Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

FEB 2 0 1996

96-CHD-008

Mr. John T. Conway, Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue NW, Suite 700
Washington, D.C. 20004

Dear Mr. Conway:

TRANSMITTAL OF THE U.S. DEPARTMENT OF ENERGY, RICHLAND OPERATIONS OFFICE DEFENSE NUCLEAR FACILITIES SAFETY BOARD (DNFSB) RECOMMENDATION 93-5, COMMITMENT 1.10, QUARTERLY REPORT

Enclosed is the DNFSB 93-5 Quarterly Report for the period ending December 31, 1995. In accordance with Commitment 1.10, this report is being submitted to you to provide information and status on actions associated with the Recommendation 93-5 Implementation Plan.

- Procedures/Conduct of Operations Review was completed during this quarter and is presented for closure.
- Two additional crews were qualified, one each for push and rotary.
- Rotary-Mode truck #4 was declared ready for operational use.

If you have any questions you may contact me, or your staff may contact Mr. Jackson Kinzer, Assistant Manager for Tank Waste Remediation System, on (509) 376-7591.

Sincerely,

John D. Wagoner
Manager

CHD:TN

Enclosure

cc w/encl:
M. A. Hunemuller, EM-38
J. C. Tseng, EM-4
K. T. Lang, EM-38
R. Guimond, EM-2
S. Trine, RL DNFSB Liaison
M. Whitaker, US 3.1

DNFSB 93-5 QUARTERLY REPORT, OCTOBER 1 TO DECEMBER 31, 1995

EXECUTIVE SUMMARY

More significant steps were taken this Quarter toward the goal of characterizing the Hanford High Level Waste Tanks. During the quarter, four push and seven rotary mode core samples were taken. Two more X-Ray Imagers that provide immediate field information on core recovery were tested and made field operational. Five commitments were forwarded to DNFSB for closure during this Quarter. This leaves open nine of eighty-nine implementation plan commitments (those not related to continuing reporting and change control).

The extension of flammable gas controls to all tanks has impacted the rotary core sampling schedule, since many of the High Priority Tanks (defined in Tables 9-2, 9-3, and 9-4 in *Tank Waste Characterization Basis* (Brown et al. 1995) require rotary mode core sampling. An urgent project is underway to qualify the rotary mode core system for flammable gas tanks. A follow up to the March 1995 Conduct of Operations Assessment was completed in October.

DNFSB 93-5 QUARTERLY REPORT, OCTOBER 1 TO DECEMBER 31, 1995

TABLE OF CONTENTS

DNFSB 93-5 QUARTERLY REPORT, OCTOBER 1 TO DECEMBER 31, 1995

DNFSB 93-5 QUARTERLY REPORT, OCTOBER 1 TO DECEMBER 31, 1995

1. PURPOSE

This quarterly report discusses High Level Waste Tank Characterization activities at the Hanford Site related to the Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 93-5 (July 1993) during the period October 1 to December 31, 1995. This Recommendation dealt with the characterizing of wastes in both single and double-shell high level waste tanks. In January 1994, an Implementation Plan (WHC 1994) responding to Recommendation 93-5 was sent to the U.S. Department of Energy for transmittal to the DNFSB. The plan was accepted by the DNFSB on March 25, 1994. The status of each open commitment is described in Section 4 of this report.

2. QUARTERLY HIGHLIGHTS

2.1 Closure of Implementation Plan Commitments Recommended

Four DNFSB 93-5 commitment items, previously submitted to RL, were forwarded on October 4, 1995, to the DNFSB for closure:

- Commitment 3.02, "Procedures/Conduct of Operations Review"
- Commitment 3.10, "Qualification of Two Additional Crews (one each for Push and Rotary Trucks)"
- Commitment 3.11, "Additional Rotary-Mode Core Sampling Systems"
- Commitment 3,18, "Develop Means for Measuring Complete Sample Recovery."

In addition, the quarterly progress report, commitment 1.10.53, was submitted to the DNFSB on December 5, 1995.

2.2 DOE and WHC Milestones Completed

Westinghouse Hanford Company (WHC) transmitted information to the U.S. Department of Energy, Richland Operations Office (RL), on October 24, 1995, to complete three Fiscal Year (FY) 1995 Multi-Year Program Plan (MYPP) milestones and three internal WHC milestones for the Technical Basis and Reports group. Specific milestones are listed below:

- Milestone T2D-95-109, "Statistical Quality Assurance Review of Waste Status and Transaction Record Summary."

- Milestone T2D-95-112, "Revise and Update the Defined Wastes Report, LA-UR-94-2657 (LANL)."

- Milestone T2D-95-119, "Prepare White Paper on Methods for Using Historical Data (PNNL)."

- Milestone T2D-95-NA, "Review and Update Data Quality Objective (DQO) Strategy and Style Guide."

- Milestone T2D-95-NA, "Supporting Documents for Historical Tank Content Estimate (HTCE) Reports for Northwest Quadrant."

- Milestone T2D-95-NA, "Supporting Documents for HTCE Reports for Southeast Quadrant."

2.3 Additional X-Ray Imagers Operational

Three X-ray imaging systems are now in service, and the fourth is scheduled to be in service by January 31, 1996. The fourth unit has been received on site and is undergoing tests before field deployment.

2.4 Completion of Vapor Characterization for Ferrocyanide and Organic Tanks

Westinghouse Hanford Company (WHC) submitted a completion notification letter to the U.S. Department of Energy, Richland Operations Office (DOE-RL), for milestone M-40-03, "Perform Vapor Characterization For All Ferrocyanide Watch List Tanks." The objective for vapor characterization was to address worker health and safety issues, headspace flammability and toxicological implications associated with headspace gases and vapors in Hanford site waste tanks.

Eighteen final analytical reports on the chemical characterization of organic class tanks vapor were issued. Completion of the reports met Westinghouse Hanford Company (WHC) key milestone T2D-96-131, "Issue Vapor Headspace Sample Analysis Laboratory Data Reports per Sample Analysis Requirements," and satisfied milestone M-40-08, "Perform Vapor Characterization For All Organic Watch List Tanks."

2.5 Revision of Supporting Information for Historical Estimates

Revision 2 of the *Waste Status and Transaction Record Summary* (WSTRS) was received from Los Alamos National Laboratory (LANL). This deliverable includes the WSTRS manual and spreadsheets and graphs for all quadrants, which were used to develop the historic tank contents estimates. The manual includes validation information and uncertainty estimates for the tank layering model and supernate mixing model for all tanks.

Revision 2 of the *Hanford Defined Wastes: Chemical and Radionuclide Compositions* (LA-UR-94-2657) was received from LANL. This document provides the waste composition information used to develop the historic tank contents estimates.

A series of technical sessions were held with Westinghouse Hanford Company (WHC), ICF Kaiser Hanford Company, and Pacific Northwest National Laboratory (Northwest Laboratory) personnel to define the requirements for updating the HTCEs and integrating the confidence requirements. The areas and subjects addressed include surface levels, drywells, risers, psychrometrics, liquid observation wells, waste histories, farm histories, models, photos, current status, integrity, logbooks, organics, evaporator campaigns, and inventory. A revised schedule was produced, that will lead to stronger technical deliverables. A detailed outline of the synopsis section of the HTCE documents was developed. This section will incorporate available data to develop a hypothesis regarding the tank contents.

A work plan for development of the standard inventory estimate for wastes stored in Hanford Site underground storage tanks was released (WHC-SD-WM-WP-311). The plan outlines the FY 1996 work that will lead to a single standard inventory estimate for all tanks for the Characterization Project and characterization information users.

2.6 In-Situ Moisture Sensor Tested

The second phase in the development of a prototype moisture sensor for the cone penetrometer has been completed, thus completing the U.S. Department of Energy Headquarters (DOE-HQ) milestone RL441001 #4. The second phase applied what was

learned in the earlier theoretical Phase 1 testing to a prototype system that was then tested for functionality. The third and final phase of the development will be to convert the prototype moisture sensor into a field-hardened system and install the sensor onto the new in-tank cone penetrometer. This phase mainly consists of software development and preparation of acceptance documentation.

2.7 Tank Characterization Progress Table Developed

The first version of the characterization progress chart was distributed for review. This chart indicates the DQOs applicable to each tank and the status of characterization information associated with each DQO need. The chart also indicates whether sampling has been completed (either in accordance with the DQO or prior to completion of the DQO), whether evaluation of the samples indicates more sampling will be required, whether analysis is complete, and whether final results meet the DQO requirements. Following review by the cognizant technical personnel, this chart will be updated routinely to indicate the current status.

2.8 Tank Vapor Sampling Technical Basis Issued

A draft of the *Technical Bases for Waste Tank Gas and Vapor Sampling* (WHC-SD-WM-ER-530) was issued. This document describes the technical basis for collection and analysis of waste tank headspace gas and vapor samples. Comments are being resolved, and the document will be issued by March 15, 1996.

A draft of the dual tank vapor sampling test plan was prepared for review and comment. Special vapor sampling will be performed in tanks 241-BY-108, S-102, and C-107 during January and February 1996. The sampling information will be used to support several key vapor program tests:

1) tank vapor temporal test;
2) Type 3 and Type 4 methods comparison test;
3) high-efficiency particulate air filter test.

2.9 Conduct of Operations Followup Assessment Performed

A baseline Conduct of Operations assessment was performed in March 1995. In October, a followup Conduct of Operations assessment was completed to determine the effectiveness of corrective actions and to identify any areas requiring further improvement. Immediate improvements were noted throughout the assessment, and recommendations were developed for conditions judged not to meet the minimum Conduct of Operations requirements. A corrective action plan has been drafted to implement the recommendations.

3. CURRENT ISSUES

3.1 Management/Administration

Notification was received from the U.S. Department of Energy-Headquarters (DOE-HQ) that funding for the Tank Waste Information Network System (TWINS) may be reduced or eliminated. Proactive measures are being taken to assure continued funding is maintained. If TWINS funding support is eliminated, access to the tank characterization database (TCD) and the Surveillance Analysis Computer System (SACS) and Vapor databases will be impacted adversely. Alternatives are being explored to provide access to the databases.

3.2 Technical

3.2.1 Flammable Gas Accumulations in Drill String

Since the issue of sampling target schedule Revision 4.4. on September 8, 1995, the flammable gas issues have caused several schedule changes. Issues include the following: flammable gas in the drill string, broken drill string, and flammable gas controls on all tanks. The first and second issues raised National Fire Protection Association concerns which impacted all truck samples for about two weeks (truck #1 required hardware modifications, and all trucks required procedure changes). The flammable gas controls prevent the use of rotary-mode sampling in any tank. Revision 4.4 was front-loaded with nonflammable gas tanks for rotary sampling, and these tanks now have been slipped to later in the schedule. At present, tanks are being push-mode sampled with the rotary systems. The number of tanks which can be pushed with 80% possibility of getting a full core is small. Efforts are underway to identify additional tanks to sample and to increase the maximum downforce allowed during push-mode sampling.

Restart of RMCS will depend on the following: 1) establishing a technical basis that ignition of a pocket of flammable gas within the waste during sampling is an "incredible" event; or 2) designing and qualifying a spark-free sampling bit for use. Approval of either of these conditions may take until
March 1996 for tanks not on the Flammable Gas Watch List and until June 1996 for Watch List tanks.

3.2.2 Drill String Failure During Sampling

Sampling of tank 241-BY-110 was suspended when the drill string broke during sampling. Special equipment was obtained, tested and used successfully to remove the failed drill string.

As a result of the failed drill string event in tank 241-BY-110, strength calculations were made for the commercial drill string used. Two sets of downforce values representing maximum downforce limits were established for future push mode sampling. Different values are used depending on the type of waste in the tank and the length of drill string. Greater downforce is allowed for waste that provides side wall support (e.g., saltcake) to the drill string during sampling. Lower downforce is required for long lengths of unsupported drill string and during initial waste surface contact. The allowable downforce increases with increasing waste penetration (provided there is appreciable bearing support) and increases with

shorter drill string lengths. These values will be used to limit downforce in the field during sampling operations.

Examination of the failed drill string was completed in November. Review of the material, joint design and operating history concluded that the drill string was loaded outside the axial mode for which it was designed and failed in a predictable manner. Further metallurgical analysis was determined not to be beneficial.

4 STATUS OF OPEN COMMITMENTS

4.1 Strengthen Technical Management

4.1.1 Commitment 1.5 - Implement Plan to Improve Tech Staff Competencies:

The Plan to Improve Staff Competencies was implemented as written under the Characterization Program. However, completion of the implementation was not reported before the establishment of the Characterization Project. This commitment will now be closed by: validating that the Hanford site wide computerized training requirements and status matrix (TMX) reflects the required training for the Project organization; and completing any identified delinquent training. These actions will be completed by May 30, 1996.

4.1.2 Commitment 1.11 - Field Schedule for Sampling All Activities FY95 & 96:

A schedule for the completion of all tank sampling currently required by programmatic Data Quality Objectives is pending submittal of the Implementation Plan revision.

4.1.3 Commitment 1.23 - Identify Bounding Tanks for Disposal

WHC letter 9457986, dated November 30, 1994, forwarded WHC-SD-WM-TA-154, "Strategy for Sampling Hanford Site Tank Wastes for the Development of Disposal Technology." to DOE-RL. This document identifies tanks representative of key waste types that may prove to limit the disposal processes, and provides the strategy for obtaining process development information from the tanks identified. WHC-SD-WM-TA-154 was updated to Revision 1 and transmitted to DOE-RL by WHC letter 9553504 dated June 29, 1995. This revision will be forwarded by DOE-RL to the Board for closure of this commitment in January 1996.

4.2 Accelerate Safety Related Characterization

4.2.1 Commitment 2.3 - Complete Sampling & Analysis of All Watch List Tanks

The completion date for this commitment depends upon the numbers and types of samples required by the Integrated Characterization Basis; the reliability of the Rotary Mode Core Systems and the quality of the samples obtained; and the degree to which the assumptions of the Characterization Basis are confirmed by the sampling and analysis. The original October 1995 due date was not met. A completion date for this commitment will be established upon completion of sampling and analysis of the Characterization Basis High Priority Tanks.

4.3 Improve the Quality and Quantity of Sampling

4.3.1 Commitment 3.2 - Review Characterization Field Procedures/DOE Conduct of Operations

The validation described in the last Quarterly Report was completed on all active operating procedures. WHC letter 9555033 dated September 20, 1995 reported completion of

commitment to DOE-RL. DOE-RL letter 95-CHD-089 dated October 4, 1995 reported that this commitment was complete and considered to be closed.

4.3.2 Commitment 3.10 - Qualify Two Additional Push/Rotary Mode Crews

Two additional Rotary Mode Core Sampling crews were trained and certified during June through August 1995. This provides a total of one Push Mode and three Rotary Mode trained crews. WHC letter 9555144 dated September 27, 1995 reported completion of this commitment to DOE-RL. DOE-RL letter 95-CHD-089 dated October 4, 1995 reported that this commitment was complete and considered to be closed.

4.3.3 Commitment 3.11 - Additional Rotary Mode Core Systems

WHC letter 9553603 dated June 30, 1995 reported completion of construction, the Acceptance Test Program, and the Operational Test Plan. The DOE-RL Independent Readiness Review was completed satisfactorily on July 13, 1995. DOE-RL letter 95-CHD-067 dated August 20, 1995 reported completion of the DOE-RL Independent Readiness Assessment on July 13, 1995, and recommended deployment of the systems for field operations. DOE-RL letter 95-CHD-089 dated October 4, 1995 reported that this commitment was complete and considered to be closed.

4.3.4 Commitment 3.12 - Hire/Train/Qualify Four Additional Rotary Mode Crews

DOE EM-36 letter of March 9, 1995 reported to DNFSB that these additional crews would not be hired and trained until the Tank Waste Characterization Basis was issued and the numbers of samples required have been evaluated. The Tank Waste Characterization Basis currently recommends initial sampling of 28 High Priority Tanks. Whether acceleration of the sampling rate is necessary in the future depends on the degree to which these tank samples validate the assumptions by the safety issue programs. The retrieval, pretreatment, and disposal schedules do not currently require accelerated sampling. Evaluation of the sampling and analysis results for the High Priority Tanks will be used in determining whether additional crews are needed.

4.3.5 Commitment 3.13 - Deploy Prototype Cone Penetrometer

A truck mounted 45-ton Cone Penetrometer was ordered in September 1994. This decision was reevaluated in July 1995 and the order was changed to a skid mounted 35-ton unit on July 31, 1995. The current delivery date is estimated to be September 1996.

4.3.6 Commitment 3.16 - Direct Drill Bit Temperature Monitoring

Laboratory testing of a prototype drill bit temperature monitor has been completed at Sandia National Laboratory. When this Implementation Plan was first written, direct monitoring of the drill bit temperature was thought to be the only method of insuring that the drill bit temperature stayed below the safety limits during rotary drilling. Since then, computer modeling and confirmation testing have shown that monitoring the down force, rotational speed, and purge gas flow are sufficient to control drill bit temperature. Consequently, the need for direct drill bit temperature monitoring is now greatly reduced. Any potential benefit

would also be further reduced by anticipated changes in the safety limits to reflect higher allowed drill bit temperatures and the knowledge that many tanks thought to require rotary drilling could probably be sampled by push mode core sampling. This greatly reduced benefit has been further reduced by additional costs due to the greater system complexity that would result from the drill bit instrumentation and its consequence on system reliability. This commitment will not be included in the next Implementation Plan revision.

4.3.7 Commitment 3.18 - Develop Means for Measuring Complete Sample Recovery

This commitment was originally envisioned to be development of an instrumented sample receiver to replace the existing receiver. Prototype testing of this concept was completed in June 1995 with disappointing results. An alternate concept using an X-Ray imaging device was procured on a parallel path and proved to be very successful in tests. This device was field tested during the months of July and August 1995. The field tests were so successful that three more instruments have been ordered to provide one for each core sampling truck. WHC letter 9554924 dated September 14, 1995 reported completion of this commitment to DOE-RL and forwarded the Acceptance Test Report as an Attachment. DOE-RL letter 95-CHD-089 dated October 4, 1995 reported that this commitment was complete and considered to be closed.

4.4 Streamline Tank Access

All Commitments are Closed.

4.5 Improve the Quality and Quantity of Analyses

4.5.1 Commitment 5.2 - Complete Renovation of 325 'A' Hot Cell

When the 93-5 Implementation Plan was developed, analysis capacity greater than that available at the 222-S laboratory was projected to be needed. DOE EM-36 letter of March 9, 1995 reported to DNFSB that the 325 hot cells will not be needed until the safety screening and safety issue resolution logic is completed and the final sampling needs are evaluated. However, because of the productivity improvements implemented in field sampling and the resulting improved sampling rate, PNNL Analytical Chemistry Laboratory (ACL) is required to perform production laboratory analysis until the High Priority Tanks are completed. The PNNL Laboratory is needed to provide backup production capability, to do Specialty Analysis, and to provide a second laboratory for the 222-S Sample Exchange Evaluation program. Upgrade of the 325 Laboratory Hot Cell is expected to be complete by March 31, 1996.

4.5.2 Commitment 5.14 - Two PAS-1 Casks will be ready for use Jan. 1995

The Safety Analysis Report for the Packaging amendment was prepared by VECTRA Technologies. The report was submitted to DOE-RL and forwarded to DOE-HQ for approval in July 1994. Two rounds of questions concerning the Safety Analysis Report have been completed. DOE-HQ has announced a third round of questions. The casks will now be used

to ship pretreatment process samples to LANL, not characterization samples as originally planned. Since this commitment is not now needed by the Characterization Program, this milestone will not be included in the next revision to the Implementation Plan.

4.6 Improve Data Management

All Commitments are Closed.

4.7 Change Control

4.7.1 Commitment 7.1 - Formally Submit Changes to Commitments

A revision to the Implementation Plan is now expected to be submitted to the Board in January 1996.

4.7.2 Commitment 7.2 - Address Changes to Milestones in Quarterly

This commitment is ongoing. A status of all open milestones with new expected completion dates is provided in this report.

5 APPENDICES

5.1 Tanks Sampled during Fourth Quarter 1995 (October through December)

SAMPLE	Actual Start	Actual Finish
BY-110 Rotary Samples 6 (3R) Segment 6 (Eberlein)	7/10/95	10/20/95
B-204 Push Sample 2 Segments 14 (55K Tank)	10/6/95	10/19/95
BY-104 Rotary Samples 2 Segments 7 (Eberlein)	10/6/95	11/15/95
BX-110 Auger Sample 2 Segments 1	10/9/95	10/16/95
TX-111 Vapor Sample (3)	10/11/95	10/12/95
SY-102 Grab Sample Compatibility - Sutey	10/19/95	10/20/95
B-203 Rotary Sample 2 Segments 14 (55K Tank)	10/19/95	12/14/95
S-151 DIVERSION BOX Grab Sample	10/23/95	10/24/95
244-TX Grab Sample Compatibility - Sutey	11/6/95	11/7/95
A-103 Vapor Sample (3)	11/6/95	11/9/95
AP-101 Grab Sample Compatibility - Sutey	11/9/95	11/10/95
A-102 Vapor Sample (3)	11/10/95	11/10/95
BX-112 Auger Sample 2 Segments 1	11/13/95	11/17/95
BX-107 Vapor Sample (3)	11/16/95	11/17/95
SX-104 Grab Sample Compatibility - Sutey	11/20/95	11/20/95
AN-106 Grab Sample - Jones/Safety Screening	11/20/95	11/22/95
BY-102 Vapor Sample (3)	11/20/95	11/21/95
AN-102 Grab Sample - Jones/Safety Screening	11/27/95	12/12/95
BX-106 Auger Sample 2 Segments 1	12/4/95	12/22/95
S-110 Vapor Sample (3)	12/4/95	12/5/95
S-108 Vapor Sample (3)	12/5/95	12/6/95
AN-101 Grab Sample Safety Screening	12/6/95	12/14/95
S-105 Vapor Sample (3)	12/6/95	12/7/95
BX-112 Push Sample 2 Segments 4	12/21/95	12/27/95

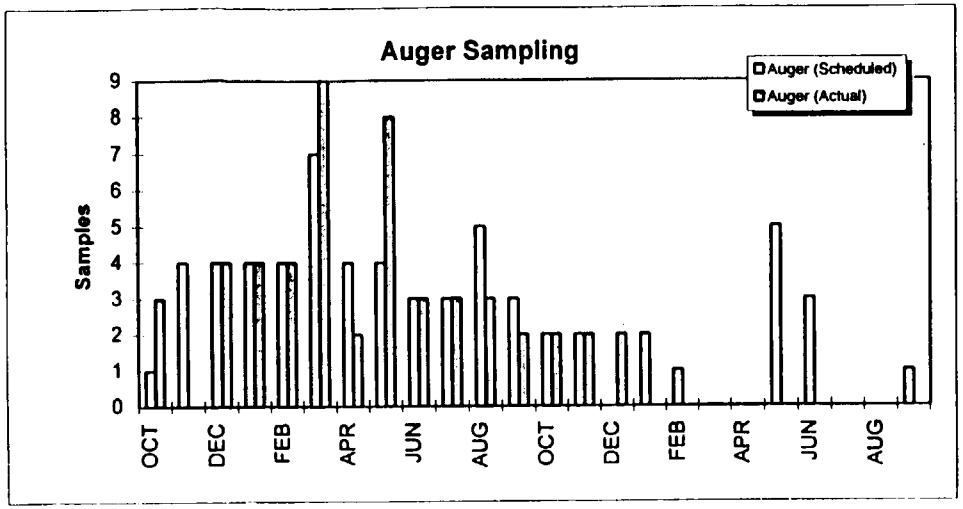
5.2 Chart of Samples Taken vs. Samples Scheduled

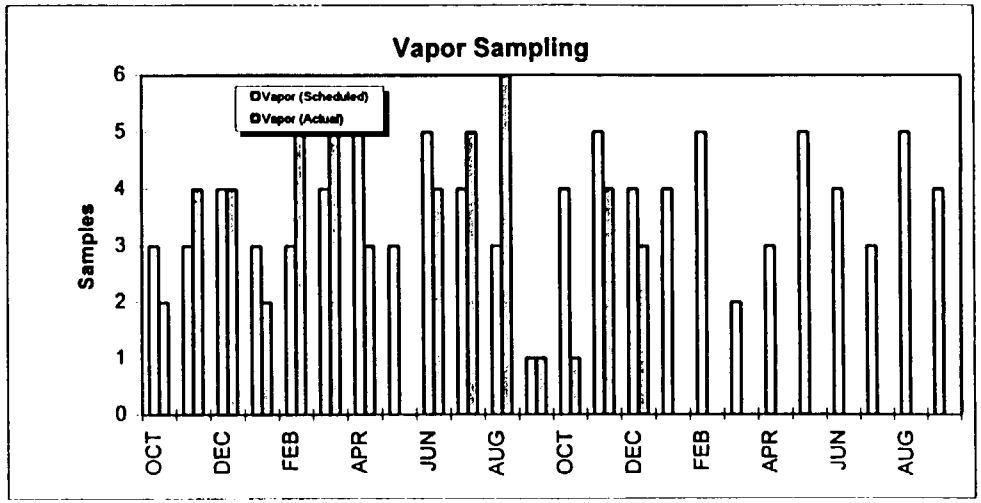
Two pages inserted following this page.

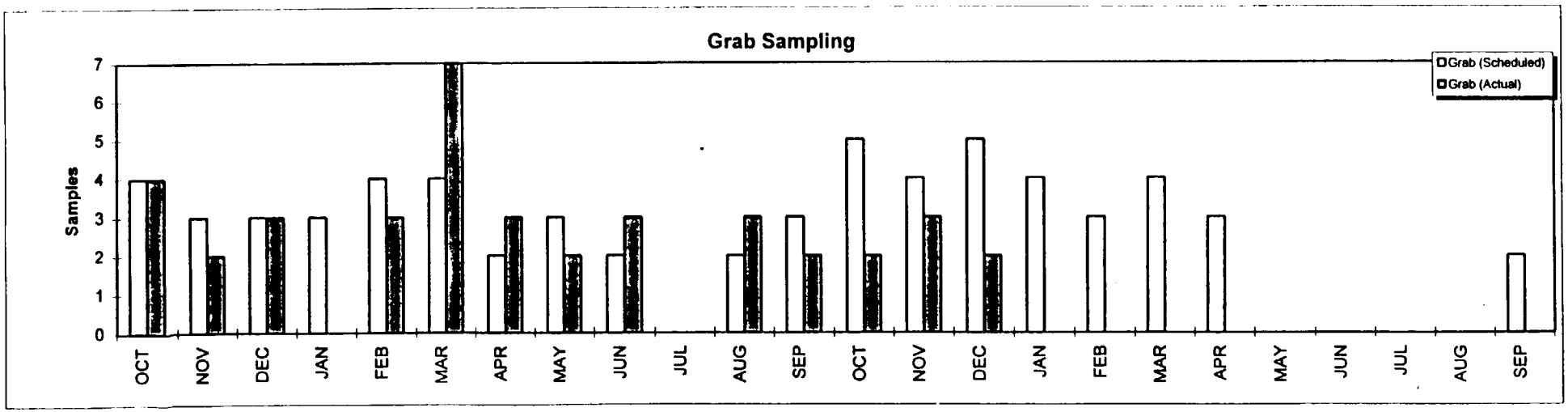
T·W·R·S Tank Waste Remediation System

Characterization

Auger, Vapor, and Grab Sampling

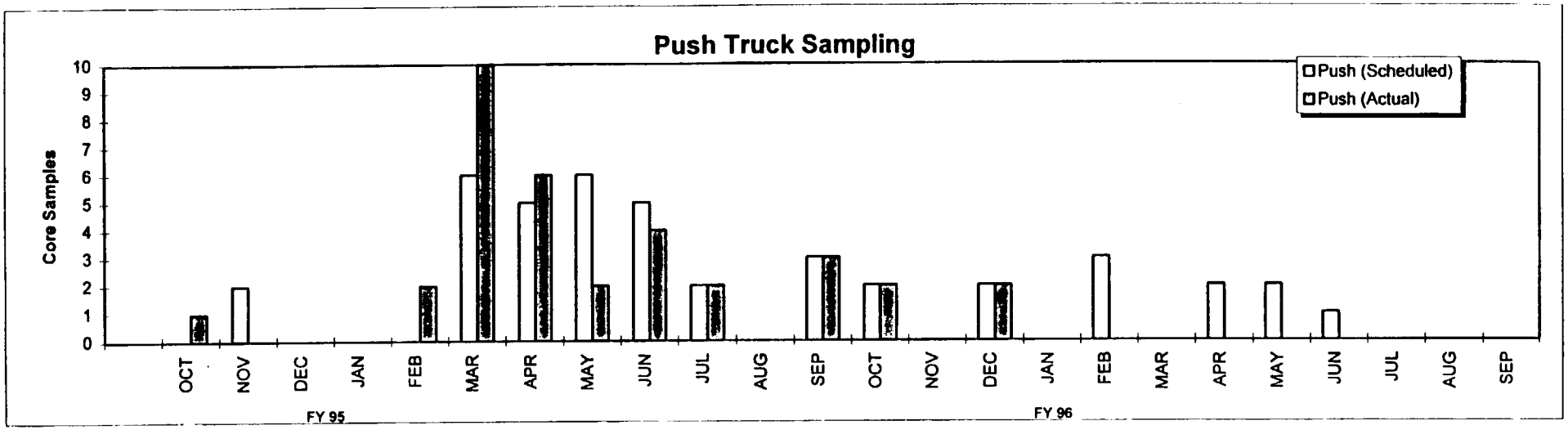


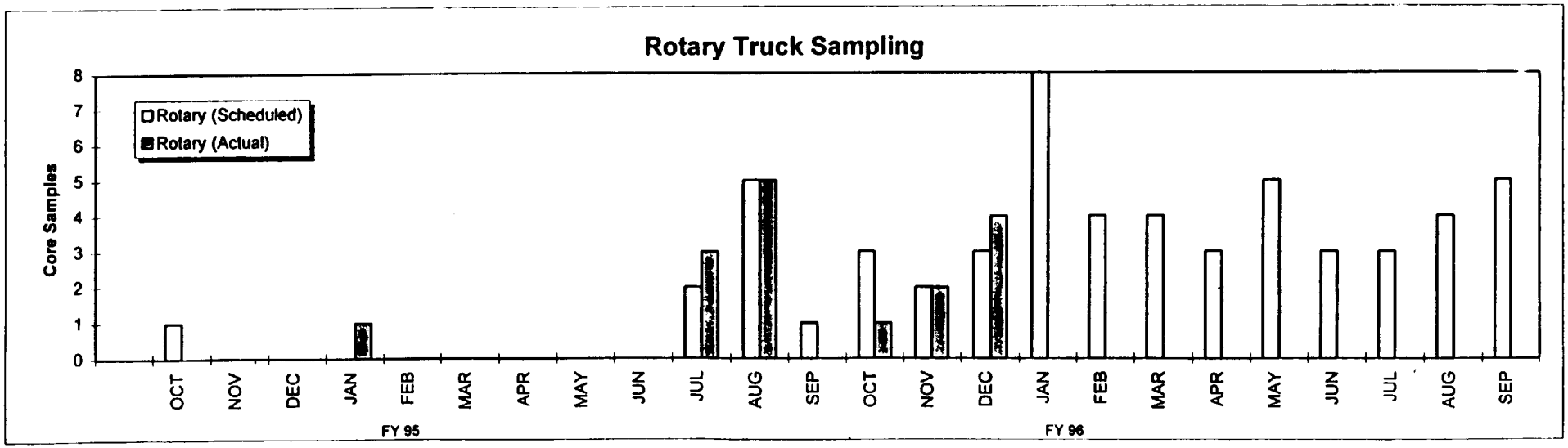




Characterization

Push and Rotary Sampling





5.3 Sampling Schedule for First Quarter 1996 (January through March)

TITLE	Early Start	Early Finish
A-102 Auger Sample 2 Segment 1	1/5/96	1/16/96
AW-101 Grab Sample Safety Screening	1/9/96	1/11/96
C-107 Temporal Vapor Sample (3 & 4)	1/10/96	1/12/96
AP-107 CAMPAIGN 96-2 Grab Sample-Von Bargen	1/16/96	1/18/96
BX-104 Temporal Vapor Sample (4)	1/17/96	1/19/96
BY-108 Temporal Vapor Sample (3 & 4)	1/22/96	1/24/96
AN-107 Grab Sample (Caustic Addition)	1/23/96	1/25/96
AN-104 Push Sample 3 Segment 21 (Eberlein)	1/26/96	2/26/96
S-102 Temporal Vapor Sample (3 & 4)	1/29/96	1/31/96
AN-107 Grab Sample (Caustic Addition)	1/30/96	2/1/96
TY-103 Rotary Sample 3 Segment 4 (Eberlein)	1/31/96	3/6/96
B-102 Vapor Sample (4)	2/5/96	2/7/96
AN-107 Grab Sample (Caustic Addition)	2/6/96	2/8/96
B-202 Vapor Sample (4)	2/8/96	2/9/96
U-105 Rotary Sample 3 Segment 8 (Eberlein)	2/13/96	4/16/96
TX-107 Auger Sample 2 Segment 1	2/14/96	2/21/96
BX-105 Vapor Sample (4)	2/14/96	2/16/96
BX-110 Vapor Sample (4)	2/20/96	2/21/96
C-201 Vapor Sample (4)	2/22/96	2/26/96
AN-104 Grab Sample Safety Screening	2/27/96	2/29/96
C-202 Vapor Sample (4)	2/29/96	3/4/96
AN-107 Grab Sample (Caustic Addition)	3/5/96	3/7/96
U-109 Rotary Sample 3 Segment 9 (Eberlein)	3/7/96	5/8/96
C-204 Vapor Sample (4)	3/7/96	3/11/96
AN-102 Grab Sample	3/12/96	3/14/96
AN-107 Grab Sample (Caustic Addition)	3/19/96	3/21/96
AY-101 Grab Sample	3/22/96	3/26/96
AN-103 Push Sample 2 Segment 19 (Eberlein)	3/26/96	4/12/96
SX-101 Grab Sample Compatibility-Sutey	3/29/96	4/2/96

5.4 Tank Characterization Plans

Sixty-five Tank Characterization Plans for tanks that may be sampled in FY-1996 were submitted to DOE-RL with the Tank Waste Analysis Plan (TWAP) on August 30, 1995. The next scheduled draft TWAP submittal is for FY-97 in May 1996.

5.5 List of Tank Characterization Plans and Sampling and Analysis Plans issued during the Quarter

Title	Number	Rev	Date
Tank 241-BX-106 Tank Characterization Plan (TCP)	WHC-SD-WM-TP-240	1	10/4/95
Tank 241-BX-103 TCP	WHC-SD-WM-TP-339	1	10/4/95
Tank 241-AN-102 TCP	WHC-SD-WM-TP-216	1	10/4/95
Tank 241-B-104 TCP	WHC-SD-WM-TP-349	1	10/4/95
Tank 241-B-101 TCP	WHC-SD-WM-TP-350	1	10/4/95
Tank 241-A-102 TCP	WHC-SD-WM-TP-358	1	10/4/95
Tank 241-U-105 Push Mode Core Tank Sampling and Analysis Plan (TSAP)	WHC-SD-WM-TSAP-048	0	10/4/95
Tank 241-C-103 TCP	WHC-SD-WM-TP-207	2	10/5/95
Tank 241-BY-108 TCP	WHC-SD-WM-TP-275	1	10/5/95
Tank 241-BY-110 TCP	WHC-SD-WM-TP-279	1	10/5/95
Tank 241-C-102 TCP	WHC-SD-WM-TP-206	1	10/5/95
Tank 241-SY-103 TCP	WHC-SD-WM-TP-197	1	10/5/95
Tank 241-U-103 TCP	WHC-SD-WM-TP-288	1	10/5/95
Tank 241-C-108 TCP	WHC-SD-WM-TP-211	2	10/5/95
Tank 241-C-204 TCP	WHC-SD-WM-TP-307	1	10/5/95
Tank 241-BX-109 TCP	WHC-SD-WM-TP-338	1	10/5/95
Tank 241-S-107 TCP	WHC-SD-WM-TP-348	1	10/5/95
Tank 241-BX-110 Auger TSAP	WHC-SD-WM-TSAP-038	0	10/9/95
Tank 241-B-203 Push Mode Core TSAP	WHC-SD-WM-TSAP-003	1	10/17/95

DNFSB 93-5 QUARTERLY REPORT, OCTOBER 1 TO DECEMBER 31, 1995

Title	Number	Rev	Date
Tank 241-B-204 Push Mode Core TSAP	WHC-SD-WM-TSAP-005	1	10/18/95
Compatibility Grab Tank TSAP	WHC-SD-WM-TSAP-037	1-B	10/19/95
Tank 241-BX-112 TCP	WHC-SD-WM-TP-341	0	10/20/95
Tank 241-AW-101 TCP	WHC-SD-WM-TP-229	0-B	10/23/95
Tank 241-U-105 Push Mode Core TSAP	WHC-SD-WM-TSAP-048	1	10/23/95
Tank 241-U-111 TCP	WHC-SD-WM-TP-249	1	10/25/95
Tank 241-BY-105 Rotary Core TSAP	WHC-SD-WM-TSAP-046	0	10/26/95
Tank 241-BY-106 Rotary Core TSAP	WHC-SD-WM-TSAP-050	0	10/27/95
Tank 241-BY-105 Rotary Core TSAP	WHC-SD-WM-TSAP-046	0-A	10/31/95
Tank 241-TY-103 Rotary Core TSAP	WHC-SD-WM-TSAP-039	0	10/31/95
Tank 241-BX-112 Auger TSAP	WHC-SD-WM-TSAP-051	0	11/1/95
Tank 241-BY-108 Rotary Mode Core TSAP	WHC-SD-WM-TSAP-059	0	11/3/95
Tank 241-B-101 Push Mode Core TSAP	WHC-SD-WM-TSAP-058	0	11/3/95
Tank 241-C-102 Auger TSAP	WHC-SD-WM-TSAP-060	0	11/6/95
Tank 241-BY-110 Rotary Mode Core TSAP	WHC-SD-WM-TSAP-055	0	11/6/95
Tank 241-BX-109 Push Mode Core TSAP	WHC-SD-WM-TSAP-056	0	11/6/95
Tank 241-AN-101 TCP	WHC-SD-WM-TP-413	0	11/8/95
Tank 241-AP-104 TCP	WHC-SD-WM-TP-414	0	11/8/95
Tank 241-AP-101 Grab TSAP	WHC-SD-WM-TSAP-062	0	11/9/95
Tank 241-BX-112 Auger TSAP	WHC-SD-WM-TSAP-051	0-A	11/15/95
Tank 241-BY-104 Rotary Core TSAP	WHC-SD-WM-TSAP-040	0-A	11/15/95

DNFSB 93-5 QUARTERLY REPORT, OCTOBER 1 TO DECEMBER 31, 1995

Title	Number	Rev	Date
Tank 241-U-105 TCP	WHC-SD-WM-TP-289	0-B	11/17/95
Tank 241-U-103 TCP	WHC-SD-WM-TP-288	1-A	11/17/95
Tank 241-AN-104 TCP	WHC-SD-WM-TP-384	0-A	11/17/95
Tank 241-U-107 TCP	WHC-SD-WM-TP-244	0-C	11/17/95
Tank 241-U-109 TCP	WHC-SD-WM-TP-316	0-A	11/17/95
Tank 241-S-111 TCP	WHC-SD-WM-TP-317	0-B	11/17/95
Tank 241-AW-101 TCP	WHC-SD-WM-TP-229	0-C	11/17/95
Tank 241-SX-103 TCP	WHC-SD-WM-TP-313	0-B	11/20/95
Tank 241-S-102 TCP	WHC-SD-WM-TP-238	0-C	11/20/95
Tank 241-SY-103 TCP	WHC-SD-WM-TP-197	1-A	11/20/95
Tank 241-AN-107 TCP	WHC-SD-WM-TP-215	1	11/20/95
Tank 241-A-101 TCP	WHC-SD-WM-TP-331	0-A	11/20/95
Tank 241-SX-109 TCP	WHC-SD-WM-TP-334	0-A	11/20/95
Tank 241-AN-103 TCP	WHC-SD-WM-TP-383	0-A	11/20/95
Tank 241-AN-105 TCP	WHC-SD-WM-TP-385	0-A	11/20/95
Tank 241-AX-101 TCP	WHC-SD-WM-TP-332	0-A	11/20/95
Tank 241-S-112 TCP	WHC-SD-WM-TP-392	0-A	11/20/95
Tank 241-AP-101 TCP	WHC-SD-WM-TP-417	0	11/20/95
Tank 241-SX-104 TCP	WHC-SD-WM-TP-321	0-A	11/20/95
Tank 241-BX-104 TCP	WHC-SD-WM-TP-296	1	11/21/95
Compatibility Grab TSAP	WHC-SD-WM-TSAP-037	1-C	11/21/95
Tank 241-BX-112 Push Mode Core TSAP	WHC-SD-WM-TSAP-063	0	11/22/95
Tank 241-AY-101 Grab TSAP	WHC-SD-WM-TSAP-066	1	11/27/95
Tank 241-BY-106 Rotary Core TSAP	WHC-SD-WM-TSAP-050	1	11/27/95
Tank 241-U-109 TCP	WHC-SD-WM-TP-316	0-B	11/28/95
Tank 241-AN-102 Grab TSAP	WHC-SD-WM-TSAP-065	0	11/28/95

Title	Number	Rev	Date
Tank 241-T-109 Auger TSAP	WHC-SD-WM-TSAP-014	0-A	11/29/95
Tank 241-BX-112 TCP	WHC-SD-WM-TP-341	0-A	11/30/95
Tank 241-AP-101 Grab TSAP	WHC-SD-WM-TSAP-062	0-A	11/30/95
Tank 241-U-109 Push Core TSAP	WHC-SD-WM-TSAP-052	0	11/30/95
Tank 241-AN-106 TCP	WHC-SD-WM-TP-407	0-A	12/1/95
Tank 241-BX-106 Auger TSAP	WHC-SD-WM-TSAP-068	0	12/1/95
Tank 241-BX-104 Push Mode Core TSAP	WHC-SD-WM-TSAP-067	0	12/4/95
Tank 241-AN-101 Grab TSAP	WHC-SD-WM-TSAP-064	0-A	12/6/95
Tank 241-AP-104 TCP	WHC-SD-WM-TP-414	0-A	12/6/95
Tank 241-AN-102 Grab TSAP	WHC-SD-WM-TSAP-065	1	12/6/95
Tank 241-AP-108 TCP	WHC-SD-WM-TP-419	0	12/7/95
Tank 241-AN-107 Grab TSAP	WHC-SD-WM-TSAP-061	0	12/11/95
Tank 241-AN-106 Grab TSAP	WHC-SD-WM-TSAP-070	0	12/11/95
Tank 241-AP-108 TSAP	WHC-SD-WM-TSAP-071	0	12/12/95
Tank 241-BY-106 Rotary Core TSAP	WHC-SD-WM-TSAP-050	1-A	12/18/95
Tank 241-TX-107 TCP	WHC-SD-WM-TP-420	0	12/19/95
Tank 241-BX-112 Push Mode Core TSAP	WHC-SD-WM-TSAP-063	0-A	12/21/95
Tank 241-S-102 Push Mode Core TSAP	WHC-SD-WM-TSAP-074	0	12/22/95
Tank 241-B-108 Push Mode Core TSAP	WHC-SD-WM-TSAP-075	0	12/27/95
Tank 241-BX-106 Auger TSAP	WHC-SD-WM-TSAP-068	1	12/28/95

5.6 Tank Characterization Reports

The Tank Characterization Report for Single-Shell Tank 241-C-108, WHC-SD-WM-ER-503, Revision 0 was completed and distributed.

5.7 List of Analytical Reports Issued

Tank	Type	Number	Title	Date
U-202	Push	WHC-SD-WM-DP-110	Final Report for Tank 241-U-202, Push Mode Cores 75, 77, and 78	10/5/95
BY-103	Auger	WHC-SD-WM-DP-104	Final Report for Tank 241-BY-103, Auger Samples 95-AUG-012 and 95-AUG-013	10/10/95
T-106	Auger	WHC-SD-WM-DP-143	90-Day Safety Screen Results and Final Report for Tank 241-T-106, Auger Samples 95-AUG-038 and 95-AUG-039	10/12/95
T-108	Auger	WHC-SD-WM-DP-141	90-Day Safety Screening Results and Final Report for Tank 241-T-108, Auger Samples 95-AUG-035 and 95-AUG-037	10/23/95
BY-108	Rotary	WHC-SD-WM-DP-145	60-Day Safety Screening and Ferrocyanide Results for Tank 241-BY-108, Rotary Mode	10/23/95
B-104	Push	WHC-SD-WM-DP-137	90-Day Safety Screening Results and Final Report for Tank 241-B-104, Push Mode, Cores 88 and 89	10/23/95
AW-105	Grab	WHC-SD-WM-DP-146	60-Day Waste Compatibility, Safety Issue, and 105-Day Final Results for Tank 241-AW-105, grab Samples 5AW-95-1, 5AW-95-2, and 5AW-95-3	10/26/95
U-201	Push	WHC-SD-WM-DP-107	Final Report for Tank 241-U-201, Push Mode Cores 70, 73, and 74	10/26/95
B-112	Auger	WHC-SD-WM-DP-105	Final Report for Tank 241-B-112, Auger Samples 95-AUG-014 and 95-AUG-015	10/26/95
C-101	Auger	WHC-SD-WM-DP-111	Final Report for Tank 241-C-101, Auger Sample 95-AUG-019	10/27/95
AW-106	Grab	WHC-SD-WM-DP-147	60-Day Waste Compatibility, Safety Issue, and 105-Day Final Results for Tank 241-AW-106, Grab Samples 6AW-95-1, 6AW-95-2, and 6AW-95-3	10/31/95
U-203	Push	WHC-SD-WM-DP-109	Final Report for Tank 241-U-203, Push Mode Cores 79 and 80	10/31/95
AN-101	Grab	WHC-SD-WM-DP-148	60-Day Waste Compatibility, Safety Issues, and Final Results for Tank 241-AN-101, Grab Samples 1AN-95-1, 1AN-95-2, and 1AN-95-3	11/2/95

DNFSB 93-5 QUARTERLY REPORT, OCTOBER 1 TO DECEMBER 31, 1995

Tank	Type	Number	Title	Date
SX-108	Auger	WHC-SD-WP-DP-151	45-Day Safety Screen Results for Tank 241-SX-108, Auger Samples 95-AUG-042, 95-AUG-043, and 95-AUG-044	11/10/95
AY-102	Grab	WHC-SD-WM-DP-150	60-Day Compatibility Safety Issue and Final Results for Tank 241-AY-102, Grab Samples 2AY-95-1, 1AY-95-2, 2AY-95-3, and 2AY-95-4	11/16/95
BX-110	Auger	WHC-SD-WM-DP-155	45-Day Safety Screening and Final Report for Tank 241-BX-110, Auger Samples 95-AUG-045 and 95-AUG-046	11/17/95
S-151	Grab	WHC-SD-WM-DP-158	60-Day Waste Compatibility, Safety Issues, and Final Results for Diversion Box 241-S-151, Grab Samples 241-S-151-TOP, 241-S-151-MIDDLE, and 24-S-151-BOTTOM	12/1/95
BX-112	Auger	WHC-SD-WM-DP-157	45-Day Safety Screening Results for Tank 241-BX-112, Auger Samples 95-AUG-047 and 95-AUG-048	12/7/95
T-109	Auger	WHC-SD-WM-DP-144	Final Report for Tank 241-T-109, Auger Sample 95-AUG-040 and 95-AUG-041	12/7/95
SY-102	Grab	WHC-SD-WM-DP-159	60-Day Waste Compatibility Safety Issue and Final Results for Tank 241-SY-102, Grab Samples 2SY-95-1 and 2SY-95-2	12/11/95
S-107	Push	WHC-SD-WM-DP-156	45-Day Safety Screening Results for Tank 241-S-107 Push Mode Cores 105, 110, and 111	12/12/95
BY-110	Rotary	WHC-SD-WM-DP-153	45-Day Safety Screening Results for Tank 241-BY-110, Rotary Mode Cores 92, 95, 96, 101, 103, 106, 107, 109, and 113	12/22/95
AP-101	Grab	WHC-SD-WM-DP-161	45-Day Safety Screening Report for Tank 241-AP-101, grab Samples 1AP-95-1, 1AP-95-2, 1AP-95-3, 1AP-95-4, 1AP-95-5, AND 1AP-95-6	12/22/95
B-204	Push	WHC-SD-WM-DP-160	45-Day Safety Screening Results for Tank 241-B-204, Push Mode Cores 112 and 114	12/22/95

5.8 List of Commitments submitted to DOE-RL during the Quarter

Number	Description	Due Date	Submitted to DOE-RL	Submitted to DNFSB
1.10.53	Issue Quarterly Progress Reports	10/20/95	10/13/95	12/5/95

5.9 List of Commitments Recommended by DOE as Closed during the Quarter

Number	Description	Due Date	Submitted to DOE-RL	Submitted to DNFSB
3.02	Review Char. Field Proc's/DOE Conduct of Ops	1/31/94	9/20/95	10/4/95
3.10	Qual of 2 Additional Crews/Push & Rotary Trucks	6/30/94	9/27/95	10/4/95
3.11	Additional Rotary Mode Core Systems	9/30/94	6/30/95	10/4/95
3.18	Dev. Means for Measuring Complete Sample Recovery	1/31/95	9/14/95	10/4/95
1.10.53	Issue Quarterly Progress Reports	10/20/95	10/13/95	12/5/95

DNFSB 93-5 QUARTERLY REPORT, OCTOBER 1 TO DECEMBER 31, 1995

5.10 Table of DNFSB 93-5 Commitments Status

Number	Description	Due Date	Submitted to DOE-RL	Submitted to DNFSB
1.01	Enhance WHC Characterization Program Management Staff	2/28/94	2/28/94	6/27/94
1.02	Reduce Management Layers in WHC TWRS	3/31/94	3/24/94	6/30/94
1.03	Improve RL Oversight	5/31/94	5/31/94	5/31/94
1.04	Plan to Improve Char. Prog. Tech. Staff Competencies	4/30/94	4/29/94	4/29/94
1.05	Implement Plan to Improve Tech Staff Competencies	5/31/95		
1.06	Define Resp of Key Characterization Managers	3/31/94	3/31/94	7/12/94
1.07	Streamline DQO Process	1/31/94	12/31/93	5/26/94
1.08	Issue TWRS Characterization Quality Assurance Plan	2/28/94	2/28/94	5/26/94
1.09	Plan for Blind Samples	5/31/94	5/24/94	6/1/94
1.10.41	Issue Quarterly Progress Reports	4/30/94	5/3/94	5/3/94
1.10.42	Issue Quarterly Progress Reports	7/30/94	7/25/94	7/25/94
1.10.43	Issue Quarterly Progress Reports	10/30/94	10/20/94	10/20/94
1.10.44	Issue Quarterly Progress Reports	1/31/95	1/20/95	1/20/95
1.10.51	Issue Quarterly Progress Reports	4/30/95	4/21/95	5/10/95
1.10.52	Issue Quarterly Progress Reports	7/31/95	7/25/95	8/8/95
1.10.53	Issue Quarterly Progress Reports	10/20/95	10/13/95	12/5/95
1.10.54	Issue Quarterly Progress Reports	1/19/96		
1.10.61	Issue Quarterly Progress Reports	4/19/96		
1.10.62	Issue Quarterly Progress Reports	7/19/96		
1.10.63	Issue Quarterly Progress Reports	10/18/96		
1.11	Field Schedule for Sampling All Activities FY95 & 96	6/30/94	9/30/94	
1.12	Management Staff Complete System Eng Training	5/31/94	2/15/94	5/25/94
1.13	Charact. Functions/Requirements in Functional Analysis	1/31/94	4/28/94	6/1/94
1.14	Charact. Part of Initial Systems Eng Analysis Results	6/30/94	6/30/94	6/30/94
1.15	Integrate Vapor Sample Prog into Charact. Program	10/31/94	11/3/94	12/3/94
1.16	Complete Historical Tank Layering Models	9/30/94	5/18/95	9/18/95
1.17	Historical Tank Content Est Reports NE/SW	6/30/94	6/29/94	6/30/94
1.18	Historical Tank Content Est Reports NW/SE	3/31/95	7/30/95	8/24/95
1.19	Develop Statistical Tools for Samples Needed	12/30/94	12/29/94	8/8/95
1.20	TWRS Risk Acceptance Criteria	8/31/94	12/8/95	12/8/95
1.21.01	Ferrocyanide Safety Issue DQO	12/15/93	5/1/95	9/12/95
1.21.02	C-103 Vapor DQO Draft Report	1/31/94	3/25/94	9/12/95
1.21.03	C-103 Dip Sample DQO	12/16/94	3/25/94	9/12/95
1.21.04	C-106 High Heat DQO Final Report	12/20/94	1/19/94	9/12/95
1.21.05	Organic Safety Issue DQO Report (PNNL)	1/31/94	5/1/95	9/12/95
1.21.06	Safety Screening Module DQO	1/31/94	5/1/95	9/12/95
1.21.07	Waste Compatibility DQO Report	2/28/94	5/1/95	9/18/95
1.21.08	In-tank Generic Vapor DQO Final	3/3/94	5/1/95	9/29/95
1.21.09	Vapor Rotary Core DQO Final Draft Report	1/20/94	3/25/94	9/18/95
1.21.10	Hydrogen Generating DQO Final Report	4/29/94	5/1/95	9/12/95

DNFSB 93-5 QUARTERLY REPORT, OCTOBER 1 TO DECEMBER 31, 1995

Number	Description	Due Date	Submitted to DOE-RL	Submitted to DNFSB
1.21.11	Pretreatment DQO Draft Report	8/22/94	6/29/95	9/18/95
1.21.12	HLW Immobilization DQO Draft Report	9/6/94	6/29/95	9/18/95
1.21.13	LLW Immobilization DQO Draft Report	9/21/94	6/29/95	9/18/95
1.22	Update FY94 Field Sched to Incorp New Tech. Approach	2/28/94	2/8/94	6/27/94
1.23	Identify 'Bounding Tanks' for Disposal	11/30/94	6/29/95	
2.01	DQOs for all Six Safety Issues	4/29/94	5/1/95	9/12/95
2.02	Safety Screening Module DQO Report	1/31/94	5/1/95	9/12/95
2.03	Complete Sampling & Analysis of All Watch List Tanks	10/31/95		
3.01	Initiate Const. of 2nd & 3rd Rotary Core Sample Trucks	11/30/93	11/1/93	11/15/93
3.02	Review Char. Field Proc's/DOE Conduct of Ops	1/31/94	9/20/95	10/4/95
3.03	Complete Qualif. of 1st Push Mode Crew	2/28/94	1/26/94	6/30/94
3.04	Redeploy Push Mode Core Sampling	3/31/94	3/30/94	6/30/94
3.05	Complete Training & Quals for Sampling Cog Engs	2/28/94	2/24/94	8/11/94
3.06	Restore Rotary Mode Sampling (TPA)	3/31/94	10/26/94	11/2/94
3.07	Complete Qual 1st Rotary Mode Crew	3/31/94	3/31/94	6/30/94
3.09	Detailed Plans for Acquiring/Training Add'l Crews	4/30/94	4/29/94	6/30/94
3.10	Qual of 2 Additional Crews/Push & Rotary Trucks	6/30/94	9/27/95	10/4/95
3.11	Additional Rotary Mode Core Systems	9/30/94	6/30/95	10/4/95
3.12	Hire/Train/Qualify 4 Add'l Rotary Mode Crews	10/31/94		
3.13	Deploy Prototype Cone Penetrometer	5/31/95		
3.14	Installation of Flammable Gas Monitors	4/30/95	4/24/95	6/23/95
3.15	Eng Eval for In Situ Moisture Monitoring	6/30/94	6/28/94	6/30/94
3.16	Direct Drill Bit Temperature Monitoring	1/31/95		
3.17	Review Procedures with Outside Drilling Experts	6/30/94	6/30/94	8/2/94
3.18	Dev. Means for Measuring Complete Sample Recovery	1/31/95	9/14/95	10/4/95
3.19	Eng Eval of New Risers on SSTs	8/31/94	8/31/94	9/12/94
4.01	Issue Approved Broad Based Environmental Assessment	2/28/94	2/10/94	2/25/94
4.02	DOE-RL submit Delegation of Authority request to HQ	1/31/94	1/10/94	1/10/94
4.03	Obtain Delegation of Authority for DOE-RL	4/30/94	1/10/94	7/28/94
5.01	Install Core Scanning in Hot Cell	9/30/94	9/1/94	8/2/95
5.02	Complete Renovation of 325 'A' Hot Cell	9/30/95		
5.03	Letter Assessing Operability of New Extruder	3/31/94	3/28/94	10/26/94
5.04	Cyanide Speciation Tech Transfer (PNNL)	9/30/94	9/1/94	8/2/95
5.05	Issue Results of Sampler Exchange Phase II	3/31/94	3/31/94	6/30/94
5.06	Evaluate Laboratory Staff Training	6/30/94	6/30/94	7/13/94
5.07	Develop & Implement Training for Laboratory Staff	8/31/94	6/30/94	7/13/94
5.08	Procure & Receive 2 PAS-1 Casks	9/30/94	8/18/94	8/25/94
5.09	Plan to Upgrade INEL Lab	1/31/94	2/8/94	6/28/94
5.10	Plan to Upgrade LANL Lab	3/29/94	3/28/94	6/30/94
5.11	Develop Min/Max Lab Capacity Strategy	2/28/94	2/28/94	6/30/94

DNFSB 93-5 QUARTERLY REPORT, OCTOBER 1 TO DECEMBER 31, 1995

Number	Description	Due Date	Submitted to DOE-RL	Submitted to DNFSB
5.12	Upgrade INEL Lab to Ready to Serve Mode	10/31/94	10/31/94	11/4/94
5.13	Upgrade LANL Lab to Ready To Serve Mode	2/28/95	2/6/95	4/10/95
5.14	Two PAS-1 Casks will be ready for use Jan. 1995	1/31/95		
6.01	Prepare a Customer Needs Analysis (data)	4/30/94	5/2/94	6/23/94
6.02	Issue a Data Mgmt Improvement Plan	5/31/94	5/1/94	5/26/94
6.03	Initial On-Line Capability for LABCORE-1	1/31/94	1/31/94	6/23/94
6.04	Demonstrate Off-Site Access to Tank Charact. Database	1/31/94	1/28/94	7/12/94
6.05	Complete data Loading of 20 Tanks into Database	9/30/94	9/30/94	10/25/94
6.06	Evaluate 12 Validated Data Reports for Safety	1/31/94	4/25/94	6/30/94
7.01	Formally Submit Changes to Commitments			
7.02	Address Changes to Milestones in Quarterly			