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

DEC 05 1995

95-CHD-088

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

Dear Mr. Conway:

TRANSMITTAL OF AUGUST 1995 MONTHLY REPORT, IN ACCORDANCE WITH THE U.S. DEPARTMENT OF ENERGY, RICHLAND OPERATIONS OFFICE (RL), IMPLEMENTATION PLAN FOR THE DEFENSE NUCLEAR FACILITIES SAFETY BOARD (DNFSB) RECOMMENDATION 93-5

Enclosed is the Characterization Division's August 1995 Monthly Report. This report is being submitted to you to provide information and status of actions associated with the 93-5 Implementation Plan.

Significant Accomplishments:

- A total of thirty tank characterization reports were completed and submitted to RL during this reporting period.
- A total of thirty-three tank characterization plans were completed during this reporting period.
- The Tank Waste Analysis Plan WHC-SD-WM-PLN, Rev. 0, Fiscal Year 1996, was received by RL on August 29, 1995, which included a total of sixty-five TCPs received to date.
- Draft No. 1 of the Fiscal Year 1996, Characterization Project Multi-Year Program Plan was received by RL on August 4, 1995.
- On August 24, 1995, RL received document LA-UR-94-4469, Rev. 1, "Tank Layering Models for Northeast, Southwest, and Northwest Quadrants". This transmitted with the intent to meet DNFSB Commitment 1.16.
- Tanks sampled and sampling methods used during this time period included:

  1 Push: Push mode truck is being set up on 241-S-107
  2 Rotary: BY-108 & BY-110
  2 Auger: 106-T & 109-T
  5 Vapor: 109-SX, U-203, U-204, U-109 & T-110

- There were ten laboratory data reports released during this time period.

If you have any questions, you may contact me at (509) 376-7395 or your staff may contact Jackson Kinzer, Assistant Manager for Tank Waste Remediation System, at (509) 376-7591.

Sincerely,

John D. Wagoner
Manager

CHD:CAB

Enclosure

cc w/encls:
R. Guimond, EM-2
M. A. Hunemuller, EM-30
K. T. Lang, EM-36
S. L. Trine, RL DNFSB Liaison
J. C. Tseng, EM-30
M. B. Whitaker, EH-9

CHARACTERIZATION PROJECT BIWEEKLY REPORT FOR THE PERIOD ENDING AUGUST 11, 1995

SIGNIFICANT ACCOMPLISHMENTS

A total of thirty tank characterization reports (TCRs) were completed and submitted to the U.S. Department of Energy, Richland Operations Office (RL) during this reporting period. The submittal of all the reports by August 9, 1995 met Characterization Project performance-based initiative (PBI) 95-017.

The Characterization Project quarterly progress report for the Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 93-5 activities for the period ending June 30, 1995 was forwarded by RL to DNFSB on August 8, 1995.

Draft 1 of the FY 1996 Characterization Project Multi-Year Program Plan was provided to RL on August 4, 1995.

PROBLEMS/ISSUES

None to report.

DETAILED WORK ACTIVITIES

TECHNICAL INTEGRATION AND PLANNING (WBS 1.1.1.2.4.1)

See item under Accomplishments.

TECHNICAL DEVELOPMENT AND APPLIED ENGINEERING (WBS 1.1.1.2.4.2)

None to report.

FIELD SAMPLING AND MEASUREMENT (WBS 1.1.1.2.4.3)

Preparations were made to commence X-Y-Z shift for rotary-mode core sampling (RMCS) truck crews. The ability to work 24 hours a day on core sampling activities should improve efforts to obtain samples on a more consistent basis. However, other field sampling activities may be impacted for a short period of time while crews are being reassembled due to contractual (Hanford Atomic Metal Trades Council) obligations.

Characterization Project Operations personnel are working on issues relating to the installation of thermocouple trees and subsequent hook-ups to the Tank Monitoring and Control System. Several of the tanks that are to have thermocouple vapor probes (TVPs) installed were added to Appendix B of Operating Specification Document 30, which impacts the installation work packages.

The Retained Gas Sampler System, as configured in the 306E Laboratory for acceptance testing, was inspected for National Electrical Code conformance. The system was approved.

Fabrication of the two gas characterization systems was officially assigned to Morrison Construction Services. A meeting was held with Morrison Construction Services to view similar systems in use around the Hanford Site.

Installation of an alternate sample line for the Gas Monitoring System 2 (GMS-2) was completed. This alternate line allows GMS-2 to draw its gas sample directly from the dome space as opposed to the SY-101 ventilation system.

Work was initiated on the final GMS-2 operation and maintenance plan that documents responsibilities and methodologies for operation, maintenance, and calibration of GMS-2.

Action has been taken to improve the operating performance of the new Flammable Gas Watch List tanks Standard Hydrogen Monitoring Systems (SHMS) installations. Increased SHMS surveillance has been implemented, a punchlist of known issues has been developed, and work is in progress to correct these issues. Three sample pumps have already been replaced and operating temperature ranges were reset for all West Area SHMS installations. As a result, operating availability has been dramatically improved and false temperature-related false alarms have been eliminated.

A draft engineering task plan and design requirements document for the installation of ventilation flow monitoring equipment in five flammable gas watch list double-shell tanks (DSTs) was completed and submitted for review. This work is being performed to allow the use of SHMS data in calculating total volume of potential gas release events in the DSTs that are in question.

Push Sampling

None to report.

Push Mode Truck Status

A noncompliance report disposition was prepared and a work order was initiated to rework cracked welds on the stationary platform.

Maintenance and testing of the push mode truck were completed. The truck is scheduled to be moved to S-Farm, with sampling to begin on tank 241-S-107.

Rotary Sampling

Rotary core sampling was completed for two of three planned cores for tank 241-BY-108 and one of two cores planned for tank 241-BY-110. The first segment of the third core for BY-108 has not yet been removed from the drill string. Truck #2 has been moved over the second riser of BY-110; setup is complete and the drill string has been installed.

Rotary Mode Truck Status

During the initial design work to add the X-ray power cable reel to the electrical trailers, the trailer for truck #2 was found to be too small. Solutions for this situation are being reviewed.

Truck #3 is located at the RMCS test site for training and new bit testing.

During rotary sampling operations at tank 241-BY-108 with truck #4, a "sampler" was not pulled up into the shielded receiver prior to being placed into the drill string in the tank. A critique was conducted and a number of factors that contributed to this event have been identified. Corrective actions include specific conduct of operations training, and the addition of a weight range based on the load cell readings, to the data sheets to aid operators in detecting the presence of a sampler. Still under review is why the remote latching unit did not physically connect with the sampler. Evaluation of the grapple and related equipment is also underway to determine the best method for sampler removal.

Auger Sampling

The second auger sample core for tank 241-T-106 was obtained. Setup for tank 241-T-109 was placed on hold in order to make preparations for TVP installations in tanks TY-103 and BY-103. Preparations were then initiated for sampling at tank 241-C-108, including work package review and riser re-configuration.

Vapor Sampling

Vapor sampling was completed for tanks 241-SX-109, U-203, U-204, and U-109. The VSS was moved to tank 241-U-108 and the heatup cycle was initiated.

The Type 3 vapor sampling system (VSS) truck required unplanned maintenance for two items: 1) the NesLab heated water bath was replaced; and 2) the ground conductor wire on the main electrical disconnect and transformer was replaced. The Type 3 VSS (truck) also underwent an inspection of the electrical system by a National Electrical Code qualified inspector. Two minor code discrepancies were found and corrected.

Grab Sampling

None to report.

ANALYTICAL INTEGRATION (WBS 1.1.1.2.4.4)

222-S Laboratory

The following samples were extruded at the Laboratory:

Date	Tank #	Type	Core	Riser #	Sample #	Qty Recovered Solid/Liquid
8-01-95	241-T-106	Auger		5	95-AUG-038	47.6g/--
8-01-95	241-BY-108	Rotary	98/1	12A	95-129	137.4g/229.4g
8-01-95	241-BY-108	Rotary	98/2	12A	95-130	277.3g/138.7g
8-03-95	241-BY-108	Rotary	98/3	12A	95-131	329.5g/ 77.0g
8-04-95	241-BY-108	Rotary	98/4	12A	95-162	490.0g/--
8-04-95	241-BY-108	Rotary	99/1	12A	95-133	56.4g/--
8-04-95	241-BY-108	Rotary	99/2	12A	95-134	37.0g/298.0g
8-04-95	241-BY-108	Rotary	99/3	12A	95-135	22.4g/ 66.6g
8-04-95	241-BY-108	Rotary	99/4	12A	95-136	475.9g/--
8-07-95	241-BY-110	Rotary	95/4	12B	95-117	62.7g/--
8-07-95	241-BY-110	Rotary	95/5	12B	95-118	236.4g/--
8-08-95	241-BY-110	Rotary	95/6	12B	95-119	72.3g/--
8-08-95	241-BY-110	Rotary	95/7	12B	95-120	44.8g/--
8-11-95	241-BY-108	Rotary	100/1	7	95-137	*

*No sample observed or collected.

Laboratory Reports completed:

Tank #	Report (Days)	Scheduled Due Date	Completion Date	Performance
241-B-104	45	07/30/95	07/28/95	+2 days ahead
241-U-105	60	08/14/95	08/01/95	+12 days ahead
241-SY-103	216	06/16/95	08/07/95	-52 days behind
241-S-102	60	08/14/95	08/08/95	+6 days ahead
241-B-101	45	08/10/95	08/10/95	On schedule

DATA EVALUATION AND REPORTING (WBS 1.1.1.2.4.5)

See item under Accomplishments.

Attachment 2 to 9453193.29

DNFSB 93-5 COMMITMENTS STATUS, Pages 1-3
As of August 11, 1995

Please contact Larry Pennington on (509) 376-1863,
if you have any questions.

DNFSB 93-5 COMMITMENTS STATUS

As of August 11, 1995

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		
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	
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	
1.19	Develop Statistical Tools for Samples Needed	12/30/94	12/29/94	
1.20	TWRS Risk Acceptance Criteria	8/31/94	5/19/95	
1.21.01	Ferrocyanide Safety Issue DQO	12/15/93	5/1/95	
1.21.02	C-103 Vapor DQO Draft Report	1/31/94	3/25/94	
1.21.03	C-103 Dip Sample DQO	12/16/94	3/25/94	
1.21.04	C-106 High Heat DQO Final Report	12/20/94	1/19/94	
1.21.05	Organic Safety Issue DQO Report (PNL)	1/31/94	5/1/95	
1.21.06	Safety Screening Module DQO	1/31/94	5/1/95	
1.21.07	Waste Compatibility DQO Report	2/28/94	5/1/95	
1.21.08	In-tank Generic Vapor DQO Final	3/3/94	5/1/95	
1.21.09	Vapor Rotary Core DQO Final Draft Report	1/20/94		

DNFSB 93-5 COMMITMENTS STATUS

As of August 11, 1995

Number	Description	Due Date	Submitted to DOE-RL	Submitted to DNFSB
1.21.10	Hydrogen Generating DQO Final Report	4/29/94	5/1/95	
1.21.11	Pretreatment DQO Draft Report	8/22/94	6/29/95	11/4/94
1.21.12	HLW Immobilization DQO Draft Report	9/6/94	6/29/95	
1.21.13	LLW Immobilization DQO Draft Report	9/21/94	6/29/95	
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	5/29/95	
2.01	DQOs for all Six Safety Issues	4/29/94	5/1/95	
2.02	Safety Screening Module DQO Report	1/31/94	5/1/95	
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	8/4/94	
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		
3.11	Additional Rotary Mode Core Systems	9/30/94	6/30/95	
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		
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	
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 (PNL)	9/30/94	9/1/94	
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

DNFSB 93-5 COMMITMENTS STATUS

As of August 11, 1995

Number	Description	Due Date	Submitted to DOE-RL	Submitted to DNFSB
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
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			

SAMPLING STATUS SUMMARY, Page 1 of 1, As of August 11, 1995

Characterization Program Tank Sampling Status Summary

October 1, 1994 to August 11, 1995

	Tanks Scheduled/Completed	Samples Scheduled/Completed
Auger	**18/22**	**36/42**
Push	**10/13**	**21/27**
Rotary	**6/0.5**	**12/5**
Vapor	**36/38**	**36/38**
Grab	**28/27**	**28/27**

Notes:
Tank samples are counted as follows: Rotary, Push, and Auger 1 sample per riser/ average 2 risers per tank.
Grab and Vapor 1 sample per tank

Rev 4.3 Target Schedule

CHARACTERIZATION PROJECT BIWEEKLY REPORT FOR THE PERIOD ENDING AUGUST 31, 1995

SIGNIFICANT ACCOMPLISHMENTS

Thirty-three Tank Characterization Plans (TCPs) were completed during this reporting period. The TCPs were submitted to the U.S. Department of Energy, Richland Operations Office (RL), as attachments to document WHC-SD-WM-PLN, Rev. 0, *FY 1996 Tank Waste Analysis Plan* (TWAP). Westinghouse Hanford Company (WHC) letter 9554556 was submitted to RL on August 29, 1995 transmitting the TWAP, which included a total of 65 TCPs. This transmittal met the Hanford Federal Facility Agreement and Consent Order Tri-Party Agreement milestone M-44-02B and WHC milestone T2D-95-101.

WHC letter 9554659 was submitted to RL on August 30, 1995, transmitting a report, "Perform Tank Grouping Analysis." This transmittal met WHC milestone T2D-95-118. The grouping analysis study was conducted to find single-shell tanks with similar waste properties. Sampling requirements may be reduced if meaningful groups of tanks can be identified and therefore, provide more effective allocation of characterization resources. Using both analytical and historical tank data, tank grouping appears promising, based on data obtained from 15 tanks available at the time of the study. Work will continue to incorporate new sample analysis data based on anticipated 25 additional tanks to be core sampled in fiscal year 1996.

WHC letter 9554524 was submitted to RL on August 24, 1995, transmitting document LA-UR-94-4269, Rev. 1, *Tank Layering Models for Northeast, Southwest, and Northwest Quadrants*. This transmittal met a Defense Nuclear Facility Safety Board (DNFSB) commitment 1.16.

WHC letter 9554687 was submitted to RL on August 31, 1995, transmitting a document revision to WHC-SD-WM-TA164, Rev. 1, *Tank Waste Characterization Basis*, which integrates the characterization requirements from the safety and disposal programs. The document explains the process and criteria for prioritizing tanks for characterization. The process described in the basis document is applied and the current technical priority list was developed. This priority list forms the basis for the Characterization Project sampling schedule.

WHC letter 9503143B R2 was submitted to RL on August 31, 1995, transmitting an update to the *Tank Safety Screening Data Quality Objectives* (WHC-SD-WM-SP-004, Rev. 2). Characterization Project personnel supported the Waste Tank Safety Program in this effort. The original document issued in May 1995 met DNFSB commitments 1.21.6 and 2.2.

Draft 2 of the FY 1996 Characterization Project Multi-Year Program Plan was reviewed with RL and WHC senior management on August 30, 1995. Draft 2 incorporated comments received by RL on Draft 1.

PROBLEMS/ISSUES

None to report.

DETAILED WORK ACTIVITIES

TECHNICAL INTEGRATION AND PLANNING (WBS 1.1.1.2.4.1)

See item under Accomplishments.

TECHNICAL DEVELOPMENT AND APPLIED ENGINEERING (WBS 1.1.1.2.4.2)

None to report.

FIELD SAMPLING AND MEASUREMENT (WBS 1.1.1.2.4.3)

The basis for using new sampler designs in the field has been completed. Completing this project for sampling recovery improvements reduces the time for deploying new samplers in the field from weeks to days.

WHC-SD-WM-TI-710, Rev. 1, *Waste Tank Risers Available for Sampling*, was issued on August 21, 1995. This report documents the evaluation of waste tank risers that can be used to support sampling activities at the Hanford Site.

Push Sampling

Setup for sampling tank 241-S-107 and preparations including riser adapter and spray wash ring installation, pre-check, and required bonding were completed.

Rotary Sampling

Rotary core sampling was completed in tank 241-BY-110, riser 7, using rotary mode core system (RMCS) truck 2 with the X-ray imaging system. Four cores were taken with the average waste recovery rate of 79%. Core 106 yielded segment 1 with 45% recovery and segment 1A with less than 13% based on the X-ray imaging system. Waste recovery rates based on the X-ray imaging system for core 107 yielded: segment 1 with 57%; segment 1A with 35%; segment 2 with 75%; segment 2A with 74%; segment 3 with 70%; segment 4 with 59%; segment 5 with 59%; segment 6 with 83%; segment 7 with 84%; segment 8 with 53%; and segment 9 with 96%. Core 101 yielded: segment 6A with 31%; segment 7 with 95%; segment 8 with 95%; and segment 9 with 97%.

Rotary core sampling was completed in tank 241-BY-108, riser 7, (third core, second riser) using RMCS truck 4. Five segments were removed for core 104.

Setup of the RMCS truck 4 and the X-ray imaging system was completed, and sampling activities began for tank 241-BY-105. Corrections were made to resolve problems with the grapple hoist and the remote latching unit before proceeding. Two segments were removed: segment 1, 96% recovery rate (based on taking a 9.5 in. segment); segment 1A, 100% recovery (based on taking a 4.5 in. segment). RMCS truck 4 was then moved to riser 12A. Two short segments have been recovered to date. X-ray imaging identifies an estimated recovery of greater than 94% for both samples.

Work is progressing on the testing of the new torque measurement system. The newly procured system will be set up on the Longyear test rig in Building 305 to conduct an initial evaluation phase and preliminary testing to determine the feasibility of torque indications on the drill string.

Rotary Mode Truck Status

RMCS truck 3 is located at the RMCS test site for training and new bit testing.

Auger Sampling

Auger sampling for two cores from risers 2 and 6 in tank 241-T-109 was completed. The next scheduled auger sample is tank 241-SX-108 on September 11, 1995.

Vapor Sampling

Vapor sampling was completed for tanks 241-U-108 and 241-T-110 after a general maintenance outage and a failed temperature controller were replaced on the vapor sampling system. The next tank for vapor sampling is tank 241-C-301, a miscellaneous underground storage tank.

Grab Sampling

Grab sampling was completed for tanks 241-AW-106, 241-AW-102, and 241-AW-105. Grab sampling for tank 241-AY-102 was pushed out on the schedule and tank 241-AN-101 was planned. One of three planned grab samples from tank 241-AN-101 was obtained. The other two grab samples will be completed once a containment tent is erected over the riser; the glovebag used for containment was not satisfactory due to the rate at which the tank was "breathing in." The next scheduled tank for grab sampling is tank 241-AN-103.

ANALYTICAL INTEGRATION (WBS 1.1.1.2.4.4)

222-S Laboratory

The following samples were extruded at the Laboratory:

Date	Tank #	Type	Core	Riser #	Sample #	Qty Recovered Solid/Liquid
8-15-95	241-T-106	Auger		3	95-AUG-039	27.8g/--
8-15-95	241-BY-110	Rotary	101/1	7	95-142	*
8-15-95	241-BY-110	Rotary	101/2	7	95-143	16.3g/--
8-15-95	241-BY-110	Rotary	101/3	7	95-144	39.6g/--
8-17-95	241-BY-110	Rotary	101/4	7	95-145	1.8g/24.8g
8-17-95	241-BY-110	Rotary	101/5	7	95-146	115.8g/--
8-17-95	241-BY-110	Rotary	101/6	7	95-147	16.4g/--
8-21-95	241-BY-110	Rotary	103/1	7	95-157	182.8g/--
8-21-95	241-BY-110	Rotary	103/2	7	95-158	130.1g/--
8-21-95	241-BY-110	Rotary	103/3	7	95-159	92.9g/--
8-22-95	241-BY-110	Rotary	103/4	7	95-160	155.6g/--
8-22-95	241-BY-110	Rotary	103/5	7	95-161	163.4g/--
8-22-95	241-BY-110	Rotary	103/6	7	95-162	313.3g/--
8-23-95	241-BY-110	Rotary	103/7	7	95-163	242.9g/169.0g
8-23-95	241-BY-110	Rotary	103/8	7	95-164	402.4g/--
8-23-95	241-BY-110	Rotary	103/9	7	95-165	473.8g/--
8-23-95	241-BY-108	Rotary	102/1	7	95-152	60.3g/--
8-23-95	241-BY-108	Rotary	104/1	7	95-166	131.3g/--
8-23-95	241-BY-108	Rotary	104/2	7	95-167	383.5/--
8-24-95	241-BY-108	Rotary	104/3	7	95-168	288.8g/--
8-24-95	241-BY-108	Rotary	104/4	7	95-169	318.3g/--
8-24-95	241-BY-108	Rotary	104/5	7	95-170	422.7g/--
8-24-95	241-T-109	Auger		6	95-AUG-040	67.5g/--
8-25-95	241-T-109	Auger		2	95-AUG-041	232.5g/--
8-25-95	241-BY-110	Rotary	106/1	7	95-179	89.8g/--
8-30-95	241-BY-110	Rotary	106/1A	7	95-179A	17.3g/--
8-30-95	241-BY-110	Rotary	106/2	7	95-180	28.1g/--
8-30-95	241-BY-110	Rotary	107/1	7	95-188	3.9g/--
8-30-95	241-BY-110	Rotary	107/1A	7	95-188A	37.4g/--
8-30-95	241-BY-110	Rotary	107/2	7	95-189	73.2g/--
8-31-95	241-BY-110	Rotary	107/2A	7	95-189A	79.7g/--
8-31-95	241-BY-110	Rotary	107/3	7	95-190	138.6g/--
8-31-95	241-BY-110	Rotary	107/4	7	95-191	130.9g/--

*No sample observed or collected.

Laboratory Reports completed:

Tank #	Report (Days)	Scheduled Due Date	Completion Date	Performance
241-B-106	45	09/01/95	08/18/95	+14 days ahead
241-U-204	Final	11/08/95	08/22/95	+78 days ahead
241-T-108	45	09/04/95	08/24/95	+11 days ahead
241-C-204	90	07/30/95	08/29/95	-29 days behind
241-BX-103	90/Final	08/30/95	08/30/95	On schedule

WHC-SD-WM-DP-140, Rev. 0, *45-Day Safety Screen Results for Tank 241-B-106, Push Mode, Cores 93 and 94.*

WHC-SD-WM-DP-113, Rev. 1, *Final Report for Tank 241-U-204, Push Mode, Cores 81 and 82.*

WHC-SD-WM-DP-141, Rev. 0, *45-Day Safety Screen Results for Tank 241-T-108, Auger Samples 95-AUG-035 and 95-AUG-037.*

WHC-SD-WM-DP-115, Rev. 0-A, *90-Day Safety Screen Results for Tank 241-C-204, Auger Samples 95-AUG-022 and 95-AUG-023.*

WHC-SD-WM-DP-135, Rev. 1, *90-Day Safety Screen Results and Final Report for Tank 241-BX-103, Push Mode, Cores 86 and 87.*

DATA EVALUATION AND REPORTING (WBS 1.1.1.2.4.5)

The following Tank Characterization Plans (TCPs) and Sampling Analysis Plans (SAPs), first issue or recent revision, were released during this reporting period:

SD # and Title of Document	Revision	Release Date
SD-WM-TP-368 Tank 241-T-109 TCP	0	8/15/95
SD-WM-TP-275 Tank 241-BY-108 TCP	0-E	8/18/95
SD-WM-TP-289 Tank 241-U-105 TCP	0-A	8/24/95
SD-WM-TP-218 Tank 241-BY-105 TCP	1-B	8/24/95
SD-WM-TP-300 Tank 241-TY-103 TCP	0-B	8/24/95
SD-WM-TP-230 Tank 241-BY-104 TCP	0-A	8/24/95

SD # and Title of Document	Revision	Release Date
SD-WM-TP-231 Tank 241-BY-103 TCP	1-B	8/24/95
SD-WM-TP-217 Tank 241-BY-106 TCP	1-A	8/24/95
SD-WM-TP-386 Tank 241-S-101 TCP	0	8/25/95
SD-WM-TP-316 Tank 241-U-109 TCP	0	8/25/95
SD-WM-TP-331 Tank 241-A-101 TCP	0	8/25/95
SD-WM-TP-315 Tank 241-U-108 TCP	0	8/25/95
SD-WM-TP-382 Tank 241-BX-110 TCP	0	8/25/95
SD-WM-TP-398 Tank 241-TX-109 TCP	0	8/28/95
SD-WM-TP-395 Tank 241-TX-104 TCP	0	8/28/95
SD-WM-TP-208 Tank 241-C-104 TCP	0	8/28/95
SD-WM-TP-391 Tank 241-S-109 TCP	0	8/28/95
SD-WM-TP-317 Tank 241-S-111 TCP	0-A	8/28/95
SD-WM-TP-241 Tank 241-TX-118 TCP	0-A	8/28/95
SD-WM-TP-293 Tank 241-TX-105 TCP	0-A	8/28/95
SD-WM-TP-238 Tank 241-S-102 TCP	0-B	8/28/95
SD-WM-TP-313 Tank 241-SX-103 TCP	0-A	8/28/95
SD-WM-TP-400 Tank 241-TX-112 TCP	0	8/28/95

SD # and Title of Document	Revision	Release Date
SD-WM-TP-334 Tank 241-SX-109 TCP	0	8/28/95
SD-WM-TP-406 Tank 241-AY-101 TCP	0	8/28/95
SD-WM-TP-392 Tank 241-S-112 TCP	0	8/28/95
SD-WM-TP-403 Tank 241-TX-116 TCP	0	8/28/95
SD-WM-TP-332 Tank 241-AX-101 TCP	0	8/28/95
SD-WM-TP-401 Tank 241-TX-113 TCP	0	8/28/95
SD-WM-TP-402 Tank 241-TX-115 TCP	0	8/28/95
SD-WM-TP-399 Tank 241-TX-111 TCP	0	8/28/95
SD-WM-TP-390 Tank 241-S-108 TCP	0	8/28/95
SD-WM-TP-389 Tank 241-S-106 TCP	0	8/28/95
SD-WM-TP-388 Tank 241-S-105 TCP	0	8/28/95
SD-WM-TP-387 Tank 241-S-103 TCP	0	8/28/95
SD-WM-TP-382 Tank 241-BX-110 TCP	0-A	8/28/95
SD-WM-TP-407 Tank 241-AN-106 TCP	0	8/28/95
SD-WM-TP-393 Tank 241-TX-101 TCP	0	8/28/95
SD-WM-TP-396 Tank 241-TX-106 TCP	0	8/28/95
SD-WM-TP-397 Tank 241-TX-108 TCP	0	8/28/95

SD # and Title of Document	Revision	Release Date
SD-WM-TP-405 Tank 241-SX-108 TCP	0	8/28/95
SD-WM-TP-385 Tank 241-AN-105 TCP	0	8/28/95
SD-WM-TP-394 Tank 241-TX-103 TCP	0	8/28/95
SD-WM-TP-383 Tank 241-AN-103 TCP	0	8/28/95
SD-WM-TP-384 Tank 241-AN-104 TCP	0	8/28/95

Attachment 2 to 9453193.30

DNFSB 93-5 COMMITMENTS STATUS, Pages 1-3
As of September 8, 1995

Please contact Larry Pennington on (509) 376-1863,
if you have any questions.

DNFSB 93-5 COMMITMENTS STATUS

As of September 8, 1995

Number	Description	Due Date	Submitted to DOE-RL	Submitted to DNFSB
1.01	Enhance WHC Characterization Program Management Staff	28Feb94	28Feb94	27Jun94
1.02	Reduce Management Layers in WHC TWRS	31Mar94	24Mar94	30Jun94
1.03	Improve RL Oversight	31May94	31May94	31May94
1.04	Plan to Improve Char. Prog. Tech. Staff Competencies	30Apr94	29Apr94	29Apr94
1.05	Implement Plan to Improve Tech Staff Competencies	31May95		
1.06	Define Resp of Key Characterization Managers	31Mar94	31Mar94	12Jul94
1.07	Streamline DQO Process	31Jan94	31Dec93	26May94
1.08	Issue TWRS Characterization Quality Assurance Plan	28Feb94	28Feb94	26May94
1.09	Plan for Blind Samples	31May94	24May94	01Jun94
1.10.41	Issue Quarterly Progress Reports	30Apr94	03May94	03May94
1.10.42	Issue Quarterly Progress Reports	30Jul94	25Jul94	25Jul94
1.10.43	Issue Quarterly Progress Reports	30Oct94	20Oct94	20Oct94
1.10.44	Issue Quarterly Progress Reports	31Jan95	20Jan95	20Jan95
1.10.51	Issue Quarterly Progress Reports	30Apr95	21Apr95	10May95
1.10.52	Issue Quarterly Progress Reports	31Jul95	25Jul95	08Aug95
1.10.53	Issue Quarterly Progress Reports	20Oct95		
1.10.54	Issue Quarterly Progress Reports	19Jan96		
1.10.61	Issue Quarterly Progress Reports	19Apr96		
1.10.62	Issue Quarterly Progress Reports	19Jul96		
1.10.63	Issue Quarterly Progress Reports	18Oct96		
1.11	Field Schedule for Sampling All Activities FY95 & 96	30Jun94	30Sep94	
1.12	Management Staff Complete System Eng Training	31May94	15Feb94	25May94
1.13	Charact. Functions/Requirements in Functional Analysis	31Jan94	28Apr94	01Jun94
1.14	Charact. Part of Initial Systems Eng Analysis Results	30Jun94	30Jun94	30Jun94
1.15	Integrate Vapor Sample Prog into Charact. Program	31Oct94	03Nov94	03Dec94
1.16	Complete Historical Tank Layering Models	30Sep94	18May95	
1.17	Historical Tank Content Est Reports NE/SW	30Jun94	29Jun94	30Jun94
1.18	Historical Tank Content Est Reports NW/SE	31Mar95	30Jul95	
1.19	Develop Statistical Tools for Samples Needed	30Dec94	29Dec94	08Aug95
1.20	TWRS Risk Acceptance Criteria	31Aug94	19May95	
1.21.01	Ferrocyanide Safety Issue DQO	15Dec93	01May95	
1.21.02	C-103 Vapor DQO Draft Report	31Jan94	25Mar94	
1.21.03	C-103 Dip Sample DQO	16Dec94	25Mar94	
1.21.04	C-106 High Heat DQO Final Report	20Dec94	19Jan94	
1.21.05	Organic Safety Issue DQO Report (PNL)	31Jan94	01May95	
1.21.06	Safety Screening Module DQO	31Jan94	01May95	
1.21.07	Waste Compatibility DQO Report	28Feb94	01May95	
1.21.08	In-tank Generic Vapor DQO Final	03Mar94	01May95	
1.21.09	Vapor Rotary Core DQO Final Draft Report	20Jan94		

DNFSB 93-5 COMMITMENTS STATUS

As of September 8, 1995

Number	Description	Due Date	Submitted to DOE-RL	Submitted to DNFSB
1.21.10	Hydrogen Generating DQO Final Report	29Apr94	01May95	
1.21.11	Pretreatment DQO Draft Report	22Aug94	29Jun95	04Nov94
1.21.12	HLW Immobilization DQO Draft Report	06Sep94	29Jun95	
1.21.I3	LLW Immobilization DQO Draft Report	21Sep94	29Jun95	
1.22	Update FY94 Field Sched to Incorp New Tech. Approach	28Feb94	08Feb94	27Jun94
1.23	Identify 'Bounding Tanks' for Disposal	30Nov94	29Jun95	
2.01	DQOs for all Six Safety Issues	29Apr94	01May95	
2.02	Safety Screening Module DQO Report	31Jan94	01May95	
2.03	Complete Sampling & Analysis of All Watch List Tanks	31Oct95		
3.01	Initiate Const. of 2nd & 3rd Rotary Core Sample Trucks	30Nov93	01Nov93	15Nov93
3.02	Review Char. Field Proc's/DOE Conduct of Ops	31Jan94	04Aug94	
3.03	Complete Qualif. of 1st Push Mode Crew	28Feb94	26Jan94	30Jun94
3.04	Redeploy Push Mode Core Sampling	31Mar94	30Mar94	30Jun94
3.05	Complete Training & Quals for Sampling Cog Engs	28Feb94	24Feb94	11Aug94
3.06	Restore Rotary Mode Sampling (TPA)	31Mar94	26Oct94	02Nov94
3.07	Complete Qual 1st Rotary Mode Crew	31Mar94	31Mar94	30Jun94
3.09	Detailed Plans for Acquiring/Training Add'l Crews	30Apr94	29Apr94	30Jun94
3.10	Qual of 2 Additional Crews/Push & Rotary Trucks	30Jun94		
3.11	Additional Rotary Mode Core Systems	30Sep94	30Jun95	
3.12	Hire/Train/Qualify 4 Add'l Rotary Mode Crews	31Oct94		
3.13	Deploy Prototype Cone Penetrometer	31May95		
3.14	Installation of Flammable Gas Monitors	30Apr95	24Apr95	23Jun95
3.15	Eng Eval for In Situ Moisture Monitoring	30Jun94	28Jun94	30Jun94
3.16	Direct Drill Bit Temperature Monitoring	31Jan95		
3.17	Review Procedures with Outside Drilling Experts	30Jun94	30Jun94	02Aug94
3.18	Dev. Means for Measuring Complete Sample Recovery	31Jan95		
3.19	Eng Eval of New Risers on SSTs	31Aug94	31Aug94	12Sep94
4.01	Issue Approved Broad Based Environmental Assessment	28Feb94	10Feb94	25Feb94
4.02	DOE-RL submit Delegation of Authority request to HQ	31Jan94	10Jan94	10Jan94
4.03	Obtain Delegation of Authority for DOE-RL	30Apr94	10Jan94	28Jul94
5.01	Install Core Scanning in Hot Cell	30Sep94	01Sep94	02Aug95
5.02	Complete Renovation of 325 'A' Hot Cell	30Sep95		
5.03	Letter Assessing Operability of New Extruder	31Mar94	28Mar94	26Oct94
5.04	Cyanide Speciation Tech Transfer (PNL)	30Sep94	01Sep94	02Aug95
5.05	Issue Results of Sampler Exchange Phase II	31Mar94	31Mar94	30Jun94
5.06	Evaluate Laboratory Staff Training	30Jun94	30Jun94	13Jul94

DNFSB 93-5 COMMITMENTS STATUS

As of September 8, 1995

Number	Description	Due Date	Submitted to DOE-RL	Submitted to DNFSB
5.07	Develop & Implement Training for Laboratory Staff	31Aug94	30Jun94	13Jul94
5.08	Procure & Receive 2 PAS-1 Casks	30Sep94	18Aug94	25Aug94
5.09	Plan to Upgrade INEL Lab	31Jan94	08Feb94	28Jun94
5.10	Plan to Upgrade LANL Lab	29Mar94	28Mar94	30Jun94
5.11	Develop Min/Max Lab Capacity Strategy	28Feb94	28Feb94	30Jun94
5.12	Upgrade INEL Lab to Ready to Serve Mode	31Oct94	31Oct94	04Nov94
5.13	Upgrade LANL Lab to Ready To Serve Mode	28Feb95	06Feb95	10Apr95
5.14	Two PAS-1 Casks will be ready for use Jan. 1995	31Jan95		
6.01	Prepare a Customer Needs Analysis (data)	30Apr94	02May94	23Jun94
6.02	Issue a Data Mgmt Improvement Plan	31May94	01May94	26May94
6.03	Initial On-Line Capability for LABCORE-1	31Jan94	31Jan94	23Jun94
6.04	Demonstrate Off-Site Access to Tank Charact. Database	31Jan94	28Jan94	12Jul94
6.05	Complete data Loading of 20 Tanks into Database	30Sep94	30Sep94	25Oct94
6.06	Evaluate 12 Validated Data Reports for Safety	31Jan94	25Apr94	30Jun94
7.01	Formally Submit Changes to Commitments			
7.02	Address Changes to Milestones in Quarterly			

Attachment 3 to 9453193.30

FIELD SAMPLING CHART, Page 1 of 1, As of September 1, 1995

This chart is an Excel, version 5.0 file.
If you want a copy of Attachment 3, please contact
Patsy Culver on (509) 373-3002.

Characterization Program
Tank Sampling Status Summary
October 1, 1994 to September 1, 1995

	Tanks Scheduled/Completed	Samples Scheduled/Completed
Auger	22/22	43/43
Push	13/13	27/27
Rotary	0.5/0.5	8/9
Vapor	40/40	40/40
Grab	29/30	29/30

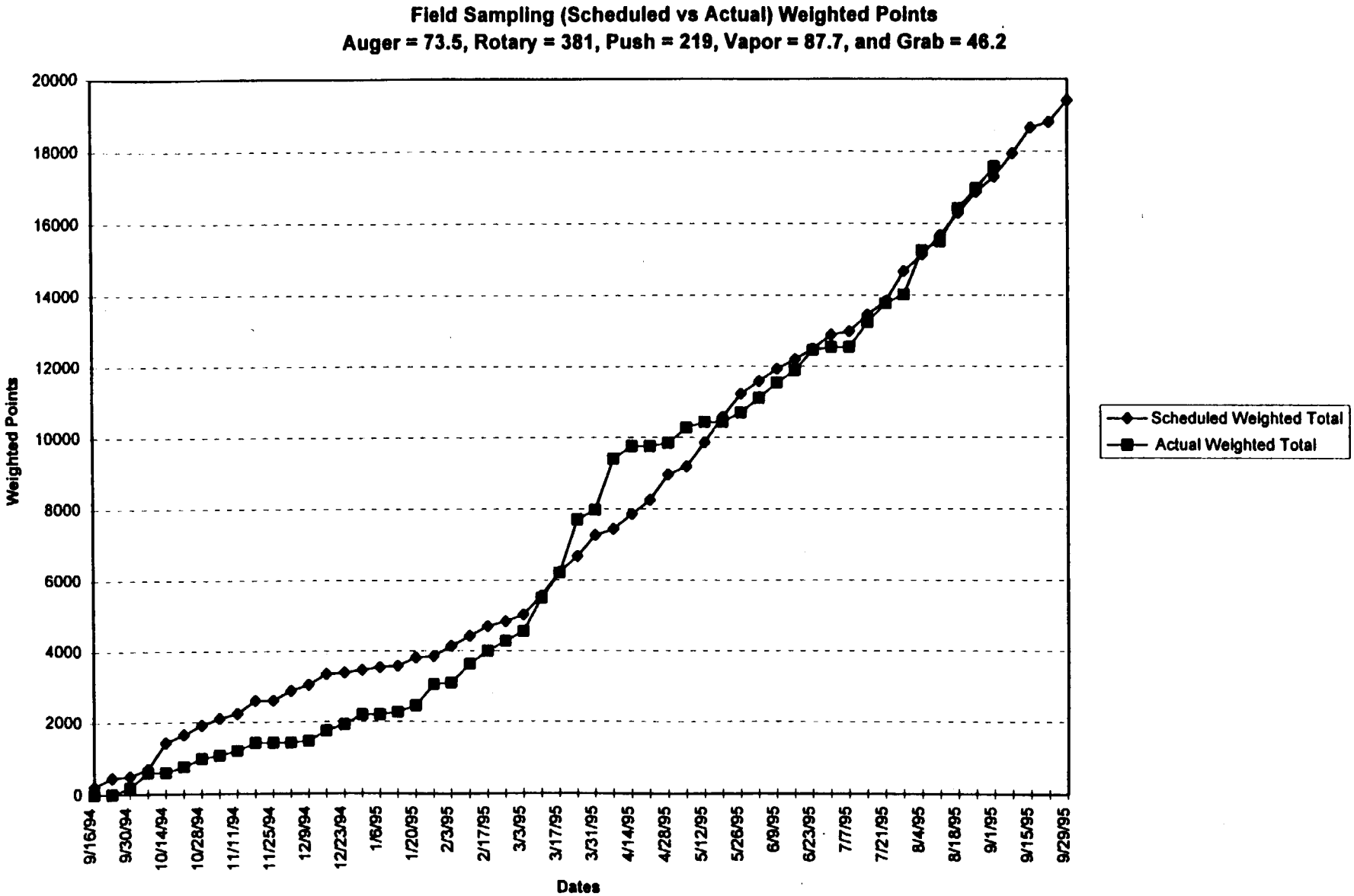
Notes:

Tank samples are counted as follows: Rotary, Push, and Auger - 1 sample per riser/average 2 risers per tan
Grab and Vapor - 1 sample per tank

Draft Rev. 4.4 schedule is used. All rotary cores from tanks 241-BY-108 and BY-110 are being counted in both scheduled and completed columns.

Attachment 4 to 9453193.30

SAMPLING STATUS SUMMARY, Page 1 of 1,
As of September 1, 1995



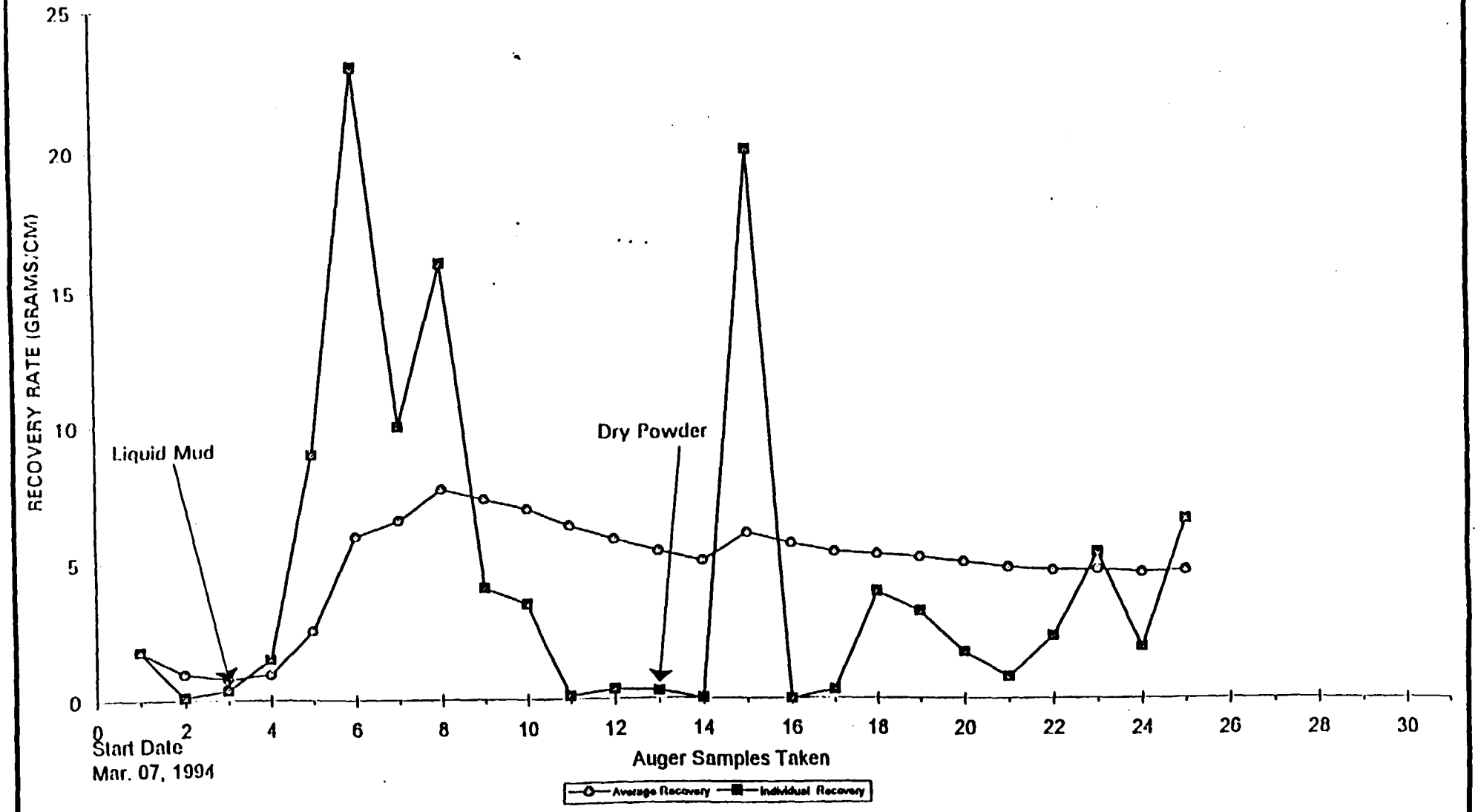
If you have questions contact Geroge Stanton at 3-5590
XYZ2RP.XLS 9/7/95 3:32 PM

Attachment 5 to 9453193.30

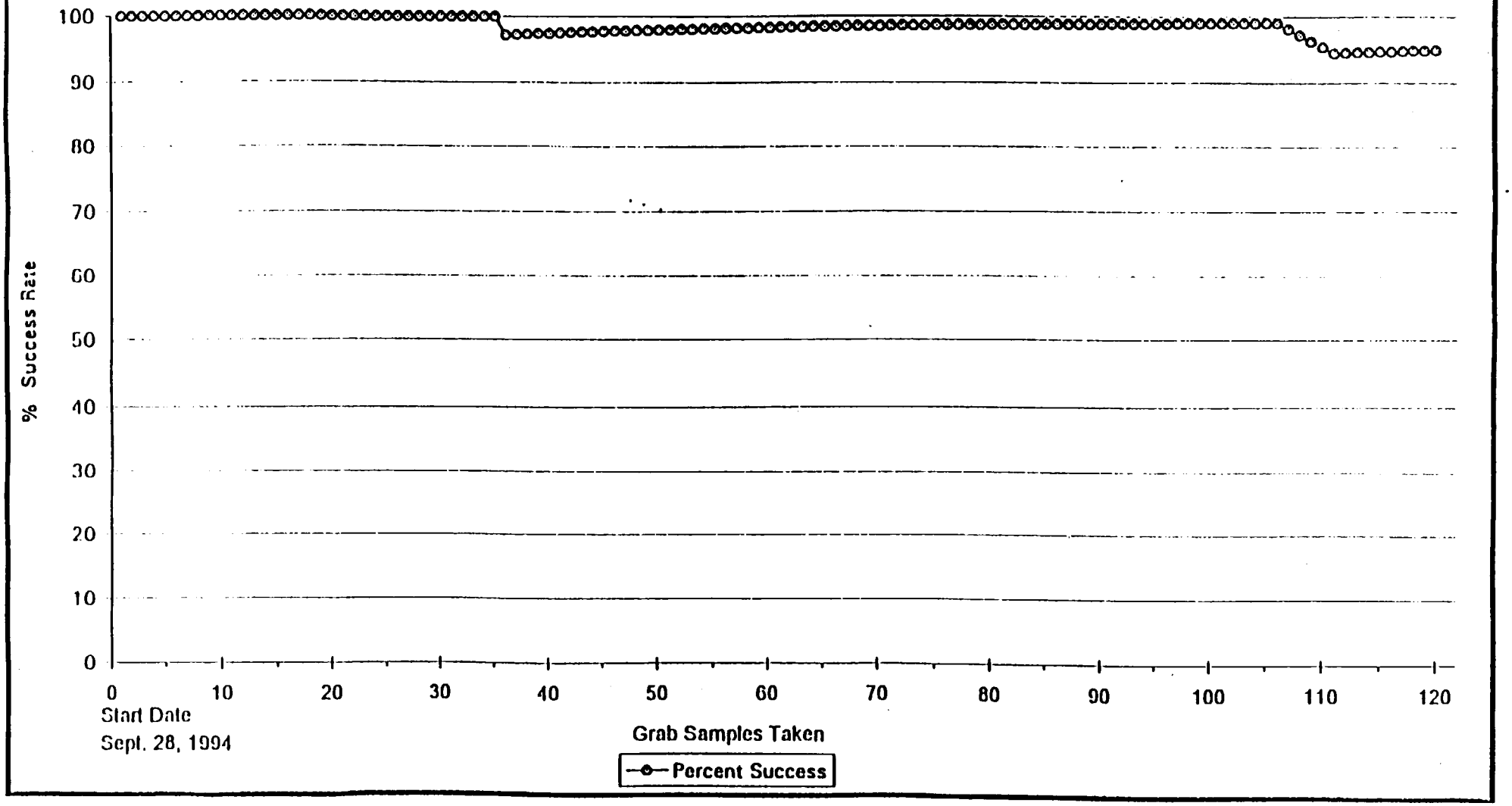
SAMPLE RECOVERY CHARTS, Pages 1-5, As of September 1, 1995

These charts are Excel, version 5.0 files.
If you want a copy of Attachment 5, please contact
Patsy Culver on (509) 373-3002.

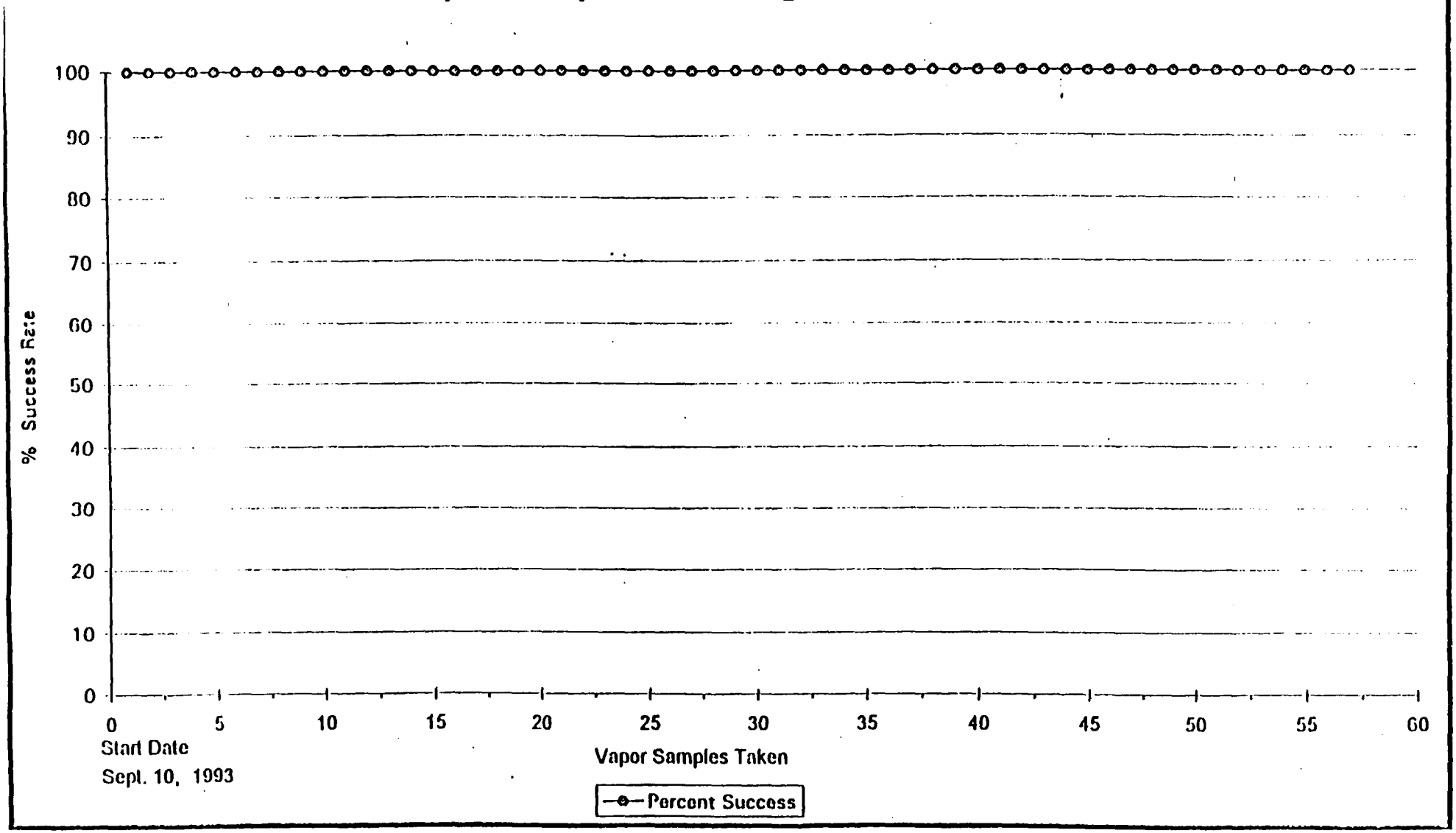
Auger Sample Recovery Rate



Grab Sample Percentage Success Rate

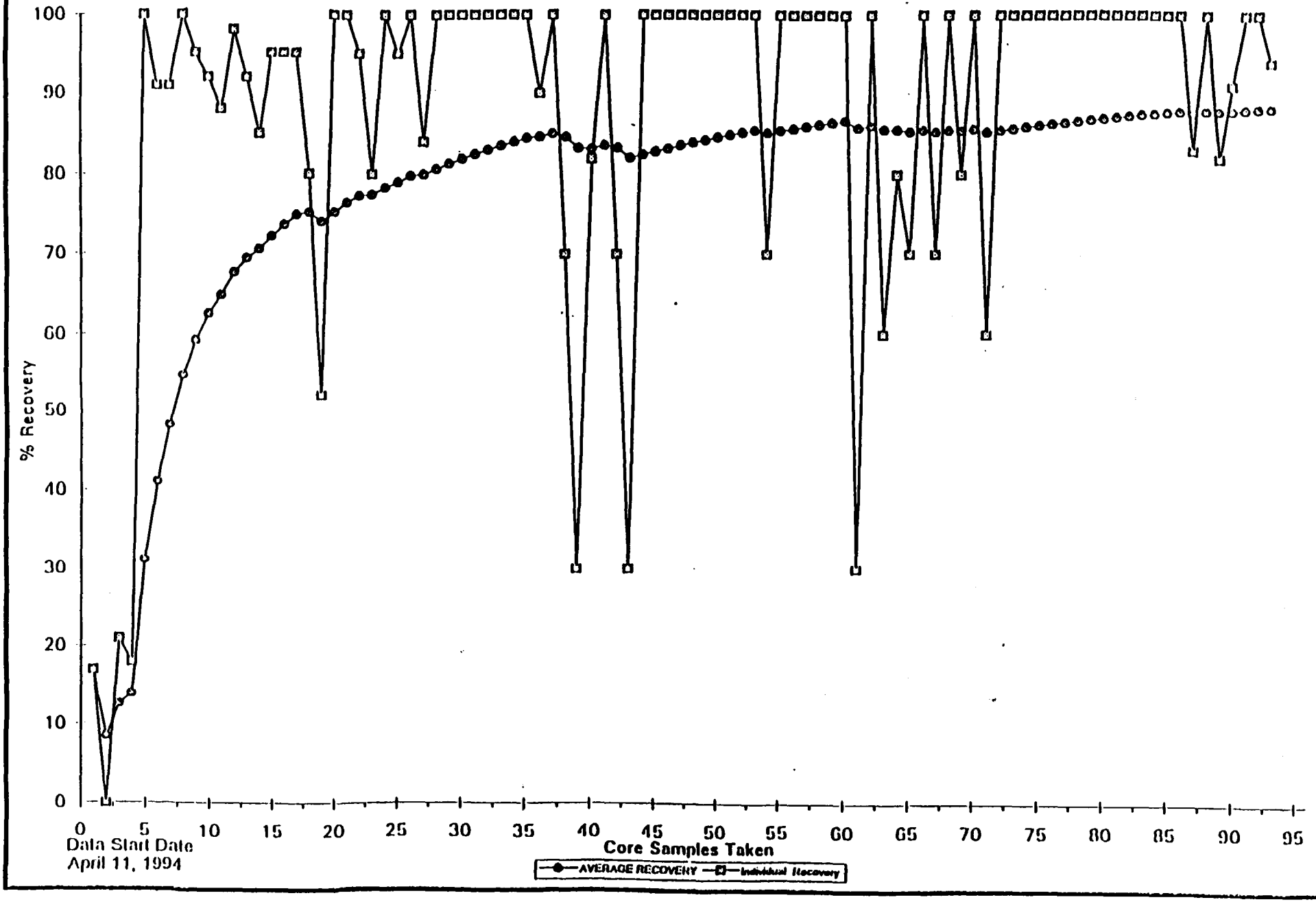


Vapor Sample Percentage Success Rate



RECOVERY USING TRUCK #1

(INCLUDES TRUCK #2 PUSH-MODE SAMPLES FOR MAR.-APR. 1995)



TRUCK1.XLS

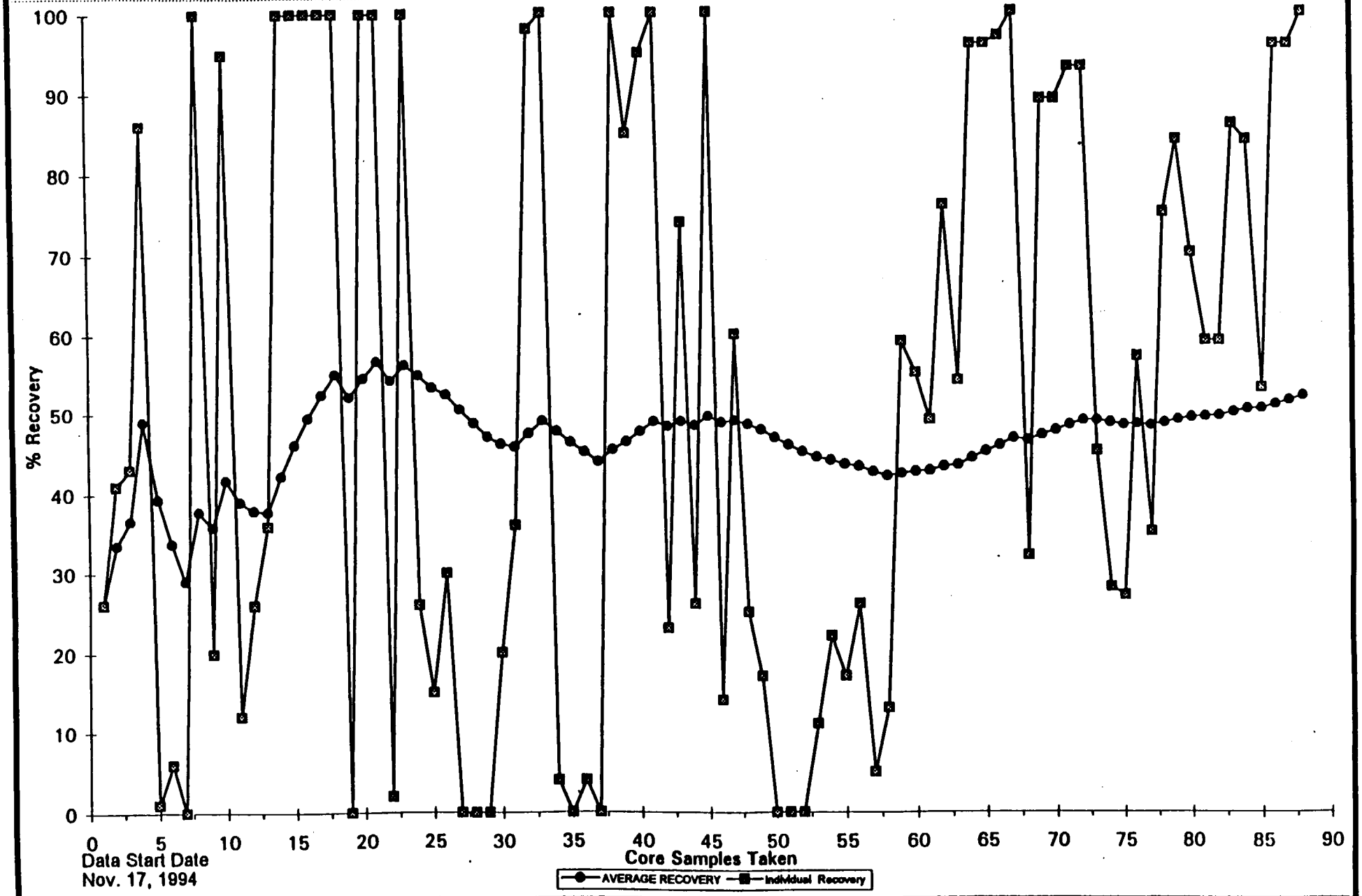
September 1, 1995

NOTE: Although high recovery is shown for 8 of the next 10 (BY-106) samples after Segment #14, data are suspect since the samples were mostly liquid.

RECOVERY USING TRUCKS #2 AND #4

(EXCLUDES TRUCK #2 PUSH SAMPLES IN MAR.-APR. 1995)

Restart Segment #27 on 07/11/95



TRKS2/4.XLS

September 6, 1995