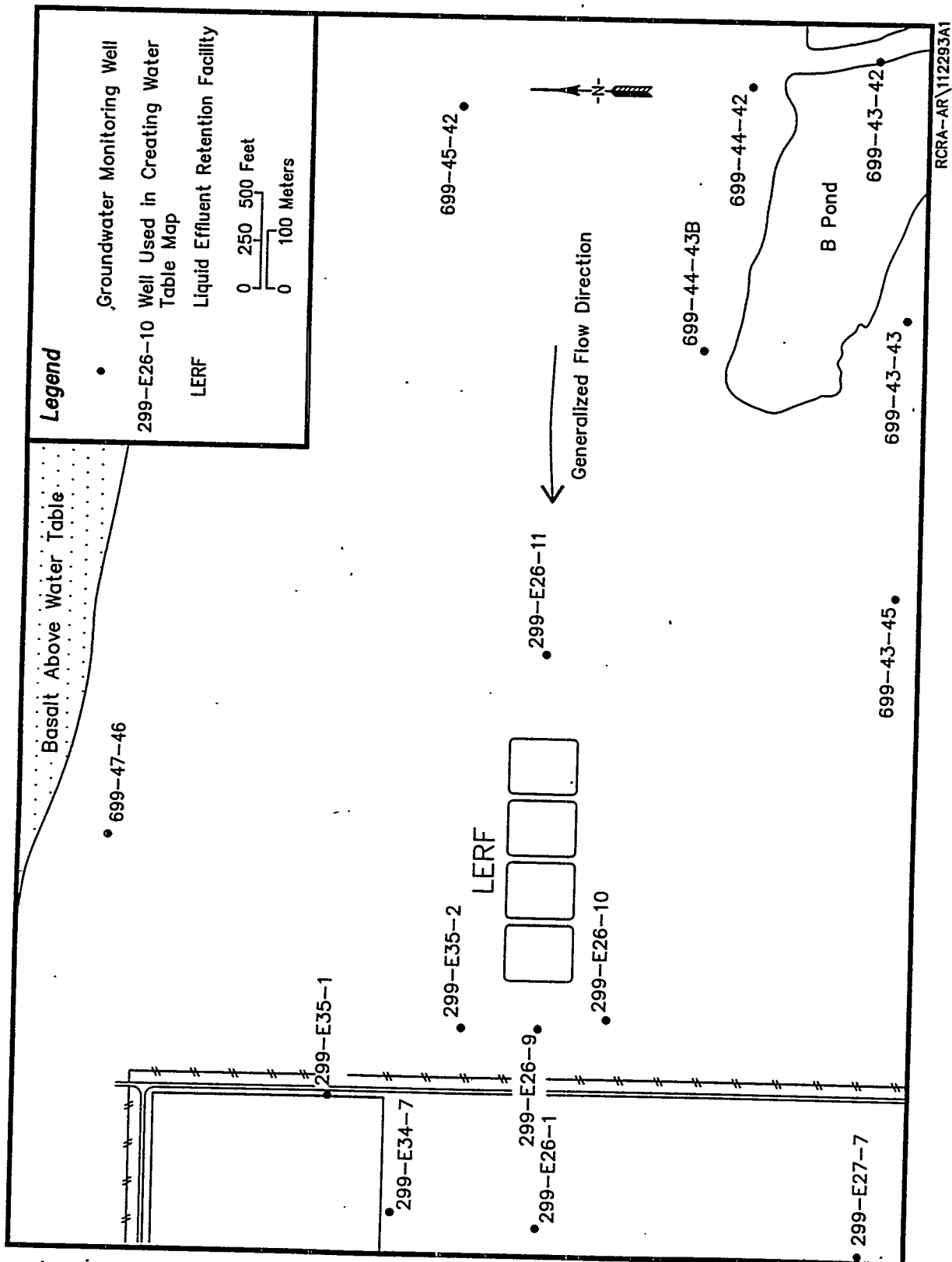


Table 12-1. Monitoring Well Purpose and Sampling Schedule
for the Liquid Effluent Retention Facility Network.

Well no. (299-)	Relative position	Hydrogeologic unit	Sample frequency	Sample date, 4th Qtr 1994
E26-9	Downgradient	Hanford: Water Table	Semiannually	Not Sampled
E26-10	Downgradient	Hanford: Water Table	Semiannually	Not Sampled
E26-11	Upgradient	Hanford: Water Table	Semiannually	Not Sampled
E35-2	Downgradient	Hanford: Water Table	Semiannually	Not Sampled

Table 12-2. RCRA Water Level Measurement Report
LERF, Fourth Quarter 1994.

Well	Date	Depth to water (ft)	Water level elevation above msl	
			(ft)	(m)
299-E26-10	12/14/94	199.51	401.96	122.52
299-E26-9	12/14/94	200.91	401.98	122.52
299-E35-2	12/14/94	200.11	402.25	122.61

- NOTES:
1. Water level elevations are calculated by subtracting the measured depth-to-water from the surveyed elevation for the well.
 2. Depth-to-water values are transcribed from field records.
 3. Elevations marked with an '*' were measured at the time of sampling.
 4. Elevation marked with a '+' are outside of the expected range, and are suspected of error.

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13.0 2101-M POND

E. C. Thornton
Westinghouse Hanford Company

13.1 INTRODUCTION

The 2101-M Pond is a U-shaped, unlined trench located in the 200 East Area. It has received wastewater from the 2101-M Building heating and air conditioning system since 1953. In 1981, Basalt Waste Isolation Project laboratories were plumbed into the discharge line from the 2101-M Building to the 2101-M Pond. From 1981 until mid-1985, these laboratories may have discharged dangerous waste into the 2101-M Pond. The most important chemicals used in the 2101-M laboratories were barium chloride and hydrochloric and nitric acids; they are assumed to have been disposed of in laboratory drains connected to the 2101-M Pond.

The groundwater monitoring network for the 2101-M Pond consists of one upgradient (299-E18-1) and three downgradient (299-E18-2, 299-E18-3, and 299-E18-4) wells installed in the uppermost portion of the unconfined aquifer (Figure 13-1). Well 299-E18-1 is also used as a background monitoring well for the 216-B-3 Pond System.

Groundwater sampling began in August 1988 for the 2101-M Pond and was conducted quarterly until August 1989 to establish background values. Semiannual indicator parameter evaluation monitoring was initiated in November 1989 under RCRA interim-status regulations and is ongoing (Chamness et al. 1989). Table 13-1 provides information on the relative position of each well in the network, the hydrogeologic unit monitored, the sampling frequency, and the latest sampling date.

The 2101-M Pond will be clean-closed by the end of the year. It is anticipated that no further groundwater monitoring activities will be conducted at this location after clean-closure is certified, except for sampling of well 299-E18-1 in support of the 216-B-3 Pond System.

13.2 WATER LEVEL DATA

Water level measurements were performed in the October through December 1994 period for all four wells. The data are presented in Table 13-2. These measurements include routine monthly measurements plus measurements performed at the time of sampling. Water levels have been corrected for vertical deviations for each well based on inclinometer measurements.

13.3 WATER CHEMISTRY DATA

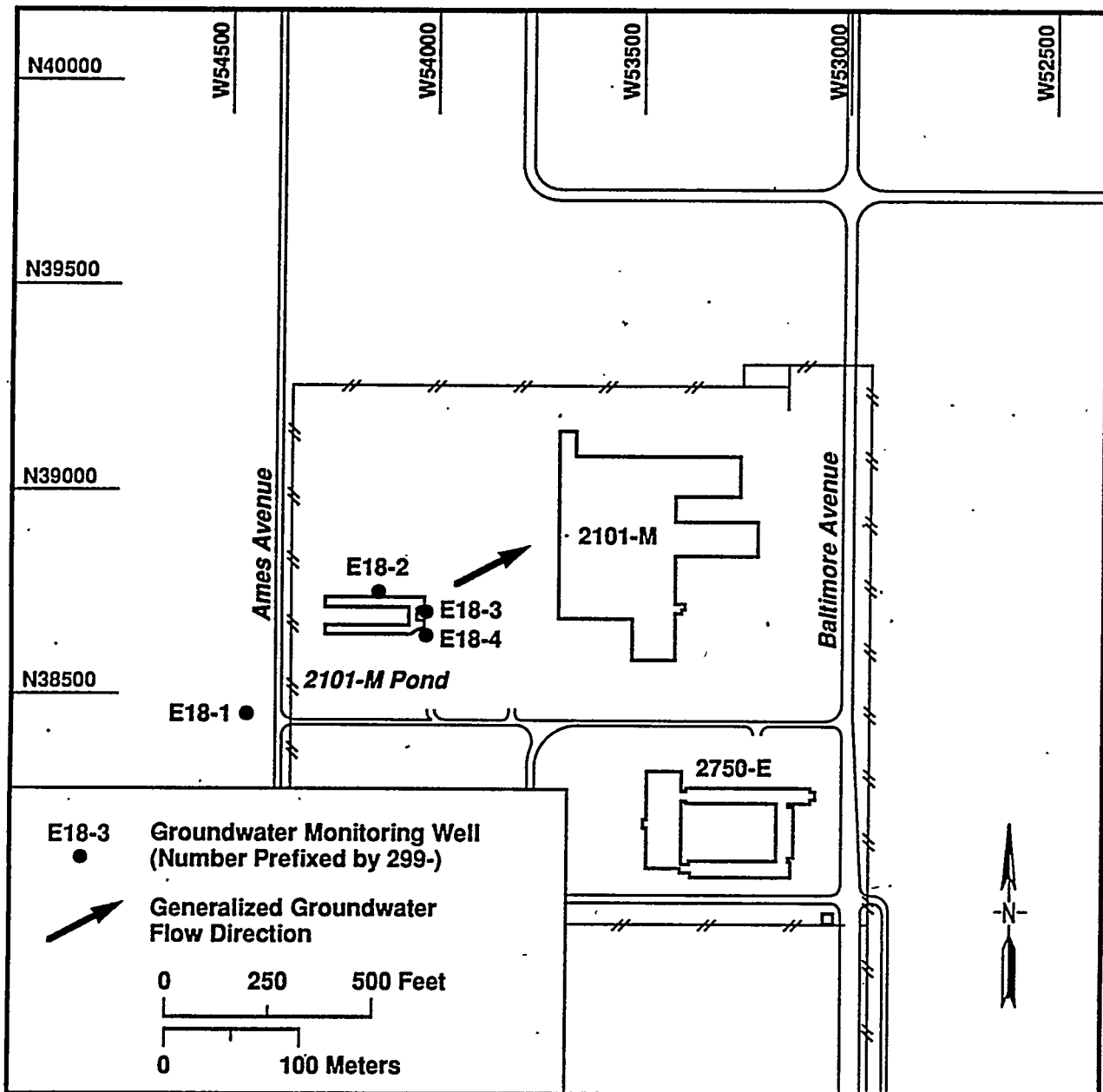
Semiannual groundwater sampling was conducted for the fourth quarter of 1994 on December 1, 1994, for the monitoring wells at 2101-M Pond. All available water chemistry data for this quarter are reported in Tables 13-3

through 13-5. Data are flagged in Tables 13-4 and 13-5 according to the explanation provided in Sections 1.2 and 1.4.

The replicate averages for the contamination indicator parameters specific conductance, pH, TOC, and TOX did not exceed the critical means for the 2101-M Pond. Well 299-E18-4 was also sampled on October 19, 1994, for verification of a TOX exceedance associated with sampling conducted in December 1993. Laboratory results associated with the verification samples were below the critical mean, indicating that the previous exceedance probably does not reflect an impact of 2101-M Pond on groundwater quality. As in previous quarters, the specific conductance values for upgradient well 299-E18-1 were elevated relative to the three downgradient wells. This appears to result from the dilution of groundwater in the vicinity of the downgradient wells in response to the drainage of water from the 2101-M Pond (Thornton 1995).

Unfiltered chromium concentrations for well 299-E18-4 and unfiltered iron concentrations for 299-E18-1 and 299-E18-4 were above the DWSs, but unfiltered values for these metals were much lower and below the DWSs. Turbidity values slightly higher than 3 NTUs were also reported for these wells. This suggests that the higher metal concentrations associated with the unfiltered samples are related to the presence of solid debris incorporated into the samples (e.g., sediment particles or corrosion products).

Figure 13-1. Well Location Map for the 2101-M Pond.



H9412002.1

Table 13-1. Monitoring Well Purpose and Sampling Schedule for the 2101-M Pond.

Well no. (299-)	Relative position	Hydrogeologic unit ^a	Sample frequency	Sample date, 4th Qtr 1994
E18-1	Upgradient	Hanford/Ringold: Water Table	Quarterly ^b	12/01/94
E18-2	Downgradient	Hanford/Ringold: Water Table	Semiannually	12/01/94
E18-3	Downgradient	Hanford/Ringold: Water Table	Semiannually	12/01/94
E18-4	Downgradient	Hanford/Ringold: Water Table	Semiannually	12/01/94

^aThe hydrogeologic unit monitored at this site is a muddy, sandy gravel to a slightly muddy, gravelly sand over the screened interval from approximately 92 to 101 m (302 to 331 ft) below top of casing. This interval is interpreted to be near the base of the Hanford formation and the top of the Ringold Formation.

^bWell 299-E18-1 is sampled on a quarterly basis because it is also designated as an upgradient well for the 216-B-3 Pond System.

Table 13-2. RCRA Water Level Measurement Report
2101-M Pond - Fourth Quarter 1994.

Well	Date	Depth to water (ft)	Water level elevation above msl	
			(ft)	(m)
299-E18-1	10/27/94	318.89	401.41	122.35
	11/28/94	318.85	401.45	122.36
	12/01/94	318.99	401.31*	122.32
	12/15/94	318.67	401.63	122.42
299-E18-2	10/27/94	319.96	401.47	122.37
	11/28/94	320.07	401.36	122.33
	12/01/94	320.06	401.37*	122.34
	12/15/94	319.94	401.49	122.37
299-E18-3	10/27/94	320.59	401.48	122.37
	11/28/94	320.56	401.51	122.38
	12/01/94	320.81	401.26*	122.30
	12/15/94	320.54	401.53	122.39
299-E18-4	10/19/94	319.65	401.92*	122.51
	10/27/94	320.09	401.48	122.37
	11/28/94	320.03	401.54	122.39
	12/01/94	320.00	401.57*	122.40
	12/15/94	320.04	401.53	122.39

- NOTES: 1. Water level elevations are calculated by subtracting the measured depth-to-water from the surveyed elevation for the well. Vertical deviation correction factors based on inclinometer measurements are: +0.06 ft for 299-E18-1, +0.22 ft for 299-E18-2, +0.03 ft for 299-E18-3, and +0.0 ft for 299-E18-4 (Chamness et al. 1990).
2. Depth-to-water values are transcribed from field records.
3. Elevations marked with an '*' were measured at the time of sampling.
4. Elevation marked with a '+' are outside of the expected range, and are suspected of error.

Table 13-3. Constituent List and Summary of Results for the 2101-M Pond
Data for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 3)

CONTAMINATION INDICATOR PARAMETERS

Short	(Method)	Constituent Name		Units	Lab		DWS		Number of Samples		
		Full			MDL	Limit	Agency		Total	>MDL	>DWS
CONDUCT	94	Conductivity, field	umhos		1				20	20	
CONDUCT	73	Conductivity, lab	umhos						4	4	
TOC		Total Organic Carbon	ppb		110				16	13	
TOX		Total Organic Halogen	ppb		5				19	14	
PH	93	pH, field	pH		.01	6.5-8.5	EPAS		20	20	0
PH	125	pH, lab	pH			6.5-8.5	EPAS		4	4	0

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name		Units	Lab		DWS		Number of Samples		
		Full			MDL	Limit	Agency		Total	>MDL	>DWS
ARSENIC		Arsenic	ppb		2.8	50	EPA		4	3	0
FARSENIC		Arsenic, filtered	ppb		2.8	50	EPA		4	3	0
BARIUM		Barium	ppb		.59	1000	EPAI		4	4	0
FBARIUM		Barium, filtered	ppb		.59	1000	EPAI		4	4	0
CADMIUM		Cadmium	ppb		3.3	10	EPAI		4	0	0
FCADMIU		Cadmium, filtered	ppb		3.3	10	EPAI		4	0	0
CHROMIUM		Chromium	ppb		4.5	50	EPAI		4	4	1
FCHROMI		Chromium, filtered	ppb		4.5	50	EPAI		4	2	0
FLUORID		Fluoride	ppb		36	1400	EPAI		4	4	0
ALPHA		Gross alpha	pCi/L			15	EPA		4	3	0
NITRATE		Nitrate	ppb		11	45000	EPA		4	4	0
SELENIUM		Selenium	ppb		.65	10	EPAI		4	1	0
FSELENI		Selenium, filtered	ppb		.65	10	EPAI		4	1	0

GROUNDWATER QUALITY PARAMETERS

Short	(Method)	Constituent Name		Units	Lab		DWS		Number of Samples		
		Full			MDL	Limit	Agency		Total	>MDL	>DWS
CHLORID		Chloride	ppb		14	250000	EPAS		4	4	0
IRON		Iron	ppb		5.24	300	EPAS		4	4	2
FIRON		Iron, filtered	ppb		5.24	300	EPAS		4	4	0
MANGESE		Manganese	ppb		.72	50	EPAS		4	4	0
FMANGAN		Manganese, filtered	ppb		.72	50	EPAS		4	4	0
LPHENOL	19	Phenol	ppb		.54				1	0	
LPHENOL	30	Phenol	ppb		.31				4	0	
SODIUM		Sodium	ppb		61				4	4	
FSODIUM		Sodium, filtered	ppb		61				4	4	
SULFATE		Sulfate	ppb		37	250000	EPAS		4	4	0

Table 13-3. Constituent List and Summary of Results for the 2101-M Pond
Data for Reporting Period October 1 through December 31, 1994.
(sheet 2 of 3)

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name	Full	Units	Lab MDL	DWS Limit	Agency	Number of Samples		
								Total	>MDL	>DWS
246-trp		2,4,6-Trichlorophenol		ppb	1.3			4	0	
24-dchp	19	2,4-Dichlorophenol		ppb	4			1	0	
24-dchp	30	2,4-Dichlorophenol		ppb	1.3			4	0	
DIMPEN		2,4-Dimethylphenol		ppb	1.2			4	0	
DINPHEN		2,4-Dinitrophenol		ppb	3			4	0	
26-dchp		2,6-Dichlorophenol		ppb	1.4			4	0	
CHLPHEN		2-Chlorophenol		ppb	1.6			4	0	
2METHPH		2-Methylphenol		ppb	5.1			1	0	
2NITPH	19	2-Nitrophenol		ppb	1.9			1	0	
2NITPH	30	2-Nitrophenol		ppb	1.3			4	0	
BUTDINP		2-sec-Butyl-4,6-dinitrophenol (DN)		ppb	1.3			4	0	
46DN2MP		4,6-Dinitro-2-methylphenol		ppb	1.3			4	0	
CHLCRES		4-Chloro-3-methylphenol		ppb	1.3			4	0	
4METHPH		4-Methylphenol		ppb	7			1	0	
NITPHEN		4-Nitrophenol		ppb	3			4	0	
ALUMNUM		Aluminum		ppb	26			4	0	
FALUMIN		Aluminum, filtered		ppb	26			4	0	
ANTIONY		Antimony		ppb	62			4	0	
FANTIMO		Antimony, filtered		ppb	62			4	0	
BENZOTH		Benzothiazole		ppb	1.3			1	0	
BERYLUM		Beryllium		ppb	.17			4	0	
FBERYLL		Beryllium, filtered		ppb	.17			4	0	
BIS2EPH		Bis(2-ethylhexyl) phthalate		ppb	5.3			1	0	
BROMIDE		Bromide		ppb	100			4	0	
CALCIUM		Calcium		ppb	34			4	4	
FCALCIU		Calcium, filtered		ppb	34			4	4	
COBALT		Cobalt		ppb	5.9			4	0	
FCOBALT		Cobalt, filtered		ppb	5.9			4	0	
COLIFORM		Coliforms		COL	1	1	EPAI	4	0	0
COPPER		Copper		ppb	4.1	1000	EPAS	4	1	0
FCOPPER		Copper, filtered		ppb	4.1	1000	EPAS	4	2	0
CRESOLS		Cresols (methylphenols)		ppb	4-8			4	0	
DECANE		Decane		ppb	1.9			1	0	
DODECAN		Dodecane		ppb	1.1			1	0	
BETA		Gross beta		pCi/L				4	4	
MAGNES		Magnesium		ppb	23			4	4	
FMAGNES		Magnesium, filtered		ppb	23			4	4	
NAPHTHA		Naphthalene		ppb	1.2			1	0	
NICKEL		Nickel		ppb	13			4	3	
FNICKEL		Nickel, filtered		ppb	13			4	0	
NITRITE		Nitrite		ppb	18	1000	EPA	4	0	0
PENTCHP	19	Pentachlorophenol		ppb	8.3	1	EPA	1	0	1*
PENTCHP	30	Pentachlorophenol		ppb	1.3	1	EPA	4	0	4*
PHOSPHA		Phosphate		ppb	82			4	0	
POTASUM		Potassium		ppb	850			4	4	
FPOTASS		Potassium, filtered		ppb	850			4	4	
SILVER		Silver		ppb	3.6	50	EPAI	4	0	0
FSILVER		Silver, filtered		ppb	3.6	50	EPAI	4	0	0
TETPHNL		Tetrachlorophenols		ppb	1.5			4	0	
TETRADE		Tetradecane		ppb	1.6			1	0	
TIN		Tin		ppb	69			4	0	
FTIN		Tin, filtered		ppb	69			4	0	
TRIBUTPH		Tributyl Phosphate		ppb	1.1			1	0	
TRIPHNL		Trichlorophenols		ppb	1.7			4	0	
TDICHPH		Tris-2-chloroethyl phosphate		ppb	.61			1	0	
TRITIUM		Tritium		pCi/L		20000	EPA	1	1	0

Table 13-3. Constituent List and Summary of Results for the 2101-M Pond
 Data for Reporting Period October 1 through December 31, 1994.
 (sheet 3 of 3)

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
TURBID		Turbidity	NTU		.016			4	4	
URANIUM		Uranium	ppb					4	4	
VANADUM		Vanadium	ppb		6.6			4	4	
FVANADI		Vanadium, filtered	ppb		6.6			4	4	
ZINC		Zinc	ppb		6.3	5000	EPAS	4	0	0
FZINC		Zinc, filtered	ppb		6.3	5000	EPAS	4	0	0
MCRESOL		m-Cresol	ppb		2.2			1	0	

For explanation of this table, see Section 1.4 of report.

Table 13-4. Constituents with at Least One Detected Value for the 2101-M Pond
Data for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 3)

Well Name	Collection Date	Sample Number	ARSENIC 43/ppb .64/50	FARSENIC 43/ppb .64/50	BARIUM 34/ppb 1.3/1000i	FBARIUM 34/ppb 1.3/1000i
299-E18-1	12/01/94	B0DC27	2.80 U		26.00	
299-E18-1	12/01/94	B0DD01		2.80 U		25.00
299-E18-2	12/01/94	B0DD02	5.40		53.00	
299-E18-2	12/01/94	B0DD06		5.30		52.00
299-E18-3	12/01/94	B0DD08	11.00		53.00	
299-E18-3	12/01/94	B0DD12		10.00		52.00
299-E18-4	12/01/94	B0DD13	12.00		56.00	
299-E18-4	12/01/94	B0DD17		11.00		56.00

Well Name	Collection Date	Sample Number	CALCIUM 34/ppb 47/.	FCALCIU 34/ppb 47/.	CHLORID 124/ppb 71/250000s	CHROMUM 34/ppb 11/50i
299-E18-1	12/01/94	B0DC27	49000.00		7500.00	46.00
299-E18-1	12/01/94	B0DD01		49000.00		
299-E18-2	12/01/94	B0DD02	29000.00		9200.00	42.00
299-E18-2	12/01/94	B0DD06		29000.00		
299-E18-3	12/01/94	B0DD08	27000.00		10000.00 D	32.00
299-E18-3	12/01/94	B0DD12		26000.00		
299-E18-4	12/01/94	B0DD13	29000.00		8800.00	52.00
299-E18-4	12/01/94	B0DD17		29000.00		

Well Name	Collection Date	Sample Number	FCHROMI 34/ppb 11/50i	COPPER 34/ppb 2.6/1000s	FCOPPER 34/ppb 2.6/1000s	FLUORID 124/ppb 51/1400i
299-E18-1	12/01/94	B0DC27		4.10 U		600.00
299-E18-1	12/01/94	B0DD01	9.30 L		4.10 U	
299-E18-2	12/01/94	B0DD02		4.30 LB		700.00
299-E18-2	12/01/94	B0DD06	4.50 U		7.40 LB	
299-E18-3	12/01/94	B0DD08		4.10 U		400.00
299-E18-3	12/01/94	B0DD12	4.50 U		4.10 U	
299-E18-4	12/01/94	B0DD13		4.10 U		500.00
299-E18-4	12/01/94	B0DD17	5.20 L		4.80 LB	

Well Name	Collection Date	Sample Number	ALPHA 135/pCi/L ./15	BETA 136/pCi/L ./.	IRON 34/ppb 18/300s	FIRON 34/ppb 18/300s
299-E18-1	12/01/94	B0DC27	4.33	8.93	310.00 B	
299-E18-1	12/01/94	B0DD01				17.00 LB
299-E18-2	12/01/94	B0DD02	.45 U	3.21	200.00 B	
299-E18-2	12/01/94	B0DD06				18.00 LB
299-E18-3	12/01/94	B0DD08	1.09	4.14	170.00 B	
299-E18-3	12/01/94	B0DD12				24.00 B
299-E18-4	12/01/94	B0DD13	2.79	7.74	330.00 B	
299-E18-4	12/01/94	B0DD17				42.00 B

Table 13-4. Constituents with at Least One Detected Value for the 2101-M Pond
Data for Reporting Period October 1 through December 31, 1994.
(sheet 2 of 3)

Well Name	Collection Date	Sample Number	MAGNES 34/ppb 25/.	FMAGNES 34/ppb 25/.	MANGESE 34/ppb 1/50s	FMANGAN 34/ppb 1/50s
299-E18-1	12/01/94	B0DC27	13000.00		8.00 LB	
299-E18-1	12/01/94	B0DD01		13000.00		3.20 LB
299-E18-2	12/01/94	B0DD02	8000.00		4.70 LB	
299-E18-2	12/01/94	B0DD06		8000.00		1.60 LB
299-E18-3	12/01/94	B0DD08	7700.00		4.40 LB	
299-E18-3	12/01/94	B0DD12		7600.00		2.30 LB
299-E18-4	12/01/94	B0DD13	7600.00		7.00 LB	
299-E18-4	12/01/94	B0DD17		7500.00		2.60 LB

Well Name	Collection Date	Sample Number	NICKEL 34/ppb 16/.	FNICKEL 34/ppb 16/.	NITRATE 124/ppb 96/45000	POTASUM 34/ppb 890/.
299-E18-1	12/01/94	B0DC27	17.00 L		14000.00 D	5500.00
299-E18-1	12/01/94	B0DD01		13.00 U		
299-E18-2	12/01/94	B0DD02	13.00 U		400.00	4700.00
299-E18-2	12/01/94	B0DD06		13.00 U		
299-E18-3	12/01/94	B0DD08	20.00 L		600.00	4800.00
299-E18-3	12/01/94	B0DD12		13.00 U		
299-E18-4	12/01/94	B0DD13	23.00 L		500.00	5200.00
299-E18-4	12/01/94	B0DD17		13.00 U		

Well Name	Collection Date	Sample Number	FPOTASS 34/ppb 890/.	SELENIUM 48/ppb 1.4/10i	FSELENI 48/ppb 1.4/10i	SODIUM 34/ppb 150/.
299-E18-1	12/01/94	B0DC27		4.40 L		26000.00 B
299-E18-1	12/01/94	B0DD01	5500.00		4.50 L	
299-E18-2	12/01/94	B0DD02		.65 U		14000.00 B
299-E18-2	12/01/94	B0DD06	4700.00		.65 U	
299-E18-3	12/01/94	B0DD08		.65 U		6100.00 B
299-E18-3	12/01/94	B0DD12	4900.00		.65 U	
299-E18-4	12/01/94	B0DD13		.65 U		11000.00 B
299-E18-4	12/01/94	B0DD17	5200.00		.65 U	

Well Name	Collection Date	Sample Number	FSODIUM 34/ppb 150/.	SULFATE 124/ppb 89/250000s	TRITIUM 142/pCi/L ./20000	TURBID 126/NTU .016/.
299-E18-1	12/01/94	B0DC27		110000.00 D		3.30
299-E18-1	12/01/94	B0DD01	26000.00 B			
299-E18-1	12/01/94	B0DD07			12800.00	
299-E18-2	12/01/94	B0DD02		26000.00 D		1.50
299-E18-2	12/01/94	B0DD06	14000.00 B			
299-E18-3	12/01/94	B0DD08		11000.00 D		1.60
299-E18-3	12/01/94	B0DD12	5900.00 B			
299-E18-4	12/01/94	B0DD13		13000.00 D		3.10
299-E18-4	12/01/94	B0DD17	11000.00 B			

Table 13-4. Constituents with at Least One Detected Value for the 2101-M Pond
Data for Reporting Period October 1 through December 31, 1994.
(sheet 3 of 3)

Well Name	Collection Date	Sample Number	URANIUM 145/ppb ./.	VANADIUM 34/ppb 6.4/.	FVANADI 34/ppb 6.4/.
299-E18-1	12/01/94	B0DCZ7	3.77	9.80 L	
299-E18-1	12/01/94	B0DD01			11.00 L
299-E18-2	12/01/94	B0DD02	2.61	20.00 L	
299-E18-2	12/01/94	B0DD06			19.00 L
299-E18-3	12/01/94	B0DD08	2.09	30.00	
299-E18-3	12/01/94	B0DD12			27.00 L
299-E18-4	12/01/94	B0DD13	3.15	29.00 L	
299-E18-4	12/01/94	B0DD17			26.00 L

For explanation of this table, see Section 1.4 of report.

Table 13-5. Contamination Indicator Parameters for the 2101-M Pond
Data for Reporting Period October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-E18-1	12/01/94	B0DC27	457	470	8.23	8.30	110 U	5.1
		B0DC28	457		8.22		110 U	5.0 U
		B0DC29	459		8.21		200 L	5.0 U
		B0DD00	459		8.20		110 U	5.0 U
299-E18-2	12/01/94	B0DD02	291	280	8.31	8.10	110 L	12.2
		B0DD03	293		8.41		200 L	5.0 U
		B0DD04	291		8.31		130 L	22.3
		B0DD05	291		8.25		120 L	19.8
299-E18-3	12/01/94	B0DD08	236	230	8.04	8.30	200 L	9.2
		B0DD09	233		8.07		200 L	8.3
		B0DD10	232		8.06		300 L	14.8
		B0DD11	233		8.07		200 L	9.4
299-E18-4	10/19/94	B0DDT5	267	250	8.11	8.20		
		B0DDT6	264		8.10			
		B0DDT7	263		8.10			
		B0DDT8	266		8.10			
		B0DDT9						8.1
		B0DDV0						7.5
	12/01/94	B0DDV1						5.0 U
		B0DD13	267		8.05		150 L	18.6
		B0DD14	261		8.05		200 L	7.9
		B0DD15	261		8.05		300 L	14.2
		B0DD16	260		8.05		200 L	21.9

For explanation of this table, see Section 1.4 of report.

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14.0 LOW-LEVEL BURIAL GROUNDS

R. B. Mercer
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14.1 INTRODUCTION

The 200 Areas LLBG consist of five Low-Level Waste Management Areas (LLWMA). LLWMA-1 and LLWMA-2 are located in the 200 East Area and LLWMA-3, LLWMA-4, and LLWMA-5 are located in the 200 West Area (Figures 14-1 through 14-5). A description of the waste contained in each burial ground is provided in Table 14-1.

The groundwater monitoring program for the LLBG began with the installation of 35 monitoring wells in 1987. Additional wells have been installed in subsequent years. The present monitoring networks are listed in Tables 14-2 through 14-6.

Semiannual detection level sampling is being conducted at LLWMA-1, LLWMA-2, LLWMA-4, and LLWMA-5. Background values are being reestablished for LLWMA-3 because recently installed upgradient wells have significantly changed the monitoring network. Semiannual sampling is being conducted at LLWMA-3 with additional quarterly sampling for CIPs at the shallow upgradient wells.

A carbon tetrachloride pump-and-treat demonstration project is continuing this quarter near LLWMA-4. Groundwater is being extracted from well 299-W18-1 and injected into well 299-W18-4 after treatment. Groundwater levels are being monitored with transducers in the extraction and injection wells and in 299-W18-2, 299-W18-5, and 299-W18-24. Well 299-W18-24 is an upgradient monitoring well for LLWMA-4. No impacts on the LLWMA-4 monitoring network have been noted to date.

14.2 WATER LEVEL MEASUREMENTS

In addition to measurements taken at the time of sampling, water levels were measured quarterly at the LLBG. Water level measurements are presented in Tables 14-7 through 14-11. Additional water level measurements are reported for some wells if they are monitored for other projects. Suspected errors in the water level measurements occurred at several wells this quarter, as indicated in the tables. Water level measurements were not taken at well 299-W6-5 because of an obstructed casing; the casing in well 299-W6-5 was crimped during installation. Although remedial action enlarged the casing to permit the installation of the pump, the well does not have sufficient space to measure water levels, and additional well remediation may not be possible without damaging the casing. Well 299-E34-4 has been dry since it was constructed. Water levels are no longer measured in wells 299-E34-6 and 299-E35-1 because they have fallen below the bottom of the screens. All three of these wells were completed to the top of basalt. The LLWMA-2 monitoring network continues to meet the requirement of at least one upgradient and three downgradient monitoring wells.

14.3 WATER CHEMISTRY DATA

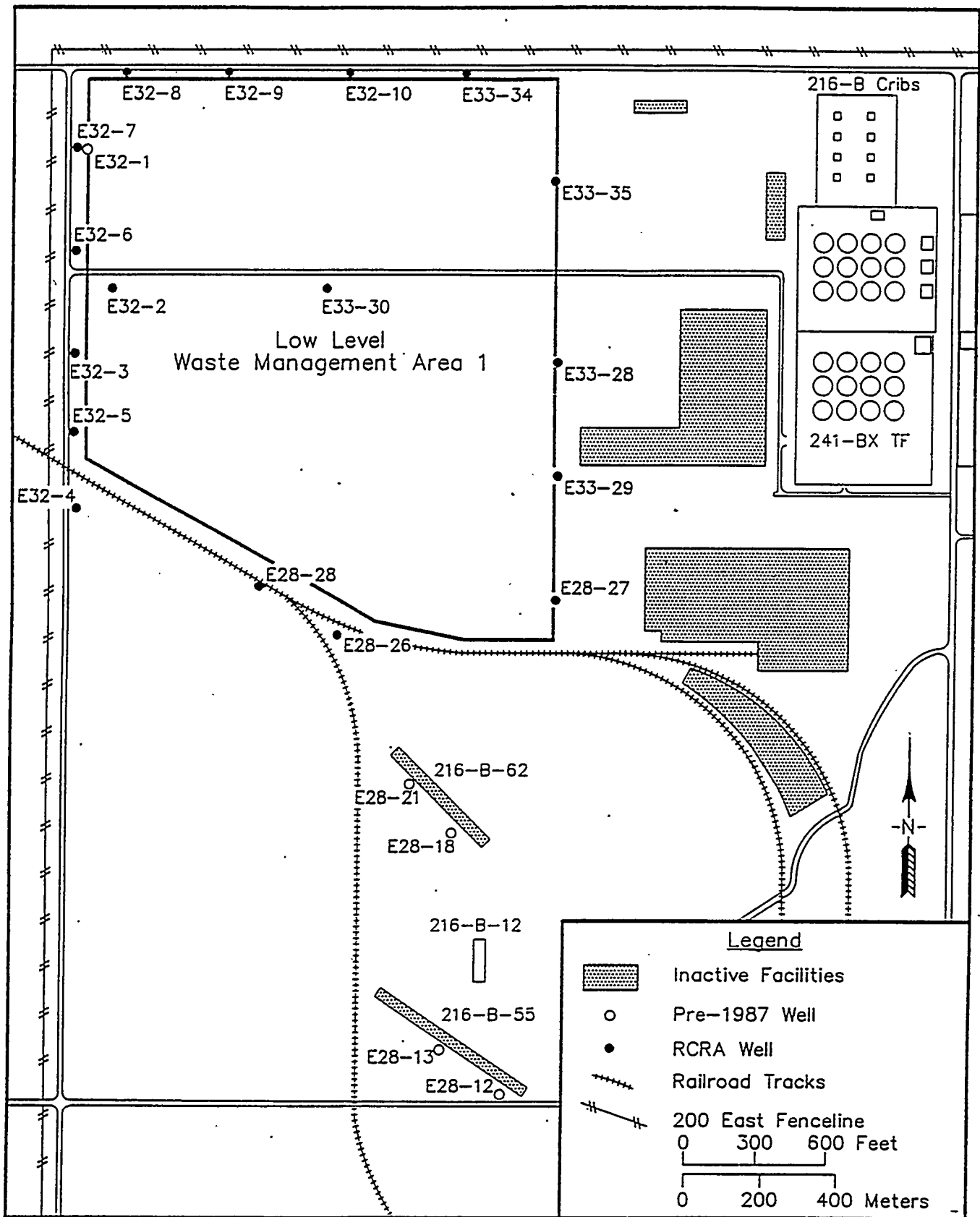
Groundwater samples were collected as scheduled at the LLBG. Samples were analyzed for CIPs, interim primary drinking water parameters, water quality parameters, and site-specific parameters. Results of analyses are listed in Tables 14-12 through 14-26. These tables also contain any previously unreported data and data that are being rereported because of changes in the data qualifier flags.

Additional samples were collected at some LLWMA-3 and LLWMA-5 groundwater monitoring wells for iodine-129, strontium-90, technetium-99, and total dissolved solids. These samples are in support of groundwater quality assessment at the T and TX-TY SST farms. Iodine-129 samples were also collected at some wells in LLWMA-2 for the B-63 Trench RCRA program. Results for these analyses are reported in the data tables in this section.

The replicate averages for field pH were below the critical range established for LLWMA-4 in upgradient well 299-W15-16. Resampling was not scheduled because the laboratory value was within the critical range. RADEs have been initiated on the field results. The replicate averages of other indicator parameters did not exceed the critical means at LLWMA-1, LLWMA-2, or LLWMA-4.

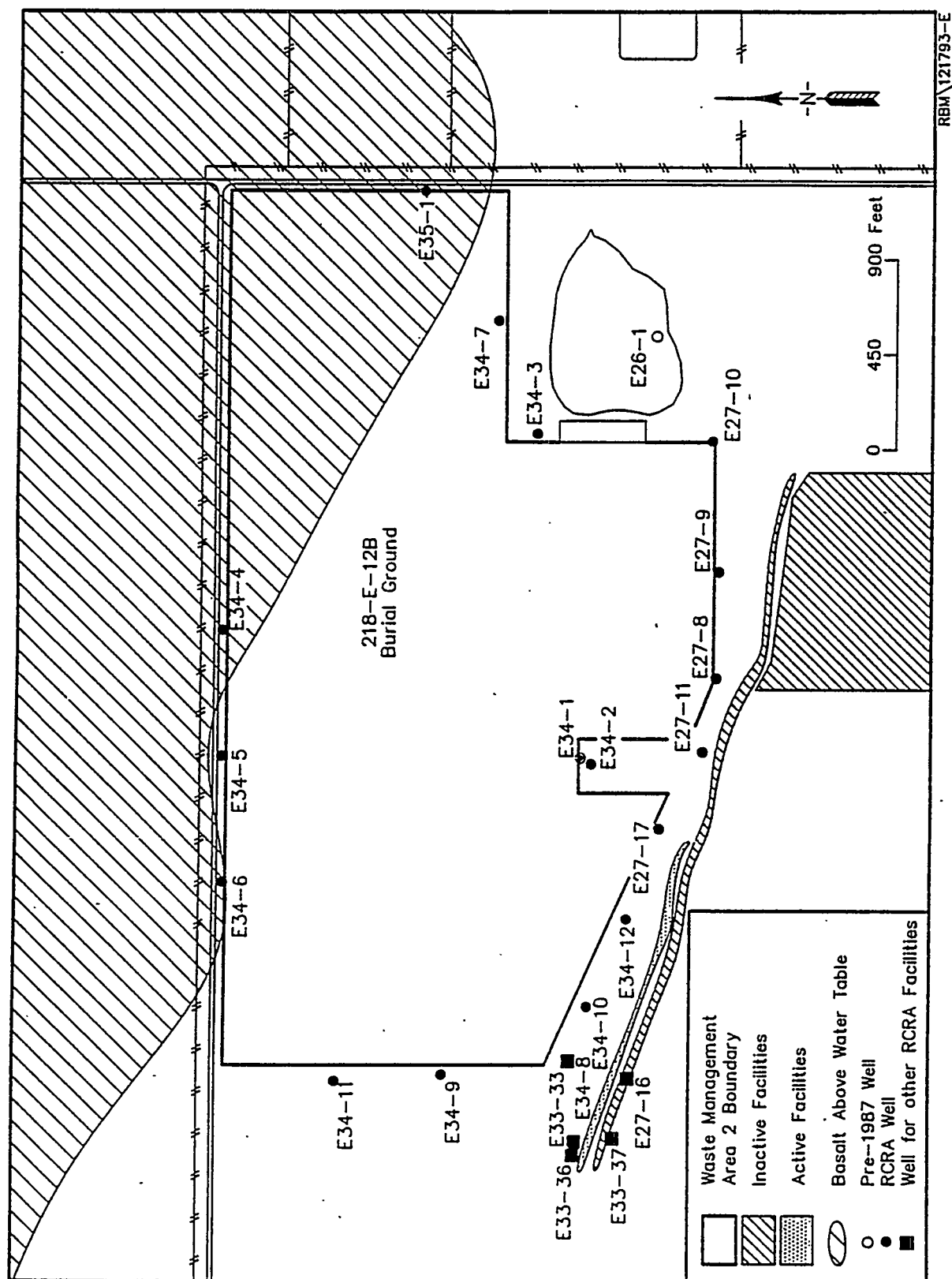
Analytical results flagged with a 'Q' are associated with suspect QC data. Data qualifier and data flags are discussed in more detail in Sections 1.2 and 1.4, respectively. Results are flagged with an 'F' if a RADE has been issued because the results did not follow the past trends. Tables 14-27 through 14-30 list the water quality standards that were exceeded for the data reported this quarter. Unfiltered metals accounted for most of the entries in these tables. Standards were not exceeded for the related filtered samples.

Figure 14-1. Well Location Map for Low-Level
Waste Management Area 1.



RBM\100193-B

Figure 14-2. Well Location Map for Low-Level
Waste Management Area 2.



RBM\121793-E

Figure 14-3. Well Location Map for Low-Level Waste Management Area 3.

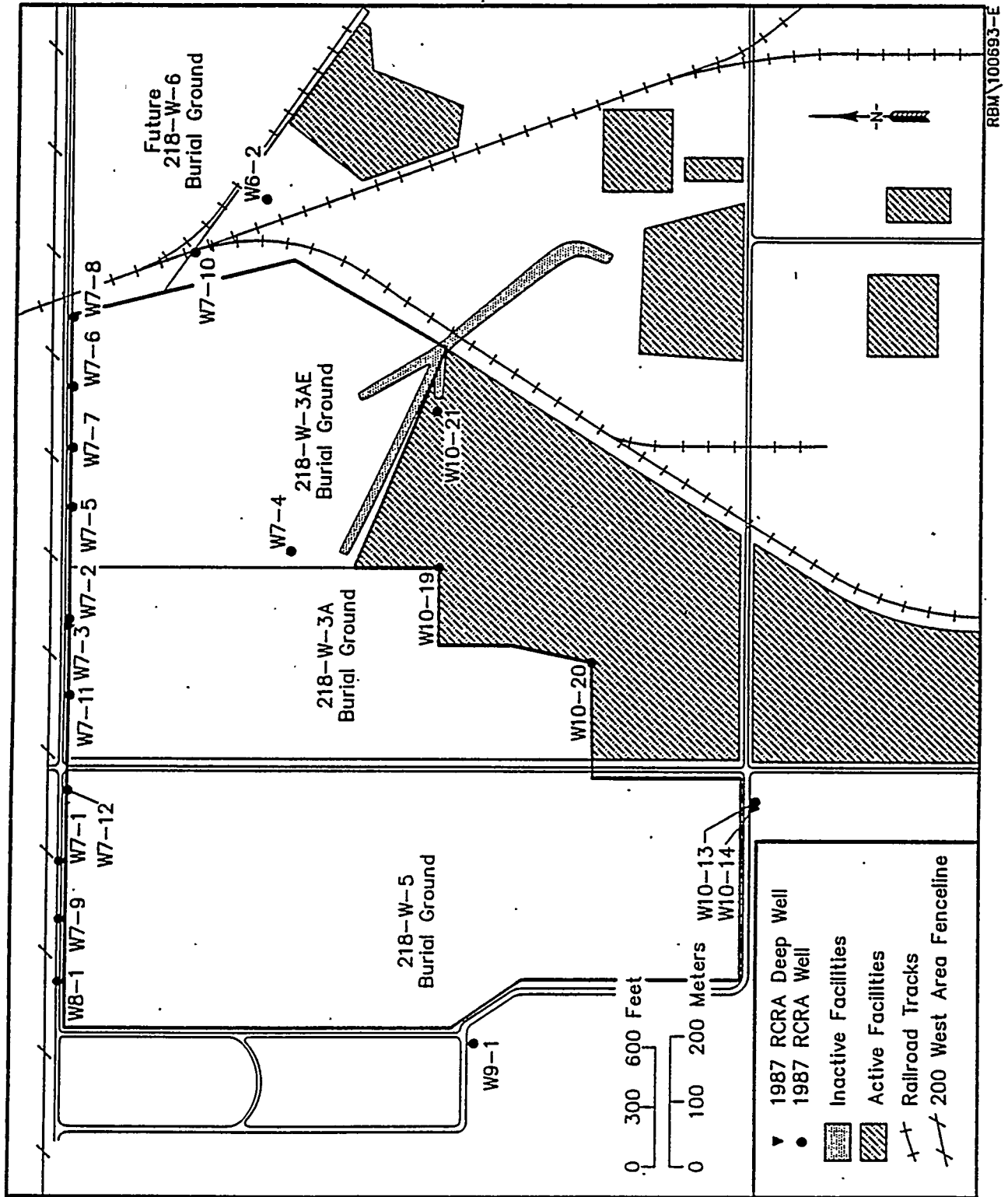


Figure 14-4. Well Location Map for Low-Level
Waste Management Area 4.

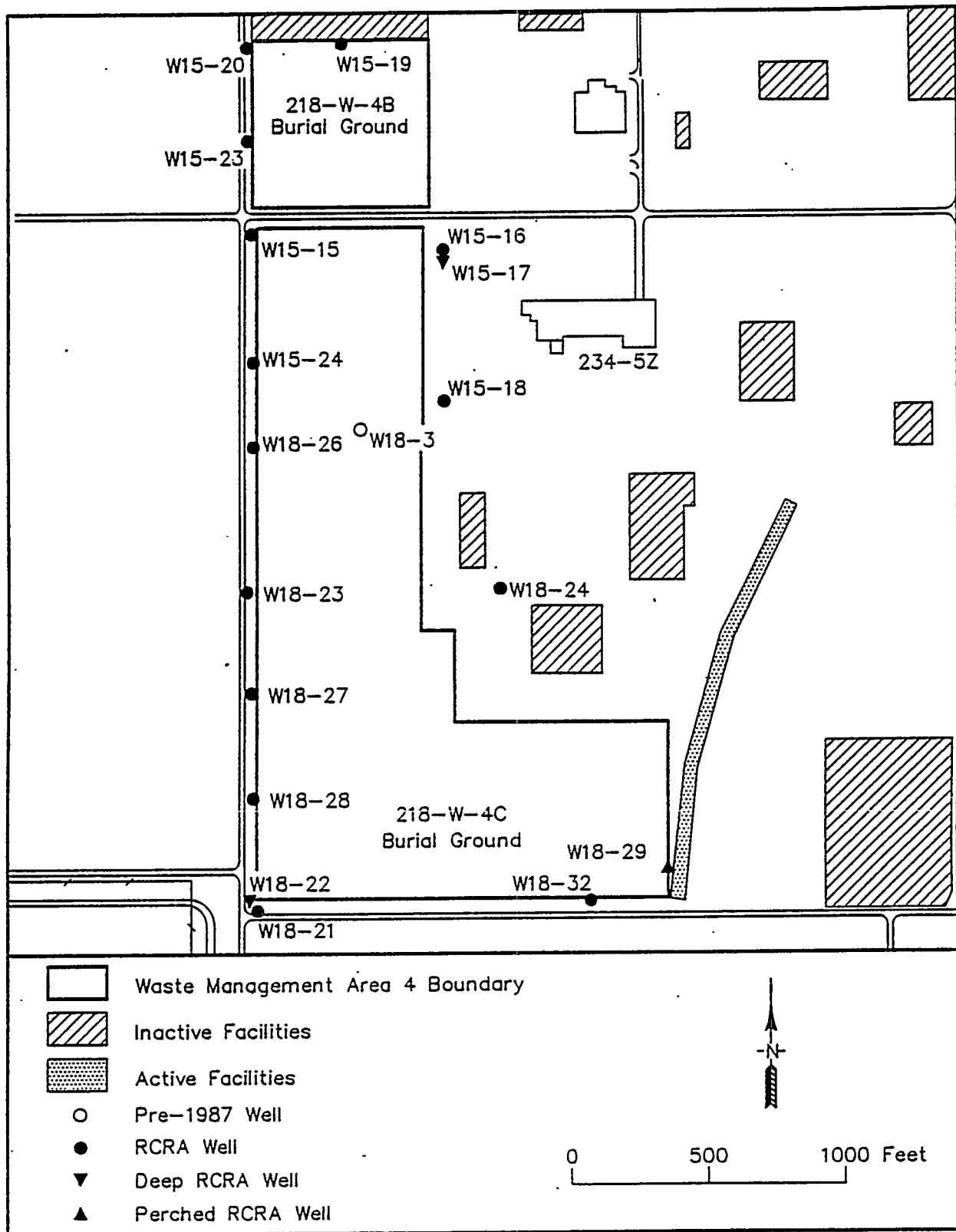
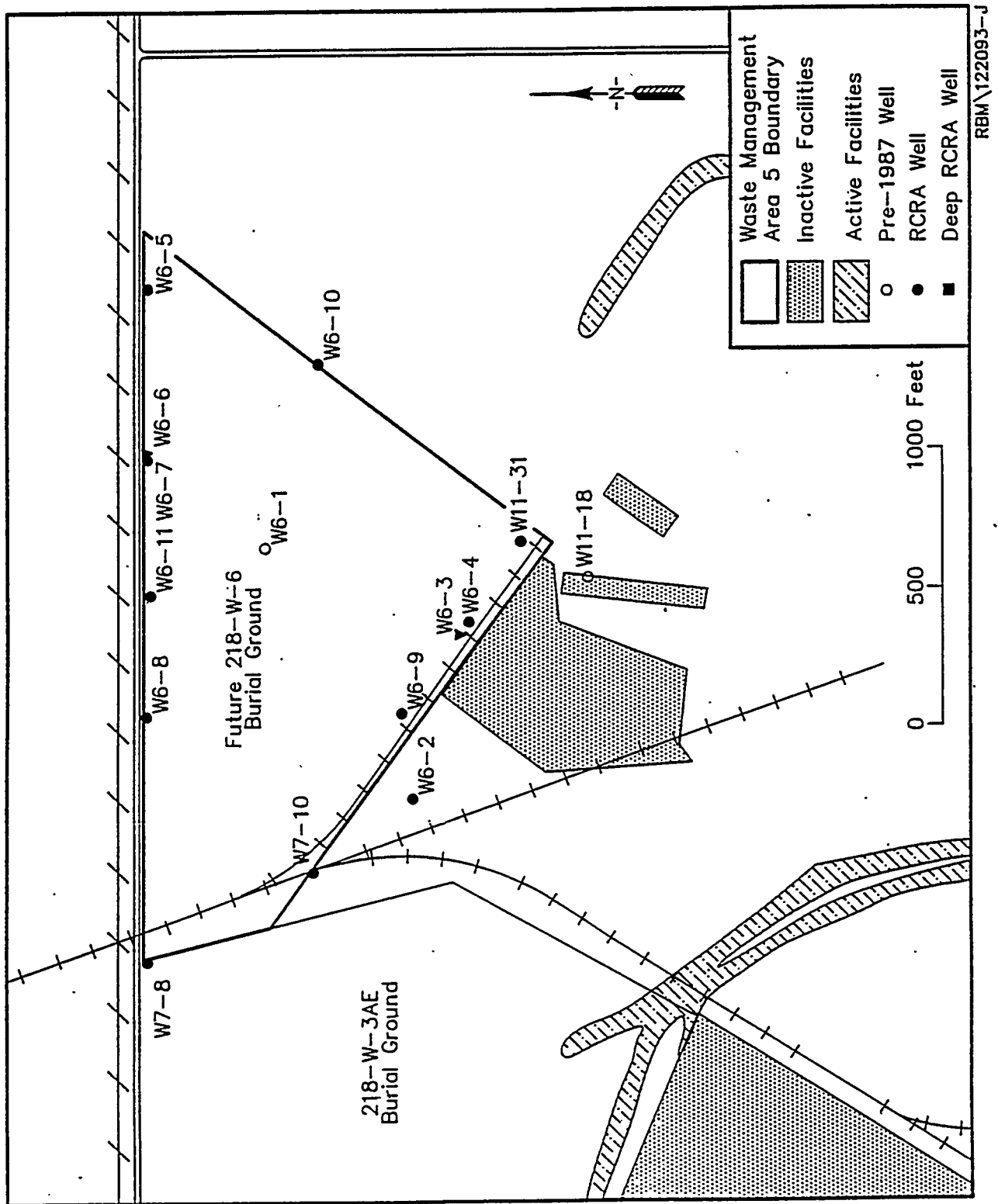


Figure 14-5. Well Location Map for Low-Level
Waste Management Area 5.



RBM\122093-J

Table 14-1. Low-Level Burial Grounds.

LLWMA-	Burial ground	First use	Contents
1	218-E-10	1960	Dragoff material Failed equipment Mixed waste
2	218-E-12B	1968	Miscellaneous dry waste Transuranic waste Submarine reactor compartments
3	218-W-3A	1970	Ion exchange resins Failed equipment
	218-W-3AE	1981	Low-level waste Low-level mixed waste
	218-W-5	1986	Low-level waste Low-level mixed waste
4	218-W-4B	1968	Mixed waste Retrievable transuranic waste
	218-W-4C	1978	Transuranic waste Mixed waste Low-level waste
5	218-W-6	N/A	None to date

N/A = not applicable.

Table 14-2. Monitoring Well Purpose and Sampling Schedule
for Low-Level Waste Management Area 1.

Well no. (299-)	Relative position	Hydrogeologic unit	Sample interval	Sample date, 4th Qtr 1994
E28-26 ⁸⁷	Upgradient	Hanford: Water Table	Semiannually	12/12/94
E28-27 ⁸⁷	Upgradient	Hanford: Water Table	Semiannually	12/12/94
E28-28 ⁹⁰	Upgradient	Hanford: Water Table	Semiannually	12/12/94
E32-2 ⁸⁷	Downgradient	Hanford: Water Table	Semiannually	12/13/94
E32-3 ⁸⁷	Downgradient	Hanford: Water Table	Semiannually	12/13/94
E32-4 ⁸⁷	Upgradient	Hanford: Water Table	Semiannually	10/11/94 ^a 12/13/94
E32-5 ⁸⁹	Downgradient	Hanford: Water Table	Semiannually	12/13/94
E32-6 ⁹¹	Downgradient	Hanford: Water Table	Semiannually	12/12/94
E32-7 ⁹¹	Downgradient	Hanford: Water Table	Semiannually	12/12/94
E32-8 ⁹¹	Downgradient	Hanford: Water Table	Semiannually	12/12/94
E32-9 ⁹¹	Downgradient	Hanford: Water Table	Semiannually	12/13/94
E32-10 ⁹²	Downgradient	Hanford: Water Table	Semiannually	12/13/94
E33-28 ⁸⁷	Upgradient	Hanford: Water Table	Semiannually	12/12/94
E33-29 ⁸⁷	Upgradient	Hanford: Water Table	Semiannually	12/12/94
E33-30 ⁸⁷	Downgradient	Hanford: Water Table	Semiannually	12/14/94
E33-34 ⁹⁰	Downgradient	Hanford: Water Table	Semiannually	12/14/94
E33-35 ⁹⁰	Upgradient	Hanford: Water Table	Semiannually	12/12/94

Note: Superscript following well number indicates year of installation.
^a Sampled for B-Pond.

Table 14-3. Monitoring Well Purpose and Sampling Schedule
for Low-Level Waste Management Area 2.

Well no. (299-)	Relative position	Hydrogeologic unit	Sample interval	Sample date, 4th Qtr 1994
E27-8 ⁸⁷	Downgradient	Hanford: Water Table	Semiannually	11/17/94
E27-9 ⁸⁷	Downgradient	Hanford: Water Table	Semiannually	11/17/94
E27-10 ⁸⁷	Upgradient	Hanford: Water Table	Semiannually	12/13/94
E27-11 ⁸⁹	Downgradient	Hanford: Water Table	Semiannually	11/18/94
E27-17 ⁹¹	Downgradient	Hanford: Water Table	Semiannually	11/17/94
E34-2 ⁸⁷	Downgradient	Hanford: Water Table	Semiannually	11/21/94
E34-3 ⁸⁷	Upgradient	Hanford: Water Table	Semiannually	11/21/94
E34-4 ⁸⁷	Upgradient	Hanford: Water Table	NA	Dry
E34-5 ⁸⁷	Upgradient	Hanford: Water Table	Semiannually	11/18/94
E34-6 ⁸⁷	Upgradient	Hanford: Water Table	NA	Dry
E34-7 ⁸⁹	Upgradient	Hanford: Water Table	Semiannually	11/18/94
E34-9 ⁹¹	Downgradient	Hanford: Water Table	Semiannually	11/28/94
E34-10 ⁹¹	Downgradient	Hanford: Water Table	Semiannually	11/21/94
E34-11 ⁹²	Downgradient	Hanford: Water Table	Semiannually	11/28/94
E34-12 ⁹²	Downgradient	Hanford: Water Table	Semiannually	11/28/94
E35-1 ⁸⁹	Upgradient	Hanford: Water Table	NA	Dry

Notes: Superscript following well number indicates year of installation.
NA = not available.

Table 14-4. Monitoring Well Purpose and Sampling Schedule
for Low-Level Waste Management Area 3.

Well no. (299-)	Relative position	Hydrogeologic unit	Sample interval	Sample date, 4th Qtr 1994
W6-2 ^{87m}	Downgradient	Ringold: Water Table	Semiannually	11/30/94 ^b 12/14/94 ^c
W7-1 ⁸⁷	Downgradient	Ringold: Water Table	Semiannually	Not Sampled
W7-2 ⁸⁷	Downgradient	Ringold: Water Table	Semiannually	Not Sampled
W7-3 ⁸⁷	Downgradient	Ringold: Deep	Semiannually	Not Sampled
W7-4 ⁸⁷	Downgradient	Ringold: Water Table	Semiannually	Not Sampled
W7-5 ⁸⁷	Downgradient	Ringold: Water Table	Semiannually	Not Sampled
W7-6 ⁸⁷	Downgradient	Ringold: Water Table	Semiannually	Not Sampled
W7-7 ⁸⁹	Downgradient	Ringold: Water Table	Semiannually	Not Sampled
W7-8 ⁸⁹	Downgradient	Ringold: Water Table	Semiannually	Not Sampled
W7-9 ⁹⁰	Downgradient	Ringold: Water Table	Semiannually	Not Sampled
W7-10 ^{90m}	Downgradient	Ringold: Water Table	Semiannually	Not Sampled
W7-11 ⁹¹	Downgradient	Ringold: Water Table	Semiannually	Not Sampled
W7-12 ⁹¹	Downgradient	Ringold: Water Table	Semiannually	Not Sampled
W8-1 ⁸⁷	Downgradient	Ringold: Water Table	Semiannually	11/30/94 ^b
W9-1 ⁸⁷	Upgradient	Ringold: Water Table	Quarterly ^a	12/14/94
W10-13 ⁸⁷	Upgradient	Ringold: Water Table	Quarterly ^a	12/14/94
W10-14 ⁸⁷	Upgradient	Ringold: Deep	Semiannually	Not Sampled
W10-19 ⁹²	Upgradient	Ringold: Water Table	Quarterly ^a	12/14/94
W10-20 ⁹³	Upgradient	Ringold: Water Table	Quarterly ^a	12/15/94
W10-21 ⁹³	Upgradient	Ringold: Water Table	Quarterly	12/14/94

Notes: Superscript following well number indicates year of installation.
Deep indicates well monitors bottom of the unconfined aquifer.

^a Semiannual sampling with additional CIP sampling quarterly.

^m Well monitors multiple LLWMA's.

^b Resampling for field indicator parameters.

^c Sampled for Single Shell Tanks.

Table 14-5. Monitoring Well Purpose and Sampling Schedule
for Low-Level Waste Management Area 4.

Well no. (299-)	Relative position	Hydrogeologic unit	Sample interval	Sample date, 4th Qtr 1994
W15-15 ⁸⁷	Downgradient	Ringold: Water Table	Semiannually	11/10/94
W15-16 ⁸⁷	Upgradient	Ringold: Water Table	Semiannually	11/08/94
W15-17 ⁸⁷	Upgradient	Ringold: Deep	Semiannually	11/09/94
W15-18 ⁸⁷	Upgradient	Ringold: Water Table	Semiannually	11/08/94
W15-19 ⁸⁹	Downgradient	Ringold: Water Table	Semiannually	11/30/94
W15-20 ⁸⁹	Downgradient	Ringold: Water Table	Semiannually	11/11/94
W15-23 ⁹⁰	Downgradient	Ringold: Water Table	Semiannually	11/11/94
W15-24 ⁸⁹	Downgradient	Ringold: Water Table	Semiannually	11/10/94
W18-21 ⁸⁷	Downgradient	Ringold: Water Table	Semiannually	11/28/94
W18-22 ⁸⁷	Downgradient	Ringold: Deep	Semiannually	11/29/94
W18-23 ⁸⁷	Downgradient	Ringold: Water Table	Semiannually	11/11/94
W18-24 ⁸⁷	Upgradient	Ringold: Water Table	Semiannually	11/08/94
W18-26 ⁸⁹	Downgradient	Ringold: Water Table	Semiannually	11/28/94
W18-27 ⁹¹	Downgradient	Ringold: Water Table	Semiannually	11/28/94
W18-28 ⁹¹	Downgradient	Ringold: Water Table	Semiannually	11/28/94
W18-29 ⁹¹	Upgradient	Hanford: Perched	Semiannually	Dry
W18-32 ⁹²	Upgradient	Ringold: Water Table	Semiannually	11/09/94

Notes: Superscript following well number indicates year of installation.
Deep indicates well monitors bottom of the unconfined aquifer.

Table 14-6. Monitoring Well Purpose and Sampling Schedule for Low-Level Waste Management Area 5.

Well no. (299-)	Relative position	Hydrogeologic unit	Sample interval	Sample date, 4th Qtr 1994
W6-2 ^{87m}	Upgradient	Ringold: Water Table	Semiannually	11/30/94 ^b 12/14/94 ^c
W6-3 ⁹¹	Upgradient	Ringold: Deep	Semiannually	Not Sampled
W6-4 ⁹¹	Upgradient	Ringold: Water Table	Semiannually	12/14/94 ^c
W6-5 ⁹¹	Downgradient	Ringold: Water Table	Semiannually	Not Sampled
W6-6 ⁹¹	Downgradient	Ringold: Deep	Semiannually	Not Sampled
W6-7 ⁹¹	Downgradient	Ringold: Water Table	Semiannually	Not Sampled
W6-8 ⁹¹	Downgradient	Ringold: Water Table	Semiannually	Not Sampled
W6-9 ⁹²	Upgradient	Ringold: Water Table	Semiannually	12/13/94 ^c
W6-10 ⁹²	Upgradient	Ringold: Water Table	Semiannually	12/14/94 ^c
W6-11 ⁹²	Downgradient	Ringold: Water Table	Semiannually	Not Sampled
W6-12 ⁹²	Downgradient	Ringold: Water Table	Semiannually	Not Sampled
W7-10 ^{90m}	Upgradient	Ringold: Water Table	Semiannually	Not Sampled
W11-31 ⁹²	Upgradient	Ringold: Water Table	Semiannually	12/14/94 ^c

Notes: Superscript following well number indicates year of installation.
Deep indicates well monitors bottom of the unconfined aquifer.

^m Well monitors multiple LLWMAs.

^b Resampling for field indicator parameters.

^c Sampled for Single Shell Tanks.

Table 14-7. RCRA Water Level Measurement Report
 LLWMA 1, Fourth Quarter 1994.
 (sheet 1 of 2)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
LLWMA-1 Wells Monitoring the Top of the Unconfined Aquifer				
299-E28-26	12/12/94	285.95	401.31*	122.32
	12/14/94	285.78	401.48	122.37
299-E28-27	12/12/94	279.08	401.50*	122.38
	12/14/94	278.93	401.65	122.42
299-E28-28	12/12/94	285.50	401.05*	122.24
	12/14/94	285.25	401.30	122.32
299-E32-10	12/13/94	236.70	401.18*	122.28
	12/14/94	236.36	401.52	122.38
299-E32-2	12/13/94	269.15	400.91*	122.20
	12/14/94	268.82	401.24	122.30
299-E32-3	12/13/94	275.31	401.20*	122.29
	12/14/94	275.22	401.29	122.31
299-E32-4	10/11/94	284.79	401.09*	122.25
	12/13/94	284.93	400.95*	122.21
	12/14/94	284.53	401.35+	122.33
299-E32-5	12/13/94	281.22	400.92*+	122.20
	12/14/94	280.50	401.64	122.42
299-E32-6	12/12/94	265.95	401.50*	122.38
	12/14/94	265.90	401.55	122.39
299-E32-7	12/12/94	256.99	401.38*	122.34
	12/14/94	256.91	401.46	122.37
299-E32-8	12/12/94	244.18	401.36*	122.33
	12/14/94	244.15	401.39	122.34
299-E32-9	12/13/94	241.96	401.37*	122.34
	12/14/94	241.33	402.00+	122.53
299-E33-28	12/12/94	262.98	401.25*	122.30
	12/14/94	262.85	401.38	122.34

Table 14-7. RCRA Water Level Measurement Report
 LLWMA 1, Fourth Quarter 1994.
 (sheet 2 of 2)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
LLWMA-1 Wells Monitoring the Top of the Unconfined Aquifer				
299-E33-29	12/12/94	272.46	401.31*	122.32
	12/14/94	272.38	401.39	122.34
299-E33-30	12/14/94	262.35	401.35*	122.33
	12/14/94	262.31	401.39	122.34
299-E33-34	12/14/94	231.80	401.77*	122.46
	12/14/94	231.45	402.12+	122.57
299-E33-35	12/12/94	242.01	401.00*	122.22
	12/14/94	241.68	401.33+	122.33

- NOTES:
1. Water level elevations are calculated by subtracting the measured depth-to-water from the surveyed elevation for the well.
 2. Depth-to-water values are transcribed from field records.
 3. Elevations marked with an '*' were measured at the time of sampling.
 4. Elevations marked with a '+' are outside of the expected range, and are suspected of error.

Table 14-8. RCRA Water Level Measurement Report
 LLWMA 2, Fourth Quarter 1994.
 (sheet 1 of 2)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft) (m)	
LLWMA-2 Wells Monitoring the Top of the Unconfined Aquifer				
299-E27-10	12/13/94	223.00	401.47*	122.37
	12/14/94	225.50	398.97+	121.61
299-E27-11	11/18/94	241.89	401.40*	122.35
	12/14/94	241.88	401.41	122.35
299-E27-17	11/18/94	233.00	401.72*	122.44
	12/14/94	232.94	401.78	122.46
299-E27-8	11/17/94	236.73	401.10*	122.26
	12/14/94	236.28	401.55	122.39
299-E27-9	11/17/94	227.66	401.55*	122.39
	12/14/94	227.50	401.71	122.44
299-E34-10	11/21/94	238.10	401.67*	122.43
	12/14/94	238.01	401.76	122.46
299-E34-11	11/28/94	216.27	401.68*	122.43
	12/14/94	216.21	401.74	122.45
299-E34-12	11/28/94	237.28	401.55*	122.39
	12/14/94	237.24	401.59	122.40
299-E34-2	11/21/94	229.30	401.50*	122.38
	12/13/94	229.25	401.55	122.39
299-E34-3	11/21/94	209.75	401.77*	122.46
	12/14/94	209.81	401.71	122.44
299-E34-5	11/18/94	190.02	400.77*+	122.15
	12/13/94	188.13	402.66	122.73
299-E34-9	11/28/94	227.08	401.61*	122.41
	12/14/94	226.98	401.71	122.44

Table 14-8. RCRA Water Level Measurement Report
LLWMA 2, Fourth Quarter 1994.
(sheet 2 of 2)

- NOTES:
1. Water level elevations are calculated by subtracting the measured depth-to-water from the surveyed elevation for the well.
 2. Depth-to-water values are transcribed from field records.
 3. Elevations marked with an '*' were measured at the time of sampling.
 4. Elevations marked with a '+' are outside of the expected range, and are suspected of error.

Table 14-9. RCRA Water Level Measurement Report
 LLWMA 3, Fourth Quarter 1994.
 (sheet 1 of 2)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
LLWMA-3 Wells Monitoring the Top of the Unconfined Aquifer				
299-W10-13	12/14/94	237.77	461.27*+	140.60
299-W10-19	12/14/94	223.74	459.25+	139.98
	12/14/94	223.46	459.53*	140.06
299-W6-2	11/30/94	235.86	456.59*	139.17
	12/14/94	236.02	456.43	139.12
	12/14/94	235.77	456.68*	139.20
299-W7-1	12/14/94	233.49	457.22	139.36
299-W7-10	12/14/94	233.85	455.81	138.93
299-W7-11	12/14/94	224.54	456.91	139.27
299-W7-12	12/14/94	230.74	457.19	139.35
299-W7-2	12/14/94	219.47	456.12	139.03
299-W7-4	12/14/94	213.87	458.05	139.61
299-W7-5	12/14/94	217.41	455.64	138.88
299-W7-6	12/14/94	223.14	455.50	138.84
299-W7-7	12/14/94	219.26	455.68	138.89
299-W7-9	12/14/94	234.38	457.71	139.51
299-W8-1	11/30/94	243.48	457.85*	139.55
	12/14/94	243.62	457.71	139.51
299-W9-1	12/14/94	277.41	460.32*	140.31
299-W10-20	12/14/94	227.56	459.98	140.20
	12/15/94	222.43	465.11*+	141.77
299-W10-21	12/14/94	215.69	458.37*	139.71

Table 14-9. RCRA Water Level Measurement Report
 LLWMA 3, Fourth Quarter 1994.
 (sheet 2 of 2)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
LLWMA-3 Wells Monitoring the Bottom of the Unconfined Aquifer				
299-W10-14	12/14/94	239.04	460.39	140.33
299-W7-3	12/14/94	221.03	455.11	138.72

- NOTES:
1. Water level elevations are calculated by subtracting the measured depth-to-water from the surveyed elevation for the well.
 2. Depth-to-water values are transcribed from field records.
 3. Elevations marked with an '*' were measured at the time of sampling.
 4. Elevations marked with a '+' are outside of the expected range, and are suspected of error.

Table 14-10. RCRA Water Level Measurement Report
 LLWMA 4, Fourth Quarter 1994.
 (sheet 1 of 2)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
LLWMA-4 Wells Monitoring the Top of the Unconfined Aquifer				
299-W15-15	11/10/94	236.53	461.43*	140.64
299-W15-16	11/08/94	222.24	462.65*	141.02
	12/14/94	222.63	462.26	140.90
299-W15-18	11/08/94	223.40	462.31*	140.91
	12/14/94	223.57	462.14	140.86
299-W15-19	11/30/94	229.62	461.98*	140.81
	12/14/94	229.31	462.29+	140.91
299-W15-20	11/11/94	237.30	461.06*+	140.53
	12/14/94	236.57	461.79	140.75
299-W15-23	11/11/94	237.89	461.60*	140.70
	12/14/94	237.74	461.75	140.74
299-W15-24	11/10/94	237.63	461.74*	140.74
	12/14/94	237.67	461.70	140.73
299-W18-21	11/28/94	207.22	461.40*	140.63
	12/14/94	206.90	461.72	140.73
299-W18-23	11/11/94	234.96	461.85*	140.77
	12/14/94	235.05	461.76	140.74
299-W18-26	11/28/94	237.49	461.56*	140.68
	12/14/94	237.26	461.79	140.75
299-W18-27	11/28/94	228.61	461.64*	140.71
	12/14/94	228.45	461.80	140.76
299-W18-28	11/28/94	218.25	461.74*	140.74
	12/14/94	217.98	462.01	140.82
299-W18-32	11/09/94	139.18	537.47*+	163.82
	12/14/94	214.57	462.08	140.84

Table 14-10. RCRA Water Level Measurement Report
 LLWMA 4, Fourth Quarter 1994.
 (sheet 2 of 2)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
LLWMA-4 Wells Monitoring the Bottom of the Unconfined Aquifer				
299-W15-17	11/09/94	221.86	462.78*+	141.06
	12/14/94	222.58	462.06	140.84
299-W18-22	11/29/94	207.16	461.33*	140.61
	12/14/94	207.20	461.29	140.60

- NOTES:
1. Water level elevations are calculated by subtracting the measured depth-to-water from the surveyed elevation for the well.
 2. Depth-to-water values are transcribed from field records.
 3. Elevations marked with an '*' were measured at the time of sampling.
 4. Elevations marked with a '+' are outside of the expected range, and are suspected of error.

Table 14-11. RCRA Water Level Measurement Report
LLWMA 5, Fourth Quarter 1994.

Well	Date	Depth to water (ft)	Water level elevation above msl (ft) (m)	
LLWMA-5 Wells Monitoring the Top of the Unconfined Aquifer				
299-W11-31	12/13/94	250.56	456.30	139.08
	12/14/94	250.09	456.77*+	139.22
299-W6-10	12/14/94	258.92	453.56	138.25
	12/14/94	258.92	453.56*	138.25
299-W6-11	12/14/94	249.13	453.73	138.30
299-W6-12	12/14/94	237.71	454.80	138.62
299-W6-2	11/30/94	235.86	456.59*	139.17
	12/14/94	236.02	456.43	139.12
	12/14/94	235.77	456.68*	139.20
299-W6-4	12/14/94	245.16	456.09*	139.02
	12/14/94	245.15	456.10	139.02
299-W6-7	12/14/94	257.37	452.91	138.05
299-W6-9	12/13/94	240.85	455.25*+	138.76
299-W7-10	12/14/94	233.85	455.81	138.93
LLWMA-5 Wells Monitoring the Bottom of the Unconfined Aquifer				
299-W6-3	12/14/94	244.07	455.76	138.92
299-W6-6	12/14/94	257.17	452.82	138.02

- NOTES: 1. Water level elevations are calculated by subtracting the measured depth-to-water from the surveyed elevation for the well.
2. Depth-to-water values are transcribed from field records.
3. Elevations marked with an '*' were measured at the time of sampling.
4. Elevations marked with a '+' are outside of the expected range, and are suspected of error.

Table 14-12. Constituent List and Summary of Results for the Low-Level
Waste Management Area 1 Data for Reporting Period
October 1 through December 31, 1994.
(sheet 1 of 3)

CONTAMINATION INDICATOR PARAMETERS

Short	(Method)	Constituent Name		Units	DWS			Number of Samples		
		Full			Lab MDL	Limit	Agency	Total	>MDL	>DWS
CONDUCT		Conductivity, field		umhos	1			72	72	
TOC		Total Organic Carbon		ppb	110			72	70	
TOX		Total Organic Halogen		ppb	5			71	24	
FTOX		Total Organic Halogen, Filtered		ppb	5			1	0	
PH	93	pH, field		pH	.01	6.5-8.5	EPAS	72	72	2
PH	125	pH, lab		pH		6.5-8.5	EPAS	18	18	0

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name		Units	DWS			Number of Samples		
		Full			Lab MDL	Limit	Agency	Total	>MDL	>DWS
BARIUM		Barium		ppb	.59	1000	EPAI	17	17	0
FBARIUM		Barium, filtered		ppb	.59	1000	EPAI	17	17	0
CADMIUM		Cadmium		ppb	3.3	10	EPAI	17	0	0
FCADMIU		Cadmium, filtered		ppb	3.3	10	EPAI	17	0	0
CHROMIUM		Chromium		ppb	4.5	50	EPAI	17	17	4
FCHROMI		Chromium, filtered		ppb	4.5	50	EPAI	17	11	0
FLUORID		Fluoride		ppb	36	1400	EPAI	16	16	0
ALPHA		Gross alpha		pCi/L		15	EPA	16	12	0
MERCURY		Mercury		ppb	.05	2	EPA	17	8	0
FMERCUR		Mercury, filtered		ppb	.05	2	EPA	17	9	0
NITRATE		Nitrate		ppb	11	45000	EPA	16	16	0
RADIUM		Radium		pCi/L		5	EPAI	17	2	0

GROUNDWATER QUALITY PARAMETERS

Short	(Method)	Constituent Name		Units	DWS			Number of Samples		
		Full			Lab MDL	Limit	Agency	Total	>MDL	>DWS
CHLORID		Chloride		ppb	14	250000	EPAS	16	16	0
IRON		Iron		ppb	5.24	300	EPAS	17	17	5
FIRON		Iron, filtered		ppb	5.24	300	EPAS	17	17	0
MANGESE		Manganese		ppb	.72	50	EPAS	17	17	0
FMANGAN		Manganese, filtered		ppb	.72	50	EPAS	17	17	0
LPHENOL		Phenol		ppb	.54			18	0	
SODIUM		Sodium		ppb	61			17	17	
FSODIUM		Sodium, filtered		ppb	61			17	17	
SULFATE		Sulfate		ppb	37	250000	EPAS	16	16	0

Table 14-12. Constituent List and Summary of Results for the Low-Level
Waste Management Area 1 Data for Reporting Period
October 1 through December 31, 1994.
(sheet 2 of 3)

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name Full	Units	Lab MDL	DWS Limit	Agency	Number of Samples		
							Total	>MDL	>DWS
1,1,1-T		1,1,1-Trichloroethane	ppb	.036	200	EPA	17	0	0
1,1,2-T		1,1,2-Trichloroethane	ppb	.078			17	0	
1,1-DIC		1,1-Dichloroethane	ppb	.058			17	0	
1,2-DIC		1,2-Dichloroethane	ppb	.029	5	EPA	17	0	0
14-dben		1,4-Dichlorobenzene	ppb	.055	75	EPA	17	0	0
24-dchp		2,4-Dichlorophenol	ppb	4			18	0	
2METHPH		2-Methylphenol	ppb	5.1			18	0	
2NITPH		2-Nitrophenol	ppb	1.9			18	0	
4METHPH		4-Methylphenol	ppb	7			18	0	
ALUMNUM		Aluminum	ppb	26			17	10	
FALUMIN		Aluminum, filtered	ppb	26			17	3	
ANTIMONY		Antimony	ppb	62			17	0	
FANTIMO		Antimony, filtered	ppb	62			17	0	
BENZENE		Benzene	ppb	.013	5	EPA	17	0	0
BENZOTH		Benzothiazole	ppb	1.3			18	0	
BERYLLUM		Beryllium	ppb	.17			17	0	
FBERYLL		Beryllium, filtered	ppb	.17			17	0	
BIS2EPH		Bis(2-ethylhexyl) phthalate	ppb	5.3			18	0	
BROMIDE		Bromide	ppb	100			16	1	
CALCIUM		Calcium	ppb	34			17	17	
FCALCIU		Calcium, filtered	ppb	34			17	17	
TETRANE		Carbon tetrachloride	ppb	.075	5	EPA	17	0	0
CHLFORM		Chloroform	ppb	.041			17	8	
COBALT		Cobalt	ppb	5.9			17	0	
FCOBALT		Cobalt, filtered	ppb	5.9			17	1	
COLIFORM		Coliforms	COL	1	1	EPAI	1	0	0
COPPER		Copper	ppb	4.1	1000	EPAS	17	9	0
FCOPPER		Copper, filtered	ppb	4.1	1000	EPAS	17	4	0
CYANIDE		Cyanide	ppb	1			17	3	
DECANE		Decane	ppb	1.9			18	0	
DODECAN		Dodecane	ppb	1.1			18	0	
ETHBENZ		Ethylbenzene	ppb	.051	700	EPA	17	0	0
BETA		Gross beta	pCi/L				16	16	
LEAD		Lead	ppb	1.5	50	EPAI	17	11	0
FLEAD		Lead, filtered	ppb	1.5	50	EPAI	17	5	0
MAGNES		Magnesium	ppb	23			17	17	
FMAGNES		Magnesium, filtered	ppb	23			17	17	
METHYCH		Methylene chloride	ppb	.09			17	0	
NAPHTHA		Naphthalene	ppb	1.2			18	0	
NICKEL		Nickel	ppb	13			17	10	
FNICKEL		Nickel, filtered	ppb	13			17	1	
NITRITE		Nitrite	ppb	18	1000	EPA	16	0	0
PENTCHP		Pentachlorophenol	ppb	8.3	1	EPA	18	0	18*

Table 14-12. Constituent List and Summary of Results for the Low-Level
Waste Management Area 1 Data for Reporting Period
October 1 through December 31, 1994.
(sheet 3 of 3)

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
PHOSPHA		Phosphate	ppb		82			16	0	
POTASUM		Potassium	ppb		850			17	17	
FPOTASS		Potassium, filtered	ppb		850			17	16	
SILVER		Silver	ppb		3.6	50	EPAI	17	0	0
FSILVER		Silver, filtered	ppb		3.6	50	EPAI	17	0	0
PERCENE		Tetrachloroethene	ppb		.22	5	EPA	17	0	0
TETRADE		Tetradecane	ppb		1.6			18	0	
TIN		Tin	ppb		69			17	0	
FTIN		Tin, filtered	ppb		69			17	0	
TOLUENE		Toluene	ppb		.016	1000	EPA	17	0	0
TRIBUTPH		Tributyl Phosphate	ppb		1.1			18	0	
TRICENE		Trichloroethene	ppb		.11	5	EPA	17	0	0
TDICHPH		Tris-2-chloroethyl phosphate	ppb		.61			18	0	
TRITIUM		Tritium	pCi/L			20000	EPA	17	17	4
TURBID		Turbidity	NTU		.016			18	18	
URANIUM		Uranium	ppb					17	17	
VANADIUM		Vanadium	ppb		6.6			17	17	
FVANADI		Vanadium, filtered	ppb		6.6			17	17	
VINYIDE		Vinyl chloride	ppb		.13	2	EPA	17	0	0
XYLENE		Xylenes (total)	ppb		.035	10000	EPA	17	0	0
ZINC		Zinc	ppb		6.3	5000	EPAS	17	3	0
FZINC		Zinc, filtered	ppb		6.3	5000	EPAS	17	0	0
CIS12DE		cis-1,2-Dichloroethylene	ppb		.11	70	EPA	17	0	0
MCRESOL		m-Cresol	ppb		2.2			18	0	
TRANDE		trans-1,2-Dichloroethylene	ppb		.073	100	EPA	17	0	0

For explanation of this table, see Section 1.4 of report.

Table 14-13. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 1 Data for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 9)

Well Name	Collection Date	Sample Number	ALUMNUM 34/ppb 19/.	FALUMIN 34/ppb 19/.	BARIUM 34/ppb 1.3/1000i	FBARIUM 34/ppb 1.3/1000i
299-E28-26	12/12/94	BODFX1	170.00 BL		33.00	
299-E28-26	12/12/94	BODFX5		26.00 U		32.00
299-E28-27	12/12/94	BODFX6	26.00 U		50.00	
299-E28-27	12/12/94	BODFY0		26.00 U		51.00
299-E28-28	12/12/94	BODFY1	26.00 U		43.00	
299-E28-28	12/12/94	BODFY5		26.00 U		42.00
299-E32-10	12/13/94	BODFY6	180.00 BL		26.00	
299-E32-10	12/13/94	BODFZ0		26.00 U		24.00
299-E32-2	12/13/94	BODFZ1	43.00 BL		42.00	
299-E32-2	12/13/94	BODFZ5		26.00 U		41.00
299-E32-3	12/13/94	BODFZ6	35.00 BL		53.00	
299-E32-3	12/13/94	BODG00		26.00 U		53.00
299-E32-4	12/13/94	BODG01	64.00 BL		93.00	
299-E32-4	12/13/94	BODG05		26.00 U		69.00
299-E32-5	12/13/94	BODFW6	39.00 BL		53.00	
299-E32-5	12/13/94	BODFX0		29.00 BL		55.00
299-E32-6	12/12/94	BODG06	26.00 U		38.00	
299-E32-6	12/12/94	BODG10		26.00 U		38.00
299-E32-7	12/12/94	BODG11	26.00 U		34.00	
299-E32-7	12/12/94	BODG15		26.00 U		34.00
299-E32-8	12/12/94	BODG16	30.00 BL		32.00	
299-E32-8	12/12/94	BODG20		26.00 U		30.00
299-E32-9	12/13/94	BODG21	38.00 BL		22.00	
299-E32-9	12/13/94	BODG25		26.00 U		21.00
299-E33-28	12/12/94	BODG26	56.00 BL		37.00	
299-E33-28	12/12/94	BODG30		26.00 U		37.00
299-E33-29	12/12/94	BODG31	26.00 U		40.00	
299-E33-29	12/12/94	BODG35		26.00 U		40.00
299-E33-30	12/14/94	BODG36	34.00 L		29.00	
299-E33-30	12/14/94	BODG40		27.00 L		29.00
299-E33-34	12/14/94	BODG41	26.00 U		29.00	
299-E33-34	12/14/94	BODG45		32.00 L		27.00
299-E33-35	12/12/94	BODG46	26.00 U		35.00	
299-E33-35	12/12/94	BODG50		26.00 U		35.00

Well Name	Collection Date	Sample Number	BROMIDE 124/ppb 110/.	CALCIUM 34/ppb 47/.	FCALCIU 34/ppb 47/.	CHLORID 124/ppb 71/250000s
299-E28-26	12/12/94	BODFX1	50.00 L	44000.00		6000.00
299-E28-26	12/12/94	BODFX5			43000.00	
299-E28-27	12/12/94	BODFX6	30.00 L	34000.00		11000.00 D
299-E28-27	12/12/94	BODFY0			35000.00	
299-E28-28	12/12/94	BODFY1	60.00 L	44000.00		6500.00
299-E28-28	12/12/94	BODFY5			43000.00	
299-E32-10	12/13/94	BODFY6	20.00 L	31000.00		9800.00 Dq
299-E32-10	12/13/94	BODFZ0			30000.00	
299-E32-2	12/13/94	BODFZ1	40.00 L	39000.00		11000.00 Dq
299-E32-2	12/13/94	BODFZ5			39000.00	
299-E32-3	12/13/94	BODFZ6	60.00 L	50000.00		9700.00 q
299-E32-3	12/13/94	BODG00			50000.00	
299-E32-4	12/13/94	BODG01	100.00 L	39000.00		9200.00 q
299-E32-4	12/13/94	BODG05			38000.00	
299-E32-5	12/13/94	BODFW6		54000.00		
299-E32-5	12/13/94	BODFX0			55000.00	

Table 14-13. Constituents with at Least One Detected Value for the Low-Level
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Well Name	Collection Date	Sample Number	BROMIDE 124/ppb 110/.	CALCIUM 34/ppb 47/.	FCALCIU 34/ppb 47/.	CHLORID 124/ppb 71/250000s
299-E32-6	12/12/94	BODG06	30.00 L	36000.00		12000.00 D
299-E32-6	12/12/94	BODG10			36000.00	
299-E32-7	12/12/94	BODG11	14.00 L	30000.00		19000.00 D
299-E32-7	12/12/94	BODG15			30000.00	
299-E32-8	12/12/94	BODG16	14.00 L	31000.00		20000.00 D
299-E32-8	12/12/94	BODG20			31000.00	
299-E32-9	12/13/94	BODG21	12.00 L	31000.00		19000.00 DQ
299-E32-9	12/13/94	BODG25			30000.00	
299-E33-28	12/12/94	BODG26	20.00 L	31000.00		18000.00 D
299-E33-28	12/12/94	BODG30			31000.00	
299-E33-29	12/12/94	BODG31	14.00 L	31000.00		22000.00 D
299-E33-29	12/12/94	BODG35			31000.00	
299-E33-30	12/14/94	BODG36	20.00 L	31000.00		22000.00 DQ
299-E33-30	12/14/94	BODG40			31000.00	
299-E33-34	12/14/94	BODG41	20.00 L	37000.00		6600.00 Q
299-E33-34	12/14/94	BODG45			36000.00	
299-E33-35	12/12/94	BODG46	20.00 L	31000.00		6200.00
299-E33-35	12/12/94	BODG50			31000.00	

Well Name	Collection Date	Sample Number	CHLFORM 25/ppb .05/.	CHROMUM 34/ppb 11/50i	FCHROMI 34/ppb 11/50i	COBALT 34/ppb 6.5/.
299-E28-26	12/12/94	BODFX1	.04 UX	140.00		5.90 U
299-E28-26	12/12/94	BODFX5			4.60 L	
299-E28-27	12/12/94	BODFX6	.04 UX	48.00		5.90 U
299-E28-27	12/12/94	BODFY0			6.70 L	
299-E28-28	12/12/94	BODFY1	.04 U	12.00 L		5.90 U
299-E28-28	12/12/94	BODFY5			4.50 U	
299-E32-10	12/13/94	BODFY6	.20 L	33.00		5.90 U
299-E32-10	12/13/94	BODFZ0			10.00 L	
299-E32-2	12/13/94	BODFZ1	.19 L	32.00		5.90 U
299-E32-2	12/13/94	BODFZ5			6.70 L	
299-E32-3	12/13/94	BODFZ6	.08 L	23.00		5.90 U
299-E32-3	12/13/94	BODG00			4.50 U	
299-E32-4	12/13/94	BODG01	.04 U	27.00		5.90 U
299-E32-4	12/13/94	BODG05			4.50 U	
299-E32-5	12/13/94	BODFW6	.04 U	49.00		5.90 U
299-E32-5	12/13/94	BODFX0			6.30 L	
299-E32-6	12/12/94	BODG06	.04 U	64.00		5.90 U
299-E32-6	12/12/94	BODG10			5.70 L	
299-E32-7	12/12/94	BODG11	.04 U	17.00 L		5.90 U
299-E32-7	12/12/94	BODG15			4.50 U	
299-E32-8	12/12/94	BODG16	.04 UX	42.00		5.90 U
299-E32-8	12/12/94	BODG20			5.30 L	
299-E32-9	12/13/94	BODG21	.63	100.00		5.90 U
299-E32-9	12/13/94	BODG25			5.70 L	
299-E33-28	12/12/94	BODG26	.89 X	23.00		5.90 U
299-E33-28	12/12/94	BODG30			4.50 U	
299-E33-29	12/12/94	BODG31	.88 X	23.00		5.90 U
299-E33-29	12/12/94	BODG35			4.50 U	
299-E33-30	12/14/94	BODG36	.49 L	55.00		5.90 U
299-E33-30	12/14/94	BODG40			5.70 L	
299-E33-34	12/14/94	BODG41	.20 L	24.00		5.90 U
299-E33-34	12/14/94	BODG45			9.10 L	

Table 14-13. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 1 Data for Reporting Period October 1 through December 31, 1994.
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Well Name	Collection Date	Sample Number	CHLFORM 25/ppb .05/.	CHROMIUM 34/ppb 11/50i	FCHROMI 34/ppb 11/50i	COBALT 34/ppb 6.5/.
299-E33-35	12/12/94	BODG46	.04 UX	27.00		5.90 U
299-E33-35	12/12/94	BODG50			6.00 L	

Well Name	Collection Date	Sample Number	FCOBALT 34/ppb 6.5/.	COPPER 34/ppb 2.6/1000s	FCOPPER 34/ppb 2.6/1000s	CYANIDE 358/ppb .94/.
299-E28-26	12/12/94	BODFX1		4.10 U		1.00 U
299-E28-26	12/12/94	BODFX5	5.90 U		4.10 U	
299-E28-27	12/12/94	BODFX6		9.00 L		1.00 U
299-E28-27	12/12/94	BODFY0	5.90 U		4.10 U	
299-E28-28	12/12/94	BODFY1		4.20 L		1.00 U
299-E28-28	12/12/94	BODFY5	5.90 U		4.10 U	
299-E32-10	12/13/94	BODFY6		4.20 L		1.00 U
299-E32-10	12/13/94	BODFZ0	5.90 U		5.30 L	
299-E32-2	12/13/94	BODFZ1		4.10 U		1.00 U
299-E32-2	12/13/94	BODFZ5	5.90 U		4.10 U	
299-E32-3	12/13/94	BODFZ6		4.10 U		1.00 U
299-E32-3	12/13/94	BODG00	5.90 U		4.10 U	
299-E32-4	12/13/94	BODG01		4.10 U		1.00 U
299-E32-4	12/13/94	BODG05	5.90 U		4.10 U	
299-E32-5	12/13/94	BODFW6		4.10 U		1.00 U
299-E32-5	12/13/94	BODFX0	5.90 U		7.40 L	
299-E32-6	12/12/94	BODG06		6.90 L		1.00 L
299-E32-6	12/12/94	BODG10	5.90 U		4.10 U	
299-E32-7	12/12/94	BODG11		5.30 L		1.00 U
299-E32-7	12/12/94	BODG15	5.90 U		4.10 U	
299-E32-8	12/12/94	BODG16		6.30 L		1.00 U
299-E32-8	12/12/94	BODG20	5.90 U		4.20 L	
299-E32-9	12/13/94	BODG21		8.40 L		1.00 U
299-E32-9	12/13/94	BODG25	5.90 U		4.10 U	
299-E33-28	12/12/94	BODG26		6.90 L		1.00 U
299-E33-28	12/12/94	BODG30	5.90 U		4.10 U	
299-E33-29	12/12/94	BODG31		4.10 U		1.00 U
299-E33-29	12/12/94	BODG35	5.90 U		4.10 U	
299-E33-30	12/14/94	BODG36		4.10 U		1.00 L
299-E33-30	12/14/94	BODG40	5.90 U		4.10 U	
299-E33-34	12/14/94	BODG41		4.10 U		10.00 L
299-E33-34	12/14/94	BODG45	6.80 L		4.10 U	
299-E33-35	12/12/94	BODG46		4.70 L		1.00 U
299-E33-35	12/12/94	BODG50	5.90 U		6.90 L	

Well Name	Collection Date	Sample Number	FLUORID 124/ppb 51/1400i	ALPHA 135/pCi/L ./15	BETA 136/pCi/L ./.	IRON 34/ppb 18/300s
299-E28-26	12/12/94	BODFX1	400.00	7.91	10.50	860.00 BQ
299-E28-27	12/12/94	BODFX6	600.00	7.74	13.30	210.00 BQ
299-E28-28	12/12/94	BODFY1	500.00	11.70	9.19	61.00 BQ
299-E32-10	12/13/94	BODFY6	500.00	1.99	34.90	460.00 BQ
299-E32-2	12/13/94	BODFZ1	800.00	6.90	13.50	140.00 BQ
299-E32-3	12/13/94	BODFZ6	800.00	11.80	12.60	86.00 BQ
299-E32-4	12/13/94	BODG01	900.00	1.38	11.60	6400.00 BQ

Table 14-13. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 1 Data for Reporting Period October 1 through December 31, 1994.
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Well Name	Collection Date	Sample Number	FLUORID 124/ppb 51/1400i	ALPHA 135/pCi/L ./15	BETA 136/pCi/L ./.	IRON 34/ppb 18/300s
299-E32-5	12/13/94	BODFW6				200.00 BQ
299-E32-6	12/12/94	BODG06	600.00	6.50	11.40	260.00 BQ
299-E32-7	12/12/94	BODG11	500.00	.80 U	17.30	140.00 BQ
299-E32-8	12/12/94	BODG16	400.00	.50 U	13.30	1200.00 BQ
299-E32-9	12/13/94	BODG21	500.00	.84 U	16.30	450.00 BQ
299-E33-28	12/12/94	BODG26	400.00	.98 U	21.70	210.00 BQ
299-E33-29	12/12/94	BODG31	500.00	2.98	20.60	130.00 BQ
299-E33-30	12/14/94	BODG36	500.00	1.32	20.70	250.00 BQ
299-E33-34	12/14/94	BODG41	500.00	8.35	209.00	100.00 BQ
299-E33-35	12/12/94	BODG46	400.00	1.16	65.30	140.00 BQ

Well Name	Collection Date	Sample Number	FIRON 34/ppb 18/300s	LEAD 40/ppb .86/50i	FLEAD 40/ppb .86/50i	MAGNES 34/ppb 25/.
299-E28-26	12/12/94	BODFX1		1.70 L		12000.00
299-E28-26	12/12/94	BODFX5	72.00 BQ		1.50 U	
299-E28-27	12/12/94	BODFX6		1.50 U		11000.00
299-E28-27	12/12/94	BODFY0	29.00 BQ		1.60 L	
299-E28-28	12/12/94	BODFY1		3.20 L		12000.00
299-E28-28	12/12/94	BODFY5	17.00 BLQ		1.50 U	
299-E32-10	12/13/94	BODFY6		2.60 BL		9300.00
299-E32-10	12/13/94	BODFZ0	61.00 BQ		1.60 BL	
299-E32-2	12/13/94	BODFZ1		1.50 U		11000.00
299-E32-2	12/13/94	BODFZ5	25.00 BQ		1.50 U	
299-E32-3	12/13/94	BODFZ6		1.90 BL		14000.00
299-E32-3	12/13/94	BODG00	25.00 BQ		1.50 U	
299-E32-4	12/13/94	BODG01		6.00 B		13000.00
299-E32-4	12/13/94	BODG05	98.00 BQ		1.50 U	
299-E32-5	12/13/94	BODFW6		1.50 U		15000.00
299-E32-5	12/13/94	BODFX0	33.00 BQ		1.50 U	
299-E32-6	12/12/94	BODG06		1.60 L		11000.00
299-E32-6	12/12/94	BODG10	19.00 BLQ		1.50 U	
299-E32-7	12/12/94	BODG11		1.50 U		9400.00
299-E32-7	12/12/94	BODG15	25.00 BQ		1.50 U	
299-E32-8	12/12/94	BODG16		2.80 L		9700.00
299-E32-8	12/12/94	BODG20	93.00 BQ		1.50 U	
299-E32-9	12/13/94	BODG21		1.50 U		9600.00
299-E32-9	12/13/94	BODG25	26.00 BQ		1.50 U	
299-E33-28	12/12/94	BODG26		7.70		9300.00
299-E33-28	12/12/94	BODG30	24.00 BQ		2.30 L	
299-E33-29	12/12/94	BODG31		1.50 U		9800.00
299-E33-29	12/12/94	BODG35	25.00 B		1.50 L	
299-E33-30	12/14/94	BODG36		2.00 L		9600.00
299-E33-30	12/14/94	BODG40	24.00 BQ		1.50 U	
299-E33-34	12/14/94	BODG41		1.80 L		11000.00
299-E33-34	12/14/94	BODG45	30.00 BQ		1.90 L	
299-E33-35	12/12/94	BODG46		7.20		9400.00
299-E33-35	12/12/94	BODG50	35.00 BQ		1.50 U	

Table 14-13. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 1 Data for Reporting Period October 1 through December 31, 1994.
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Well Name	Collection Date	Sample Number	FMAGNES 34/ppb 25/.	MANGESE 34/ppb 1/50s	FMANGAN 34/ppb 1/50s	MERCURY 41/ppb .095/2
299-E28-26	12/12/94	B0DFX1		16.00		.05 UQ
299-E28-26	12/12/94	B0DFX5	11000.00		2.10 L	
299-E28-27	12/12/94	B0DFX6		5.30 L		.05 UQ
299-E28-27	12/12/94	B0DFY0	11000.00		2.20 L	
299-E28-28	12/12/94	B0DFY1		3.60 L		.05 UQ
299-E28-28	12/12/94	B0DFY5	12000.00		3.30 L	
299-E32-10	12/13/94	B0DFY6		9.50 L		.10 BLQ
299-E32-10	12/13/94	B0DFZ0	9200.00		5.90 L	
299-E32-2	12/13/94	B0DFZ1		2.60 L		.13 BLQ
299-E32-2	12/13/94	B0DFZ5	11000.00		1.40 L	
299-E32-3	12/13/94	B0DFZ6		1.50 L		.09 BLQ
299-E32-3	12/13/94	B0DG00	14000.00		1.60 L	
299-E32-4	12/13/94	B0DG01		17.00		.11 BLQ
299-E32-4	12/13/94	B0DG05	12000.00		2.80 L	
299-E32-5	12/13/94	B0DFW6		3.90 L		.24 BQ
299-E32-5	12/13/94	B0DFX0	15000.00		1.40 L	
299-E32-6	12/12/94	B0DG06		6.60 L		.05 UQ
299-E32-6	12/12/94	B0DG10	11000.00		1.80 L	
299-E32-7	12/12/94	B0DG11		3.50 L		.05 UQ
299-E32-7	12/12/94	B0DG15	9400.00		2.60 L	
299-E32-8	12/12/94	B0DG16		8.80 L		.05 UQ
299-E32-8	12/12/94	B0DG20	9700.00		2.90 L	
299-E32-9	12/13/94	B0DG21		12.00		.11 BLQ
299-E32-9	12/13/94	B0DG25	9500.00		4.00 L	
299-E33-28	12/12/94	B0DG26		5.20 L		.05 UQ
299-E33-28	12/12/94	B0DG30	9300.00		1.30 L	
299-E33-29	12/12/94	B0DG31		3.50 L		.05 UQ
299-E33-29	12/12/94	B0DG35	9900.00		1.30 L	
299-E33-30	12/14/94	B0DG36		5.30 L		.11 BLQ
299-E33-30	12/14/94	B0DG40	9800.00		1.30 L	
299-E33-34	12/14/94	B0DG41		2.10 L		.13 BLQ
299-E33-34	12/14/94	B0DG45	11000.00		.95 L	
299-E33-35	12/12/94	B0DG46		3.70 L		.05 UQ
299-E33-35	12/12/94	B0DG50	9500.00		2.80 L	

Table 14-13. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 1 Data for Reporting Period October 1 through December 31, 1994.
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Well Name	Collection Date	Sample Number	FMERCUR 41/ppb .095/2	NICKEL 34/ppb 16/.	FNICKEL 34/ppb 16/.	NITRATE 124/ppb 96/45000
299-E28-26	12/12/94	BODFX1		64.00		31000.00 D
299-E28-26	12/12/94	BODFX5	.05 UQ		13.00 U	
299-E28-27	12/12/94	BODFX6		32.00		19000.00 D
299-E28-27	12/12/94	BODFY0	.05 UQ		13.00 U	
299-E28-28	12/12/94	BODFY1		13.00 U		32000.00 D
299-E28-28	12/12/94	BODFY5	.05 UQ		13.00 U	
299-E32-10	12/13/94	BODFY6		19.00 L		9500.00 q
299-E32-10	12/13/94	BODFZ0	.11 BLQ		13.00 U	
299-E32-2	12/13/94	BODFZ1		15.00 L		25000.00 DQ
299-E32-2	12/13/94	BODFZ5	.10 BLQ		13.00 U	
299-E32-3	12/13/94	BODFZ6		13.00 U		38000.00 DQ
299-E32-3	12/13/94	BODG00	.11 BLQ		13.00 L	
299-E32-4	12/13/94	BODG01		13.00 U		27000.00 DQ
299-E32-4	12/13/94	BODG05	.10 BLQ		13.00 U	
299-E32-5	12/13/94	BODFW6		34.00		
299-E32-5	12/13/94	BODFX0	.06 BLQ		13.00 U	
299-E32-6	12/12/94	BODG06		27.00 L		20000.00 D
299-E32-6	12/12/94	BODG10	.05 UQ		13.00 U	
299-E32-7	12/12/94	BODG11		13.00 U		9000.00
299-E32-7	12/12/94	BODG15	.05 UQ		13.00 U	
299-E32-8	12/12/94	BODG16		17.00 L		4700.00
299-E32-8	12/12/94	BODG20	.05 UQ		13.00 U	
299-E32-9	12/13/94	BODG21		42.00		4200.00 q
299-E32-9	12/13/94	BODG25	.10 BLQ		13.00 U	
299-E33-28	12/12/94	BODG26		13.00 U		4600.00
299-E33-28	12/12/94	BODG30	.06 LQ		13.00 U	
299-E33-29	12/12/94	BODG31		15.00 L		8400.00
299-E33-29	12/12/94	BODG35	.05 UQ		13.00 U	
299-E33-30	12/14/94	BODG36		30.00		7000.00 q
299-E33-30	12/14/94	BODG40	.10 BLQ		13.00 U	
299-E33-34	12/14/94	BODG41		13.00 U		40000.00 DQ
299-E33-34	12/14/94	BODG45	.10 BLQ		13.00 U	
299-E33-35	12/12/94	BODG46		13.00 U		17000.00 D
299-E33-35	12/12/94	BODG50	.05 UQ		13.00 U	

Well Name	Collection Date	Sample Number	POTASUM 34/ppb 890/.	FPOTASS 34/ppb 890/.	RADIUM 137/pCi/L ./5i	SODIUM 34/ppb 150/.
299-E28-26	12/12/94	BODFX1	5600.00		.02 U	19000.00 q
299-E28-26	12/12/94	BODFX5		4900.00		
299-E28-27	12/12/94	BODFX6	5900.00		-.04 U	25000.00 q
299-E28-27	12/12/94	BODFY0		850.00 UF		
299-E28-28	12/12/94	BODFY1	5200.00		.01 U	20000.00 q
299-E28-28	12/12/94	BODFY5		5100.00		
299-E32-10	12/13/94	BODFY6	5100.00		.00 U	15000.00 q
299-E32-10	12/13/94	BODFZ0		5100.00		
299-E32-2	12/13/94	BODFZ1	5700.00		.08 U	25000.00 q
299-E32-2	12/13/94	BODFZ5		5900.00		
299-E32-3	12/13/94	BODFZ6	5600.00		.16	25000.00 q
299-E32-3	12/13/94	BODG00		5100.00		
299-E32-4	12/13/94	BODG01	6300.00		.10 U	26000.00 q
299-E32-4	12/13/94	BODG05		6900.00		
299-E32-5	12/13/94	BODFW6	6200.00		.06 U	26000.00 q
299-E32-5	12/13/94	BODFX0		5600.00		

Table 14-13. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 1 Data for Reporting Period October 1 through December 31, 1994.
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Well Name	Collection Date	Sample Number	POTASSIUM 34/ppb 890/.	FPOTASS 34/ppb 890/.	RADIUM 137/pCi/L ./5i	SODIUM 34/ppb 150/.
299-E32-6	12/12/94	B0DG06	6000.00		.04 U	24000.00 q
299-E32-6	12/12/94	B0DG10		6500.00		
299-E32-7	12/12/94	B0DG11	5500.00		.04 U	24000.00 q
299-E32-7	12/12/94	B0DG15		5500.00		
299-E32-8	12/12/94	B0DG16	5600.00		.07 U	20000.00 q
299-E32-8	12/12/94	B0DG20		5600.00		
299-E32-9	12/13/94	B0DG21	5600.00		-.05 U	19000.00 q
299-E32-9	12/13/94	B0DG25		5400.00		
299-E33-28	12/12/94	B0DG26	5500.00		.28	19000.00 q
299-E33-28	12/12/94	B0DG30		5800.00		
299-E33-29	12/12/94	B0DG31	6400.00		-.01 U	21000.00 q
299-E33-29	12/12/94	B0DG35		5900.00		
299-E33-30	12/14/94	B0DG36	6700.00		-.04 U	22000.00 q
299-E33-30	12/14/94	B0DG40		6500.00		
299-E33-34	12/14/94	B0DG41	6100.00		.01 U	21000.00 q
299-E33-34	12/14/94	B0DG45		5500.00		
299-E33-35	12/12/94	B0DG46	5400.00		.07 U	15000.00 q
299-E33-35	12/12/94	B0DG50		5400.00		

Well Name	Collection Date	Sample Number	FSODIUM 34/ppb 150/.	SULFATE 124/ppb 89/250000s	TRITIUM 142/pCi/L ./20000	TURBID 126/NTU ./016/.
299-E28-26	12/12/94	B0DFX1		50000.00 D	10200.00	5.40 q
299-E28-26	12/12/94	B0DFX5	19000.00 q			
299-E28-27	12/12/94	B0DFX6		48000.00 D	42400.00	1.20 q
299-E28-27	12/12/94	B0DFY0	25000.00 q			
299-E28-28	12/12/94	B0DFY1		52000.00 D	10300.00	1.20 q
299-E28-28	12/12/94	B0DFY5	20000.00 q			
299-E32-10	12/13/94	B0DFY6		28000.00 D	1700.00	3.10 q
299-E32-10	12/13/94	B0DFZ0	15000.00 q			
299-E32-2	12/13/94	B0DFZ1		54000.00 D	36400.00	.64 q
299-E32-2	12/13/94	B0DFZ5	24000.00 q			
299-E32-3	12/13/94	B0DFZ6		79000.00 D	35800.00	1.10 q
299-E32-3	12/13/94	B0DG00	25000.00 q			
299-E32-4	10/11/94	B0D388			582.00	91.00 q
299-E32-4	12/13/94	B0DG01		45000.00 D	292.00	62.00 q
299-E32-4	12/13/94	B0DG05	25000.00 q			
299-E32-5	12/13/94	B0DFW6				1.10 q
299-E32-5	12/13/94	B0DFX0	26000.00 q			
299-E32-6	12/12/94	B0DG06		47000.00 D	33100.00	1.20 q
299-E32-6	12/12/94	B0DG10	24000.00 q			
299-E32-7	12/12/94	B0DG11		32000.00 D	12500.00	2.40 q
299-E32-7	12/12/94	B0DG15	24000.00 q			
299-E32-8	12/12/94	B0DG16		29000.00 D	1660.00	6.30 q
299-E32-8	12/12/94	B0DG20	20000.00 q			
299-E32-9	12/13/94	B0DG21		28000.00 D	1680.00	1.20 q
299-E32-9	12/13/94	B0DG25	18000.00 q			
299-E33-28	12/12/94	B0DG26		29000.00 D	1530.00	2.20 q
299-E33-28	12/12/94	B0DG30	19000.00 q			
299-E33-29	12/12/94	B0DG31		30000.00 D	1630.00	1.20 q
299-E33-29	12/12/94	B0DG35	22000.00			
299-E33-30	12/14/94	B0DG36		30000.00 D	2610.00	1.10 q
299-E33-30	12/14/94	B0DG40	22000.00 q			

Table 14-13. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 1 Data for Reporting Period October 1 through December 31, 1994.
(sheet 8 of 9)

Well Name	Collection Date	Sample Number	FSODIUM 34/ppb 150/.	SULFATE 124/ppb 89/250000s	TRITIUM 142/pCi/L ./20000	TURBID 126/NTU .016/.
299-E33-34	12/14/94	B0DG41		32000.00 D	5740.00	.52 q
299-E33-34	12/14/94	B0DG45	20000.00 q			
299-E33-35	12/12/94	B0DG46		24000.00 D	2280.00	1.40 q
299-E33-35	12/12/94	B0DG50	15000.00 q			

Well Name	Collection Date	Sample Number	URANIUM 145/ppb ./.	VANADIUM 34/ppb 6.4/.	FVANADI 34/ppb 6.4/.	ZINC 34/ppb 4.4/5000s
299-E28-26	12/12/94	B0DFX1	16.10	19.00 L		6.30 L
299-E28-26	12/12/94	B0DFX5			15.00 L	
299-E28-27	12/12/94	B0DFX6	10.70	21.00 L		7.10 L
299-E28-27	12/12/94	B0DFY0			19.00 L	
299-E28-28	12/12/94	B0DFY1	15.50	17.00 L		6.30 U
299-E28-28	12/12/94	B0DFY5			16.00 L	
299-E32-10	12/13/94	B0DFY6	2.31	20.00 L		6.30 U
299-E32-10	12/13/94	B0DFZ0			20.00 L	
299-E32-2	12/13/94	B0DFZ1	14.40	18.00 L		6.30 U
299-E32-2	12/13/94	B0DFZ5			19.00 L	
299-E32-3	12/13/94	B0DFZ6	18.50	18.00 L		6.30 U
299-E32-3	12/13/94	B0DG00			16.00 L	
299-E32-4	12/13/94	B0DG01	2.99	39.00		6.30 U
299-E32-4	12/13/94	B0DG05			19.00 L	
299-E32-5	12/13/94	B0DFW6	23.40	20.00 L		6.30 U
299-E32-5	12/13/94	B0DFX0			16.00 L	
299-E32-6	12/12/94	B0DG06	12.30	19.00 L		6.30 U
299-E32-6	12/12/94	B0DG10			20.00 L	
299-E32-7	12/12/94	B0DG11	4.54	20.00 L		6.30 U
299-E32-7	12/12/94	B0DG15			19.00 L	
299-E32-8	12/12/94	B0DG16	2.05	23.00 L		6.30 U
299-E32-8	12/12/94	B0DG20			19.00 L	
299-E32-9	12/13/94	B0DG21	1.91	21.00 L		6.30 U
299-E32-9	12/13/94	B0DG25			19.00 L	
299-E33-28	12/12/94	B0DG26	2.35	19.00 L		6.60 L
299-E33-28	12/12/94	B0DG30			21.00 L	
299-E33-29	12/12/94	B0DG31	2.15	22.00 L		6.30 U
299-E33-29	12/12/94	B0DG35			20.00 L	
299-E33-30	12/14/94	B0DG36	2.62	22.00 L		6.30 U
299-E33-30	12/14/94	B0DG40			22.00 L	
299-E33-34	12/14/94	B0DG41	8.87	23.00 L		6.30 U
299-E33-34	12/14/94	B0DG45			20.00 L	
299-E33-35	12/12/94	B0DG46	2.09	18.00 L		6.30 U
299-E33-35	12/12/94	B0DG50			17.00 L	

Table 14-13. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 1 Data for Reporting Period October 1 through December 31, 1994.
(sheet 9 of 9)

Well Name	Collection Date	Sample Number	FZINC 34/ppb 4.4/5000s
299-E28-26	12/12/94	B0DFX5	6.30 U
299-E28-27	12/12/94	B0DFY0	6.30 U
299-E28-28	12/12/94	B0DFY5	6.30 U
299-E32-10	12/13/94	B0DFZ0	6.30 U
299-E32-2	12/13/94	B0DFZ5	6.30 U
299-E32-3	12/13/94	B0DG00	6.30 U
299-E32-4	12/13/94	B0DG05	6.30 U
299-E32-5	12/13/94	B0DFX0	6.30 U
299-E32-6	12/12/94	B0DG10	6.30 U
299-E32-7	12/12/94	B0DG15	6.30 U
299-E32-8	12/12/94	B0DG20	6.30 U
299-E32-9	12/13/94	B0DG25	6.30 U
299-E33-28	12/12/94	B0DG30	6.30 U
299-E33-29	12/12/94	B0DG35	6.30 U
299-E33-30	12/14/94	B0DG40	6.30 U
299-E33-34	12/14/94	B0DG45	6.30 U
299-E33-35	12/12/94	B0DG50	6.30 U

For explanation of this table, see Section 1.4 of report.

Table 14-14. Contamination Indicator Parameters for the Low-Level
Waste Management Area 1 Data for Reporting Period
October 1 through December 31, 1994.
(sheet 1 of 2)

Well Name	Collection Date	Sample Number	COND FIELD	COND LAB	pH FIELD		pH LAB	TOC	TOX
			uMho 1/.	uMho 1/.	.01/6.5-8.5s	.01/6.5-8.5s		ppb 110/.	ppb 5/.
299-E28-26	12/12/94	BODFX1	409		8.03		8.20	300 L	14.6
		BODFX2	407		8.02			300 L	6.5
		BODFX3	407		8.00			300 L	5.0 U
		BODFX4	405		7.98			300 L	5.0 U
299-E28-27	12/12/94	BODFX6	393		7.51		8.30	300 L	5.0 U
		BODFX7	395		7.51			200 L	6.5
		BODFX8	395		7.50			200 L	5.0 U
		BODFX9	396		7.48			300 L	5.0 U
299-E28-28	12/12/94	BODFY1	423		8.23		8.20	300 L	6.7
		BODFY2	422		8.24			300 L	5.0 U
		BODFY3	420		8.21			300 L	5.0 U
		BODFY4	421		8.19			300 L	5.0 U
299-E32-10	12/13/94	BODFY6	299		7.99		8.30	300 L	5.3
		BODFY7	298		8.04			400 L	5.8
		BODFY8	297		8.01			400 L	5.0 U
		BODFY9	299		8.00			400 L	13.2
299-E32-2	12/13/94	BODFZ1	418		7.85		8.20	200 L	5.4
		BODFZ2	417		7.86			200 L	5.0 U
		BODFZ3	417		7.82			200 L	5.0 U
		BODFZ4	416		7.81			300 L	5.0 U
299-E32-3	12/13/94	BODFZ6	499		7.45		8.30	200 L	5.0 U
		BODFZ7	499		7.44			200 L	5.0 U
		BODFZ8	499		7.43			200 L	5.0 U
		BODFZ9	498		7.42			200 L	5.0 U
299-E32-4	10/11/94	BOD388	413		7.52		8.00	200 LB	5.0 U
		BOD389	413		7.54			150 LB	5.0 U
		BOD390	412		7.53			200 LB	5.0 U
		BOD391	412		7.54			200 LB	5.8
	12/13/94	BODG01	420		7.71		8.30	140 L	5.0 U
		BODG02	421		7.69			110 U	5.0 U
		BODG03	422		7.71			110 U	5.0 U
		BODG04	423		7.72			130 L	5.0 U
299-E32-5	12/13/94	BODFW6	525		7.60		8.20	130 L	5.0 U
		BODFW7	532		7.60			300 L	5.0 U
		BODFW8	531		7.61			200 L	
		BODFW9	531		7.60			200 L	5.0 U
299-E32-6	12/12/94	BODG06	403		8.26		8.30	300 L	5.0 U
		BODG07	403		8.26			200 L	5.0 U
		BODG08	401		8.26			400 L	5.0 U
		BODG09	401		8.24			300 L	5.0 U
299-E32-7	12/12/94	BODG11	354		8.35		8.30	300 L	5.0 U
		BODG12	355		8.35			300 L	6.1
		BODG13	354		8.34			300 L	5.3

Table 14-14. Contamination Indicator Parameters for the Low-Level
Waste Management Area 1 Data for Reporting Period
October 1 through December 31, 1994.
(sheet 2 of 2)

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-E32-7	12/12/94	BODG14	352		8.32		400 L	11.3
299-E32-8	12/12/94	BODG16	342		8.51	8.30	500 L	7.5
		BODG17	340		8.50		300 L	37.8 F
		BODG18	340		8.48		300 L	5.0 U
		BODG19	341		8.52		300 L	5.0 U
		BODG20						5.0 U
299-E32-9	12/13/94	BODG21	326		7.58	8.30	300 L	5.0 U
		BODG22	325		7.60		300 L	6.5
		BODG23	323		7.65		300 L	5.5
		BODG24	321		7.67		400 L	5.9
299-E33-28	12/12/94	BODG26	330		7.78	8.30	500 L	7.3
		BODG27	332		7.77		300 L	5.0 U
		BODG28	332		7.77		300 L	11.0
		BODG29	332		7.78		400 L	6.3
299-E33-29	12/12/94	BODG31	352		7.67	8.30	300 L	5.0 U
		BODG32	351		7.65		300 L	5.7
		BODG33	351		7.63		300 L	5.0 U
		BODG34	350		7.62		300 L	7.2
299-E33-30	12/14/94	BODG36	338		8.22	8.10	300 L	5.0 U
		BODG37	338		8.22		400 L	5.9
		BODG38	338		8.22		300 L	5.0 U
		BODG39	337		8.23		300 L	5.0 U
299-E33-34	12/14/94	BODG41	438		7.10	8.10	200 L	5.0 U
		BODG42	423		7.11		300 L	5.0 U
		BODG43	420		7.10		300 L	5.0 U
		BODG44	416		7.10		300 L	5.0 U
299-E33-35	12/12/94	BODG46	318		7.56	8.30	300 L	5.0 U
		BODG47	318		7.57		300 L	6.6
		BODG48	318		7.57		200 L	5.0 U
		BODG49	318		7.57		300 L	5.0 U

For explanation of this table, see Section 1.4 of report.

Table 14-15. Constituent List and Summary of Results for the Low-Level
Waste Management Area 2 Data for Reporting Period
October 1 through December 31, 1994.
(sheet 1 of 3)

CONTAMINATION INDICATOR PARAMETERS

Short	(Method)	Constituent Name		Units	Lab		DWS		Number of Samples		
		Full			MDL	Limit	Agency		Total	>MDL	>DWS
CONDUCT	94	Conductivity, field	umhos		1				52	52	
CONDUCT	73	Conductivity, lab	umhos						5	5	
TOC		Total Organic Carbon	ppb		110				56	56	
TOX		Total Organic Halogen	ppb		5				56	20	
PH	93	pH, field	pH		.01	6.5-8.5	EPAS		52	52	4
PH	125	pH, lab	pH			6.5-8.5	EPAS		14	14	0

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name		Units	Lab		DWS		Number of Samples		
		Full			MDL	Limit	Agency		Total	>MDL	>DWS
BARIUM		Barium	ppb		.59	1000	EPAI		14	14	0
FBARIUM		Barium, filtered	ppb		.59	1000	EPAI		14	14	0
CADMIUM		Cadmium	ppb		3.3	10	EPAI		14	0	0
FCADMIU		Cadmium, filtered	ppb		3.3	10	EPAI		14	0	0
CHROMIUM		Chromium	ppb		4.5	50	EPAI		14	13	3
FCHROMI		Chromium, filtered	ppb		4.5	50	EPAI		14	8	0
FLUORID		Fluoride	ppb		36	1400	EPAI		14	14	0
ALPHA		Gross alpha	pCi/L			15	EPA		14	11	0
MERCURY		Mercury	ppb		.05	2	EPA		14	5	0
FMERCUR		Mercury, filtered	ppb		.05	2	EPA		14	7	0
NITRATE		Nitrate	ppb		11	45000	EPA		14	14	0
RADIUM		Radium	pCi/L			5	EPAI		14	2	0

GROUNDWATER QUALITY PARAMETERS

Short	(Method)	Constituent Name		Units	Lab		DWS		Number of Samples		
		Full			MDL	Limit	Agency		Total	>MDL	>DWS
CHLORID		Chloride	ppb		14	250000	EPAS		14	14	0
IRON		Iron	ppb		5.24	300	EPAS		14	14	5
FIRON		Iron, filtered	ppb		5.24	300	EPAS		14	14	0
MANGESE		Manganese	ppb		.72	50	EPAS		14	14	0
FMANGAN		Manganese, filtered	ppb		.72	50	EPAS		14	14	0
LPHENOL	19	Phenol	ppb		.54				14	0	
LPHENOL	30	Phenol	ppb		.31				14	0	
SODIUM		Sodium	ppb		61				14	14	
FSODIUM		Sodium, filtered	ppb		61				14	14	
SULFATE		Sulfate	ppb		37	250000	EPAS		14	14	0

Table 14-15. Constituent List and Summary of Results for the Low-Level
Waste Management Area 2 Data for Reporting Period
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(sheet 2 of 3)

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name	Full	Units	Lab MDL	DWS Limit	Agency	Number of Samples		
								Total	>MDL	>DWS
1,1,1-T		1,1,1-Trichloroethane		ppb	.036	200	EPA	14	3	0
1,1,2-T		1,1,2-Trichloroethane		ppb	.078			14	0	
1,1-DIC		1,1-Dichloroethane		ppb	.058			14	0	
1,2-DIC		1,2-Dichloroethane		ppb	.029	5	EPA	14	0	0
14-dben		1,4-Dichlorobenzene		ppb	.055	75	EPA	14	0	0
246-trp		2,4,6-Trichlorophenol		ppb	1.3			14	0	
24-dchp	19	2,4-Dichlorophenol		ppb	4			14	0	
24-dchp	30	2,4-Dichlorophenol		ppb	1.3			14	0	
DIMPHEN		2,4-Dimethylphenol		ppb	1.2			14	0	
DINPHEN		2,4-Dinitrophenol		ppb	3			14	0	
26-dchp		2,6-Dichlorophenol		ppb	1.4			14	0	
CHLPHEN		2-Chlorophenol		ppb	1.6			14	0	
2METHPH		2-Methylphenol		ppb	5.1			14	0	
2NITPH	19	2-Nitrophenol		ppb	1.9			14	0	
2NITPH	30	2-Nitrophenol		ppb	1.3			14	0	
BUTDINP		2-sec-Butyl-4,6-dinitrophenol (DN		ppb	1.3			13	0	
46DN2MP		4,6-Dinitro-2-methylphenol		ppb	1.3			14	0	
CHLCRES		4-Chloro-3-methylphenol		ppb	1.3			14	0	
4METHPH		4-Methylphenol		ppb	7			14	0	
NITPHEN		4-Nitrophenol		ppb	3			14	0	
ALUMNUM		Aluminum		ppb	26			14	9	
FALUMIN		Aluminum, filtered		ppb	26			14	2	
ANTIONY		Antimony		ppb	62			14	0	
FANTIMO		Antimony, filtered		ppb	62			14	0	
AR1016		Aroclor-1016		ppb	.072			14	0	
AR1221		Aroclor-1221		ppb	.052			14	0	
AR1232		Aroclor-1232		ppb	.093			14	0	
AR1242		Aroclor-1242		ppb	.068			14	0	
AR1248		Aroclor-1248		ppb	.055			14	0	
AR1254		Aroclor-1254		ppb	.031			14	0	
AR1260		Aroclor-1260		ppb	.058			14	0	
BENZENE		Benzene		ppb	.013	5	EPA	14	0	0
BENZOTH		Benzothiazole		ppb	1.3			14	0	
BERYLUM		Beryllium		ppb	.17			14	4	
FBERYLL		Beryllium, filtered		ppb	.17			14	6	
BIS2EPH		Bis(2-ethylhexyl) phthalate		ppb	5.3			14	0	
BROMIDE		Bromide		ppb	100			14	1	
CALCIUM		Calcium		ppb	34			14	14	
FCALCIU		Calcium, filtered		ppb	34			14	14	
TETRANE		Carbon tetrachloride		ppb	.075	5	EPA	14	2	0
CHLFORM		Chloroform		ppb	.041			14	3	
COBALT		Cobalt		ppb	5.9			14	1	
FCOBALT		Cobalt, filtered		ppb	5.9			14	2	

Table 14-15. Constituent List and Summary of Results for the Low-Level
Waste Management Area 2 Data for Reporting Period
October 1 through December 31, 1994.
(sheet 3 of 3)

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
COPPER		Copper	ppb	4.1	1000		EPAS	14	7	0
FCOPPER		Copper, filtered	ppb	4.1	1000		EPAS	14	2	0
CRESOLS		Cresols (methylphenols)	ppb	4.8				14	0	
CYANIDE		Cyanide	ppb	1				14	0	
DECANE		Decane	ppb	1.9				14	0	
DODECAN		Dodecane	ppb	1.1				14	0	
ETHBENZ		Ethylbenzene	ppb	.051	700		EPA	14	0	0
BETA		Gross beta	pCi/L					14	14	
I-129L		Iodine-129, Low level	pCi/L		1		EPA	5	5	5
LEAD		Lead	ppb	1.5	50		EPAI	14	11	0
FLEAD		Lead, filtered	ppb	1.5	50		EPAI	14	7	0
MAGNES		Magnesium	ppb	23				14	14	
FMAGNES		Magnesium, filtered	ppb	23				14	14	
METHYCH		Methylene chloride	ppb	.09				14	0	
NAPHTHA		Naphthalene	ppb	1.2				14	0	
NICKEL		Nickel	ppb	13				14	11	
FNICKEL		Nickel, filtered	ppb	13				14	2	
NITRITE		Nitrite	ppb	18	1000		EPA	14	0	0
PENTCHP	19	Pentachlorophenol	ppb	8.3	1		EPA	14	0	14*
PENTCHP	30	Pentachlorophenol	ppb	1.3	1		EPA	14	0	14*
PHOSPHA		Phosphate	ppb	82				14	0	
POTASUM		Potassium	ppb	850				14	14	
FPOTASS		Potassium, filtered	ppb	850				14	14	
SILVER		Silver	ppb	3.6	50		EPAI	14	0	0
FSILVER		Silver, filtered	ppb	3.6	50		EPAI	14	0	0
PERCENE		Tetrachloroethene	ppb	.22	5		EPA	14	0	0
TETPHNL		Tetrachlorophenols	ppb	1.5				14	0	
TETRADE		Tetradecane	ppb	1.6				14	0	
TIN		Tin	ppb	69				14	0	
FTIN		Tin, filtered	ppb	69				14	0	
TOLUENE		Toluene	ppb	.016	1000		EPA	14	0	0
TRIBUTPH		Tributyl Phosphate	ppb	1.1				14	0	
TRICENE		Trichloroethene	ppb	.11	5		EPA	14	0	0
TRIPHNL		Trichlorophenols	ppb	1.7				14	0	
TDICHPH		Tris-2-chloroethyl phosphate	ppb	.61				14	0	
TRITIUM		Tritium	pCi/L		20000		EPA	14	12	0
TURBID		Turbidity	NTU	.016				14	14	
URANIUM		Uranium	ppb					14	14	
VANADUM		Vanadium	ppb	6.6				14	14	
FVANADI		Vanadium, filtered	ppb	6.6				14	14	
VINYIDE		Vinyl chloride	ppb	.13	2		EPA	14	0	0
XYLENE		Xylenes (total)	ppb	.035	10000		EPA	14	0	0
ZINC		Zinc	ppb	6.3	5000		EPAS	14	5	0
FZINC		Zinc, filtered	ppb	6.3	5000		EPAS	14	3	0
CIS12DE		cis-1,2-Dichloroethylene	ppb	.11	70		EPA	14	0	0
MCRESOL		m-Cresol	ppb	2.2				14	0	
TRANDE		trans-1,2-Dichloroethylene	ppb	.073	100		EPA	14	0	0

For explanation of this table, see Section 1.4 of report.

Table 14-16. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 2 Data for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 8)

Well Name	Collection Date	Sample Number	1,1,1-T 25/ppb .22/200	ALUMNUM 34/ppb 19/.	FALUMIN 34/ppb 19/.	BARIUM 34/ppb 1.3/1000i
299-E27-10	12/13/94	B0D7Q2	.04 U	26.00 U		26.00
299-E27-10	12/13/94	B0D7Q6			26.00 U	
299-E27-11	11/18/94	B0D7Y4	.04 U	78.00 L		39.00
299-E27-11	11/18/94	B0D7Y8			26.00 U	
299-E27-17	11/18/94	B0D7Q9	.04 U	26.00 U		33.00
299-E27-17	11/18/94	B0D7R3			26.00 U	
299-E27-8	11/17/94	B0D7R4	.04 U	26.00 U		25.00
299-E27-8	11/17/94	B0D7R8			26.00 U	
299-E27-9	11/17/94	B0D7R9	.04 U	35.00 L		23.00
299-E27-9	11/17/94	B0D7S3			26.00 U	
299-E34-10	11/21/94	B0D7S4	.04 U	54.00 L		38.00
299-E34-10	11/21/94	B0D7S8			26.00 U	
299-E34-11	11/28/94	B0D7S9	.04 U	30.00 L		34.00
299-E34-11	11/28/94	B0D7T3			32.00 L	
299-E34-12	11/28/94	B0D7T4	.09 L	100.00 L		68.00
299-E34-12	11/28/94	B0D7T5	.08 L	110.00 L		69.00
299-E34-12	11/28/94	B0D7V2			26.00 U	
299-E34-12	11/28/94	B0D7V3			26.00 U	
299-E34-2	11/21/94	B0D7V4	.04 U	55.00 L		36.00
299-E34-2	11/21/94	B0D7V8			37.00 L	
299-E34-3	11/21/94	B0D7V9	.04 U	26.00 U		48.00
299-E34-3	11/21/94	B0D7W3			26.00 U	
299-E34-5	11/18/94	B0D7W4	.04 U	26.00 L		27.00
299-E34-5	11/18/94	B0D7W8			26.00 U	
299-E34-7	11/18/94	B0D7W9	.04 U	67.00 L		35.00
299-E34-7	11/18/94	B0D7X3			26.00 U	
299-E34-9	11/28/94	B0D7X4	.08 L	26.00 U		45.00
299-E34-9	11/28/94	B0D7X8			26.00 U	

Well Name	Collection Date	Sample Number	FBARIUM 34/ppb 1.3/1000i	BERYLUM 34/ppb 1.5/.	FBERYLL 34/ppb 1.5/.	BROMIDE 124/ppb 110/.
299-E27-10	12/13/94	B0D7Q2		.17 U		30.00 L
299-E27-10	12/13/94	B0D7Q6	26.00		.17 U	
299-E27-11	11/18/94	B0D7Y4		.27 L		100.00 U
299-E27-11	11/18/94	B0D7Y8	39.00		.29 L	
299-E27-17	11/18/94	B0D7Q9		.43 L		100.00 U
299-E27-17	11/18/94	B0D7R3	33.00		.58 L	
299-E27-8	11/17/94	B0D7R4		.17 U		100.00 U
299-E27-8	11/17/94	B0D7R8	25.00		.17 U	
299-E27-9	11/17/94	B0D7R9		.17 U		100.00 U
299-E27-9	11/17/94	B0D7S3	25.00		.34 L	
299-E34-10	11/21/94	B0D7S4		.21 L		100.00 U
299-E34-10	11/21/94	B0D7S8	37.00		.17 U	
299-E34-11	11/28/94	B0D7S9		.17 U		80.00 L
299-E34-11	11/28/94	B0D7T3	33.00		.17 U	
299-E34-12	11/28/94	B0D7T4		.17 U		60.00 L
299-E34-12	11/28/94	B0D7T5		.17 U		50.00 L
299-E34-12	11/28/94	B0D7V2	67.00		.17 U	
299-E34-12	11/28/94	B0D7V3	65.00		.17 U	
299-E34-2	11/21/94	B0D7V4		.17 U		100.00 U
299-E34-2	11/21/94	B0D7V8	37.00		.35 L	
299-E34-3	11/21/94	B0D7V9		.17 U		100.00 U
299-E34-3	11/21/94	B0D7W3	48.00		.17 U	

Table 14-16. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 2 Data for Reporting Period October 1 through December 31, 1994.
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Well Name	Collection Date	Sample Number	FBARIUM 34/ppb 1.3/1000i	BERYLUM 34/ppb 1.5/.	FBERYLL 34/ppb 1.5/.	BROMIDE 124/ppb 110/.
299-E34-5	11/18/94	B0D7W4		.30 L		100.00 L
299-E34-5	11/18/94	B0D7W8	27.00		.29 L	
299-E34-7	11/18/94	B0D7W9		.17 U		100.00 U
299-E34-7	11/18/94	B0D7X3	34.00		.29 L	
299-E34-9	11/28/94	B0D7X4		.17 U		50.00 L
299-E34-9	11/28/94	B0D7X8	45.00		.17 U	

Well Name	Collection Date	Sample Number	CALCIUM 34/ppb 47/.	FCALCIU 34/ppb 47/.	TETRANE 25/ppb .32/5	CHLORID 124/ppb 71/250000s
299-E27-10	12/13/94	B0D7Q2	32000.00		.08 U	6600.00 q
299-E27-10	12/13/94	B0D7Q6		32000.00		
299-E27-11	11/18/94	B0D7Y4	38000.00		.08 U	7500.00
299-E27-11	11/18/94	B0D7Y8		38000.00		
299-E27-17	11/18/94	B0D7Q9	39000.00		.08 U	8000.00
299-E27-17	11/18/94	B0D7R3		38000.00		
299-E27-8	11/17/94	B0D7R4	35000.00		.08 U	6800.00
299-E27-8	11/17/94	B0D7R8		35000.00		
299-E27-9	11/17/94	B0D7R9	36000.00		1.00 B	7000.00
299-E27-9	11/17/94	B0D7S3		37000.00		
299-E34-10	11/21/94	B0D7S4	38000.00		.08 U	8300.00 Bq
299-E34-10	11/21/94	B0D7S8		38000.00		
299-E34-11	11/28/94	B0D7S9	43000.00		.08 U	15000.00 D
299-E34-11	11/28/94	B0D7T3		42000.00		
299-E34-12	11/28/94	B0D7T4	81000.00		.08 U	9300.00
299-E34-12	11/28/94	B0D7T5	76000.00		.08 U	9300.00
299-E34-12	11/28/94	B0D7V2		88000.00		
299-E34-12	11/28/94	B0D7V3		83000.00		
299-E34-2	11/21/94	B0D7V4	54000.00		.08 U	14000.00 DBQ
299-E34-2	11/21/94	B0D7V8		55000.00		
299-E34-3	11/21/94	B0D7V9	40000.00		.08 U	15000.00 DBQ
299-E34-3	11/21/94	B0D7W3		40000.00		
299-E34-5	11/18/94	B0D7W4	50000.00		.08 U	20000.00 D
299-E34-5	11/18/94	B0D7W8		49000.00		
299-E34-7	11/18/94	B0D7W9	31000.00		.08 U	11000.00 D
299-E34-7	11/18/94	B0D7X3		31000.00		
299-E34-9	11/28/94	B0D7X4	36000.00		.23 L	9000.00
299-E34-9	11/28/94	B0D7X8		37000.00		

Table 14-16. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 2 Data for Reporting Period October 1 through December 31, 1994.
(sheet 3 of 8)

Well Name	Collection Date	Sample Number	CHLFORM 25/ppb .05/.	CHROMIUM 34/ppb 11/50i	FCROMI 34/ppb 11/50i	COBALT 34/ppb 6.5/.
299-E27-10	12/13/94	B0D7Q2	.04 U	13.00 L		5.90 U
299-E27-10	12/13/94	B0D7Q6			4.50 U	
299-E27-11	11/18/94	B0D7Y4	.04 U	89.00		5.90 U
299-E27-11	11/18/94	B0D7Y8			4.50 U	
299-E27-17	11/18/94	B0D7Q9	.04 U	93.00		5.90 U
299-E27-17	11/18/94	B0D7R3			4.50 U	
299-E27-8	11/17/94	B0D7R4	.04 U	77.00		6.10 L
299-E27-8	11/17/94	B0D7R8			8.00 L	
299-E27-9	11/17/94	B0D7R9	.04 U	29.00		5.90 U
299-E27-9	11/17/94	B0D7S3			4.50 U	
299-E34-10	11/21/94	B0D7S4	.04 U	30.00		5.90 U
299-E34-10	11/21/94	B0D7S8			5.80 L	
299-E34-11	11/28/94	B0D7S9	.04 U	12.00 L		5.90 U
299-E34-11	11/28/94	B0D7T3			7.00 L	
299-E34-12	11/28/94	B0D7T4	.06 L	25.00		5.90 U
299-E34-12	11/28/94	B0D7T5	.06 L	27.00		5.90 U
299-E34-12	11/28/94	B0D7V2			4.50 U	
299-E34-12	11/28/94	B0D7V3			4.70 L	
299-E34-2	11/21/94	B0D7V4	.04 U	50.00		5.90 U
299-E34-2	11/21/94	B0D7V8			6.50 L	
299-E34-3	11/21/94	B0D7V9	.04 U	42.00		5.90 U
299-E34-3	11/21/94	B0D7W3			7.20 L	
299-E34-5	11/18/94	B0D7W4	.04 U	4.50 U		5.90 U
299-E34-5	11/18/94	B0D7W8			5.60 L	
299-E34-7	11/18/94	B0D7W9	.04 U	36.00		5.90 U
299-E34-7	11/18/94	B0D7X3			4.50 U	
299-E34-9	11/28/94	B0D7X4	.07 L	18.00 L		5.90 U
299-E34-9	11/28/94	B0D7X8			5.40 L	

Well Name	Collection Date	Sample Number	FCOBALT 34/ppb 6.5/.	COPPER 34/ppb 2.6/1000s	FCOPPER 34/ppb 2.6/1000s	FLUORID 124/ppb 51/1400i
299-E27-10	12/13/94	B0D7Q2		4.10 U		400.00
299-E27-10	12/13/94	B0D7Q6	5.90 U		4.10 U	
299-E27-11	11/18/94	B0D7Y4		12.00 L		400.00
299-E27-11	11/18/94	B0D7Y8	5.90 U		4.30 L	
299-E27-17	11/18/94	B0D7Q9		7.60 L		400.00
299-E27-17	11/18/94	B0D7R3	5.90 U		5.40 L	
299-E27-8	11/17/94	B0D7R4		4.10 U		400.00
299-E27-8	11/17/94	B0D7R8	8.20 L		4.10 U	
299-E27-9	11/17/94	B0D7R9		4.10 U		400.00
299-E27-9	11/17/94	B0D7S3	6.10 L		4.10 U	
299-E34-10	11/21/94	B0D7S4		7.50 L		400.00
299-E34-10	11/21/94	B0D7S8	5.90 U		4.10 U	
299-E34-11	11/28/94	B0D7S9		4.80 L		500.00
299-E34-11	11/28/94	B0D7T3	5.90 U		4.10 U	
299-E34-12	11/28/94	B0D7T4		4.10 Uq		400.00
299-E34-12	11/28/94	B0D7T5		5.80 Lq		400.00
299-E34-12	11/28/94	B0D7V2	5.90 U		4.10 U	
299-E34-12	11/28/94	B0D7V3	5.90 U		4.10 U	
299-E34-2	11/21/94	B0D7V4		4.10 U		600.00
299-E34-2	11/21/94	B0D7V8	5.90 U		4.10 U	
299-E34-3	11/21/94	B0D7V9		4.10 U		500.00
299-E34-3	11/21/94	B0D7W3	5.90 U		4.10 U	

Table 14-16. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 2 Data for Reporting Period October 1 through December 31, 1994.
(sheet 4 of 8)

Well Name	Collection Date	Sample Number	FCOBALT 34/ppb 6.5/.	COPPER 34/ppb 2.6/1000s	FCOPPER 34/ppb 2.6/1000s	FLUORID 124/ppb 51/1400i
299-E34-5	11/18/94	B0D7W4		4.10 U		500.00
299-E34-5	11/18/94	B0D7W8	5.90 U		4.10 U	
299-E34-7	11/18/94	B0D7W9		4.30 L		500.00
299-E34-7	11/18/94	B0D7X3	5.90 U		4.10 U	
299-E34-9	11/28/94	B0D7X4		5.30 L		300.00
299-E34-9	11/28/94	B0D7X8	5.90 U		4.10 U	

Well Name	Collection Date	Sample Number	ALPHA 135/pCi/L ./15	BETA 136/pCi/L ./.	I-129 139/pCi/L ./1	IRON 34/ppb 18/300s
299-E27-10	12/13/94	B0D7Q2	1.00	5.53		74.00 BQ
299-E27-11	11/18/94	B0D792			2.05	
299-E27-11	11/18/94	B0D7Y4	2.14	7.81		490.00 B
299-E27-17	11/18/94	B0D793			3.15	
299-E27-17	11/18/94	B0D7Q9	1.07	7.25		410.00 B
299-E27-8	11/17/94	B0D794			3.03	
299-E27-8	11/17/94	B0D7R4	2.20	6.59		330.00 B
299-E27-9	11/17/94	B0D795			2.67	
299-E27-9	11/17/94	B0D7R9	.69 U	5.33		180.00 B
299-E34-10	11/21/94	B0D796			1.74	
299-E34-10	11/21/94	B0D7S4	2.19	5.06		160.00 BQ
299-E34-11	11/28/94	B0D7S9	4.96	7.48		73.00 Q
299-E34-12	11/28/94	B0D7T4	3.73	9.31		340.00 Q
299-E34-12	11/28/94	B0D7T5	3.28	10.00		350.00 Q
299-E34-2	11/21/94	B0D7V4	3.01	5.79		210.00 BQ
299-E34-3	11/21/94	B0D7V9	.42 U	7.89		180.00 BQ
299-E34-5	11/18/94	B0D7W4	4.20	9.48		30.00 B
299-E34-7	11/18/94	B0D7W9	.79 U	7.27		270.00 B
299-E34-9	11/28/94	B0D7X4	2.45	11.50		83.00 Q

Well Name	Collection Date	Sample Number	FIRON 34/ppb 18/300s	LEAD 40/ppb .86/50i	FLEAD 40/ppb .86/50i	MAGNES 34/ppb 25/.
299-E27-10	12/13/94	B0D7Q2		2.30 BL		8500.00
299-E27-10	12/13/94	B0D7Q6	27.00 BQ		2.80 BL	
299-E27-11	11/18/94	B0D7Y4		11.00		10000.00
299-E27-11	11/18/94	B0D7Y8	41.00 B		1.50 U	
299-E27-17	11/18/94	B0D7Q9		2.30 L		10000.00
299-E27-17	11/18/94	B0D7R3	27.00 B		1.70 L	
299-E27-8	11/17/94	B0D7R4		1.50 U		9600.00
299-E27-8	11/17/94	B0D7R8	39.00 B		1.50 U	
299-E27-9	11/17/94	B0D7R9		7.00		10000.00
299-E27-9	11/17/94	B0D7S3	27.00 B		1.50 U	
299-E34-10	11/21/94	B0D7S4		7.90		9900.00
299-E34-10	11/21/94	B0D7S8	20.00 BQ		2.40 L	
299-E34-11	11/28/94	B0D7S9		1.90 L		12000.00
299-E34-11	11/28/94	B0D7T3	16.00 LQ		1.50 L	
299-E34-12	11/28/94	B0D7T4		1.60 L		23000.00
299-E34-12	11/28/94	B0D7T5		1.50 U		22000.00
299-E34-12	11/28/94	B0D7V2	24.00 Q		1.50 U	
299-E34-12	11/28/94	B0D7V3	24.00 Q		1.50 U	

Table 14-16. Constituents with at Least One Detected Value for the Low-Level
Waste Management Area 2 Data for Reporting Period
October 1 through December 31, 1994.
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Well Name	Collection Date	Sample Number	FIRON 34/ppb 18/300s	LEAD 40/ppb .86/50i	FLEAD 40/ppb .86/50i	MAGNES 34/ppb 25/.
299-E34-2	11/21/94	B0D7V4		2.20 L		15000.00
299-E34-2	11/21/94	B0D7V8	21.00 BQ		1.70 L	
299-E34-3	11/21/94	B0D7V9		5.70		11000.00
299-E34-3	11/21/94	B0D7W3	20.00 BQ		14.00	
299-E34-5	11/18/94	B0D7W4		2.00 L		15000.00
299-E34-5	11/18/94	B0D7W8	26.00 B		1.50 U	
299-E34-7	11/18/94	B0D7W9		2.10 L		9800.00
299-E34-7	11/18/94	B0D7X3	21.00 B		11.00	
299-E34-9	11/28/94	B0D7X4		1.50 U		10000.00
299-E34-9	11/28/94	B0D7X8	12.00 LQ		1.50 U	

Well Name	Collection Date	Sample Number	FMAGNES 34/ppb 25/.	MANGESE 34/ppb 1/50s	FMANGAN 34/ppb 1/50s	MERCURY 41/ppb .095/2
299-E27-10	12/13/94	B0D7Q2		2.20 L		.11 BLQ
299-E27-10	12/13/94	B0D7Q6	8500.00		2.20 L	
299-E27-11	11/18/94	B0D7Y4		11.00		.10 BL
299-E27-11	11/18/94	B0D7Y8	10000.00		4.10 L	
299-E27-17	11/18/94	B0D7Q9		9.30 L		.08 BL
299-E27-17	11/18/94	B0D7R3	10000.00		2.00 L	
299-E27-8	11/17/94	B0D7R4		6.90 L		.05 U
299-E27-8	11/17/94	B0D7R8	9700.00		1.70 L	
299-E27-9	11/17/94	B0D7R9		3.20 L		.05 U
299-E27-9	11/17/94	B0D7S3	11000.00		1.50 L	
299-E34-10	11/21/94	B0D7S4		4.10 L		.05 U
299-E34-10	11/21/94	B0D7S8	9900.00		2.00 L	
299-E34-11	11/28/94	B0D7S9		2.80 L		.05 U
299-E34-11	11/28/94	B0D7T3	12000.00		2.10 L	
299-E34-12	11/28/94	B0D7T4		7.90 L		.05 U
299-E34-12	11/28/94	B0D7T5		7.60 L		.05 U
299-E34-12	11/28/94	B0D7V2	23000.00		2.70 L	
299-E34-12	11/28/94	B0D7V3	21000.00		2.80 L	
299-E34-2	11/21/94	B0D7V4		4.40 L		.06 BL
299-E34-2	11/21/94	B0D7V8	15000.00		1.80 L	
299-E34-3	11/21/94	B0D7V9		4.90 L		.05 U
299-E34-3	11/21/94	B0D7W3	11000.00		2.10 L	
299-E34-5	11/18/94	B0D7W4		7.20 L		.05 U
299-E34-5	11/18/94	B0D7W8	15000.00		6.40 L	
299-E34-7	11/18/94	B0D7W9		7.20 L		.08 BL
299-E34-7	11/18/94	B0D7X3	9900.00		3.30 L	
299-E34-9	11/28/94	B0D7X4		2.50 L		.05 U
299-E34-9	11/28/94	B0D7X8	10000.00		1.80 L	

Table 14-16. Constituents with at Least One Detected Value for the Low-Level Waste Management Area.2 Data for Reporting Period October 1 through December 31, 1994.
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Well Name	Collection Date	Sample Number	FMERCUR 41/ppb .095/2	NICKEL 34/ppb 16/.	FNICKEL 34/ppb 16/.	NITRATE 124/ppb 96/45000
299-E27-10	12/13/94	B0D7Q2		13.00 U		4000.00 q
299-E27-10	12/13/94	B0D7Q6	.11 BLQ		13.00 U	
299-E27-11	11/18/94	B0D7Y4		54.00		7000.00
299-E27-11	11/18/94	B0D7Y8	.13 BL		13.00 U	
299-E27-17	11/18/94	B0D7Q9		59.00		6600.00
299-E27-17	11/18/94	B0D7R3	.05 U		13.00 U	
299-E27-8	11/17/94	B0D7R4		36.00		5900.00
299-E27-8	11/17/94	B0D7R8	.05 U		13.00 U	
299-E27-9	11/17/94	B0D7R9		29.00 L		6900.00
299-E27-9	11/17/94	B0D7S3	.05 U		13.00 U	
299-E34-10	11/21/94	B0D7S4		24.00 L		6600.00 q
299-E34-10	11/21/94	B0D7S8	.06 BL		13.00 U	
299-E34-11	11/28/94	B0D7S9		13.00 U		14000.00 D
299-E34-11	11/28/94	B0D7T3	.05 U		13.00 U	
299-E34-12	11/28/94	B0D7T4		21.00 LQ		20000.00 D
299-E34-12	11/28/94	B0D7T5		14.00 LQ		20000.00 D
299-E34-12	11/28/94	B0D7V2	.05 U		13.00 U	
299-E34-12	11/28/94	B0D7V3	.05 L		13.00 U	
299-E34-2	11/21/94	B0D7V4		24.00 L		14000.00 DQ
299-E34-2	11/21/94	B0D7V8	.05 U		13.00 U	
299-E34-3	11/21/94	B0D7V9		20.00 L		9900.00 DQ
299-E34-3	11/21/94	B0D7W3	.05 BL		13.00 U	
299-E34-5	11/18/94	B0D7W4		61.00		14000.00 D
299-E34-5	11/18/94	B0D7W8	.08 BL		38.00	
299-E34-7	11/18/94	B0D7W9		21.00 L		5700.00
299-E34-7	11/18/94	B0D7X3	.05 U		21.00 L	
299-E34-9	11/28/94	B0D7X4		13.00 U		12000.00 D
299-E34-9	11/28/94	B0D7X8	.07 L		13.00 U	

Well Name	Collection Date	Sample Number	POTASUM 34/ppb 890/.	FPOTASS 34/ppb 890/.	RADIUM 137/pCi/L .5i	SODIUM 34/ppb 150/.
299-E27-10	12/13/94	B0D7Q2	6000.00		-.05 U	14000.00 q
299-E27-10	12/13/94	B0D7Q6		5700.00		
299-E27-11	11/18/94	B0D7Y4	6200.00		.06 U	14000.00 B
299-E27-11	11/18/94	B0D7Y8		6400.00		
299-E27-17	11/18/94	B0D7Q9	6000.00		.01 U	14000.00 B
299-E27-17	11/18/94	B0D7R3		6100.00		
299-E27-8	11/17/94	B0D7R4	6000.00		.10 U	13000.00 B
299-E27-8	11/17/94	B0D7R8		6100.00		
299-E27-9	11/17/94	B0D7R9	5800.00		.04 U	12000.00 B
299-E27-9	11/17/94	B0D7S3		5700.00		
299-E34-10	11/21/94	B0D7S4	6100.00		.00 U	15000.00 BQ
299-E34-10	11/21/94	B0D7S8		6100.00		
299-E34-11	11/28/94	B0D7S9	6800.00		.15	23000.00 q
299-E34-11	11/28/94	B0D7T3		6900.00		
299-E34-12	11/28/94	B0D7T4	9600.00		-.03 UQ	40000.00 q
299-E34-12	11/28/94	B0D7T5	9500.00		.19 q	38000.00 q
299-E34-12	11/28/94	B0D7V2		9800.00		
299-E34-12	11/28/94	B0D7V3		9500.00		
299-E34-2	11/21/94	B0D7V4	7800.00		.01 U	23000.00 BQ
299-E34-2	11/21/94	B0D7V8		7900.00		
299-E34-3	11/21/94	B0D7V9	6300.00		-.06 U	19000.00 BQ
299-E34-3	11/21/94	B0D7W3		6500.00		

Table 14-16. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 2 Data for Reporting Period October 1 through December 31, 1994.
(sheet 7 of 8)

Well Name	Collection Date	Sample Number	POTASUM 34/ppb 890/.	FPOTASS 34/ppb 890/.	RADIUM 137/pCi/L ./5i	SODIUM 34/ppb 150/.
299-E34-5	11/18/94	B0D7W4	7500.00		.10 U	29000.00 B
299-E34-5	11/18/94	B0D7W8		7600.00		
299-E34-7	11/18/94	B0D7W9	7500.00		.07 U	19000.00 B
299-E34-7	11/18/94	B0D7X3		7500.00		
299-E34-9	11/28/94	B0D7X4	6100.00		.05 U	20000.00 Q
299-E34-9	11/28/94	B0D7X8		6700.00		

Well Name	Collection Date	Sample Number	FSODIUM 34/ppb 150/.	SULFATE 124/ppb 89/250000s	TRITIUM 142/pCi/L ./20000	TURBID 126/NTU ./016/.
299-E27-10	12/13/94	B0D7Q2		26000.00 D	5350.00	1.10 Q
299-E27-10	12/13/94	B0D7Q6	14000.00 Q			
299-E27-11	11/18/94	B0D7Y4		48000.00 D	2910.00	3.30
299-E27-11	11/18/94	B0D7Y8	14000.00 B			
299-E27-17	11/18/94	B0D7Q9		51000.00 D	3000.00	1.00
299-E27-17	11/18/94	B0D7R3	15000.00 B			
299-E27-8	11/17/94	B0D7R4		44000.00 D	3080.00	1.00
299-E27-8	11/17/94	B0D7R8	13000.00 B			
299-E27-9	11/17/94	B0D7R9		49000.00 D	2860.00	2.50
299-E27-9	11/17/94	B0D7S3	13000.00 B			
299-E34-10	11/21/94	B0D7S4		53000.00 D	3240.00	1.60 Q
299-E34-10	11/21/94	B0D7S8	15000.00 BQ			
299-E34-11	11/28/94	B0D7S9		72000.00 D	958.00	.99 Q
299-E34-11	11/28/94	B0D7T3	23000.00 Q			
299-E34-12	11/28/94	B0D7T4		190000.00 D	3590.00	3.80 Q
299-E34-12	11/28/94	B0D7T5		190000.00 D	3350.00	3.90 Q
299-E34-12	11/28/94	B0D7V2	47000.00 Q			
299-E34-12	11/28/94	B0D7V3	44000.00 Q			
299-E34-2	11/21/94	B0D7V4		120000.00 D	2200.00	1.70 Q
299-E34-2	11/21/94	B0D7V8	23000.00 BQ			
299-E34-3	11/21/94	B0D7V9		72000.00 D	378.00	1.60 Q
299-E34-3	11/21/94	B0D7W3	19000.00 BQ			
299-E34-5	11/18/94	B0D7W4		99000.00 D	272.00 U	.90
299-E34-5	11/18/94	B0D7W8	29000.00 B			
299-E34-7	11/18/94	B0D7W9		50000.00 D	22.70 U	3.30
299-E34-7	11/18/94	B0D7X3	19000.00 B			
299-E34-9	11/28/94	B0D7X4		61000.00 D	3310.00	.75 Q
299-E34-9	11/28/94	B0D7X8	20000.00 Q			

Table 14-16. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 2 Data for Reporting Period October 1 through December 31, 1994.
(sheet 8 of 8)

Well Name	Collection Date	Sample Number	URANIUM 145/ppb ./.	VANADIUM 34/ppb 6.4/.	FVANADI 34/ppb 6.4/.	ZINC 34/ppb 4.4/5000s
299-E27-10	12/13/94	B0D7Q2	2.06	22.00 L		6.30 U
299-E27-10	12/13/94	B0D7Q6			21.00 L	
299-E27-11	11/18/94	B0D7Y4	2.37	26.00 L		16.00
299-E27-11	11/18/94	B0D7Y8			22.00 L	
299-E27-17	11/18/94	B0D7Q9	2.60	23.00 L		6.30 U
299-E27-17	11/18/94	B0D7R3			21.00 L	
299-E27-8	11/17/94	B0D7R4	2.64	26.00 L		6.30 U
299-E27-8	11/17/94	B0D7R8			25.00 L	
299-E27-9	11/17/94	B0D7R9	2.45	27.00 L		6.30 U
299-E27-9	11/17/94	B0D7S3			27.00 L	
299-E34-10	11/21/94	B0D7S4	2.34	21.00 L		8.80 L
299-E34-10	11/21/94	B0D7S8			24.00 L	
299-E34-11	11/28/94	B0D7S9	3.04	18.00 L		12.00
299-E34-11	11/28/94	B0D7T3			16.00 L	
299-E34-12	11/28/94	B0D7T4	2.78	20.00 L		8.70 L
299-E34-12	11/28/94	B0D7T5	2.73	20.00 L		7.60 L
299-E34-12	11/28/94	B0D7V2			20.00 L	
299-E34-12	11/28/94	B0D7V3			21.00 L	
299-E34-2	11/21/94	B0D7V4	2.10	21.00 L		6.30 U
299-E34-2	11/21/94	B0D7V8			21.00 L	
299-E34-3	11/21/94	B0D7V9	1.91	22.00 L		6.30 U
299-E34-3	11/21/94	B0D7W3			21.00 L	
299-E34-5	11/18/94	B0D7W4	4.17	18.00 L		6.30 U
299-E34-5	11/18/94	B0D7W8			20.00 L	
299-E34-7	11/18/94	B0D7W9	2.22	24.00 L		6.30 U
299-E34-7	11/18/94	B0D7X3			21.00 L	
299-E34-9	11/28/94	B0D7X4	2.47	18.00 L		6.30 U
299-E34-9	11/28/94	B0D7X8			20.00 L	

Well Name	Collection Date	Sample Number	FZINC 34/ppb 4.4/5000s
299-E27-10	12/13/94	B0D7Q6	6.30 U
299-E27-11	11/18/94	B0D7Y8	6.30 U
299-E27-17	11/18/94	B0D7R3	6.30 U
299-E27-8	11/17/94	B0D7R8	6.30 U
299-E27-9	11/17/94	B0D7S3	6.30 U
299-E34-10	11/21/94	B0D7S8	6.30 U
299-E34-11	11/28/94	B0D7T3	6.30 U
299-E34-12	11/28/94	B0D7V2	6.50 L
299-E34-12	11/28/94	B0D7V3	6.30 U
299-E34-2	11/21/94	B0D7V8	6.30 U
299-E34-3	11/21/94	B0D7W3	6.30 U
299-E34-5	11/18/94	B0D7W8	6.30 U
299-E34-7	11/18/94	B0D7X3	10.00
299-E34-9	11/28/94	B0D7X8	8.20 L

For explanation of this table, see Section 1.4 of report.

Table 14-17. Contamination Indicator Parameters for the Low-Level
Waste Management Area 2 Data for Reporting Period
October 1 through December 31, 1994.
(sheet 1 of 2)

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-E27-10	12/13/94	B0D7Q2	292		7.57	8.40	300 L	5.0 U
		B0D7Q3	293		7.56		300 L	5.0 U
		B0D7Q4	293		7.54		200 L	5.0 U
		B0D7Q5	291		7.54		200 L	5.0 U
299-E27-11	11/18/94	B0D792		340				
		B0D7Y4	360		7.72	8.20	400 L	5.0 U
		B0D7Y5	359		7.73		300 L	5.0 U
		B0D7Y6	358		7.73		400 L	5.0 U
299-E27-17	11/18/94	B0D7Y7	357		7.74		400 L	5.0 U
		B0D793		350				
		B0D7Q9	459		7.18	8.20	300 L	5.0 U
		B0D7R0	457		7.15		300 L	5.0 U
299-E27-8	11/17/94	B0D7R1	456		7.15		300 L	5.0 U
		B0D7R2	458		7.16		300 L	5.4
		B0D794		330				
		B0D7R4	315		7.80	8.20	200 L	5.1
299-E27-9	11/17/94	B0D7R5	312		7.80		300 L	6.3
		B0D7R6	309		7.79		300 L	5.0 U
		B0D7R7	309		7.80		300 L	5.4
		B0D795		340				
299-E34-10	11/21/94	B0D7R9	322		8.08	8.20	200 L	5.0 U
		B0D7S0	322		8.07		200 L	5.0 U
		B0D7S1	321		8.09		300 L	5.0 U
		B0D7S2	321		8.10		200 L	7.3
299-E34-11	11/28/94	B0D796		350				
		B0D7S4	280		7.90	8.10	400 L	5.0 U
		B0D7S5	281		7.91		300 L	5.0 U
		B0D7S6	282		7.93		300 L	5.0 U
299-E34-12	11/28/94	B0D7S7	283		7.93		300 L	5.0 U
		B0D7S9	448		7.93	7.80	200 L	5.6
		B0D7T0	445		7.92		200 L	5.0 U
		B0D7T1	449		7.91		300 L	6.3
299-E34-2	11/21/94	B0D7T2	449		7.92		200 L	5.0 U
		B0D7T4	341		8.04	8.20	700 L	9.2
		B0D7T5	341		8.04	8.20	800 LQ	6.7
		B0D7T6	340		8.04		600 LQ	7.7
299-E34-2	11/21/94	B0D7T7	339		8.04		600 L	5.0 U
		B0D7T8					800 L	19.7
		B0D7T9					700 L	12.4
		B0D7V0					700 L	10.3
299-E34-2	11/21/94	B0D7V1					600 L	9.8
		B0D7V4	515		8.06	8.00	200 L	5.0 U
		B0D7V5	516		8.06		200 L	5.0 U

Table 14-17. Contamination Indicator Parameters for the Low-Level
Waste Management Area 2 Data for Reporting Period
October 1 through December 31, 1994.
(sheet 2 of 2)

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-E34-2	11/21/94	B0D7V6	515		8.07		300 L	5.0 U
		B0D7V7	516		8.04		200 L	5.0 U
299-E34-3	11/21/94	B0D7V9	395		8.07	8.10	300 L	6.9
		B0D7W0	390		8.10		300 L	5.0 U
		B0D7W1	395		8.11		300 L	6.0
		B0D7W2	395		8.11		300 L	5.6
299-E34-5	11/18/94	B0D7W4	481		8.07	8.10	300 L	5.1
		B0D7W5	480		8.05		300 L	5.0 U
		B0D7W6	480		8.03		300 L	5.0 U
		B0D7W7	485		8.01		200 L	5.0 U
299-E34-7	11/18/94	B0D7W9	271		8.84	8.20	300 L	5.0 U
		B0D7X0	273		8.84		200 L	5.0 U
		B0D7X1	275		8.83		300 L	5.0 U
		B0D7X2	278		8.80		200 L	5.0 U
299-E34-9	11/28/94	B0D7X4	392		8.05	8.10	300 L	9.3
		B0D7X5	390		8.05		300 L	6.3
		B0D7X6	390		8.03		400 L	5.0 U
		B0D7X7	394		8.01		300 L	5.0 U

For explanation of this table, see Section 1.4 of report.

Table 14-18. Constituent List and Summary of Results for the Low-Level
Waste Management Area 3 Data for Reporting Period
October 1 through December 31, 1994.
(sheet 1 of 3)

CONTAMINATION INDICATOR PARAMETERS

Short	(Method)	Constituent Name		Units	Lab		DWS		Number of Samples		
		Full			MDL		Limit	Agency	Total	>MDL	>DWS
CONDUCT		Conductivity, field		umhos	1				29	29	
TOC		Total Organic Carbon		ppb	110				16	14	
TOX		Total Organic Halogen		ppb	5				16	9	
PH		pH, field		pH	.01	6.5-8.5	EPAS		29	29	1

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name		Units	Lab		DWS		Number of Samples		
		Full			MDL		Limit	Agency	Total	>MDL	>DWS
2,4,5TP		2,4,5-TP		ppb	.015	50	EPA		1	0	0
2,4-D		2,4-D		ppb	.052	100	EPAI		1	0	0
ARSENIC		Arsenic		ppb	2.8	50	EPA		1	0	0
FARSENIC		Arsenic, filtered		ppb	2.8	50	EPA		1	0	0
BARIUM		Barium		ppb	.59	1000	EPAI		2	2	0
FBARIUM		Barium, filtered		ppb	.59	1000	EPAI		1	1	0
CADMIUM		Cadmium		ppb	3.3	10	EPAI		2	0	0
FCADMIU		Cadmium, filtered		ppb	3.3	10	EPAI		1	0	0
CHROMIUM		Chromium		ppb	4.5	50	EPAI		2	2	0
FCHROMI		Chromium, filtered		ppb	4.5	50	EPAI		1	1	0
ENDRIN		Endrin		ppb	.0011	.2	EPA		1	0	0
FLUORID		Fluoride		ppb	36	1400	EPAI		8	8	0
ALPHA		Gross alpha		pCi/L		15	EPA		1	1	0
MERCURY		Mercury		ppb	.05	2	EPA		1	1	0
FMERCUR		Mercury, filtered		ppb	.05	2	EPA		1	1	0
METHLOR		Methoxychlor		ppb	.016	100	EPAI		1	0	0
NITRATE		Nitrate		ppb	11	45000	EPA		8	8	5
RADIUM		Radium		pCi/L		5	EPAI		1	1	0
SELENIUM		Selenium		ppb	.65	10	EPAI		1	1	0
FSELENI		Selenium, filtered		ppb	.65	10	EPAI		1	1	0
TOXAENE		Toxaphene		ppb	.85	5	EPAI		1	0	0
g-BHC		gamma-BHC (Lindane)		ppb	.0013	4	EPAI		1	0	0

GROUNDWATER QUALITY PARAMETERS

Short	(Method)	Constituent Name		Units	Lab		DWS		Number of Samples		
		Full			MDL		Limit	Agency	Total	>MDL	>DWS
CHLORID		Chloride		ppb	14	250000	EPAS		8	8	0
IRON		Iron		ppb	5.24	300	EPAS		2	2	2
FIRON		Iron, filtered		ppb	5.24	300	EPAS		1	1	0
MANGESE		Manganese		ppb	.72	50	EPAS		2	2	0
FMANGAN		Manganese, filtered		ppb	.72	50	EPAS		1	1	0
LPHENOL		Phenol		ppb	.31				1	0	
SODIUM		Sodium		ppb	61				2	2	
FSODIUM		Sodium, filtered		ppb	61				1	1	
SULFATE		Sulfate		ppb	37	250000	EPAS		8	8	0

Table 14-18. Constituent List and Summary of Results for the Low-Level
Waste Management Area 3 Data for Reporting Period
October 1 through December 31, 1994.
(sheet 2 of 3)

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name Full	Units	Lab MDL	DWS Limit	Agency	Number of Samples		
							Total	>MDL	>DWS
1,1,1-T		1,1,1-Trichloroethane	ppb	.036	200	EPA	1	0	0
1,1,2-T		1,1,2-Trichloroethane	ppb	.078			1	0	
1,1-DIC		1,1-Dichloroethane	ppb	.058			1	0	
1,2-DIC		1,2-Dichloroethane	ppb	.029	5	EPA	1	0	0
14-dben		1,4-Dichlorobenzene	ppb	.055	75	EPA	1	0	0
2,4,5-T		2,4,5-T	ppb	.014			1	0	
246-trp		2,4,6-Trichlorophenol	ppb	1.3			1	0	
24-dchp		2,4-Dichlorophenol	ppb	1.3			1	0	
DIMPEN		2,4-Dimethylphenol	ppb	1.2			1	0	
DINPHEN		2,4-Dinitrophenol	ppb	3			1	0	
26-dchp		2,6-Dichlorophenol	ppb	1.4			1	0	
CHLPEN		2-Chlorophenol	ppb	1.6			1	0	
2NITPH		2-Nitrophenol	ppb	1.3			1	0	
BUTDINP	30	2-sec-Butyl-4,6-dinitrophenol (DN	ppb	1.3			1	0	
BUTDINP	49	2-sec-Butyl-4,6-dinitrophenol (DN	ppb	.077			1	0	
DDD		4,4'-DDD	ppb	.0013			1	0	
DDE		4,4'-DDE	ppb	.0012			1	0	
DDT		4,4'-DDT	ppb	.0011			1	0	
46DN2MP		4,6-Dinitro-2-methylphenol	ppb	1.3			1	0	
CHLCRES		4-Chloro-3-methylphenol	ppb	1.3			1	0	
NITPHEN		4-Nitrophenol	ppb	3			1	0	
ALDRIN		Aldrin	ppb	.0026			1	0	
a-BHC		Alpha-BHC	ppb	.0011			1	0	
ALUMNUM		Aluminum	ppb	26			2	2	
FALUMIN		Aluminum, filtered	ppb	26			1	0	
ANTIONY		Antimony	ppb	62			2	0	
FANTIMO		Antimony, filtered	ppb	62			1	0	
SB-125		Antimony-125	pCi/L				4	0	
BENZENE		Benzene	ppb	.013	5	EPA	1	0	0
BERYLUM		Beryllium	ppb	.17			2	0	
FBERYLL		Beryllium, filtered	ppb	.17			1	0	
BE-7		Beryllium-7	pCi/L				4	0	
b-BHC		Beta-BHC	ppb	.0014			1	0	
BROMIDE		Bromide	ppb	100			8	0	
CALCIUM		Calcium	ppb	34			2	2	
FCALCIU		Calcium, filtered	ppb	34			1	1	
TETRANE		Carbon tetrachloride	ppb	.075	5	EPA	1	1	1
CEPR-144		Cerium/Praseodymium-144	pCi/L				4	0	
CS-134		Cesium-134	pCi/L				4	0	
CS-137		Cesium-137	pCi/L		200	EPA	4	0	0
CHLOANE		Chlordane	ppb	.022	2	EPA	1	0	0
CHLFORM		Chloroform	ppb	.041			1	1	
COBALT		Cobalt	ppb	5.9			2	0	
FCOBALT		Cobalt, filtered	ppb	5.9			1	0	
CO-60		Cobalt-60	pCi/L		100	EPA	4	1	0
COPPER		Copper	ppb	4.1	1000	EPAS	2	0	0
FCOPPER		Copper, filtered	ppb	4.1	1000	EPAS	1	0	0
CRESOLS		Cresols (methylphenols)	ppb	4.8			1	0	
d-BHC		Delta-BHC	ppb	.0017			1	0	
DIELRIN		Dieldrin	ppb	.0014			1	0	
ENDO1		Endosulfan I	ppb	.0013			1	0	
ENDO2		Endosulfan II	ppb	.0011			1	0	
ENDSFAN		Endosulfan sulfate	ppb	.0021			1	0	
ENDRALD		Endrin Aldehyde	ppb	.0017			1	0	
ETHBENZ		Ethylbenzene	ppb	.051	700	EPA	1	0	0
EU-154		Europium-154	pCi/L				4	0	

Table 14-18. Constituent List and Summary of Results for the Low-Level
Waste Management Area 3 Data for Reporting Period
October 1 through December 31, 1994.
(sheet 3 of 3)

Short	(Method)	Constituent Name Full	Units	Lab MDL	DWS		Number of Samples		
					Limit	Agency	Total	>MDL	>DWS
EU-155		Europium-155	pCi/L				4	0	
BETA		Gross beta	pCi/L				1	1	
HEPTLOR		Heptachlor	ppb	.0027	.4	EPA	1	0	0
HEPTIDE		Heptachlor epoxide	ppb	.0013	.2	EPA	1	0	0
I-129L		Iodine-129, Low level	pCi/L		1	EPA	4	1	0
LEAD		Lead	ppb	1.5	50	EPAI	1	1	0
FLEAD		Lead, filtered	ppb	1.5	50	EPAI	1	1	0
MAGNES		Magnesium	ppb	23			2	2	
FMAGNES		Magnesium, filtered	ppb	23			1	1	
METHYCH		Methylene chloride	ppb	.09			1	1	
NICKEL		Nickel	ppb	13			2	1	
FNICKEL		Nickel, filtered	ppb	13			1	1	
NITRITE		Nitrite	ppb	18	1000	EPA	8	0	0
PENTCHP		Pentachlorophenol	ppb	1.3	1	EPA	1	0	1*
PHOSPHA		Phosphate	ppb	82			8	0	
POTASSUM		Potassium	ppb	850			2	2	
FPOTASS		Potassium, filtered	ppb	850			1	1	
K-40		Potassium-40	pCi/L				4	3	
RU-106		Ruthenium-106	pCi/L		30	EPA	4	0	0
SILVER		Silver	ppb	3.6	50	EPAI	2	0	0
FSILVER		Silver, filtered	ppb	3.6	50	EPAI	1	0	0
SR-90		Strontium-90	pCi/L		8	EPA	4	0	0
TC-99		Technetium-99	pCi/L		900	EPA	4	4	0
PERCENE		Tetrachloroethene	ppb	.22	5	EPA	1	1	0
TETPHNL		Tetrachlorophenols	ppb	1.5			1	0	
TIN		Tin	ppb	69			2	0	
FTIN		Tin, filtered	ppb	69			1	0	
TOLUENE		Toluene	ppb	.016	1000	EPA	1	0	0
TDS		Total Dissolved Solids	ppm	10	500	EPAS	4	4	0
TRICENE		Trichloroethene	ppb	.11	5	EPA	1	1	1
TRIPHNL		Trichlorophenols	ppb	1.7			1	0	
TRITIUM		Tritium	pCi/L		20000	EPA	4	4	0
TURBID		Turbidity	NTU	.016			1	1	
VANADIUM		Vanadium	ppb	6.6			2	2	
FVANADI		Vanadium, filtered	ppb	6.6			1	1	
VINYIDE		Vinyl chloride	ppb	.13	2	EPA	1	0	0
XYLENE		Xylenes (total)	ppb	.035	10000	EPA	1	0	0
ZINC		Zinc	ppb	6.3	5000	EPAS	2	2	0
FZINC		Zinc, filtered	ppb	6.3	5000	EPAS	1	0	0
ZN-65		Zinc-65	pCi/L				4	1	
ZRNB-95		Zirconium/Niobium-95	pCi/L				4	1	
CIS12DE		cis-1,2-Dichloroethylene	ppb	.11	70	EPA	1	0	0
TRANDE		trans-1,2-Dichloroethylene	ppb	.073	100	EPA	1	0	0

For explanation of this table, see Section 1.4 of report.

Table 14-19. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 3 Data for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 3)

Well Name	Collection Date	Sample Number	ALUMNUM 34/ppb 19/.	FALUMIN 34/ppb 19/.	BARIUM 34/ppb 1.3/1000i	FBARIUM 34/ppb 1.3/1000i
299-W10-20	12/15/94	B0DG56	400.00 B		59.00	
299-W10-20	12/15/94	B0DG57		26.00 U		54.00
299-W9-1	8/12/94	B0CB74	44.00 L		29.00	

Well Name	Collection Date	Sample Number	CALCIUM 34/ppb 47/.	FCALCIU 34/ppb 47/.	TETRANE 25/ppb .32/5	CHLORID 124/ppb 71/250000s
299-W10-19	12/14/94	B0DG70				15000.00 DQ
299-W10-20	12/15/94	B0DG56	70000.00		2200.00 DX	
299-W10-20	12/15/94	B0DG57		69000.00		
299-W10-20	12/15/94	B0DG71				17000.00 DQ
299-W10-21	12/14/94	B0DG72				13000.00 DQ
299-W6-2	12/14/94	B0DG75				4600.00 Q
299-W7-11	8/18/94	B0CB19				7800.00 Y
299-W7-12	8/18/94	B0CB24				12000.00 DY
299-W7-9	8/18/94	B0CB64				16000.00 DY
299-W8-1	8/18/94	B0CB69				16000.00 DY
299-W9-1	8/12/94	B0CB74	44000.00			

Well Name	Collection Date	Sample Number	CHLFORM 25/ppb .05/.	CHROMUM 34/ppb 11/50i	FCHROMI 34/ppb 11/50i	CO-60 140/pCi/L ./100
299-W10-19	12/14/94	B0DG70				.88 U
299-W10-20	12/15/94	B0DG56	60.00 Y	25.00		
299-W10-20	12/15/94	B0DG57			8.20 L	
299-W10-20	12/15/94	B0DG71				.54 U
299-W10-21	12/14/94	B0DG72				.88 U
299-W6-2	12/14/94	B0DG75				1.88
299-W9-1	8/12/94	B0CB74		18.00 L		

Well Name	Collection Date	Sample Number	FLUORID 124/ppb 51/1400i	ALPHA 135/pCi/L ./15	BETA 136/pCi/L ./.	I-129 139/pCi/L ./1
299-W10-19	12/14/94	B0DG70	500.00			.01 U
299-W10-20	12/15/94	B0DG56		1.57	24.60	
299-W10-20	12/15/94	B0DG71	400.00			-.05 U
299-W10-21	12/14/94	B0DG72	400.00			.45
299-W6-2	12/14/94	B0DG75	500.00			.09 U
299-W7-11	8/18/94	B0CB19	800.00 Y			
299-W7-12	8/18/94	B0CB24	700.00 Y			
299-W7-9	8/18/94	B0CB64	700.00 Y			
299-W8-1	8/18/94	B0CB69	700.00 Y			

Table 14-19. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 3 Data for Reporting Period October 1 through December 31, 1994.
(sheet 2 of 3)

Well Name	Collection Date	Sample Number	IRON	FIRON	LEAD	FLEAD
			34/ppb 18/300s	34/ppb 18/300s	40/ppb .86/50i	40/ppb .86/50i
299-W10-20	12/15/94	B0DG56	1100.00 B		8.50	
299-W10-20	12/15/94	B0DG57		17.00 BL		3.70 L
299-W9-1	8/12/94	B0CB74	390.00			

Well Name	Collection Date	Sample Number	MAGNES	FMAGNES	MANGESE	FMANGAN
			34/ppb 25/.	34/ppb 25/.	34/ppb 1/50s	34/ppb 1/50s
299-W10-20	12/15/94	B0DG56	22000.00		38.00	
299-W10-20	12/15/94	B0DG57		22000.00		11.00
299-W9-1	8/12/94	B0CB74	16000.00		8.40 L	

Well Name	Collection Date	Sample Number	MERCURY	FMERCUR	METHYCH	NICKEL
			41/ppb .095/2	41/ppb .095/2	25/ppb .082/.	34/ppb 16/.
299-W10-20	12/15/94	B0DG56	.07 BL		.22 L	13.00 U
299-W10-20	12/15/94	B0DG57		.06 BL		
299-W9-1	8/12/94	B0CB74				45.00

Well Name	Collection Date	Sample Number	FNICKEL	NITRATE	POTASUM	FPOTASS
			34/ppb 16/.	124/ppb 96/45000	34/ppb 890/.	34/ppb 890/.
299-W10-19	12/14/94	B0DG70		130000.00 DQ		
299-W10-20	12/15/94	B0DG56			5100.00	
299-W10-20	12/15/94	B0DG57	19.00 L			4900.00
299-W10-20	12/15/94	B0DG71		130000.00 DQ		
299-W10-21	12/14/94	B0DG72		150000.00 DQ		
299-W6-2	12/14/94	B0DG75		52000.00 DQ		
299-W7-11	8/18/94	B0CB19		47000.00 DHY		
299-W7-12	8/18/94	B0CB24		29000.00 DHY		
299-W7-9	8/18/94	B0CB64		31000.00 DHY		
299-W8-1	8/18/94	B0CB69		31000.00 DHY		
299-W9-1	8/12/94	B0CB74			4000.00	

Well Name	Collection Date	Sample Number	K-40	RADIUM	SELENIUM	FSELENI
			140/pCi/L ./.	137/pCi/L ./5i	48/ppb 1.4/10i	48/ppb 1.4/10i
299-W10-19	12/14/94	B0DG70	14.30 U			
299-W10-20	12/15/94	B0DG56		.25	2.20 L	
299-W10-20	12/15/94	B0DG57				2.20 L
299-W10-20	12/15/94	B0DG71	29.70			
299-W10-21	12/14/94	B0DG72	49.00			
299-W6-2	12/14/94	B0DG75	55.70			

Table 14-19. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 3 Data for Reporting Period October 1 through December 31, 1994.
(sheet 3 of 3)

Well Name	Collection Date	Sample Number	SODIUM 34/ppb 150/.	FSODIUM 34/ppb 150/.	SULFATE 124/ppb 89/25000s	TC-99 143/pCi/L ./900
299-W10-19	12/14/94	BODG70			38000.00 D	76.60
299-W10-20	12/15/94	BODG56	13000.00 BQ			
299-W10-20	12/15/94	BODG57		14000.00 BQ		
299-W10-20	12/15/94	BODG71			41000.00 D	59.50
299-W10-21	12/14/94	BODG72			35000.00 D	76.30
299-W6-2	12/14/94	BODG75			23000.00 D	28.10
299-W7-11	8/18/94	B0CB19			34000.00 DY	
299-W7-12	8/18/94	B0CB24			35000.00 DY	
299-W7-9	8/18/94	B0CB64			51000.00 DY	
299-W8-1	8/18/94	B0CB69			47000.00 DY	
299-W9-1	8/12/94	B0CB74	10000.00			

Well Name	Collection Date	Sample Number	PERCENE 25/ppb .08/5	TDS 65/ppm 10/500s	TRICENE 25/ppb .043/5	TRITIUM 142/pCi/L ./20000
299-W10-19	12/14/94	BODG70		340.00		1530.00
299-W10-20	12/15/94	BODG56	1.40 Z		7.40	
299-W10-20	12/15/94	BODG71		370.00		2160.00
299-W10-21	12/14/94	BODG72		390.00		1380.00
299-W6-2	12/14/94	BODG75		250.00		7510.00

Well Name	Collection Date	Sample Number	TURBID 126/NTU .016/.	VANADUM 34/ppb 6.4/.	FVANADI 34/ppb 6.4/.	ZINC 34/ppb 4.4/5000s
299-W10-20	12/15/94	BODG56	24.00 Q	17.00 L		13.00
299-W10-20	12/15/94	BODG57			13.00 L	
299-W9-1	8/12/94	B0CB74		21.00 L		17.00 B

Well Name	Collection Date	Sample Number	FZINC 34/ppb 4.4/5000s	ZN-65 140/pCi/L ./.	ZRNB-95 140/pCi/L ./.
299-W10-19	12/14/94	BODG70		2.11	-2.43 U
299-W10-20	12/15/94	BODG57	6.30 U		
299-W10-20	12/15/94	BODG71		.72 U	2.45
299-W10-21	12/14/94	BODG72		.75 U	-1.13 U
299-W6-2	12/14/94	BODG75		1.20 U	.52 U

For explanation of this table, see Section 1.4 of report.

Table 14-20. Contamination Indicator Parameters for the Low-Level
Waste Management Area 3 Data for Reporting Period
October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-W10-13	12/14/94	B0DG58	452		8.51		110 L	14.0
		B0DG59	453		8.58		200 L	14.4
		B0DG60	450		8.61		140 L	11.1
		B0DG61	451		8.61		120 L	11.1
299-W10-19	12/14/94	B0DG70	558		8.77		300 L	1000.0
299-W10-20	12/15/94	B0DG56	623		6.87			
		B0DG71	623		6.91		400 L	1280.0
299-W10-21	12/14/94	B0DG72	598		8.20		400 L	444.0
299-W6-2	11/30/94	B0D8J2	395		8.08			
		B0D8J3	395		8.08			
		B0D8J4	396		8.08			
		B0D8J5	398		8.08			
		B0D8J6	394		8.08			
		B0D8J7	395		8.08			
		B0D8J8	393		8.08			
		B0D8J9	397		8.07			
		B0DG75	370		6.41 F		200 L	119.0
		B0D8K0	394		8.31			
299-W8-1	11/30/94	B0D8K1	394		8.29			
		B0D8K2	394		8.28			
		B0D8K3	393		8.28			
		B0D8K4	393		8.28			
		B0D8K5	393		8.30			
		B0D8K6	393		8.29			
		B0D8K7	393		8.28			
		B0DG62	450		8.76		110 U	5.0 U
299-W9-1	12/14/94	B0DG63	454		8.75		110 U	5.0 U
		B0DG64	454		8.74		140 L	5.0 U
		B0DG65	455		8.74		300 L	5.0 U
		B0DG66					150 L	5.0 U
		B0DG67					300 L	5.0 U
		B0DG68					200 L	5.3
		B0DG69					200 L	5.0 U

For explanation of this table, see Section 1.4 of report.

Table 14-21. Constituent List and Summary of Results for the Low-Level
Waste Management Area 4 Data for Reporting Period
October 1 through December 31, 1994.
(sheet 1 of 3)

CONTAMINATION INDICATOR PARAMETERS

Short	(Method)	Constituent Name		Units	DWS			Number of Samples		
		Full			Lab MDL	Limit	Agency	Total	>MDL	>DWS
CONDUCT		Conductivity, field		umhos	1			64	64	
TOC		Total Organic Carbon		ppb	110			64	60	
TOX		Total Organic Halogen		ppb	5			55	54	
PH	93	pH, field		pH	.01	6.5-8.5	EPAS	63	63	1
PH	125	pH, lab		pH		6.5-8.5	EPAS	16	16	0

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name		Units	DWS			Number of Samples		
		Full			Lab MDL	Limit	Agency	Total	>MDL	>DWS
BARIUM		Barium		ppb	.59	1000	EPAI	16	16	0
FBIUM		Barium, filtered		ppb	.59	1000	EPAI	16	16	0
CADMIUM		Cadmium		ppb	3.3	10	EPAI	16	0	0
FCADMIU		Cadmium, filtered		ppb	3.3	10	EPAI	16	0	0
CHROMIUM		Chromium		ppb	4.5	50	EPAI	16	16	10
FCHROMI		Chromium, filtered		ppb	4.5	50	EPAI	16	12	0
FLUORID		Fluoride		ppb	36	1400	EPAI	16	16	0
ALPHA		Gross alpha		pCi/L		15	EPA	16	11	0
MERCURY		Mercury		ppb	.05	2	EPA	16	3	0
FMERCUR		Mercury, filtered		ppb	.05	2	EPA	16	3	0
NITRATE		Nitrate		ppb	11	45000	EPA	16	16	6
RADIUM		Radium		pCi/L		5	EPAI	16	6	0

GROUNDWATER QUALITY PARAMETERS

Short	(Method)	Constituent Name		Units	DWS			Number of Samples		
		Full			Lab MDL	Limit	Agency	Total	>MDL	>DWS
CHLORID		Chloride		ppb	14	250000	EPAS	16	16	0
IRON		Iron		ppb	5.24	300	EPAS	16	16	10
FIRON		Iron, filtered		ppb	5.24	300	EPAS	16	16	0
MANGESE		Manganese		ppb	.72	50	EPAS	16	16	2
FMANGAN		Manganese, filtered		ppb	.72	50	EPAS	16	16	0
LPHENOL	19	Phenol		ppb	.54			16	0	
LPHENOL	30	Phenol		ppb	.31			16	0	
SODIUM		Sodium		ppb	61			16	16	
FSODIUM		Sodium, filtered		ppb	61			16	16	
SULFATE		Sulfate		ppb	37	250000	EPAS	16	16	0

Table 14-21. Constituent List and Summary of Results for the Low-Level
Waste Management Area 4 Data for Reporting Period
October 1 through December 31, 1994.
(sheet 2 of 3)

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
1,1,1-T		1,1,1-Trichloroethane	ppb	.036	200		EPA	16	0	0
1,1,2-T		1,1,2-Trichloroethane	ppb	.078				16	0	
1,1-DIC		1,1-Dichloroethane	ppb	.058				16	0	
1,2-DIC		1,2-Dichloroethane	ppb	.029	5		EPA	16	0	0
14-dben		1,4-Dichlorobenzene	ppb	.055	75		EPA	16	0	0
246-trp		2,4,6-Trichlorophenol	ppb	1.3				16	0	
24-dchp	19	2,4-Dichlorophenol	ppb	4				16	0	
24-dchp	30	2,4-Dichlorophenol	ppb	1.3				16	0	
DIMPHEN		2,4-Dimethylphenol	ppb	1.2				16	0	
DINPHEN		2,4-Dinitrophenol	ppb	3				16	0	
26-dchp		2,6-Dichlorophenol	ppb	1.4				16	0	
CHLPHEN		2-Chlorophenol	ppb	1.6				16	0	
2METHPH		2-Methylphenol	ppb	5.1				16	0	
2NITPH	19	2-Nitrophenol	ppb	1.9				16	0	
2NITPH	30	2-Nitrophenol	ppb	1.3				16	0	
BUTDINP		2-sec-Butyl-4,6-dinitrophenol (DN	ppb	1.3				16	0	
46DN2MP		4,6-Dinitro-2-methylphenol	ppb	1.3				16	0	
CHLCRES		4-Chloro-3-methylphenol	ppb	1.3				16	0	
4METHPH		4-Methylphenol	ppb	7				16	0	
NITPHEN		4-Nitrophenol	ppb	3				16	0	
ALUMNUM		Aluminum	ppb	26				16	10	
FALUMIN		Aluminum, filtered	ppb	26				16	1	
ANTIONY		Antimony	ppb	62				16	0	
FANTIMO		Antimony, filtered	ppb	62				16	0	
BENZENE		Benzene	ppb	.013	5		EPA	16	1	0
BENZOTH		Benzothiazole	ppb	1.3				16	0	
BERYLUM		Beryllium	ppb	.17				16	1	
FBERYLL		Beryllium, filtered	ppb	.17				16	0	
BIS2EPH		Bis(2-ethylhexyl) phthalate	ppb	5.3				16	0	
BROMIDE		Bromide	ppb	100				16	1	
CALCIUM		Calcium	ppb	34				16	16	
FCALCIU		Calcium, filtered	ppb	34				16	16	
TETRANE		Carbon tetrachloride	ppb	.075	5		EPA	16	15	13
CHLFORM		Chloroform	ppb	.041				16	15	
COBALT		Cobalt	ppb	5.9				16	0	
FCOBALT		Cobalt, filtered	ppb	5.9				16	0	
COPPER		Copper	ppb	4.1	1000		EPAS	16	9	0
FCOPPER		Copper, filtered	ppb	4.1	1000		EPAS	16	2	0
CRESOLS		Cresols (methylphenols)	ppb	4.8				16	0	
CYANIDE		Cyanide	ppb	1				16	3	
DECANE		Decane	ppb	1.9				16	0	
DODECAN		Dodecane	ppb	1.1				16	0	
ETHBENZ		Ethylbenzene	ppb	.051	700		EPA	16	0	0

Table 14-21. Constituent List and Summary of Results for the Low-Level
Waste Management Area 4 Data for Reporting Period
October 1 through December 31, 1994.
(sheet 3 of 3)

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
BETA		Gross beta		pCi/L				16	14	
LEAD		Lead		ppb	1.5	50	EPAI	16	11	0
FLEAD		Lead, filtered		ppb	1.5	50	EPAI	16	6	0
MAGNES		Magnesium		ppb	23			16	16	
FMAGNES		Magnesium, filtered		ppb	23			16	16	
METHYCH		Methylene chloride		ppb	.09			16	0	
NAPHTHA		Naphthalene		ppb	1.2			16	0	
NICKEL		Nickel		ppb	13			16	16	
FNICKEL		Nickel, filtered		ppb	13			16	3	
NITRITE		Nitrite		ppb	18	1000	EPA	16	1	0
PENTCHP	19	Pentachlorophenol		ppb	8.3	1	EPA	16	0	16*
PENTCHP	30	Pentachlorophenol		ppb	1.3	1	EPA	16	0	16*
PHOSPHA		Phosphate		ppb	82			16	0	
POTASUM		Potassium		ppb	850			16	16	
FPOTASS		Potassium, filtered		ppb	850			16	16	
SILVER		Silver		ppb	3.6	50	EPAI	16	0	0
FSILVER		Silver, filtered		ppb	3.6	50	EPAI	16	0	0
PERCENE		Tetrachloroethene		ppb	.22	5	EPA	16	3	0
TETPHNL		Tetrachlorophenols		ppb	1.5			16	0	
TETRADE		Tetradecane		ppb	1.6			16	0	
TIN		Tin		ppb	69			16	0	
FTIN		Tin, filtered		ppb	69			16	0	
TOLUENE		Toluene		ppb	.016	1000	EPA	16	0	0
TRIBUTPH		Tributyl Phosphate		ppb	1.1			16	0	
TRICENE		Trichloroethene		ppb	.11	5	EPA	16	11	2
TRIPHNL		Trichlorophenols		ppb	1.7			16	0	
TDICHPH		Tris-2-chloroethyl phosphate		ppb	.61			16	0	
TRITIUM		Tritium		pCi/L		20000	EPA	16	2	0
TURBID		Turbidity		NTU	.016			16	16	
URANIUM		Uranium		ppb				16	16	
VANADUM		Vanadium		ppb	6.6			16	15	
FVANADI		Vanadium, filtered		ppb	6.6			16	13	
VINYIDE		Vinyl chloride		ppb	.13	2	EPA	16	0	0
XYLENE		Xylenes (total)		ppb	.035	10000	EPA	16	0	0
ZINC		Zinc		ppb	6.3	5000	EPAS	16	12	0
FZINC		Zinc, filtered		ppb	6.3	5000	EPAS	16	3	0
CIS12DE		cis-1,2-Dichloroethylene		ppb	.11	70	EPA	16	0	0
MCRESOL		m-Cresol		ppb	2.2			16	0	
TRANDCE		trans-1,2-Dichloroethylene		ppb	.073	100	EPA	16	0	0

For explanation of this table, see Section 1.4 of report.

Table 14-22. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 4 Data for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 9)

Well Name	Collection Date	Sample Number	ALUMNUM 34/ppb 19/.	FALUMIN 34/ppb 19/.	BARIUM 34/ppb 1.3/1000i	FBARIUM 34/ppb 1.3/1000i
299-W15-15	11/10/94	B0D7G0	35.00 L		38.00	
299-W15-15	11/10/94	B0D7G4		26.00 U		38.00
299-W15-16	11/08/94	B0D7G5	26.00 U		81.00	
299-W15-16	11/08/94	B0D7G9		26.00 U		80.00
299-W15-17	11/09/94	B0D7H0	26.00 U		74.00	
299-W15-17	11/09/94	B0D7H4		26.00 U		72.00
299-W15-18	11/08/94	B0D7H5	36.00 L		68.00	
299-W15-18	11/08/94	B0D7H9		26.00 U		69.00
299-W15-19	11/30/94	B0D7J0	82.00 L		60.00	
299-W15-19	11/30/94	B0D7J4		28.00 L		59.00
299-W15-20	11/11/94	B0D7J5	26.00 U		43.00	
299-W15-20	11/11/94	B0D7J9		26.00 U		42.00
299-W15-23	11/11/94	B0D7K0	30.00 L		30.00	
299-W15-23	11/11/94	B0D7K4		26.00 U		29.00
299-W15-24	11/10/94	B0D7K5	330.00		92.00	
299-W15-24	11/10/94	B0D7K9		26.00 U		83.00
299-W18-21	11/28/94	B0D7L0	31.00 L		37.00	
299-W18-21	11/28/94	B0D7L4		26.00 U		36.00
299-W18-22	11/29/94	B0D7L5	26.00 U		52.00	
299-W18-22	11/29/94	B0D7L9		26.00 U		54.00
299-W18-23	11/11/94	B0D7M0	26.00 U		27.00	
299-W18-23	11/11/94	B0D7M4		26.00 U		27.00
299-W18-24	11/08/94	B0D7M5	26.00 U		31.00	
299-W18-24	11/08/94	B0D7M9		26.00 U		29.00
299-W18-26	11/28/94	B0D7N0	2000.00		79.00	
299-W18-26	11/28/94	B0D7N4		26.00 U		48.00
299-W18-27	11/28/94	B0D7N5	290.00		33.00	
299-W18-27	11/28/94	B0D7N9		26.00 U		30.00
299-W18-28	11/28/94	B0D7P0	61.00 L		54.00	
299-W18-28	11/28/94	B0D7P4		26.00 U		53.00
299-W18-32	11/09/94	B0D7P5	150.00 L		31.00	
299-W18-32	11/09/94	B0D7P9		26.00 U		29.00

Well Name	Collection Date	Sample Number	BENZENE 25/ppb .24/5	BERYLUM 34/ppb 1.5/.	FBERYLL 34/ppb 1.5/.	BROMIDE 124/ppb 110/.
299-W15-15	11/10/94	B0D7G0	.01 U	.17 U		100.00 U
299-W15-15	11/10/94	B0D7G4			.17 U	
299-W15-16	11/08/94	B0D7G5	.06 LH	.17 U		300.00 LY
299-W15-16	11/08/94	B0D7G9			.17 U	
299-W15-17	11/09/94	B0D7H0	.01 U	.17 U		100.00 U
299-W15-17	11/09/94	B0D7H4			.17 U	
299-W15-18	11/08/94	B0D7H5	.01 UH	.17 U		100.00 UY
299-W15-18	11/08/94	B0D7H9			.17 U	
299-W15-19	11/30/94	B0D7J0	.01 U	.17 U		20.00 L
299-W15-19	11/30/94	B0D7J4			.17 U	
299-W15-20	11/11/94	B0D7J5	.01 U	.17 U		100.00 U
299-W15-20	11/11/94	B0D7J9			.17 U	
299-W15-23	11/11/94	B0D7K0	.01 U	.17 U		100.00 U
299-W15-23	11/11/94	B0D7K4			.17 U	
299-W15-24	11/10/94	B0D7K5	.01 U	.37 L		100.00 U
299-W15-24	11/10/94	B0D7K9			.17 U	

Table 14-22. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 4 Data for Reporting Period October 1 through December 31, 1994.
(sheet 2 of 9)

Well Name	Collection Date	Sample Number	BENZENE 25/ppb .24/5	BERYLUM 34/ppb 1.5/.	FBERYLL 34/ppb 1.5/.	BROMIDE 124/ppb 110/.
299-W18-21	11/28/94	B0D7L0	.01 UHY	.17 U		14.00 L
299-W18-21	11/28/94	B0D7L4			.17 U	
299-W18-22	11/29/94	B0D7L5	.01 U	.17 U		70.00 L
299-W18-22	11/29/94	B0D7L9			.17 U	
299-W18-23	11/11/94	B0D7M0	.01 U	.17 U		100.00 U
299-W18-23	11/11/94	B0D7M4			.17 U	
299-W18-24	11/08/94	B0D7M5	.01 UH	.17 U		100.00 U
299-W18-24	11/08/94	B0D7M9			.17 U	
299-W18-26	11/28/94	B0D7N0	.01 U	.17 U		30.00 L
299-W18-26	11/28/94	B0D7N4			.17 U	
299-W18-27	11/28/94	B0D7N5	.01 UHY	.17 U		100.00 U
299-W18-27	11/28/94	B0D7N9			.17 U	
299-W18-28	11/28/94	B0D7P0	.01 U	.17 U		13.00 L
299-W18-28	11/28/94	B0D7P4			.17 U	
299-W18-32	11/09/94	B0D7P5	.01 U	.17 U		100.00 U
299-W18-32	11/09/94	B0D7P9			.17 U	

Well Name	Collection Date	Sample Number	CALCIUM 34/ppb 47/.	FCALCIU 34/ppb 47/.	TETRANE 25/ppb .32/5	CHLORID 124/ppb 71/250000s
299-W15-15	11/10/94	B0D7G0	38000.00		1100.00 D	5600.00 Q
299-W15-15	11/10/94	B0D7G4		38000.00		
299-W15-16	11/08/94	B0D7G5	76000.00		5000.00 DH	36000.00 DQY
299-W15-16	11/08/94	B0D7G9		76000.00		
299-W15-17	11/09/94	B0D7H0	39000.00		.79 L	14000.00 D
299-W15-17	11/09/94	B0D7H4		39000.00		
299-W15-18	11/08/94	B0D7H5	61000.00		5300.00 DH	13000.00 DQY
299-W15-18	11/08/94	B0D7H9		62000.00		
299-W15-19	11/30/94	B0D7J0	46000.00		740.00 DY	13000.00 D
299-W15-19	11/30/94	B0D7J4		46000.00		
299-W15-20	11/11/94	B0D7J5	30000.00		58.00 X	4300.00
299-W15-20	11/11/94	B0D7J9		29000.00		
299-W15-23	11/11/94	B0D7K0	31000.00		440.00 D	5500.00
299-W15-23	11/11/94	B0D7K4		31000.00		
299-W15-24	11/10/94	B0D7K5	33000.00		160.00 D	6100.00 Q
299-W15-24	11/10/94	B0D7K9		32000.00		
299-W18-21	11/28/94	B0D7L0	34000.00		1700.00 DHY	4900.00
299-W18-21	11/28/94	B0D7L4		33000.00		
299-W18-22	11/29/94	B0D7L5	38000.00		.08 U	12000.00 D
299-W18-22	11/29/94	B0D7L9		39000.00		
299-W18-23	11/11/94	B0D7M0	28000.00		520.00 D	3800.00
299-W18-23	11/11/94	B0D7M4		28000.00		
299-W18-24	11/08/94	B0D7M5	27000.00		630.00 DH	5600.00 Q
299-W18-24	11/08/94	B0D7M9		27000.00		
299-W18-26	11/28/94	B0D7N0	34000.00		30.00	13000.00 D
299-W18-26	11/28/94	B0D7N4		32000.00		
299-W18-27	11/28/94	B0D7N5	25000.00		390.00 DXHY	3300.00
299-W18-27	11/28/94	B0D7N9		26000.00		
299-W18-28	11/28/94	B0D7P0	29000.00		32.00	6400.00
299-W18-28	11/28/94	B0D7P4		30000.00		
299-W18-32	11/09/94	B0D7P5	19000.00		.97 L	5800.00
299-W18-32	11/09/94	B0D7P9		19000.00		

Table 14-22. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 4 Data for Reporting Period October 1 through December 31, 1994.
(sheet 3 of 9)

Well Name	Collection Date	Sample Number	CHLFORM 25/ppb .05/.	CHROMIUM 34/ppb 11/50i	CHROMIUM 34/ppb 11/50i	COPPER 34/ppb 2.6/1000s
299-W15-15	11/10/94	B0D7G0	4.70	29.00 q		4.10 U
299-W15-15	11/10/94	B0D7G4			11.00 Lq	
299-W15-16	11/08/94	B0D7G5	31.00 H	100.00 q		4.10 U
299-W15-16	11/08/94	B0D7G9			11.00 Lq	
299-W15-17	11/09/94	B0D7H0	.91	31.00 q		4.10 U
299-W15-17	11/09/94	B0D7H4			9.70 Lq	
299-W15-18	11/08/94	B0D7H5	38.00 H	120.00 q		4.10 U
299-W15-18	11/08/94	B0D7H9			8.00 Lq	
299-W15-19	11/30/94	B0D7J0	36.00 X	68.00		6.40 L
299-W15-19	11/30/94	B0D7J4			9.70 L	
299-W15-20	11/11/94	B0D7J5	7.20	56.00 q		6.20 L
299-W15-20	11/11/94	B0D7J9			8.40 Lq	
299-W15-23	11/11/94	B0D7K0	2.50	81.00 q		6.80 L
299-W15-23	11/11/94	B0D7K4			5.00 Lq	
299-W15-24	11/10/94	B0D7K5	21.00	1000.00 q		57.00
299-W15-24	11/10/94	B0D7K9			5.40 Lq	
299-W18-21	11/28/94	B0D7L0	12.00 HY	94.00		4.10 U
299-W18-21	11/28/94	B0D7L4			8.70 L	
299-W18-22	11/29/94	B0D7L5	.04 U	100.00		4.30 L
299-W18-22	11/29/94	B0D7L9			8.80 L	
299-W18-23	11/11/94	B0D7M0	2.80	20.00 q		4.10 U
299-W18-23	11/11/94	B0D7M4			5.70 Lq	
299-W18-24	11/08/94	B0D7M5	16.00 H	40.00 q		4.10 U
299-W18-24	11/08/94	B0D7M9			4.50 Uq	
299-W18-26	11/28/94	B0D7N0	4.30	130.00		15.00 L
299-W18-26	11/28/94	B0D7N4			6.00 L	
299-W18-27	11/28/94	B0D7N5	2.00 HY	260.00		11.00 L
299-W18-27	11/28/94	B0D7N9			4.50 U	
299-W18-28	11/28/94	B0D7P0	9.10	47.00		4.80 L
299-W18-28	11/28/94	B0D7P4			4.50 U	
299-W18-32	11/09/94	B0D7P5	.59	14.00 Lq		4.20 L
299-W18-32	11/09/94	B0D7P9			4.50 Uq	

Well Name	Collection Date	Sample Number	FCOPPER 34/ppb 2.6/1000s	CYANIDE 358/ppb .94/.	FLUORIDE 124/ppb 51/1400i	ALPHA 135/pCi/L ./15
299-W15-15	11/10/94	B0D7G0		1.00 U	300.00	3.18
299-W15-15	11/10/94	B0D7G4	4.10 U			
299-W15-16	11/08/94	B0D7G5		1.00 U	600.00 Y	2.76
299-W15-16	11/08/94	B0D7G9	4.10 U			
299-W15-17	11/09/94	B0D7H0		2.00 L	400.00	1.17
299-W15-17	11/09/94	B0D7H4	4.10 U			
299-W15-18	11/08/94	B0D7H5		1.00 U	900.00 Y	1.94
299-W15-18	11/08/94	B0D7H9	4.10 U			
299-W15-19	11/30/94	B0D7J0		2.00 L	500.00	2.00
299-W15-19	11/30/94	B0D7J4	4.10 U			
299-W15-20	11/11/94	B0D7J5		1.00 U	400.00	.36 U
299-W15-20	11/11/94	B0D7J9	4.10 U			
299-W15-23	11/11/94	B0D7K0		1.00 U	500.00	.55 U
299-W15-23	11/11/94	B0D7K4	4.20 L			
299-W15-24	11/10/94	B0D7K5		1.00 U	500.00	1.53
299-W15-24	11/10/94	B0D7K9	7.80 L			

Table 14-22. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 4 Data for Reporting Period October 1 through December 31, 1994.
(sheet 4 of 9)

Well Name	Collection Date	Sample Number	FCOPPER 34/ppb 2.6/1000s	CYANIDE 358/ppb .94/.	FLUORID 124/ppb 51/1400i	ALPHA 135/pCi/L ./15
299-W18-21	11/28/94	B0D7L0		1.00 U	500.00	9.96
299-W18-21	11/28/94	B0D7L4	4.10 U			
299-W18-22	11/29/94	B0D7L5		1.00 U	400.00	.79 U
299-W18-22	11/29/94	B0D7L9	4.10 U			
299-W18-23	11/11/94	B0D7M0		1.00 U	500.00	1.69
299-W18-23	11/11/94	B0D7M4	4.10 U			
299-W18-24	11/08/94	B0D7M5		1.00 U	900.00	.65 U
299-W18-24	11/08/94	B0D7M9	4.10 U			
299-W18-26	11/28/94	B0D7N0		1.00 U	600.00	4.29
299-W18-26	11/28/94	B0D7N4	4.10 U			
299-W18-27	11/28/94	B0D7N5		1.00 U	400.00	.79 U
299-W18-27	11/28/94	B0D7N9	4.10 U			
299-W18-28	11/28/94	B0D7P0		1.00 U	400.00	1.26
299-W18-28	11/28/94	B0D7P4	4.10 U			
299-W18-32	11/09/94	B0D7P5		1.00 L	600.00	2.56
299-W18-32	11/09/94	B0D7P9	4.10 U			

Well Name	Collection Date	Sample Number	BETA 136/pCi/L ./.	IRON 34/ppb 18/300s	FIRON 34/ppb 18/300s	LEAD 40/ppb .86/50i
299-W15-15	11/10/94	B0D7G0	7.05	170.00 q		7.10
299-W15-15	11/10/94	B0D7G4			45.00 q	
299-W15-16	11/08/94	B0D7G5	15.10	420.00 q		1.80 L
299-W15-16	11/08/94	B0D7G9			34.00 q	
299-W15-17	11/09/94	B0D7H0	7.58	150.00 q		1.50 U
299-W15-17	11/09/94	B0D7H4			46.00 q	
299-W15-18	11/08/94	B0D7H5	6.51	530.00 q		1.50 U
299-W15-18	11/08/94	B0D7H9			30.00 q	
299-W15-19	11/30/94	B0D7J0	11.90	320.00 Bq		1.60 BL
299-W15-19	11/30/94	B0D7J4			26.00 Bq	
299-W15-20	11/11/94	B0D7J5	1.68 U	250.00 q		1.50 U
299-W15-20	11/11/94	B0D7J9			22.00 q	
299-W15-23	11/11/94	B0D7K0	2.95	410.00 q		2.10 L
299-W15-23	11/11/94	B0D7K4			16.00 Lq	
299-W15-24	11/10/94	B0D7K5	7.66	4900.00 q		1.60 L
299-W15-24	11/10/94	B0D7K9			64.00 q	
299-W18-21	11/28/94	B0D7L0	9.53	420.00 q		11.00
299-W18-21	11/28/94	B0D7L4			52.00 q	
299-W18-22	11/29/94	B0D7L5	5.00	420.00 Bq		1.90 L
299-W18-22	11/29/94	B0D7L9			30.00 Bq	
299-W18-23	11/11/94	B0D7M0	.54 U	95.00 q		1.50 U
299-W18-23	11/11/94	B0D7M4			21.00 q	
299-W18-24	11/08/94	B0D7M5	5.76	220.00 q		1.50 U
299-W18-24	11/08/94	B0D7M9			29.00 q	
299-W18-26	11/28/94	B0D7N0	9.02	4100.00 q		5.00 L
299-W18-26	11/28/94	B0D7N4			21.00 q	
299-W18-27	11/28/94	B0D7N5	3.46	1600.00 q		1.90 L
299-W18-27	11/28/94	B0D7N9			29.00 q	
299-W18-28	11/28/94	B0D7P0	5.01	250.00 q		5.00 L
299-W18-28	11/28/94	B0D7P4			12.00 Lq	
299-W18-32	11/09/94	B0D7P5	3.25	800.00 q		2.00 L
299-W18-32	11/09/94	B0D7P9			26.00 q	

Table 14-22. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 4 Data for Reporting Period October 1 through December 31, 1994.
(sheet 5 of 9)

Well Name	Collection Date	Sample Number	FLEAD 40/ppb .86/50i	MAGNES 34/ppb 25/.	FMAGNES 34/ppb 25/.	MANGESE 34/ppb 1/50s
299-W15-15	11/10/94	B0D7G0		11000.00		4.60 L
299-W15-15	11/10/94	B0D7G4	1.50 U		11000.00	
299-W15-16	11/08/94	B0D7G5		21000.00		8.60 L
299-W15-16	11/08/94	B0D7G9	1.50 L		21000.00	
299-W15-17	11/09/94	B0D7H0		14000.00		5.40 L
299-W15-17	11/09/94	B0D7H4	1.50 U		14000.00	
299-W15-18	11/08/94	B0D7H5		18000.00		17.00
299-W15-18	11/08/94	B0D7H9	1.50 U		19000.00	
299-W15-19	11/30/94	B0D7J0		13000.00		7.00 L
299-W15-19	11/30/94	B0D7J4	2.20 BL		13000.00	
299-W15-20	11/11/94	B0D7J5		8500.00		7.40 L
299-W15-20	11/11/94	B0D7J9	1.50 L		8400.00	
299-W15-23	11/11/94	B0D7K0		8400.00		16.00
299-W15-23	11/11/94	B0D7K4	1.50 U		8400.00	
299-W15-24	11/10/94	B0D7K5		11000.00		130.00
299-W15-24	11/10/94	B0D7K9	2.20 L		10000.00	
299-W18-21	11/28/94	B0D7L0		11000.00		13.00
299-W18-21	11/28/94	B0D7L4	1.50 U		11000.00	
299-W18-22	11/29/94	B0D7L5		13000.00		8.80 L
299-W18-22	11/29/94	B0D7L9	7.10		13000.00	
299-W18-23	11/11/94	B0D7M0		7900.00		3.60 L
299-W18-23	11/11/94	B0D7M4	1.50 U		7900.00	
299-W18-24	11/08/94	B0D7M5		8200.00		15.00
299-W18-24	11/08/94	B0D7M9	1.50 U		8200.00	
299-W18-26	11/28/94	B0D7N0		9400.00		140.00
299-W18-26	11/28/94	B0D7N4	1.50 U		8400.00	
299-W18-27	11/28/94	B0D7N5		7700.00		47.00
299-W18-27	11/28/94	B0D7N9	2.10 L		7600.00	
299-W18-28	11/28/94	B0D7P0		8900.00		11.00
299-W18-28	11/28/94	B0D7P4	1.50 U		8900.00	
299-W18-32	11/09/94	B0D7P5		5900.00		12.00
299-W18-32	11/09/94	B0D7P9	1.50 U		6100.00	

Well Name	Collection Date	Sample Number	FMANGAN 34/ppb 1/50s	MERCURY 41/ppb .095/2	FMERCUR 41/ppb .095/2	NICKEL 34/ppb 16/.
299-W15-15	11/10/94	B0D7G0		.05 U		19.00 L
299-W15-15	11/10/94	B0D7G4	1.50 L		.05 U	
299-W15-16	11/08/94	B0D7G5		.05 U		50.00
299-W15-16	11/08/94	B0D7G9	2.30 L		.05 U	
299-W15-17	11/09/94	B0D7H0		.05 U		34.00
299-W15-17	11/09/94	B0D7H4	3.90 L		.05 U	
299-W15-18	11/08/94	B0D7H5		.05 U		68.00
299-W15-18	11/08/94	B0D7H9	2.50 L		.05 U	
299-W15-19	11/30/94	B0D7J0		.05 U		32.00
299-W15-19	11/30/94	B0D7J4	2.60 L		.05 U	
299-W15-20	11/11/94	B0D7J5		.05 U		33.00
299-W15-20	11/11/94	B0D7J9	2.90 L		.05 U	
299-W15-23	11/11/94	B0D7K0		.05 U		45.00
299-W15-23	11/11/94	B0D7K4	4.80 L		.05 L	
299-W15-24	11/10/94	B0D7K5		.05 U		520.00
299-W15-24	11/10/94	B0D7K9	25.00		.05 U	

Table 14-22. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 4 Data for Reporting Period October 1 through December 31, 1994.
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Well Name	Collection Date	Sample Number	FMANGAN 34/ppb 1/50s	MERCURY 41/ppb .095/2	FMERCUR 41/ppb .095/2	NICKEL 34/ppb 16/.
299-W18-21	11/28/94	B0D7L0		.05 U		43.00
299-W18-21	11/28/94	B0D7L4	5.90 L		.05 U	
299-W18-22	11/29/94	B0D7L5		.05 U		57.00
299-W18-22	11/29/94	B0D7L9	1.60 L		.05 U	
299-W18-23	11/11/94	B0D7M0		.06 L		14.00 L
299-W18-23	11/11/94	B0D7M4	2.60 L		.05 U	
299-W18-24	11/08/94	B0D7M5		.05 U		31.00
299-W18-24	11/08/94	B0D7M9	2.10 L		.05 U	
299-W18-26	11/28/94	B0D7N0		.05 U		75.00
299-W18-26	11/28/94	B0D7N4	24.00		.05 U	
299-W18-27	11/28/94	B0D7N5		.06 L		140.00
299-W18-27	11/28/94	B0D7N9	3.40 L		.08 L	
299-W18-28	11/28/94	B0D7P0		.05 U		22.00 L
299-W18-28	11/28/94	B0D7P4	4.30 L		.05 U	
299-W18-32	11/09/94	B0D7P5		.08 L		22.00 L
299-W18-32	11/09/94	B0D7P9	2.90 L		.09 L	

Well Name	Collection Date	Sample Number	FNICKEL 34/ppb 16/.	NITRATE 124/ppb 96/45000	NITRITE 124/ppb 110/1000	POTASUM 34/ppb 890/.
299-W15-15	11/10/94	B0D7G0		67000.00 DQ	18.00 U	3900.00
299-W15-15	11/10/94	B0D7G4	13.00 U			
299-W15-16	11/08/94	B0D7G5		91000.00 DHQY	18.00 UHY	5700.00
299-W15-16	11/08/94	B0D7G9	14.00 L			
299-W15-17	11/09/94	B0D7H0		17000.00 D	18.00 U	4600.00
299-W15-17	11/09/94	B0D7H4	26.00 L			
299-W15-18	11/08/94	B0D7H5		88000.00 DHQY	18.00 UHY	5200.00
299-W15-18	11/08/94	B0D7H9	13.00 U			
299-W15-19	11/30/94	B0D7J0		80000.00 DQ	18.00 U	4900.00
299-W15-19	11/30/94	B0D7J4	13.00 U			
299-W15-20	11/11/94	B0D7J5		8600.00	18.00 U	3900.00
299-W15-20	11/11/94	B0D7J9	13.00 U			
299-W15-23	11/11/94	B0D7K0		28000.00 D	18.00 U	3900.00
299-W15-23	11/11/94	B0D7K4	13.00 U			
299-W15-24	11/10/94	B0D7K5		72000.00 DQ	300.00	5800.00
299-W15-24	11/10/94	B0D7K9	19.00 L			
299-W18-21	11/28/94	B0D7L0		67000.00 D	18.00 U	3400.00
299-W18-21	11/28/94	B0D7L4	13.00 U			
299-W18-22	11/29/94	B0D7L5		20000.00 DQ	18.00 U	4300.00
299-W18-22	11/29/94	B0D7L9	13.00 U			
299-W18-23	11/11/94	B0D7M0		5500.00	18.00 U	3400.00
299-W18-23	11/11/94	B0D7M4	13.00 U			
299-W18-24	11/08/94	B0D7M5		29000.00 DHQ	18.00 UH	3100.00
299-W18-24	11/08/94	B0D7M9	13.00 U			
299-W18-26	11/28/94	B0D7N0		4800.00	18.00 U	4900.00
299-W18-26	11/28/94	B0D7N4	13.00 U			
299-W18-27	11/28/94	B0D7N5		3700.00	18.00 U	3100.00
299-W18-27	11/28/94	B0D7N9	13.00 U			
299-W18-28	11/28/94	B0D7P0		1500.00	18.00 U	4400.00
299-W18-28	11/28/94	B0D7P4	13.00 U			
299-W18-32	11/09/94	B0D7P5		1500.00	18.00 U	3700.00
299-W18-32	11/09/94	B0D7P9	13.00 U			

Table 14-22. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 4 Data for Reporting Period October 1 through December 31, 1994.
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Well Name	Collection Date	Sample Number	FPOTASS 34/ppb 890/.	RADIUM 137/pCi/L ./5i	SODIUM 34/ppb 150/.	FSODIUM 34/ppb 150/.
299-W15-15	11/10/94	B0D7G0		.18	21000.00	
299-W15-15	11/10/94	B0D7G4	3800.00			21000.00
299-W15-16	11/08/94	B0D7G5		.11 U	42000.00	
299-W15-16	11/08/94	B0D7G9	5600.00			42000.00
299-W15-17	11/09/94	B0D7H0		.11 U	16000.00	
299-W15-17	11/09/94	B0D7H4	4700.00			16000.00
299-W15-18	11/08/94	B0D7H5		.32	27000.00	
299-W15-18	11/08/94	B0D7H9	5300.00			28000.00
299-W15-19	11/30/94	B0D7J0		.25	23000.00 q	
299-W15-19	11/30/94	B0D7J4	4500.00			24000.00 q
299-W15-20	11/11/94	B0D7J5		.11 U	14000.00	
299-W15-20	11/11/94	B0D7J9	4000.00			14000.00
299-W15-23	11/11/94	B0D7K0		.30	20000.00	
299-W15-23	11/11/94	B0D7K4	3600.00			20000.00
299-W15-24	11/10/94	B0D7K5		.06 U	20000.00	
299-W15-24	11/10/94	B0D7K9	5700.00			20000.00
299-W18-21	11/28/94	B0D7L0		-.02 U	25000.00 q	
299-W18-21	11/28/94	B0D7L4	3200.00			24000.00 q
299-W18-22	11/29/94	B0D7L5		.13	14000.00 Bq	
299-W18-22	11/29/94	B0D7L9	4100.00			15000.00 Bq
299-W18-23	11/11/94	B0D7M0		.09 U	14000.00	
299-W18-23	11/11/94	B0D7M4	3400.00			14000.00
299-W18-24	11/08/94	B0D7M5		.12 U	17000.00	
299-W18-24	11/08/94	B0D7M9	3500.00			17000.00
299-W18-26	11/28/94	B0D7N0		.67	20000.00 q	
299-W18-26	11/28/94	B0D7N4	4200.00			20000.00 q
299-W18-27	11/28/94	B0D7N5		.03 U	12000.00 q	
299-W18-27	11/28/94	B0D7N9	2800.00			13000.00 q
299-W18-28	11/28/94	B0D7P0		.13 U	14000.00 q	
299-W18-28	11/28/94	B0D7P4	4500.00			14000.00 q
299-W18-32	11/09/94	B0D7P5		.03 U	14000.00	
299-W18-32	11/09/94	B0D7P9	3300.00			14000.00

Well Name	Collection Date	Sample Number	SULFATE 124/ppb 89/250000s	PERCENE 25/ppb .08/5	TRICENE 25/ppb .043/5	TRITIUM 142/pCi/L ./20000
299-W15-15	11/10/94	B0D7G0	18000.00 D	.22 U	.37 L	198.00 U
299-W15-16	11/08/94	B0D7G5	91000.00 DY	.42 LH	6.60 H	83.60 U
299-W15-17	11/09/94	B0D7H0	28000.00 D	.22 U	.16 L	7.68 U
299-W15-18	11/08/94	B0D7H5	48000.00 DY	1.10 H	5.30 H	166.00 U
299-W15-19	11/30/94	B0D7J0	28000.00 D	.22 U	1.30	167.00 U
299-W15-20	11/11/94	B0D7J5	15000.00 D	.22 U	.15 L	213.00 U
299-W15-23	11/11/94	B0D7K0	16000.00 D	.22 U	.40 L	285.00
299-W15-24	11/10/94	B0D7K5	17000.00 D	.22 U	.11 U	185.00 U
299-W18-21	11/28/94	B0D7L0	20000.00 D	.22 UHY	1.70 HY	150.00 U
299-W18-22	11/29/94	B0D7L5	19000.00 D	.22 U	.11 U	132.00 U
299-W18-23	11/11/94	B0D7M0	16000.00 D	.22 U	.29 L	140.00 U
299-W18-24	11/08/94	B0D7M5	17000.00 D	.22 UH	1.00 H	76.90 U
299-W18-26	11/28/94	B0D7N0	21000.00 D	.22 U	.11 U	372.00
299-W18-27	11/28/94	B0D7N5	16000.00 D	2.30 HY	.14 LHY	22.40 U
299-W18-28	11/28/94	B0D7P0	18000.00 D	.22 U	.11 U	107.00 U
299-W18-32	11/09/94	B0D7P5	18000.00 D	.22 U	.11 U	206.00 U

Table 14-22. Constituents with at Least One Detected Value for the Low-Level
Waste Management Area 4 Data for Reporting Period
October 1 through December 31, 1994.
(sheet 8 of 9)

Well Name	Collection Date	Sample Number	TURBID 126/NTU .016/.	URANIUM 145/ppb ./.	VANADUM 34/ppb 6.4/.	FVANADI 34/ppb 6.4/.
299-W15-15	11/10/94	B0D7G0	2.40	5.04	25.00 L	
299-W15-15	11/10/94	B0D7G4				24.00 L
299-W15-16	11/08/94	B0D7G5	1.70 q	2.43	24.00 L	
299-W15-16	11/08/94	B0D7G9				23.00 L
299-W15-17	11/09/94	B0D7H0	1.30 q	1.09	30.00 L	
299-W15-17	11/09/94	B0D7H4				28.00 L
299-W15-18	11/08/94	B0D7H5	2.30 q	1.81	24.00 L	
299-W15-18	11/08/94	B0D7H9				24.00 L
299-W15-19	11/30/94	B0D7J0	1.70 q	2.61	16.00 L	
299-W15-19	11/30/94	B0D7J4				13.00 L
299-W15-20	11/11/94	B0D7J5	2.40	.79	15.00 L	
299-W15-20	11/11/94	B0D7J9				16.00 L
299-W15-23	11/11/94	B0D7K0	1.80	.93	29.00 L	
299-W15-23	11/11/94	B0D7K4				28.00 L
299-W15-24	11/10/94	B0D7K5	19.00	.85	13.00 L	
299-W15-24	11/10/94	B0D7K9				6.60 U
299-W18-21	11/28/94	B0D7L0	1.50 q	20.20	23.00 L	
299-W18-21	11/28/94	B0D7L4				23.00 L
299-W18-22	11/29/94	B0D7L5	1.50 q	.82	25.00 L	
299-W18-22	11/29/94	B0D7L9				25.00 L
299-W18-23	11/11/94	B0D7M0	.95	1.31	26.00 L	
299-W18-23	11/11/94	B0D7M4				29.00 L
299-W18-24	11/08/94	B0D7M5	1.70 q	.96	33.00	
299-W18-24	11/08/94	B0D7M9				34.00
299-W18-26	11/28/94	B0D7N0	150.00 q	1.75	11.00 L	
299-W18-26	11/28/94	B0D7N4				6.60 U
299-W18-27	11/28/94	B0D7N5	9.90 q	.99	29.00 L	
299-W18-27	11/28/94	B0D7N9				26.00 L
299-W18-28	11/28/94	B0D7P0	1.40 q	.91	6.60 U	
299-W18-28	11/28/94	B0D7P4				6.60 U
299-W18-32	11/09/94	B0D7P5	18.00 q	2.38	51.00	
299-W18-32	11/09/94	B0D7P9				47.00

Table 14-22. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 4 Data for Reporting Period October 1 through December 31, 1994.
(sheet 9 of 9)

Well Name	Collection Date	Sample Number	ZINC 34/ppb 4.4/5000s	FZINC 34/ppb 4.4/5000s
299-W15-15	11/10/94	B0D7G0	6.50 L	
299-W15-15	11/10/94	B0D7G4		6.30 U
299-W15-16	11/08/94	B0D7G5	6.40 L	
299-W15-16	11/08/94	B0D7G9		6.30 U
299-W15-17	11/09/94	B0D7H0	11.00	
299-W15-17	11/09/94	B0D7H4		6.30 U
299-W15-18	11/08/94	B0D7H5	9.70 L	
299-W15-18	11/08/94	B0D7H9		6.30 U
299-W15-19	11/30/94	B0D7J0	10.00	
299-W15-19	11/30/94	B0D7J4		6.30 U
299-W15-20	11/11/94	B0D7J5	6.30 U	
299-W15-20	11/11/94	B0D7J9		6.30 U
299-W15-23	11/11/94	B0D7K0	23.00	
299-W15-23	11/11/94	B0D7K4		6.30 U
299-W15-24	11/10/94	B0D7K5	22.00	
299-W15-24	11/10/94	B0D7K9		16.00
299-W18-21	11/28/94	B0D7L0	22.00	
299-W18-21	11/28/94	B0D7L4		6.30 U
299-W18-22	11/29/94	B0D7L5	6.30 U	
299-W18-22	11/29/94	B0D7L9		6.30 U
299-W18-23	11/11/94	B0D7M0	6.30 U	
299-W18-23	11/11/94	B0D7M4		6.30 U
299-W18-24	11/08/94	B0D7M5	11.00	
299-W18-24	11/08/94	B0D7M9		10.00
299-W18-26	11/28/94	B0D7N0	120.00	
299-W18-26	11/28/94	B0D7N4		6.30 U
299-W18-27	11/28/94	B0D7N5	6.60 L	
299-W18-27	11/28/94	B0D7N9		6.30 U
299-W18-28	11/28/94	B0D7P0	6.30 U	
299-W18-28	11/28/94	B0D7P4		6.30 U
299-W18-32	11/09/94	B0D7P5	430.00	
299-W18-32	11/09/94	B0D7P9		10.00

For explanation of this table, see Section 1.4 of report.

Table 14-23. Contamination Indicator Parameters for the Low-Level
Waste Management Area 4 Data for Reporting Period
October 1 through December 31, 1994.
(sheet 1 of 2)

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-W15-15	11/10/94	B0D7G0	378		8.01	8.20	200 LQ	507.0
		B0D7G1	378		8.02		300 LQ	754.0
		B0D7G2	377		8.03		200 LQ	516.0
299-W15-16	11/08/94	B0D7G3	376		8.02		200 LQ	728.0
		B0D7G5	784		6.32 F	7.90	500 L	2600.0
		B0D7G6	782		6.35 F		500 L	2690.0
		B0D7G7	780		6.35 F		500 L	2750.0
299-W15-17	11/09/94	B0D7G8	779		6.36 F		500 L	2170.0
		B0D7H0	364		7.97	8.20	200 L	
		B0D7H1	363		7.96		200 L	
		B0D7H2	364		7.93		300 L	
299-W15-18	11/08/94	B0D7H3	363		7.92		130 L	
		B0D7H5	476		7.48	7.90	400 L	3760.0
		B0D7H6	479		7.48		500 L	1740.0
		B0D7H7	479		7.48		400 L	3570.0
299-W15-19	11/30/94	B0D7H8	480		7.48		500 L	1990.0
		B0D7J0	395		7.70	8.10	300 L	694.0
		B0D7J1	395		7.74		300 L	684.0
		B0D7J2	394		7.77		300 L	736.0
299-W15-20	11/11/94	B0D7J3	399		7.79		300 L	786.0
		B0D7J5	294		8.41	8.40	200 L	58.4
		B0D7J6	294		8.43		300 L	62.5
		B0D7J7	290		8.44		200 L	61.9
299-W15-23	11/11/94	B0D7J8	287		8.44		200 L	51.6
		B0D7K0	324		8.40	8.20	140 L	237.0
		B0D7K1	323		8.38		150 L	342.0
		B0D7K2	321		8.37		300 L	272.0
299-W15-24	11/10/94	B0D7K3	322		8.36		300 L	267.0
		B0D7K5	345		8.26	8.00	200 LQ	93.3
		B0D7K6	345		8.33		200 LQ	54.3
		B0D7K7	348		8.47		200 LQ	80.3
299-W18-21	11/28/94	B0D7K8	350		8.54		200 LQ	59.3
		B0D7L0	376		7.90	7.90	300 L	1410.0
		B0D7L1	376		7.89		200 L	1340.0
		B0D7L2	374		7.89		300 L	1100.0
299-W18-22	11/29/94	B0D7L3	373		7.88		300 L	916.0
		B0D7L5	359		7.89	8.00	110 U	5.2
		B0D7L6	359		7.87		110 U	8.0
		B0D7L7	359				110 U	7.6
299-W18-23	11/11/94	B0D7L8	353		7.87		110 U	5.0 U
		B0D7M0	264		8.09	8.00	200 L	392.0
		B0D7M1	263		8.09		200 L	359.0
		B0D7M2	262		8.09		200 L	358.0

Table 14-23. Contamination Indicator Parameters for the Low-Level
Waste Management Area 4 Data for Reporting Period
October 1 through December 31, 1994.
(sheet 2 of 2)

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-W18-23	11/11/94	B0D7M3	262		8.09		200 L	358.0
299-W18-24	11/08/94	B0D7M5	288		7.66	8.00	300 L	585.0
		B0D7M6	285		7.64		300 L	568.0
		B0D7M7	283		7.64		500 L	567.0
		B0D7M8	280		7.65		400 L	560.0
299-W18-26	11/28/94	B0D7N0	315		8.34	8.50	300 L	25.1
		B0D7N1	316		8.34		300 L	
		B0D7N2	316		8.33		300 L	22.9
		B0D7N3	317		8.34		200 L	37.0
299-W18-27	11/28/94	B0D7N5	236		7.86	8.00	200 L	231.0
		B0D7N6	237		7.87		300 L	280.0
		B0D7N7	237		7.86		300 L	268.0
		B0D7N8	237		7.86		300 L	255.0
299-W18-28	11/28/94	B0D7P0	290		8.00	8.00	300 L	38.6
		B0D7P1	289		8.02		400 L	37.7
		B0D7P2	289		8.03		300 L	35.3
		B0D7P3	288		8.03		400 L	27.6
299-W18-32	11/09/94	B0D7P5	183		8.25	8.20	300 L	
		B0D7P6	183		8.24		300 L	
		B0D7P7	182		8.22		300 L	
		B0D7P8	181		8.23		300 L	

For explanation of this table, see Section 1.4 of report.

Table 14-24. Constituent List and Summary of Results for the Low-Level Waste Management Area 5 Data for Reporting Period October 1 through December 31, 1994.

CONTAMINATION INDICATOR PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
CONDUCT		Conductivity, field	umhos		1			12	12	
TOC		Total Organic Carbon	ppb		110			5	5	
TOX		Total Organic Halogen	ppb		5			5	5	
PH		pH, field	pH		.01	6.5-8.5	EPAS	12	12	1

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
FLUORID		Fluoride	ppb		36	1400	EPA1	5	4	0
NITRATE		Nitrate	ppb		11	45000	EPA	5	5	4

GROUNDWATER QUALITY PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
CHLORID		Chloride	ppb		14	250000	EPAS	5	5	0
SULFATE		Sulfate	ppb		37	250000	EPAS	5	5	0

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
SB-125		Antimony-125	pCi/L					7	1	
BE-7		Beryllium-7	pCi/L					7	0	
BROMIDE		Bromide	ppb		100			5	2	
CEPR-144		Cerium/Praseodymium-144	pCi/L					7	0	
CS-134		Cesium-134	pCi/L					7	2	
CS-137		Cesium-137	pCi/L			200	EPA	7	0	0
CO-60		Cobalt-60	pCi/L			100	EPA	7	3	0
EU-154		Europium-154	pCi/L					7	1	
EU-155		Europium-155	pCi/L					7	1	
I-129L		Iodine-129, Low level	pCi/L			1	EPA	5	2	1
NITRITE		Nitrite	ppb		18	1000	EPA	5	0	0
PHOSPHA		Phosphate	ppb		82			5	0	
K-40		Potassium-40	pCi/L					7	6	
RU-106		Ruthenium-106	pCi/L			30	EPA	7	0	0
SR-90		Strontium-90	pCi/L			8	EPA	5	0	0
TC-99		Technetium-99	pCi/L			900	EPA	5	5	0
TDS		Total Dissolved Solids	ppm		10	500	EPAS	5	5	0
TRITIUM		Tritium	pCi/L			20000	EPA	5	5	2
ZN-65		Zinc-65	pCi/L					7	0	
ZRNB-95		Zirconium/Niobium-95	pCi/L					7	0	

For explanation of this table, see Section 1.4 of report.

Table 14-25. Constituents with at Least One Detected Value for the Low-Level Waste Management Area 5 Data for Reporting Period October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	SB-125 140/pCi/L ./.	BROMIDE 124/ppb 110/.	CS-134 140/pCi/L ./.	CHLORID 124/ppb 71/250000s
299-W11-31	8/22/94	B0CB84	2.53 U		.10 U	
299-W11-31	12/14/94	B0DG73	3.40	200.00 L	.22 U	29000.00 DQ
299-W6-10	8/23/94	B0CB89	-1.67 U		.73 U	
299-W6-2	12/14/94	B0DG75	1.68 U	30.00 L	.28 U	4600.00 Q
299-W6-4	12/14/94	B0DG76	1.90 U	100.00 L	1.08	9200.00 Q
299-W6-9	12/13/94	B0DG77	-2.36 U	100.00 U	1.17	50.00 LQF
299-W6-9	12/13/94	B0DG78	2.32 U	50.00 L	.08 U	6100.00 Q

Well Name	Collection Date	Sample Number	CO-60 140/pCi/L ./100	EU-154 140/pCi/L ./.	EU-155 140/pCi/L ./.	FLUORID 124/ppb 51/1400i
299-W11-31	8/22/94	B0CB84	-.06 U	.29 U	-1.03 U	
299-W11-31	12/14/94	B0DG73	.69 U	-2.79 U	2.71	1200.00
299-W6-10	8/23/94	B0CB89	1.32	2.51 U	.11 U	
299-W6-2	12/14/94	B0DG75	1.88	-4.16 U	.29 U	500.00
299-W6-4	12/14/94	B0DG76	.81 U	4.05	-.64 U	500.00
299-W6-9	12/13/94	B0DG77	.89	-.80 U	1.85 U	36.00 UF
299-W6-9	12/13/94	B0DG78	.51 U	2.19 U	-1.11 U	800.00

Well Name	Collection Date	Sample Number	I-129 139/pCi/L ./1	NITRATE 124/ppb 96/45000	K-40 140/pCi/L ./.	SULFATE 124/ppb 89/250000s
299-W11-31	8/22/94	B0CB84			51.00	
299-W11-31	12/14/94	B0DG73	1.85	120000.00 DQ	25.90	63000.00 D
299-W6-10	8/23/94	B0CB89			6.22 U	
299-W6-2	12/14/94	B0DG75	.09 U	52000.00 DQ	55.70	23000.00 D
299-W6-4	12/14/94	B0DG76	.57	97000.00 DQ	52.50	38000.00 D
299-W6-9	12/13/94	B0DG77	.16 U	600.00 Q	45.40	200.00 LF
299-W6-9	12/13/94	B0DG78	.01 U	69000.00 DQ	60.90	25000.00 D

Well Name	Collection Date	Sample Number	TC-99 143/pCi/L ./900	TDS 65/ppm 10/500s	TRITIUM 142/pCi/L ./20000
299-W11-31	12/14/94	B0DG73	317.00	480.00	74000.00
299-W6-2	12/14/94	B0DG75	28.10	250.00	7510.00
299-W6-4	12/14/94	B0DG76	55.00	280.00	32900.00
299-W6-9	12/13/94	B0DG77	45.70	270.00	10700.00
299-W6-9	12/13/94	B0DG78	43.30	270.00	10300.00

For explanation of this table, see Section 1.4 of report.

Table 14-26. Contamination Indicator Parameters for the Low-Level
Waste Management Area 5 Data for Reporting Period
October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-W11-31	12/14/94	B0DG73	719		7.19		400 L	646.0
299-W6-2	11/30/94	B0D8J2	395		8.08			
		B0D8J3	395		8.08			
		B0D8J4	396		8.08			
		B0D8J5	398		8.08			
		B0D8J6	394		8.08			
		B0D8J7	395		8.08			
		B0D8J8	393		8.08			
		B0D8J9	397		8.07			
	12/14/94	B0DG75	370		6.41 F		200 L	119.0
299-W6-4	12/14/94	B0DG76	468		8.21		300 L	160.0
299-W6-9	12/13/94	B0DG77	406		7.82		200 L	115.0 q
		B0DG78					300 L	207.0 q

For explanation of this table, see Section 1.4 of report.

Table 14-27. Water Quality Standards Exceeded at
Low-Level Waste Management Area 1.

Field pH (6.5-8.5)	299-E32-8		
Chromium, unfiltered (50 ppb)	299-E28-26 299-E32-10	299-E32-2 299-E33-30	299-E32-9
Iron, unfiltered (300 ppb)	299-E28-26* 299-E32-9*	299-E32-4* 299-E32-10*	299-E32-8*
Tritium (20,000 pCi/l)	299-E28-27 299-E32-6	299-E32-2	299-E32-3

* QC data associated with this sample was outside of established limits.

Table 14-30. Water Quality Standards Exceeded at Low-Level Waste Management Area 4.

Field pH	299-W15-16		
Chromium, unfiltered (50 ppb)	299-W15-16* 299-W15-20* 299-W18-21 299-W18-27	299-W15-18* 299-W15-23* 299-W18-22	299-W15-19 299-W15-24* 299-W18-26
Iron, unfiltered (300 ppb)	299-W15-16* 299-W15-23* 299-W18-22* 299-W18-32*	299-W15-18* 299-W15-24* 299-W18-26*	299-W15-19* 299-W18-21* 299-W18-27*
Manganese, unfiltered (50 ppb)	299-W15-24	299-W18-26	
Carbon Tetrachloride (5 ppb)	299-W15-15 299-W15-19 299-W15-24 299-W18-24* 299-W18-28	299-W15-16* 299-W15-20 299-W18-21* 299-W18-26	299-W15-18* 299-W15-23 299-W18-23 299-W18-27*
Trichloroethene (5 ppb)	299-W15-16*	299-W15-18*	

* QC data associated with this sample was outside of established limits.

Table 14-31. Water Quality Standards Exceeded at Low-Level Waste Management Area 5.

Field pH (6.5-8.5)	299-W6-2		
Nitrate (45,000 ppb)	299-W6-2* 299-W11-31*	299-W6-4*	299-W6-9*
Iodine-129 (1 pCi/L)	299-W11-31		
Tritium (20,000 pCi/l)	299-W6-4 299-W11-31	299-W6-5	299-W6-10

* QC data associated with this sample was outside of established limits.

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15.0 SINGLE-SHELL TANKS

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15.1 INTRODUCTION

Although decommissioned in 1980, the SSTs are considered to be actively storing hazardous and radioactive waste and have been designated as RCRA facilities. The SSTs received metal and first-cycle waste from the chemical processing of uranium-bearing spent fuel rods. Spent fuel rods from reactors in the 100 Areas were processed using the bismuth phosphate, REDOX, or PUREX process. Metal waste is that which was produced in the first step of the process of dissolving spent fuels, and contains about 90% of fission product radionuclides as well as uranium and some plutonium. Other waste streams (e.g., coating, noncomplexed, and deionizing waste) also were sent to SSTs at some time in their history (Anderson 1990 discusses types of waste sent to various SSTs from startup until the tank was no longer used). Chemical and radiological contents of the various SSTs were summarized in WHC (1993c).

The 149 SSTs are located in 7 waste management areas (WMA) each containing 1 or more tank farms (Figures 15-1 and 15-2). Three WMAs are in the 200 East Area (A-AX, B-BX-BY, and C) and four are in the 200 West Area (S-SX, T, TX-TY, and U). Each tank farm contains from 4 (AX Tank Farm) to 18 (TX Tank Farm) tanks, each of which is an underground, reinforced-concrete tank with a single liner of carbon steel. The larger tanks have a diameter of 23 m (75 ft), vary in height, and are buried at least 2 m (6 ft) below the ground surface. The capacity of these tanks varies from 2,000,000 to 3,800,000 L (530,000 to 1,000,000 gal). The sixteen 200-series tanks hold 208,000 L (55,000 gal) each. Four 200-series tanks are located in each of the original four tank farms: 241-B, 241-C, 241-T, and 241-U. The original four tank farms were built in 1944; SSTs were built from 1944 to 1964.

Interim-status, detection-level groundwater monitoring was initiated at the SSTs in 1989 with the construction of 12 RCRA-standard wells. Sampling was initiated in February 1990 at WMAs A-AX, B-BX-BY, C, and T, but was suspended until July 1991 because of the absence of analytical laboratory support. Sampling resumed in 1991 and continued quarterly through early 1993. Most wells have been sampled for more than four quarters. All WMAs, except T and TX-TY, are now in detection-level indicator parameter evaluation status and are sampled semiannually. WMAs T and TX-TY continue to be sampled quarterly because these sites are now in assessment-level monitoring status because of elevated specific conductance. A groundwater quality assessment monitoring plan (Caggiano and Chou 1993) for WMAs T and TX-TY was submitted to Ecology in July 1993. The SST WMA well locations are shown in Figures 15-3 and 15-4. Wells in the SST monitoring networks are listed in Table 15-1. Groundwater monitoring at the SSTs follows the groundwater monitoring plan (Jensen et al. 1989) as revised (Caggiano and Goodwin 1991).

Numerous older wells in the vicinity of the tank farms are constructed of carbon steel casing that is perforated and open to different levels in the unconfined aquifer. These wells were part of an operational groundwater

monitoring system at some point in their history and currently are used only for water level measurements or to collect samples for operational monitoring. Some are used for environmental surveillance monitoring to check for conformance to DOE orders (e.g., Schmidt et al. 1992). These older wells do not comply with the construction specifications of WAC 173-160 and are not used for collection of RCRA samples. One exception is well 2-E27-7, which was constructed in 1982 and has a carbon steel casing, an annular seal, and a stainless steel screen below the carbon steel casing. No carbon steel is in contact with groundwater in well 2-E27-7. Samples are collected from this well, which is upgradient of WMA C, but data from this well are not used in statistical evaluation.

15.2 WATER LEVEL MEASUREMENTS

Water levels measured in 61 wells for this quarter are given in Table 15-2. These data include water level measurements taken when sampling, as well as monthly measurements made by Well Services personnel. Suspected errors in water level measurements this quarter are flagged in Table 15-2. All water levels in well 299-W23-15 depart significantly from the historical trend of water levels in this well and are flagged.

The water table in the 200 East Area is nearly flat because of declining water levels and the high transmissivity of the Hanford formation. The water table map for June 1994 (DOE-RL 1995, Fig 4.11-5) illustrates the very low slope of the water table. Water levels have been declining steadily over the past several years at all SST sites (see hydrographs of all WMAs in DOE-RL [1995]). However, data for 1994 in the 200 East area exhibited an increase in water level from March through June that was followed by a decline of similar magnitude. Data from the third quarter indicated very little change in water level. Water levels rose in almost all SST wells in the 200 East area in November by up to 6 cm (0.20 ft). Water levels declined again in December, resulting in no appreciable change of water level in SST wells in the 200 East area for the quarter as well as for the calendar year.

The change from a pattern of continuing steady decline in the water table in the previous few years in the 200 East area appears unrelated to any increased precipitation or natural recharge. It may be accounted for by increased liquid effluent discharges to the 216-B-3 Pond and elimination of open ditches carrying water to B Pond. With the startup of the 242-A Evaporator, discharges to B Pond have doubled. Discharges to the B Pond now flow directly to the 216-B-3C lobe of the pond via an underground pipeline, thus eliminating previous losses of liquid in transit via infiltration and evapotranspiration. Several brief campaigns of the 242-A Evaporator were run in calendar year 1994.

A barrier may be constructed over the 216-BY cribs in operable unit 200-BP-1 located north of WMA B-BX-BY. A modified RCRA cover was the preferred alternative in the Record of Decision that is going out for public comment. After comments are addressed, the definitive design of the cover will commence. However, it is anticipated that all wells in the area of the 216-BY cribs will be decommissioned to ease construction and to eliminate potential pathways through the cover. New groundwater monitoring wells will be constructed beyond the new cover. Well 2-E33-38, along with nine older

carbon steel wells formerly used by the Operational Monitoring program to monitor the 216-BY cribs, will be decommissioned. Wells 2-E33-1 and 2-E33-5, along with well 2-E33-38, have been used to monitor water levels for the SSTs in this area of very low water table gradient in 200 East Area. Contingency planning for the location and design of replacement wells has been initiated, but the project is on hold pending review of the Record of Decision by the Yakama Nation.

Water levels in 200 West area SST wells continued to decline as they have since the inception of water level monitoring in RCRA wells in 1990. Water levels in wells 2-W18-25 and 2-W18-31 continue to be lower than in wells 2-W19-31 and 2-W19-32 at WMA U. Five wells have been added to the water level monitoring network in the vicinity of the 241-U Tank Farm to determine the extent of this change (see Table 15-2). Water level data for this quarter continue to confirm the existence of a local high point in the water table slightly south and east of WMA U. However, the highest point of the water table in the 200 West area continues to be to the north of the 241-U Tank Farm. Groundwater flow now appears to be to the northwest (at least locally) beneath WMA U; an additional well is being considered near the northwest corner of the 241-U Tank Farm. Plans are being made to run the borehole velocity flowmeter in wells 299-W19-31 and 299-W19-32 to get a more accurate measure (compared with water level measurements in scattered wells) of the direction of groundwater flow beneath WMA U. An engineering change notice may be prepared to revise the groundwater monitoring plan when these measurements of groundwater flow direction have been completed. The original monitoring network was established in 1989 when groundwater was flowing to the northeast because of the water table mound that originated beneath the now-decommissioned 216-U-10 Pond in the southwest corner of the 200 West Area.

15.3 WATER CHEMISTRY DATA

Data received from analyses of samples collected during the fourth quarter of 1994 are provided in Tables 15-3 through 15-23. Most SST wells were not sampled this quarter; however, some data from samples collected in September 1994 are reported because they were received after the cutoff date for the July-to-September-1994 quarterly report. Quarterly sampling is presently conducted in WMAs T and TX-TY because these sites are in groundwater assessment monitoring under interim status (40 CFR 265). All other WMAs are sampled semiannually.

Much of the data for nitrate and some of the data for TOX and other constituents (e.g., metals analyzed by inductively coupled plasma) are flagged with a "Q" indicating some quality control problems during laboratory analyses of the samples. Data flags are explained in Chapter 1. Data for potassium-40 are reported as part of gamma scan analyses; however, potassium-40 is a naturally occurring isotope and is the biggest contributor to natural background radiation.

Several regulatory drinking water limits for constituent concentration have been added to the data tables, resulting in some constituents that had not previously been identified in quarterly reports exceeding concentration limits. For example, carbon tetrachloride exceeds the 5-ppb limit in a number of wells in the 200 West Area because the groundwater contains a widespread

plume of this constituent that originated from discharges to PFP cribs (DOE-RL 1994, Figure 4.1-19). Similarly, trichloroethene has exceeded the limit in some 200 West Area wells.

Regulatory limits for fluoride are not consistent. The primary DWS for fluoride is 4,000 ppb (40 CFR 141); the secondary standard (40 CFR 143.3) is 2,000 ppb. Washington State standards in *Revised Code of Washington* (RCW) 248 and WAC 173-200 are 4,000 ppb. However, Appendix III of 40 CFR 265 (EPA Interim Primary DWS) lists a range of 1.4 to 2.4 ppm (1,400 to 2,400 ppb) for fluoride. The preponderance of promulgated standards is 4,000 ppb. Groundwater quality beneath WMA T is degraded because of fluoride, which has exceeded the 4,000-ppb standard in the past and continues to do so in some wells. Fluorine-bearing compounds were used in the bismuth-phosphate process in 221-T (T Plant) and were discharged to SSTs as well as liquid effluent facilities in the northern part of 200 West Area. Tables 15-12 and 15-13 use the EPA Interim Primary DWS (i.e., 1,400-ppb standard) for fluoride.

Four quarters of background data have been obtained from wells in all WMAs and the data have been statistically evaluated for indications of contamination through analyses of TOC, pH, and specific conductance for each site. Replicate average values from downgradient wells are compared to the critical means for indicator parameters to determine whether the facilities in any SST WMAs may be affecting groundwater quality. Values for TOX were not used to calculate a critical mean for each WMA because of QC problems in the laboratory. TOX samples, previously analyzed by DataChem Laboratory, are now being analyzed by Weston. If TOX values from background wells are historically non-detects, a limit of quantitation will be used as a surrogate upgradient/downgradient comparison value. TOX data from downgradient wells will be compared accordingly. The change in groundwater flow direction beneath WMA U will necessitate a new calculation of background for this site.

Several LLBG RCRA standard wells have been added to the expanded network for groundwater quality assessment monitoring at WMAs T and TX-TY. Wells 299-W6-2, 299-W6-4, 299-W6-6, 299-W6-9, 299-W10-19, 299-W10-20, 299-W10-21 and 299-W11-31 may be found on Figures 14-3 (for LLBG WMA 3) or Figure 14-5 (for LLBG WMA 5). Several radionuclides from the list of site-specific constituents for the SSTs have been added to the sampling list for these wells, all of which are located north or west of WMA T. Some data on radionuclides from these wells were received this quarter and are included in Tables 15-15 through 15-17. Additional wells to supplement the groundwater quality assessment program south of WMAs T and TX-TY are being identified and checked before having any remedial work performed and adding them to the SST network. These two WMAs are in groundwater quality assessment status because of elevated specific conductance. Wells are being added to these networks to provide data for determining the possible source and extent of the high conductivity plume in groundwater beneath these two WMAs.

Several TOX samples were not collected and analyzed in quadruplicate as requested. This oversight has been corrected for future sampling. Single results for TOX will not be used in calculating the critical mean and other statistical parameters.

15.3.1 Waste Management Area A-AX

None of the wells in WMA A-AX were sampled this quarter. However, some data not received in time for the last quarterly report are included in Tables 15-3, 15-4, and 15-5.

15.3.2 Waste Management Area B-BX-BY

Two wells (299-E33-33 and 299-E33-36) were sampled this quarter. These wells are cosampled for the 216-B-63 trench project for which sampling was performed this quarter. Data for other wells in the B-BX-BY network that did not arrive in time for the last quarterly report are included in Tables 15-6 through 15-8. Iodine-129 results for these two wells this quarter were 2.76 and 5.93 pCi/L, respectively.

No exceedances of the critical mean (or critical range) for the reported indicator parameters for wells 299-E33-33 and 299-E33-36 occurred this quarter. However, the four values for pH for well 299-E33-36 (6.42, 6.46, 6.46, 6.48) depart significantly from the historical trend for pH in this well, are very unusual for Hanford Site groundwater, and are likely in error. A RADE has been submitted to check the validity of these data. Well 299-E33-36 is an upgradient well for SST WMA B-BX-BY.

Groundwater contaminant plumes north and south of WMA B-BX-BY arising from the 216-BY cribs (Operable Unit 200-BP-1) and 216-B-5 reverse well (Operable Unit 200-BP-5) are currently being treated. At both sites, groundwater is being extracted, run through a charcoal and zeolite treatment system, and the resulting effluent injected into the ground. No effect has been observed on water levels or water quality to date at WMA B-BX-BY during the operation of these pump-and-treat systems. The operations are scheduled to conclude in April 1995.

15.3.3 Waste Management Area C

No samples were collected this quarter from wells in WMA C. Data from gamma scan analyses that were not reported in the previous quarterly report are included in Tables 15-9 and 15-10.

15.3.4 Waste Management Area S-SX

Well 299-W22-44 was sampled early this quarter; sampling at other wells in the network was completed in late September and most of the data from that sampling were included in the previous quarterly report. No exceedances of the critical mean for field specific conductance, TOX, TOC or pH occurred for downgradient well 299-W22-44.

15.3.5 Waste Management Area T

All wells in WMA T and the expanded network were sampled this quarter. Data in Tables 15-15 through 15-17 include some from wells added to the

expanded network for assessment monitoring. Additional data are from wells that are part of the RCRA monitoring network for LLBG WMAs 3 and 5. Analytical data from unfiltered samples for iron and chromium all exceed limits, but all data from filtered sample analyses are below limits except for filtered chromium. Filtered chromium exceeds the 50-ppb limit in wells 299-W10-15 and 299-W10-16. Nitrate and fluoride continue to exceed limits in many wells. Gross beta values of 106.00, 92.7, and 86.3 pCi/L in wells 299-W10-15, 299-W11-27 and 299-W11-28 (respectively) correspond with values of 467, 11.70, and 455 pCi/L. Tritium exceeds the 20,000-pCi/L limit in all WMA T network wells except 299-W11-27 and also exceeds the limit in two LLBG wells in the expanded network.

Turbidity ranged between 1.9 and 24.00 NTUs this quarter, with four of five samples below 6.2 NTUs.

Field specific conductance continues to be elevated in downgradient well 299-W10-15 and is the parameter that triggered this site into groundwater quality assessment monitoring under interim-status regulations.

Well 2-W11-28 at WMA T was remediated in late 1993 and has been sampled on several occasions during 1994. After remediation, the well was redeveloped until turbidity reached 2.5 NTUs. Carbon steel casing rollers used in the remediation of this well broke from the drill string during remediation and now rest at the bottom of the screen. Data continue to be flagged (a P flag follows values for this well in Tables 15-15 through 15-17) until no effects of the steel on groundwater quality are observed. After remediation, an NCR was prepared because the well departs from conditions in the generic specification for well construction and because of elevated turbidity (WHC 1992a). The well was redeveloped on October 26 and a sample was collected. The sample collected in October is the first to have acceptable levels of turbidity. A lengthy purge at a low flow rate (5.7 L/m [1.5 gpm]) succeeded in obtaining a sample with a turbidity of 5.9 NTU. Analyses of unfiltered samples from this well yielded values for iron and chromium that exceeded limits, but values for analyses of filtered samples were below limits.

15.3.6 Waste Management Area TX-TY

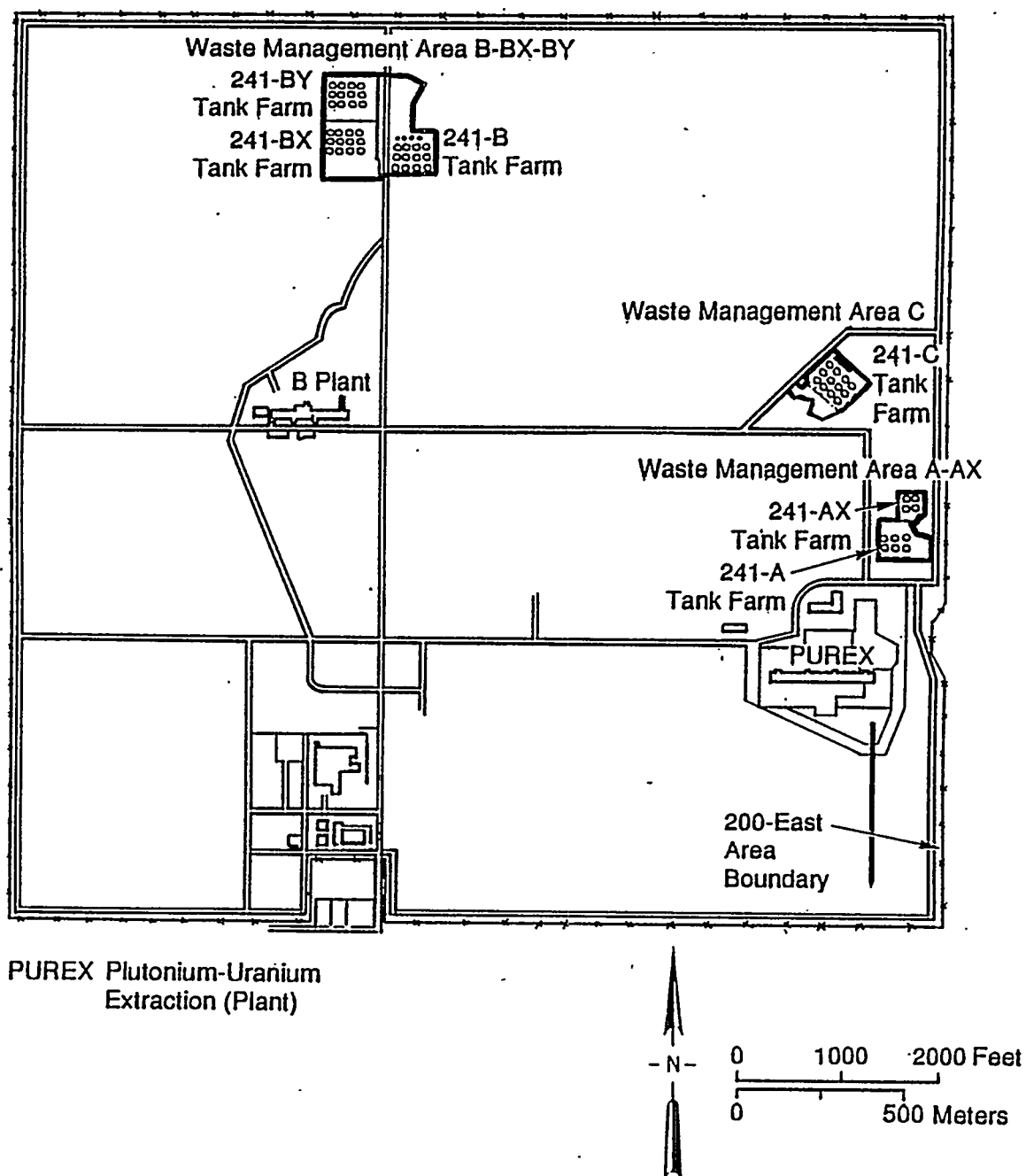
All wells in WMA TX-TY were sampled this quarter. Nitrate exceeded the DWS in all wells this quarter, with a maximum of 300,000 ppb in well 299-W14-12. Gross beta is elevated in wells 299-W14-12 and 299-W15-22 (see Table 15-19). Technetium-99 is elevated in the same wells and may account for elevated gross beta. Samples from wells 299-W10-17 and 299-W10-18 exceed the 1,400-ppb limit for fluoride, but not the 4,000-ppb primary DWS (40 CFR 141). Unfiltered chromium and iron exceed the limit in all wells, while unfiltered manganese exceeds the limit in all but one sample. Analyses of filtered samples for these constituents are below the limit except for one sample for filtered analyses for chromium. Tritium exceeds the limit of 20,000 pCi/L in all wells except 299-W10-18. Two values for ¹²⁹I in well 299-W14-12 are 34.80 and 29.00 pCi/L. Turbidity ranges from 5.3 NTU to 82 NTUs, with all but one value for turbidity equalling or exceeding 43 NTUs. Total dissolved solid exceeds the WAC limit of 500 ppm in well 299-W14-12.

Field specific conductance continues to exceed the critical mean in downgradient wells 299-W14-12 and 299-W10-17 and is the reason WMA TX-TY has been triggered into groundwater quality assessment monitoring under interim-status regulations.

15.3.7 Waste Management Area U

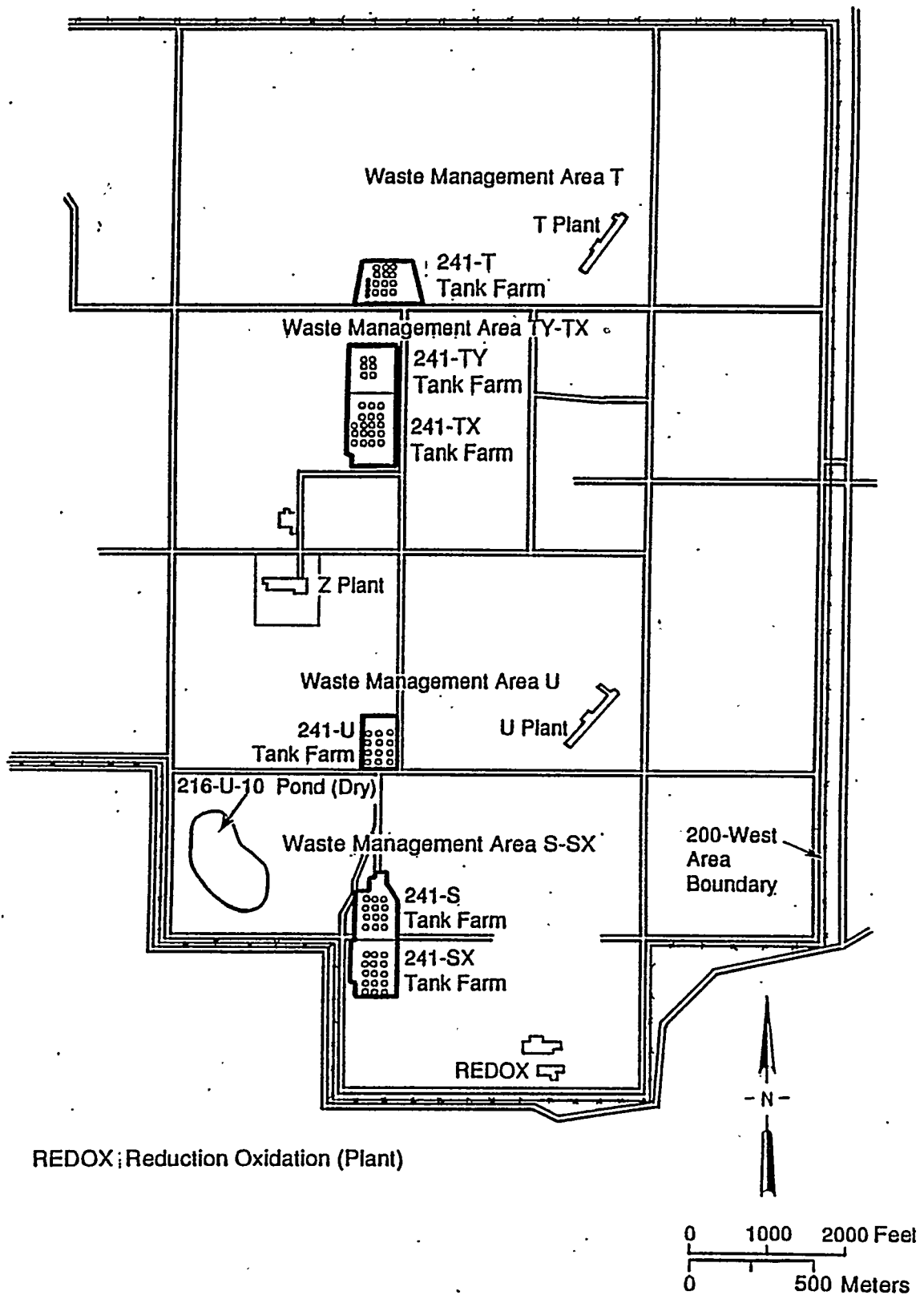
No samples were collected this quarter at WMA U. Data from gamma scan analyses that did not arrive in time for inclusion in the previous quarterly report are presented in Tables 15-21 and 15-22.

Figure 15-1. Single-Shell Tank Waste Management Areas in the 200 East Area.



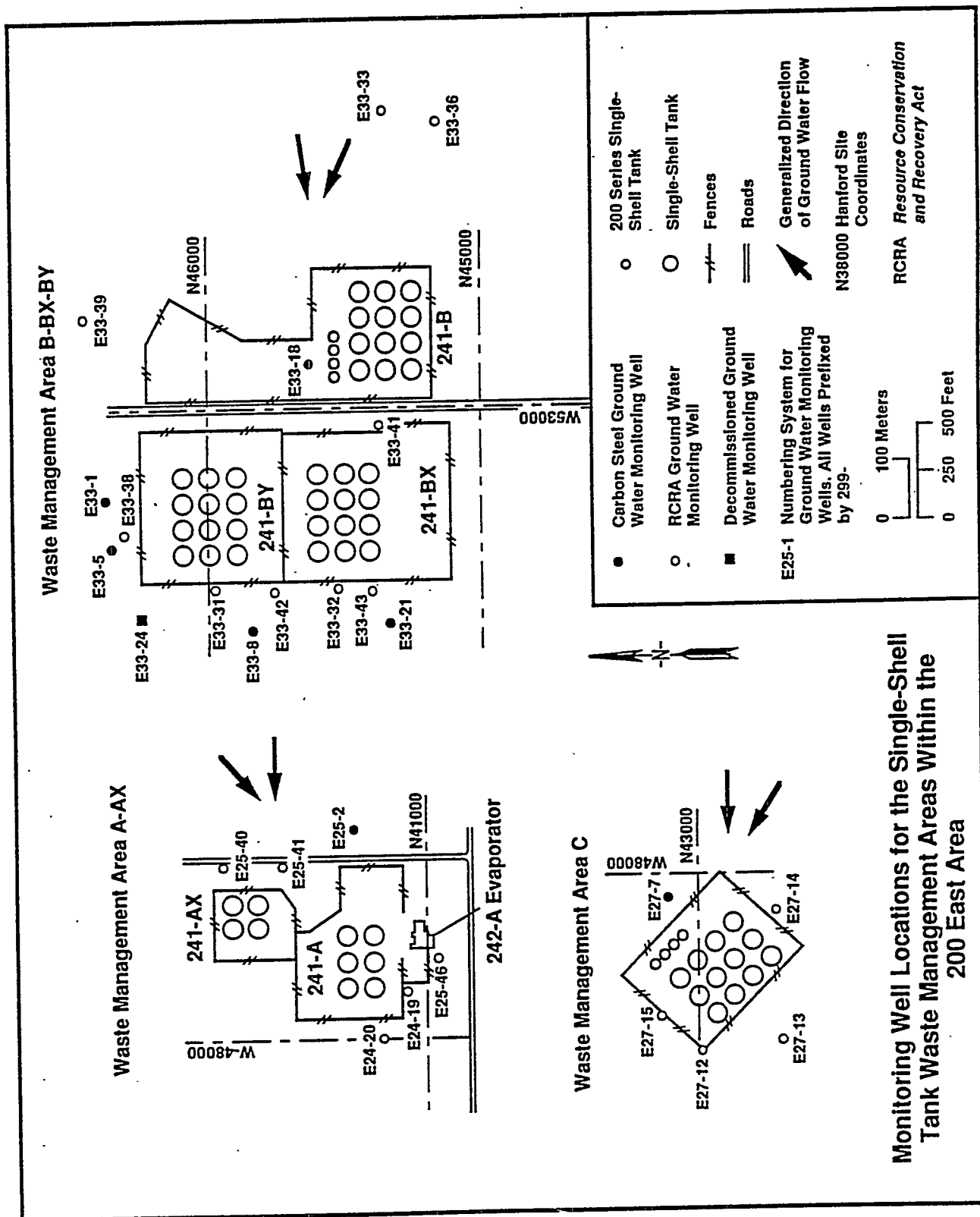
PS-90-71

Figure 15-2. Single-Shell Tank Waste Management Areas in the 200 West Area.



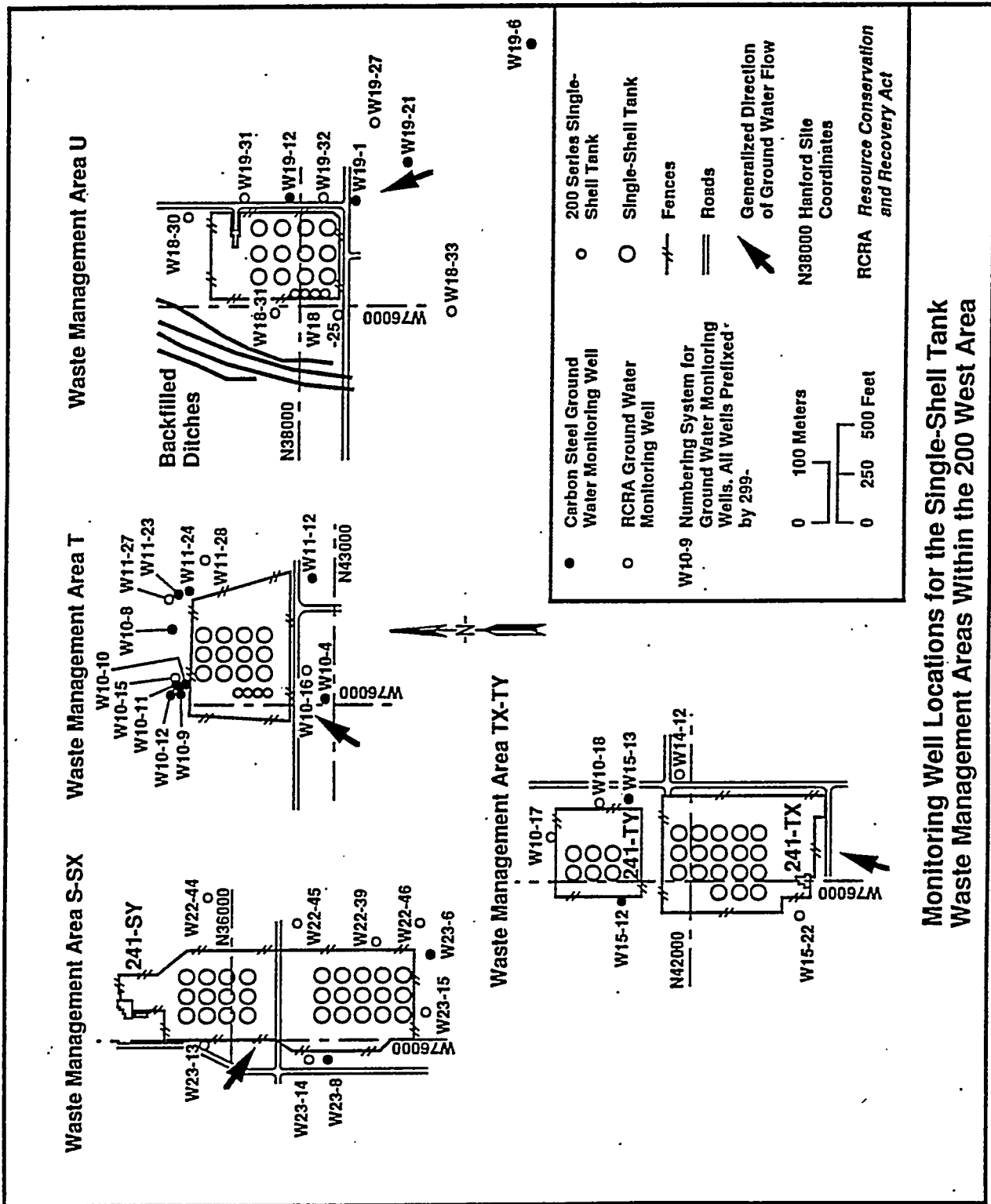
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Figure 15-3. Well Location Map for the Single-Shell Tank Waste Management Areas in the 200 East Area.



H9411010.11

Figure 15-4. Well Location Map for the Single-Shell Tank Waste Management Areas in the 200 West Area.



H9411010.10

Table 15-1. Groundwater Monitoring Wells for the Single-Shell Tanks. (3 sheets)

Well no. (299-)	Aquifer ^a	Sample frequency	Sample date, 4th Qtr 1994
Single-Shell Tanks Waste Management Area A-AX			
E24-19 ⁸⁹	Ringold: Water Table	Semiannually	Not Sampled
E24-20 ⁹¹	Ringold: Water Table	Semiannually	Not Sampled
E25-40 ⁸⁹	Ringold: Water Table	Semiannually	Not Sampled
E25-41 ⁸⁹	Ringold: Water Table	Semiannually	Not Sampled
E25-46 ⁹²	Ringold: Water Table	Semiannually	Not Sampled
Single-Shell Tanks Waste Management Area B-BX-BY			
E33-31 ⁸⁹	Hanford: Water Table	Semiannually	Not Sampled
E33-32 ⁸⁹	Hanford: Water Table	Semiannually	Not Sampled
E33-33 ⁸⁹	Hanford: Water Table	Semiannually	11/21/94 ^d
E33-36 ⁹⁰	Hanford: Water Table	Semiannually	11/21/94 ^d
E33-41 ^{91b}	Hanford: Water Table	Semiannually	Not Sampled
E33-38 ^{91c}	Hanford: Water Table	Semiannually	Not sampled
E33-39 ^{91c}	Hanford: Water Table	Semiannually	Not sampled
E33-42 ⁹¹	Hanford: Water Table	Semiannually	Not Sampled
E33-43 ⁹¹	Hanford: Water Table	Semiannually	Not Sampled
Single-Shell Tank Waste Management Area C			
E27-12 ⁸⁹	Ringold: Water Table	Semiannually	Not Sampled
E27-13 ⁸⁹	Ringold: Water Table	Semiannually	Not Sampled
E27-14 ⁸⁹	Ringold: Water Table	Semiannually	Not Sampled
E27-15 ⁸⁹	Ringold: Water Table	Semiannually	Not Sampled
E27-7 ⁸²	Ringold: Water Table	Semiannually	Not Sampled
Single-Shell Tanks Waste Management Area S-SX			
W22-39 ⁹⁰	Ringold: Water Table	Semiannually	Not Sampled
W22-44 ⁹¹	Ringold: Water Table	Semiannually	10/04/94
W22-45 ⁹²	Ringold: Water Table	Semiannually	Not Sampled
W22-46 ⁹¹	Ringold: Water Table	Semiannually	Not Sampled
W23-13 ⁹⁰	Ringold: Water Table	Semiannually	Not Sampled
W23-14 ⁹⁰	Ringold: Water Table	Semiannually	Not Sampled

Table 15-1. Groundwater Monitoring Wells for the Single-Shell Tanks. (3 sheets)

Well no. (299-)	Aquifer ^a	Sample frequency	Sample date, 4th Qtr 1994
W23-15 ⁹¹	Ringold: Water Table	Semiannually	Not Sampled
Single-Shell Tanks Waste Management Area T			
W10-15 ⁸⁹	Ringold: Water Table	Quarterly	11/30/94
W10-16 ⁸⁹	Ringold: Water Table	Quarterly	11/29/94
W10-19 ⁹²	Ringold: Water Table	Quarterly	12/14/94
W10-20 ⁹³	Ringold: Water Table	Quarterly	12/15/94
W10-21 ⁹³	Ringold: Water Table	Quarterly	12/14/94
W11-27 ⁹¹	Ringold: Water Table	Quarterly	11/30/94
W11-28 ⁹¹	Ringold: Water Table	Quarterly	10/26/94
W11-31 ⁹²	Ringold: Water Table	Quarterly	12/14/94
Single-Shell Tanks Waste Management Area TX-TY			
W10-17 ⁹⁰	Ringold: Water Table	Quarterly	11/30/94
W10-18 ⁹⁰	Ringold: Water Table	Quarterly	11/30/94
W14-12 ⁹¹	Ringold: Water Table	Quarterly	11/30/94
W15-22 ⁹⁰	Ringold: Water Table	Quarterly	11/30/94
Single-Shell Tanks Waste Management Area U			
W18-25 ⁹⁰	Ringold: Water Table	Semiannually	Not Sampled
W18-30 ⁹¹	Ringold: Water Table	Semiannually	Not Sampled
W18-31 ⁹¹	Ringold: Water Table	Semiannually	Not Sampled
W19-31 ⁹⁰	Ringold: Water Table	Semiannually	Not Sampled

Table 15-1. Groundwater Monitoring Wells for the Single-Shell Tanks. (3 sheets)

Well no. (299-)	Aquifer ^a	Sample frequency	Sample date, 4th Qtr 1994
W19-32 ⁹⁰	Ringold: Water Table	Semiannually	Not Sampled
W19-12 ⁸³	Ringold: Water Table	Semiannually	Not sampled

Notes: Shading denotes upgradient wells. Superscript following well number denotes the year of well completion.

^aWells are screened either in sand and gravel of the Hanford formation or in matrix-supported silty sandy gravel of the Ringold Formation.

^bWell in middle of WMA B-BX-BY and not clearly upgradient or downgradient. Therefore, data from sampling/analyses in this well are not used in statistical evaluations.

^cPart of 200-BP-1 operable unit network. Not sampled regularly as RCRA wells.

^dPart of network for 216-B-63 that was sampled this quarter.

Table 15-2. RCRA Water Level Measurement Report
Single-Shell Tanks, Fourth Quarter 1994.
(sheet 1 of 7)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
241-A/AX Tank Farm Wells				
299-E24-19	10/12/94	292.14	401.71	122.44
	11/15/94	291.99	401.86	122.49
	12/09/94	292.10	401.75	122.45
299-E24-20	10/12/94	287.47	401.81	122.47
	11/15/94	287.31	401.97	122.52
	12/09/94	287.48	401.80	122.47
299-E25-2	10/12/94	273.71	401.94	122.51
	11/15/94	273.51	402.14	122.57
	12/09/94	273.69	401.96	122.52
299-E25-40	10/12/94	264.03	401.88	122.49
	11/15/94	263.90	402.01	122.53
	12/09/94	264.06	401.85	122.48
299-E25-41	10/12/94	269.54	401.92	122.51
	11/15/94	269.37	402.09	122.56
	12/09/94	269.53	401.93	122.51
299-E25-46	10/12/94	292.95	401.86	122.49
	11/15/94	292.86	401.95	122.51
	12/09/94	292.92	401.89	122.50
241-B/BX/BY Tank Farm Wells				
299-E33-1	10/12/94	230.49	401.62	122.41
	11/15/94	230.40	401.71	122.44
	12/09/94	230.43	401.68	122.43
299-E33-18	10/12/94	250.19	401.67	122.43
	11/15/94	250.04	401.82	122.47
	12/09/94	250.10	401.76	122.46
299-E33-21	10/12/94	266.76	401.63	122.42
	11/15/94	266.57	401.82	122.47
	12/09/94	266.62	401.77	122.46
299-E33-31	10/12/94	245.94	401.54	122.39

Table 15-2. RCRA Water Level Measurement Report
 Single-Shell Tanks, Fourth Quarter 1994.
 (sheet 2 of 7)

Well	Date	Depth to water (ft)	Water level elevation above msl	
			(ft)	(m)
241-B/BX/BY Tank Farm Wells				
299-E33-31	11/15/94	245.80	401.68	122.43
	12/09/94	245.82	401.66	122.43
299-E33-32	10/12/94	258.58	401.44	122.36
	11/15/94	258.47	401.55	122.39
	12/09/94	258.47	401.55	122.39
299-E33-33	10/12/94	238.81	401.58	122.40
	11/15/94	238.65	401.74	122.45
	11/21/94	238.94	401.45*	122.36
	12/09/94	238.74	401.65	122.42
299-E33-36	11/21/94	248.25	398.42*	121.44
	12/21/94	246.76	399.91	121.89
299-E33-38	12/13/94	230.48	401.47	122.37
299-E33-39	12/13/94	222.04	401.25	122.30
299-E33-41	10/12/94	253.32	401.63	122.42
	11/15/94	253.33	401.62	122.41
	12/09/94	253.63	401.32	122.32
299-E33-42	10/12/94	252.73	401.57	122.40
	11/15/94	252.62	401.68	122.43
	12/09/94	252.64	401.66	122.43
299-E33-43	11/15/94	261.15	401.53	122.39
299-E33-5	10/12/94	233.05	401.67	122.43
	11/15/94	232.95	401.77	122.46
	12/09/94	232.99	401.73	122.45
299-E33-8	10/12/94	249.31	401.68	122.43
	11/15/94	249.18	401.81	122.47
	12/09/94	249.23	401.76	122.46

Table 15-2. RCRA Water Level Measurement Report
 Single-Shell Tanks, Fourth Quarter 1994.
 (sheet 3 of 7)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
241-C Tank Farm Wells				
299-E27-12	10/12/94	259.47	401.68	122.43
	11/15/94	259.34	401.81	122.47
	12/09/94	259.44	401.71	122.44
299-E27-13	10/12/94	267.30	401.89	122.50
	11/15/94	267.20	401.99	122.53
	12/09/94	267.34	401.85	122.48
299-E27-14	10/12/94	256.85	401.69	122.44
	11/15/94	256.70	401.84	122.48
	12/09/94	256.77	401.77	122.46
299-E27-15	10/12/94	251.54	401.33	122.33
	11/15/94	251.42	401.45	122.36
	12/09/94	251.48	401.39	122.34
299-E27-7	10/12/94	232.99	401.88	122.49
	12/09/94	232.96	401.91	122.50
241-S/SX Tank Farm Wells				
299-W22-39	10/13/94	211.25	457.01	139.30
	11/14/94	211.62	456.64	139.18
	12/09/94	211.79	456.47	139.13
299-W22-44	10/04/94	219.11	459.02*	139.91
	10/13/94	219.27	458.86	139.86
	11/14/94	219.67	458.46	139.74
	12/09/94	219.86	458.27	139.68
299-W22-45	10/13/94	208.64	457.57	139.47
	11/14/94	209.02	457.19	139.35
	12/09/94	209.23	456.98	139.29
299-W22-46	10/13/94	214.44	456.74	139.21
	11/14/94	214.80	456.38	139.10
	12/09/94	214.93	456.25	139.07
299-W23-13	10/13/94	206.95	459.38	140.02

Table 15-2. RCRA Water Level Measurement Report
 Single-Shell Tanks, Fourth Quarter 1994.
 (sheet 4 of 7)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
241-S/SX Tank Farm Wells				
299-W23-13	11/14/94	207.38	458.95	139.89
	12/09/94	207.50	458.83	139.85
299-W23-14	10/13/94	205.11	458.89	139.87
	11/14/94	205.53	458.47	139.74
	12/09/94	205.67	458.33	139.70
299-W23-15	10/13/94	197.84	467.60+	142.52
	11/14/94	198.19	467.25+	142.42
	12/09/94	198.29	467.15+	142.39
299-W23-6	10/13/94	209.92	457.06	139.31
	11/14/94	210.25	456.73	139.21
	12/09/94	210.40	456.58	139.17
299-W23-8	10/13/94	204.88	459.07	139.92
	11/14/94	205.33	458.62	139.79
	12/09/94	205.47	458.48	139.74
241-T Tank Farm Wells				
299-W10-10	10/13/94	214.58	460.77	140.44
	11/14/94	214.94	460.41	140.33
	12/09/94	214.99	460.36	140.32
299-W10-11	10/13/94	214.58	460.94	140.49
	11/14/94	214.78	460.74	140.43
	12/09/94	214.93	460.59	140.39
299-W10-12	10/13/94	214.32	460.69	140.42
	11/14/94	214.53	460.48	140.35
	12/09/94	214.67	460.34	140.31
299-W10-15	10/13/94	215.26	460.64	140.40
	11/14/94	215.48	460.42	140.34
	12/09/94	215.61	460.29	140.30
299-W10-16	10/13/94	211.98	460.78	140.45
	11/14/94	212.23	460.53	140.37

Table 15-2. RCRA Water Level Measurement Report
 Single-Shell Tanks, Fourth Quarter 1994.
 (sheet 5 of 7)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
241-T Tank Farm Wells				
299-W10-16	11/29/94	211.95	460.81*	140.45
	12/09/94	212.35	460.41	140.33
299-W10-8	10/13/94	219.95	460.36	140.32
	11/14/94	220.15	460.16	140.26
	12/09/94	220.26	460.05	140.22
299-W10-9	10/13/94	214.06	460.87	140.47
	11/14/94	214.35	460.58	140.38
	12/09/94	214.47	460.46	140.35
299-W11-23	10/13/94	228.12	460.02	140.21
	11/14/94	228.38	459.76	140.13
	12/09/94	228.46	459.68	140.11
299-W11-24	10/13/94	226.99	460.44	140.34
	11/14/94	227.24	460.19	140.27
	12/09/94	227.29	460.14	140.25
299-W11-27	10/13/94	225.02	460.25	140.28
	11/14/94	225.27	460.00	140.21
	11/30/94	226.90	458.37*+	139.71
	12/09/94	225.35	459.92	140.18
299-W11-28	10/13/94	232.55	460.93	140.49
	10/26/94	232.40	461.08*	140.54
	11/15/94	232.43	461.05	140.53
241-TX/TY Tank Farm Wells				
299-W10-17	10/13/94	209.72	461.12	140.55
	11/14/94	209.94	460.90	140.48
	11/30/94	209.75	461.09*	140.54
	12/09/94	210.09	460.75	140.44
299-W10-18	10/13/94	208.96	461.97	140.81
	11/14/94	209.26	461.67	140.72
	11/30/94	209.10	461.83*	140.77
	12/09/94	209.36	461.57	140.69

Table 15-2. RCRA Water Level Measurement Report
 Single-Shell Tanks, Fourth Quarter 1994.
 (sheet 6 of 7)

Well	Date	Depth to water (ft)	Water level	
			elevation (ft)	above msl (m)
241-TX/TY Tank Farm Wells				
299-W14-12	10/13/94	207.76	462.76	141.05
	11/30/94	208.05	462.47*	140.96
	12/09/94	208.16	462.36	140.93
299-W15-12	10/13/94	208.04	462.03	140.83
	11/14/94	208.33	461.74	140.74
	12/09/94	208.45	461.62	140.70
299-W15-13	10/13/94	207.99	462.13	140.86
	11/14/94	208.28	461.84	140.77
	12/09/94	208.36	461.76	140.74
299-W15-22	10/13/94	207.18	463.59	141.30
	11/14/94	207.53	463.24	141.20
	11/30/94	208.35	462.42*+	140.95
	12/09/94	207.54	463.23	141.19
241-U Tank Farm Wells				
299-W18-25	10/13/94	203.63	462.41	140.94
	11/14/94	204.07	461.97	140.81
	12/09/94	204.28	461.76	140.74
299-W18-30	10/13/94	210.03	462.81	141.06
	11/14/94	210.43	462.41	140.94
	12/09/94	210.63	462.21	140.88
299-W18-31	10/13/94	201.65	462.51	140.97
	11/14/94	202.09	462.07	140.84
	12/09/94	202.29	461.87	140.78
299-W18-33	10/13/94	206.99	461.92	140.79
	11/14/94	207.53	461.38	140.63
	12/09/94	207.71	461.20	140.57
299-W19-12	10/13/94	210.42	462.83	141.07
	11/14/94	210.84	462.41	140.94
	12/09/94	211.04	462.21	140.88

Table 15-2. RCRA Water Level Measurement Report
 Single-Shell Tanks, Fourth Quarter 1994.
 (sheet 7 of 7)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
241-U Tank Farm Wells				
299-W19-21	10/13/94	216.26	462.53	140.98
	11/14/94	216.85	461.94	140.80
	12/09/94	217.10	461.69	140.72
299-W19-27	10/13/94	221.36	462.55	140.99
	11/14/94	221.93	461.98	140.81
	12/09/94	220.14	463.77+	141.36
299-W19-31	10/13/94	211.37	462.82	140.07
	11/14/94	211.77	462.42	140.95
	12/09/94	211.94	462.25	140.89
299-W19-32	10/13/94	212.05	462.85	141.08
	11/14/94	212.54	462.36	140.93
	12/09/94	212.69	462.21	140.88
299-W19-6	10/13/94	227.88	458.72	139.82
	11/14/94	228.35	458.25	139.67
	12/09/94	228.51	458.09	139.63

- NOTES:
1. Water level elevations are calculated by subtracting the measured depth-to-water from the surveyed elevation for the well.
 2. Depth-to-water values are transcribed from field records.
 3. Elevations marked with an '*' were measured at the time of sampling.
 4. Elevations marked with a '+' are outside of the expected range, and are suspected of error.

Table 15-3. Constituent List and Summary of Results for the Single-Shell Tank Waste Management Area A-AX Data for Reporting Period October 1 through December 31, 1994.

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name	Full	Units	Lab MDL	DWS Limit	Agency	Number of Samples		
								Total	>MDL	>DWS
SB-125		Antimony-125		pCi/L				6	0	
BE-7		Beryllium-7		pCi/L				6	0	
CEPR-144		Cerium/Praseodymium-144		pCi/L				6	0	
CS-134		Cesium-134		pCi/L				6	0	
CS-137		Cesium-137		pCi/L		200	EPA	6	1	0
CO-60		Cobalt-60		pCi/L		100	EPA	6	0	0
EU-154		Europium-154		pCi/L				6	0	
EU-155		Europium-155		pCi/L				6	0	
K-40		Potassium-40		pCi/L				6	5	
RU-106		Ruthenium-106		pCi/L		30	EPA	6	0	0
TC-99		Technetium-99		pCi/L		900	EPA	1	1	0
ZN-65		Zinc-65		pCi/L				6	1	
ZRNB-95		Zirconium/Niobium-95		pCi/L				6	0	

For explanation of this table, see Section 1.4 of report.

Table 15-4. Constituents with at Least One Detected Value for the Single-Shell Tank Waste Management Area A-AX Data for Reporting Period October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	CS-137 140/pCi/L ./200	K-40 140/pCi/L ./.	TC-99 143/pCi/L ./900	ZN-65 140/pCi/L ./.
299-E24-19	9/16/94	BOCYK7	.75 U	101.00	47.60	3.58 U
299-E24-20	9/14/94	BOCYL1	-1.00 U	51.00		1.85
299-E25-40	9/14/94	BOCYL5	2.45	22.40		-5.93 U
299-E25-41	9/14/94	BOCYL9	.62 U	71.00		.75 U
299-E25-46	9/14/94	BOCYM3	-.81 U	2.26 Uq		-2.45 U
299-E25-46	9/14/94	BOCYM4	.54 U	59.90 q		-1.16 U

For explanation of this table, see Section 1.4 of report.

Table 15-5. Contamination Indicator Parameters for the Single-Shell Tank Waste Management Area A-AX Data for Reporting Period October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
NO DATA								

For explanation of this table, see Section 1.4 of report.

Table 15-6. Constituent List and Summary of Results for the
Single-Shell Tank Waste Management Area B-BY-BX Data for
Reporting Period October 1 through December 31, 1994.
(sheet 1 of 2)

CONTAMINATION INDICATOR PARAMETERS

Short	(Method)	Constituent Name		Units	Lab		DWS		Number of Samples		
		Full			MDL	Limit	Agency		Total	>MDL	>DWS
CONDUCT	94	Conductivity, field		umhos	1				8	8	
CONDUCT	73	Conductivity, lab		umhos					2	2	
TOC		Total Organic Carbon		ppb	110				8	8	
TOX		Total Organic Halogen		ppb	5				8	0	
PH		pH, field		pH	.01	6.5-8.5	EPAS		8	8	4

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name		Units	Lab		DWS		Number of Samples		
		Full			MDL	Limit	Agency		Total	>MDL	>DWS
BARIUM		Barium		ppb	.59	1000	EPAI		2	2	0
CADMIUM		Cadmium		ppb	3.3	10	EPAI		2	0	0
CHROMIUM		Chromium		ppb	4.5	50	EPAI		2	2	2
FLUORIDE		Fluoride		ppb	36	1400	EPAI		2	2	0
ALPHA		Gross alpha		pCi/L		15	EPA		2	1	0
NITRATE		Nitrate		ppb	11	45000	EPA		2	2	0

GROUNDWATER QUALITY PARAMETERS

Short	(Method)	Constituent Name		Units	Lab		DWS		Number of Samples		
		Full			MDL	Limit	Agency		Total	>MDL	>DWS
CHLORIDE		Chloride		ppb	14	250000	EPAS		2	2	0
IRON		Iron		ppb	5.24	300	EPAS		2	2	2
MANGANESE		Manganese		ppb	.72	50	EPAS		2	2	0
PHENOL		Phenol		ppb	.31				2	0	
SODIUM		Sodium		ppb	61				2	2	
SULFATE		Sulfate		ppb	37	250000	EPAS		2	2	0

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name		Units	Lab		DWS		Number of Samples		
		Full			MDL	Limit	Agency		Total	>MDL	>DWS
1,1,1-T		1,1,1-Trichloroethane		ppb	.036	200	EPA		2	0	0
1,1,2-T		1,1,2-Trichloroethane		ppb	.078				2	0	
1,1-DIC		1,1-Dichloroethane		ppb	.058				2	0	
1,2-DIC		1,2-Dichloroethane		ppb	.029	5	EPA		2	0	0
14-dben		1,4-Dichlorobenzene		ppb	.055	75	EPA		2	0	0
246-trp		2,4,6-Trichlorophenol		ppb	1.3				2	0	
24-dchp		2,4-Dichlorophenol		ppb	1.3				2	0	
DIMPEN		2,4-Dimethylphenol		ppb	1.2				2	0	
DINPHEN		2,4-Dinitrophenol		ppb	3				2	0	
26-dchp		2,6-Dichlorophenol		ppb	1.4				2	0	
CHLPEN		2-Chlorophenol		ppb	1.6				2	0	
2NITPH		2-Nitrophenol		ppb	1.3				2	0	
BUTDINP		2-sec-Butyl-4,6-dinitrophenol (DN)		ppb	1.3				2	0	
46DN2MP		4,6-Dinitro-2-methylphenol		ppb	1.3				2	0	
CHLCRES		4-Chloro-3-methylphenol		ppb	1.3				2	0	
NITPHEN		4-Nitrophenol		ppb	3				2	0	

Table 15-6. Constituent List and Summary of Results for the
Single-Shell Tank Waste Management Area B-BY-BX Data for
Reporting Period October 1 through December 31, 1994.
(sheet 2 of 2)

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
ALUMNUM		Aluminum	ppb	26				2	2	
ANTIONY		Antimony	ppb	62				2	0	
SB-125		Antimony-125	pCi/L					7	0	
BENZENE		Benzene	ppb	.013	5	EPA		2	0	0
BERYLUM		Beryllium	ppb	.17				2	1	
BE-7		Beryllium-7	pCi/L					7	1	
BROMIDE		Bromide	ppb	100				2	0	
CALCIUM		Calcium	ppb	34				2	2	
TETRANE		Carbon tetrachloride	ppb	.075	5	EPA		2	0	0
CEPR-144		Cerium/Praseodymium-144	pCi/L					7	1	
CS-134		Cesium-134	pCi/L					7	1	
CS-137		Cesium-137	pCi/L		200	EPA		7	0	0
CHLFORM		Chloroform	ppb	.041				2	0	
COBALT		Cobalt	ppb	5.9				2	1	
CO-60		Cobalt-60	pCi/L		100	EPA		7	1	0
COPPER		Copper	ppb	4.1	1000	EPAS		2	2	0
CRESOLS		Cresols (methylphenols)	ppb	4.8				2	0	
ETHBENZ		Ethylbenzene	ppb	.051	700	EPA		2	0	0
EU-154		Europium-154	pCi/L					7	0	
EU-155		Europium-155	pCi/L					7	0	
I-129L		Iodine-129, Low level	pCi/L		1	EPA		2	2	2
MAGNES		Magnesium	ppb	23				2	2	
METHYCH		Methylene chloride	ppb	.09				2	0	
NICKEL		Nickel	ppb	13				2	2	
NITRITE		Nitrite	ppb	18	1000	EPA		2	0	0
PENTCHP		Pentachlorophenol	ppb	1.3	1	EPA		2	0	2*
PHOSPHA		Phosphate	ppb	82				2	0	
POTASUM		Potassium	ppb	850				2	2	
K-40		Potassium-40	pCi/L					7	6	
RU-106		Ruthenium-106	pCi/L		30	EPA		7	1	0
SILVER		Silver	ppb	3.6	50	EPAI		2	0	0
TC-99		Technetium-99	pCi/L		900	EPA		4	3	0
PERCENE		Tetrachloroethene	ppb	.22	5	EPA		2	0	0
TETPHNL		Tetrachlorophenols	ppb	1.5				2	0	
TIN		Tin	ppb	69				2	0	
TOLUENE		Toluene	ppb	.016	1000	EPA		2	0	0
TRICENE		Trichloroethene	ppb	.11	5	EPA		2	0	0
TRIPHNL		Trichlorophenols	ppb	1.7				2	0	
TRITIUM		Tritium	pCi/L		20000	EPA		2	2	0
VANADUM		Vanadium	ppb	6.6				2	2	
VINYIDE		Vinyl chloride	ppb	.13	2	EPA		2	0	0
XYLENE		Xylenes (total)	ppb	.035	10000	EPA		2	0	0
ZINC		Zinc	ppb	6.3	5000	EPAS		2	1	0
ZN-65		Zinc-65	pCi/L					7	1	
ZRNB-95		Zirconium/Niobium-95	pCi/L					7	0	
CIS12DE		cis-1,2-Dichloroethylene	ppb	.11	70	EPA		2	0	0
TRANDCE		trans-1,2-Dichloroethylene	ppb	.073	100	EPA		2	0	0

For explanation of this table, see Section 1.4 of report.

Table 15-7. Constituents with at Least One Detected Value for
the Single-Shell Tank Waste Management Area B-BY-BX Data
for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 2)

Well Name	Collection Date	Sample Number	ALUMNUM 34/ppb 19/.	BARIUM 34/ppb 1.3/1000i	BERYLUM 34/ppb 1.5/.	BE-7 140/pCi/L ./.
299-E33-31	9/16/94	BOCYQ1				9.49
299-E33-32	9/16/94	BOCYQ5				5.50 U
299-E33-33	9/16/94	BOCYQ9				-3.31 U
299-E33-33	11/21/94	BOD776	32.00 L	31.00	.17 U	
299-E33-36	9/15/94	BOCYR3				5.67 U
299-E33-36	11/21/94	BOD780	37.00 L	33.00	.28 L	
299-E33-41	9/16/94	BOCYR7				8.86 U
299-E33-42	9/20/94	BOCYS1				1.47 UQ
299-E33-43	9/20/94	BOCYS5				-3.42 UQ

Well Name	Collection Date	Sample Number	CALCIUM 34/ppb 47/.	CEPR-144 140/pCi/L ./.	CS-134 140/pCi/L ./.	CHLORID 124/ppb 71/250000s
299-E33-31	9/16/94	BOCYQ1		8.75	.32 U	
299-E33-32	9/16/94	BOCYQ5		2.08 U	.99	
299-E33-33	9/16/94	BOCYQ9		-4.94 U	-.05 U	
299-E33-33	11/21/94	BOD776	31000.00			5900.00 BQ
299-E33-36	9/15/94	BOCYR3		6.70 U	.99 U	
299-E33-36	11/21/94	BOD780	29000.00			4400.00 BQ
299-E33-41	9/16/94	BOCYR7		3.88 U	-.68 U	
299-E33-42	9/20/94	BOCYS1		-2.04 U	.06 U	
299-E33-43	9/20/94	BOCYS5		2.36 U	-.10 U	

Well Name	Collection Date	Sample Number	CHROMUM 34/ppb 11/50i	COBALT 34/ppb 6.5/.	CO-60 140/pCi/L ./100	COPPER 34/ppb 2.6/1000s
299-E33-31	9/16/94	BOCYQ1			.07 U	
299-E33-32	9/16/94	BOCYQ5			.33 U	
299-E33-33	9/16/94	BOCYQ9			1.08	
299-E33-33	11/21/94	BOD776	85.00	5.90 U		6.90 L
299-E33-36	9/15/94	BOCYR3			-.46 U	
299-E33-36	11/21/94	BOD780	120.00	8.80 L		10.00 L
299-E33-41	9/16/94	BOCYR7			.54 U	
299-E33-42	9/20/94	BOCYS1			.89 U	
299-E33-43	9/20/94	BOCYS5			.61 U	

Well Name	Collection Date	Sample Number	FLUORID 124/ppb 51/1400i	ALPHA 135/pCi/L ./15	I-129 139/pCi/L ./1	IRON 34/ppb 18/300s
299-E33-33	11/21/94	BOD776	400.00	.56 U	2.76	360.00 BQ
299-E33-36	11/21/94	BOD780	400.00	1.11	5.93	510.00 BQ

Table 15-7. Constituents with at Least One Detected Value for
the Single-Shell Tank Waste Management Area B-BY-BX Data for
Reporting Period October 1 through December 31, 1994.
(sheet 2 of 2)

Well Name	Collection Date	Sample Number	MAGNES 34/ppb 25/.	MANGESE 34/ppb 1/50s	NICKEL 34/ppb 16/.	NITRATE 124/ppb 96/45000
299-E33-33	11/21/94	B0D776	8700.00	9.00 L	47.00	5100.00 q
299-E33-36	11/21/94	B0D780	8000.00	13.00	63.00	2800.00 q

Well Name	Collection Date	Sample Number	POTASUM 34/ppb 890/.	K-40 140/pCi/L ./.	RU-106 140/pCi/L ./30	SODIUM 34/ppb 150/.
299-E33-31	9/16/94	B0CYQ1		54.30	2.92 U	
299-E33-32	9/16/94	B0CYQ5		4.44 U	10.30	
299-E33-33	9/16/94	B0CYQ9		21.70	6.94 U	
299-E33-33	11/21/94	B0D776	5400.00			14000.00 BQ
299-E33-36	9/15/94	B0CYR3		32.50	20.00 U	
299-E33-36	11/21/94	B0D780	5200.00			13000.00 BQ
299-E33-41	9/16/94	B0CYR7		27.90	4.27 U	
299-E33-42	9/20/94	B0CYS1		20.40 q	5.02 U	
299-E33-43	9/20/94	B0CYS5		34.30 q	- .93 U	

Well Name	Collection Date	Sample Number	SULFATE 124/ppb 89/250000s	TC-99 143/pCi/L ./900	TRITIUM 142/pCi/L ./20000	VANADUM 34/ppb 6.4/.
299-E33-31	9/16/94	B0CYQ1		262.00		
299-E33-32	9/16/94	B0CYQ5		117.00		
299-E33-33	9/16/94	B0CYQ9		1.79 U		
299-E33-33	11/21/94	B0D776	33000.00 D		4040.00	23.00 L
299-E33-36	11/21/94	B0D780	19000.00 D		2600.00	21.00 L
299-E33-41	9/16/94	B0CYR7		232.00		

Well Name	Collection Date	Sample Number	ZINC 34/ppb 4.4/5000s	ZN-65 140/pCi/L ./.
299-E33-31	9/16/94	B0CYQ1		2.58
299-E33-32	9/16/94	B0CYQ5		-.90 U
299-E33-33	9/16/94	B0CYQ9		-6.85 U
299-E33-33	11/21/94	B0D776	6.30 U	
299-E33-36	9/15/94	B0CYR3		.27 U
299-E33-36	11/21/94	B0D780	6.30 L	
299-E33-41	9/16/94	B0CYR7		-3.09 U
299-E33-42	9/20/94	B0CYS1		-2.25 U
299-E33-43	9/20/94	B0CYS5		-1.07 U

For explanation of this table, see Section 1.4 of report.

Table 15-8. Contamination Indicator Parameters for the Single-Shell Tank Waste Management Area B-BY-BX Data for Reporting Period October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-E33-33	11/21/94	B0D776	240	300	8.04		200 L	5.0 U
		B0D777	240		8.04		300 L	5.0 U
		B0D778	237		8.02		300 L	5.0 U
		B0D779	236		8.02		200 L	5.0 U
299-E33-36	11/21/94	B0D780	255	270	6.42 F		300 L	5.0 U
		B0D781	253		6.46 F		300 L	5.0 U
		B0D782	253		6.46 F		300 L	5.0 U
		B0D783	255		6.48 F		500 L	5.0 U

For explanation of this table, see Section 1.4 of report.

Table 15-9. Constituent List and Summary of Results for the Single-Shell Tank Waste Management Area C Data for Reporting Period October 1 through December 31, 1994.

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
SB-125		Antimony-125	pCi/L					5	0	
BE-7		Beryllium-7	pCi/L					5	0	
CEPR-144		Cerium/Praseodymium-144	pCi/L					5	0	
CS-134		Cesium-134	pCi/L					5	0	
CS-137		Cesium-137	pCi/L			200	EPA	5	0	0
CO-60		Cobalt-60	pCi/L			100	EPA	5	2	0
EU-154		Europium-154	pCi/L					5	0	
EU-155		Europium-155	pCi/L					5	0	
K-40		Potassium-40	pCi/L					5	3	
RU-106		Ruthenium-106	pCi/L			30	EPA	5	0	0
ZN-65		Zinc-65	pCi/L					5	0	
ZRNB-95		Zirconium/Niobium-95	pCi/L					5	0	

For explanation of this table, see Section 1.4 of report.

Table 15-10. Constituents with at Least One Detected Value for the Single-Shell Tank Waste Management Area C Data for Reporting Period October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	CO-60 140/pCi/L ./100	K-40 140/pCi/L ./.
299-E27-12	9/15/94	BOCYN1	.75	18.60 U
299-E27-13	9/21/94	BOCYN5	1.47	45.40
299-E27-14	9/21/94	BOCYN9	-2.75 U	41.50
299-E27-15	9/15/94	BOCYP3	-.62 U	28.60
299-E27-7	9/15/94	BOCYP7	.42 U	7.75 U

For explanation of this table, see Section 1.4 of report.

Table 15-11. Contamination Indicator Parameters for the Single-Shell Tank Waste Management Area C Data for Reporting Period October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
NO DATA								

For explanation of this table, see Section 1.4 of report.

Table 15-12. Constituent List and Summary of Results for the Single-Shell Tank Waste Management Area S-SX Data for Reporting Period October 1 through December 31, 1994.

CONTAMINATION INDICATOR PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
CONDUCT	94	Conductivity, field	umhos	1				4	4	
CONDUCT	73	Conductivity, lab	umhos					1	1	
TOC		Total Organic Carbon	ppb	110				4	4	
TOX		Total Organic Halogen	ppb	5				4	3	
PH	93	pH, field	pH	.01	6.5-8.5	EPAS		4	4	0
PH	125	pH, lab	pH		6.5-8.5	EPAS		1	1	0

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
ALPHA		Gross alpha	pCi/L			15	EPA	1	1	0

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
SB-125		Antimony-125	pCi/L					8	0	
BE-7		Beryllium-7	pCi/L					8	1	
CEPR-144		Cerium/Praseodymium-144	pCi/L					8	0	
CS-134		Cesium-134	pCi/L					8	0	
CS-137		Cesium-137	pCi/L			200	EPA	8	1	0
CO-60		Cobalt-60	pCi/L			100	EPA	8	2	0
EU-154		Europium-154	pCi/L					8	1	
EU-155		Europium-155	pCi/L					8	2	
BETA		Gross beta	pCi/L					1	1	
I-129L		Iodine-129, Low level	pCi/L			1	EPA	1	0	0
PU-238		Plutonium-238	pCi/L					1	0	
PU39-40		Plutonium-239/40	pCi/L					1	0	
K-40		Potassium-40	pCi/L					8	6	
RU-106		Ruthenium-106	pCi/L			30	EPA	8	1	0
SR-90		Strontium-90	pCi/L			8	EPA	1	0	0
TC-99		Technetium-99	pCi/L			900	EPA	1	0	0
TDS		Total Dissolved Solids	ppm		10	500	EPAS	1	1	0
TRITIUM		Tritium	pCi/L			20000	EPA	1	0	0
TURBID		Turbidity	NTU		.016			1	1	
ZN-65		Zinc-65	pCi/L					8	1	
ZRNB-95		Zirconium/Niobium-95	pCi/L					8	1	

For explanation of this table, see Section 1.4 of report.

Table 15-13. Constituents with at Least One Detected Value for the Single-Shell Tank Waste Management Area S-SX Data for Reporting Period October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	BE-7 140/pCi/L ./.	CS-137 140/pCi/L ./200	CO-60 140/pCi/L ./100	EU-154 140/pCi/L ./.
299-W22-39	9/20/94	BOCYV9	6.85 Q	.50 U	-.21 U	-3.97 U
299-W22-39	9/20/94	BOCYW0	3.98 UQ	.72 U	.15 U	-2.50 U
299-W22-44	10/04/94	BOCYW7	-2.40 U	1.23	1.33	-2.20 U
299-W22-45	9/20/94	BOCYX1	-7.37 UQ	-1.15 U	.96 U	.56 U
299-W22-46	9/20/94	BOCYX5	3.99 UQ	-.50 U	.75 U	1.73 U
299-W23-13	9/20/94	BOCYX9	2.01 UQ	-.36 U	.31 U	.78 U
299-W23-14	9/20/94	BOCYY3	-.97 UQ	.44 U	.67 U	2.20 U
299-W23-15	9/20/94	BOCYY7	2.67 UQ	.22 U	.75	2.44

Well Name	Collection Date	Sample Number	EU-155 140/pCi/L ./.	ALPHA 135/pCi/L ./15	BETA 136/pCi/L ./.	K-40 140/pCi/L ./.
299-W22-39	9/20/94	BOCYV9	-.15 U			30.40 Q
299-W22-39	9/20/94	BOCYW0	2.06 U			35.90 Q
299-W22-44	10/04/94	BOCYW7	3.11	5.03	5.43 G	44.00
299-W22-45	9/20/94	BOCYX1	-1.01 U			20.90 Q
299-W22-46	9/20/94	BOCYX5	1.30 U			44.50 Q
299-W23-13	9/20/94	BOCYX9	.10 U			4.91 UQ
299-W23-14	9/20/94	BOCYY3	2.65			13.70 UQ
299-W23-15	9/20/94	BOCYY7	.84 U			37.70 Q

Well Name	Collection Date	Sample Number	RU-106 140/pCi/L ./30	TDS 65/ppm 10/500s	TURBID 126/NTU .016/.	ZN-65 140/pCi/L ./.
299-W22-39	9/20/94	BOCYV9	4.74 U			-1.93 U
299-W22-39	9/20/94	BOCYW0	-8.89 U			-1.60 U
299-W22-44	10/04/94	BOCYW7	11.40	160.00	100.00	-.13 U
299-W22-45	9/20/94	BOCYX1	-.96 U			.68 U
299-W22-46	9/20/94	BOCYX5	2.66 U			-2.52 U
299-W23-13	9/20/94	BOCYX9	1.99 U			.49 U
299-W23-14	9/20/94	BOCYY3	-11.20 U			2.17 U
299-W23-15	9/20/94	BOCYY7	-.66 U			2.91

Well Name	Collection Date	Sample Number	ZRNB-95 140/pCi/L ./.
299-W22-39	9/20/94	BOCYV9	-1.97 U
299-W22-39	9/20/94	BOCYW0	-.21 U
299-W22-44	10/04/94	BOCYW7	-3.05 U
299-W22-45	9/20/94	BOCYX1	1.38 U
299-W22-46	9/20/94	BOCYX5	.71 U
299-W23-13	9/20/94	BOCYX9	-.35 U
299-W23-14	9/20/94	BOCYY3	2.70
299-W23-15	9/20/94	BOCYY7	-.37 U

For explanation of this table, see Section 1.4 of report.

Table 15-14. Contamination Indicator Parameters for the
Single-Shell Tank Waste Management Area S-SX Data for
Reporting Period October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-W22-44	10/04/94	BOCYW7	196	200	7.80	8.00	300 L	6.5
		BOCYW8	196		7.82		300 L	5.5
		BOCYW9	195		7.80		300 L	6.1
		BOCYX0	195		7.80		300 L	5.0 U

For explanation of this table, see Section 1.4 of report.

Table 15-15. Constituent List and Summary of Results for the
Single-Shell Tank Waste Management Area T Data for
Reporting Period October 1 through
December 31, 1994.
(sheet 1 of 3)

CONTAMINATION INDICATOR PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
CONDUCT	94	Conductivity, field	umhos	1				20	20	
CONDUCT	73	Conductivity, lab	umhos					4	4	
TOC		Total Organic Carbon	ppb	110				12	12	
TOX		Total Organic Halogen	ppb	5				12	12	
PH	93	pH, field	pH	.01	6.5-8.5	EPAS		20	20	1
PH	125	pH, lab	pH		6.5-8.5	EPAS		4	4	0

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
2,4,5TP		2,4,5-TP	ppb	.015	50	EPA		1	0	0
2,4-D		2,4-D	ppb	.052	100	EPAI		1	0	0
ARSENIC		Arsenic	ppb	2.8	50	EPA		5	3	0
FARSENIC		Arsenic, filtered	ppb	2.8	50	EPA		5	2	0
BARIUM		Barium	ppb	.59	1000	EPAI		5	5	0
FBARIUM		Barium, filtered	ppb	.59	1000	EPAI		5	5	0
CADMIUM		Cadmium	ppb	3.3	10	EPAI		5	0	0
FCADMIU		Cadmium, filtered	ppb	3.3	10	EPAI		5	0	0
CHROMIUM		Chromium	ppb	4.5	50	EPAI		5	5	4
FCHROMI		Chromium, filtered	ppb	4.5	50	EPAI		5	5	2
ENDRIN		Endrin	ppb	.0011	.2	EPA		1	0	0
FLUORID		Fluoride	ppb	36	1400	EPAI		12	11	3
ALPHA		Gross alpha	pCi/L		15	EPA		5	4	0
MERCURY		Mercury	ppb	.05	2	EPA		5	1	0
FMERCUR		Mercury, filtered	ppb	.05	2	EPA		5	2	0
METHLOR		Methoxychlor	ppb	.016	100	EPAI		1	0	0
NITRATE		Nitrate	ppb	11	45000	EPA		12	12	10
RADIUM		Radium	pCi/L		5	EPAI		1	1	0
SELENIUM		Selenium	ppb	.65	10	EPAI		5	4	0
FSELENI		Selenium, filtered	ppb	.65	10	EPAI		5	4	0
TOXAENE		Toxaphene	ppb	.85	5	EPAI		1	0	0
g-BHC		gamma-BHC (Lindane)	ppb	.0013	4	EPAI		1	0	0

GROUNDWATER QUALITY PARAMETERS

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
CHLORID		Chloride	ppb	14	250000	EPAS		12	12	0
IRON		Iron	ppb	5.24	300	EPAS		5	5	5
FIRON		Iron, filtered	ppb	5.24	300	EPAS		5	5	0
MANGESE		Manganese	ppb	.72	50	EPAS		5	5	0
FMANGAN		Manganese, filtered	ppb	.72	50	EPAS		5	5	0
LPHENOL		Phenol	ppb	.31				1	0	
SODIUM		Sodium	ppb	61				5	5	
FSODIUM		Sodium, filtered	ppb	61				5	5	
SULFATE		Sulfate	ppb	37	250000	EPAS		12	12	0

Table 15-15. Constituent List and Summary of Results for the
Single-Shell Tank Waste Management Area T Data for
Reporting Period October 1 through
December 31, 1994.
(sheet 2 of 3)

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name	Full	Units	Lab MDL	DWS		Number of Samples		
						Limit	Agency	Total	>MDL	>DWS
1,1,1-T		1,1,1-Trichloroethane		ppb	.036	200	EPA	1	0	0
1,1,2-T		1,1,2-Trichloroethane		ppb	.078			1	0	
1,1-DIC		1,1-Dichloroethane		ppb	.058			1	0	
1,2-DIC		1,2-Dichloroethane		ppb	.029	5	EPA	1	0	0
14-dben		1,4-Dichlorobenzene		ppb	.055	75	EPA	1	0	0
2,4,5-T		2,4,5-T		ppb	.014			1	0	
246-trp		2,4,6-Trichlorophenol		ppb	1.3			1	0	
24-dchp		2,4-Dichlorophenol		ppb	1.3			1	0	
DIMPEN		2,4-Dimethylphenol		ppb	1.2			1	0	
DINPHEN		2,4-Dinitrophenol		ppb	3			1	0	
26-dchp		2,6-Dichlorophenol		ppb	1.4			1	0	
CHLPEN		2-Chlorophenol		ppb	1.6			1	0	
2NITPH		2-Nitrophenol		ppb	1.3			1	0	
BUTDINP 30		2-sec-Butyl-4,6-dinitrophenol(DN		ppb	1.3			1	0	
BUTDINP 49		2-sec-Butyl-4,6-dinitrophenol(DN		ppb	.077			1	0	
DDD		4,4'-DDD		ppb	.0013			1	0	
DDE		4,4'-DDE		ppb	.0012			1	0	
DDT		4,4'-DDT		ppb	.0011			1	0	
46DN2MP		4,6-Dinitro-2-methylphenol		ppb	1.3			1	0	
CHLCRES		4-Chloro-3-methylphenol		ppb	1.3			1	0	
NITPHEN		4-Nitrophenol		ppb	3			1	0	
ALDRIN		Aldrin		ppb	.0026			1	0	
ALKALIN		Alkalinity		ppm	2.8			4	4	
a-BHC		Alpha-BHC		ppb	.0011			1	0	
ALUMNUM		Aluminum		ppb	26			5	5	
FALUMIN		Aluminum, filtered		ppb	26			5	1	
ANTIONY		Antimony		ppb	62			5	0	
FANTIMO		Antimony, filtered		ppb	62			5	0	
SB-125		Antimony-125		pCi/L				17	2	
BENZENE		Benzene		ppb	.013	5	EPA	1	0	0
BERYLUM		Beryllium		ppb	.17			5	1	
FBERYLL		Beryllium, filtered		ppb	.17			5	1	
BE-7		Beryllium-7		pCi/L				17	0	
b-BHC		Beta-BHC		ppb	.0014			1	0	
BROMIDE		Bromide		ppb	100			12	3	
CALCIUM		Calcium		ppb	34			5	5	
FCALCIU		Calcium, filtered		ppb	34			5	5	
TETRANE		Carbon tetrachloride		ppb	.075	5	EPA	1	1	1
CEPR-144		Cerium/Praseodymium-144		pCi/L				17	0	
CS-134		Cesium-134		pCi/L				17	2	
CS-137		Cesium-137		pCi/L		200	EPA	17	0	0
CHLOANE		Chlordane		ppb	.022	2	EPA	1	0	0
CHLFORM		Chloroform		ppb	.041			1	1	
COBALT		Cobalt		ppb	5.9			5	1	
FCOBALT		Cobalt, filtered		ppb	5.9			5	1	
CO-60		Cobalt-60		pCi/L		100	EPA	17	5	0
COPPER		Copper		ppb	4.1	1000	EPAS	5	4	0
FCOPPER		Copper, filtered		ppb	4.1	1000	EPAS	5	0	0
CRESOLS		Cresols (methylphenols)		ppb	4.8			1	0	
d-BHC		Delta-BHC		ppb	.0017			1	0	
DIELRIN		Dieldrin		ppb	.0014			1	0	
ENDO1		Endosulfan I		ppb	.0013			1	0	
ENDO2		Endosulfan II		ppb	.0011			1	0	

Table 15-15. Constituent List and Summary of Results for the
Single-Shell Tank Waste Management Area T Data for
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Short	(Method)	Constituent Name	Full	Units	Lab MDL	DWS		Agency	Number of Samples		
						Limit			Total	>MDL	>DWS
ENDSFAN		Endosulfan sulfate	ppb	.0021					1	0	
ENDRALD		Endrin Aldehyde	ppb	.0017					1	0	
ETHBENZ		Ethylbenzene	ppb	.051	700		EPA		1	0	0
EU-154		Europium-154	pCi/L						17	1	
EU-155		Europium-155	pCi/L						17	1	
BETA		Gross beta	pCi/L						5	5	
HEPTLOR		Heptachlor	ppb	.0027	.4		EPA		1	0	0
HEPTIDE		Heptachlor epoxide	ppb	.0013	.2		EPA		1	0	0
I-129L		Iodine-129, Low level	pCi/L		1		EPA		12	5	1
LEAD		Lead	ppb	1.5	50		EPAI		5	5	0
FLEAD		Lead, filtered	ppb	1.5	50		EPAI		5	4	0
MAGNES		Magnesium	ppb	23					5	5	
FMAGNES		Magnesium, filtered	ppb	23					5	5	
METHYCH		Methylene chloride	ppb	.09					1	1	
NICKEL		Nickel	ppb	13					5	4	
FNICKEL		Nickel, filtered	ppb	13					5	1	
NITRITE		Nitrite	ppb	18	1000		EPA		12	0	0
PENTCHP		Pentachlorophenol	ppb	1.3	1		EPA		1	0	1*
PHOSPHA		Phosphate	ppb	82					12	0	
PU-238		Plutonium-238	pCi/L						4	0	
PU39-40		Plutonium-239/40	pCi/L						4	1	
POTASUM		Potassium	ppb	850					5	5	
FPOASS		Potassium, filtered	ppb	850					5	5	
K-40		Potassium-40	pCi/L						17	15	
RU-106		Ruthenium-106	pCi/L		30		EPA		17	0	0
SILVER		Silver	ppb	3.6	50		EPAI		5	0	0
FSILVER		Silver, filtered	ppb	3.6	50		EPAI		5	0	0
SR-90		Strontium-90	pCi/L		8		EPA		12	0	0
TC-99		Technetium-99	pCi/L		900		EPA		12	12	0
PERCENE		Tetrachloroethene	ppb	.22	5		EPA		1	1	0
TETPHNL		Tetrachlorophenols	ppb	1.5					1	0	
THALLIUM		Thallium	ppb	.58					4	0	
FTHALIUM		Thallium, filtered	ppb	.58					4	1	
TIN		Tin	ppb	69					5	0	
FTIN		Tin, filtered	ppb	69					5	0	
TOLUENE		Toluene	ppb	.016	1000		EPA		1	0	0
TDS		Total Dissolved Solids	ppm	10	500		EPAS		12	12	2
TRICENE		Trichloroethene	ppb	.11	5		EPA		1	1	1
TRIPHNL		Trichlorophenols	ppb	1.7					1	0	
TRITIUM		Tritium	pCi/L		20000		EPA		12	11	5
TURBID		Turbidity	NTU	.016					5	5	
URANIUM		Uranium	ppb						4	4	
VANADIUM		Vanadium	ppb	6.6					5	5	
FVANADI		Vanadium, filtered	ppb	6.6					5	5	
VINYIDE		Vinyl chloride	ppb	.13	2		EPA		1	0	0
XYLENE		Xylenes (total)	ppb	.035	10000		EPA		1	0	0
ZINC		Zinc	ppb	6.3	5000		EPAS		5	3	0
FZINC		Zinc, filtered	ppb	6.3	5000		EPAS		5	0	0
ZN-65		Zinc-65	pCi/L						17	2	
ZRNB-95		Zirconium/Niobium-95	pCi/L						17	1	
CIS12DE		cis-1,2-Dichloroethylene	ppb	.11	70		EPA		1	0	0
TRANDE		trans-1,2-Dichloroethylene	ppb	.073	100		EPA		1	0	0

For explanation of this table, see Section 1.4 of report.

Table 15-16. Constituents with at Least One Detected Value for the
Single-Shell Tank Waste Management Area T Data for
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Well Name	Collection Date	Sample Number	ALKALIN 357/ppm 1.96/.	ALUMNUM 34/ppb 19/.	FALUMIN 34/ppb 19/.	SB-125 140/pCi/L ./.
299-W10-15	9/21/94	B0CZ88				-.09 U
299-W10-15	11/30/94	B0D870	150.00	76.00 L		1.41 U
299-W10-15	11/30/94	B0D871			26.00 U	
299-W10-16	9/21/94	B0CZJ0				-1.25 U
299-W10-16	11/29/94	B0D872	150.00	57.00 L		0.00 U
299-W10-16	11/29/94	B0D873			26.00 U	
299-W10-19	12/14/94	B0DG70				.33 U
299-W10-20	12/15/94	B0DG56		400.00 B		
299-W10-20	12/15/94	B0DG57			26.00 U	
299-W10-20	12/15/94	B0DG71				1.99 U
299-W10-21	12/14/94	B0DG72				.60 U
299-W11-27	9/21/94	B0CZH4				-5.49 U
299-W11-27	11/30/94	B0D878	140.00	110.00 L		3.05
299-W11-27	11/30/94	B0D879			39.00 L	
299-W11-28	9/21/94	B0CZJ6				-.29 U
299-W11-28	10/26/94	B0D5N2	150.00	45.00 L		-.76 U
299-W11-28	10/26/94	B0D5N3			26.00 U	
299-W11-31	8/22/94	B0CB84				2.53 U
299-W11-31	12/14/94	B0DG73				3.40
299-W6-2	12/14/94	B0DG75				1.68 U
299-W6-4	12/14/94	B0DG76				1.90 U
299-W6-9	12/13/94	B0DG77				-2.36 U
299-W6-9	12/13/94	B0DG78				2.32 U

Well Name	Collection Date	Sample Number	ARSENIC 43/ppb .64/50	FARSENIC 43/ppb .64/50	BARIUM 34/ppb 1.3/1000i	FBARIUM 34/ppb 1.3/1000i
299-W10-15	11/30/94	B0D870	5.20		58.00	
299-W10-15	11/30/94	B0D871		6.00		60.00
299-W10-16	11/29/94	B0D872	5.20		34.00	
299-W10-16	11/29/94	B0D873		5.30		34.00
299-W10-20	12/15/94	B0DG56	2.80 U		59.00	
299-W10-20	12/15/94	B0DG57		2.80 U		54.00
299-W11-27	11/30/94	B0D878	2.80 U		50.00	
299-W11-27	11/30/94	B0D879		2.80 U		48.00
299-W11-28	10/26/94	B0D5N2	3.30 LP		44.00	
299-W11-28	10/26/94	B0D5N3		2.80 UP		43.00

Table 15-16. Constituents with at Least One Detected Value for the
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Well Name	Collection Date	Sample Number	BERYLUM 34/ppb 1.5/.	FBERYLL 34/ppb 1.5/.	BROMIDE 124/ppb 110/.	CALCIUM 34/ppb 47/.
299-W10-15	11/30/94	B0D870	.17 U		100.00 DU	29000.00
299-W10-15	11/30/94	B0D871		.17 U		
299-W10-16	11/29/94	B0D872	.17 U		200.00 L	30000.00
299-W10-16	11/29/94	B0D873		.17 U		
299-W10-19	12/14/94	B0DG70			80.00 L	
299-W10-20	12/15/94	B0DG56	.17 U			70000.00
299-W10-20	12/15/94	B0DG57		.17 U		
299-W10-20	12/15/94	B0DG71			100.00 UD	
299-W10-21	12/14/94	B0DG72			100.00 DU	
299-W11-27	11/30/94	B0D878	.17 U		100.00 U	44000.00
299-W11-27	11/30/94	B0D879		.17 U		
299-W11-28	10/26/94	B0D5N2	.19 LB		100.00 UD	42000.00
299-W11-28	10/26/94	B0D5N3		.34 LB		
299-W11-31	12/14/94	B0DG73			200.00 L	
299-W6-2	12/14/94	B0DG75			30.00 L	
299-W6-4	12/14/94	B0DG76			100.00 L	
299-W6-9	12/13/94	B0DG77			100.00 U	
299-W6-9	12/13/94	B0DG78			50.00 L	

Well Name	Collection Date	Sample Number	FCALCIU 34/ppb 47/.	TETRANE 25/ppb .32/5	CS-134 140/pCi/L ./.	CHLORID 124/ppb 71/250000s
299-W10-15	9/21/94	B0CZH8			-.58 U	
299-W10-15	11/30/94	B0D870			.51 U	26000.00 D
299-W10-15	11/30/94	B0D871	35000.00			
299-W10-16	9/21/94	B0CZJ0			.28 U	
299-W10-16	11/29/94	B0D872			.49 U	30000.00 D
299-W10-16	11/29/94	B0D873	32000.00			
299-W10-19	12/14/94	B0DG70			-.29 U	15000.00 DQ
299-W10-20	12/15/94	B0DG56		2200.00 DX		
299-W10-20	12/15/94	B0DG57	69000.00			
299-W10-20	12/15/94	B0DG71			.24 U	17000.00 DQ
299-W10-21	12/14/94	B0DG72			.13 U	13000.00 DQ
299-W11-27	9/21/94	B0CZH4			-.34 U	
299-W11-27	11/30/94	B0D878			-.40 U	2200.00
299-W11-27	11/30/94	B0D879	42000.00			
299-W11-28	9/21/94	B0CZJ6			.60 U	
299-W11-28	10/26/94	B0D5N2			.26 U	32000.00 D
299-W11-28	10/26/94	B0D5N3	43000.00			
299-W11-31	8/22/94	B0CB84			.10 U	
299-W11-31	12/14/94	B0DG73			.22 U	29000.00 DQ
299-W6-2	12/14/94	B0DG75			.28 U	4600.00 Q
299-W6-4	12/14/94	B0DG76			1.08	9200.00 Q
299-W6-9	12/13/94	B0DG77			1.17	50.00 LQ
299-W6-9	12/13/94	B0DG78			.08 U	6100.00 Q

Table 15-16. Constituents with at Least One Detected Value for the
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Well Name	Collection Date	Sample Number	CHLFORM 25/ppb .05/.	CHROMUM 34/ppb 11/50i	FCHROMI 34/ppb 11/50i	COBALT 34/ppb 6.5/.
299-W10-15	11/30/94	B0D870		220.00		5.90 U
299-W10-15	11/30/94	B0D871			110.00	
299-W10-16	11/29/94	B0D872		350.00		9.30 L
299-W10-16	11/29/94	B0D873			51.00	
299-W10-20	12/15/94	B0DG56	60.00 Y	25.00		5.90 U
299-W10-20	12/15/94	B0DG57			8.20 L	
299-W11-27	11/30/94	B0D878		320.00		5.90 U
299-W11-27	11/30/94	B0D879			17.00 L	
299-W11-28	10/26/94	B0D5N2		120.00		5.90 U
299-W11-28	10/26/94	B0D5N3			34.00	

Well Name	Collection Date	Sample Number	FCOBALT 34/ppb 6.5/.	CO-60 140/pCi/L ./100	COPPER 34/ppb 2.6/1000s	FCOPPER 34/ppb 2.6/1000s
299-W10-15	9/21/94	B0CZ8		1.13 U		
299-W10-15	11/30/94	B0D870		3.09	6.90 L	
299-W10-15	11/30/94	B0D871	5.90 U			4.10 U
299-W10-16	9/21/94	B0CZJ0		.91 U		
299-W10-16	11/29/94	B0D872		1.02 U	14.00 L	
299-W10-16	11/29/94	B0D873	5.90 U			4.10 U
299-W10-19	12/14/94	B0DG70		.88 U		
299-W10-20	12/15/94	B0DG56			4.10 U	
299-W10-20	12/15/94	B0DG57	5.90 U			4.10 U
299-W10-20	12/15/94	B0DG71		.54 U		
299-W10-21	12/14/94	B0DG72		.88 U		
299-W11-27	9/21/94	B0CZH4		.46 U		
299-W11-27	11/30/94	B0D878		.90	16.00 L	
299-W11-27	11/30/94	B0D879	5.90 U			4.10 U
299-W11-28	9/21/94	B0CZJ6		1.24 U		
299-W11-28	10/26/94	B0D5N2		2.43	22.00	
299-W11-28	10/26/94	B0D5N3	6.20 L			4.10 U
299-W11-31	8/22/94	B0C884		-.06 U		
299-W11-31	12/14/94	B0DG73		.69 U		
299-W6-2	12/14/94	B0DG75		1.88		
299-W6-4	12/14/94	B0DG76		.81 U		
299-W6-9	12/13/94	B0DG77		.89		
299-W6-9	12/13/94	B0DG78		.51 U		

Table 15-16. Constituents with at Least One Detected Value for the
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Well Name	Collection Date	Sample Number	EU-154 140/pCi/L ./.	EU-155 140/pCi/L ./.	FLUORID 124/ppb 51/1400i	ALPHA 135/pCi/L ./15
299-W10-15	9/21/94	B0CZH8	-3.12 U	1.77 U		
299-W10-15	11/30/94	B0D870	-4.66 U	-.38 U	4800.00	1.64 U
299-W10-16	9/21/94	B0CZJ0	1.23 U	-.49 U		
299-W10-16	11/29/94	B0D872	-3.57 U	-1.11 U	2600.00	8.66
299-W10-19	12/14/94	B0DG70	1.33 U	-.22 U	500.00	
299-W10-20	12/15/94	B0DG56				1.57
299-W10-20	12/15/94	B0DG71	-2.19 U	-.02 U	400.00	
299-W10-21	12/14/94	B0DG72	2.70 U	1.55 U	400.00	
299-W11-27	9/21/94	B0CZH4	-1.25 U	-.86 U		
299-W11-27	11/30/94	B0D878	.95 U	-1.17 U	1000.00	1.40
299-W11-28	9/21/94	B0CZJ6	-.21 U	1.49 U		
299-W11-28	10/26/94	B0D5N2	-2.41 U	.55 U	3500.00	2.98 P
299-W11-31	8/22/94	B0C884	.29 U	-1.03 U		
299-W11-31	12/14/94	B0DG73	-2.79 U	2.71	1200.00	
299-W6-2	12/14/94	B0DG75	-4.16 U	.29 U	500.00	
299-W6-4	12/14/94	B0DG76	4.05	-.64 U	500.00	
299-W6-9	12/13/94	B0DG77	-.80 U	1.85 U	36.00 U	
299-W6-9	12/13/94	B0DG78	2.19 U	-1.11 U	800.00	

Well Name	Collection Date	Sample Number	BETA 136/pCi/L ./.	I-129 139/pCi/L ./1	IRON 34/ppb 18/300s	FIRON 34/ppb 18/300s
299-W10-15	11/30/94	B0D870	106.00	.36	530.00 BQ	
299-W10-15	11/30/94	B0D871				16.00 LBQ
299-W10-16	11/29/94	B0D872	29.50	-.08 U	1600.00 BQ	
299-W10-16	11/29/94	B0D873				38.00 BQ
299-W10-19	12/14/94	B0DG70		.01 U		
299-W10-20	12/15/94	B0DG56	24.60		1100.00 B	
299-W10-20	12/15/94	B0DG57				17.00 BL
299-W10-20	12/15/94	B0DG71		-.05 U		
299-W10-21	12/14/94	B0DG72		.45		
299-W11-27	11/30/94	B0D878	92.70 F	.23 U	1400.00 BQ	
299-W11-27	11/30/94	B0D879				89.00 BQ
299-W11-28	10/26/94	B0D5N2	86.30 P	.37	830.00 Q	
299-W11-28	10/26/94	B0D5N3				29.00 Q
299-W11-31	12/14/94	B0DG73		1.85		
299-W6-2	12/14/94	B0DG75		.09 U		
299-W6-4	12/14/94	B0DG76		.57		
299-W6-9	12/13/94	B0DG77		.16 U		
299-W6-9	12/13/94	B0DG78		.01 U		

Table 15-16. Constituents with at Least One Detected Value for the
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Well Name	Collection Date	Sample Number	LEAD 40/ppb .86/50i	FLEAD 40/ppb .86/50i	MAGNES 34/ppb 25/.	FMAGNES 34/ppb 25/.
299-W10-15	11/30/94	B0D870	2.10 BL		15000.00	
299-W10-15	11/30/94	B0D871		2.10 BL		14000.00
299-W10-16	11/29/94	B0D872	11.00		9300.00	
299-W10-16	11/29/94	B0D873		1.50 U		9600.00
299-W10-20	12/15/94	B0DG56	8.50		22000.00	
299-W10-20	12/15/94	B0DG57		3.70 L		22000.00
299-W11-27	11/30/94	B0D878	2.70 BL		15000.00	
299-W11-27	11/30/94	B0D879		2.70 BL		14000.00
299-W11-28	10/26/94	B0D5N2	4.60 LPQ		14000.00	
299-W11-28	10/26/94	B0D5N3		2.00 LPQ		14000.00

Well Name	Collection Date	Sample Number	MANGESE 34/ppb 1/50s	FMANGAN 34/ppb 1/50s	MERCURY 41/ppb .095/2	FMERCUR 41/ppb .095/2
299-W10-15	11/30/94	B0D870	12.00		.05 U	
299-W10-15	11/30/94	B0D871		1.90 L		.12 L
299-W10-16	11/29/94	B0D872	32.00		.05 U	
299-W10-16	11/29/94	B0D873		2.80 L		.05 U
299-W10-20	12/15/94	B0DG56	38.00		.07 BL	
299-W10-20	12/15/94	B0DG57		11.00		.06 BL
299-W11-27	11/30/94	B0D878	29.00		.05 U	
299-W11-27	11/30/94	B0D879		5.10 L		.05 U
299-W11-28	10/26/94	B0D5N2	47.00		.05 UP	
299-W11-28	10/26/94	B0D5N3		37.00		.05 UP

Well Name	Collection Date	Sample Number	METHYCH 25/ppb .082/.	NICKEL 34/ppb 16/.	FNICKEL 34/ppb 16/.	NITRATE 124/ppb 96/45000
299-W10-15	11/30/94	B0D870		51.00		260000.00 DQ
299-W10-15	11/30/94	B0D871			13.00 U	
299-W10-16	11/29/94	B0D872		160.00		130000.00 DQ
299-W10-16	11/29/94	B0D873			13.00 U	
299-W10-19	12/14/94	B0DG70				130000.00 DQ
299-W10-20	12/15/94	B0DG56	.22 L	13.00 U		
299-W10-20	12/15/94	B0DG57			19.00 L	
299-W10-20	12/15/94	B0DG71				130000.00 DQ
299-W10-21	12/14/94	B0DG72				150000.00 DQ
299-W11-27	11/30/94	B0D878		140.00		6300.00 Q
299-W11-27	11/30/94	B0D879			13.00 U	
299-W11-28	10/26/94	B0D5N2		31.00		210000.00 D
299-W11-28	10/26/94	B0D5N3			13.00 U	
299-W11-31	12/14/94	B0DG73				120000.00 DQ
299-W6-2	12/14/94	B0DG75				52000.00 DQ
299-W6-4	12/14/94	B0DG76				97000.00 DQ
299-W6-9	12/13/94	B0DG77				600.00 Q
299-W6-9	12/13/94	B0DG78				69000.00 DQ

Table 15-16. Constituents with at Least One Detected Value for the
Single-Shell Tank Waste Management Area T Data for
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Well Name	Collection Date	Sample Number	PU39-40 146/pCi/L ./.	POTASUM 34/ppb 890/.	FPOTASS 34/ppb 890/.	K-40 140/pCi/L ./.
299-W10-15	9/21/94	B0CZ88				25.30
299-W10-15	11/30/94	B0D870	.00 U	5000.00		61.20 q
299-W10-15	11/30/94	B0D871			4800.00	
299-W10-16	9/21/94	B0CZJ0				58.70
299-W10-16	11/29/94	B0D872	.01 U	3700.00		51.30
299-W10-16	11/29/94	B0D873			4000.00	
299-W10-19	12/14/94	B0DG70				14.30 U
299-W10-20	12/15/94	B0DG56		5100.00		
299-W10-20	12/15/94	B0DG57			4900.00	
299-W10-20	12/15/94	B0DG71				29.70
299-W10-21	12/14/94	B0DG72				49.00
299-W11-27	9/21/94	B0CZH4				38.20
299-W11-27	11/30/94	B0D878	-.00 U	4500.00		11.20 Uq
299-W11-27	11/30/94	B0D879			4300.00	
299-W11-28	9/21/94	B0CZJ6				43.30
299-W11-28	10/26/94	B0D5N2	.02 P	4800.00		56.70
299-W11-28	10/26/94	B0D5N3			4800.00	
299-W11-31	8/22/94	B0CB84				51.00
299-W11-31	12/14/94	B0DG73				25.90
299-W6-2	12/14/94	B0DG75				55.70
299-W6-4	12/14/94	B0DG76				52.50
299-W6-9	12/13/94	B0DG77				45.40
299-W6-9	12/13/94	B0DG78				60.90

Well Name	Collection Date	Sample Number	RADIUM 137/pCi/L ./5i	SELENIUM 48/ppb 1.4/10i	FSELENI 48/ppb 1.4/10i	SODIUM 34/ppb 150/.
299-W10-15	11/30/94	B0D870		3.40 BL		180000.00 q
299-W10-15	11/30/94	B0D871			3.20 BL	
299-W10-16	11/29/94	B0D872		5.70 L		120000.00 Bq
299-W10-16	11/29/94	B0D873			4.90 L	
299-W10-20	12/15/94	B0DG56	.25	2.20 L		13000.00 Bq
299-W10-20	12/15/94	B0DG57			2.20 L	
299-W11-27	11/30/94	B0D878		.65 U		20000.00 q
299-W11-27	11/30/94	B0D879			.65 U	
299-W11-28	10/26/94	B0D5N2		5.30 L		130000.00
299-W11-28	10/26/94	B0D5N3			5.50 L	

Table 15-16. Constituents with at Least One Detected Value for the
Single-Shell Tank Waste Management Area T Data for
Reporting Period October 1 through
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Well Name	Collection Date	Sample Number	FSODIUM 34/ppb 150/.	SULFATE 124/ppb 89/250000s	TC-99 143/pCi/L ./900	PERCENE 25/ppb .08/5
299-W10-15	11/30/94	B0D870		65000.00 D	467.00	
299-W10-15	11/30/94	B0D871	170000.00 q			
299-W10-16	11/29/94	B0D872		59000.00 D	113.00	
299-W10-16	11/29/94	B0D873	120000.00 Bq			
299-W10-19	12/14/94	B0DG70		38000.00 D	76.60	
299-W10-20	12/15/94	B0DG56				1.40 Z
299-W10-20	12/15/94	B0DG57	14000.00 Bq			
299-W10-20	12/15/94	B0DG71		41000.00 D	59.50	
299-W10-21	12/14/94	B0DG72		35000.00 D	76.30	
299-W11-27	11/30/94	B0D878		60000.00 D	11.70	
299-W11-27	11/30/94	B0D879	20000.00 q			
299-W11-28	10/26/94	B0D5N2		110000.00 D	455.00 P	
299-W11-28	10/26/94	B0D5N3	130000.00			
299-W11-31	12/14/94	B0DG73		63000.00 D	317.00	
299-W6-2	12/14/94	B0DG75		23000.00 D	28.10	
299-W6-4	12/14/94	B0DG76		38000.00 D	55.00	
299-W6-9	12/13/94	B0DG77		200.00 L	45.70	
299-W6-9	12/13/94	B0DG78		25000.00 D	43.30	

Well Name	Collection Date	Sample Number	THALLIUM 42/ppb 1.2/.	PTHALUM 42/ppb 1.2/.	TDS 65/ppm 10/500s	TRICENE 25/ppb .043/5
299-W10-15	11/30/94	B0D870	.58 U		730.00	
299-W10-15	11/30/94	B0D871		.58 U		
299-W10-16	11/29/94	B0D872	.58 U		500.00	
299-W10-16	11/29/94	B0D873		.62 L		
299-W10-19	12/14/94	B0DG70			340.00	
299-W10-20	12/15/94	B0DG56				7.40
299-W10-20	12/15/94	B0DG71			370.00	
299-W10-21	12/14/94	B0DG72			390.00	
299-W11-27	11/30/94	B0D878	.58 U		260.00	
299-W11-27	11/30/94	B0D879		.58 U		
299-W11-28	10/26/94	B0D5N2	.58 U		640.00 P	
299-W11-28	10/26/94	B0D5N3		.58 U		
299-W11-31	12/14/94	B0DG73			480.00	
299-W6-2	12/14/94	B0DG75			250.00	
299-W6-4	12/14/94	B0DG76			280.00	
299-W6-9	12/13/94	B0DG77			270.00	
299-W6-9	12/13/94	B0DG78			270.00	

Table 15-16. Constituents with at Least One Detected Value for the
Single-Shell Tank Waste Management Area T Data for
Reporting Period October 1 through
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Well Name	Collection Date	Sample Number	TRITIUM 142/pCi/L ./20000	TURBID 126/NTU .016/.	URANIUM 145/ppb ./.	VANADIUM 34/ppb 6.4/.
299-W10-15	11/30/94	B0D870	32800.00	1.90 Q	2.55	42.00
299-W10-16	11/29/94	B0D872	45000.00	6.20 Q	1.39	37.00
299-W10-19	12/14/94	B0D670	1530.00			
299-W10-20	12/15/94	B0D656		24.00 Q		17.00 L
299-W10-20	12/15/94	B0D671	2160.00			
299-W10-21	12/14/94	B0D672	1380.00			
299-W11-27	11/30/94	B0D878	285.00 U	5.10 Q	1.86	22.00 L
299-W11-28	10/26/94	B0D5N2	57500.00 P	5.90 PQ	2.03 P	25.00 L
299-W11-31	12/14/94	B0D673	74000.00			
299-W6-2	12/14/94	B0D675	7510.00			
299-W6-4	12/14/94	B0D676	32900.00			
299-W6-9	12/13/94	B0D677	10700.00			
299-W6-9	12/13/94	B0D678	10300.00			

Well Name	Collection Date	Sample Number	FVANADI 34/ppb 6.4/.	ZINC 34/ppb 4.4/5000s	FZINC 34/ppb 4.4/5000s	ZN-65 140/pCi/L ./.
299-W10-15	9/21/94	B0C2H8				.85 U
299-W10-15	11/30/94	B0D870		6.30 U		-.75 U
299-W10-15	11/30/94	B0D871	41.00		6.30 U	
299-W10-16	9/21/94	B0C2J0				2.23
299-W10-16	11/29/94	B0D872		6.30 U		-.14 U
299-W10-16	11/29/94	B0D873	33.00		6.30 U	
299-W10-19	12/14/94	B0D670				2.11
299-W10-20	12/15/94	B0D656		13.00		
299-W10-20	12/15/94	B0D657	13.00 L		6.30 U	
299-W10-20	12/15/94	B0D671				.72 U
299-W10-21	12/14/94	B0D672				.75 U
299-W11-27	9/21/94	B0C2H4				.80 U
299-W11-27	11/30/94	B0D878		6.60 L		.40 U
299-W11-27	11/30/94	B0D879	21.00 L		6.30 U	
299-W11-28	9/21/94	B0C2J6				-2.27 U
299-W11-28	10/26/94	B0D5N2		54.00		-1.20 U
299-W11-28	10/26/94	B0D5N3	23.00 L		6.30 U	
299-W11-31	8/22/94	B0C884				2.42 U
299-W11-31	12/14/94	B0D673				-1.12 U
299-W6-2	12/14/94	B0D675				1.20 U
299-W6-4	12/14/94	B0D676				-.31 U
299-W6-9	12/13/94	B0D677				-.04 U
299-W6-9	12/13/94	B0D678				-.08 U

Table 15-16. Constituents with at Least One Detected Value for the Single-Shell Tank Waste Management Area T Data for Reporting Period October 1 through December 31, 1994.
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Well Name	Collection Date	Sample Number	ZRNB-95 140/pCi/L ./.
299-W10-15	9/21/94	BQCZH8	-.90 U
299-W10-15	11/30/94	BOD870	1.70 U
299-W10-16	9/21/94	BQCZJ0	1.75 U
299-W10-16	11/29/94	BOD872	-1.15 U
299-W10-19	12/14/94	BODG70	-2.43 U
299-W10-20	12/15/94	BODG71	2.45
299-W10-21	12/14/94	BODG72	-1.13 U
299-W11-27	9/21/94	BQCZH4	-1.02 U
299-W11-27	11/30/94	BOD878	.49 U
299-W11-28	9/21/94	BQCZJ6	.07 U
299-W11-28	10/26/94	BOD5N2	2.11 U
299-W11-31	8/22/94	BOCB84	1.91 U
299-W11-31	12/14/94	BODG73	.26 U
299-W6-2	12/14/94	BODG75	.52 U
299-W6-4	12/14/94	BODG76	-2.00 U
299-W6-9	12/13/94	BODG77	-.47 U
299-W6-9	12/13/94	BODG78	-.10 U

For explanation of this table, see Section 1.4 of report.

Table 15-17. Contamination Indicator Parameters for the
Single-Shell Tank Waste Management Area T Data for
Reporting Period October 1 through
December 31, 1994.

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-W10-15	11/30/94	B0D870	1009	1100	8.74	8.40	400 L	279.0
299-W10-16	11/29/94	B0D872	766	770	8.10	8.10	200 L	646.0
299-W10-19	12/14/94	B0D870	558		8.77		300 L	1000.0
299-W10-20	12/15/94	B0D856	623		6.87			
		B0D871	623		6.91		400 L	1280.0
299-W10-21	12/14/94	B0D872	598		8.20		400 L	444.0
299-W11-27	11/30/94	B0D878	412	410	8.11	8.10	300 L	16.7
299-W11-28	10/26/94	B0D5N2	671 P	970 P	7.95 P	8.00 HP	500 L	934.0
299-W11-31	12/14/94	B0D873	719		7.19		400 L	646.0
299-W6-2	11/30/94	B0D8J2	395		8.08			
		B0D8J3	395		8.08			
		B0D8J4	396		8.08			
		B0D8J5	398		8.08			
		B0D8J6	394		8.08			
		B0D8J7	395		8.08			
		B0D8J8	393		8.08			
		B0D8J9	397		8.07			
	12/14/94	B0D875	370		6.41 F		200 L	119.0
299-W6-4	12/14/94	B0D876	468		8.21		300 L	160.0
299-W6-9	12/13/94	B0D877	406		7.82		200 L	115.0 Q
		B0D878					300 L	207.0 Q

For explanation of this table, see Section 1.4 of report.

Table 15-18. Constituent List and Summary of Results for the
Single-Shell Tank Waste Management Area TX-TY Data for
Reporting Period October 1 through December 31, 1994.
(sheet 1 of 3)

CONTAMINATION INDICATOR PARAMETERS

Short	(Method)	Constituent Name		Units	Lab		DWS	Agency	Number of Samples		
		Full			MDL	Limit			Total	>MDL	>DWS
CONDUCT	94	Conductivity, field	umhos		1				4	4	
CONDUCT	73	Conductivity, lab	umhos						4	4	
TOC		Total Organic Carbon	ppb		110				4	4	
TOX		Total Organic Halogen	ppb		5				4	4	
PH	93	pH, field	pH		.01	6.5-8.5	EPAS		4	4	0
PH	125	pH, lab	pH			6.5-8.5	EPAS		4	4	0

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name		Units	Lab		DWS	Agency	Number of Samples		
		Full			MDL	Limit			Total	>MDL	>DWS
ARSENIC		Arsenic	ppb		2.8	50	EPA		4	1	0
FARSENIC		Arsenic, filtered	ppb		2.8	50	EPA		4	1	0
BARIUM		Barium	ppb		.59	1000	EPAI		4	4	0
FBARIUM		Barium, filtered	ppb		.59	1000	EPAI		4	4	0
CADMIUM		Cadmium	ppb		3.3	10	EPAI		4	0	0
FCADMIU		Cadmium, filtered	ppb		3.3	10	EPAI		4	0	0
CHROMIUM		Chromium	ppb		4.5	50	EPAI		4	4	4
FCHROMI		Chromium, filtered	ppb		4.5	50	EPAI		4	4	1
FLUORID		Fluoride	ppb		36	1400	EPAI		4	4	2
ALPHA		Gross alpha	pCi/L			15	EPA		4	3	0
MERCURY		Mercury	ppb		.05	2	EPA		4	0	0
FMERCUR		Mercury, filtered	ppb		.05	2	EPA		4	1	0
NITRATE		Nitrate	ppb		11	45000	EPA		4	4	4
SELENIUM		Selenium	ppb		.65	10	EPAI		4	3	0
FSELENI		Selenium, filtered	ppb		.65	10	EPAI		4	4	0

GROUNDWATER QUALITY PARAMETERS

Short	(Method)	Constituent Name		Units	Lab		DWS	Agency	Number of Samples		
		Full			MDL	Limit			Total	>MDL	>DWS
CHLORID		Chloride	ppb		14	250000	EPAS		4	4	0
IRON		Iron	ppb		5.24	300	EPAS		4	4	4
FIRON		Iron, filtered	ppb		5.24	300	EPAS		4	4	0
MANGESE		Manganese	ppb		.72	50	EPAS		4	4	3
FMANGAN		Manganese, filtered	ppb		.72	50	EPAS		4	4	1
SODIUM		Sodium	ppb		61				4	4	
FSODIUM		Sodium, filtered	ppb		61				4	4	
SULFATE		Sulfate	ppb		37	250000	EPAS		4	4	0

Table 15-18. Constituent List and Summary of Results for the
Single-Shell Tank Waste Management Area TX-TY Data for
Reporting Period October 1 through December 31, 1994.
(sheet 2 of 3)

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name	Full	Units	Lab MDL	DWS Limit	Agency	Number of Samples		
								Total	>MDL	>DWS
ALKALIN		Alkalinity		ppm	2.8			4	4	
ALUMNUM		Aluminum		ppb	26			4	4	
FALUMIN		Aluminum, filtered		ppb	26			4	3	
ANTIONY		Antimony		ppb	62			4	0	
FANTIMO		Antimony, filtered		ppb	62			4	0	
SB-125		Antimony-125		pCi/L				8	0	
BERYLUM		Beryllium		ppb	.17			4	0	
FBERYLL		Beryllium, filtered		ppb	.17			4	0	
BE-7		Beryllium-7		pCi/L				8	0	
BROMIDE		Bromide		ppb	100			4	3	
CALCIUM		Calcium		ppb	34			4	4	
FCALCIU		Calcium, filtered		ppb	34			4	4	
CEPR-144		Cerium/Praseodymium-144		pCi/L				8	2	
CS-134		Cesium-134		pCi/L				8	1	
CS-137		Cesium-137		pCi/L		200	EPA	8	1	0
COBALT		Cobalt		ppb	5.9			4	1	
FCOBALT		Cobalt, filtered		ppb	5.9			4	0	
CO-60		Cobalt-60		pCi/L		100	EPA	8	2	0
COPPER		Copper		ppb	4.1	1000	EPAS	4	4	0
FCOPPER		Copper, filtered		ppb	4.1	1000	EPAS	4	1	0
EU-154		Europium-154		pCi/L				8	0	
EU-155		Europium-155		pCi/L				8	1	
BETA		Gross beta		pCi/L				4	4	
I-129L		Iodine-129, Low level		pCi/L		1	EPA	8	2	2
LEAD		Lead		ppb	1.5	50	EPAI	4	4	0
FLEAD		Lead, filtered		ppb	1.5	50	EPAI	4	1	0
MAGNES		Magnesium		ppb	23			4	4	
FMAGNES		Magnesium, filtered		ppb	23			4	4	
NICKEL		Nickel		ppb	13			4	4	
FNICKEL		Nickel, filtered		ppb	13			4	2	
NITRITE		Nitrite		ppb	18	1000	EPA	4	0	0
PHOSPHA		Phosphate		ppb	82			4	0	
PU-238		Plutonium-238		pCi/L				4	0	
PU39-40		Plutonium-239/40		pCi/L				4	0	
POTASUM		Potassium		ppb	850			4	4	
FPOTASS		Potassium, filtered		ppb	850			4	4	
K-40		Potassium-40		pCi/L				8	7	
RU-106		Ruthenium-106		pCi/L		30	EPA	8	0	0
SILVER		Silver		ppb	3.6	50	EPAI	4	0	0
FSILVER		Silver, filtered		ppb	3.6	50	EPAI	4	0	0
SR-90		Strontium-90		pCi/L		8	EPA	8	0	0
TC-99		Technetium-99		pCi/L		900	EPA	4	4	1
THALLIUM		Thallium		ppb	.58			4	0	
FTHALIUM		Thallium, filtered		ppb	.58			4	0	
TIN		Tin		ppb	69			4	0	
FTIN		Tin, filtered		ppb	69			4	0	
TDS		Total Dissolved Solids		ppm	10	500	EPAS	4	4	1

Table 15-18. Constituent List and Summary of Results for the
Single-Shell Tank Waste Management Area TX-TY Data for
Reporting Period October 1 through December 31, 1994.
(sheet 3 of 3)

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
TRITIUM		Tritium	pCi/L			20000	EPA	4	4	3
TURBID		Turbidity	NTU		.016			4	4	
URANIUM		Uranium	ppb					4	3	
VANADUM		Vanadium	ppb		6.6			4	4	
FVANADI		Vanadium, filtered	ppb		6.6			4	4	
ZINC		Zinc	ppb		6.3	5000	EPAS	4	4	0
FZINC		Zinc, filtered	ppb		6.3	5000	EPAS	4	2	0
ZN-65		Zinc-65	pCi/L					8	0	
ZRNB-95		Zirconium/Niobium-95	pCi/L					8	0	

For explanation of this table, see Section 1.4 of report.

Table 15-19. Constituents with at Least One Detected Value for the Single-Shell Tank Waste Management Area TX-TY Data for Reporting Period October 1 through December 31, 1994.
(sheet 1 of 5)

Well Name	Collection Date	Sample Number	ALKALIN 357/ppm 1.96/.	ALUMNUM 34/ppb 19/.	FALUMIN 34/ppb 19/.	ARSENIC 43/ppb .64/50
299-W10-17	11/30/94	B0D874	140.00	55.00 L		8.20
299-W10-17	11/30/94	B0D875			33.00 L	
299-W10-18	11/30/94	B0D876	120.00	1700.00		2.80 U
299-W10-18	11/30/94	B0D877			28.00 L	
299-W14-12	11/30/94	B0D880	90.00	240.00		2.80 U
299-W14-12	11/30/94	B0D881			26.00 U	
299-W15-22	11/30/94	B0D882	100.00	1700.00		2.80 U
299-W15-22	11/30/94	B0D883			31.00 L	

Well Name	Collection Date	Sample Number	FARSENIC 43/ppb .64/50	BARIUM 34/ppb 1.3/1000i	FBARIUM 34/ppb 1.3/1000i	BROMIDE 124/ppb 110/.
299-W10-17	11/30/94	B0D874		28.00		300.00 L
299-W10-17	11/30/94	B0D875	6.80		27.00	
299-W10-18	11/30/94	B0D876		80.00		100.00 L
299-W10-18	11/30/94	B0D877	2.80 U		59.00	
299-W14-12	11/30/94	B0D880		110.00		100.00 DU
299-W14-12	11/30/94	B0D881	2.80 U		100.00	
299-W15-22	11/30/94	B0D882		63.00		400.00 L
299-W15-22	11/30/94	B0D883	2.80 U		59.00	

Well Name	Collection Date	Sample Number	CALCIUM 34/ppb 47/.	FCALCIU 34/ppb 47/.	CEPR-144 140/pCi/L ./.	CS-134 140/pCi/L ./.
299-W10-17	9/22/94	B0C2H2			-1.05 U	.62 U
299-W10-17	11/30/94	B0D874	24000.00		-1.46 U	.90 U
299-W10-17	11/30/94	B0D875		23000.00		
299-W10-18	9/22/94	B0C2J2			2.98 U	-.61 U
299-W10-18	11/30/94	B0D876	50000.00		-7.83 U	-1.27 U
299-W10-18	11/30/94	B0D877		49000.00		
299-W14-12	9/22/94	B0C2H6			12.70	-1.02 U
299-W14-12	11/30/94	B0D880	120000.00		4.28 U	1.11
299-W14-12	11/30/94	B0D881		120000.00		
299-W15-22	9/22/94	B0C2J4			8.21	-.39 U
299-W15-22	11/30/94	B0D882	54000.00		-6.66 U	-.25 U
299-W15-22	11/30/94	B0D883		63000.00		

Table 15-19. Constituents with at Least One Detected Value for the Single-Shell Tank Waste Management Area TX-TY Data for Reporting Period October 1 through December 31, 1994.
(sheet 2 of 5)

Well Name	Collection Date	Sample Number	CS-137 140/pCi/L ./200	CHLORID 124/ppb 71/250000s	CHROMIUM 34/ppb 11/50i	FCHROMI 34/ppb 11/50i
299-W10-17	9/22/94	BOCZH2	-.34 U			
299-W10-17	11/30/94	BOD874	.40 U	36000.00 D	150.00	
299-W10-17	11/30/94	BOD875				9.40 L
299-W10-18	9/22/94	BOCZJ2	1.24			
299-W10-18	11/30/94	BOD876	-.21 U	38000.00 D	570.00	
299-W10-18	11/30/94	BOD877				8.10 L
299-W14-12	9/22/94	BOCZH6	.99 U			
299-W14-12	11/30/94	BOD880	-1.16 U	72000.00 D	360.00	
299-W14-12	11/30/94	BOD881				190.00
299-W15-22	9/22/94	BOCZJ4	.16 U			
299-W15-22	11/30/94	BOD882	-.17 U	33000.00 D	160.00	
299-W15-22	11/30/94	BOD883				7.40 L

Well Name	Collection Date	Sample Number	COBALT 34/ppb 6.5/.	FCOBALT 34/ppb 6.5/.	CO-60 140/pCi/L ./100	COPPER 34/ppb 2.6/1000s
299-W10-17	9/22/94	BOCZH2			.22 U	
299-W10-17	11/30/94	BOD874	5.90 U		.72 U	7.90 L
299-W10-17	11/30/94	BOD875		5.90 U		
299-W10-18	9/22/94	BOCZJ2			.61 U	
299-W10-18	11/30/94	BOD876	26.00		-.30 U	37.00
299-W10-18	11/30/94	BOD877		5.90 U		
299-W14-12	9/22/94	BOCZH6			13.20	
299-W14-12	11/30/94	BOD880	5.90 U		7.80	6.40 L
299-W14-12	11/30/94	BOD881		5.90 U		
299-W15-22	9/22/94	BOCZJ4			-.21 U	
299-W15-22	11/30/94	BOD882	5.90 U		.23 U	12.00 L
299-W15-22	11/30/94	BOD883		5.90 U		

Well Name	Collection Date	Sample Number	FCOPPER 34/ppb 2.6/1000s	EU-155 140/pCi/L ./.	FLUORID 124/ppb 51/1400i	ALPHA 135/pCi/L ./15
299-W10-17	9/22/94	BOCZH2		.57 U		
299-W10-17	11/30/94	BOD874		.64 U	2200.00	1.97
299-W10-17	11/30/94	BOD875	4.20 L			
299-W10-18	9/22/94	BOCZJ2		-1.50 U		
299-W10-18	11/30/94	BOD876		.76 U	1800.00	2.77
299-W10-18	11/30/94	BOD877	4.10 U			
299-W14-12	9/22/94	BOCZH6		.48 U		
299-W14-12	11/30/94	BOD880		-1.66 U	1000.00	3.56 U
299-W14-12	11/30/94	BOD881	4.10 U			
299-W15-22	9/22/94	BOCZJ4		-.03 U		
299-W15-22	11/30/94	BOD882		2.20	500.00	2.17
299-W15-22	11/30/94	BOD883	4.10 U			

Table 15-19. Constituents with at Least One Detected Value for the Single-Shell Tank Waste Management Area TX-TY Data for Reporting Period October 1 through December 31, 1994.
(sheet 3 of 5)

Well Name	Collection Date	Sample Number	BETA 136/pCi/L ./.	I-129 139/pCi/L ./1	IRON 34/ppb 18/300s	FIRON 34/ppb 18/300s
299-W10-17	9/22/94	B0CZ82		.05 U		
299-W10-17	11/30/94	B0D874	34.00	.04 U	990.00 BQ	
299-W10-17	11/30/94	B0D875				180.00 BQ
299-W10-18	9/22/94	B0CZJ2		-.08 U		
299-W10-18	11/30/94	B0D876	4.73	.25 U	8800.00 BQ	
299-W10-18	11/30/94	B0D877				52.00 BQ
299-W14-12	9/22/94	B0CZH6		34.80		
299-W14-12	11/30/94	B0D880	833.00	29.00	3600.00 BQ	
299-W14-12	11/30/94	B0D881				46.00 BQ
299-W15-22	9/22/94	B0CZJ4		.01 U		
299-W15-22	11/30/94	B0D882	72.00	.05 U	5800.00 BQ	
299-W15-22	11/30/94	B0D883				63.00 BQ

Well Name	Collection Date	Sample Number	LEAD 40/ppb .86/50i	FLEAD 40/ppb .86/50i	MAGNES 34/ppb 25/.	FMAGNES 34/ppb 25/.
299-W10-17	11/30/94	B0D874	5.10 B		7600.00	
299-W10-17	11/30/94	B0D875		3.40 BL		7500.00
299-W10-18	11/30/94	B0D876	12.00 B		18000.00	
299-W10-18	11/30/94	B0D877		1.50 U		17000.00
299-W14-12	11/30/94	B0D880	2.20 BL		44000.00	
299-W14-12	11/30/94	B0D881		1.50 U		44000.00
299-W15-22	11/30/94	B0D882	2.10 BL		17000.00	
299-W15-22	11/30/94	B0D883		1.50 U		19000.00

Well Name	Collection Date	Sample Number	MANGESE 34/ppb 1/50s	FMANGAN 34/ppb 1/50s	MERCURY 41/ppb .095/2	FMERCUR 41/ppb .095/2
299-W10-17	11/30/94	B0D874	29.00		.05 U	
299-W10-17	11/30/94	B0D875		40.00		.05 U
299-W10-18	11/30/94	B0D876	240.00		.05 U	
299-W10-18	11/30/94	B0D877		9.70 L		.05 U
299-W14-12	11/30/94	B0D880	140.00		.05 U	
299-W14-12	11/30/94	B0D881		120.00 F		.06 L
299-W15-22	11/30/94	B0D882	89.00		.05 U	
299-W15-22	11/30/94	B0D883		4.20 L		.05 U

Table 15-19. Constituents with at Least One Detected Value for the Single-Shell Tank Waste Management Area TX-TY Data for Reporting Period October 1 through December 31, 1994.
(sheet 4 of 5)

Well Name	Collection Date	Sample Number	NICKEL 34/ppb 16/.	FNICKEL 34/ppb 16/.	NITRATE 124/ppb 96/45000	POTASUM 34/ppb 890/.
299-W10-17	11/30/94	B0D874	120.00		96000.00 DQ	3600.00
299-W10-17	11/30/94	B0D875		130.00		
299-W10-18	11/30/94	B0D876	540.00		78000.00 DQ	5000.00
299-W10-18	11/30/94	B0D877		130.00		
299-W14-12	11/30/94	B0D880	70.00		300000.00 DQ	6300.00
299-W14-12	11/30/94	B0D881		13.00 U		
299-W15-22	11/30/94	B0D882	91.00		110000.00 DQ	4200.00
299-W15-22	11/30/94	B0D883		13.00 U		

Well Name	Collection Date	Sample Number	FPOTASS 34/ppb 890/.	K-40 140/pCi/L ./.	SELENIUM 48/ppb 1.4/10i	FSELENI 48/ppb 1.4/10i
299-W10-17	9/22/94	B0CZH2		30.60		
299-W10-17	11/30/94	B0D874		8.77 UQ	2.00 BL	
299-W10-17	11/30/94	B0D875	3700.00			3.10 BL
299-W10-18	9/22/94	B0CZJ2		33.30		
299-W10-18	11/30/94	B0D876		46.00 Q	.65 U	
299-W10-18	11/30/94	B0D877	4800.00			1.50 BL
299-W14-12	9/22/94	B0CZH6		61.70		
299-W14-12	11/30/94	B0D880		49.20 Q	1.50 BL	
299-W14-12	11/30/94	B0D881	6400.00			1.70 BL
299-W15-22	9/22/94	B0CZJ4		42.10		
299-W15-22	11/30/94	B0D882		46.20 Q	2.00 BL	
299-W15-22	11/30/94	B0D883	4800.00			3.00 BL

Well Name	Collection Date	Sample Number	SODIUM 34/ppb 150/.	FSODIUM 34/ppb 150/.	SULFATE 124/ppb 89/250000s	TC-99 143/pCi/L ./900
299-W10-17	11/30/94	B0D874	120000.00 Q		62000.00 D	119.00
299-W10-17	11/30/94	B0D875		110000.00 Q		
299-W10-18	11/30/94	B0D876	38000.00 Q		45000.00 D	196.00
299-W10-18	11/30/94	B0D877		38000.00 Q		
299-W14-12	11/30/94	B0D880	27000.00 Q		65000.00 D	6290.00
299-W14-12	11/30/94	B0D881		27000.00 Q		
299-W15-22	11/30/94	B0D882	18000.00 Q		47000.00 D	298.00
299-W15-22	11/30/94	B0D883		22000.00 Q		

Table 15-19. Constituents with at Least One Detected Value for the Single-Shell Tank Waste Management Area TX-TY Data for Reporting Period October 1 through December 31, 1994.
(sheet 5 of 5)

Well Name	Collection Date	Sample Number	TDS 65/ppm 10/500s	TRITIUM 142/pCi/L ./20000	TURBID 126/NTU .016/.	URANIUM 145/ppb ./.
299-W10-17	11/30/94	B0D874	460.00	33800.00	5.30 q	1.01
299-W10-18	11/30/94	B0D876	360.00	12500.00	82.00 q	1.33
299-W14-12	11/30/94	B0D880	770.00	233000.00	43.00 q	.84 U
299-W15-22	11/30/94	B0D882	360.00	22600.00	65.00 q	1.40

Well Name	Collection Date	Sample Number	VANADUM 34/ppb 6.4/.	FVANADI 34/ppb 6.4/.	ZINC 34/ppb 4.4/5000s	FZINC 34/ppb 4.4/5000s
299-W10-17	11/30/94	B0D874	57.00		18.00	
299-W10-17	11/30/94	B0D875		43.00		6.60 L
299-W10-18	11/30/94	B0D876	46.00		33.00	
299-W10-18	11/30/94	B0D877		22.00 L		6.30 U
299-W14-12	11/30/94	B0D880	9.80 L		17.00	
299-W14-12	11/30/94	B0D881		6.80 L		7.60 L
299-W15-22	11/30/94	B0D882	22.00 L		40.00	
299-W15-22	11/30/94	B0D883		21.00 L		6.30 U

For explanation of this table, see Section 1.4 of report.

Table 15-20. Contamination Indicator Parameters for the Single-Shell Tank Waste Management Area TX-TY Data for Reporting Period October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
299-W10-17	11/30/94	B0D874	711	730	7.93	8.10	400 L	950.0
299-W10-18	11/30/94	B0D876	582	590	7.92	7.90	300 L	291.0
299-W14-12	11/30/94	B0D880	1228	1200	7.35	7.60	400 L	834.0
299-W15-22	11/30/94	B0D882	595	600	7.86	7.90	200 L	518.0

For explanation of this table, see Section 1.4 of report.

Table 15-21. Constituent List and Summary of Results for the Single-Shell Tank Waste Management Area U Data for Reporting Period October 1 through December 31, 1994.

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name	Full	Units	Lab MDL	DWS Limit	Agency	Number of Samples		
								Total	>MDL	>DWS
ALPHA		Gross alpha		pCi/L		15	EPA	1	1	0

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name	Full	Units	Lab MDL	DWS Limit	Agency	Number of Samples		
								Total	>MDL	>DWS
SB-125		Antimony-125		pCi/L				5	0	
BE-7		Beryllium-7		pCi/L				5	0	
CEPR-144		Cerium/Praseodymium-144		pCi/L				5	1	
CS-134		Cesium-134		pCi/L				5	0	
CS-137		Cesium-137		pCi/L		200	EPA	5	1	0
CO-60		Cobalt-60		pCi/L		100	EPA	5	1	0
EU-154		Europium-154		pCi/L				5	1	
EU-155		Europium-155		pCi/L				5	1	
BETA		Gross beta		pCi/L				1	1	
I-129L		Iodine-129, Low level		pCi/L		1	EPA	5	2	0
K-40		Potassium-40		pCi/L				5	4	
RU-106		Ruthenium-106		pCi/L		30	EPA	5	1	0
SR-90		Strontium-90		pCi/L		8	EPA	5	0	0
TRITIUM		Tritium		pCi/L		20000	EPA	1	0	0
ZN-65		Zinc-65		pCi/L				5	1	
ZRNB-95		Zirconium/Niobium-95		pCi/L				5	1	

For explanation of this table, see Section 1.4 of report.

Table 15-22. Constituents with at Least One Detected Value for the Single-Shell Tank Waste Management Area U Data for Reporting Period October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	CEPR-144 140/pCi/L ./.	CS-137 140/pCi/L ./200	CO-60 140/pCi/L ./100	EU-154 140/pCi/L ./.
299-W18-25	9/22/94	B0CYS9	-1.49 U	-.76 U	.92 U	-1.87 U
299-W18-30	9/22/94	B0CYT3	3.85 U	-.35 U	-.84 U	2.91 U
299-W18-31	9/23/94	B0CYT7	-7.07 U	-.43 U	-1.51 U	-1.11 U
299-W19-31	9/22/94	B0CYV1	10.80	2.66	1.78	-1.15 U
299-W19-32	9/22/94	B0CYV5	1.86 U	.27 U	.22 U	2.40

Well Name	Collection Date	Sample Number	EU-155 140/pCi/L ./.	ALPHA 135/pCi/L ./15	BETA 136/pCi/L ./.	I-129 139/pCi/L ./1
299-W18-25	9/22/94	B0CYS9	-.83 U			.60
299-W18-30	9/22/94	B0CYT3	0.00 U			-.01 U
299-W18-31	9/23/94	B0CYT7	-1.10 U	7.75 q	8.86	-.06 U
299-W19-31	9/22/94	B0CYV1	2.19			.43
299-W19-32	9/22/94	B0CYV5	-1.56 U			.09 U

Well Name	Collection Date	Sample Number	K-40 140/pCi/L ./.	RU-106 140/pCi/L ./30	ZN-65 140/pCi/L ./.	ZRNB-95 140/pCi/L ./.
299-W18-25	9/22/94	B0CYS9	35.60	10.80	1.86 U	-.48 U
299-W18-30	9/22/94	B0CYT3	16.80 U	3.45 U	-3.46 U	-.58 U
299-W18-31	9/23/94	B0CYT7	28.70	9.07 U	2.83	2.50 U
299-W19-31	9/22/94	B0CYV1	53.00	-4.47 U	.33 U	2.41
299-W19-32	9/22/94	B0CYV5	61.70	6.85 U	-.51 U	-.67 U

For explanation of this table, see Section 1.4 of report.

Table 15-23. Contamination Indicator Parameters for the Single-Shell Tank Waste Management Area U Data for Reporting Period October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
NO DATA								

For explanation of this table, see Section 1.4 of report.

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16.0 300 AREA PROCESS TRENCHES

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16.1 INTRODUCTION

The groundwater near the 300 Area Process Trenches (APT) (316-5) has been monitored by a RCRA well network since June 1985. The groundwater monitoring is being conducted under interim-status regulations (40 CFR 265) and is an assessment-level program (Schalla 1988). Monitoring wells were constructed in response to a *Consent Agreement and Compliance Order* (Ecology and EPA 1986). Locations of groundwater wells currently used to monitor the facility are shown in Figure 16-1. Table 16-1 lists the wells of the monitoring network and provides information about their relative location, the portion of the aquifer sampled, sampling frequency, and last sampling date. Nine of the 11 wells in the monitoring network are RCRA standard wells while two are older, noncompliant wells.

The 300 APT are located in the northern portion of the 300 Area and were used for the disposal of wastewater from various 300 Area operations. Administrative isolation of the trenches was completed and all discharges to the trenches were terminated. Complete physical isolation of the trenches will occur by the end of January 1995. Just before the trenches were taken out of use, the wastewater primarily consisted of cooling water, with small quantities of nonhazardous maintenance and process waste.

16.2 WATER LEVEL MEASUREMENTS

Water levels are measured monthly and at the time of sampling in selected 300 Area wells. Water level measurements obtained during the fourth quarter of 1994 are presented in Table 16-2.

16.3 WATER CHEMISTRY DATA

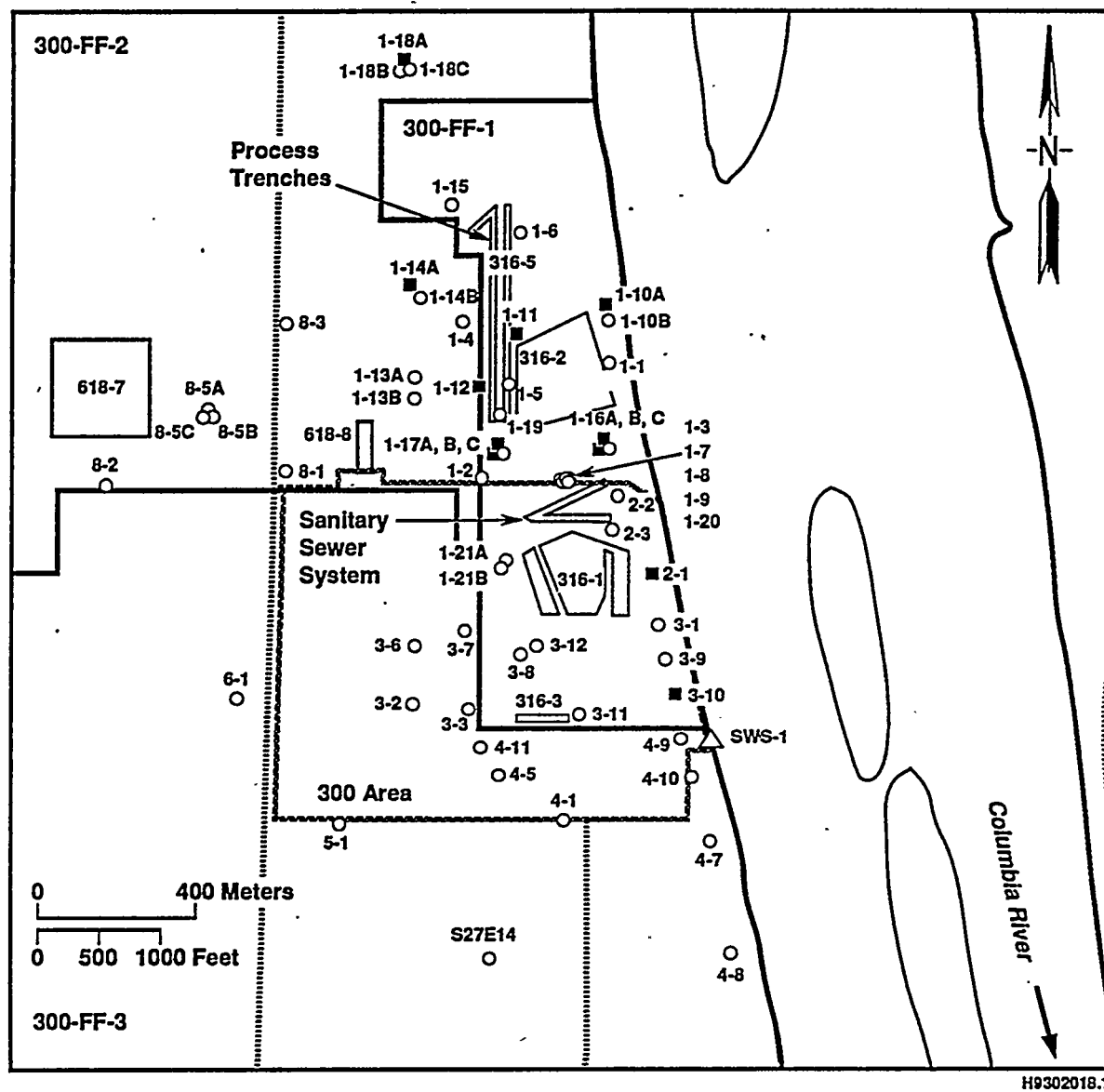
Water chemistry samples are collected semiannually from the 300 APT monitoring wells. In addition to semiannual samples, samples are collected quarterly from well 399-1-17A to provide near-trench monitoring of contaminants. Sampling dates are listed in Table 16-1. Analytical results received during the fourth quarter are presented in Tables 16-3 through 16-5.

Sampling and analysis during the fourth quarter showed that one drinking water parameter, two groundwater quality parameters, and two site-specific and other constituents exceed drinking water standards (Tables 16-3 and 16-4). Iron and manganese are assumed to be the remnants of well construction or caused by the use of stainless steel screens. The exceedance of gross alpha is probably related to uranium that is detected in downgradient wells. If the uranium component is subtracted from the gross alpha, the remainder will probably not exceed the drinking water standards. Well 399-1-16B continues to

show elevated levels of trichloroethene and cis-dicloroethene with a corresponding elevated level in the indicator parameter TOX (Table 16-5).

Field-measured pH collected from well 399-1-17A on October 7, 1994, is probably in error. The four replicates (ranging from 6.85 to 6.87) are inconsistent with historical trends, the laboratory value from a sample collected at the same time (7.30), and replicates collected December 15, 1994 (7.34-7.50). A RADE has been submitted for these data.

Figure 16-1. Well Location Map for the 300 Area Process Trenches.



- 1-12 Well Location and Number (Wells Prefixed by 399-, Except Those Beginning with S are Prefixed with 699-)
- 4-7 Monitoring Network Well
- △ SWS-1 Surface-Water Monitoring Station
- Roads

Table 16-1. Monitoring Well Purpose and Sampling Schedule
for the 300 Area Process Trenches Network.

Well no. (399-)	Relative position	Hydrogeologic unit	Sample frequency	Last sampling date
1-10A	Downgradient	Hanford/Ringold: Water Table	Semiannually	10/05/94
1-11	Adjacent	Hanford/Ringold: Water Table	Semiannually	10/05/94
1-12	Downgradient	Hanford/Ringold: Water Table	Semiannually	10/05/94 10/06/94
1-14A	Adjacent	Hanford: Water Table	Semiannually	10/05/94
1-16A	Downgradient	Ringold: Water Table	Semiannually	10/07/94
1-16B	Downgradient	Ringold: Bottom of Unconfined Aquifer	Semiannually	10/10/94
1-17A	Downgradient	Ringold: Water Table	Quarterly	10/07/94 12/15/94
1-17B	Downgradient	Ringold: Bottom of Unconfined Aquifer	Semiannually	10/07/94
1-18A	Upgradient	Ringold: Water Table	Semiannually	10/05/94
2-1 ^a	Downgradient	Hanford/Ringold: Water Table	Semiannually	10/05/94
3-10 ^a	Downgradient	Hanford: Water Table	Semiannually	10/10/94

Note: Hydrogeologic units include the sandy gravels of the Hanford formation and silty sands of the Ringold Formation. Water levels are measured in all wells monthly.

^aWells 399-2-1 and 399-3-10 are not RCRA standard wells. The results are used as a supplemental source of data only.

Table 16-2. RCRA Water Level Measurement Report
 300 Area Process Trenches, Fourth Quarter 1994.
 (sheet 1 of 5)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
Wells Monitoring the Top of the Unconfined Aquifer				
399-1-1	10/25/94	35.49	341.17	103.99
	11/22/94	34.61	342.05	104.26
	12/19/94	35.15	341.51	104.09
399-1-10A	10/05/94	32.94	340.63*	103.82
	10/25/94	32.35	341.22	104.00
	11/22/94	31.55	342.02	104.25
	12/19/94	32.15	341.42	104.06
399-1-11	10/05/94	36.77	340.95*	103.92
	11/22/94	35.61	342.11	104.28
	12/19/94	35.49	342.23	104.31
399-1-12	10/06/94	43.88	340.53*	103.79
	10/25/94	43.43	340.98	103.93
	11/22/94	42.58	341.83	104.19
	12/19/94	42.48	341.93	104.22
399-1-14A	10/05/94	41.02	342.21*	104.31
	10/25/94	41.72	341.51	104.09
	11/22/94	41.03	342.20	104.30
	12/20/94	40.87	342.36	104.35
399-1-15	10/25/94	37.96	341.57	104.11
	11/22/94	37.25	342.28	104.33
	12/19/94	37.02	342.51	104.40
399-1-16A	10/07/94	41.16	340.31*	103.73
	10/25/94	40.60	340.87	103.90
	11/22/94	39.69	341.78	104.17
	12/19/94	40.07	341.40	104.06
399-1-17A	10/07/94	35.86	341.58*	104.11
	10/25/94	36.54	340.90	103.91
	11/22/94	35.66	341.78	104.17
	12/15/94	34.72	342.72*	104.46
	12/19/94	35.69	341.75	104.17
399-1-18A	10/05/94	49.06	341.72*	104.16
	10/25/94	48.77	342.01	104.24

Table 16-2. RCRA Water Level Measurement Report
 300 Area Process Trenches, Fourth Quarter 1994.
 (sheet 2 of 5)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
Wells Monitoring the Top of the Unconfined Aquifer				
399-1-18A	11/22/94	48.28	342.50	104.39
	12/20/94	47.96	342.82	104.49
399-1-19	10/25/94	33.59	341.05	103.95
	11/22/94	32.75	341.89	104.21
	12/19/94	32.65	341.99	104.24
399-1-3	10/25/94	43.80	340.91	103.91
	11/22/94	42.90	341.81	104.18
	12/19/94	43.18	341.53	104.10
399-1-4	10/25/94	39.20	341.38	104.05
	11/22/94	38.42	342.16	104.29
	12/20/94	38.37	342.21	104.31
399-1-5	10/25/94	38.79	340.98	103.93
	11/22/94	37.93	341.84	104.19
	12/19/94	37.86	341.91	104.21
399-1-7	10/25/94	44.70	340.90	103.91
	11/22/94	43.79	341.81	104.18
	12/19/94	44.19	341.41	104.06
399-1-8	10/25/94	43.98	340.90	103.91
	11/22/94	43.08	341.80	104.18
	12/19/94	43.28	341.60	104.12
399-2-1	10/05/94	33.81	341.42*	104.06
	10/25/94	34.34	340.89	103.90
	11/22/94	33.56	341.67	104.14
	12/19/94	34.05	341.18	103.99
399-2-2	10/25/94	36.61	340.91	103.91
	11/22/94	35.75	341.77	104.17
	12/19/94	36.18	341.34	104.04
399-2-3	10/25/94	34.50	340.92	103.91
	11/22/94	33.64	341.78	104.17
	12/19/94	34.13	341.29	104.03

Table 16-2. RCRA Water Level Measurement Report
300 Area Process Trenches, Fourth Quarter 1994.
(sheet 3 of 5)

Well	Date	Depth to water (ft)	Water level elevation above msl	
			(ft)	(m)
Wells Monitoring the Top of the Unconfined Aquifer				
399-3-1	10/25/94	43.62	340.77	103.87
	11/22/94	42.78	341.61	104.12
	12/20/94	43.08	341.31	104.03
399-3-10	10/10/94	145.03	240.32*+	73.25
	10/25/94	44.67	340.68	103.84
	11/21/94	44.16	341.19	103.99
	12/20/94	44.16	341.19	103.99
399-3-6	10/25/94	51.98	340.82	103.88
	11/21/94	51.23	341.57	104.11
	12/20/94	51.18	341.62	104.13
399-3-9	10/25/94	47.38	340.70	103.85
	11/21/94	46.80	341.28	104.02
	12/20/94	46.78	341.30	104.03
399-4-1	10/25/94	55.02	340.58	103.81
	11/21/94	54.38	341.22	104.00
	12/20/94	54.44	341.16	103.99
399-4-10	10/25/94	37.71	340.83	103.88
	11/21/94	37.40	341.14	103.98
	12/20/94	37.41	341.13	103.98
399-4-11	10/25/94	63.84	340.61	103.82
	11/21/94	63.11	341.34	104.04
	12/20/94	63.16	341.29	104.03
399-4-7	10/25/94	37.89	340.67	103.84
	11/21/94	37.46	341.10	103.97
	12/20/94	37.49	341.07	103.96
399-5-1	10/25/94	54.52	341.01	103.94
	11/21/94	53.83	341.70	104.15
	12/20/94	53.65	341.88	104.21
399-6-1	10/26/94	47.49	341.30	104.03
	11/21/94	46.91	341.88	104.21
	12/20/94	46.97	341.82	104.19

Table 16-2. RCRA Water Level Measurement Report
 300 Area Process Trenches, Fourth Quarter 1994.
 (sheet 4 of 5)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
Wells Monitoring the Top of the Unconfined Aquifer				
399-8-1	10/25/94	54.92	341.21	104.00
	11/21/94	54.29	341.84	104.19
	12/19/94	53.81	342.32	104.34
399-8-2	10/25/94	56.06	341.96	104.23
	11/21/94	55.56	342.46	104.38
	12/20/94	55.08	342.94	104.53
399-8-3	10/25/94	53.25	341.50	104.09
	11/22/94	52.71	342.04	104.25
	12/19/94	52.12	342.63	104.43
699-S27-E14	10/25/94	59.16	340.52	103.79
	11/21/94	58.48	341.20	104.00
	12/20/94	58.59	341.09	103.96
Wells Monitoring the Bottom of the Unconfined Aquifer				
399-1-16B	10/10/94	39.54	341.54	104.10
	10/25/94	40.09	340.99	103.93
	11/22/94	39.19	341.89	104.21
	12/19/94	39.60	341.48	104.08
399-1-17B	10/07/94	37.34	340.46*	103.77
	10/25/94	36.80	341.00	103.94
	11/22/94	35.91	341.89	104.21
	12/19/94	35.97	341.83	104.19
399-1-18B	10/25/94	47.55	342.34	104.35
	11/22/94	46.89	343.00	104.55
	12/20/94	46.81	343.08	104.57
Wells Monitoring the Confined Aquifer				
399-1-17C	10/25/94	2.55	375.51	114.46
	11/22/94	2.92	375.14	114.34
	12/19/94	3.22	374.84	114.25

Table 16-2. RCRA Water Level Measurement Report
 300 Area Process Trenches, Fourth Quarter 1994.
 (sheet 5 of 5)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
Wells Monitoring the Confined Aquifer				
399-1-18C	10/25/94	45.11	342.90	104.52
	11/22/94	44.47	343.54	104.71
	12/20/94	44.32	343.69	104.76
399-1-9	10/25/94	27.21	357.55	108.98
	11/22/94	26.83	357.93	109.10

- NOTES:
1. Water level elevations are calculated by subtracting the measured depth-to-water from the surveyed elevation for the well.
 2. Depth-to-water values are transcribed from field records.
 3. Elevations marked with an '*' were measured at the time of sampling.
 4. Elevations marked with a '+' are outside of the expected range, and are suspected of error.

Table 16-3. Constituent List and Summary of Results for the
300 Area Process Trenches Data for Reporting Period
October 1 through December 31, 1994.
(sheet 1 of 3)

CONTAMINATION INDICATOR PARAMETERS

Short	(Method)	Constituent Name		Units	DWS			Number of Samples		
		Full			Lab MDL	Limit	Agency	Total	>MDL	>DWS
CONDUCT	94	Conductivity, field	umhos		1			18	18	
CONDUCT	73	Conductivity, lab	umhos					13	13	
TOC		Total Organic Carbon	ppb		110			19	19	
TOX		Total Organic Halogen	ppb		5			19	15	
PH	93	pH, field	pH		.01	6.5-8.5	EPAS	18	18	0
PH	125	pH, lab	pH			6.5-8.5	EPAS	13	13	0

DRINKING WATER PARAMETERS

Short	(Method)	Constituent Name		Units	DWS			Number of Samples		
		Full			Lab MDL	Limit	Agency	Total	>MDL	>DWS
ARSENIC		Arsenic	ppb		2.8	50	EPA	12	2	0
FARSENIC		Arsenic, filtered	ppb		2.8	50	EPA	12	2	0
BARIUM		Barium	ppb		.59	1000	EPAI	12	12	0
FBARIUM		Barium, filtered	ppb		.59	1000	EPAI	12	12	0
CADMIUM		Cadmium	ppb		3.3	10	EPAI	12	0	0
FCADMIU		Cadmium, filtered	ppb		3.3	10	EPAI	12	0	0
CHROMIUM		Chromium	ppb		4.5	50	EPAI	12	12	3
FCHROMI		Chromium, filtered	ppb		4.5	50	EPAI	12	8	0
FLUORID		Fluoride	ppb		36	1400	EPAI	1	1	0
ALPHA		Gross alpha	pCi/L			15	EPA	12	12	6
MERCURY		Mercury	ppb		.05	2	EPA	12	5	0
FMERCUR		Mercury, filtered	ppb		.05	2	EPA	12	4	0
NITRATE		Nitrate	ppb		.11	45000	EPA	1	1	0
RADIUM		Radium	pCi/L			5	EPAI	12	0	0
SELENIUM		Selenium	ppb		.65	10	EPAI	12	3	0
FSELENI		Selenium, filtered	ppb		.65	10	EPAI	12	4	0

GROUNDWATER QUALITY PARAMETERS

Short	(Method)	Constituent Name		Units	DWS			Number of Samples		
		Full			Lab MDL	Limit	Agency	Total	>MDL	>DWS
CHLORID		Chloride	ppb		14	250000	EPAS	1	1	0
IRON		Iron	ppb		5.24	300	EPAS	12	12	5
FIRON		Iron, filtered	ppb		5.24	300	EPAS	12	12	1
MANGESE		Manganese	ppb		.72	50	EPAS	12	12	2
FMANGAN		Manganese, filtered	ppb		.72	50	EPAS	12	12	2
SODIUM		Sodium	ppb		61			12	12	
FSODIUM		Sodium, filtered	ppb		61			12	12	
SULFATE		Sulfate	ppb		37	250000	EPAS	1	1	0

Table 16-3. Constituent List and Summary of Results for the
300 Area Process Trenches Data for Reporting Period
October 1 through December 31, 1994.
(sheet 2 of 3)

SITE SPECIFIC AND OTHER CONSTITUENTS

Short	(Method)	Constituent Name Full	Units	Lab MDL	DWS Limit	Agency	Number of Samples		
							Total	>MDL	>DWS
1,1,1-T		1,1,1-Trichloroethane	ppb	.036	200	EPA	13	0	0
1,1,2-T		1,1,2-Trichloroethane	ppb	.078			13	0	
1,1-DIC		1,1-Dichloroethane	ppb	.058			13	0	
1,2-DIC		1,2-Dichloroethane	ppb	.029	5	EPA	13	0	0
14-dben		1,4-Dichlorobenzene	ppb	.055	75	EPA	13	0	0
ALKALIN		Alkalinity	ppm	2.8			12	12	
ALUMNUM		Aluminum	ppb	26			12	2	
FALUMIN		Aluminum, filtered	ppb	26			12	0	
ANTIONY		Antimony	ppb	62			12	0	
FANTIMO		Antimony, filtered	ppb	62			12	0	
SB-125		Antimony-125	pCi/L				1	0	
BENZENE		Benzene	ppb	.013	5	EPA	13	6	0
BERYLUM		Beryllium	ppb	.17			12	0	
FBERYLL		Beryllium, filtered	ppb	.17			12	0	
BROMIDE		Bromide	ppb	100			1	0	
CALCIUM		Calcium	ppb	34			12	12	
FCALCIU		Calcium, filtered	ppb	34			12	12	
TETRANE		Carbon tetrachloride	ppb	.075	5	EPA	13	0	0
CS-137		Cesium-137	pCi/L		200	EPA	1	0	0
CHLFORM		Chloroform	ppb	.041			13	7	
COBALT		Cobalt	ppb	5.9			12	0	
FCOBALT		Cobalt, filtered	ppb	5.9			12	0	
CO-60		Cobalt-60	pCi/L		100	EPA	1	0	0
COLIFORM		Coliforms	COL	1	1	EPAI	12	0	0
COPPER		Copper	ppb	4.1	1000	EPAS	12	5	0
FCOPPER		Copper, filtered	ppb	4.1	1000	EPAS	12	5	0
ETHBENZ		Ethylbenzene	ppb	.051	700	EPA	13	1	0
BETA		Gross beta	pCi/L				12	12	
LEAD		Lead	ppb	1.5	50	EPAI	12	10	0
FLEAD		Lead, filtered	ppb	1.5	50	EPAI	12	8	0
MAGNES		Magnesium	ppb	23			12	12	
FMAGNES		Magnesium, filtered	ppb	23			12	12	
METHYCH		Methylene chloride	ppb	.09			13	0	
NICKEL		Nickel	ppb	13			12	6	
FNICKEL		Nickel, filtered	ppb	13			12	4	
NITRITE		Nitrite	ppb	18	1000	EPA	1	0	0
PHOSPHA		Phosphate	ppb	82			1	0	
POTASUM		Potassium	ppb	850			12	12	

Table 16-3. Constituent List and Summary of Results for the
300 Area Process Trenches Data for Reporting Period
October 1 through December 31, 1994.
(sheet 3 of 3)

Short	(Method)	Constituent Name		Units	Lab MDL	DWS		Number of Samples		
		Full				Limit	Agency	Total	>MDL	>DWS
FPOTASS		Potassium, filtered	ppb		850			12	12	
RU-106		Ruthenium-106	pCi/L			30	EPA	1	0	0
SILVER		Silver	ppb		3.6	50	EPAI	12	0	0
FSILVER		Silver, filtered	ppb		3.6	50	EPAI	12	0	0
SR-90		Strontium-90	pCi/L			8	EPA	1	1	0
PERCENE		Tetrachloroethene	ppb		.22	5	EPA	13	9	0
TIN		Tin	ppb		69			12	0	
FTIN		Tin, filtered	ppb		69			12	0	
TOLUENE		Toluene	ppb		.016	1000	EPA	13	7	0
TRICENE		Trichloroethene	ppb		.11	5	EPA	13	8	1
TRITIUM		Tritium	pCi/L			20000	EPA	12	11	0
URANIUM		Uranium	ppb					13	13	
U-234		Uranium-234	pCi/L					1	1	
U-235		Uranium-235	pCi/L					1	1	
U-238		Uranium-238	pCi/L					1	1	
VANADIUM		Vanadium	ppb		6.6			12	3	
FVANADI		Vanadium, filtered	ppb		6.6			12	3	
VINYIDE.		Vinyl chloride	ppb		.13	2	EPA	13	0	0
XYLENE		Xylenes (total)	ppb		.035	10000	EPA	13	3	0
ZINC		Zinc	ppb		6.3	5000	EPAS	12	11	0
FZINC		Zinc, filtered	ppb		6.3	5000	EPAS	12	8	0
CIS12DE		cis-1,2-Dichloroethylene	ppb		.11	70	EPA	13	2	1
TRANDCE		trans-1,2-Dichloroethylene	ppb		.073	100	EPA	13	0	0

For explanation of this table, see Section 1.4 of report.

Table 16-4. Constituents with at Least One Detected Value for the 300 Area
Process Trenches Data for Reporting Period
October 1 through December 31, 1994.
(sheet 1 of 8)

Well Name	Collection Date	Sample Number	ALKALIN 357/ppm 1.96/.	ALUMNUM 34/ppb 19/.	FALUMIN 34/ppb 19/.	ARSENIC 43/ppb .64/50
399-1-10A	10/05/94	B0D359	120.00	26.00 U		2.80 U
399-1-10A	10/05/94	B0D360			26.00 U	
399-1-11	10/05/94	B0D361	120.00	26.00 U		2.80 U
399-1-11	10/05/94	B0D362			26.00 U	
399-1-12	10/05/94	B0D364			26.00 U	
399-1-12	10/06/94	B0D363	120.00	26.00 U		2.80 U
399-1-14A	10/05/94	B0D365	130.00	27.00 L		4.30 L
399-1-14A	10/05/94	B0D366			26.00 U	
399-1-16A	10/07/94	B0D367	110.00	26.00 U		2.80 U
399-1-16A	10/07/94	B0D368			26.00 U	
399-1-16B	10/10/94	B0D369	130.00	26.00 U		2.80 U
399-1-16B	10/10/94	B0D370			26.00 U	
399-1-17A	10/07/94	B0D371	47.00 L	26.00 U		2.80 U
399-1-17A	10/07/94	B0D375			26.00 U	
399-1-17B	10/07/94	B0D376	180.00	26.00 U		2.80 U
399-1-17B	10/07/94	B0D377			26.00 U	
399-1-18A	10/05/94	B0D378	130.00	30.00 L		5.00
399-1-18A	10/05/94	B0D379			26.00 U	
399-2-1	10/05/94	B0D380	90.00	26.00 U		2.80 U
399-2-1	10/05/94	B0D381	90.00	26.00 U		2.80 U
399-2-1	10/05/94	B0D382			26.00 U	
399-2-1	10/05/94	B0D383			26.00 U	
399-3-10	10/10/94	B0D384	100.00	26.00 U		2.80 U
399-3-10	10/10/94	B0D385			26.00 U	

Well Name	Collection Date	Sample Number	FARSENIC 43/ppb .64/50	BARIUM 34/ppb 1.3/1000i	FBARIUM 34/ppb 1.3/1000i	BENZENE 25/ppb .24/5
399-1-10A	10/05/94	B0D359		53.00		.01 U
399-1-10A	10/05/94	B0D360	2.80 U		51.00	
399-1-11	10/05/94	B0D361		42.00		.04 BL
399-1-11	10/05/94	B0D362	2.80 U		41.00	
399-1-12	10/05/94	B0D364	2.80 U		40.00	
399-1-12	10/06/94	B0D363		40.00		.01 U
399-1-14A	10/05/94	B0D365		41.00		.03 BL
399-1-14A	10/05/94	B0D366	3.60 L		41.00	
399-1-16A	10/07/94	B0D367		52.00		.01 U
399-1-16A	10/07/94	B0D368	2.80 U		52.00	
399-1-16B	10/10/94	B0D369		47.00		.06 BL
399-1-16B	10/10/94	B0D370	2.80 U		47.00	
399-1-17A	10/07/94	B0D371		28.00		.01 U
399-1-17A	10/07/94	B0D375	2.80 U		29.00	
399-1-17A	12/15/94	B0DFD1				.01 U
399-1-17B	10/07/94	B0D376		63.00		.06 BL
399-1-17B	10/07/94	B0D377	2.80 U		64.00	
399-1-18A	10/05/94	B0D378		44.00		.01 U
399-1-18A	10/05/94	B0D379	6.10		44.00	
399-2-1	10/05/94	B0D380		63.00		.02 BLQ
399-2-1	10/05/94	B0D381		64.00		.04 BLQ
399-2-1	10/05/94	B0D382	2.80 U		65.00	
399-2-1	10/05/94	B0D383	2.80 U		62.00	
399-3-10	10/10/94	B0D384		62.00		.01 U
399-3-10	10/10/94	B0D385	2.80 U		59.00	

Table 16-4. Constituents with at Least One Detected Value for the
300 Area Process Trenches Data for Reporting Period
October 1 through December 31, 1994.
(sheet 2 of 8)

Well Name	Collection Date	Sample Number	CALCIUM 34/ppb 47/.	FCALCIU 34/ppb 47/.	CHLORID 124/ppb 71/250000s	CHLFORM 25/ppb .05/.
399-1-10A	10/05/94	B0D359	50000.00			.04 U
399-1-10A	10/05/94	B0D360		49000.00		
399-1-11	10/05/94	B0D361	50000.00			.04 UQ
399-1-11	10/05/94	B0D362		50000.00		
399-1-12	10/05/94	B0D364		48000.00		
399-1-12	10/06/94	B0D363	49000.00			.04 UQ
399-1-14A	10/05/94	B0D365	47000.00			.04 UQ
399-1-14A	10/05/94	B0D366		47000.00		
399-1-16A	10/07/94	B0D367	45000.00			1.50 Q
399-1-16A	10/07/94	B0D368		44000.00		
399-1-16B	10/10/94	B0D369	17000.00			.06 LQ
399-1-16B	10/10/94	B0D370		17000.00		
399-1-17A	10/07/94	B0D371	28000.00			9.30 Q
399-1-17A	10/07/94	B0D375		29000.00		
399-1-17A	12/15/94	B0DFD1			120000.00 DQ	7.20
399-1-17B	10/07/94	B0D376	19000.00			.04 UQ
399-1-17B	10/07/94	B0D377		19000.00		
399-1-18A	10/05/94	B0D378	45000.00			.04 UQ
399-1-18A	10/05/94	B0D379		45000.00		
399-2-1	10/05/94	B0D380	37000.00			.87 Q
399-2-1	10/05/94	B0D381	37000.00			.93 Q
399-2-1	10/05/94	B0D382		38000.00		
399-2-1	10/05/94	B0D383		36000.00		
399-3-10	10/10/94	B0D384	40000.00			1.60 Q
399-3-10	10/10/94	B0D385		39000.00		

Table 16-4. Constituents with at Least One Detected Value for the
300 Area Process Trenches Data for Reporting Period
October 1 through December 31, 1994.
(sheet 3 of 8)

Well Name	Collection Date	Sample Number	CHROMIUM 34/ppb 11/100i	FCHROMI 34/ppb 11/100i	COPPER 34/ppb 2.6/1000s	FCOPPER 34/ppb 2.6/1000s
399-1-10A	10/05/94	B0D359	89.00 B		5.80 L	
399-1-10A	10/05/94	B0D360		19.00 LB		4.30 L
399-1-11	10/05/94	B0D361	41.00 B		4.10 U	
399-1-11	10/05/94	B0D362		21.00 B		4.10 U
399-1-12	10/05/94	B0D364		4.80 L		4.10 U
399-1-12	10/06/94	B0D363	17.00 L		4.10 U	
399-1-14A	10/05/94	B0D365	28.00 B		4.10 U	
399-1-14A	10/05/94	B0D366		19.00 LB		5.30 L
399-1-16A	10/07/94	B0D367	41.00		4.10 U	
399-1-16A	10/07/94	B0D368		7.60 L		4.10 U
399-1-16B	10/10/94	B0D369	33.00		4.10 U	
399-1-16B	10/10/94	B0D370		4.50 U		4.10 U
399-1-17A	10/07/94	B0D371	96.00		4.10 U	
399-1-17A	10/07/94	B0D375		4.50 U		4.10 U
399-1-17B	10/07/94	B0D376	26.00		4.10 U	
399-1-17B	10/07/94	B0D377		4.50 U		4.10 U
399-1-18A	10/05/94	B0D378	65.00 B		5.30 L	
399-1-18A	10/05/94	B0D379		19.00 LB		4.10 U
399-2-1	10/05/94	B0D380	16.00 LBQ		5.80 L	
399-2-1	10/05/94	B0D381	25.00 BQ		6.20 L	
399-2-1	10/05/94	B0D382		16.00 LB		7.20 L
399-2-1	10/05/94	B0D383		19.00 LB		6.20 L
399-3-10	10/10/94	B0D384	17.00 L		5.90 L	
399-3-10	10/10/94	B0D385		4.50 U		5.40 L

Well Name	Collection Date	Sample Number	ETHBENZ 25/ppb .043/700	FLUORID 124/ppb 51/1400i	ALPHA 135/pCi/L ./15	BETA 136/pCi/L ./.
399-1-10A	10/05/94	B0D359	.05 U		62.80	17.20 G
399-1-11	10/05/94	B0D361	.05 U		12.50	6.51 G
399-1-12	10/06/94	B0D363	.05 U		17.00	6.64
399-1-14A	10/05/94	B0D365	.05 U		3.50	8.71
399-1-16A	10/07/94	B0D367	.05 U		84.00	20.00
399-1-16B	10/10/94	B0D369	.06 L		7.37	8.32
399-1-17A	10/07/94	B0D371	.05 U		7.86	2.39
399-1-17A	12/15/94	B0DFD1	.05 U	400.00		
399-1-17B	10/07/94	B0D376	.05 U		2.24	8.10
399-1-18A	10/05/94	B0D378	.05 U		3.86	7.77 G
399-2-1	10/05/94	B0D380	.05 U		75.40	27.90 G
399-2-1	10/05/94	B0D381	.05 U		77.00	23.30
399-3-10	10/10/94	B0D384	.05 U		28.90	7.42

Table 16-4. Constituents with at Least One Detected Value for the 300 Area Process Trenches
Data for Reporting Period October 1 through December 31, 1994.
(sheet 4 of 8)

Well Name	Collection Date	Sample Number	IRON 34/ppb 18/300s	FIION 34/ppb 18/300s	LEAD 40/ppb .86/50i	FLEAD 40/ppb .86/50i
399-1-10A	10/05/94	B0D359	330.00 B		6.60	
399-1-10A	10/05/94	B0D360		33.00 B		3.10 L
399-1-11	10/05/94	B0D361	200.00 B		1.70 L	
399-1-11	10/05/94	B0D362		30.00 B		1.50 U
399-1-12	10/05/94	B0D364		40.00 Q		2.90 LQ
399-1-12	10/06/94	B0D363	91.00 Q		1.70 LQ	
399-1-14A	10/05/94	B0D365	160.00 B		8.50	
399-1-14A	10/05/94	B0D366		33.00 B		4.30 L
399-1-16A	10/07/94	B0D367	240.00 Q		1.50 UQ	
399-1-16A	10/07/94	B0D368		73.00 Q		1.50 UQ
399-1-16B	10/10/94	B0D369	240.00 Q		2.10 LQ	
399-1-16B	10/10/94	B0D370		100.00 Q		5.20 Q
399-1-17A	10/07/94	B0D371	450.00 Q		1.50 UQ	
399-1-17A	10/07/94	B0D375		46.00 Q		1.50 UQ
399-1-17B	10/07/94	B0D376	570.00 Q		2.40 LQ	
399-1-17B	10/07/94	B0D377		340.00 Q		1.80 LQ
399-1-18A	10/05/94	B0D378	380.00 B		3.50 L	
399-1-18A	10/05/94	B0D379		26.00 B		1.70 L
399-2-1	10/05/94	B0D380	120.00 B		2.40 LQ	
399-2-1	10/05/94	B0D381	120.00 B		3.20 LQ	
399-2-1	10/05/94	B0D382		35.00 B		2.60 LQ
399-2-1	10/05/94	B0D383		38.00 B		1.50 UQ
399-3-10	10/10/94	B0D384	640.00 Q		2.70 LQ	
399-3-10	10/10/94	B0D385		140.00 Q		1.70 LQ

Well Name	Collection Date	Sample Number	MAGNES 34/ppb 25/.	FMAGNES 34/ppb 25/.	MANGESE 34/ppb 1/50s	FMANGAN 34/ppb 1/50s
399-1-10A	10/05/94	B0D359	11000.00		6.70 LB	
399-1-10A	10/05/94	B0D360		10000.00		1.70 LB
399-1-11	10/05/94	B0D361	11000.00		5.30 LB	
399-1-11	10/05/94	B0D362		11000.00		1.90 LB
399-1-12	10/05/94	B0D364		10000.00		1.70 L
399-1-12	10/06/94	B0D363	10000.00		2.10 L	
399-1-14A	10/05/94	B0D365	11000.00		2.60 LB	
399-1-14A	10/05/94	B0D366		11000.00		1.00 LB
399-1-16A	10/07/94	B0D367	8700.00		13.00	
399-1-16A	10/07/94	B0D368		8600.00		8.20 L
399-1-16B	10/10/94	B0D369	5700.00		76.00	
399-1-16B	10/10/94	B0D370		5700.00		73.00
399-1-17A	10/07/94	B0D371	6500.00		14.00	
399-1-17A	10/07/94	B0D375		6600.00		3.40 L
399-1-17B	10/07/94	B0D376	6700.00		83.00	
399-1-17B	10/07/94	B0D377		6800.00		82.00
399-1-18A	10/05/94	B0D378	13000.00		10.00 B	
399-1-18A	10/05/94	B0D379		13000.00		2.40 LB
399-2-1	10/05/94	B0D380	7400.00		2.60 LB	
399-2-1	10/05/94	B0D381	7500.00		3.30 LB	
399-2-1	10/05/94	B0D382		7600.00		1.20 LB
399-2-1	10/05/94	B0D383		7300.00		1.30 LB
399-3-10	10/10/94	B0D384	9300.00		28.00	
399-3-10	10/10/94	B0D385		9200.00		23.00

Table 16-4. Constituents with at Least One Detected Value for the 300 Area Process Trenches
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Well Name	Collection Date	Sample Number	MERCURY 41/ppb .095/2	FMERCUR 41/ppb .095/2	NICKEL 34/ppb 16/.	FNICKEL 34/ppb 16/.
399-1-10A	10/05/94	B0D359	.05 U		29.00 L	
399-1-10A	10/05/94	B0D360		.05 U		20.00 L
399-1-11	10/05/94	B0D361	.05 U		13.00 U	
399-1-11	10/05/94	B0D362		.05 U		13.00 U
399-1-12	10/05/94	B0D364		.05 BLQ		34.00
399-1-12	10/06/94	B0D363	.08 BLQ		36.00	
399-1-14A	10/05/94	B0D365	.05 U		13.00 L	
399-1-14A	10/05/94	B0D366		.05 U		13.00 U
399-1-16A	10/07/94	B0D367	.06 BLQ		180.00	
399-1-16A	10/07/94	B0D368		.05 UQ		150.00
399-1-16B	10/10/94	B0D369	.09 BLQ		13.00 U	
399-1-16B	10/10/94	B0D370		.06 BLQ		13.00 U
399-1-17A	10/07/94	B0D371	.05 UQ		36.00	
399-1-17A	10/07/94	B0D375		.08 BLQ		13.00 U
399-1-17B	10/07/94	B0D376	.13 BLQ		13.00 U	
399-1-17B	10/07/94	B0D377		.07 BLQ		13.00 U
399-1-18A	10/05/94	B0D378	.05 U		35.00	
399-1-18A	10/05/94	B0D379		.05 U		15.00 L
399-2-1	10/05/94	B0D380	.05 U		13.00 U	
399-2-1	10/05/94	B0D381	.05 U		13.00 U	
399-2-1	10/05/94	B0D382		.05 U		13.00 U
399-2-1	10/05/94	B0D383		.05 U		13.00 U
399-3-10	10/10/94	B0D384	.05 BLQ		13.00 U	
399-3-10	10/10/94	B0D385		.05 UQ		13.00 U

Well Name	Collection Date	Sample Number	NITRATE 124/ppb 96/45000	POTASUM 34/ppb 890/.	FPOTASS 34/ppb 890/.	SELENUM 48/ppb 1.4/10i
399-1-10A	10/05/94	B0D359		3100.00		1.40 L
399-1-10A	10/05/94	B0D360			3200.00	
399-1-11	10/05/94	B0D361		3400.00		.65 U
399-1-11	10/05/94	B0D362			3400.00	
399-1-12	10/05/94	B0D364			3300.00	
399-1-12	10/06/94	B0D363		3500.00		1.30 L
399-1-14A	10/05/94	B0D365		4900.00		.65 U
399-1-14A	10/05/94	B0D366			4900.00	
399-1-16A	10/07/94	B0D367		3400.00		2.30 L
399-1-16A	10/07/94	B0D368			3500.00	
399-1-16B	10/10/94	B0D369		4900.00		.65 U
399-1-16B	10/10/94	B0D370			5100.00	
399-1-17A	10/07/94	B0D371		1600.00		.65 U
399-1-17A	10/07/94	B0D375			1800.00	
399-1-17A	12/15/94	B0DFD1	4500.00 Q			
399-1-17B	10/07/94	B0D376		6100.00		.65 U
399-1-17B	10/07/94	B0D377			5900.00	
399-1-18A	10/05/94	B0D378		6500.00		.65 U
399-1-18A	10/05/94	B0D379			6000.00	
399-2-1	10/05/94	B0D380		3600.00		.65 U
399-2-1	10/05/94	B0D381		3800.00		.65 U
399-2-1	10/05/94	B0D382			3900.00	
399-2-1	10/05/94	B0D383			3600.00	
399-3-10	10/10/94	B0D384		4300.00		.65 U
399-3-10	10/10/94	B0D385			4400.00	

Table 16-4. Constituents with at Least One Detected Value for the 300 Area
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(sheet 6 of 8)

Well Name	Collection Date	Sample Number	FSELENI 48/ppb 1.4/10i	SODIUM 34/ppb 150/.	FSODIUM 34/ppb 150/.	SR-90 141/pCi/L ./8
399-1-10A	10/05/94	B0D359		21000.00		
399-1-10A	10/05/94	B0D360	.82 L		21000.00	
399-1-11	10/05/94	B0D361		22000.00		
399-1-11	10/05/94	B0D362	.65 U		22000.00	
399-1-12	10/05/94	B0D364	.72 L		21000.00	
399-1-12	10/06/94	B0D363		21000.00		
399-1-14A	10/05/94	B0D365		22000.00		
399-1-14A	10/05/94	B0D366	.65 U		22000.00	
399-1-16A	10/07/94	B0D367		20000.00		
399-1-16A	10/07/94	B0D368	1.50 L		20000.00	
399-1-16B	10/10/94	B0D369		46000.00		
399-1-16B	10/10/94	B0D370	.65 U		45000.00	
399-1-17A	10/07/94	B0D371		19000.00		
399-1-17A	10/07/94	B0D375	.73 L		19000.00	
399-1-17A	12/15/94	B0DFD1				.88
399-1-17B	10/07/94	B0D376		49000.00		
399-1-17B	10/07/94	B0D377	.65 U		50000.00	
399-1-18A	10/05/94	B0D378		22000.00		
399-1-18A	10/05/94	B0D379	.65 U		22000.00	
399-2-1	10/05/94	B0D380		21000.00		
399-2-1	10/05/94	B0D381		21000.00		
399-2-1	10/05/94	B0D382	.65 U		21000.00	
399-2-1	10/05/94	B0D383	.65 U		21000.00	
399-3-10	10/10/94	B0D384		18000.00		
399-3-10	10/10/94	B0D385	.65 U		18000.00	

Well Name	Collection Date	Sample Number	SULFATE 124/ppb 89/250000s	PERCENE 25/ppb .08/5	TOLUENE 25/ppb .077/1000	TRICENE 25/ppb .043/5
399-1-10A	10/05/94	B0D359		.82	.02 U	.11 U
399-1-11	10/05/94	B0D361		.58	.05 BLQ	.11 U
399-1-12	10/06/94	B0D363		.70	.02 UQ	.25 L
399-1-14A	10/05/94	B0D365		.22 U	.03 BLQ	.11 U
399-1-16A	10/07/94	B0D367		.64	.03 BLQ	1.10
399-1-16B	10/10/94	B0D369		.41 L	.03 BLQ	5.40
399-1-17A	10/07/94	B0D371		.63	.03 BLQ	.50 L
399-1-17A	12/15/94	B0DFD1	18000.00 D	.22 U	.02 U	.24 L
399-1-17B	10/07/94	B0D376		.22 U	.06 BLQ	.11 U
399-1-18A	10/05/94	B0D378		.22 U	.02 UQ	.11 U
399-2-1	10/05/94	B0D380		.65	.02 UQ	.71 L
399-2-1	10/05/94	B0D381		.53	.03 BLQ	.65 L
399-3-10	10/10/94	B0D384		.47 L	.02 UQ	.65 L

Table 16-4. Constituents with at Least One Detected Value for the
300 Area Process Trenches Data for Reporting Period
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(sheet 7 of 8)

Well Name	Collection Date	Sample Number	TRITIUM 142/pCi/L ./20000	URANIUM 145/ppb ./.	U-234 148/pCi/L ./.	U-235 148/pCi/L ./.
399-1-10A	10/05/94	B0D359	10800.00	25.80		
399-1-11	10/05/94	B0D361	9530.00	14.40		
399-1-12	10/05/94	B0D363	8980.00	19.90		
399-1-12	10/06/94	B0D363	8980.00	19.90		
399-1-14A	10/05/94	B0D365	7410.00	3.68		
399-1-16A	10/07/94	B0D367	8450.00	10.90		
399-1-16B	10/10/94	B0D369	625.00	5.52		
399-1-17A	10/07/94	B0D371	226.00	9.17		
399-1-17A	12/15/94	B0DFD1		44.60	24.80	.55
399-1-17B	10/07/94	B0D376	141.00 U	.20		
399-1-18A	10/05/94	B0D378	11500.00	3.97		
399-2-1	10/05/94	B0D380	4510.00	31.30		
399-2-1	10/05/94	B0D381	4480.00	32.40		
399-3-10	10/10/94	B0D384	3790.00	17.60		

Well Name	Collection Date	Sample Number	U-238 148/pCi/L ./.	VANADIUM 34/ppb 6.4/.	FVANADI 34/ppb 6.4/.	XYLENE 25/ppb ./2/10000
399-1-10A	10/05/94	B0D359		6.60 U		.04 U
399-1-10A	10/05/94	B0D360			6.60 U	
399-1-11	10/05/94	B0D361		8.20 L		.08 BL
399-1-11	10/05/94	B0D362			8.80 L	
399-1-12	10/05/94	B0D364			6.60 U	
399-1-12	10/06/94	B0D363		6.60 U		.04 U
399-1-14A	10/05/94	B0D365		11.00 L		.05 BL
399-1-14A	10/05/94	B0D366			8.40 L	
399-1-16A	10/07/94	B0D367		6.60 U		.04 U
399-1-16A	10/07/94	B0D368			6.60 U	
399-1-16B	10/10/94	B0D369		6.60 U		.06 BL
399-1-16B	10/10/94	B0D370			6.60 U	
399-1-17A	10/07/94	B0D371		6.60 U		.04 U
399-1-17A	10/07/94	B0D375			6.60 U	
399-1-17A	12/15/94	B0DFD1	17.10			.04 U
399-1-17B	10/07/94	B0D376		6.60 U		.04 U
399-1-17B	10/07/94	B0D377			6.60 U	
399-1-18A	10/05/94	B0D378		14.00 L		.04 U
399-1-18A	10/05/94	B0D379			12.00 L	
399-2-1	10/05/94	B0D380		6.60 U		.04 U
399-2-1	10/05/94	B0D381		6.60 U		.04 U
399-2-1	10/05/94	B0D382			6.60 U	
399-2-1	10/05/94	B0D383			6.60 U	
399-3-10	10/10/94	B0D384		6.60 U		.04 U
399-3-10	10/10/94	B0D385			6.60 U	

Table 16-4. Constituents with at Least One Detected Value for the
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(sheet 8 of 8)

Well Name	Collection Date	Sample Number	ZINC 34/ppb 4.4/5000s	FZINC 34/ppb 4.4/5000s	CIS12DE 25/ppb .045/70
399-1-10A	10/05/94	B0D359	7.80 L		.11 U
399-1-10A	10/05/94	B0D360		6.30 U	
399-1-11	10/05/94	B0D361	6.30 U		.11 U
399-1-11	10/05/94	B0D362		6.30 U	
399-1-12	10/05/94	B0D364		17.00 BQ	
399-1-12	10/06/94	B0D363	20.00 BQ		.11 U
399-1-14A	10/05/94	B0D365	14.00		.11 U
399-1-14A	10/05/94	B0D366		6.30 U	
399-1-16A	10/07/94	B0D367	20.00 BQ		.11 U
399-1-16A	10/07/94	B0D368		21.00 BQ	
399-1-16B	10/10/94	B0D369	29.00 BQ		93.00 D
399-1-16B	10/10/94	B0D370		19.00 BQ	
399-1-17A	10/07/94	B0D371	24.00 BQ		.11 U
399-1-17A	10/07/94	B0D375		16.00 BQ	
399-1-17A	12/15/94	B0DFD1			.11 U
399-1-17B	10/07/94	B0D376	27.00 BQ		1.40
399-1-17B	10/07/94	B0D377		11.00 BQ	
399-1-18A	10/05/94	B0D378	6.90 L		.11 U
399-1-18A	10/05/94	B0D379		6.30 U	
399-2-1	10/05/94	B0D380	7.90 L		.11 U
399-2-1	10/05/94	B0D381	7.40 L		.11 U
399-2-1	10/05/94	B0D382		12.00	
399-2-1	10/05/94	B0D383		15.00	
399-3-10	10/10/94	B0D384	31.00 BQ		.11 U
399-3-10	10/10/94	B0D385		23.00 BQ	

For explanation of this table, see Section 1.4 of report.

Table 16-5. Contamination Indicator Parameters for the
300 Area Process Trenches Data for Reporting Period
October 1 through December 31, 1994.

Well Name	Collection Date	Sample Number	COND FIELD uMho 1/.	COND LAB uMho 1/.	pH FIELD .01/6.5-8.5s	pH LAB .01/6.5-8.5s	TOC ppb 110/.	TOX ppb 5/.
399-1-10A	10/05/94	B0D359	408	440	7.51	7.50	400 L	6.0
399-1-11	10/05/94	B0D361	402	440	7.63	7.70	300 L	5.0 U
399-1-12	10/05/94	B0D363	358	430	7.52	7.90 H	400 L	5.0 U
	10/06/94	B0D363	358	430	7.52	7.90 H	400 L	5.0 U
399-1-14A	10/05/94	B0D365	467	440	7.05	7.90	200 L	5.0 U
399-1-16A	10/07/94	B0D367	349	390	7.68	7.80	300 L	5.2
399-1-16B	10/10/94	B0D369	331	330	8.07	8.40	300 L	107.0
399-1-17A	10/07/94	B0D371	323	310	6.87 F	7.30	500 L	26.4
		B0D372	323		6.87 F		500 L	31.1
		B0D373	321		6.86 F		500 L	32.8
		B0D374	320		6.85 F		500 L	30.0
	12/15/94	B0DFD1	649	630	7.50	7.60	600 LB	27.6
		B0DFD2	641		7.44		800 LB	25.7
		B0DFD3	638		7.34		700 LB	29.0
		B0DFD4	640		7.34		600 LB	27.3
399-1-17B	10/07/94	B0D376	314	370	7.80	8.10	300 L	8.7
399-1-18A	10/05/94	B0D378	427	450	7.76	8.00	200 L	5.0 U
399-2-1	10/05/94	B0D380	307	360	7.49	7.10	600 LQ	9.7
		B0D381		360		7.10	400 LQ	10.8
399-3-10	10/10/94	B0D384	330	370	7.39	8.00	400 L	11.6

For explanation of this table, see Section 1.4 of report.

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17.0 NONRADIOACTIVE DANGEROUS WASTE LANDFILL

F. N. Hodges
Westinghouse Hanford Company

17.1 INTRODUCTION

The Nonradioactive Dangerous Waste Landfill (NRDWL) is part of the Hanford Central Landfill located approximately 5.6 km (3.5 mi) southeast of the 200 East Area. The NRDWL, covered under the *Consent Agreement and Compliance Order* (Ecology and EPA 1986), is currently under an interim-status, detection level groundwater monitoring program (WHC 1993b). The groundwater monitoring network consists of three upgradient and six downgradient wells (Table 17-1). Two upgradient and five downgradient wells are screened at the top of the water table. One upgradient and one downgradient well are screened at the top of a low-permeability unit approximately 21.3 m (70 ft) below the top of the water table. Figure 17-1 shows well locations. It should be noted that well 699-26-34A was previously named 699-26-34.

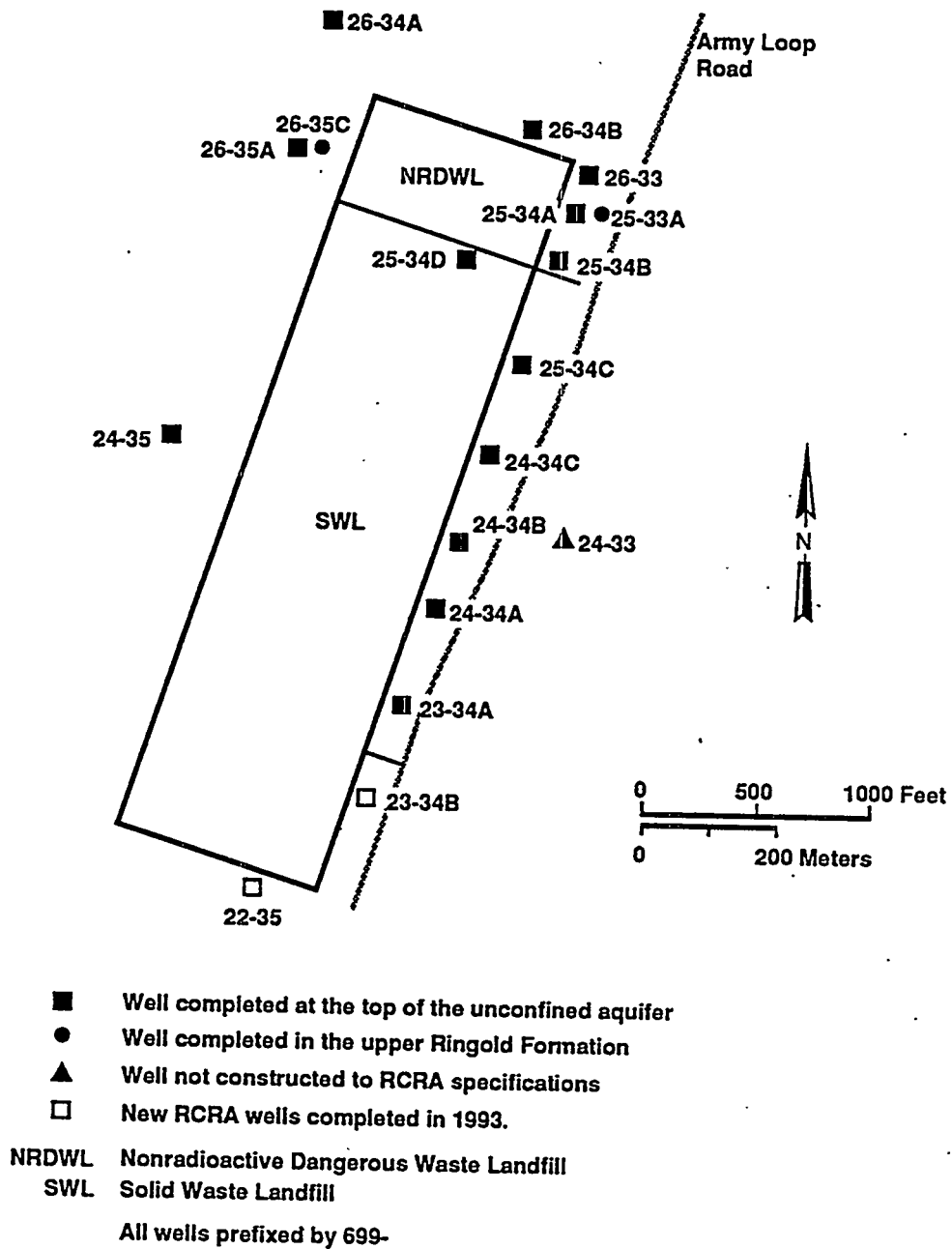
17.2 WATER LEVEL DATA

Water level measurements were carried out on a monthly schedule for nine NRDWL monitoring wells, the six older monitoring wells of the adjacent Solid Waste Landfill, and in several nearby non-RCRA wells. Results of the water level measurements are reported in Table 17-2.

17.3 WATER CHEMISTRY DATA

The monitoring network for the NRDWL is on a semiannual sampling schedule. The monitoring network was last sampled in August/September 1994 and was not sampled during this quarter. The next scheduled sampling for the NRDWL network is in February 1995. There is no new data to report at this time.

Figure 17-1. Well Location Map for the Nonradioactive
Dangerous Waste Landfill and Solid Waste Landfill.



H9402008.24

Table 17-1. Monitoring Well Purpose and Sampling Schedule for the Nonradioactive Dangerous Waste Landfill Network.

Well no. (699-)	Relative position	Hydrogeologic unit	Sample frequency	Sample date, 4th Qtr 1994.
26-34A	Upgradient	Hanford: Water Table	Semiannually	n.a.
26-35A	Upgradient	Hanford: Water Table	Semiannually	n.a.
26-35C	Upgradient	Top of Ringold	Semiannually	n.a.
25-33A	Downgradient	Top of Ringold	Semiannually	n.a.
25-34A	Downgradient	Hanford: Water Table	Semiannually	n.a.
25-34B	Downgradient	Hanford: Water Table	Semiannually	n.a.
25-34D	Downgradient	Hanford: Water Table	Semiannually	n.a.
26-33	Downgradient	Hanford: Water Table	Semiannually	n.a.
26-34B	Downgradient	Hanford: Water Table	Semiannually	n.a.

n.a. not applicable

Note: Hydrogeologic units include the sandy gravels of the Hanford formation and silty sands of the Ringold Formation. Water levels are measured monthly in all wells.

Table 17-2. RCRA Water Level Measurement Report
NRDWL, Fourth Quarter 1994.
(sheet 1 of 3)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
NRDWL Wells Monitoring the Top of the Unconfined Aquifer at the Water Table				
699-25-34A	10/27/94	129.70	400.61	122.11
	11/28/94	129.85	400.46	122.06
	12/15/94	129.89	400.42	122.05
699-25-34B	10/27/94	129.70	399.70+	121.83
	12/15/94	129.89	399.51+	121.77
699-25-34D	10/27/94	136.84	401.07	122.25
	11/28/94	136.83	401.08	122.25
	12/16/94	136.86	401.05	122.24
699-26-33	10/27/94	135.57	400.09	121.95
	11/28/94	134.78	400.88	122.19
	12/15/94	134.90	400.76	122.15
699-26-34A	10/27/94	127.44	400.96	122.21
	11/01/94	132.76	395.64*+	120.59
	11/28/94	127.55	400.85	122.18
	12/15/94	127.71	400.69	122.13
699-26-34B	10/27/94	129.17	401.10	122.26
	11/28/94	129.19	401.08	122.25
	12/15/94	129.21	401.06	122.24
699-26-35A	10/27/94	131.93	400.73	122.14
	11/01/94	131.68	400.98*	122.22
	11/28/94	131.59	401.07	122.25
	12/15/94	132.03	400.63	122.11
NRDWL Wells Monitoring the Upper Ringold				
699-25-33A	10/27/94	127.99	400.98	122.22
	11/28/94	128.08	400.89	122.19
	12/15/94	127.80	401.17	122.28
699-26-35C	10/27/94	131.58	401.10	122.26
	11/28/94	131.61	401.07	122.25
	12/15/94	131.62	401.06	122.24

Table 17-2. RCRA Water Level Measurement Report
NRDWL, Fourth Quarter 1994.
(sheet 2 of 3)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
NRDWL Wells Monitoring the Upper Ringold				
Other Wells Associated with NRDWL				
699-20-20	10/27/94	106.04	399.54	121.78
	11/28/94	106.17	399.41	121.74
	12/15/94	106.12	399.46	121.76
699-20-39	10/27/94	138.61	401.37	122.34
	11/28/94	138.77	401.21	122.29
	12/15/94	138.65	401.33	122.33
699-22-35	11/02/94	132.97	401.00*	122.22
699-23-34A	10/27/94	131.82	401.04	122.24
	11/02/94	131.80	401.06*	122.24
	11/28/94	131.83	401.03	122.23
	12/15/94	131.84	401.02	122.23
699-23-34B	11/02/94	132.48	401.02*	122.23
699-24-33	11/02/94	123.40	400.87*	122.19
	11/28/94	123.22	401.05	122.24
	12/15/94	123.24	401.03	122.23
699-24-34A	10/27/94	132.84	401.04	122.24
	11/01/94	132.76	401.12*	122.26
	11/28/94	132.84	401.04	122.24
	12/15/94	132.86	401.02	122.23
699-24-34B	10/27/94	132.43	401.07	122.25
	11/01/94	132.39	401.11*	122.26
	11/28/94	132.43	401.07	122.25
	12/15/94	132.45	401.05	122.24
699-24-34C	10/27/94	131.54	401.05	122.24
	11/02/94	131.50	401.09*	122.25
	11/28/94	131.54	401.05	122.24
	12/15/94	131.57	401.02	122.23
699-24-35	10/27/94	137.74	401.07	122.25

Table 17-2. RCRA Water Level Measurement Report
NRDWL, Fourth Quarter 1994.
(sheet 3 of 3)

Well	Date	Depth to water (ft)	Water level elevation above msl (ft)	(m)
Other Wells Associated with NRDWL				
699-24-35	11/01/94	137.71	401.10*	122.26
	11/28/94	137.75	401.06	122.24
	12/15/94	137.75	401.06	122.24
699-25-34C	10/27/94	134.41	401.05	122.24
	11/02/94	134.38	401.08*	122.25
	11/28/94	134.42	401.04	122.24
	12/15/94	134.44	401.02	122.23
699-28-40	10/27/94	158.05	401.39	122.34
	11/28/94	158.12	401.32	122.32
	12/15/94	158.01	401.43	122.36
699-31-31	10/27/94	128.38	400.94	122.21
	11/28/94	128.37	400.95	122.21
	12/15/94	128.28	401.04	122.24
699-34-39A	10/27/94	135.57	401.50	122.38
	11/28/94	135.61	401.46	122.37
	12/15/94	135.55	401.52	122.38

- NOTES:
1. Water level elevations are calculated by subtracting the measured depth-to-water from the surveyed elevation for the well.
 2. Depth-to-water values are transcribed from field records.
 3. Elevations marked with an '*' were measured at the time of sampling.
 4. Elevations marked with a '+' are outside of the expected range, and are suspected of error.

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