

CBU-ENG-2005-00005 **MAR 9 2005**

F/H Area High Level Waste Tank Status Report For CY2004

**As Required By The
Federal Facility Agreement
For The Savannah River Site**

March 2005

**Unclassified – Does Not Contain
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ADC/RO: Paul D. d'Entremont , 2/24/05
Signature Date

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APPROVED for Release for
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F/H Area High Level Waste Tank Status Report For CY2004

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I. Introduction

Sections IX.B.2.(b) and IX.E.3 of the Savannah River Site Federal Facility Agreement (FFA) require the United States Department of Energy (DOE) to submit to the United States Environmental Protection Agency Region IV (EPA) and the South Carolina Department of Environmental Control (SCDHEC), an annual report on the status of high level radioactive waste tanks being removed from service, and assessment reports for tank systems or components installed during the previous year. This document is being submitted in order to meet both of these annual reporting requirements. Tanks scheduled for removal from service either do not meet current secondary containment and leak detection standards, or have potential leak sites. SRS intends to remove tank systems from service as opposed to providing secondary containment for non-compliant systems. The tanks that do not meet secondary containment and leak detection requirements or that have leaked (as documented in the tank assessment reports) include High Level Waste (HLW) Tanks #1 through #24. Tanks 17F and 20F have already undergone both waste removal and operational closure. In addition, this year's report introduces the first groundwater monitoring report for the high level radioactive waste tank farms, which will become a part of future annual submittals.

II. Overview of Non-Compliant Tanks - CY2004

The F/H Area High Level Waste Tank Status Report for CY2004 is provided on the following pages. For each non-compliant waste tank, (a) the current schedule for waste removal, (b) the design and construction status of waste removal equipment, and (c) any other noteworthy information is provided. Waste removal work has focused primarily on installation and testing of waste removal equipment for Tanks 4F, 5F, 6F, 8F, and 11H, the performance of waste removal operations on Tanks 8F and 11F, and the necessary tank farm infrastructure upgrades. One new leak site was identified in Tank 12H during inspections in calendar year 2004. Operational closure dates for Tanks 18F and 19F have been revised to February 28, 2007 and October 31, 2006, respectively.

III. Other HLW System Developments

Tank Farm Evaporators

The three tank farm evaporators, 242-16F (2F) Evaporator, the 242-16H (2H) Evaporator, and the 242-25H (3H) Evaporator, are currently operational. As to the non-operational 242-F (1F) Evaporator, deactivation and isolation activities are complete.

Operations of the 2F and the 3H Evaporators continue to have some limitations on the types of materials that can be processed through these systems. Current plans are to dedicate the 2H Evaporator to the processing of high silica feed streams.

Salt Processing Facility

Processing at the In-Tank Precipitation (ITP) Facility was terminated in 1998 because the facility could not meet safety and production requirements for the High Level Waste System. Subsequently, the salt solution processing alternative evaluation identified Caustic Side Solvent Extraction as the preferred technology for a future Salt Waste Processing Facility (SWPF). Design of the SWPF, initiated in calendar year 2003, continued forward in calendar year 2004. SRS continues to pursue alternatives for near-term processing of low activity salt solution, including the design and construction of a Modular Caustic Side Solvent Extraction Unit. This Unit is under construction in the Cold Feeds Area of H-Tank Farm, and is expected to be operational in early Fiscal Year 2007.

Extended Sludge Processing (ESP) Facility

The processing of Sludge Batch 3 is in progress. As of December 31, 2004, approximately 251,000 gallons of sludge slurry have been received at the Defense Waste Processing Facility (DWPF) for processing. Preparations continue for Sludge Batch processing.

DWPF - Vitrification

For calendar year 2004, 256 sludge-only canisters of radioactive glass were produced at the Defense Waste Processing Facility, for a total of 1,775 canisters at year's end.

DWPF - Saltstone

The Saltstone Facility is currently awaiting issuance of a Solid Waste Landfill permit from the South Carolina Department of Health and Environmental Control to process low activity salt solution.

Consolidated Incineration Facility (CIF)

CIF suspended operations in FY2001. A decision on whether to restart CIF or pursue alternative treatment continues to be reviewed. Alternative treatment technologies continue to be evaluated to treat waste streams originally planned for treatment in CIF. CIF remains an alternative as technologies are considered. Progress reports are filed annually with SCDHEC.

Former Late Wash Facility (Building 512-S)

The former Late Wash Facility has been modified to process low curie salt waste as part of the Actinide Removal Process. The actinides will be sent to the DWPF for vitrification, and the bulk of the volume will be stabilized and disposed at the Saltstone Facility.

Building 241-96H (Former ITP Filter/Stripper Building)

The former ITP Filter/Stripper Building (241-96H) is being modified and reconfigured to perform a portion of the actinide removal process through the installation of two Monosodium Titanate Strike Tanks. This treatment of the salt waste will allow the 512-S Facility to operate at a higher throughput. The modifications will include the addition of a new valve box. The valve box will be located outside of 241-96H and facilitate waste transfers into and out of the building.

Section IV — 2004 Individual Waste Tank Status Report

Legend	
Level (Inches)	Level (Gal x 1000)
Unusable Space	
Usable Space	
Low-Level Liquid	
Unconcentrated Supernate	
Concentrated Supernate	
Salt	
Salt Solution	
Low-Level Solids	
Sludge	
Sludge Slurry	

Section IV — 2004 Individual Waste Tank Status Report

Tank No.: 1 Tank Type: I Tank Contents: Salt

Schedule for Waste Removal:	Approved Waste Removal (WR) Schedule: Waste removal to complete in 2018 and closure to complete in 2020. Projected PMP: Waste removal to complete in 2009 and closure to complete in 2010.	
Design / Construction Status:	Construction of waste removal facilities is approximately 80% complete, pump installation 0% complete, overall construction 55% complete. Modifications for waste removal will support the High Level Waste System Plan.	
Other Noteworthy Information:	Tank 1 has a leakage history. A small quantity of dry waste is present on the annulus floor. No new leakage has been noted.	

Tank No.: 2 Tank Type: I Tank Contents: Salt

Schedule for Waste Removal:	Approved WR Schedule: Waste removal to complete in 2017 and closure to complete in 2019. Projected PMP: Waste removal to complete in 2009 and closure to complete in 2010.	
Design / Construction Status:	Construction of waste removal facilities is approximately 80% complete; pump installation 0% complete; overall construction 55% complete. Modifications for waste removal will support the High Level Waste System Plan.	
Other Noteworthy Information:	Tank 2 has no known leaks.	

Tank No.: 3 Tank Type: I Tank Contents: Salt

Schedule for Waste Removal:	Approved WR Schedule: Waste removal to complete in 2020 and closure to complete in 2022. Projected PMP: Waste removal to complete in 2009 and closure to complete in 2010.	
Design / Construction Status:	Construction of waste removal facilities is approximately 55% complete; pump installation 0% complete; overall construction 38% complete. Modifications for waste removal will support the High Level Waste System Plan.	
Other Noteworthy Information:	Tank 3 has no known leaks.	

Section IV — 2004 Individual Waste Tank Status Report

Tank No.: 4

Tank Type: I

Tank Contents: Water / Salt / Sludge

Schedule for Waste Removal:	Approved WR Schedule: Waste removal to complete in 2020 and closure to complete in 2022. Projected PMP: Waste removal to complete in 2008 and closure to complete in 2009.	
Design / Construction Status:	Construction of waste removal facilities is approximately 100% complete; Construction of waste removal support facilities is approx. 75% complete; Construction D&R is 100% complete; pump installation 0% complete; overall construction 50% complete. Modifications for waste removal will support the High Level Waste System Plan.	
Other Noteworthy Information:	Tank 4 has no known leaks.	

Tank No.: 5

Tank Type: I

Tank Contents: Sludge

Schedule for Waste Removal:	Approved WR Schedule: Waste removal to complete in 2011 and closure to complete in 2022. Projected PMP: Waste removal to complete in 2007 and closure to complete in 2008.	
Design / Construction Status:	Construction of waste removal facilities is approximately 100% complete; Construction of waste removal support facilities is approx. 95% complete; Construction D&R is 100% complete; pump installation 0% complete; overall construction 75% complete. Modifications for waste removal will support the High Level Waste System Plan.	
Other Noteworthy Information:	A small quantity of waste (less than 5 gallons) is on the annulus floor. Salt nodules are dried on the tank wall.	

Tank No.: 6

Tank Type: I

Tank Contents: Sludge / Water

Schedule for Waste Removal:	Approved WR Schedule: Waste removal to complete in 2011 and closure to complete in 2022. Projected PMP: Waste removal to complete in 2007, and closure to complete in 2008.	
Design / Construction Status:	Construction of waste removal facilities is 100% complete; Construction of waste removal support facilities is approx. 90% complete; Construction D&R is 100% complete; pump installation 0% complete; overall construction 65% complete. Modifications for waste removal will support the High Level Waste System Plan.	
Other Noteworthy Information:	Approximately 92 gallons of dried waste is present on the annulus floor. No new leakage has been noted.	

Section IV — 2004 Individual Waste Tank Status Report

Tank No.: 7 Tank Type: I Tank Contents: Sludge / Water

Schedule for Waste Removal:	Approved WR Schedule: Waste removal to complete in 2020 and closure to complete in 2022. Projected PMP: Waste removal to complete in 2009 and closure to complete in 2010.	
Design / Construction Status:	Construction of waste removal facilities is 100% complete; transfer pump installation 100% complete; slurry pump installation 100% complete. Installation of tank top services and the HVAC skid is nearing completion. Final testing of new equipment and instrumentation is in progress.	
Other Noteworthy Information:	Tank 7 has no known leaks. Bulk waste removal of the supernate and the Tanks 1, 2 and 3 waste, and subsequent water washing will be completed by 2010.	

Tank No.: 8 Tank Type: I Tank Contents: Sludge / Water

Schedule for Waste Removal:	Approved WR Schedule: Waste removal to complete in 2020 and closure to complete in 2022. Projected PMP: Waste removal to complete in 2007 and closure to complete in 2008.	
Design / Construction Status:	Construction of waste removal facilities is 100% complete.	
Other Noteworthy Information:	Tank 8 has no known leaks. Bulk sludge removal is complete. Heel removal and water washing remain.	

Tank No.: 9 Tank Type: I Tank Contents: Salt

Schedule for Waste Removal:	Approved WR Schedule: Waste removal to complete in 2018 and closure to complete in 2020. Projected PMP: Waste removal to complete in 2012 and closure to complete in 2013.	
Design / Construction Status:	Construction of waste removal facilities is approximately 38% complete; pump installation 0% complete; overall construction 23% complete. Modifications for waste removal will support the High Level Waste System Plan.	
Other Noteworthy Information:	Tank 9 has a leakage history and waste has accumulated on the annulus floor. Changes in appearance and configuration of the waste have occurred, and are most evident after heavy rainfalls apparently resulting in water intrusion.	

Section IV — 2004 Individual Waste Tank Status Report

Tank No.: 10 Tank Type: I Tank Contents: Salt

Schedule for Waste Removal:	Approved WR Schedule: Waste removal to complete in 2018 and closure to complete in 2020. Projected PMP: Waste removal to complete in 2012 and closure to complete in 2013.	
Design / Construction Status:	Construction of waste removal facilities is approximately 50% complete; pump installation 0% complete; overall construction 35% complete. Modifications for waste removal will support the High Level Waste System Plan.	
Other Noteworthy Information:	Tank 10 has a leakage history and there is waste in the annulus. The appearance of the waste in the annulus has minutely changed over the years. The cause of these changes is not known.	

Tank No.: 11 Tank Type: I Tank Contents: Sludge / Water

Schedule for Waste Removal:	Approved WR Schedule: Waste removal to complete in 2007 and closure to complete in 2010. Projected PMP: Waste removal to complete in 2007 and closure to complete in 2012.	
Design / Construction Status:	Construction of waste removal facilities is 100% complete. Waste removal activities are currently in progress.	
Other Noteworthy Information:	Tank 11H has a leakage history. Trace amounts of waste are present on the annulus floor. There has been no evidence of new leakage during the waste removal campaign that began in February 2004.	

Tank No.: 12 Tank Type: I Tank Contents: Sludge

Schedule for Waste Removal:	Approved WR Schedule: Waste removal to complete in 2008 and closure to complete in 2010. Projected PMP: Waste removal to complete in 2012 and closure to complete in 2013.	
Design / Construction Status:	Design of waste removal facilities is 100% complete. Construction is 50% complete. In support of preparing the tank for bulk waste removal, a dry sludge re-wetting campaign was performed.	
Other Noteworthy Information:	The tank has a leakage history. Trace amounts of waste are present on the tank wall and annulus floor. A new leak site was identified between two known leak sites. The tank liquid level is below the lowest known leak site.	

Section IV — 2004 Individual Waste Tank Status Report

Tank No.: 13 Tank Type: II Tank Contents: Sludge / Water

Schedule for Waste Removal:	Approved WR Schedule: Waste removal to complete in 2013 and closure to complete in 2015. Projected PMP: Waste removal to complete in 2012 and closure to complete in 2015.	
Design / Construction Status:	Construction of waste removal facilities is 0% complete; pump installation 0% complete; overall construction 0% complete. Modifications for waste removal will support the High Level Waste System Plan.	
Other Noteworthy Information:	Tank 13 has a leakage history. A very small quantity of waste is present on the annulus floor. No new leakage has been noted.	

Tank No.: 14 Tank Type: II Tank Contents: Mixed Salt and Sludge

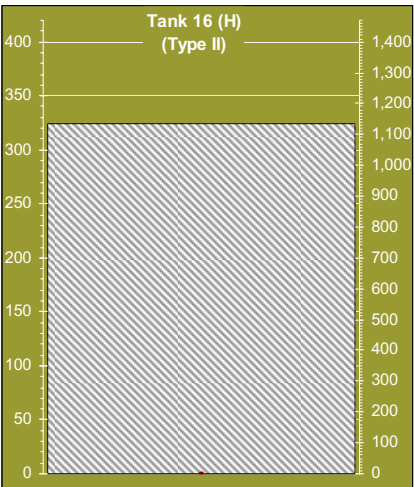
Schedule for Waste Removal:	Approved WR Schedule: Waste removal to complete in 2008 and closure to complete in 2010. Projected PMP: Waste removal to complete in 2013 and closure to complete in 2014.	
Design / Construction Status:	Construction of waste removal facilities is approximately 7% complete; pump installation 0% complete; overall construction 5% complete.	
Other Noteworthy Information:	Tank 14 has a leakage history. There is a significant quantity of salt waste in the annulus. The appearance of the waste in the annulus has minutely changed over the years. The cause of these changes is not known.	

Tank No.: 15 Tank Type: II Tank Contents: Salt / Sludge

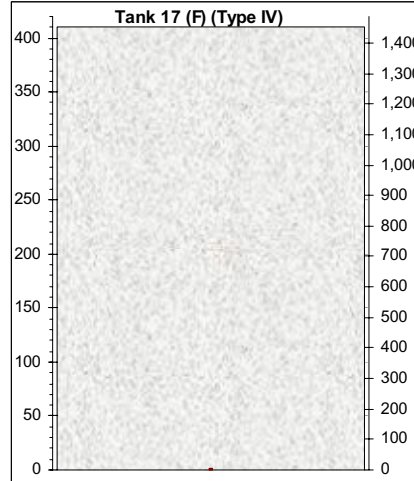
Schedule for Waste Removal:	Approved WR Schedule: Waste removal to complete in 2011 and closure to complete in 2013. Projected PMP: Waste removal to complete in 2012 and closure to complete in 2013.	
Design / Construction Status:	Construction of waste removal facilities is approximately 95% complete; pump installation 0% complete; overall construction 75% complete. "To go" tank design modifications to support waste removal are approximately 40% complete.	
Other Noteworthy Information:	Tank 15 has a leakage history and there is waste in the annulus. No new leakage has been noted.	

Section IV — 2004 Individual Waste Tank Status Report

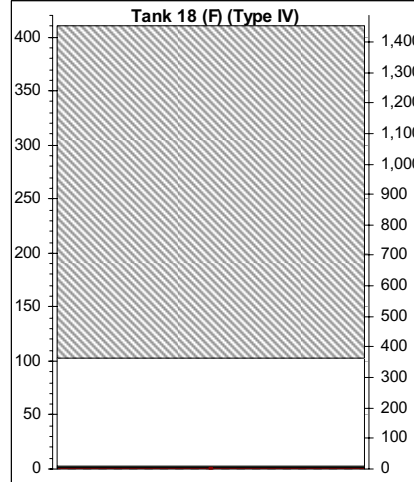
Tank No.: 16 Tank Type: II Tank Contents: Empty

Schedule for Waste Removal:	Approved WR Schedule: Closure to complete in 2015. Projected PMP: Closure to complete in 2010.	
Design / Construction Status:	Waste removal, water washing and chemical cleaning of the tank interior have been completed. Design of annulus cleaning equipment has not yet started.	
Other Noteworthy Information:	Some waste remains in the annulus. A sample of this waste was obtained in FY98 in an attempt to determine the extent of annulus cleaning required. Analysis has shown this waste to be very insoluble in water/caustic solutions. Further studies must be performed.	

Tank No.: 17 Tank Type: IV Tank Contents: Fill Material

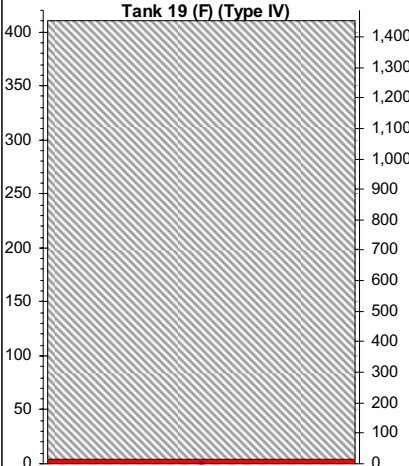
Schedule for Waste Removal:	Complete.	
Design / Construction Status:	Complete.	
Other Noteworthy Information:	Final tank operational closure was approved by SCDHEC on 12/15/97.	

Tank No.: 18 Tank Type: IV Tank Contents: Water / Sludge / Zeolite

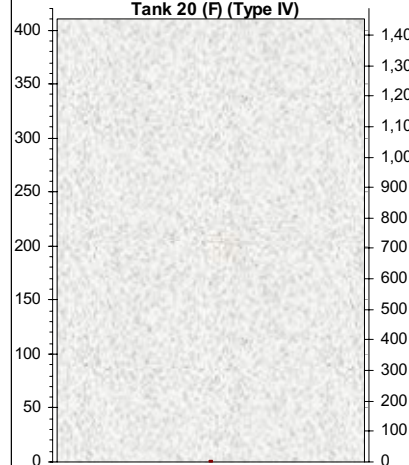
Schedule for Waste Removal:	Waste removal complete. Approved WR Schedule: Closure to complete in 2007. Projected PMP: Closure to complete in 2006.	
Design / Construction Status:	Design and construction activities for bulk and heel removal and water washing are complete. Heel removal and water washing are complete.	
Other Noteworthy Information:	Tank 18F has no leakage history. Residual material has been characterized and shown to meet the Tank 17F and 20F performance standards. The tank has been isolated to preclude waste transfers.	

Section IV — 2004 Individual Waste Tank Status Report

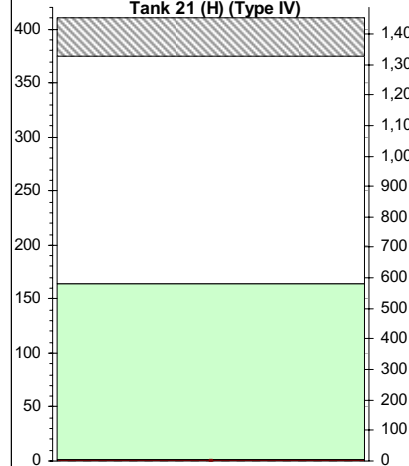
Tank No.: 19 Tank Type: IV Tank Contents: Sludge / Zeolite

Schedule for Waste Removal:	Waste removal complete. Approved WR Schedule: Closure to complete in 2007. Projected PMP: Closure to complete in 2006.	 <p style="text-align: center;">Tank 19 (F) (Type IV)</p>
Design / Construction Status:	Design and construction activities for bulk and heel removal and water washing are complete. Heel removal and water washing are complete.	
Other Noteworthy Information:	Tank 19F has a leakage history. Residual material in the tank has been characterized, and shown to meet the Tanks 17F and 20F performance standards. The tank has been isolated to preclude waste transfers.	

Tank No.: 20 Tank Type: IV Tank Contents: Fill Material

Schedule for Waste Removal:	Complete.	 <p style="text-align: center;">Tank 20 (F) (Type IV)</p>
Design / Construction Status:	Complete.	
Other Noteworthy Information:	Final tank operational closure was approved by SCDHEC on 7/31/97	

Tank No.: 21 Tank Type: IV Tank Contents: Sludge / Water

Schedule for Waste Removal:	Approved WR Schedule: Waste removal to complete in 2011 and closure to complete in 2012. Projected PMP: Waste removal to complete in 2012 and closure to complete in 2013.	 <p style="text-align: center;">Tank 21 (H) (Type IV)</p>
Design / Construction Status:	Construction of waste removal facilities is approximately 97% complete; pump installation 100% complete; overall construction 93% complete. Re: leak detection modifications: installation of bearing water station mods 100% complete; valve box mods 100% complete.	
Other Noteworthy Information:	Tank 21 has no leakage history. Most of the waste was removed from this tank during 1985-86. Tank 21 is used as a storage tank for dilute wastewater.	

Section IV — 2004 Individual Waste Tank Status Report

Tank No.: 22 Tank Type: IV Tank Contents: Sludge / Dilute Wastewater

Schedule for Waste Removal:	Approved WR Schedule: Waste removal to complete in 2011 and closure to complete in 2012. Projected PMP: Waste removal to complete in 2012 and closure to complete in 2013.	
Design / Construction Status:	Construction of waste removal facilities is approximately 98% complete; pump installation 100% complete; overall construction 95% complete.	
Other Noteworthy Information:	Tank 22 has no leakage history. Most of the waste was removed from this tank in 1985-86. Tank 22 is also used to store dilute wastewater.	

Tank No.: 23 Tank Type: IV Tank Contents: Sludge / Water

Schedule for Waste Removal:	Approved WR Schedule: Waste removal to complete in 2012 and closure to complete in 2014. Projected PMP: Waste removal to complete in 2012 and closure to complete in 2013.	
Design / Construction Status:	Construction of waste removal facilities is 0% complete; pump installation 0% complete; overall construction is 0% complete. Design of leak detection modifications is 100% complete.	
Other Noteworthy Information:	Tank 23 has no leakage history. This tank routinely received dilute wastewater from the Receiving Basin for Offsite Fuels facility, and has also received DWPF Recycle water in the past.	

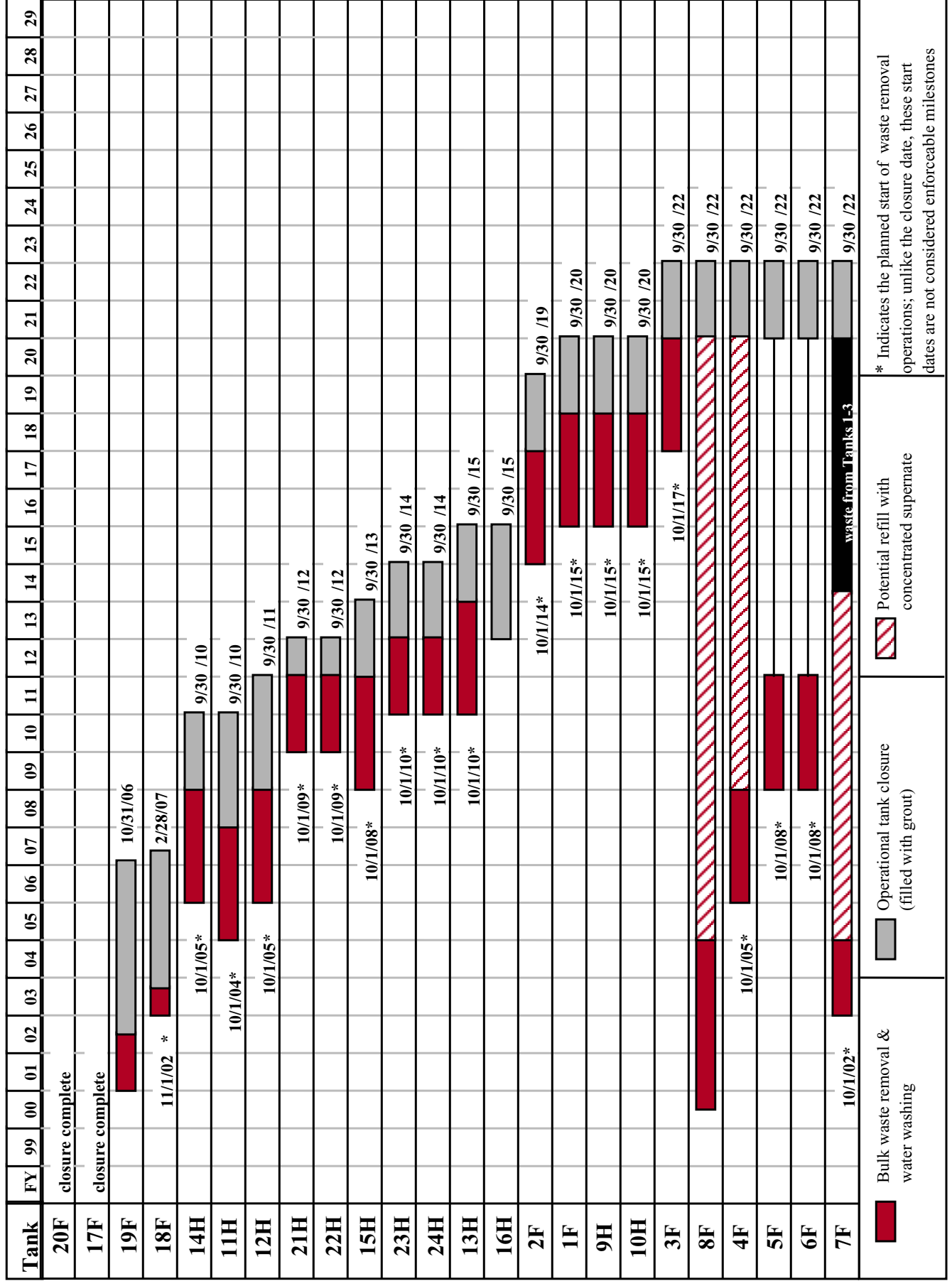
Tank No.: 24 Tank Type: IV Tank Contents: Sludge / Water

Schedule for Waste Removal:	Approved WR Schedule: Waste removal to complete in 2012 and closure to complete in 2014. Projected PMP: Waste removal to complete in 2012 and closure to complete in 2013.	
Design / Construction Status:	Construction of waste removal facilities is approximately 98% complete; pump installation 100% complete (supporting water washing); overall construction 90% complete. Design of leak detection modifications is 100% complete.	
Other Noteworthy Information:	Tank 24 has no leakage history. Most of the waste was removed from this tank in 1983. Zeolite resin remains in the tank, and this tank is also used to store dilute wastewater.	

Section IV — 2004 Individual Waste Tank Status Report

**FFA WASTE REMOVAL SCHEDULE, REVISION 2
And
SUMMARY OF CHANGES
September 6, 2004**

FFA Waste Removal Schedule, Revision 2 (9/6/04)



Summary of Changes

3/7/02 Submittal:

- * revised closure complete dates for Tanks 18 & 19
- * eliminated potential refill of Tanks 5 & 6
- * added closure complete dates for each tank (SCDHEC request)

4/8/02 Submittal (Revision 1)

- * revised closure complete dates from 10/1 to 9/30 (SCDHEC request)
- * added start of bulk waste removal dates for each tank (SCDHEC request)
- * added "Revision 1" and date to title
- * reduced Tank 11 "Operational Tank Closure" duration from 5 to 3 years

7/23/04 Submittal (Revision 2)

- * revised operational closure complete dates for Tanks 18F and 19F

Report Section V

Federal Facility Agreement Annual HLW Tank Status Report For CY2004

System / Component Assessment Report included within this Report:

- “Assessment Report on Low Level Unirradiated Non-Waste Transfers from HPP-6 to Tank 50,” Document No.: 04-HTF-004, Revision 1, last dated 11/03/2004.

ASSESSMENT REPORT

ON

LOW LEVEL UNIRRADIATED NON-WASTE TRANSFERS

FROM HPP-6 TO TANK 50

04-HTF-004

REV. 1

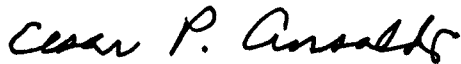
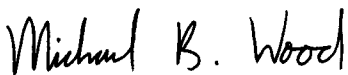


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DISCLAIMER

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APPROVAL SIGNATURES/SUMMARY OF CHANGES

APPROVALS

PREPARER/TITLE  Cesar P. Ansaldo, Design Engineer, Salt Waste Processing Facility, Projects, Design and Construction Services Business Unit	DATE 11/2/2004
REVIEWER  Michael B. Wood, Design Engineer, Salt Waste Processing Facility, Projects, Design and Construction Services Business Unit	 11.2.04
APPROVAL  Eloy Saldívar Jr., Design Authority Manager, Salt Engineering, Liquid Waste Disposition Closure Business Unit	 11/2/04
APPROVAL  Lee Carey, Project Engineer, Salt Waste Processing Facility, Projects, Design and Construction Services Business Unit	 11/2/04

SUMMARY OF CHANGES

Rev. No	Reason for Change	Pages Affected	Preparer	Approval - DA	Approval - DE
0	Initial Issue	N/A	N/A	N/A	N/A
1	Clarification of Scope	All	N/A	N/A	N/A

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Figure 1: Low Level Unirradiated Non-Waste Transfers from HPP-6 to Tank 50	12

1.0 Executive Summary

This Assessment Report is being submitted to satisfy requirements of Appendix B of the Savannah River Site (SRS) Federal Facility Agreement (FFA).

The purpose of this modification is to allow transfers of low level unirradiated non-waste from HPP-6 to Tank 50 and eventually to Saltstone for further processing. This assessment report covers the removal of the failed agitator, installation of a new in-line transfer pump, removal and replacement of an agitator cover plate at HPP-6, installation and replacement of HPP-6 jumpers, and installation of an aboveground line for low level non-waste transfers from HPP-6 to Tank 41 Riser C3. Existing transfer lines from Tank 41 (2"-WEE-1653-P48), the 2H Evaporator (2"-WEE-1653-PS202B) and Tank 50 (2"-WEE-3934-P48) will be used to complete the pipe routing from HPP-6 to Tank 50 (See Figure 1). This temporary non-waste transfer arrangement is expected to be in service for two years.

2.0 Design Information

This modification includes the following activities:

- **M-DCP-H-04045**
 - Modify Pump Pit HPP-6 as follows:
 - Dismantle and removal of a failed agitator in Pump Pit HPP-6.
 - Dismantle and removal of Jumper 2(HPP6)15.
 - Dismantle and removal of Electrical Jumper for Agitator Motor and Piping Jumper 14(HPP6)21.
 - Procure and install an in-line transfer pump.
 - Modify agitator cover plate to serve as pump base plate.
 - Fabricate and install a new Electrical Jumper for the pump motor.
 - Fabricate and install a new jumper that connects from Pump Pit Wall Nozzle 2 to the in-line transfer pump suction line.
 - Fabricate and install new Jumpers to connect the Pump Discharge to the new Pump Pit Wall Nozzle and to the 1 1/2" flexible hose outside the Pump Pit.
 - Procure and install approximately 800 feet of 1 1/2" flexible core hose with a 4" flexible jacket hose to connect HPP-6 to Tank 41 Riser C3.
 - Modify Tank 41 Riser C3 as follows:
 - Disconnect hose connection of 3-Way Ball Valve to Line 2"-WEE-1653-P48.
 - Connect a 1 1/2" flexible hose from HPP-6 to Line 2"-WEE-1653-P48.
- **C-DCF-H-03535**
 - Installation of core bores in HPP6 cell covers for valve stem extensions.
- **C-DCF-H-03536**
 - Installation of new shielding plug for HPP-6.

Design changes will be executed under the following Standards from the SRS Engineering Standards Manual, WSRC-TM-95-1:

15060	ASME B31.3 Additional Requirements for SRS Piping Systems
01110	SRS Civil Site Design Criteria
05057	SRS Welding Requirements
03010	Coring, Chipping, and Drilling in Concrete

Design changes will be executed using the following Guides from the SRS Engineering Practices Manual, WSRC-IM-95-58:

15060-G	Application of ASME B31.3
15140-G	Field Fabrication and Installation of Pipe Supports
16052-G	Installation of Electrical Wires, Cables and Terminations
16053-G	Installation of Electrical Equipment
16056-G	Installation of Grounding Systems
16482-G	Motor Control Centers, 600-Volt Class

Design calculations documenting modifications made under this FFA:

M-CLC-H-02563	HEU to Tank 50 Aboveground Transfer Pump Sizing
M-CLC-H-02574	Water Hammer and Thermal/ Pressure Growth Analysis for Transfer Line
T-CLC-H-00731	HPP6 Pump Pit Jumper Piping Analysis
M-CLC-H-02450	Evaluation of ASME Code B31.3 Unlisted Components for HPP6 Hose-in-Hose Assemblies
SRNL-IES-2004-00082	Memo from Annamarie M. Herb to Eloy Saldivar "Goodyear Viper Hose Test Results"
C-CLC-H-01289	Support Design for HEU to Tank 50 Aboveground Transfer
C-CLC-H-01296	Check of Road Cover Plate for Crane Movement

3.0 Waste Compatibility

Compatibility of similar non-waste transfer materials were evaluated in the Phase II Assessment Report for the F & H Area High Level Radioactive Waste Tank Farms (Rev. 0, dated August 1991). These modifications use Type II (stainless steel core with carbon steel jacket) core and jacket piping previously evaluated but have flexible hoses in portions of the transfer line evaluated in WSRC-TR-2004-00471 "LLW Above Ground Transfer Hose Service Compatibility Review".

4.0 Foundation Support

The integrity of the waste transfer lines involved in this modification are evaluated in the following calculations (See Figure 1 for pipe numbers)

• H-Area Diversion Boxes / Pump Pits Analysis		T-CLC-H-00276
• Pipe Numbers 1 to 5	3"-WTS-1103-P48	T-CLC-G-00092
• HPP6 Pump Pit Jumpers 6		T-CLC-H-00731
• Pipe Number 7	1 1/2" Flex Hose	C-CLC-H-01289
• Pipe Numbers 8 & 9	2"-WEE-1653-P48	T-CLC-G-00092
• Pipe Number 10	2"-WEE-1653-PS202B	T-CLC-H-00676
• Pipe Numbers 11 to 15	2"-WEE-3934-P48	T-CLC-H-00680
• Support Design for HEU to Tank 50 Aboveground Transfer Line		C-CLC-H-01289
• Package 2002-01 F/H Pump Tanks		T-CLC-H-00603

5.0 Leak Detection and Past Leaks

Existing leak detection systems currently used in LDB-2 at HPP-5/6 for 3"-WTS-1103-P48, LDB-2 at Tank 41 for 2"-WEE-1653-P48, and LDB-1 at Tank 50 for 2"-WEE-3934-P48 will still be used by the existing transfer lines. For the new aboveground hose-in-hose assembly transfer line, a 1" test/drain connection at the low end near the in-line transfer pump, is provided at the hose jacket for directing the core leaks into the existing HPT-6 leak detection system.

As stated in the Phase II Assessment Report, there are no known past or present leaks involving the core pipes and secondary containment jackets associated with any of the Type II waste transfer lines used in this modification.

6.0 Inspections

All piping material, fabrication, assembly, erection, inspection, examination, and testing shall be in accordance with ASME Code B31.3, SRS Engineering Standard 15060, SRS Engineering Guide 15060-G, and SRS Engineering Standard 05057. Examination and leak testing inspections for the hose-in-hose assembly are contained in the Quality Inspection Plan (QIP) within M-DCP-H-04045.

Safety Class (SC) components are fabricated/inspected by stand-alone QIPs for developmental drawings and installed/inspected per QIPs contained in either DCFs or the DCP. Core drilling of HPP-6 is covered in the QIP issued for C-DCF-H-03535. For fabrication of the shielded plug shown on P-PG-H-8269, C-QIP-H-00131 and C-QIP-H-00133 apply. Installation of the shielded plug is covered in the QIP issued for C-DCF-H-03536.

7.0 Determination of Secondary Containment

This modification will breach the secondary containment of HPP-6 by core drilling through the top of HPP-6 to provide valve extension penetrations. The primary and secondary containment associated with this modification satisfies all FFA requirements stated in Section 2.1 of the Phase II Assessment Report as previously evaluated in Section 3.6.6 of same report. Therefore, no further assessment is needed.

8.0 Professional Engineer Certifications (Design and Construction)

Design

This assessment report was prepared under my supervision and direction. I certify that the design for the modifications detailed in M-DCP-H-04045, C-DCF-H-03535, C-DCF-H-03536 and associated design documents, kept with applicable engineering standards and the requirements of Appendix B of the Federal Facility Agreement. These standards have been generally accepted as adequate in demonstrating leak tightness.

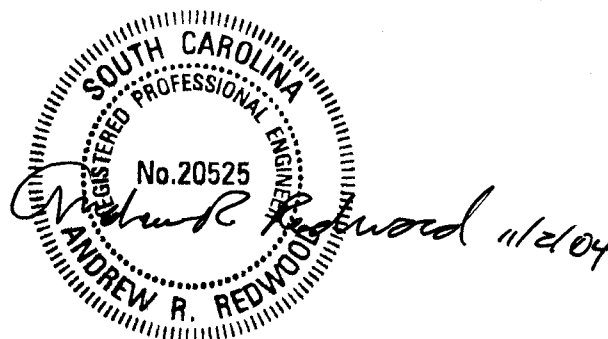
Stamp

Name: SURENDRA K GUPTA
License Number: 13818



Construction and Installation

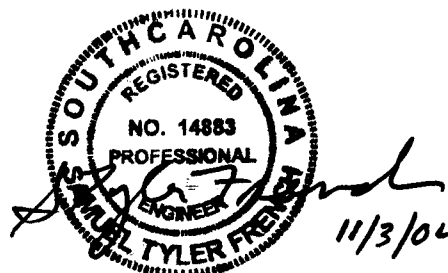
I have conducted an inspection, to the extent possible, of the completion of the modified system. Based upon the inspection, I certify that, to the best of my knowledge, information, and belief, modification to the HPP-6 was constructed in accordance with the approved design. I further certify that the modification was tested and inspected in accordance with the requirements summarized in Section 6.0 of this Report and detailed in design change packages C-DCF-H-03535, C-DCF-H-03536 and associated design documents. The tests conducted to demonstrate leak tightness were found acceptable.

Stamp

Name: *Andrew R. Redwood*
License Number: *20525*

Construction and Installation

I have conducted an inspection, to the extent possible, of the completion of the modified system. Based upon the inspection, I certify that, to the best of my knowledge, information, and belief, modification to the HPP-6 was constructed in accordance with the approved design. I further certify that the modification was tested and inspected in accordance with the requirements summarized in Section 6.0 of this Report and detailed in design change packages M-DCP-H-04045 and associated design documents. The tests conducted to demonstrate leak tightness were found acceptable.

Stamp

Name: *S. TYLER FRENCH*
License Number: *14883*

GOULD MODEL #: 3996.
SIZE: 1.5 X 2-8 ST
DISCHARGE PRESSURE:

RADIOACTIVE CAUSTIC SOLUTION
VISCOSITY: 2 cP
SPECIFIC GRAVITY: 1.35
95 deg. F to 158 deg. F

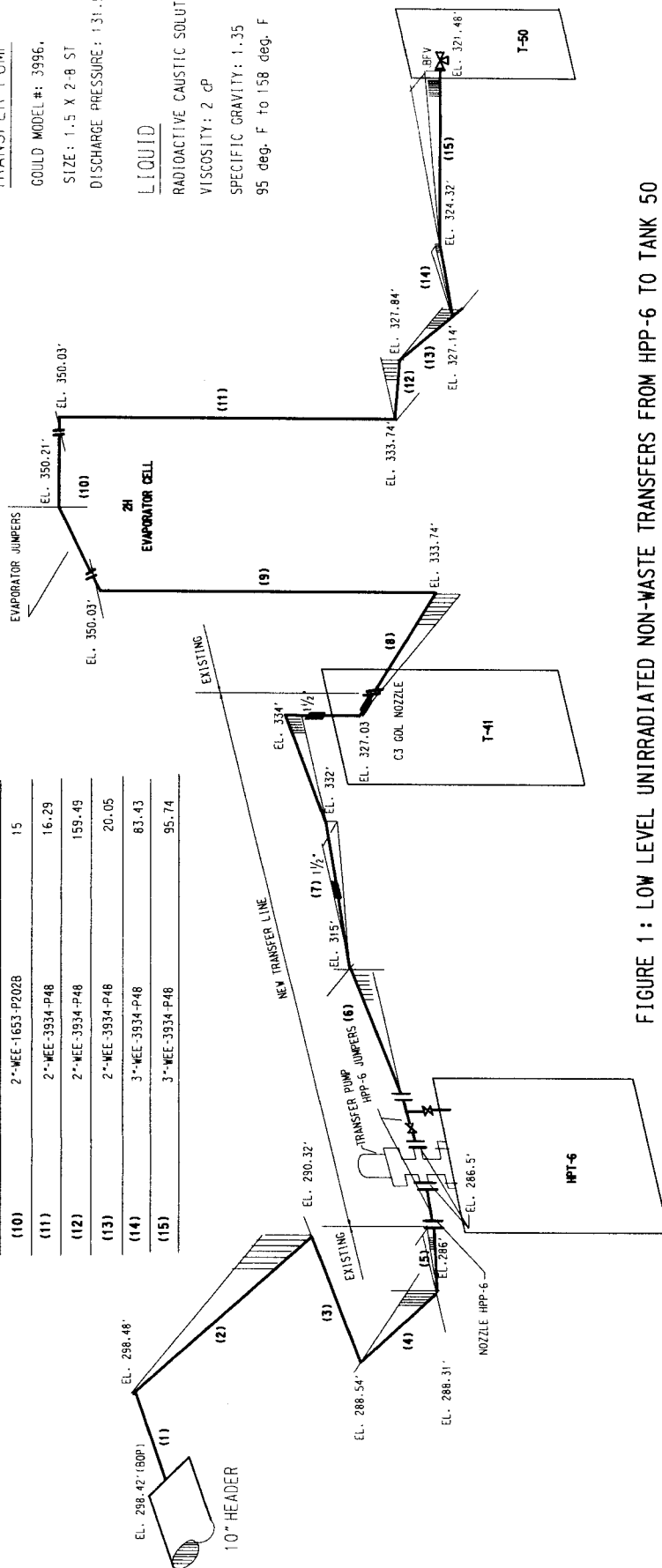


FIGURE 1: LOW LEVEL UNIRRADIATED NON-WASTE TRANSFERS FROM HPP-6 TO TANK 50

Report Section VI

Federal Facility Agreement Annual HLW Tank Status Report For CY2004

Groundwater Monitoring Report included within this Report:

- “2004 Groundwater Monitoring Report for the High Level Waste Tank Farms”
Document No.: WSRC-TR-04-00630, March 2005.

**2004 GROUNDWATER MONITORING REPORT FOR THE HIGH
LEVEL WASTE TANK FARMS**

**WSRC-TR-04-00630
MARCH 2005**

Unclassified – Does Not Contain

Unclassified Controlled Nuclear Information (UCNI)

ADC/RO: Paul D. d'Entremont, 1/31/05

Print Name: Paul P. d'Entremont ^{Date}

Introduction

This report presents the results of groundwater monitoring at the High Level Waste Tank Farms for calendar year 2004. Groundwater monitoring has been conducted at the tank farms for decades, but no formal annual reports have been compiled. In September of 2004, Liquid Waste Engineering determined that annual reports should be produced as part of the tank integrity program. Shortly thereafter the South Carolina Department of Health and Environmental Control (SCDHEC) requested submittal of annual reports each March (letter from B. Mullinax to Jeff Newman dated October 20, 2004).

Setting

The tank farms are located between Upper Three Runs Creek and Fourmile Branch in the central part of the Savannah River Site (figure 1). The uppermost aquifer in the area is the Upper Three Runs Aquifer (UTRA). This aquifer is divided into upper and lower aquifer zones by a leaky confining layer commonly referred to as the “tan clay”. The UTRA is separated from the underlying Gordon Aquifer by the Gordon Confining unit which is commonly referred to as the “green clay”. Water from the UTRA discharges

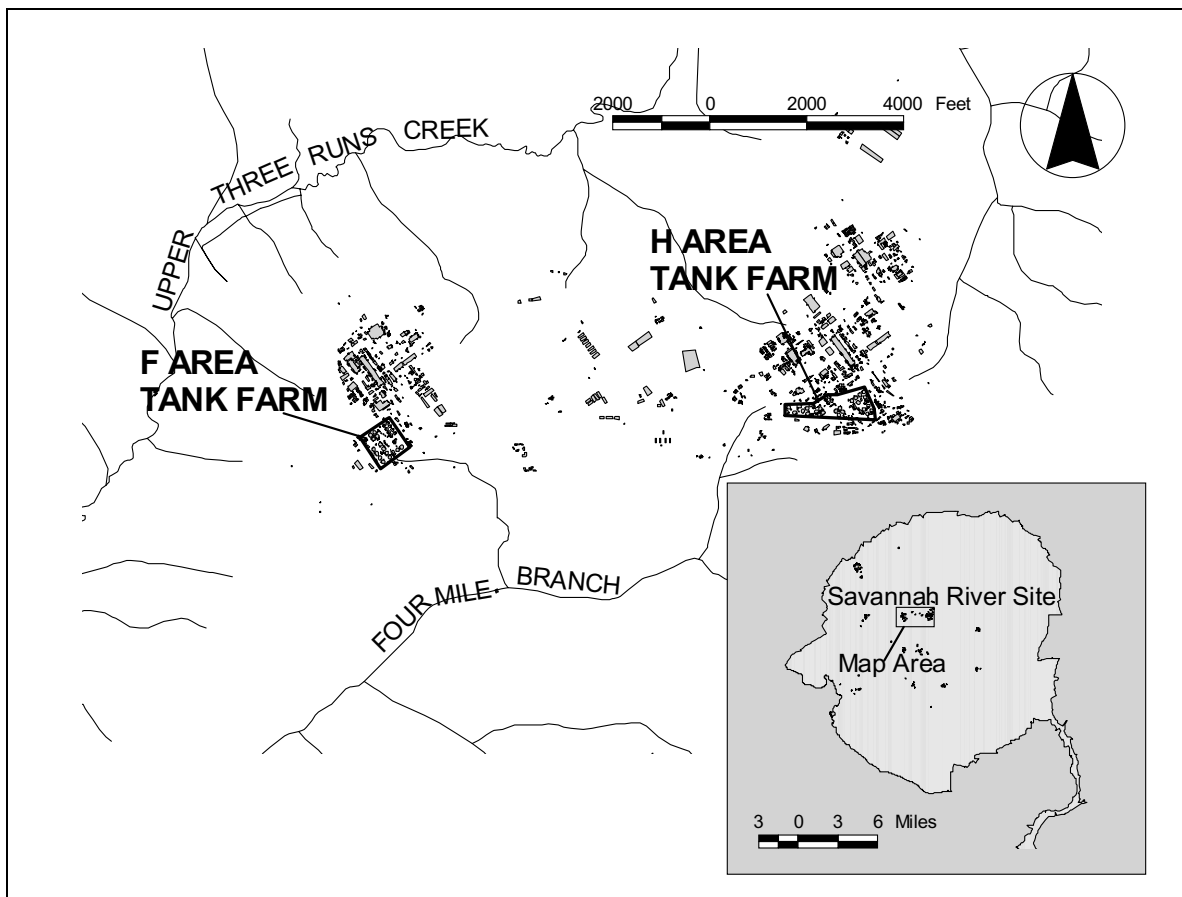


Figure 1. Locations of F Area and H Area Tank Farms.

into both Upper Three Runs Creek and Fourmile Branch. Water from the Gordon Aquifer discharges into Upper Three Runs Creek.

Groundwater Monitoring at F Area Tank Farm

Groundwater quality beneath F Tank Farm has been monitored at least annually since the 1970's. The purpose of that monitoring has been to assess the impact of known releases and to detect the impact of any unknown releases. This is a voluntary monitoring effort not driven by any regulatory requirement.

In 2004, there were 12 wells scheduled for annual sampling (figure 2). Wells FTF 28 and 29 monitor the lower aquifer zone of the Upper Three Runs Aquifer (UTRA). The other wells monitor the upper aquifer zone of that unit. Piezometric surface maps for the two units are shown in figures 3 and 4. Samples are analyzed for gross alpha, nonvolatile beta and tritium. If increases in these parameters signal a possible release of high level waste, more detailed analyses can be undertaken to determine the specific radionuclides present in the water. Samples are also analyzed for sodium and chromium to check for releases from the cooling water system. The monitoring results for 2004 are presented in Appendix A.

Recently, DOE, EPA and SCDHEC approved the General Separations Area (GSA) Western Groundwater Operable Unit (OU) RCRA Facility Investigation (RFI)/Remedial Investigation (RI) Phase I Work Plan, that includes the investigation of the groundwater associated with this OU. All F-Area facilities, including the F- Area Tank Farm, are contained in the GSA Western GWOU. The objective of the GSA Western Groundwater OU is to investigate groundwater contamination within this OU and determine whether this contamination poses a problem that warrants remedial action. Phase I of this work plan involves the use of expedited site characterization (ESC) techniques to gain an understanding of the extent of groundwater contamination and whether additional monitoring wells are needed. Based on the Phase I characterization and existing monitoring data, a long term Groundwater Monitoring strategy will be proposed. In Phase I ongoing preliminary characterization activities will also define the monitoring network and parameters to be analyzed.

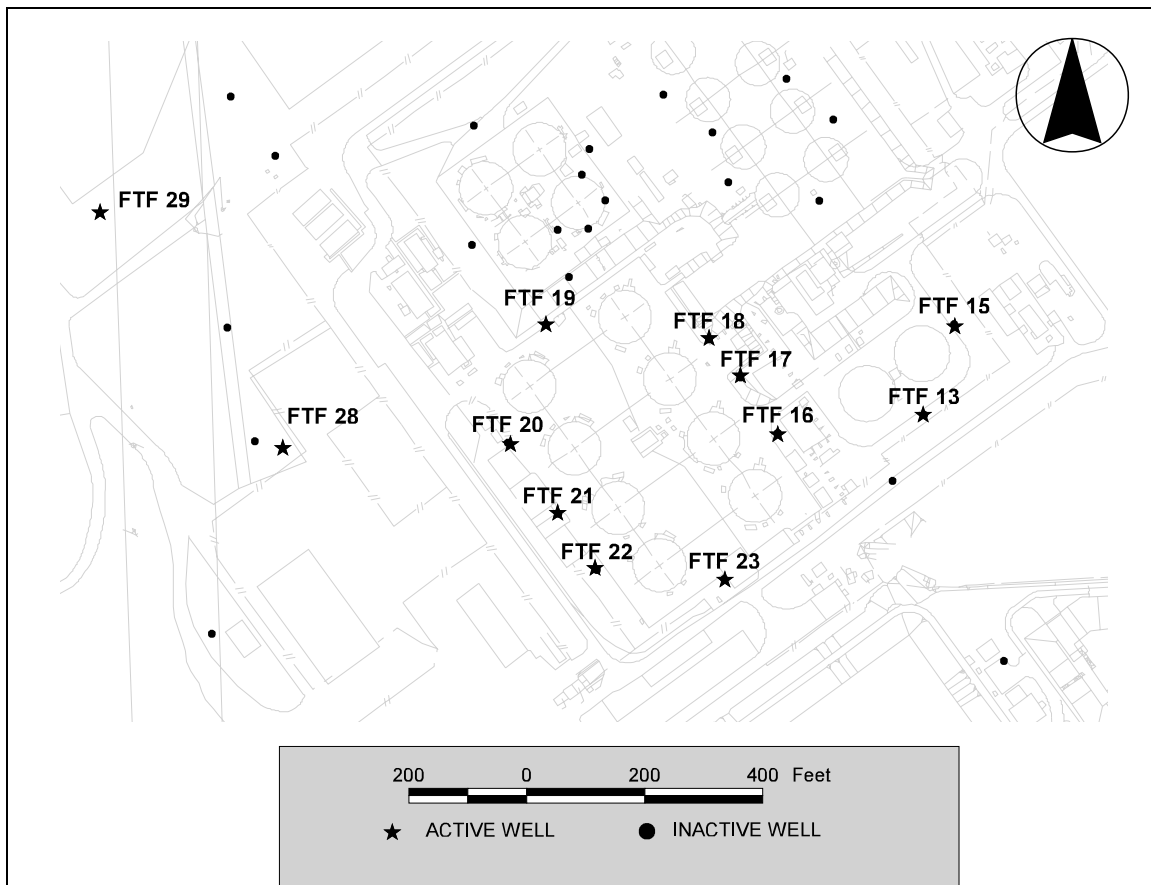


Figure 2. Wells at F Tank Farm.

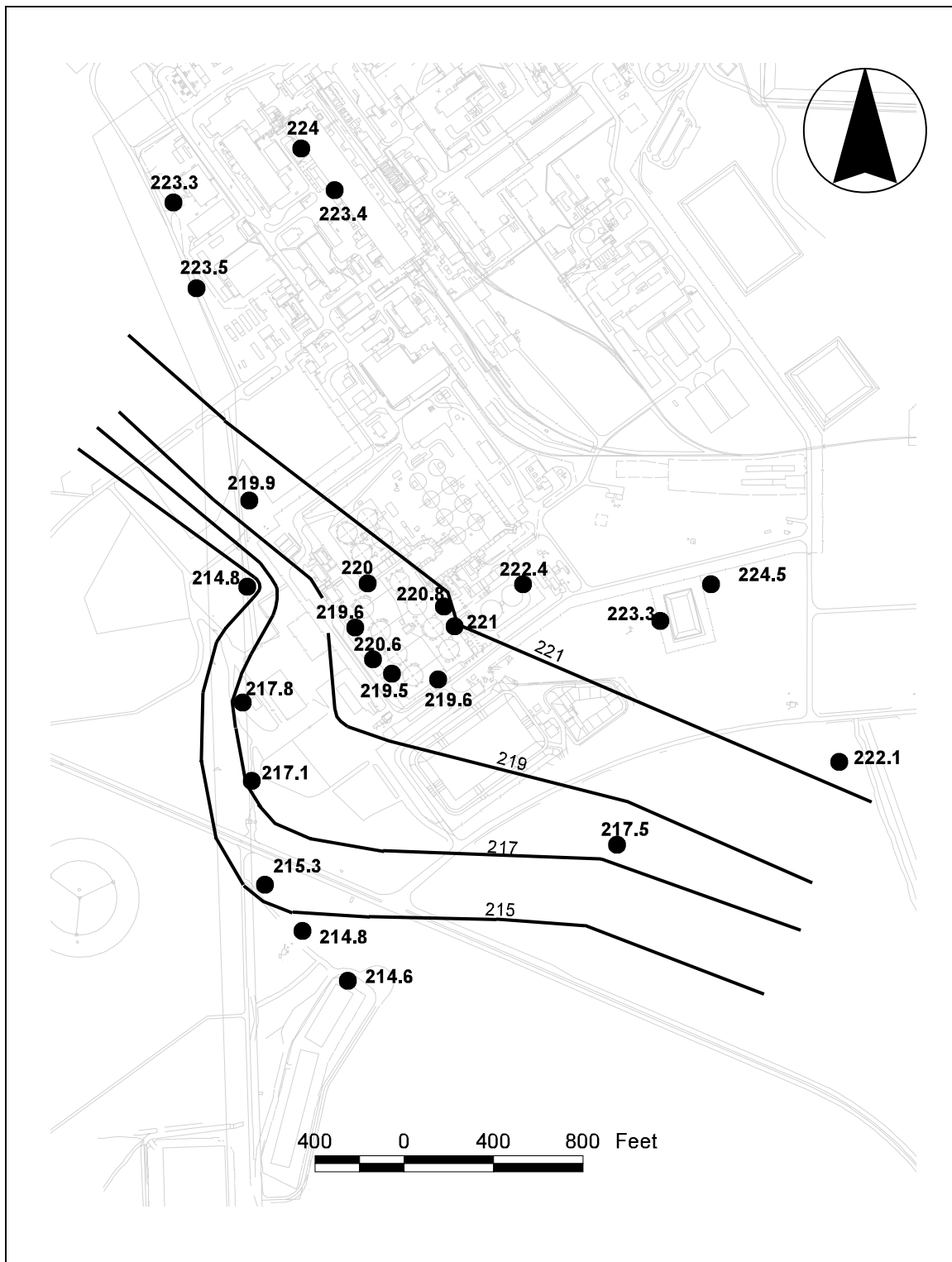


Figure 3. Water levels for the Upper Aquifer Zone of the Upper Three Runs Aquifer during the third quarter of 2004 near F Tank Farm.

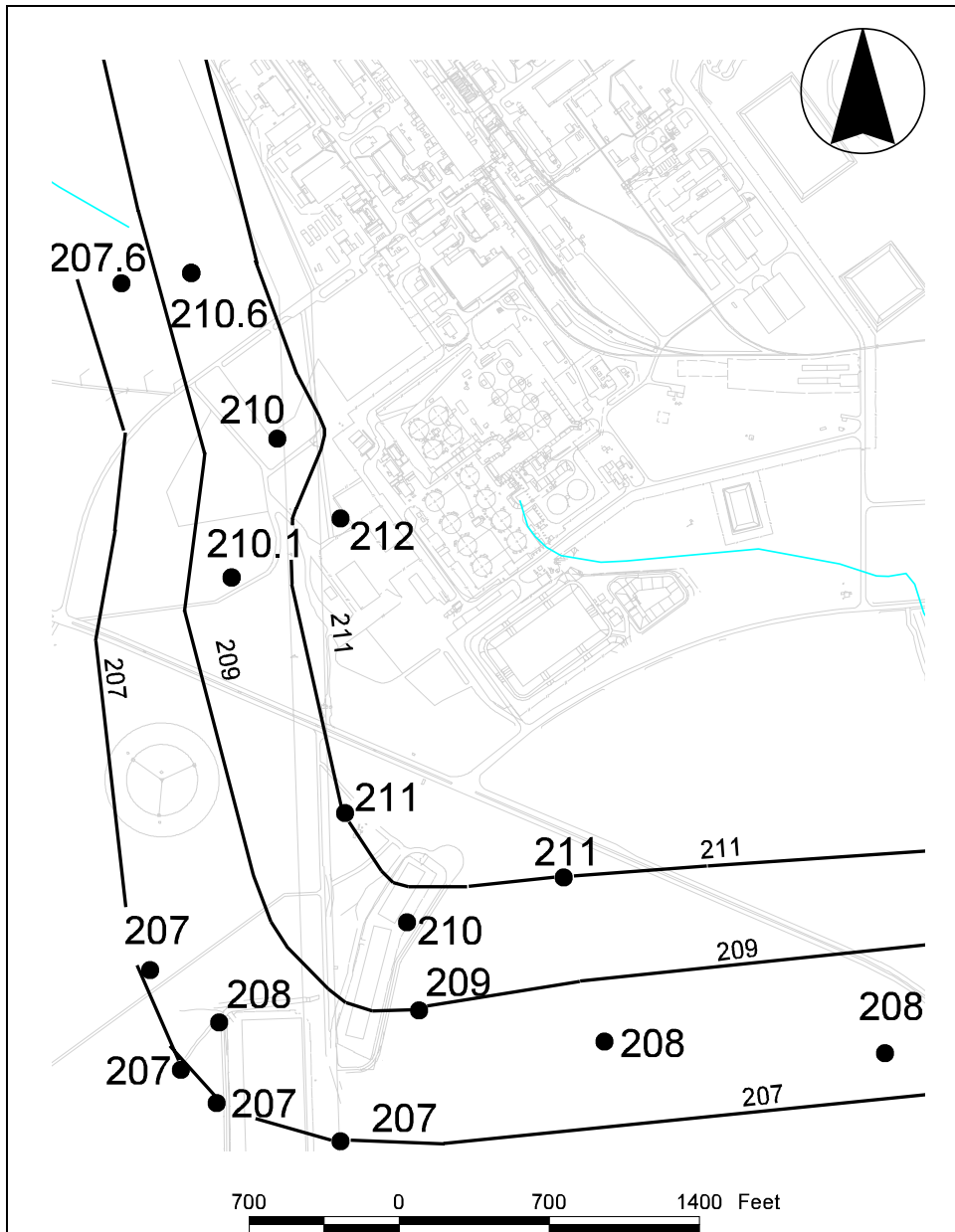


Figure 4. Water levels for the Lower Aquifer Zone of the Upper Three Runs Aquifer during the fourth quarter of 2004.

Except for results from two wells, the 2004 monitoring results give no clear indication of impacts from tank farm operations. Well FTF 21 had a sodium result of 21,390 ug/l and a chromium result of 7.935 ug/l. Taken together these results could be evidence of contamination from a chromate water release. At least one such release is well documented and was one of twelve F-Area Tank Farm Site Evaluation Areas moved to Appendix C of the Federal Facility Agreement (FFA) in 2003 (letter from Thomas Johnson to C.M. Gorman and K.B. Feely dated March 26, 2003).

Another point of interest is at well FTF 28 where a result of 141 pCi/l was reported for nonvolatile beta. The predominant beta emitter was determined to be technecium 99

which has a maximum concentration limit (mcl) of 900 pCi/l (based on 4 mrem/yr). This well was first sampled in 2003 when it yielded a result of 104 pCi/l. While it is within about 100 feet of the F-Area Inactive Process Sewer Line (FIPSL), it is up gradient of that facility and probably not affected by it (figure 5).

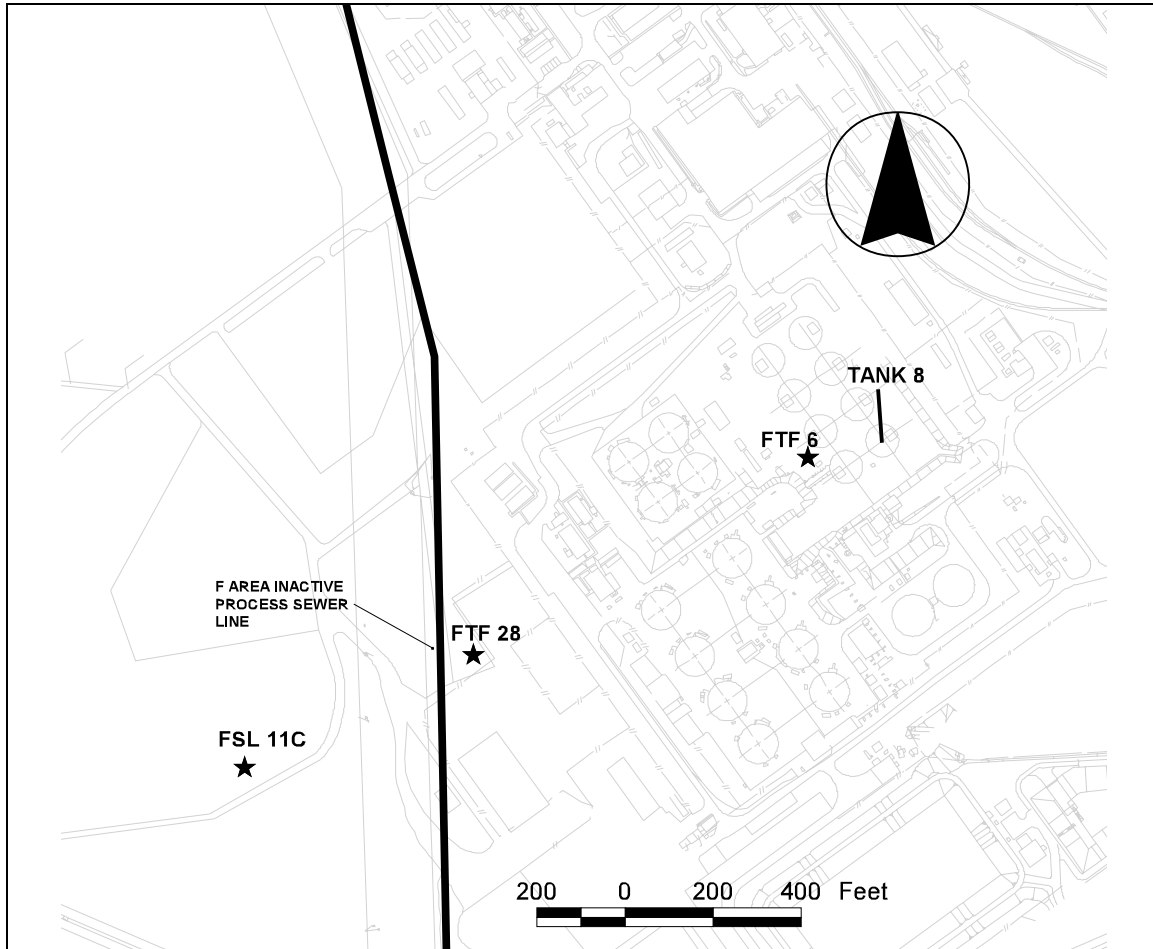


Figure 5. Locations of FTF 6, FTF 28, FSL 11C, and Tank 8.

The FTF 28 results are probably related to a release that occurred at tank 8 in 1961. In March and April of that year, high heat waste backed up into tank 8's fill line after incorrect readings were taken from a miscalibrated liquid level instrument. Waste seeped into the fill-line casement, and it is believed that approximately 1500 gallons of it leaked through the casement and into the surrounding soil (Odum 1976). A recurrence of this kind of accident is highly unlikely. The system of transfer lines leading to tanks 1-8 has been out of service for several years, and much of the liquid waste has been removed from the tanks. The remaining material consists principally of salt waste or small quantities of sludge material. Tank 8 currently stores a small residual heel of waste material.

Some of the wells close to the leak site have histories of very high nonvolatile beta results. Nonvolatile beta results for FTF 6 (figure 5) were as high as 45,000 pCi/l in the 1980's before dropping down to the hundreds of pCi/l in the mid-1990's. The

contaminated wells close to the leak site (including FTF 6) silted up and became unusable during the 1990's, but the historical results from them are sufficient to demonstrate that the 1961 event created a significant plume of contamination. It appears that this plume has reached the location of FTF 28.

Groundwater Monitoring at H Tank Farm

Groundwater quality beneath H Tank Farm has been monitored at least annually since the 1970's. The purpose of that monitoring has been to assess the impact of known spills and to attempt detection of any unknown spills. There are three groups of monitoring wells in and around the H-Area Tank Farm (figure 6). The HTF well series consists of 31 wells inside the tank farm. About half of these wells were installed in 1973 while most of the others were installed in 1985. Two others were installed in 1998. These wells are installed in the watertable aquifer.

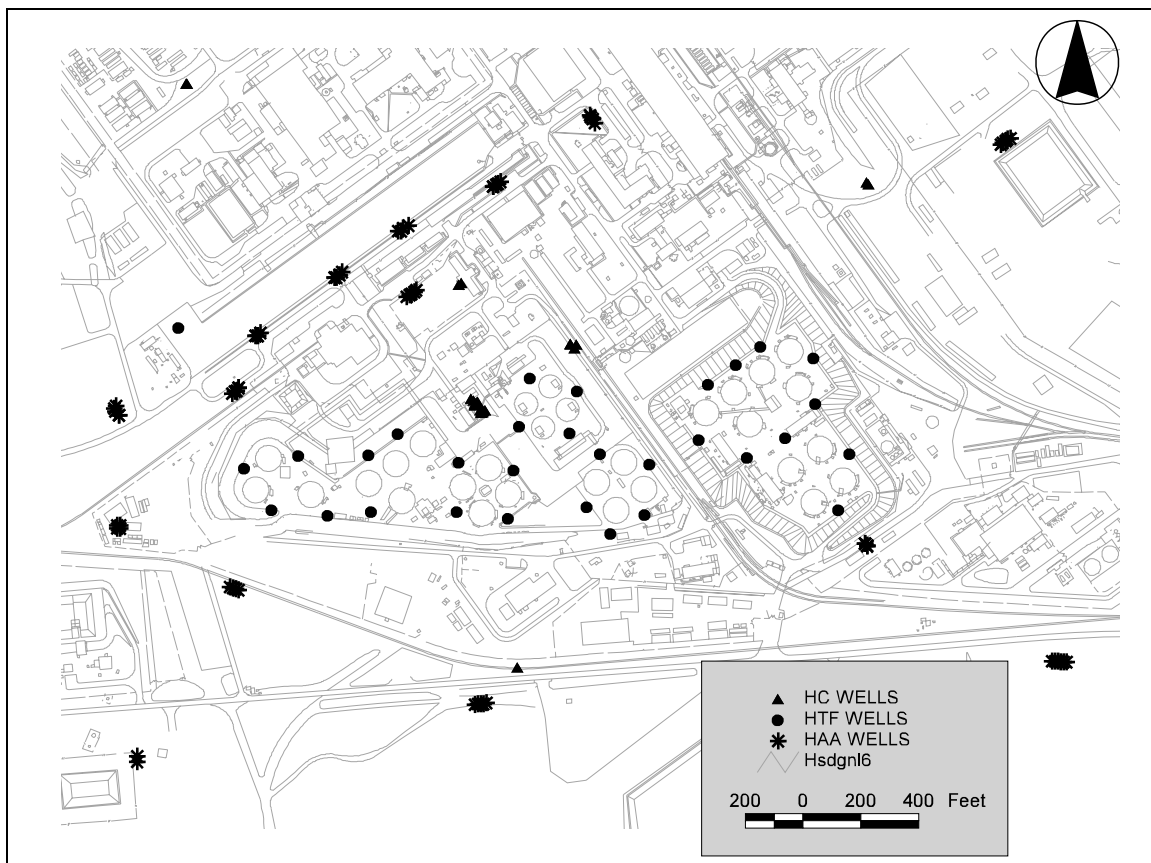


Figure 6. The HTF, HAA and HC well locations in and near H Tank Farm.

The HAA well series consists of 63 wells installed in the 1990's as part of environmental restoration activities. These wells lie outside the tank farm fence. They are grouped in clusters monitoring as many as five distinct aquifer zones.

The HC wells were installed in the 1960's to study regional water levels and groundwater flow. Twenty-two of these wells are in or near H Tank Farm. These wells have only been used for water levels in the past, but they can be sampled as monitoring wells. Wells HC 1A, 1B, 1C and 1D have been added to the monitoring program starting in 2005.

A network of wells positioned within the area and around the down gradient side of the tank farm is sampled on a routine basis. Thirteen of the HAA wells are sampled as part of a network monitoring groundwater quality from historical releases around the H Area facilities (the GSA Eastern Groundwater Operable Unit). This is done to comply with the terms of the approved RFI/RI Work Plan for the H Area Groundwater Operable Unit (WSRC 2002). These wells are sampled twice each year for the following constituents:

1,1,1 trichloroethane
1,1-dichloroethane
carbon tetrachloride
methyl ethyl ketone
trichloroethylene
cadmium
lead
tritium
nonvolatile beta
gross alpha

The objective of the GSA Eastern Groundwater Operable Unit is to investigate groundwater contamination within the Operable Unit and determine whether this contamination poses a problem that warrants remedial action. All H-Area facilities, including the H-Area Tank Farm, are contained in the GSA Eastern GWOU. The results are reported annually to SCDHEC and the Environmental Protection Agency (EPA).

In addition to the monitoring being performed through the GSA Eastern Groundwater Operable Unit RCRA Facility Investigation (RFI)/Remedial Investigation (RI), a historical monitoring network used for the study of the H-Tank Farm Area exists that involves the sampling of the HTF wells and included 14 additional HAA wells in 2004. The wells selected for the voluntary monitoring program are sampled annually for tritium, gross alpha, nonvolatile beta, sodium and chromium. In 2004, an attempt was made to sample 22 of the 31 HTF wells (nine wells have failed to yield sufficient water for a sample for several years). Of the 22 wells scheduled to be sampled, it is common for some to be dry and others to be impractical to sample due to radiological postings or other impediments. The HTF wells that are regularly yielding samples provide sufficient coverage of the watertable aquifer close to the tanks.

The wells scheduled for sampling in 2004 are shown in figure 7. The HTF wells all monitor the Upper Aquifer Zone of the UTRA. HAA wells monitoring three zones are being sampled. The "A" wells are in the Gordon Aquifer. The "B" wells are in the lowermost part of the Lower Aquifer Zone of the UTRA. The "D" wells are in the Upper Aquifer Zone of the UTRA.

Piezometric maps for the upper and lower aquifer zones of the UTRA are presented in figures 8 and 9. The 2004 sample results (Appendix A) are consistent with historical results. Elevated nonvolatile beta results at wells HTF 3, HTF6, HAA 4D and HAA 12A are probably related to a significant 1960 upset at tank 16 or to other smaller releases nearby (WSRC 1992). Wells in the area around tank 16 have yielded elevated results for decades.

Conclusions

In 2004, groundwater monitoring beneath the F and H Area high level waste tank farms consisted of both regulatory driven monitoring programs and voluntary sample collection. Samples were collected from wells both within the tank farm facilities and surrounding the down gradient perimeter. Samples were analyzed for select organic constituents, metals, and radionuclides. No unexpected results were observed during 2004. At F Area, a nonvolatile beta plume containing technecium 99 was detected just beyond the facility fence at FTF 28. This is a predictable result likely derived from a 1961 release from tank 8's fill line casement. The results for FTF 28 are below the mcl. The only noteworthy results at H Area are several elevated nonvolatile beta results probably related to historical releases in the vicinity of tank 16.

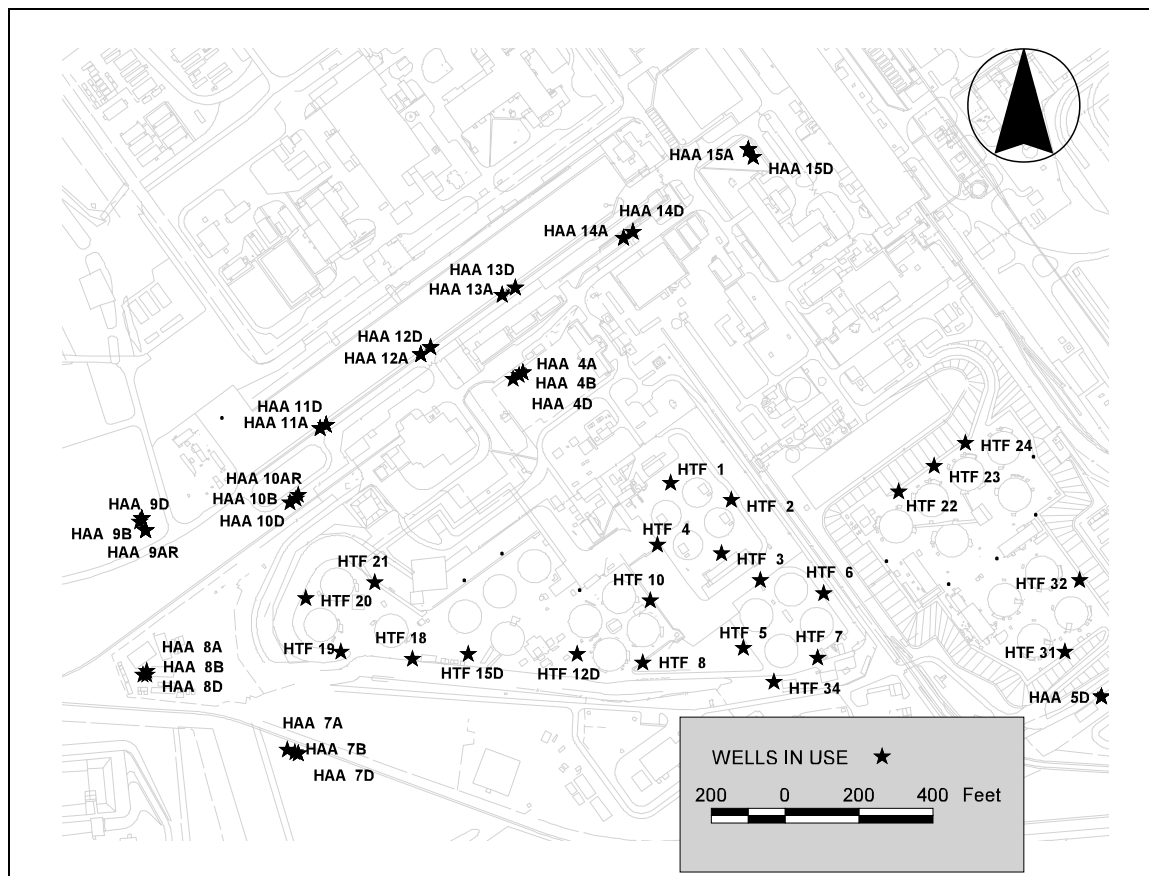


Figure 7. Routinely sampled wells at H Tank Farm.

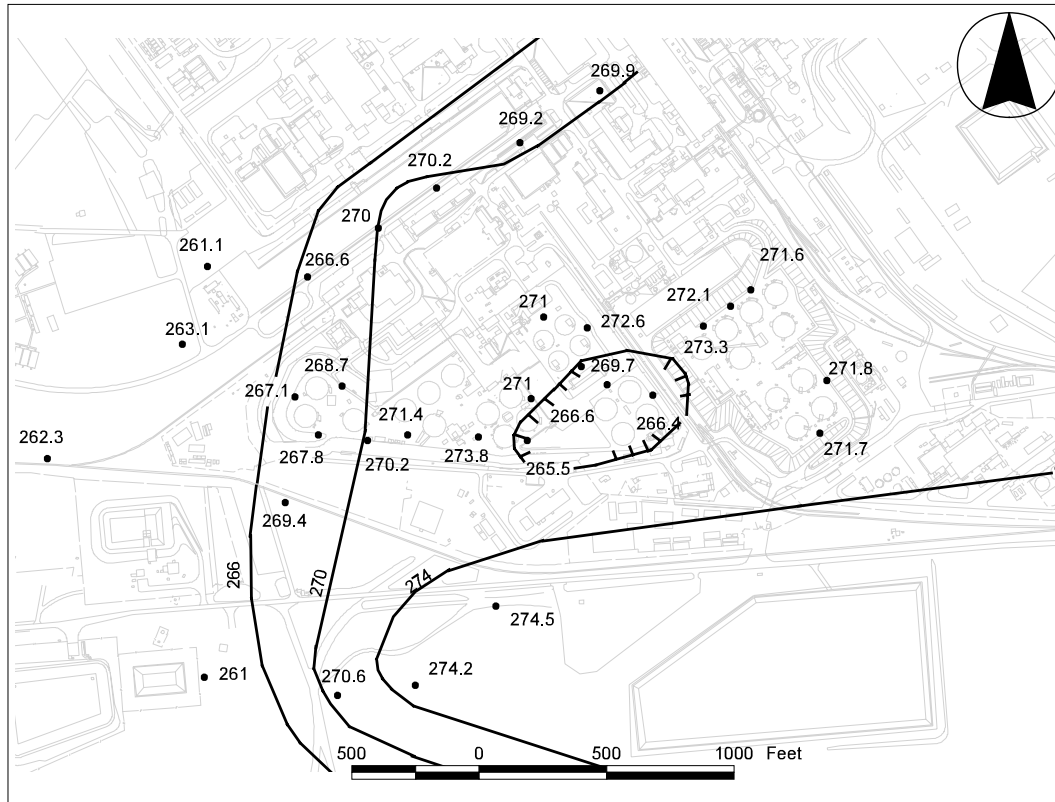


Figure 8. Water levels for the Upper Aquifer Zone of the Upper Three Runs Aquifer during the third quarter of 2004.

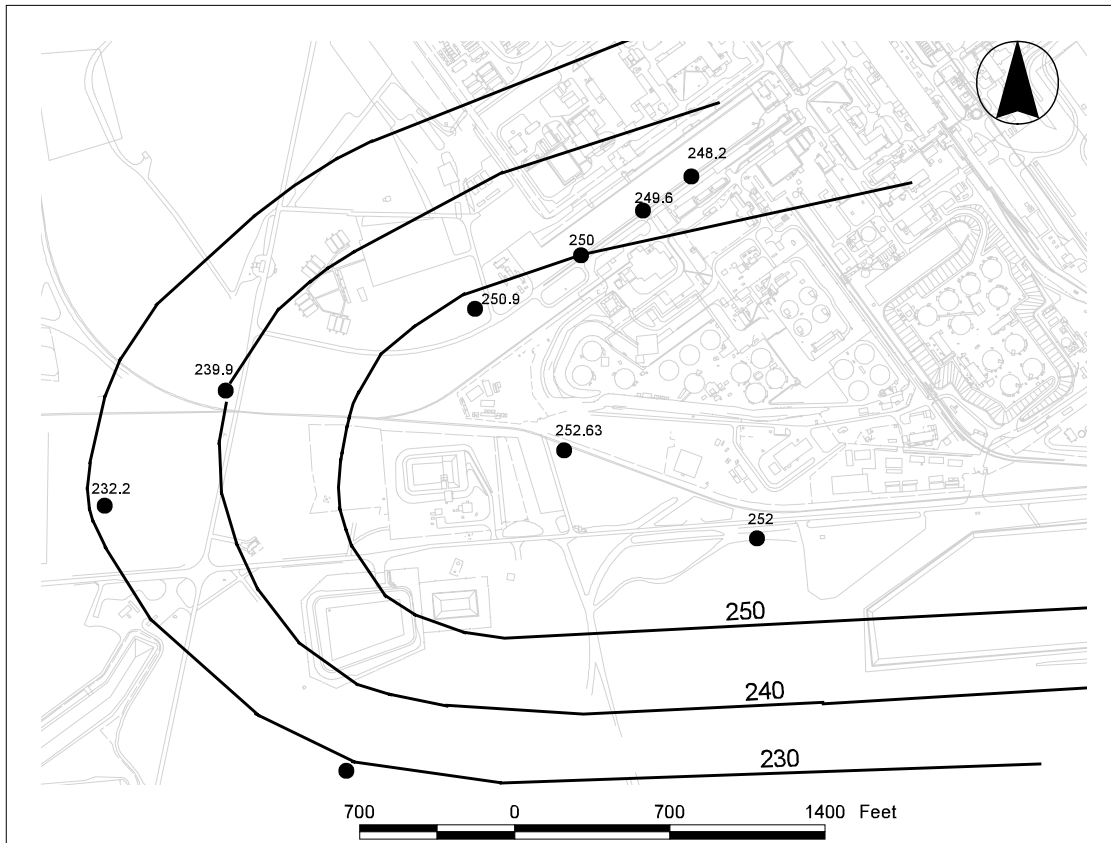


Figure 9. Water levels for the Lower Aquifer Zone of the Upper Three Runs Aquifer during the fourth quarter of 2004

References Cited

Johnson, Thomas, Recommendation for Twelve Site Evaluation Areas located in F-Tank Farm, letter to C. M. Gorman and K. B. Feely dated March 26, 2003.

Mullinax, Barry S., Initial Comments on Preliminary Closure Plan, letter to Jeff Newman dated October 20, 2004.

Odum, J.V, 1976, Soil Contamination Adjacent to Waste Tank 8, Separations Technology Department, E.I DuPont de Nemours & Company, Savannah River Plant, Aiken, South Carolina. DPSPU 76-11-4.

Westinghouse Savannah River Company (WSRC), 1992, RFI/RI Work Plan for Tank 16 (U), Savannah River Site, Aiken, South Carolina. WSRC-RP-90-497.

Westinghouse Savannah River Company (WSRC), 2002, RFI/RI Work Plan for the H-Area Groundwater Operable Unit (U), Savannah River Site, Aiken, South Carolina. WSRC-RP-2000-4144.

APPENDIX A MONITORING DATA

WSRC-TR-04-00630

WELL	DATE	ANALYTE NAME	MDL	PQL	LAB_QUALIFIER	EPA_CODE	RESULT	UNITS
HAA 5D	3/16/2004	1,1,1-TRICHLOROETHANE	0.34	1		J	91.4	ug/L
HAA 5D	9/28/2004	1,1,1-TRICHLOROETHANE	3.4	10			93.3	ug/L
HAA 9AR	3/11/2004	1,1,1-TRICHLOROETHANE	0.34	1	U	UJ		1 ug/L
HAA 9AR	9/22/2004	1,1,1-TRICHLOROETHANE	0.34	1	U			1 ug/L
HAA 9D	3/11/2004	1,1,1-TRICHLOROETHANE	0.34	1	U	UJ		1 ug/L
HAA 9D	9/22/2004	1,1,1-TRICHLOROETHANE	0.34	1	U			1 ug/L
HAA 11A	3/11/2004	1,1,1-TRICHLOROETHANE	0.34	1	U	UJ		1 ug/L
HAA 11A	9/22/2004	1,1,1-TRICHLOROETHANE	0.34	1	U			1 ug/L
HAA 11D	3/11/2004	1,1,1-TRICHLOROETHANE	0.34	1	U	UJ		1 ug/L
HAA 11D	9/22/2004	1,1,1-TRICHLOROETHANE	0.34	1	U			1 ug/L
HAA 12A	3/11/2004	1,1,1-TRICHLOROETHANE	0.34	1	U	UJ		1 ug/L
HAA 12A	9/22/2004	1,1,1-TRICHLOROETHANE	0.34	1	U			1 ug/L
HAA 12D	3/11/2004	1,1,1-TRICHLOROETHANE	0.34	1	U	UJ		1 ug/L
HAA 12D	9/22/2004	1,1,1-TRICHLOROETHANE	0.11	5	U			5 ug/L
HAA 12D	9/22/2004	1,1,1-TRICHLOROETHANE	0.34	1	U			1 ug/L
HAA 13A	9/29/2004	1,1,1-TRICHLOROETHANE	0.34	1	U			1 ug/L
HAA 13D	3/16/2004	1,1,1-TRICHLOROETHANE	0.34	1	U	UJ		1 ug/L
HAA 13D	9/22/2004	1,1,1-TRICHLOROETHANE	0.34	1	U			1 ug/L
HAA 14A	3/15/2004	1,1,1-TRICHLOROETHANE	0.34	1	U	UJ		1 ug/L
HAA 14A	9/27/2004	1,1,1-TRICHLOROETHANE	0.34	1	U			1 ug/L
HAA 14D	3/15/2004	1,1,1-TRICHLOROETHANE	0.34	1	U	UJ		1 ug/L
HAA 14D	9/27/2004	1,1,1-TRICHLOROETHANE	0.11	5	U			5 ug/L
HAA 14D	9/27/2004	1,1,1-TRICHLOROETHANE	0.34	1	U			1 ug/L
HAA 15A	3/15/2004	1,1,1-TRICHLOROETHANE	0.34	1	U	UJ		1 ug/L
HAA 15A	9/28/2004	1,1,1-TRICHLOROETHANE	0.34	1	U			1 ug/L
HAA 15D	3/15/2004	1,1,1-TRICHLOROETHANE	0.34	1	U	UJ		1 ug/L
HAA 15D	9/28/2004	1,1,1-TRICHLOROETHANE	0.34	1	U			1 ug/L
HTF 12D	3/16/2004	1,1,1-TRICHLOROETHANE	0.34	1	U	UJ		1 ug/L
HTF 12D	9/28/2004	1,1,1-TRICHLOROETHANE	0.34	1	U			1 ug/L
HTF 15D	3/16/2004	1,1,1-TRICHLOROETHANE	0.34	1	U	UJ		1 ug/L
HTF 15D	9/28/2004	1,1,1-TRICHLOROETHANE	0.34	1	U			1 ug/L
HAA 5D	3/16/2004	1,1-DICHLOROETHANE	4.1	10		J	525	ug/L
HAA 5D	9/28/2004	1,1-DICHLOROETHANE	4.1	10			612	ug/L
HAA 9AR	3/11/2004	1,1-DICHLOROETHANE	0.41	1	U	UJ		1 ug/L
HAA 9AR	9/22/2004	1,1-DICHLOROETHANE	0.41	1	U			1 ug/L
HAA 9D	3/11/2004	1,1-DICHLOROETHANE	0.41	1	U	UJ		1 ug/L
HAA 9D	9/22/2004	1,1-DICHLOROETHANE	0.41	1	U			1 ug/L
HAA 11A	3/11/2004	1,1-DICHLOROETHANE	0.41	1	U	UJ		1 ug/L
HAA 11A	9/22/2004	1,1-DICHLOROETHANE	0.41	1	U			1 ug/L
HAA 11D	3/11/2004	1,1-DICHLOROETHANE	0.41	1	U	UJ		1 ug/L
HAA 11D	9/22/2004	1,1-DICHLOROETHANE	0.41	1	U			1 ug/L
HAA 12A	3/11/2004	1,1-DICHLOROETHANE	0.41	1	U	UJ		1 ug/L
HAA 12A	9/22/2004	1,1-DICHLOROETHANE	0.41	1	U			1 ug/L
HAA 12D	3/11/2004	1,1-DICHLOROETHANE	0.41	1	U	UJ		1 ug/L
HAA 12D	9/22/2004	1,1-DICHLOROETHANE	0.21	5	U			5 ug/L
HAA 12D	9/22/2004	1,1-DICHLOROETHANE	0.41	1	U			1 ug/L
HAA 13A	9/29/2004	1,1-DICHLOROETHANE	0.41	1	U			1 ug/L
HAA 13D	3/16/2004	1,1-DICHLOROETHANE	0.41	1	U	UJ		1 ug/L
HAA 13D	9/22/2004	1,1-DICHLOROETHANE	0.41	1	U			1 ug/L
HAA 14A	3/15/2004	1,1-DICHLOROETHANE	0.41	1	U	UJ		1 ug/L
HAA 14A	9/27/2004	1,1-DICHLOROETHANE	0.41	1	U			1 ug/L
HAA 14D	3/15/2004	1,1-DICHLOROETHANE	0.41	1	U	UJ		1 ug/L
HAA 14D	9/27/2004	1,1-DICHLOROETHANE	0.21	5	U			5 ug/L
HAA 14D	9/27/2004	1,1-DICHLOROETHANE	0.41	1	U			1 ug/L
HAA 15A	3/15/2004	1,1-DICHLOROETHANE	0.41	1	U	UJ		1 ug/L
HAA 15A	9/28/2004	1,1-DICHLOROETHANE	0.41	1	U			1 ug/L
HAA 15D	3/15/2004	1,1-DICHLOROETHANE	0.41	1	U	UJ		1 ug/L
HAA 15D	9/28/2004	1,1-DICHLOROETHANE	0.41	1	U			1 ug/L
HTF 12D	3/16/2004	1,1-DICHLOROETHANE	0.41	1	U	UJ		1 ug/L
HTF 12D	9/28/2004	1,1-DICHLOROETHANE	0.41	1	U			1 ug/L
HTF 15D	3/16/2004	1,1-DICHLOROETHANE	0.41	1	U	UJ		1 ug/L
HTF 15D	9/28/2004	1,1-DICHLOROETHANE	0.41	1	U			1 ug/L
HAA 5D	3/16/2004	ALKALINITY (AS CaCO3)					2	mg/L
HAA 5D	9/28/2004	ALKALINITY (AS CaCO3)					0	mg/L
HAA 9AR	3/11/2004	ALKALINITY (AS CaCO3)					26	mg/L
HAA 9AR	9/22/2004	ALKALINITY (AS CaCO3)					30	mg/L
HAA 9D	3/11/2004	ALKALINITY (AS CaCO3)					4	mg/L
HAA 9D	9/22/2004	ALKALINITY (AS CaCO3)					0	mg/L
HAA 11A	3/11/2004	ALKALINITY (AS CaCO3)					5	mg/L
HAA 11A	9/22/2004	ALKALINITY (AS CaCO3)					6	mg/L
HAA 11D	3/11/2004	ALKALINITY (AS CaCO3)					40	mg/L
HAA 11D	9/22/2004	ALKALINITY (AS CaCO3)					0	mg/L
HAA 12A	3/11/2004	ALKALINITY (AS CaCO3)					0	mg/L
HAA 12A	9/22/2004	ALKALINITY (AS CaCO3)					640	mg/L
HAA 12D	3/11/2004	ALKALINITY (AS CaCO3)					0	mg/L
HAA 12D	9/22/2004	ALKALINITY (AS CaCO3)					0	mg/L
HAA 13A	3/11/2004	ALKALINITY (AS CaCO3)					0	mg/L
HAA 13A	3/29/2004	ALKALINITY (AS CaCO3)					0	mg/L

APPENDIX A
MONITORING DATA

WSRC-TR-04-00630

WELL	DATE	ANALYTE_NAME	MDL	PQL	LAB_QUALIFIER	EPA_CODE	RESULT	UNITS
HAA 13A	9/29/2004	ALKALINITY (AS CACO3)					0	mg/L
HAA 13A	9/29/2004	ALKALINITY (AS CACO3)					100	mg/L
HAA 13D	3/15/2004	ALKALINITY (AS CACO3)					0	mg/L
HAA 13D	3/16/2004	ALKALINITY (AS CACO3)					0	mg/L
HAA 13D	9/22/2004	ALKALINITY (AS CACO3)					0	mg/L
HAA 14A	3/15/2004	ALKALINITY (AS CACO3)					28	mg/L
HAA 14A	9/27/2004	ALKALINITY (AS CACO3)					19	mg/L
HAA 14D	3/15/2004	ALKALINITY (AS CACO3)					5	mg/L
HAA 14D	9/27/2004	ALKALINITY (AS CACO3)					0	mg/L
HAA 15A	3/15/2004	ALKALINITY (AS CACO3)					264	mg/L
HAA 15A	9/28/2004	ALKALINITY (AS CACO3)					691	mg/L
HAA 15D	3/15/2004	ALKALINITY (AS CACO3)					0	mg/L
HAA 15D	9/28/2004	ALKALINITY (AS CACO3)					5	mg/L
HTF 12D	3/16/2004	ALKALINITY (AS CACO3)					0	mg/L
HTF 12D	9/28/2004	ALKALINITY (AS CACO3)					73	mg/L
HTF 15D	3/16/2004	ALKALINITY (AS CACO3)					11	mg/L
HTF 15D	9/28/2004	ALKALINITY (AS CACO3)					32	mg/L
HAA 5D	3/16/2004	CADMIUM	0.04	1	U	U	1	ug/L
HAA 5D	9/28/2004	CADMIUM	0.04	1	U		1	ug/L
HAA 9AR	3/11/2004	CADMIUM	0.04	1	U	U	1	ug/L
HAA 9AR	9/22/2004	CADMIUM	0.04	1	U		1	ug/L
HAA 9D	3/11/2004	CADMIUM	0.04	1	U	U	1	ug/L
HAA 9D	9/22/2004	CADMIUM	0.04	1	U		1	ug/L
HAA 11A	3/11/2004	CADMIUM	0.04	1	J	J	0.096	ug/L
HAA 11A	9/22/2004	CADMIUM	0.04	1	J		0.062	ug/L
HAA 11D	3/11/2004	CADMIUM	0.04	1	U	U	1	ug/L
HAA 11D	9/22/2004	CADMIUM	0.04	1	U		1	ug/L
HAA 12A	3/11/2004	CADMIUM	0.04	1	U	U	1	ug/L
HAA 12A	9/22/2004	CADMIUM	0.04	1	U		1	ug/L
HAA 12D	3/11/2004	CADMIUM	0.04	1	U	U	1	ug/L
HAA 12D	9/22/2004	CADMIUM	0.037	5	U		5	ug/L
HAA 12D	9/22/2004	CADMIUM	0.04	1	U		1	ug/L
HAA 13A	9/29/2004	CADMIUM	0.04	1	U		1	ug/L
HAA 13D	3/16/2004	CADMIUM	0.04	1	J	J	0.176	ug/L
HAA 13D	9/22/2004	CADMIUM	0.04	1	J		0.067	ug/L
HAA 14A	3/15/2004	CADMIUM	0.04	1	U	U	1	ug/L
HAA 14A	9/27/2004	CADMIUM	0.04	1	U		1	ug/L
HAA 14D	3/15/2004	CADMIUM	0.04	1	J	J	0.08	ug/L
HAA 14D	9/27/2004	CADMIUM	0.037	5	U		5	ug/L
HAA 14D	9/27/2004	CADMIUM	0.04	1	U		1	ug/L
HAA 15A	3/15/2004	CADMIUM	0.04	1	U	U	1	ug/L
HAA 15A	9/28/2004	CADMIUM	0.04	1	J		0.053	ug/L
HAA 15D	3/15/2004	CADMIUM	0.04	1	U	U	1	ug/L
HAA 15D	9/28/2004	CADMIUM	0.04	1	U		1	ug/L
HTF 12D	3/16/2004	CADMIUM	0.04	1	U	U	1	ug/L
HTF 12D	9/28/2004	CADMIUM	0.04	1	J		0.054	ug/L
HTF 15D	3/16/2004	CADMIUM	0.04	1	J	J	0.147	ug/L
HTF 15D	9/28/2004	CADMIUM	0.04	1	J		0.191	ug/L
HAA 5D	3/16/2004	CARBON TETRACHLORIDE	0.29	1		J	1.72	ug/L
HAA 5D	9/28/2004	CARBON TETRACHLORIDE	0.29	1			2.57	ug/L
HAA 9AR	3/11/2004	CARBON TETRACHLORIDE	0.29	1	U	UJ	1	ug/L
HAA 9AR	9/22/2004	CARBON TETRACHLORIDE	0.29	1	U		1	ug/L
HAA 9D	3/11/2004	CARBON TETRACHLORIDE	0.29	1	U	UJ	1	ug/L
HAA 9D	9/22/2004	CARBON TETRACHLORIDE	0.29	1	U		1	ug/L
HAA 11A	3/11/2004	CARBON TETRACHLORIDE	0.29	1	U	UJ	1	ug/L
HAA 11A	9/22/2004	CARBON TETRACHLORIDE	0.29	1	U		1	ug/L
HAA 11D	3/11/2004	CARBON TETRACHLORIDE	0.29	1	U	UJ	1	ug/L
HAA 11D	9/22/2004	CARBON TETRACHLORIDE	0.29	1	U		1	ug/L
HAA 12A	3/11/2004	CARBON TETRACHLORIDE	0.29	1	U	UJ	1	ug/L
HAA 12A	9/22/2004	CARBON TETRACHLORIDE	0.29	1	U		1	ug/L
HAA 12D	3/11/2004	CARBON TETRACHLORIDE	0.29	1	U	UJ	1	ug/L
HAA 12D	9/22/2004	CARBON TETRACHLORIDE	0.14	5	U		5	ug/L
HAA 12D	9/22/2004	CARBON TETRACHLORIDE	0.29	1	U		1	ug/L
HAA 13A	9/29/2004	CARBON TETRACHLORIDE	0.29	1	U		1	ug/L
HAA 13D	3/16/2004	CARBON TETRACHLORIDE	0.29	1	U	UJ	1	ug/L
HAA 13D	9/22/2004	CARBON TETRACHLORIDE	0.29	1	U		1	ug/L
HAA 14A	3/15/2004	CARBON TETRACHLORIDE	0.29	1	U	UJ	1	ug/L
HAA 14A	9/27/2004	CARBON TETRACHLORIDE	0.29	1	U		1	ug/L
HAA 14D	3/15/2004	CARBON TETRACHLORIDE	0.29	1	U	UJ	1	ug/L
HAA 14D	9/27/2004	CARBON TETRACHLORIDE	0.14	5	U		5	ug/L
HAA 14D	9/27/2004	CARBON TETRACHLORIDE	0.29	1	U		1	ug/L
HAA 15A	3/15/2004	CARBON TETRACHLORIDE	0.29	1	U	UJ	1	ug/L
HAA 15A	9/28/2004	CARBON TETRACHLORIDE	0.29	1	U		1	ug/L
HAA 15D	3/15/2004	CARBON TETRACHLORIDE	0.29	1	U	UJ	1	ug/L
HAA 15D	9/28/2004	CARBON TETRACHLORIDE	0.29	1	U		1	ug/L
HTF 12D	3/16/2004	CARBON TETRACHLORIDE	0.29	1	U	UJ	1	ug/L
HTF 12D	9/28/2004	CARBON TETRACHLORIDE	0.29	1	U		1	ug/L
HTF 15D	3/16/2004	CARBON TETRACHLORIDE	0.29	1	U	UJ	1	ug/L
HTF 15D	9/28/2004	CARBON TETRACHLORIDE	0.29	1	U		1	ug/L
FTF 15	8/18/2004	CHROMIUM	1	10	J		3.074	ug/L
FTF 15	8/18/2004	CHROMIUM	1	10	J		2.88	ug/L
FTF 16	8/18/2004	CHROMIUM	1	10	U		10	ug/L
FTF 17	8/18/2004	CHROMIUM	1	10	U		10	ug/L
FTF 18	8/31/2004	CHROMIUM	1	10	U		10	ug/L
FTF 19	8/18/2004	CHROMIUM	1	10	U		10	ug/L
FTF 20	8/18/2004	CHROMIUM	1	10	J		1.144	ug/L
FTF 21	8/18/2004	CHROMIUM	1	10	J		7.935	ug/L
FTF 22	8/18/2004	CHROMIUM	1	10	J		2.012	ug/L
FTF 23	8/18/2004	CHROMIUM	1	10	J		2.027	ug/L
FTF 28	9/30/2004	CHROMIUM	1	10	J		2.993	ug/L
FTF 29	8/19/2004	CHROMIUM	1	10	J		1.64	ug/L
HAA 4A	8/11/2004	CHROMIUM	1	10	J		3.038	ug/L
HAA 4A	8/11/2004	CHROMIUM	1	10	J		2.898	ug/L

APPENDIX A
MONITORING DATA

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WELL	DATE	ANALYTE_NAME	MDL	PQL	LAB_QUALIFIER	EPA_CODE	RESULT	UNITS
HAA 4B	8/11/2004	CHROMIUM	1	10 J			3.629	ug/L
HAA 7A	8/10/2004	CHROMIUM	1	10 J			3.085	ug/L
HAA 7B	8/10/2004	CHROMIUM	1	10 J			3.572	ug/L
HAA 7D	8/10/2004	CHROMIUM	1	10 J			1.826	ug/L
HAA 8A	8/10/2004	CHROMIUM	1	10 J			3.145	ug/L
HAA 8B	8/10/2004	CHROMIUM	1	10 J			4.066	ug/L
HAA 8D	8/10/2004	CHROMIUM	1	10 J			1.675	ug/L
HAA 9AR	8/10/2004	CHROMIUM	1	10 J			2.235	ug/L
HAA 9B	8/10/2004	CHROMIUM	1	10			10.59	ug/L
HAA 10AR	8/10/2004	CHROMIUM	1	10 J			2.141	ug/L
HAA 10B	8/10/2004	CHROMIUM	1	10 J			6.045	ug/L
HAA 10D	8/10/2004	CHROMIUM	1	10 J			1.034	ug/L
HTF 12D	8/25/2004	CHROMIUM	1	10 J			2.548	ug/L
HTF 15D	8/25/2004	CHROMIUM	1	10 U			10	ug/L
HTF 18	8/25/2004	CHROMIUM	1	10 U			10	ug/L
HTF 18	8/25/2004	CHROMIUM	1	10 U			10	ug/L
HTF 19	8/25/2004	CHROMIUM	1	10 U			10	ug/L
HTF 20	8/25/2004	CHROMIUM	1	10 J			1.401	ug/L
HTF 21	8/25/2004	CHROMIUM	1	10 U			10	ug/L
HTF 24	8/26/2004	CHROMIUM	1	10 U			10	ug/L
HTF 31	8/26/2004	CHROMIUM	1	10 U			10	ug/L
HTF 32	8/25/2004	CHROMIUM	1	10 U			10	ug/L
FTF 13	8/18/2004	DEPTH TO WATER					63.9	ft
FTF 15	8/18/2004	DEPTH TO WATER					64.1	ft
FTF 16	8/18/2004	DEPTH TO WATER					67.6	ft
FTF 17	8/18/2004	DEPTH TO WATER					68.8	ft
FTF 18	8/31/2004	DEPTH TO WATER					67.5	ft
FTF 19	8/18/2004	DEPTH TO WATER					67.2	ft
FTF 20	8/18/2004	DEPTH TO WATER					67.5	ft
FTF 21	8/18/2004	DEPTH TO WATER					66.9	ft
FTF 22	8/18/2004	DEPTH TO WATER					67.3	ft
FTF 23	8/18/2004	DEPTH TO WATER					66.4	ft
FTF 28	8/19/2004	DEPTH TO WATER					85.2	ft
FTF 29	8/19/2004	DEPTH TO WATER					87.8	ft
HAA 4A	8/11/2004	DEPTH TO WATER					128.1	ft
HAA 4B	8/11/2004	DEPTH TO WATER					53.3	ft
HAA 4D	8/11/2004	DEPTH TO WATER					32.1	ft
HAA 5D	3/16/2004	DEPTH TO WATER					24.5	ft
HAA 5D	9/28/2004	DEPTH TO WATER					25.5	ft
HAA 7A	8/10/2004	DEPTH TO WATER					116.4	ft
HAA 7B	8/10/2004	DEPTH TO WATER					40.1	ft
HAA 7D	8/10/2004	DEPTH TO WATER					27.3	ft
HAA 8A	8/10/2004	DEPTH TO WATER					117.6	ft
HAA 8B	8/10/2004	DEPTH TO WATER					40.6	ft
HAA 8D	8/10/2004	DEPTH TO WATER					23.6	ft
HAA 9AR	3/11/2004	DEPTH TO WATER					110.5	ft
HAA 9AR	8/10/2004	DEPTH TO WATER					ft	
HAA 9AR	9/22/2004	DEPTH TO WATER					111.5	ft
HAA 9B	8/10/2004	DEPTH TO WATER					35.1	ft
HAA 9D	3/11/2004	DEPTH TO WATER					20.9	ft
HAA 9D	8/10/2004	DEPTH TO WATER					23	ft
HAA 9D	9/22/2004	DEPTH TO WATER					21.2	ft
HAA 10AR	8/10/2004	DEPTH TO WATER					17.1	ft
HAA 10B	8/10/2004	DEPTH TO WATER					38.3	ft
HAA 10D	8/10/2004	DEPTH TO WATER					22.4	ft
HAA 11A	3/11/2004	DEPTH TO WATER					19.7	ft
HAA 11A	9/22/2004	DEPTH TO WATER					120.6	ft
HAA 11D	3/11/2004	DEPTH TO WATER					27	ft
HAA 11D	9/22/2004	DEPTH TO WATER					27.2	ft
HAA 12A	3/11/2004	DEPTH TO WATER					128	ft
HAA 12A	9/22/2004	DEPTH TO WATER					129.15	ft
HAA 12D	3/11/2004	DEPTH TO WATER					34.3	ft
HAA 12D	9/22/2004	DEPTH TO WATER					34.25	ft
HAA 13A	3/11/2004	DEPTH TO WATER					132.15	ft
HAA 13A	3/29/2004	DEPTH TO WATER					127.45	ft
HAA 13A	9/29/2004	DEPTH TO WATER					133	ft
HAA 13A	9/29/2004	DEPTH TO WATER					133	ft
HAA 13D	3/15/2004	DEPTH TO WATER					37.6	ft
HAA 13D	3/16/2004	DEPTH TO WATER					37.6	ft
HAA 13D	9/22/2004	DEPTH TO WATER					36	ft
HAA 14A	3/15/2004	DEPTH TO WATER					133.3	ft
HAA 14A	9/27/2004	DEPTH TO WATER					133.8	ft
HAA 14D	3/15/2004	DEPTH TO WATER					38.6	ft
HAA 14D	9/27/2004	DEPTH TO WATER					38.6	ft
HAA 15A	3/15/2004	DEPTH TO WATER					135.65	ft
HAA 15A	9/28/2004	DEPTH TO WATER					136.3	ft
HAA 15D	3/15/2004	DEPTH TO WATER					40.45	ft
HAA 15D	9/28/2004	DEPTH TO WATER					40.9	ft
HTF 1	8/24/2004	DEPTH TO WATER					11	ft
HTF 10	8/24/2004	DEPTH TO WATER					51.7	ft
HTF 11	8/24/2004	DEPTH TO WATER					57.3	ft
HTF 11	8/26/2004	DEPTH TO WATER					11	ft
HTF 12D	3/16/2004	DEPTH TO WATER					50.5	ft
HTF 12D	8/25/2004	DEPTH TO WATER					52.1	ft
HTF 12D	9/28/2004	DEPTH TO WATER					50.8	ft
HTF 15D	3/16/2004	DEPTH TO WATER					50.6	ft
HTF 15D	8/25/2004	DEPTH TO WATER					52.3	ft
HTF 15D	9/28/2004	DEPTH TO WATER					50.95	ft
HTF 18	8/25/2004	DEPTH TO WATER					53.5	ft
HTF 19	8/25/2004	DEPTH TO WATER					57	ft
HTF 2	8/24/2004	DEPTH TO WATER					9.2	ft
HTF 20	8/25/2004	DEPTH TO WATER					57.8	ft
HTF 21	8/25/2004	DEPTH TO WATER					56	ft

APPENDIX A
MONITORING DATA

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WELL	DATE	ANALYTE_NAME	MDL	PQL	LAB_QUALIFIER	EPA_CODE	RESULT	UNITS
HTF 22	8/26/2004	DEPTH TO WATER					60.2	ft
HTF 23	8/26/2004	DEPTH TO WATER					61.9	ft
HTF 24	8/26/2004	DEPTH TO WATER					62.3	ft
HTF 3	9/1/2004	DEPTH TO WATER					11.2	ft
HTF 31	8/26/2004	DEPTH TO WATER					56	ft
HTF 32	8/25/2004	DEPTH TO WATER					57.3	ft
HTF 34	8/31/2004	DEPTH TO WATER					32	ft
HTF 5	9/1/2004	DEPTH TO WATER					39.2	ft
HTF 6	9/1/2004	DEPTH TO WATER					39	ft
HTF 8	8/31/2004	DEPTH TO WATER					38.2	ft
FTF 15	8/18/2004	GROSS ALPHA	1.65	5.08	J		2.95	pCi/L
FTF 15	8/18/2004	GROSS ALPHA	1.66	4.91	J		2.57	pCi/L
FTF 16	8/18/2004	GROSS ALPHA	1.65	4.54	J		1.93	pCi/L
FTF 17	8/18/2004	GROSS ALPHA	1.75	5.98	J		4.47	pCi/L
FTF 18	8/31/2004	GROSS ALPHA	4.01	14.3	J		11.7	pCi/L
FTF 18	8/31/2004	GROSS ALPHA	4.02	11.4	J		5.15	pCi/L
FTF 19	8/18/2004	GROSS ALPHA	1.75	6.93			6.97	pCi/L
FTF 20	8/18/2004	GROSS ALPHA	1.76	6	J		4.46	pCi/L
FTF 21	8/18/2004	GROSS ALPHA	7.02	15.1	U		1.77	pCi/L
FTF 22	8/18/2004	GROSS ALPHA	1.81	4.57	U		1.43	pCi/L
FTF 23	8/18/2004	GROSS ALPHA	1.75	4.69	J		1.82	pCi/L
FTF 28	9/30/2004	GROSS ALPHA	2.73	5.41	U		-0.101	pCi/L
FTF 28	9/30/2004	GROSS ALPHA	2.74	6.65	U		1.04	pCi/L
FTF 29	8/19/2004	GROSS ALPHA	2.41	4.59	U		-0.0243	pCi/L
HAA 4A	8/11/2004	GROSS ALPHA	5.2	10.8	U		1.32	pCi/L
HAA 4B	8/11/2004	GROSS ALPHA	5.19	8.28	U		-1.03	pCi/L
HAA 4B	8/11/2004	GROSS ALPHA	5.21	9.77	U		0.145	pCi/L
HAA 4D	8/11/2004	GROSS ALPHA	5.89	22.7			24.1	pCi/L
HAA 7A	8/10/2004	GROSS ALPHA	4.95	11.9	U		3.49	pCi/L
HAA 7B	8/10/2004	GROSS ALPHA	4.98	8.71	U		-0.424	pCi/L
HAA 7D	8/10/2004	GROSS ALPHA	4.88	14.4	J		8.39	pCi/L
HAA 8A	8/10/2004	GROSS ALPHA	5.04	9.44	U		0.138	pCi/L
HAA 8B	8/10/2004	GROSS ALPHA	4.84	7.73	U		-0.958	pCi/L
HAA 8D	8/10/2004	GROSS ALPHA	4.81	10	U		1.22	pCi/L
HAA 9AR	8/10/2004	GROSS ALPHA	7.06	14	U		0.973	pCi/L
HAA 9B	8/10/2004	GROSS ALPHA	5.45	11.8	U		2	pCi/L
HAA 9D	3/11/2004	GROSS ALPHA	0.423	0.929	U	U	0.358	pCi/L
HAA 9D	8/10/2004	GROSS ALPHA	5.15	10.2	U		0.723	pCi/L
HAA 10AR	8/10/2004	GROSS ALPHA	4.95	8.65	U		-0.422	pCi/L
HAA 10B	8/10/2004	GROSS ALPHA	5.21	10.9	U		1.32	pCi/L
HAA 10D	8/10/2004	GROSS ALPHA	5	10.9	U		1.82	pCi/L
HTF 1	8/24/2004	GROSS ALPHA	5.46	16.1	J		9.08	pCi/L
HTF 1	8/24/2004	GROSS ALPHA	5.55	16.6	J		9.86	pCi/L
HTF 2	8/24/2004	GROSS ALPHA	5.56	11.7	U		1.53	pCi/L
HTF 3	9/1/2004	GROSS ALPHA	4.21	13.6	J		7.96	pCi/L
HTF 3	9/1/2004	GROSS ALPHA	4.29	12.1	J		4.72	pCi/L
HTF 4	8/26/2004	GROSS ALPHA	3.7	8.62	U		1.88	pCi/L
HTF 4	8/26/2004	GROSS ALPHA	3.81	7.64	U		0.764	pCi/L
HTF 6	9/1/2004	GROSS ALPHA	3.84	13.5	J		8.66	pCi/L
HTF 10	8/24/2004	GROSS ALPHA	5.34	14.5	J		6.41	pCi/L
HTF 11	8/24/2004	GROSS ALPHA	4.74	10.4	U		1.85	pCi/L
HTF 12D	8/25/2004	GROSS ALPHA	4.14	10.8	U		3.8	pCi/L
HTF 12D	8/25/2004	GROSS ALPHA	4.24	12.3	J		6.03	pCi/L
HTF 15D	8/25/2004	GROSS ALPHA	4.62	9.93	U		1.38	pCi/L
HTF 18	8/25/2004	GROSS ALPHA	3.92	11.6	J		5.95	pCi/L
HTF 19	8/25/2004	GROSS ALPHA	3.91	11	J		4.96	pCi/L
HTF 20	8/25/2004	GROSS ALPHA	3.93	11.9	J		6.58	pCi/L
HTF 21	8/25/2004	GROSS ALPHA	3.93	13.2	J		9.49	pCi/L
HTF 22	8/26/2004	GROSS ALPHA	2.79	7.53	U		2.69	pCi/L
HTF 23	8/26/2004	GROSS ALPHA	2.66	8	J		3.8	pCi/L
HTF 24	8/26/2004	GROSS ALPHA	2.5	6.74	U		2.42	pCi/L
HTF 31	8/26/2004	GROSS ALPHA	2.51	8.44	J		5.14	pCi/L
HTF 32	8/25/2004	GROSS ALPHA	2.53	5.07	U		0.508	pCi/L
HTF 32	8/25/2004	GROSS ALPHA	3.93	11.1	J		5.12	pCi/L
HTF 34	8/31/2004	GROSS ALPHA	1.85				3.35	pCi/L
HAA 5D	3/16/2004	LEAD	0.05	2	J	U	1.91	ug/L
HAA 5D	9/28/2004	LEAD	0.05	2	J		0.876	ug/L
HAA 9AR	3/11/2004	LEAD	0.05	2	J	U	0.624	ug/L
HAA 9AR	9/22/2004	LEAD	0.05	2	J		0.343	ug/L
HAA 9D	3/11/2004	LEAD	0.05	2	UJ	U	0.359	ug/L
HAA 9D	9/22/2004	LEAD	0.05	2	J		0.689	ug/L
HAA 11A	3/11/2004	LEAD	0.05	2			4.32	ug/L
HAA 11A	9/22/2004	LEAD	0.05	2	J		0.839	ug/L
HAA 11D	3/11/2004	LEAD	0.05	2	UJ	U	0.355	ug/L
HAA 11D	9/22/2004	LEAD	0.05	2	J		0.446	ug/L
HAA 12A	3/11/2004	LEAD	0.05	2	UJ	U	0.332	ug/L
HAA 12A	9/22/2004	LEAD	0.05	2			5.35	ug/L
HAA 12D	3/11/2004	LEAD	0.05	2			201	ug/L
HAA 12D	9/22/2004	LEAD	0.05	2			4.2	ug/L
HAA 12D	9/22/2004	LEAD	1.1	3			56.7	ug/L
HAA 13A	9/29/2004	LEAD	0.05	2	J		0.289	ug/L
HAA 13D	3/16/2004	LEAD	0.05	2			18.3	ug/L
HAA 13D	9/22/2004	LEAD	0.05	2			2.53	ug/L
HAA 14A	3/15/2004	LEAD	0.05	2	J	U	1.13	ug/L
HAA 14A	9/27/2004	LEAD	0.05	2	J		1.87	ug/L
HAA 14D	3/15/2004	LEAD	0.05	2			3990	ug/L
HAA 14D	9/27/2004	LEAD	0.05	2			5.42	ug/L
HAA 14D	9/27/2004	LEAD	1.1	3	J		2.5	ug/L
HAA 15A	3/15/2004	LEAD	0.05	2	J	U	0.445	ug/L
HAA 15A	9/28/2004	LEAD	0.05	2			37.7	ug/L
HAA 15D	3/15/2004	LEAD	0.05	2			3.3	ug/L
HAA 15D	9/28/2004	LEAD	0.05	2			2.78	ug/L
HTF 12D	3/16/2004	LEAD	0.05	2	J	U	0.526	ug/L

APPENDIX A
MONITORING DATA

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WELL	DATE	ANALYTE_NAME	MDL	PQL	LAB_QUALIFIER	EPA_CODE	RESULT	UNITS
HTF 12D	9/28/2004	LEAD	0.05	2	J		0.499	ug/L
HTF 15D	3/16/2004	LEAD	0.05	2	J	U	0.481	ug/L
HTF 15D	9/28/2004	LEAD	0.05	2	J		0.389	ug/L
HAA 5D	3/16/2004	METHYL ETHYL KETONE	2.31	5	U	UJ	5	ug/L
HAA 5D	9/28/2004	METHYL ETHYL KETONE	2.31	5	U		5	ug/L
HAA 9AR	3/11/2004	METHYL ETHYL KETONE	2.31	5	U	UJ	5	ug/L
HAA 9AR	9/22/2004	METHYL ETHYL KETONE	2.31	5	U		5	ug/L
HAA 9D	3/11/2004	METHYL ETHYL KETONE	2.31	5	U	UJ	5	ug/L
HAA 9D	9/22/2004	METHYL ETHYL KETONE	2.31	5	U		5	ug/L
HAA 11A	3/11/2004	METHYL ETHYL KETONE	2.31	5	U	UJ	5	ug/L
HAA 11A	9/22/2004	METHYL ETHYL KETONE	2.31	5	U		5	ug/L
HAA 11D	3/11/2004	METHYL ETHYL KETONE	2.31	5	U	UJ	5	ug/L
HAA 11D	9/22/2004	METHYL ETHYL KETONE	2.31	5	U		5	ug/L
HAA 12A	3/11/2004	METHYL ETHYL KETONE	2.31	5	U	UJ	5	ug/L
HAA 12A	9/22/2004	METHYL ETHYL KETONE	2.31	5	U		5	ug/L
HAA 12D	3/11/2004	METHYL ETHYL KETONE	2.31	5	U	UJ	5	ug/L
HAA 12D	9/22/2004	METHYL ETHYL KETONE	2.31	5	U		5	ug/L
HAA 13A	9/29/2004	METHYL ETHYL KETONE	2.31	5	U		5	ug/L
HAA 13D	3/16/2004	METHYL ETHYL KETONE	2.31	5	U	UJ	5	ug/L
HAA 13D	9/22/2004	METHYL ETHYL KETONE	2.31	5	U		5	ug/L
HAA 14A	3/15/2004	METHYL ETHYL KETONE	2.31	5	U	UJ	5	ug/L
HAA 14A	9/27/2004	METHYL ETHYL KETONE	2.31	5	U		5	ug/L
HAA 14D	3/15/2004	METHYL ETHYL KETONE	2.31	5	U	UJ	5	ug/L
HAA 14D	9/27/2004	METHYL ETHYL KETONE	2.31	5	U		5	ug/L
HAA 15A	3/15/2004	METHYL ETHYL KETONE	2.31	5	U	UJ	5	ug/L
HAA 15A	9/28/2004	METHYL ETHYL KETONE	2.31	5	U		5	ug/L
HAA 15D	3/15/2004	METHYL ETHYL KETONE	2.31	5	U	UJ	5	ug/L
HAA 15D	9/28/2004	METHYL ETHYL KETONE	2.31	5	U		5	ug/L
HTF 12D	3/16/2004	METHYL ETHYL KETONE	2.31	5	U	UJ	5	ug/L
HTF 12D	9/28/2004	METHYL ETHYL KETONE	2.31	5	U		5	ug/L
HTF 15D	3/16/2004	METHYL ETHYL KETONE	2.31	5	U	UJ	5	ug/L
HTF 15D	9/28/2004	METHYL ETHYL KETONE	2.31	5	U		5	ug/L
FSL 11C	2/9/2004	NONVOLATILE BETA	1.9	16.6			172	pCi/L
FSL 11C	4/21/2004	NONVOLATILE BETA	7.6	35.8			88.7	pCi/L
FSL 11C	4/21/2004	NONVOLATILE BETA	7.6	34.5			80.5	pCi/L
FSL 11C	7/26/2004	NONVOLATILE BETA	9	31.4			78.7	pCi/L
FSL 11C	10/28/2004	NONVOLATILE BETA	9.1	30.4			67.4	pCi/L
FTF 15	8/18/2004	NONVOLATILE BETA	3.5	8.17	U		3.04	pCi/L
FTF 15	8/18/2004	NONVOLATILE BETA	3.51	7.84	U		1.56	pCi/L
FTF 16	8/18/2004	NONVOLATILE BETA	3.5	7.91	U		2.01	pCi/L
FTF 17	8/18/2004	NONVOLATILE BETA	3.58	7.98	U		1.26	pCi/L
FTF 18	8/31/2004	NONVOLATILE BETA	8.39	20.1	J		8.88	pCi/L
FTF 18	8/31/2004	NONVOLATILE BETA	8.4	20.4	J		10.9	pCi/L
FTF 19	8/18/2004	NONVOLATILE BETA	3.57	9.5	J		8.54	pCi/L
FTF 20	8/18/2004	NONVOLATILE BETA	3.58	8.31	U		2.7	pCi/L
FTF 21	8/18/2004	NONVOLATILE BETA	10.3	26.8	J		23.8	pCi/L
FTF 22	8/18/2004	NONVOLATILE BETA	3.62	8.33	U		2.82	pCi/L
FTF 23	8/18/2004	NONVOLATILE BETA	3.57	8.23	U		2.73	pCi/L
FTF 28	9/30/2004	NONVOLATILE BETA	6.41	30.9			123	pCi/L
FTF 28	9/30/2004	NONVOLATILE BETA	6.42	32.6			141	pCi/L
FTF 29	8/19/2004	NONVOLATILE BETA	3.96	10.6			10.9	pCi/L
HAA 4A	8/11/2004	NONVOLATILE BETA	10.3	21.8	U		-0.0739	pCi/L
HAA 4B	8/11/2004	NONVOLATILE BETA	10.3	22	U		0.93	pCi/L
HAA 4B	8/11/2004	NONVOLATILE BETA	10.4	22.3	U		1.82	pCi/L
HAA 4D	8/11/2004	NONVOLATILE BETA	10.8	30.8			40.3	pCi/L
HAA 5D	3/16/2004	NONVOLATILE BETA	1.13	2.292	U	U	0.327	pCi/L
HAA 5D	9/28/2004	NONVOLATILE BETA	8.53	18.3	U		1.5	pCi/L
HAA 5D	9/28/2004	NONVOLATILE BETA	8.53	18.1	U		0.0272	pCi/L
HAA 7A	8/10/2004	NONVOLATILE BETA	10.2	22.6	U		4.44	pCi/L
HAA 7B	8/10/2004	NONVOLATILE BETA	10.2	20.8	U		-2.61	pCi/L
HAA 7D	8/10/2004	NONVOLATILE BETA	10.1	23.3	U		7.5	pCi/L
HAA 8A	8/10/2004	NONVOLATILE BETA	10.2	23.8	U		10.1	pCi/L
HAA 8B	8/10/2004	NONVOLATILE BETA	10.1	21.2	U		-0.116	pCi/L
HAA 8D	8/10/2004	NONVOLATILE BETA	10	21.7	U		1.97	pCi/L
HAA 9AR	3/11/2004	NONVOLATILE BETA	1.14	2.544			4.17	pCi/L
HAA 9AR	8/10/2004	NONVOLATILE BETA	11.4	36.1			72.7	pCi/L
HAA 9AR	9/22/2004	NONVOLATILE BETA	8.58	20.1	U		7.92	pCi/L
HAA 9AR	9/22/2004	NONVOLATILE BETA	8.6	20.2	J		8.93	pCi/L
HAA 9B	8/10/2004	NONVOLATILE BETA	10.5	22.6	U		1.27	pCi/L
HAA 9D	3/11/2004	NONVOLATILE BETA	1.11	2.252	U	U	0.352	pCi/L
HAA 9D	3/11/2004	NONVOLATILE BETA	1.29	2.604	U		0.189	pCi/L
HAA 9D	8/10/2004	NONVOLATILE BETA	10.3	22.1	U		1.39	pCi/L
HAA 9D	9/22/2004	NONVOLATILE BETA	8.49	18.8	U		2.82	pCi/L
HAA 10AR	8/10/2004	NONVOLATILE BETA	10.2	21.6	U		0.839	pCi/L
HAA 10B	8/10/2004	NONVOLATILE BETA	10.3	21.7	U		-0.774	pCi/L
HAA 10D	8/10/2004	NONVOLATILE BETA	10.2	23	U		6.05	pCi/L
HAA 11A	3/11/2004	NONVOLATILE BETA	1.34	2.868			3.07	pCi/L
HAA 11A	9/22/2004	NONVOLATILE BETA	8.61	19	U		3.69	pCi/L
HAA 11D	3/11/2004	NONVOLATILE BETA	1	2.044	U	U	0.536	pCi/L
HAA 11D	9/22/2004	NONVOLATILE BETA	8.47	18.2	U		1.32	pCi/L
HAA 12A	3/11/2004	NONVOLATILE BETA	1.27	3.39			15.1	pCi/L
HAA 12A	9/22/2004	NONVOLATILE BETA	10.2	26.2	J		20	pCi/L
HAA 12D	3/11/2004	NONVOLATILE BETA	1.09	2.286	J	J	1.58	pCi/L
HAA 12D	9/22/2004	NONVOLATILE BETA	8.43	18	U		1	pCi/L
HAA 12D	9/22/2004	NONVOLATILE BETA	8.47	17.9	U		0.261	pCi/L
HAA 13A	9/29/2004	NONVOLATILE BETA	10.4	23.2	U		4.82	pCi/L
HAA 13A	9/29/2004	NONVOLATILE BETA	10.5	24.1	U		8.16	pCi/L
HAA 13D	3/16/2004	NONVOLATILE BETA	1.03	2.148	J	J	1.2	pCi/L
HAA 13D	9/22/2004	NONVOLATILE BETA	8.45	18.3	U		2.31	pCi/L
HAA 14A	3/15/2004	NONVOLATILE BETA	0.605	1.281	J	J	0.657	pCi/L
HAA 14A	9/27/2004	NONVOLATILE BETA	8.92	19.3	U		1.42	pCi/L
HAA 14A	9/27/2004	NONVOLATILE BETA	8.94	18.9	U		0.0408	pCi/L
HAA 14D	3/15/2004	NONVOLATILE BETA	0.537	1.155	J	J	0.668	pCi/L

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WELL	DATE	ANALYTE_NAME	MDL	PQL	LAB_QUALIFIER	EPA_CODE	RESULT	UNITS
HAA 14D	9/27/2004	NONVOLATILE BETA	8.87	18.9	U		0.122	pCi/L
HAA 14D	9/27/2004	NONVOLATILE BETA	8.87	18.7	U		-0.342	pCi/L
HAA 15A	3/15/2004	NONVOLATILE BETA	0.748	2.636			17.8	pCi/L
HAA 15A	9/28/2004	NONVOLATILE BETA	9.76	29.4			45.9	pCi/L
HAA 15D	3/15/2004	NONVOLATILE BETA	0.703	1.373	U	U	-0.295	pCi/L
HAA 15D	9/28/2004	NONVOLATILE BETA	8.47	18.3	U		1.95	pCi/L
HTF 1	8/24/2004	NONVOLATILE BETA	10.3	27.3	J		26.4	pCi/L
HTF 1	8/24/2004	NONVOLATILE BETA	10.4	26.5	J		20.9	pCi/L
HTF 2	8/24/2004	NONVOLATILE BETA	10.4	25.1	J		14.5	pCi/L
HTF 3	9/1/2004	NONVOLATILE BETA	8.74	28			52	pCi/L
HTF 3	9/1/2004	NONVOLATILE BETA	8.8	28.4			54.1	pCi/L
HTF 4	8/26/2004	NONVOLATILE BETA	7.23	15.8	U		2.35	pCi/L
HTF 4	8/26/2004	NONVOLATILE BETA	7.29	16.3	U		3.81	pCi/L
HTF 6	9/1/2004	NONVOLATILE BETA	8.46	37			142	pCi/L
HTF 10	8/24/2004	NONVOLATILE BETA	10.2	22.8	U		4.34	pCi/L
HTF 11	8/24/2004	NONVOLATILE BETA	9.79	21.8	U		4.68	pCi/L
HTF 12D	3/16/2004	NONVOLATILE BETA	1.38	2.936	J	J	2.72	pCi/L
HTF 12D	8/25/2004	NONVOLATILE BETA	8.77	20.2	U		6.76	pCi/L
HTF 12D	8/25/2004	NONVOLATILE BETA	8.84	19.9	U		4.64	pCi/L
HTF 12D	9/28/2004	NONVOLATILE BETA	9.37	21.4	U		6.32	pCi/L
HTF 15D	3/16/2004	NONVOLATILE BETA	1.39	2.98			3.34	pCi/L
HTF 15D	8/25/2004	NONVOLATILE BETA	9.11	20.2	U		4	pCi/L
HTF 15D	9/28/2004	NONVOLATILE BETA	9.1	20.4	U		4.62	pCi/L
HTF 18	8/25/2004	NONVOLATILE BETA	8.59	21.4	J		14.2	pCi/L
HTF 19	8/25/2004	NONVOLATILE BETA	8.58	21.3	J		13.9	pCi/L
HTF 20	8/25/2004	NONVOLATILE BETA	8.6	19.4	U		4.39	pCi/L
HTF 21	8/25/2004	NONVOLATILE BETA	8.59	19.9	U		6.55	pCi/L
HTF 22	8/26/2004	NONVOLATILE BETA	6.59	15.7	J		6.68	pCi/L
HTF 23	8/26/2004	NONVOLATILE BETA	6.48	14.9	U		4.05	pCi/L
HTF 24	8/26/2004	NONVOLATILE BETA	6.33	13.3	U		0.18	pCi/L
HTF 31	8/26/2004	NONVOLATILE BETA	6.35	14.3	U		2.88	pCi/L
HTF 32	8/25/2004	NONVOLATILE BETA	6.36	13.7	U		1.62	pCi/L
HTF 32	8/25/2004	NONVOLATILE BETA	8.6	19.1	U		3.31	pCi/L
HTF 34	8/31/2004	NONVOLATILE BETA	3.61				10.2	pCi/L
FTF 15	8/18/2004	PH					5	pH
FTF 16	8/18/2004	PH					4.8	pH
FTF 17	8/18/2004	PH					5	pH
FTF 18	8/31/2004	PH					4.9	pH
FTF 19	8/18/2004	PH					5.4	pH
FTF 20	8/18/2004	PH					5.2	pH
FTF 21	8/18/2004	PH					11.2	pH
FTF 22	8/18/2004	PH					5.7	pH
FTF 23	8/18/2004	PH					4.8	pH
FTF 29	8/19/2004	PH					8	pH
HAA 4A	8/11/2004	PH					7.4	pH
HAA 4B	8/11/2004	PH					7.3	pH
HAA 4D	8/11/2004	PH					4.6	pH
HAA 5D	3/16/2004	PH					5.2	pH
HAA 5D	9/28/2004	PH					5.3	pH
HAA 7A	8/10/2004	PH					6.8	pH
HAA 7B	8/10/2004	PH					5.8	pH
HAA 7D	8/10/2004	PH					4.6	pH
HAA 8A	8/10/2004	PH					7.6	pH
HAA 8B	8/10/2004	PH					5.5	pH
HAA 8D	8/10/2004	PH					4.8	pH
HAA 9AR	3/11/2004	PH					7.7	pH
HAA 9AR	8/10/2004	PH					10.2	pH
HAA 9AR	9/22/2004	PH					7.3	pH
HAA 9B	8/10/2004	PH					7.9	pH
HAA 9D	3/11/2004	PH					5.6	pH
HAA 9D	8/10/2004	PH					5.4	pH
HAA 9D	9/22/2004	PH					4.8	pH
HAA 10AR	8/10/2004	PH					6.4	pH
HAA 10B	8/10/2004	PH					6.6	pH
HAA 10D	8/10/2004	PH					4.8	pH
HAA 11A	3/11/2004	PH					6.3	pH
HAA 11A	9/22/2004	PH					5.2	pH
HAA 11D	3/11/2004	PH					5.1	pH
HAA 11D	9/22/2004	PH					4	pH
HAA 12A	3/11/2004	PH					11.5	pH
HAA 12A	9/22/2004	PH					11.8	pH
HAA 12D	3/11/2004	PH					5	pH
HAA 12D	9/22/2004	PH					5	pH
HAA 13A	3/11/2004	PH					0	pH
HAA 13A	3/29/2004	PH					0	pH
HAA 13A	9/29/2004	PH					0	pH
HAA 13A	9/29/2004	PH					7.6	pH
HAA 13D	3/15/2004	PH					0	pH
HAA 13D	3/16/2004	PH					4.5	pH
HAA 13D	9/22/2004	PH					6	pH
HAA 14A	3/15/2004	PH					5.9	pH
HAA 14A	9/27/2004	PH					5.9	pH
HAA 14D	3/15/2004	PH					4.4	pH
HAA 14D	9/27/2004	PH					4.8	pH
HAA 15A	3/15/2004	PH					11.4	pH
HAA 15A	9/28/2004	PH					11.4	pH
HAA 15D	3/15/2004	PH					4.6	pH
HAA 15D	9/28/2004	PH					4.8	pH
HTF 1	8/24/2004	PH					6.3	pH
HTF 10	8/24/2004	PH					5.9	pH
HTF 11	8/24/2004	PH					5	pH
HTF 11	8/26/2004	PH					6.4	pH
HTF 12D	3/16/2004	PH					10.6	pH

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WELL	DATE	ANALYTE_NAME	MDL	PQL	LAB_QUALIFIER	EPA_CODE	RESULT	UNITS
HTF 12D	8/25/2004	PH					5.9	pH
HTF 12D	9/28/2004	PH					10.5	pH
HTF 15D	3/16/2004	PH					6	pH
HTF 15D	8/25/2004	PH					9.6	pH
HTF 15D	9/28/2004	PH					6.1	pH
HTF 18	8/25/2004	PH					4.2	pH
HTF 19	8/25/2004	PH					4.4	pH
HTF 2	8/24/2004	PH					6.1	pH
HTF 20	8/25/2004	PH					4.3	pH
HTF 21	8/25/2004	PH					5	pH
HTF 22	8/26/2004	PH					6	pH
HTF 23	8/26/2004	PH					6	pH
HTF 24	8/26/2004	PH					4.9	pH
HTF 31	8/26/2004	PH					5.1	pH
HTF 32	8/25/2004	PH					4.9	pH
HTF 34	8/31/2004	PH					5.3	pH
HAA 5D	3/16/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 5D	9/28/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 9AR	3/11/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 9AR	9/22/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 9D	3/11/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 9D	9/22/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 11A	3/11/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 11A	9/22/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 11D	3/11/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 11D	9/22/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 12A	3/11/2004	PHENOLPHTHALEIN ALKALINITY					77	mg/L
HAA 12A	9/22/2004	PHENOLPHTHALEIN ALKALINITY					620	mg/L
HAA 12D	3/11/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 12D	9/22/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 13A	3/11/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 13A	3/29/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 13A	9/29/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 13A	9/29/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 13D	3/15/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 13D	3/16/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 13D	9/22/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 14A	3/15/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 14A	9/27/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 14D	3/15/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 14D	9/27/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 15A	3/15/2004	PHENOLPHTHALEIN ALKALINITY					234	mg/L
HAA 15A	9/28/2004	PHENOLPHTHALEIN ALKALINITY					691	mg/L
HAA 15D	3/15/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HAA 15D	9/28/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HTF 12D	3/16/2004	PHENOLPHTHALEIN ALKALINITY					10	mg/L
HTF 12D	9/28/2004	PHENOLPHTHALEIN ALKALINITY					64	mg/L
HTF 15D	3/16/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
HTF 15D	9/28/2004	PHENOLPHTHALEIN ALKALINITY					0	mg/L
FTF 15	8/18/2004	SODIUM	100	1000	U		1000	ug/L
FTF 15	8/18/2004	SODIUM	100	1000	U		1000	ug/L
FTF 16	8/18/2004	SODIUM	100	1000			3113	ug/L
FTF 17	8/18/2004	SODIUM	100	1000			7443	ug/L
FTF 18	8/31/2004	SODIUM	100	1000			5289	ug/L
FTF 19	8/18/2004	SODIUM	100	1000			3615	ug/L
FTF 20	8/18/2004	SODIUM	100	1000			4205	ug/L
FTF 21	8/18/2004	SODIUM	100	1000			21390	ug/L
FTF 22	8/18/2004	SODIUM	100	1000			4206	ug/L
FTF 23	8/18/2004	SODIUM	100	1000			7561	ug/L
FTF 28	9/30/2004	SODIUM	270	2700	U		2700	ug/L
FTF 29	8/19/2004	SODIUM	100	1000	U		1000	ug/L
HAA 4A	8/11/2004	SODIUM	20	200			1560	ug/L
HAA 4A	8/11/2004	SODIUM	20	200			1634	ug/L
HAA 4B	8/11/2004	SODIUM	20	200			2041	ug/L
HAA 7A	8/10/2004	SODIUM	20	200			2289	ug/L
HAA 7B	8/10/2004	SODIUM	20	200			2593	ug/L
HAA 7D	8/10/2004	SODIUM	20	200			2030	ug/L
HAA 8A	8/10/2004	SODIUM	20	200			5343	ug/L
HAA 8B	8/10/2004	SODIUM	20	200			1593	ug/L
HAA 8D	8/10/2004	SODIUM	20	200			4196	ug/L
HAA 9AR	8/10/2004	SODIUM	20	200			51290	ug/L
HAA 9B	8/10/2004	SODIUM	20	200			7124	ug/L
HAA 10AR	8/10/2004	SODIUM	20	200			1339	ug/L
HAA 10B	8/10/2004	SODIUM	20	200			3701	ug/L
HAA 10D	8/10/2004	SODIUM	20	200			11250	ug/L
HTF 12D	8/25/2004	SODIUM	100	1000			6001	ug/L
HTF 15D	8/25/2004	SODIUM	100	1000			15140	ug/L
HTF 18	8/25/2004	SODIUM	100	1000			3348	ug/L
HTF 18	8/25/2004	SODIUM	100	1000			3434	ug/L
HTF 19	8/25/2004	SODIUM	100	1000			1698	ug/L
HTF 20	8/25/2004	SODIUM	100	1000			3648	ug/L
HTF 21	8/25/2004	SODIUM	100	1000			3565	ug/L
HTF 24	8/26/2004	SODIUM	100	1000			3204	ug/L
HTF 31	8/26/2004	SODIUM	100	1000			4328	ug/L
HTF 32	8/25/2004	SODIUM	100	1000			4298	ug/L
FTF 15	8/18/2004	SPECIFIC CONDUCTANCE					59	uS/cm
FTF 16	8/18/2004	SPECIFIC CONDUCTANCE					45	uS/cm
FTF 17	8/18/2004	SPECIFIC CONDUCTANCE					67	uS/cm
FTF 18	8/31/2004	SPECIFIC CONDUCTANCE					94	uS/cm
FTF 19	8/18/2004	SPECIFIC CONDUCTANCE					87	uS/cm
FTF 20	8/18/2004	SPECIFIC CONDUCTANCE					74	uS/cm
FTF 21	8/18/2004	SPECIFIC CONDUCTANCE					1687	uS/cm
FTF 22	8/18/2004	SPECIFIC CONDUCTANCE					80	uS/cm

APPENDIX A
MONITORING DATA

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WELL	DATE	ANALYTE_NAME	MDL	PQL	LAB_QUALIFIER	EPA_CODE	RESULT	UNITS
FTF 23	8/18/2004	SPECIFIC CONDUCTANCE					67	uS/cm
FTF 29	8/19/2004	SPECIFIC CONDUCTANCE					278	uS/cm
HAA 4A	8/11/2004	SPECIFIC CONDUCTANCE					187	uS/cm
HAA 4B	8/11/2004	SPECIFIC CONDUCTANCE					195	uS/cm
HAA 4D	8/11/2004	SPECIFIC CONDUCTANCE					112	uS/cm
HAA 5D	3/16/2004	SPECIFIC CONDUCTANCE					72	uS/cm
HAA 5D	9/28/2004	SPECIFIC CONDUCTANCE					65	uS/cm
HAA 7A	8/10/2004	SPECIFIC CONDUCTANCE					86	uS/cm
HAA 7B	8/10/2004	SPECIFIC CONDUCTANCE					49	uS/cm
HAA 7D	8/10/2004	SPECIFIC CONDUCTANCE					69	uS/cm
HAA 8A	8/10/2004	SPECIFIC CONDUCTANCE					99	uS/cm
HAA 8B	8/10/2004	SPECIFIC CONDUCTANCE					36	uS/cm
HAA 8D	8/10/2004	SPECIFIC CONDUCTANCE					42	uS/cm
HAA 9AR	3/11/2004	SPECIFIC CONDUCTANCE					100	uS/cm
HAA 9AR	8/10/2004	SPECIFIC CONDUCTANCE					277	uS/cm
HAA 9AR	9/22/2004	SPECIFIC CONDUCTANCE					78	uS/cm
HAA 9B	8/10/2004	SPECIFIC CONDUCTANCE					206	uS/cm
HAA 9D	3/11/2004	SPECIFIC CONDUCTANCE					47	uS/cm
HAA 9D	8/10/2004	SPECIFIC CONDUCTANCE					46	uS/cm
HAA 9D	9/22/2004	SPECIFIC CONDUCTANCE					42	uS/cm
HAA 10AR	8/10/2004	SPECIFIC CONDUCTANCE					48	uS/cm
HAA 10B	8/10/2004	SPECIFIC CONDUCTANCE					196	uS/cm
HAA 10D	8/10/2004	SPECIFIC CONDUCTANCE					87	uS/cm
HAA 11A	3/11/2004	SPECIFIC CONDUCTANCE					74	uS/cm
HAA 11A	9/22/2004	SPECIFIC CONDUCTANCE					66	uS/cm
HAA 11D	3/11/2004	SPECIFIC CONDUCTANCE					54	uS/cm
HAA 11D	9/22/2004	SPECIFIC CONDUCTANCE					49	uS/cm
HAA 12A	3/11/2004	SPECIFIC CONDUCTANCE					3080	uS/cm
HAA 12A	9/22/2004	SPECIFIC CONDUCTANCE					2337	uS/cm
HAA 12D	3/11/2004	SPECIFIC CONDUCTANCE					39	uS/cm
HAA 12D	9/22/2004	SPECIFIC CONDUCTANCE					41	uS/cm
HAA 13A	3/11/2004	SPECIFIC CONDUCTANCE					0	uS/cm
HAA 13A	3/29/2004	SPECIFIC CONDUCTANCE					0	uS/cm
HAA 13A	9/29/2004	SPECIFIC CONDUCTANCE					0	uS/cm
HAA 13A	9/29/2004	SPECIFIC CONDUCTANCE					258	uS/cm
HAA 13D	3/15/2004	SPECIFIC CONDUCTANCE					0	uS/cm
HAA 13D	3/16/2004	SPECIFIC CONDUCTANCE					31	uS/cm
HAA 13D	9/22/2004	SPECIFIC CONDUCTANCE					32	uS/cm
HAA 14A	3/15/2004	SPECIFIC CONDUCTANCE					53	uS/cm
HAA 14A	9/27/2004	SPECIFIC CONDUCTANCE					52	uS/cm
HAA 14D	3/15/2004	SPECIFIC CONDUCTANCE					36	uS/cm
HAA 14D	9/27/2004	SPECIFIC CONDUCTANCE					37	uS/cm
HAA 15A	3/15/2004	SPECIFIC CONDUCTANCE					1086	uS/cm
HAA 15A	9/28/2004	SPECIFIC CONDUCTANCE					2771	uS/cm
HAA 15D	3/15/2004	SPECIFIC CONDUCTANCE					43	uS/cm
HAA 15D	9/28/2004	SPECIFIC CONDUCTANCE					44	uS/cm
HTF 1	8/24/2004	SPECIFIC CONDUCTANCE					299	uS/cm
HTF 10	8/24/2004	SPECIFIC CONDUCTANCE					170	uS/cm
HTF 11	8/24/2004	SPECIFIC CONDUCTANCE					54	uS/cm
HTF 11	8/26/2004	SPECIFIC CONDUCTANCE					114	uS/cm
HTF 12D	3/16/2004	SPECIFIC CONDUCTANCE					551	uS/cm
HTF 12D	8/25/2004	SPECIFIC CONDUCTANCE					107	uS/cm
HTF 12D	9/28/2004	SPECIFIC CONDUCTANCE					415	uS/cm
HTF 15D	3/16/2004	SPECIFIC CONDUCTANCE					223	uS/cm
HTF 15D	8/25/2004	SPECIFIC CONDUCTANCE					44	uS/cm
HTF 15D	9/28/2004	SPECIFIC CONDUCTANCE					115	uS/cm
HTF 18	8/25/2004	SPECIFIC CONDUCTANCE					57	uS/cm
HTF 19	8/25/2004	SPECIFIC CONDUCTANCE					40	uS/cm
HTF 2	8/24/2004	SPECIFIC CONDUCTANCE					163	uS/cm
HTF 20	8/25/2004	SPECIFIC CONDUCTANCE					52	uS/cm
HTF 21	8/25/2004	SPECIFIC CONDUCTANCE					53	uS/cm
HTF 22	8/26/2004	SPECIFIC CONDUCTANCE					115	uS/cm
HTF 23	8/26/2004	SPECIFIC CONDUCTANCE					103	uS/cm
HTF 24	8/26/2004	SPECIFIC CONDUCTANCE					38	uS/cm
HTF 31	8/26/2004	SPECIFIC CONDUCTANCE					45	uS/cm
HTF 32	8/25/2004	SPECIFIC CONDUCTANCE					44	uS/cm
HTF 34	8/31/2004	SPECIFIC CONDUCTANCE					89	uS/cm
HAA 5D	3/16/2004	TRICHLOROETHYLENE (TCE)	0.36	1 J		J	0.425	ug/L
HAA 5D	9/28/2004	TRICHLOROETHYLENE (TCE)	0.36	1 J			0.429	ug/L
HAA 9AR	3/11/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U		UJ	1	ug/L
HAA 9AR	9/22/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U			1	ug/L
HAA 9D	3/11/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U		UJ	1	ug/L
HAA 9D	9/22/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U			1	ug/L
HAA 11A	3/11/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U		UJ	1	ug/L
HAA 11A	9/22/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U			1	ug/L
HAA 11D	3/11/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U		UJ	1	ug/L
HAA 11D	9/22/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U			1	ug/L
HAA 12A	3/11/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U		UJ	1	ug/L
HAA 12A	9/22/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U			1	ug/L
HAA 12D	3/11/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U		UJ	1	ug/L
HAA 12D	9/22/2004	TRICHLOROETHYLENE (TCE)	0.06	5 U			5	ug/L
HAA 12D	9/22/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U			1	ug/L
HAA 13A	9/29/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U			1	ug/L
HAA 13D	3/16/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U		UJ	1	ug/L
HAA 13D	9/22/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U			1	ug/L
HAA 14A	3/15/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U		UJ	1	ug/L
HAA 14A	9/27/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U			1	ug/L
HAA 14D	3/15/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U		UJ	1	ug/L
HAA 14D	9/27/2004	TRICHLOROETHYLENE (TCE)	0.06	5 U			5	ug/L
HAA 14D	9/27/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U			1	ug/L
HAA 15A	3/15/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U		UJ	1	ug/L
HAA 15A	9/28/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U			1	ug/L
HAA 15D	3/15/2004	TRICHLOROETHYLENE (TCE)	0.36	1 U		UJ	1	ug/L

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WELL	DATE	ANALYTE_NAME	MDL	PQL	LAB_QUALIFIER	EPA_CODE	RESULT	UNITS
HAA 15D	9/28/2004	TRICHLOROETHYLENE (TCE)	0.36	1	U		1	ug/L
HTF 12D	3/16/2004	TRICHLOROETHYLENE (TCE)	0.36	1	J	J	0.386	ug/L
HTF 12D	9/28/2004	TRICHLOROETHYLENE (TCE)	0.36	1	U		1	ug/L
HTF 15D	3/16/2004	TRICHLOROETHYLENE (TCE)	0.36	1	U	UJ	1	ug/L
HTF 15D	9/28/2004	TRICHLOROETHYLENE (TCE)	0.36	1	U		1	ug/L
FTF 15	8/18/2004	TRITIUM	0.886	2.18			3.46	pCi/mL
FTF 15	8/18/2004	TRITIUM	0.89	2.21			3.62	pCi/mL
FTF 16	8/18/2004	TRITIUM	0.868	2.13			3.26	pCi/mL
FTF 17	8/18/2004	TRITIUM	0.879	2.1			2.39	pCi/mL
FTF 18	8/31/2004	TRITIUM	0.879	2.09			3.42	pCi/mL
FTF 18	8/31/2004	TRITIUM	0.879	2.07			2.84	pCi/mL
FTF 19	8/18/2004	TRITIUM	0.89	2.23			4	pCi/mL
FTF 20	8/18/2004	TRITIUM	0.886	2.15			2.88	pCi/mL
FTF 21	8/18/2004	TRITIUM	0.882	2.17			3.43	pCi/mL
FTF 22	8/18/2004	TRITIUM	0.885	2.2			3.67	pCi/mL
FTF 23	8/18/2004	TRITIUM	0.885	2.12			2.54	pCi/mL
FTF 28	9/30/2004	TRITIUM	0.898	2.13			2.16	pCi/mL
FTF 28	9/30/2004	TRITIUM	0.908	2.13	J		1.88	pCi/mL
FTF 29	8/19/2004	TRITIUM	0.901	2.28			4.45	pCi/mL
HAA 4A	8/11/2004	TRITIUM	0.837	1.85	U		0.39	pCi/mL
HAA 4B	8/11/2004	TRITIUM	0.84	2.1			3.62	pCi/mL
HAA 4D	8/11/2004	TRITIUM	0.839	2.57			12.3	pCi/mL
HAA 5D	3/16/2004	TRITIUM	0.36	1.1			5.45	pCi/mL
HAA 5D	9/28/2004	TRITIUM	0.803	2.16			5.4	pCi/mL
HAA 5D	9/28/2004	TRITIUM	0.81	2.15			5.07	pCi/mL
HAA 7A	8/10/2004	TRITIUM	0.847	1.85	U		0.135	pCi/mL
HAA 7B	8/10/2004	TRITIUM	0.838	1.82	U		-0.037	pCi/mL
HAA 7D	8/10/2004	TRITIUM	0.846	2.48			10.1	pCi/mL
HAA 8A	8/10/2004	TRITIUM	0.847	1.86	U		0.204	pCi/mL
HAA 8B	8/10/2004	TRITIUM	0.839	1.82	U		-0.0247	pCi/mL
HAA 8D	8/10/2004	TRITIUM	0.837	2.68			14.8	pCi/mL
HAA 9AR	3/11/2004	TRITIUM	0.339	0.733	U	U	0.0653	pCi/mL
HAA 9AR	8/10/2004	TRITIUM	0.835	1.82	U		0.084	pCi/mL
HAA 9AR	9/22/2004	TRITIUM	0.869	1.87	U		-0.35	pCi/mL
HAA 9B	8/10/2004	TRITIUM	0.841	1.87	U		0.511	pCi/mL
HAA 9D	3/11/2004	TRITIUM	0.363	1.469			14.5	pCi/mL
HAA 9D	8/10/2004	TRITIUM	0.86	2.6			12	pCi/mL
HAA 9D	8/10/2004	TRITIUM	0.862	2.58			11.5	pCi/mL
HAA 9D	9/22/2004	TRITIUM	0.868	2.6			12.1	pCi/mL
HAA 10AR	8/10/2004	TRITIUM	0.845	1.87	U		0.319	pCi/mL
HAA 10B	8/10/2004	TRITIUM	0.86	1.9	U		0.313	pCi/mL
HAA 10D	8/10/2004	TRITIUM	0.854	2.77			16	pCi/mL
HAA 11A	3/11/2004	TRITIUM	0.337	0.723	U	U	-0.0177	pCi/mL
HAA 11A	9/22/2004	TRITIUM	0.872	1.87	U		-0.408	pCi/mL
HAA 11D	3/11/2004	TRITIUM	0.367	1.333			10.3	pCi/mL
HAA 11D	9/22/2004	TRITIUM	0.867	2.68			13.9	pCi/mL
HAA 11D	9/22/2004	TRITIUM	0.871	2.68			13.6	pCi/mL
HAA 12A	3/11/2004	TRITIUM	0.334	1.39			14.6	pCi/mL
HAA 12A	9/22/2004	TRITIUM	0.872	2.58			11.3	pCi/mL
HAA 12D	3/11/2004	TRITIUM	0.371	2.411			50.1	pCi/mL
HAA 12D	9/22/2004	TRITIUM	0.87	3.88			49.3	pCi/mL
HAA 12D	9/22/2004	TRITIUM	0.872	3.85			47.6	pCi/mL
HAA 13A	9/29/2004	TRITIUM	0.933	2.01	U		-0.184	pCi/mL
HAA 13A	9/29/2004	TRITIUM	0.937	2.01	U		-0.342	pCi/mL
HAA 13D	3/16/2004	TRITIUM	0.53	2.012			17.9	pCi/mL
HAA 13D	9/22/2004	TRITIUM	0.879	3			20.9	pCi/mL
HAA 14A	3/15/2004	TRITIUM	0.341	0.697	U	U	-0.0643	pCi/mL
HAA 14A	9/27/2004	TRITIUM	0.909	1.98	U		-0.00702	pCi/mL
HAA 14A	9/27/2004	TRITIUM	0.909	1.96	U		-0.225	pCi/mL
HAA 14D	3/15/2004	TRITIUM	0.344	2.192			19.7	pCi/mL
HAA 14D	9/27/2004	TRITIUM	0.909	3.04			18.2	pCi/mL
HAA 14D	9/27/2004	TRITIUM	0.914	3.02			17.4	pCi/mL
HAA 15A	3/15/2004	TRITIUM	0.326	0.726	U	U	0.215	pCi/mL
HAA 15A	9/28/2004	TRITIUM	0.811	1.79	U		0.246	pCi/mL
HAA 15D	3/15/2004	TRITIUM	0.346	2.09			17.3	pCi/mL
HAA 15D	9/28/2004	TRITIUM	0.815	2.7			15	pCi/mL
HTF 1	8/24/2004	TRITIUM	0.848	2.61			11.9	pCi/mL
HTF 1	8/24/2004	TRITIUM	0.854	2.59			11.4	pCi/mL
HTF 2	8/24/2004	TRITIUM	0.846	2.64			12.6	pCi/mL
HTF 3	9/1/2004	TRITIUM	0.879	2.54			11	pCi/mL
HTF 4	8/26/2004	TRITIUM	0.877	2.63			10.8	pCi/mL
HTF 4	8/26/2004	TRITIUM	0.885	2.63			10.4	pCi/mL
HTF 6	9/1/2004	TRITIUM	0.879	2.36			7.74	pCi/mL
HTF 10	8/24/2004	TRITIUM	0.858	3.12			22.8	pCi/mL
HTF 11	8/24/2004	TRITIUM	0.844	2.85			17.2	pCi/mL
HTF 12D	3/16/2004	TRITIUM	0.38	1.39			11.3	pCi/mL
HTF 12D	8/25/2004	TRITIUM	0.828	2.54			11.5	pCi/mL
HTF 12D	9/28/2004	TRITIUM	0.916	2.75			11.7	pCi/mL
HTF 15D	3/16/2004	TRITIUM	0.359	1.447			14.7	pCi/mL
HTF 15D	8/25/2004	TRITIUM	0.838	2.57			11.7	pCi/mL
HTF 15D	9/28/2004	TRITIUM	0.907	2.76			12.2	pCi/mL
HTF 18	8/25/2004	TRITIUM	0.826	2.51			11.1	pCi/mL
HTF 18	8/25/2004	TRITIUM	0.831	2.58			12.2	pCi/mL
HTF 19	8/25/2004	TRITIUM	0.827	2.22			5.87	pCi/mL
HTF 20	8/25/2004	TRITIUM	0.82	2.39			9.01	pCi/mL
HTF 21	8/25/2004	TRITIUM	0.826	2.62			13.3	pCi/mL
HTF 22	8/26/2004	TRITIUM	0.883	2.49			7.95	pCi/mL
HTF 23	8/26/2004	TRITIUM	0.878	2.37			6.22	pCi/mL
HTF 24	8/26/2004	TRITIUM	0.881	2.49			8.06	pCi/mL
HTF 31	8/26/2004	TRITIUM	0.879	2.38			6.34	pCi/mL
HTF 32	8/25/2004	TRITIUM	0.824	2.29			7.13	pCi/mL
FTF 15	8/18/2004	TURBIDITY					1.7	NTU
FTF 16	8/18/2004	TURBIDITY					2.6	NTU

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WELL	DATE	ANALYTE_NAME	MDL	PQL	LAB_QUALIFIER	EPA_CODE	RESULT	UNITS
FTF 17	8/18/2004	TURBIDITY					1.2	NTU
FTF 18	8/31/2004	TURBIDITY					2.4	NTU
FTF 19	8/18/2004	TURBIDITY					3.5	NTU
FTF 20	8/18/2004	TURBIDITY					3	NTU
FTF 21	8/18/2004	TURBIDITY					12	NTU
FTF 22	8/18/2004	TURBIDITY					2	NTU
FTF 23	8/18/2004	TURBIDITY					2.9	NTU
FTF 29	8/19/2004	TURBIDITY					4	NTU
HAA 4A	8/11/2004	TURBIDITY					0	NTU
HAA 4B	8/11/2004	TURBIDITY					2.3	NTU
HAA 4D	8/11/2004	TURBIDITY					190	NTU
HAA 5D	3/16/2004	TURBIDITY					3	NTU
HAA 5D	9/28/2004	TURBIDITY					2.7	NTU
HAA 7A	8/10/2004	TURBIDITY					0.3	NTU
HAA 7B	8/10/2004	TURBIDITY					1.2	NTU
HAA 7D	8/10/2004	TURBIDITY					4.7	NTU
HAA 8A	8/10/2004	TURBIDITY					1.8	NTU
HAA 8B	8/10/2004	TURBIDITY					1.3	NTU
HAA 8D	8/10/2004	TURBIDITY					0.6	NTU
HAA 9AR	3/11/2004	TURBIDITY					0.3	NTU
HAA 9AR	8/10/2004	TURBIDITY					0	NTU
HAA 9AR	9/22/2004	TURBIDITY					0.9	NTU
HAA 9B	8/10/2004	TURBIDITY					50	NTU
HAA 9D	3/11/2004	TURBIDITY					0.9	NTU
HAA 9D	8/10/2004	TURBIDITY						NTU
HAA 9D	9/22/2004	TURBIDITY					1.5	NTU
HAA 10AR	8/10/2004	TURBIDITY					6.4	NTU
HAA 10B	8/10/2004	TURBIDITY					12	NTU
HAA 10D	8/10/2004	TURBIDITY					7.8	NTU
HAA 11A	3/11/2004	TURBIDITY					0.3	NTU
HAA 11A	9/22/2004	TURBIDITY					0.7	NTU
HAA 11D	3/11/2004	TURBIDITY					0.6	NTU
HAA 11D	9/22/2004	TURBIDITY					1.3	NTU
HAA 12A	3/11/2004	TURBIDITY					0.3	NTU
HAA 12A	9/22/2004	TURBIDITY					0.4	NTU
HAA 12D	3/11/2004	TURBIDITY					0.2	NTU
HAA 12D	9/22/2004	TURBIDITY					0.4	NTU
HAA 13A	3/11/2004	TURBIDITY					0	NTU
HAA 13A	3/29/2004	TURBIDITY					0	NTU
HAA 13A	9/29/2004	TURBIDITY					0	NTU
HAA 13A	9/29/2004	TURBIDITY					4.8	NTU
HAA 13D	3/15/2004	TURBIDITY					0	NTU
HAA 13D	3/16/2004	TURBIDITY					386	NTU
HAA 13D	9/22/2004	TURBIDITY					14.7	NTU
HAA 14A	3/15/2004	TURBIDITY					0.3	NTU
HAA 14A	9/27/2004	TURBIDITY					0.7	NTU
HAA 14D	3/15/2004	TURBIDITY					0.5	NTU
HAA 14D	9/27/2004	TURBIDITY					0.4	NTU
HAA 15A	3/15/2004	TURBIDITY					0.2	NTU
HAA 15A	9/28/2004	TURBIDITY					0.6	NTU
HAA 15D	3/15/2004	TURBIDITY					0.2	NTU
HAA 15D	9/28/2004	TURBIDITY					0.5	NTU
HTF 1	8/24/2004	TURBIDITY					220	NTU
HTF 10	8/24/2004	TURBIDITY					210	NTU
HTF 11	8/24/2004	TURBIDITY					34	NTU
HTF 11	8/26/2004	TURBIDITY					450	NTU
HTF 12D	3/16/2004	TURBIDITY					0.6	NTU
HTF 12D	8/25/2004	TURBIDITY					9.4	NTU
HTF 12D	9/28/2004	TURBIDITY					0.3	NTU
HTF 15D	3/16/2004	TURBIDITY					2.6	NTU
HTF 15D	8/25/2004	TURBIDITY					5.1	NTU
HTF 15D	9/28/2004	TURBIDITY					3.6	NTU
HTF 18	8/25/2004	TURBIDITY					5.7	NTU
HTF 19	8/25/2004	TURBIDITY					2.3	NTU
HTF 2	8/24/2004	TURBIDITY					500	NTU
HTF 20	8/25/2004	TURBIDITY					14	NTU
HTF 21	8/25/2004	TURBIDITY					1.2	NTU
HTF 22	8/26/2004	TURBIDITY					31.9	NTU
HTF 23	8/26/2004	TURBIDITY					28	NTU
HTF 24	8/26/2004	TURBIDITY					2.1	NTU
HTF 31	8/26/2004	TURBIDITY					6.6	NTU
HTF 32	8/25/2004	TURBIDITY					1.2	NTU
HTF 34	8/31/2004	TURBIDITY					43.4	NTU
FTF 15	8/18/2004	WATER TEMPERATURE					22	degC
FTF 16	8/18/2004	WATER TEMPERATURE					25.7	degC
FTF 17	8/18/2004	WATER TEMPERATURE					22.7	degC
FTF 18	8/31/2004	WATER TEMPERATURE					25.9	degC
FTF 19	8/18/2004	WATER TEMPERATURE					27.3	degC
FTF 20	8/18/2004	WATER TEMPERATURE					28.8	degC
FTF 21	8/18/2004	WATER TEMPERATURE					29.4	degC
FTF 22	8/18/2004	WATER TEMPERATURE					29.7	degC
FTF 23	8/18/2004	WATER TEMPERATURE					26.3	degC
FTF 29	8/19/2004	WATER TEMPERATURE					22.2	degC
HAA 4A	8/11/2004	WATER TEMPERATURE					26.6	degC
HAA 4B	8/11/2004	WATER TEMPERATURE					25.9	degC
HAA 4D	8/11/2004	WATER TEMPERATURE					23.5	degC
HAA 5D	3/16/2004	WATER TEMPERATURE					21.9	degC
HAA 5D	9/28/2004	WATER TEMPERATURE					26	degC
HAA 7A	8/10/2004	WATER TEMPERATURE					20.8	degC
HAA 7B	8/10/2004	WATER TEMPERATURE					20.5	degC
HAA 7D	8/10/2004	WATER TEMPERATURE					21.2	degC
HAA 8A	8/10/2004	WATER TEMPERATURE					20	degC
HAA 8B	8/10/2004	WATER TEMPERATURE					19.8	degC

APPENDIX A
MONITORING DATA

WSRC-TR-04-00630

WELL	DATE	ANALYTE_NAME	MDL	PQL	LAB_QUALIFIER	EPA_CODE	RESULT	UNITS
HAA 8D	8/10/2004	WATER TEMPERATURE					20.5	degC
HAA 9AR	3/11/2004	WATER TEMPERATURE					21	degC
HAA 9AR	8/10/2004	WATER TEMPERATURE					22.2	degC
HAA 9AR	9/22/2004	WATER TEMPERATURE					21.6	degC
HAA 9B	8/10/2004	WATER TEMPERATURE					23.2	degC
HAA 9D	3/11/2004	WATER TEMPERATURE					21.9	degC
HAA 9D	8/10/2004	WATER TEMPERATURE					21.9	degC
HAA 9D	9/22/2004	WATER TEMPERATURE					20.9	degC
HAA 10AR	8/10/2004	WATER TEMPERATURE					21.9	degC
HAA 10B	8/10/2004	WATER TEMPERATURE					22.9	degC
HAA 10D	8/10/2004	WATER TEMPERATURE					20	degC
HAA 11A	3/11/2004	WATER TEMPERATURE					21.7	degC
HAA 11A	9/22/2004	WATER TEMPERATURE					21.3	degC
HAA 11D	3/11/2004	WATER TEMPERATURE					25	degC
HAA 11D	9/22/2004	WATER TEMPERATURE					24.2	degC
HAA 12A	3/11/2004	WATER TEMPERATURE					21.9	degC
HAA 12A	9/22/2004	WATER TEMPERATURE					22.3	degC
HAA 12D	3/11/2004	WATER TEMPERATURE					23.6	degC
HAA 12D	9/22/2004	WATER TEMPERATURE					23.4	degC
HAA 13A	3/11/2004	WATER TEMPERATURE					0	degC
HAA 13A	3/29/2004	WATER TEMPERATURE					0	degC
HAA 13A	9/29/2004	WATER TEMPERATURE					0	degC
HAA 13A	9/29/2004	WATER TEMPERATURE					27.1	degC
HAA 13D	3/15/2004	WATER TEMPERATURE					0	degC
HAA 13D	3/16/2004	WATER TEMPERATURE					26	degC
HAA 13D	9/22/2004	WATER TEMPERATURE					29.2	degC
HAA 14A	3/15/2004	WATER TEMPERATURE					21.9	degC
HAA 14A	9/27/2004	WATER TEMPERATURE					21.7	degC
HAA 14D	3/15/2004	WATER TEMPERATURE					24.5	degC
HAA 14D	9/27/2004	WATER TEMPERATURE					23.3	degC
HAA 15A	3/15/2004	WATER TEMPERATURE					24.1	degC
HAA 15A	9/28/2004	WATER TEMPERATURE					24.2	degC
HAA 15D	3/15/2004	WATER TEMPERATURE					24.4	degC
HAA 15D	9/28/2004	WATER TEMPERATURE					24.5	degC
HTF 1	8/24/2004	WATER TEMPERATURE					28.4	degC
HTF 10	8/24/2004	WATER TEMPERATURE					23.5	degC
HTF 11	8/24/2004	WATER TEMPERATURE					24.9	degC
HTF 11	8/26/2004	WATER TEMPERATURE					29	degC
HTF 12D	3/16/2004	WATER TEMPERATURE					26.6	degC
HTF 12D	8/25/2004	WATER TEMPERATURE					26.6	degC
HTF 12D	9/28/2004	WATER TEMPERATURE					26.5	degC
HTF 15D	3/16/2004	WATER TEMPERATURE					27	degC
HTF 15D	8/25/2004	WATER TEMPERATURE					24.9	degC
HTF 15D	9/28/2004	WATER TEMPERATURE					26.7	degC
HTF 18	8/25/2004	WATER TEMPERATURE					22.9	degC
HTF 19	8/25/2004	WATER TEMPERATURE					25.4	degC
HTF 2	8/24/2004	WATER TEMPERATURE					29.3	degC
HTF 20	8/25/2004	WATER TEMPERATURE					29.8	degC
HTF 21	8/25/2004	WATER TEMPERATURE					26.4	degC
HTF 22	8/26/2004	WATER TEMPERATURE					29.6	degC
HTF 23	8/26/2004	WATER TEMPERATURE					28.5	degC
HTF 24	8/26/2004	WATER TEMPERATURE					26.3	degC
HTF 31	8/26/2004	WATER TEMPERATURE					24.1	degC
HTF 32	8/25/2004	WATER TEMPERATURE					25.5	degC
HTF 34	8/31/2004	WATER TEMPERATURE					26.4	degC