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Waste Tank Summary Report for Month Ending September 30, 2005

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CH2M HILL Hanford Group, Inc.

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Richland, Washington

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WASTE TANK SUMMARY REPORT FOR MONTH ENDING SEPTEMBER 30, 2005

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ACRONYMS

BBI	Best Basis Inventory
CH2M HILL	CH2M HILL Hanford Group, Inc.
DCRT	Double-Contained Receiver Tank
DIL	Drainable Interstitial Liquid
DLR	Drainable Liquid Remaining
DST	Double-Shell Tank
FSAR	Final Safety Analysis Report effective October 18, 1999
Gal	Gallon
GPM	Gallons Per Minute
ILL	Interstitial Liquid
Kgal	Kilogallons
IS	Interim Stabilized
MT/FIC/ ENRAF	Manual Tape, Food Instrument Corporation, ENRAF Corporation (surface level measurement devices)
OSD	Operating Specifications Document
PFP	Plutonium Finishing Plant
SHMS	Standard Hydrogen Monitoring System
SST	Single-Shell Tank
SWL	Salt Well Liquid
TMACS	Tank Monitor and Control System
TPA	Hanford Federal Facility Consent and Compliance Order, "Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy," as amended (Tri-Party Agreement)
TSR	Technical Safety Requirement
TWINS	Tank Waste Information Network System
UPR	Uplanned Release
USQ	Unreviewed Safety Question

GLOSSARY

General

Characterization - Characterization is understanding the Hanford tank waste chemical, physical, and radiological properties to the extent necessary to ensure safe storage and interim operation, and ultimate disposition of the waste.

Drainable Interstitial Liquid (DIL) -Drainable Interstitial Liquid is calculated based on saltcake and sludge volumes, calculated porosity values. Interstitial liquid is the liquid that fills the interstitial spaces of the solids waste. The sum of the interstitial liquid contained in saltcake and sludge minus an adjustment for capillary height is the initial volume of DIL. Interstitial liquid that is not held in place by capillary forces will, therefore, migrate or move with gravity.

Drainable Liquid Remaining (DLR) - The total Drainable Liquid Remaining is the sum of drainable interstitial liquid and supernatant.

Supernatant Liquid - The liquid above the solids or in large liquid pools covered by floating solids in waste storage tanks.

Total Waste - For purposes of this document, solids volume (sludge and saltcake including liquids) plus supernatant liquid.

Waste Tank Safety Issue - A potentially unsafe condition in the handling of waste material in underground storage tanks that requires corrective action to reduce or eliminate the unsafe condition. There are currently no waste tank safety issues.

Interim Stabilization (Single-Shell Tanks only)

Interim Stabilized (IS) - A tank which contains less than 50 Kgallons of drainable interstitial liquid and less than 5 Kgallons of supernatant. If the tank was jet pumped to achieve interim stabilization, then the jet pump flow or saltwell screen inflow must also have been at or below 0.05 gpm before interim stabilization criteria are met.

Jet Pump - The centrifugal pump and jet assembly are needed to pump the interstitial liquid from the saltwell screen into the pump pit, nominally a 40-foot elevation rise. Pumping rates vary from 0.05 to about 4 gpm.

Saltwell Screen - The saltwell system is a 10-inch diameter saltwell casing consisting of a stainless steel saltwell screen welded to a Schedule 40 carbon steel pipe. The casing and screen are to be inserted into the 12-inch tank riser located in the pump pit. The stainless steel screen portion of the system will extend through the tank waste to near the bottom of the tank.

Retrieval/Closure-(Single-Shell Tanks only)

Closure (C) - Final closure of the operable units (tank farms) shall be defined as regulatory approval of completion of closure actions and commencement of post-closure actions. For the purposes of this agreement (Hanford Federal Facility Agreement and Consent Order Change Control Form, Change Number M-45-02-03), all units located within the boundary of each tank farm will be closed in accordance with Washington Administrative Code 173-303-610.

Retrieval (R) - The process of removing, to the maximum extent practical, all the waste from a given underground storage tank. The retrieval process is selected specific to each tank and accounts for the waste type stored and the access and support systems available. Generally, retrieval is focused on removal of solids from the tank.

Tank Integrity

Assumed Leaker - The integrity classification of a waste storage tank for which surveillance data indicate a loss of liquid attributed to a breach of integrity.

Sound - The integrity classification of a waste storage tank for which surveillance data indicate no loss of liquid attributed to a breach of integrity.

Surveillance Instrumentation

Annulus - The annulus is the space between the inner and outer shells on DSTs only. Drain channels in the insulating and/or supporting concrete carry any leakage to the annulus space where conductivity probes are installed. The annulus conductivity probes and radiation detectors are the primary means of leak detection for all DSTs.

Automatic FIC - An automatic waste surface level measurement device is manufactured by the Food Instrument Corporation (FIC). The instrument consists of a conductivity electrode (plummet) connected to a calibrated steel tape, a steel tape reel housing and a controller that automatically raises and lowers the plummet to obtain a waste surface level reading. All FIC gauges are read manually. FICs are being replaced by ENRAF detectors (see below).

Drywells - Historically, the drywells were monitored with gross logging tools as part of a secondary leak monitoring system. In some cases, neutron-moisture sensors were used to monitor moisture in the soil as a function of well depth, which could be indicative of tank leakage. The routine gross gamma logging data were stored electronically from 1974 through 1994; a program was initiated in 1995 to log each of the available drywells in each tank farm with a spectral gamma logging system. The spectral gamma logging system provides quantitative values for gamma-emitting radionuclides. The baseline spectral gamma logging database is available electronically.

Spectral drywell scans can be run by special request. A select subset of drywells is routinely monitored by the Vadose Zone Characterization Project to assess movement of gamma-emitting radionuclides in the subsurface.

ENRAF 854 ATG Level Detector - FICs and some manual tapes are in the process of being replaced by the ENRAF ATG 854 level detector. The ENRAF gauge, fabricated by ENRAF Incorporated, determines waste level by detecting variations in the weight of a displacer suspended in the tank waste. ENRAFs and future installations will transmit digital level data to TMACS via an ENRAF Computer Interface Unit (CIU). The CIU allows fully remote communication with the gauge, minimizing tank farm entry.

Laterals - Laterals are horizontal drywells positioned 8 to 10 feet under single-shell waste storage tanks, 3 per tank, to detect radionuclides in the soil which could be indicative of tank leakage. These drywells can be monitored by radiation detection probes. Laterals are located only in A and SX farms. There are currently no functioning laterals and no plan to prepare them for use.

Liquid Observation Well (LOW) - In-tank liquid observation wells are used for monitoring the ILL in single-shell tanks. The wells are usually constructed of fiberglass or TEFZEL-reinforced epoxy-polyester resin (TEFZEL is a trademark of E. I. du Pont de Nemours & Company). A few LOWs constructed of steel. Gamma and neutron probes are used to monitor changes in the ILL, and can indicate intrusions or leakage by increases or decreases in the ILL. There are 70 LOWs installed in SSTs that contain or are capable of containing greater than 50 Kgallons of drainable interstitial liquid. All of the LOWs are monitored weekly with the exception of TX-108 which is monitored by request only. Two LOWs installed in DSTs SY-102 and AW-103 are used for special, rather than routine, surveillance purposes only.

Surface Levels - The surface level measurements in all waste storage tanks are monitored by manual or automatic conductivity probes, and recorded and transmitted or entered into the Surveillance Analysis Computer System.

Thermocouple (TC) - A thermocouple is a thermoelectric device used to measure temperature. More than one thermocouple element on a device (probe) is called a thermocouple tree.

METRIC CONVERSION CHART

METRIC CONVERSION CHART		
1 inch	=	2.54 centimeters
1 foot	=	30.48 centimeters
1 gallon	=	3.79 liters
1 ton	=	0.91 metric tons
$°F = \left(\frac{9}{5}°C\right) + 32$		
1 Btu/h = 0.2931 watts (International Table)		

1.0 PURPOSE AND SCOPE

This report is the official inventory for radioactive waste stored in underground tanks in the 200 Areas at the Hanford Site. Data that depict the status of stored radioactive waste and tank vessel integrity are contained within the report. This report provides data on each of the existing 177 large underground waste storage tanks and 60 smaller miscellaneous underground storage tanks and special surveillance facilities, and supplemental information regarding tank surveillance anomalies and ongoing investigations. This report is intended to meet the requirement of U.S. Department of Energy Order 435.1 (DOE-HQ, August 28, 2001, Radioactive Waste Management, U.S. Department of Energy-Washington, D.C.) requiring the reporting of waste inventories and space utilization for the Hanford Site Tank Farm tanks.

2.0 WASTE TANK STATUS

Note: Changes from the previous month are in **bold print**.

Double-Shell Tanks (DST)	28 double-shell	10/86 - date last DST tank was completed
Single-Shell Tanks (SST)	149 single-shell	1966 - date last SST tank was completed
Assumed Leaker Tanks	67 single-shell	07/93 - date last Assumed Leaker was identified
Sound Tanks	28 double-shell 82 single-shell	1986 - date DSTs determined sound 07/93 - date last SST determined sound
Interim Stabilized Tanks[a] (IS)	149 single-shell	03/04 - date last IS occurred[a]
Retrieval[b]	13 single-shell	08/05 - date last Retrieval completed
Misc. Underground Storage Tanks (MUST) and Special Surveillance Facilities (Active)	10 Tanks East Area 7 Tanks West Area	03/01 - last date a tank was added or removed from MUST list
Misc. Underground Storage Tanks (IMUST) and Special Surveillance Facilities (Inactive)[c]	18 Tanks East Area 25 Tanks West Area	11/01 - last date a tank was added or removed from IMUST list

Footnotes:

[a] Tanks are declared Interim Stabilized when pumping stops; the tank may be placed in evaluation at this time. Tank U-108 was placed in evaluation on March 18, 2004, due to major equipment failure; documentation was completed August 16 and the declaration letter sent to DOE-RL on September 8, 2004.

Saltwell pumping for the tanks covered by the Consent Decree was completed in March 2004. (Tank C-106 is not included in the Consent Decree and is not Interim Stabilized; Retrieval was completed December 31, 2003). The Consent Decree table and footnotes have been removed from this document; all actions in this decree have been completed.

[b] Tank status for C-104, C-201, C-202, C-203, C-204, S-102, S-103, S-105 and S-106 was changed to "Retrieval," effective October 2002. Tank status for C-103, C-105, C-106, and S-112 was changed to "Retrieval" in October 2003. Retrieval was completed for tank C-106 on December 31, 2003. Retrieval was completed for tank C-203 on March 24, 2005, letter submitted to DOE on March 31, 2005. **Retrieval was completed for tank C-202 on August 11, 2005, letter submitted to DOE on August 25, 2005.** Hanford Federal Facility Agreement and Consent Order (signed August 2004) modified Milestone M-45-00C (Change Order M-45-04-01) changing the regulatory requirements for retrieval of waste in tanks S-103, S-105, and S-106. "Retrieval" status in these tanks is thereby rescinded to allow focusing on the retrieval of wastes and the interim closure of all Waste Management Area C-Farm Single-Shell Tanks.

[c] Tables 5-2. and 5-3., the Inactive Miscellaneous Underground Storage Tanks (IMUST) now reflect only those tanks managed by CH2M HILL Hanford Group, Inc. (CH2M HILL).

2.1 WASTE TANK STATUS HIGHLIGHTS

Table 2-1. Single-Shell Tanks in Retrieval Status

Tank Number	Comments
241-C-101	
241-C-102	
241-C-103	
241-C-104	
241-C-105	
241-C-106	Declared "Retrieval Completed," December 31, 2003
241-C-107	
241-C-108	
241-C-109	
241-C-110	
241-C-111	
241-C-112	
241-C-200 series	C-202- Declared "Retrieval Completed," August 11, 2005 C-203- Declared "Retrieval Completed," March 24, 2005
241-S-102	Retrieval initiated on December 17, 2004
241-S-103	Status rescinded by HFFACO, August 2004
241-S-105	Status rescinded by HFFACO, August 2004
241-S-106	Status rescinded by HFFACO, August 2004
241-S-112	Retrieval in progress

Table 2-2. Single-Shell Tanks Declared Interim Stabilized

Tank Number	Comments
241-S-102	Letter submitted to DOE on September 29, 2005

Tank C-202

Declared "Retrieval Completed" on August 11, 2005, letter submitted to DOE on August 25, 2005.

Tank S-102

Retrieval of diluted waste for the month totaled 92 Kgal.
A letter was submitted to DOE on September 29, 2005, that stated S-102 met interim stabilization criteria (CH2M-0502948). Evaluation to further refine the waste volume estimates is still in progress and additional retrieval is planned.

Tank Leak Volume Estimates

Tank leak volume estimates have been revised per RPP-23405, *Tank Farm Vadose Zone Contamination Volume Estimates.* Tank Farm leak volumes estimates presented in Table 4-3 are from tank/ancillary equipment leaks and unplanned releases in the tank farms.

3.0 DOUBLE-SHELL TANKS MONTHLY SUMMARY TABLES

Table 3-1. Inventory and Status by Tanks - Double-Shell Tanks.

All volume data obtained from Tank Waste Information Network System (TWINS)								
					Waste Volumes			
Tank	Tank Integrity	Tank Level (inches)	Total Waste (Kgal)	Available Space (Kgal)	Supernatant Liquid (Kgal)	Sludge (Kgal)	Saltcake (Kgal)	Solids Volume Update
241-AN TANK FARM STATUS								
AN-101	SOUND	348	956	188	925	0	31	12/31/03
AN-102	SOUND	388	1067	77	913	0	154	01/01/05
AN-103	SOUND	349	960	184	501	0	459	06/30/99
AN-104	SOUND	384	1055	89	610	0	445	06/30/99
AN-105	SOUND	410	1127	17	589	0	538	01/31/03
AN-106	SOUND	345	948	196	899	32	17	01/30/05
AN-107	SOUND	400	1101	43	871	0	230	12/31/03
7 TANKS - TOTAL			7214	794	5308	32	1874	
241-AP TANK FARM STATUS								
AP-101	SOUND	406	1116	28	1116	0	0	05/01/89
AP-102	SOUND	399	1097	47	1074	23	0	05/31/02
AP-103	SOUND	326	895	249	895	0	0	05/31/96
AP-104	SOUND	400	1099	45	1099	0	0	10/13/88
AP-105	SOUND	414	1137	7	1048	0	89	06/30/99
AP-106	SOUND	413	1135	9	1135	0	0	10/13/88
AP-107	SOUND	126	345	799	345	0	0	10/13/88
AP-108	SOUND	374	1029	115	1029	0	0	10/13/88
8 TANKS - TOTAL			7853	1299	7741	23	89	
241-AW TANK FARM STATUS								
AW-101	SOUND	411	1129	15	733	0	396	01/31/03
AW-102	SOUND	202	556	569	549	7	0	03/31/04
AW-103	SOUND	399	1098	46	785	273	40	07/21/04
AW-104	SOUND	390	1072	72	849	66	157	06/30/99
AW-105	SOUND	152	419	725	156	263	0	06/30/99
AW-106	SOUND	327	900	244	617	0	283	04/01/04
6 TANKS - TOTAL			5174	1671	3689	609	876	
241-AY TANK FARM STATUS								
AY-101	SOUND	66	180	821	84	96	0	06/30/99
AY-102	SOUND	352	968	33	817	151	0	04/01/04
2 TANKS - TOTAL			1148	854	901	247	0	
241-AZ TANK FARM STATUS								
AZ-101	SOUND	317	871	130	819	52	0	06/30/98
AZ-102	SOUND	354	972	29	867	105	0	06/30/99
2 TANKS - TOTAL			1843	159	1686	157		
241-SY TANK FARM STATUS								
SY-101	SOUND	412	1132	12	857	0	275	06/30/99
SY-102	SOUND	341	938	206	793	145	0	09/30/03
SY-103	SOUND	269	740	404	398	0	342	06/30/99
3 TANKS - TOTAL			2810	622	2048	145	617	

Notes: 1 Kgal differences are the result of computer rounding

Supernatant + Sludge (includes liquid) + Saltcake (includes liquid) = Total Waste

Available Space Volumes include restricted space

Tanks AN-103, AN-104, AN-105, AW-101, SY-101 and SY-103 contain retrained gas in the saltcake

Table 3-2. Double-Shell Tank Space Allocation, Inventory and Waste Receipts (all volumes in kgallons)

TOTAL DST CAPACITY	
TOTAL=	31,441

TOTAL DST WASTE INVENTORY	
INVENTORY ON 9/30/05	26,042
INVENTORY ON 8/31/05	25,951
CHANGE =	91

ALLOCATION OF REMAINING DST SPACE	
TOTAL DST CAPACITY =	31,441
WASTE INVENTORY =	-26,042
(*) DEDICATED OPERATIONAL SPACE =	-2,000
(**) RESTRICTED USAGE SPACE =	-1,661
(***)EMERGENCY SPACE ALLOCATION =	-1,200
REMAINING AVAILABLE SPACE =	538

(*) Dedicated Operational Space is assumed to equal 2 Mgal for SST retrieval, cross-site transfer receiver, and evaporator feed and slurry.

(**) Restricted space associated with flammable gas Waste Group A and tanks controlled for waste feed delivery per Feed Control List, HNF-SD-WM-OCD-015, Tank Farms Waste Transfer Compatibility report. These tanks are: AN-102, -103, -104, -105, -107; AP-101; AW-101, -103, -105; AY-102, and SY-103 (AY-102 is allowed to receive condensate only). Restricted Space does not include Feed Control List tanks AY-101, AZ-102, and SY-102, which are allowed to receive limited types of waste.

(***) Emergency Space Allocation adjusted in July 2003 per HNF-3484 Rev. 4, includes space for WTP returns.

SEPTEMBER DST WASTE RECEIPTS

FACILITY GENERATIONS		OTHER GAINS ASSOCIATED WITH		OTHER LOSSES ASSOCIATED WITH	
222-S	0	SLURRY	4	SLURRY	6
TANK FARMS	1	CONDENSATE	10	CONDENSATE	6
C-202	0	INSTRUMENTATION	0	INSTRUMENTATION	0
S-102	92	MISCELLANEOUS GAINS	1	MISCELLANEOUS LOSSES	5
S-112	0				
TOTAL =	93	TOTAL=	15	TOTAL=	17

WASTE RECEIPT AND EVAPORATOR METRIC

DATE	DST WASTE RECEIPTS	MISC. DST CHANGES (+/-)	WVR (1)	NET DST CHANGE	TOTAL DST VOLUME
9/05	93	-2	0	91	26,042

(1) WVR is total (before flush) waste volume reduction for 242-A Evaporator

IMPLEMENTATION OF DST SPACE OPTIONS METRIC
(TPA MILESTONE M-46-21)

DATE	INITIATIVES	GAINS TO DATE (1)	GAINS DURING MONTH
9/05	INCREASE DST FILL HEIGHT	0	0
	NET EVAPORATOR WVR (2)	1830	0
	RESERVE EMERGENCY SPACE COMPLIANT WITH DOE O435.1	1100	0
	USE RESTRICTED HEADSPACE	0	0
	TOTAL	2930	0

(1) DST tank space gains since 10/1/02.

(2) WVR is net (after flush) waste volume reduction for 242-A Evaporator

4.0 SINGLE-SHELL TANKS MONTHLY SUMMARY TABLES

Table 4-1. Inventory and Status by Tanks - Single-Shell Tanks (sheet 1 of 4).
All volume data obtained from Tank Waste Information Network System (TWINS)

				Waste Volumes							
Tank Number	Tank Integrity	Tank Status	Total Waste (Kgal)	Super-natant Liquid (Kgal)	Drainable Interstitial Liquid (Kgal)	Pumped this Month (Kgal)	Total Pumped (Kgal)	Drainable Liquid Remaining (Kgal)	Sludge (Kgal)	Salt-cake (Kgal)	Solids Volume Update
					241-A TANK FARM STATUS						
A-101	SOUND	IS(4)	320	0	37	0	543	37	3	317	06/30/04
A-102	SOUND	IS	40	3	9	0	40	12	0	37	01/31/03
A-103	ASMD LKR	IS	378	4	86	0	111	90	2	372	07/01/05
A-104	ASMD LKR	IS	28	0	0	0	0	0	28	0	01/27/78
A-105	ASMD LKR	IS	37	0	0	0	0	0	37	0	10/31/00
A-106	SOUND	IS	79	0	9	0	0	9	50	29	01/01/02
6 TANKS - TOTAL			882						120	755	
					241-AX TANK FARM STATUS						
AX-101	SOUND	IS	358	0	44	0	369	44	3	355	12/31/03
AX-102	ASMD LKR	IS	30	0	0	0	13	0	6	24	01/01/02
AX-103	SOUND	IS	107	0	22	0	0	22	8	99	09/30/03
AX-104	ASMD LKR	IS	7	0	0	0	0	0	7	0	01/01/02
4 TANKS - TOTAL			502						24	478	
					241-B TANK FARM STATUS						
B-101	ASMD LKR	IS	109	0	20	0	0	20	28	81	01/01/02
B-102	SOUND	IS	32	4	7	0	0	11	0	28	06/30/99
B-103	ASMD LKR	IS	56	0	10	0	0	10	1	55	01/01/02
B-104	SOUND	IS	374	0	45	0	0	45	309	65	01/01/02
B-105	ASMD LKR	IS	290	0	20	0	0	20	28	262	01/01/02
B-106	SOUND	IS	123	1	8	0	0	9	122	0	12/31/03
B-107	ASMD LKR	IS	161	0	23	0	0	23	86	75	01/01/02
B-108	SOUND	IS	92	0	19	0	0	19	27	65	06/30/04
B-109	SOUND	IS	125	0	23	0	0	23	50	75	01/01/02
B-110	ASMD LKR	IS	245	1	27	0	0	28	244	0	01/01/02
B-111	ASMD LKR	IS	242	1	23	0	0	24	241	0	01/01/02
B-112	ASMD LKR	IS	35	3	2	0	0	5	15	17	01/01/02
B-201	ASMD LKR	IS	29	0	5	0	0	5	29	0	07/01/04
B-202	SOUND	IS	28	0	4	0	0	4	28	0	07/01/04
B-203	ASMD LKR	IS	50	1	5	0	0	6	49	0	07/01/04
B-204	ASMD LKR	IS	50	1	5	0	0	6	49	0	07/01/05
16 TANKS - TOTAL			2041						1306	723	
					241-BX TANK FARM STATUS						
BX-101	ASMD LKR	IS	48	0	4	0	0	4	48	0	01/01/02
BX-102	ASMD LKR	IS	79	0	0	0	0	0	79	0	06/30/04
BX-103	SOUND	IS	75	13	4	0	0	15	62	0	01/01/83
BX-104	SOUND	IS	100	3	4	0	17	7	97	0	01/01/02
BX-105	SOUND	IS	72	5	4	0	15	9	42	25	01/01/05
BX-106	SOUND	IS	38	0	4	0	14	4	10	28	01/01/05
BX-107	SOUND	IS	347	0	37	0	23	37	347	0	09/18/90
BX-108	ASMD LKR	IS	31	0	4	0	0	4	31	0	01/31/01
BX-109	SOUND	IS	193	0	25	0	8	25	193	0	09/17/90
BX-110	ASMD LKR	IS	214	1	35	0	2	36	65	148	01/01/02
BX-111	ASMD LKR	IS	188	0	6	0	117	6	32	156	01/01/02
BX-112	SOUND	IS	164	1	9	0	4	10	163	0	01/01/02
12 TANKS - TOTAL			1549						1169	357	

Table 4-1. Inventory and Status by Tank - Single-Shell Tanks (sheet 2 of 4).

All volume data obtained from Tank Waste Information Network System (TWINS)											
				Waste Volumes							
Tank Number	Tank Integrity	Tank Status	Total Waste (Kgal)	Super-natant Liquid (Kgal)	Drainable Interstitial Liquid (Kgal)	Pumped this Month (Kgal)	Total Pumped (Kgal)	Drainable Liquid Remaining (Kgal)	Sludge (Kgal)	Salt-cake (Kgal)	Solids Volume Update
				241-BY TANK FARM STATUS							
BY-101	SOUND	IS	370	0	24	0	36	24	37	333	01/01/02
BY-102	SOUND	IS	278	0	40	0	159	40	0	278	06/30/04
BY-103	ASMD LKR	IS	414	0	55	0	96	55	9	405	07/01/05
BY-104	SOUND	IS	358	0	44	0	330	44	45	313	01/01/02
BY-105	ASMD LKR	IS	481	0	47	0	45	47	48	433	03/31/03
BY-106	ASMD LKR	IS	462	-	-	0	99	-	32	430	12/31/03
BY-107	ASMD LKR	IS	271	0	42	0	56	42	15	256	07/01/05
BY-108	ASMD LKR	IS	222	0	33	0	28	33	40	182	01/01/02
BY-109	SOUND	IS	287	0	37	0	157	37	24	263	06/30/04
BY-110	SOUND	IS	366	0	20	0	213	20	43	323	01/01/02
BY-111	SOUND	IS	402	0	14	0	313	14	0	402	06/30/04
BY-112	SOUND	IS	286	0	24	0	116	24	2	284	03/31/02
12 TANKS - TOTAL			4197						295	3902	
				241-C TANK FARM STATUS							
C-101	ASMD LKR	IS/R	88	0	4	0	0	4	88	0	11/29/83
C-102	SOUND	IS/R	316	0	62	0	47	62	316	0	09/30/95
C-103	SOUND	IS/R	76	5	10	0	114	11	71	0	12/31/03
C-104	SOUND	IS/R	259	0	29	0	0	29	259	0	01/01/02
C-105	SOUND	IS/R	132	0	10	0	0	10	132	0	02/29/00
C-106	SOUND	/R	-	Retrieval Completed, 12/31/03		-	-	-	3	0	12/31/03
			-	See Footnote (1), page 17							
C-107	SOUND	IS/R	247	0	30	0	41	30	247	0	06/30/04
C-108	SOUND	IS/R	66	0	4	0	0	4	66	0	02/24/84
C-109	SOUND	IS/R	63	0	4	0	0	4	63	0	06/30/04
C-110	ASMD LKR	IS/R	178	1	37	0	16	38	177	0	06/14/95
C-111	ASMD LKR	IS/R	57	0	4	0	0	4	57	0	06/30/04
C-112	SOUND	IS/R	104	0	6	0	0	6	104	0	09/18/90
C-201	ASMD LKR	IS/R	1	0	0	0	0	0	1	0	01/01/02
C-202	ASMD LKR	IS/R	-	Retrieval in progress		-	-	-	-	-	06/30/04
			-	See Footnote (2), page 17							
C-203	ASMD LKR	IS/R	-	Retrieval Completed, 03/24/05		-	-	-	0	0	03/24/05
			-	See Footnote (5), page 17							
C-204	ASMD LKR	IS/R	2	0	0	0	0	0	2	0	01/31/03
16 TANKS - TOTAL			1592						1586	0	
				241-S TANK FARM STATUS							
S-101	SOUND	IS	352	0	45	0	67	45	235	117	04/30/04
S-102	SOUND	/R	-	Retrieval in progress		-	-	-	-	-	
				See Footnote (6), page 17							
S-103	SOUND	IS (3)	237	1	45	0	24	46	9	227	06/30/04
S-104	ASMD LKR	IS (4)	288	0	49	0	0	49	132	156	12/20/84
S-105	SOUND	IS (3)	406	0	42	0	114	42	2	404	01/01/02
S-106	SOUND	IS (3)	455	0	26	0	204	26	0	455	02/28/01
S-107	SOUND	IS	358	0	42	0	83	42	320	38	02/26/04
S-108	SOUND	IS	550	0	4	0	200	4	5	545	01/01/02
S-109	SOUND	IS	533	0	16	0	34	16	13	520	07/01/04
S-110	SOUND	IS	389	0	30	0	203	30	96	293	07/01/04
S-111	SOUND	IS (4)	411	-	-	0	100	-	76	335	06/30/04
S-112	SOUND	/R	-	Retrieval in progress		-	-	-	-	-	
				See Footnote (7), page 17							
12 TANKS - TOTAL			4224						1237	3090	

Table 4-1. Inventory and Status by Tank - Single-Shell Tanks (sheet 3 of 4).

All volume data obtained from Tank Waste Information Network System (TWINS)											
				Waste Volumes							
Tank Number	Tank Integrity	Tank Status	Total Waste (Kgal)	Super-natant Liquid (Kgal)	Drainable Interstitial Liquid (Kgal)	Pumped this Month (Kgal)	Total Pumped (Kgal)	Drainable Liquid Remaining (Kgal)	Sludge (Kgal)	Salt-cake (Kgal)	Solids Volume Update
					241-SX TANK FARM STATUS						
SX-101	SOUND	IS	420	0	44	0	33	45	144	276	06/30/04
SX-102	SOUND	IS	342	0	37	0	98	37	55	287	08/31/04
SX-103	SOUND	IS	509	0	40	0	134	40	78	431	09/30/03
SX-104	ASMD LKR	IS	446	0	48	0	231	48	136	310	04/30/00
SX-105	SOUND	IS	375	0	39	0	153	39	63	312	12/31/02
SX-106	SOUND	IS	396	0	37	0	148	37	0	396	01/31/03
SX-107	ASMD LKR	IS	94	0	7	0	0	7	94	0	07/01/04
SX-108	ASMD LKR	IS	74	0	0	0	0	0	74	0	06/30/04
SX-109	ASMD LKR	IS	241	0	0	0	0	0	66	175	07/01/04
SX-110	ASMD LKR	IS	56	0	0	0	0	0	49	7	07/01/04
SX-111	ASMD LKR	IS	115	0	11	0	0	11	97	18	07/01/04
SX-112	ASMD LKR	IS	75	0	6	0	0	6	75	0	07/01/04
SX-113	ASMD LKR	IS	19	0	0	0	0	0	19	0	01/01/02
SX-114	ASMD LKR	IS	155	0	30	0	0	30	126	29	07/01/04
SX-115	ASMD LKR	IS	4	0	0	0	0	0	4	0	01/01/02
15 TANKS - TOTAL			3321						1080	2241	
					241-T TANK FARM STATUS						
T-101	ASMD LKR	IS	99	0	16	0	25	16	37	62	06/30/04
T-102	SOUND	IS	32	13	3	0	0	16	19	0	08/31/84
T-103	ASMD LKR	IS	27	4	3	0	0	7	23	0	11/29/83
T-104	SOUND	IS	317	0	31	0	150	31	317	0	11/30/99
T-105	SOUND	IS	98	0	5	0	0	5	98	0	05/29/87
T-106	ASMD LKR	IS	22	0	0	0	0	0	22	0	01/01/01
T-107	ASMD LKR	IS	173	0	34	0	11	34	173	0	05/31/96
T-108	ASMD LKR	IS	16	0	4	0	0	4	5	11	01/01/01
T-109	ASMD LKR	IS	62	0	11	0	0	11	0	62	01/01/02
T-110	SOUND	IS	370	1	48	0	50	49	369	0	03/31/02
T-111	ASMD LKR	IS	447	0	38	0	10	38	447	0	01/01/02
T-112	SOUND	IS	67	7	4	0	0	11	60	0	04/28/82
T-201	SOUND	IS	30	2	4	0	0	6	28	0	07/01/04
T-202	SOUND	IS	20	0	3	0	0	3	20	0	07/01/04
T-203	SOUND	IS	36	0	5	0	0	5	36	0	07/01/04
T-204	SOUND	IS	36	0	5	0	0	5	36	0	07/01/04
16 TANKS - TOTAL			1852						1690	135	
					241-TX TANK FARM STATUS						
TX-101	SOUND	IS	91	0	7	0	0	7	74	17	01/01/02
TX-102	SOUND	IS	217	0	27	0	94	27	2	215	03/31/03
TX-103	SOUND	IS	145	0	18	0	68	18	0	145	01/01/02
TX-104	SOUND	IS	69	2	9	0	4	11	34	33	06/30/04
TX-105	ASMD LKR	IS	576	0	25	0	122	25	8	568	01/01/02
TX-106	SOUND	IS	348	0	37	0	135	37	5	343	03/31/02
TX-107	ASMD LKR	IS	29	0	7	0	0	7	0	29	01/31/03
TX-108	SOUND	IS	127	0	8	0	14	8	6	121	06/30/04
TX-109	SOUND	IS	363	0	6	0	72	6	363	0	01/01/02
TX-110	ASMD LKR	IS	467	0	14	0	115	14	37	430	01/01/02
TX-111	SOUND	IS	364	0	10	0	98	10	43	321	06/30/04
TX-112	SOUND	IS	634	0	26	0	94	26	0	634	01/01/02
TX-113	ASMD LKR	IS	638	0	18	0	19	18	93	545	06/30/04
TX-114	ASMD LKR	IS	532	0	17	0	104	17	4	528	01/01/02
TX-115	ASMD LKR	IS	553	0	25	0	99	25	8	545	06/30/04
TX-116	ASMD LKR	IS	599	0	21	0	24	21	66	533	04/30/03
TX-117	ASMD LKR	IS	480	0	10	0	54	10	29	451	06/30/04
TX-118	SOUND	IS	247	0	31	0	89	31	0	247	06/30/04
18 TANKS - TOTAL			6479						772	5705	

Table 4-1. Inventory and Status by Tank - Single-Shell Tanks (sheet 4 of 4).

All volume data obtained from Tank Waste Information Network System (TWINS)											
				Waste Volumes							
Tank Number	Tank Integrity	Tank Status	Total Waste (Kgal)	Super-natant Liquid (Kgal)	Drainable Interstitial Liquid (Kgal)	Pumped this Month (Kgal)	Total Pumped (Kgal)	Drainable Liquid Remaining (Kgal)	Sludge (Kgal)	Salt-cake (Kgal)	Solids Volume Update
					241-TY TANK FARM STATUS						
TY-101	ASMD LKR	IS	118	0	2	0	8	2	42	76	07/01/05
TY-102	SOUND	IS	69	0	13	0	7	13	0	69	01/01/02
TY-103	ASMD LKR	IS	154	0	23	0	12	23	103	51	06/30/04
TY-104	ASMD LKR	IS	44	1	4	0	0	5	43	0	03/31/02
TY-105	ASMD LKR	IS	231	0	12	0	4	12	231	0	04/28/82
TY-106	ASMD LKR	IS	16	0	1	0	0	1	16	0	01/01/02
6 TANKS - TOTALS			632						435	196	
					241-U TANK FARM STATUS						
U-101	ASMD LKR	IS	23	0	4	0	0	4	23	0	06/30/04
U-102	SOUND	IS	327	1	37	0	87	38	43	283	12/31/02
U-103	SOUND	IS(4)	417	1	33	0	99	34	11	405	01/01/05
U-104	ASMD LKR	IS	122	0	0	0	0	0	122	0	01/01/02
U-105	SOUND	IS	353	0	44	0	88	44	32	321	03/30/01
U-106	SOUND	IS	170	2	36	0	39	39	0	168	06/30/04
U-107	SOUND	IS	294	0	32	0	135	32	15	279	12/31/03
U-108	SOUND	IS	434	0	46	0	115	46	29	405	09/30/04
U-109	SOUND	IS(4)	401	0	47	0	78	47	35	366	04/30/02
U-110	ASMD LKR	IS	176	0	16	0	0	16	176	0	01/01/02
U-111	SOUND	IS	222	0	31	0	86	31	26	196	08/31/03
U-112	ASMD LKR	IS	45	0	4	0	0	4	45	0	02/10/84
U-201	SOUND	IS	4	1	1	0	0	2	3	0	06/30/03
U-202	SOUND	IS	4	1	0	0	0	1	3	0	06/30/03
U-203	SOUND	IS	3	1	0	0	0	1	2	0	06/30/03
U-204	SOUND	IS	3	1	0	0	0	1	2	0	06/30/03
16 TANKS - TOTALS			2998						567	2423	

Note: +/- 1 Kgal difference in volumes is due to rounding.

Footnote:

(1) C-106: Volumes: Total waste 2771 gallons, liquids 85 gallons, per RPP-19866, Rev. 1, "Calculation for the Post-Retrieval Waste Volume Determination for Tank 241-C-106," dated February 26, 2004.

(2) C-202: Volumes estimate as of August 11, 2005: Total waste 147 gallons.

(3) Hanford Federal Facility Agreement and Consent Order (signed August 2004) modified Milestone M-45-00C (Change Order M-45-04-01) changed the regulatory requirements for retrieval of waste in tanks S-103, S-105, and S-106. "Retrieval" status in these tanks is thereby rescinded.

(4) Tank A-101 contains retained gas in saltcake; tanks S-102, S-111, U-103, and U-109 contain retained gas in saltcake and sludge.

(5) C-203: Volumes: Total waste 139 gallons, and sludge 139 gallons, per RPP-CALC-25672, Rev. 0, "Calculation for the Post-Retrieval Waste Volume Determination for Single-Shell Tank C-103," dated March 31, 2005.

(6) S-102: Volume estimate as of September 27, 2005: Total waste 214,000 gallons.

(7) S-112: Volume estimate as of May 17, 2005: Total waste 31,000 gallons.

Table 4-2. Single-Shell Tanks Interim Stabilization Status (Sheet 1 of 2).

Tank Number	Tank Integrity	Interim Stabilization Date (1)	Interim Stabilization Method	Tank Number	Tank Integrity	Interim Stabilization Date (1)	Interim Stabilization Method
A-101	SOUND	11/03	JET (16)	BY-107	ASMD LKR	07/79	JET
A-102	SOUND	08/89	SN	BY-108	ASMD LKR	02/85	JET
A-103	ASMD LKR	06/88	AR	BY-109	SOUND	07/97	JET
A-104	ASMD LKR	09/78	AR (3)	BY-110	SOUND	01/85	JET
A-105	ASMD LKR	07/79	AR	BY-111	SOUND	01/85	JET
A-106	SOUND	08/82	AR	BY-112	SOUND	06/84	JET
AX-101	SOUND	06/03	JET (9)	C-101	ASMD LKR	11/83	AR
AX-102	ASMD LKR	09/88	SN	C-102	SOUND	09/95	JET (2)
AX-103	SOUND	08/87	AR	C-103	SOUND	07/03	JET (11)
AX-104	ASMD LKR	08/81	AR	C-104	SOUND	09/89	SN
B-101	ASMD LKR	03/81	SN	C-105	SOUND (21)	10/95	AR
B-102	SOUND	08/85	SN	C-106	SOUND	Retrieval Completed 12/31/03	
B-103	ASMD LKR	02/85	SN	C-107	SOUND	09/95	JET
B-104	SOUND	06/85	SN	C-108	SOUND	03/84	AR
B-105	ASMD LKR	12/84	AR	C-109	SOUND	11/83	AR
B-106	SOUND	03/85	SN	C-110	ASMD LKR	05/95	JET
B-107	ASMD LKR	03/85	SN	C-111	ASMD LKR	03/84	SN
B-108	SOUND	05/85	SN	C-112	SOUND	09/90	AR
B-109	SOUND	04/85	SN	C-201	ASMD LKR	03/82	AR
B-110	ASMD LKR	12/84	AR	C-202	ASMD LKR	08/81	AR
B-111	ASMD LKR	06/85	SN	C-203	ASMD LKR	Retrieval Completed 03/24/05	
B-112	ASMD LKR	05/85	SN	C-204	ASMD LKR	09/82	AR
B-201	ASMD LKR	08/81	AR (3)	S-101	SOUND	12/03	JET (18)
B-202	SOUND	05/85	AR (2)	S-102	SOUND	Retrieval in progress	
B-203	ASMD LKR	06/84	AR	S-103	SOUND	04/00	JET
B-204	ASMD LKR	06/84	AR	S-104	ASMD LKR	12/84	AR
BX-101	ASMD LKR	09/78	AR (3)	S-105	SOUND	09/88	JET
BX-102	ASMD LKR	11/78	AR	S-106	SOUND	02/01	JET
BX-103	SOUND	11/83	AR (2) (3)	S-107	SOUND	08/03	JET (13)
BX-104	SOUND	09/89	SN	S-108	SOUND	12/96	JET
BX-105	SOUND	03/81	SN	S-109	SOUND	06/01	JET
BX-106	SOUND	07/95	SN	S-110	SOUND	01/97	JET
BX-107	SOUND	09/90	JET	S-111	SOUND	12/03	Jet (17)
BX-108	ASMD LKR	07/79	SN	S-112	SOUND	Retrieval in progress	
BX-109	SOUND	08/90	JET	SX-101	SOUND	08/03	JET (12)
BX-110	ASMD LKR	08/85	SN	SX-102	SOUND	08/03	JET (14)
BX-111	ASMD LKR	03/95	JET	SX-103	SOUND	05/03	JET (8)
BX-112	SOUND	09/90	JET	SX-104	ASMD LKR	04/00	JET
BY-101	SOUND	05/84	JET	SX-105	SOUND	08/02	JET (6)
BY-102	SOUND	04/95	JET	SX-106	SOUND	05/00	JET
BY-103	ASMD LKR	11/97	JET (2)	SX-107	ASMD LKR	10/79	AR
BY-104	SOUND	01/85	JET	SX-108	ASMD LKR	08/79	AR
BY-105	ASMD LKR	03/03	JET	SX-109	ASMD LKR	05/81	AR
BY-106	ASMD LKR	12/03	JET (19)	SX-110	ASMD LKR	08/79	AR

Table 4-2. Single-Shell Tanks Interim Stabilization Status (Sheet 2 of 2).

Tank Number	Tank Integrity	Interim Stabilization Date (1)	Interim Stabilization Method	Tank Number	Tank Integrity	Interim Stabilization Date (1)	Interim Stabilization Method
SX-111	ASMD LKR	07/79	SN	TX-111	SOUND	04/83	JET
SX-112	ASMD LKR	07/79	AR	TX-112	SOUND	04/83	JET
SX-113	ASMD LKR	11/78	AR	TX-113	ASMD LKR	04/83	JET
SX-114	ASMD LKR	07/79	AR	TX-114	ASMD LKR	04/83	JET
SX-115	ASMD LKR	09/78	AR (3)	TX-115	ASMD LKR	09/83	JET
T-101	ASMD LKR	04/93	SN	TX-116	ASMD LKR	04/83	JET
T-102	SOUND	03/81	AR (2)(3)	TX-117	ASMD LKR	03/83	JET
T-103	ASMD LKR	11/83	AR	TX-118	SOUND	04/83	JET
T-104	SOUND	11/99	JET	TY-101	ASMD LKR	04/83	JET
T-105	SOUND	06/87	AR	TY-102	SOUND	09/79	AR
T-106	ASMD LKR	08/81	AR	TY-103	ASMD LKR	02/83	JET
T-107	ASMD LKR	05/96	AR	TY-104	ASND KJR	11/83	AR
T-108	ASMD LKR	11/78	AR	TY-105	ASMD LKR	02/83	JET
T-109	ASMD LKR	12/84	AR	TY-106	ASMD LKR	11/78	AR
T-110	SOUND	01/00	JET	U-101	ASMD LKR	09/79	AR
T-111	ASMD LKR	02/95	JET	U-102	SOUND	06/02	JET (5)
T-112	SOUND	03/81	AR (2)(3)	U-103	SOUND	09/00	JET
T-201	SOUND	04/81	AR (3)	U-104	ASMD LKR	10/78	AR
T-202	SOUND	08/81	AR	U-105	SOUND	03/01	JET
T-203	SOUND	04/81	AR	U-106	SOUND	03/01	JET
T-204	SOUND	08/81	AR	U-107	SOUND	10/03	JET (15)
TX-101	SOUND	02/84	AR	U-108	SOUND	03/04	(20)
TX-102	SOUND	04/83	JET	U-109	SOUND	04/02	JET (4)
TX-103	SOUND	08/83	JET	U-110	ASMD LKR	12/84	AR
TX-104	SOUND	09/79	SN	U-111	SOUND	06/03	JET (10)
TX-105	ASMD LKR	04/83	JET	U-112	ASMD LKR	09/79	AR
TX-106	SOUND	06/83	JET	U-201	SOUND	08/79	AR
TX-107	ASMD LKR	10/79	AR	U-202	SOUND	08/79	SN
TX-108	SOUND	03/83	JET	U-203	SOUND	08/79	AR
TX-109	SOUND	04/83	JET	U-204	SOUND	08/79	SN
TX-110	ASMD LKR	04/83	JET				

LEGEND:			
AR	Administratively Interim Stabilized	Interim Stabilized Tanks	149
JET	Saltwell Jet Pumped to Remove Drainable Interstitial Liquid	Total Single-Shell Tanks	149
SN	Supernatant Pumped (Non-Jet Pumped)		
ASMD LKR	Assumed Leaker		
N/A	Not yet Interim Stabilized		

Table 4-2. - Footnotes: (in chronological order)

(1) These dates indicate when the tanks were actually interim stabilized. In some cases, the official interim stabilization documents were issued at a later date.

(2) Although tanks 241-BX-103, T-102, and T-112 met the interim stabilization administrative procedure at the time they were stabilized, they no longer meet the updated administrative procedure. The tanks were re-evaluated in 1996 and a letter was issued to DOE-RL recommending that no further pumping be performed on these tanks, based on an economic evaluation. In February 2000, it was determined that five tanks no longer met the stabilization criteria (241-

Table 4-2. – Footnotes continued

BX-103, T-102, and T-112 exceed the supernatant criteria, and BY-103 and C-102 exceed the Drainable Interstitial Liquid [DIL]criteria).

An intrusion investigation was completed on tank 241-B-202 in 1996 and it was determined that this tank no longer meets the recently updated administrative procedure for 200 series tanks.

(3) Original interim stabilization data are missing on four tanks: 241-B-201, T-102, T-112, and T-201. In February 2001, three additional tanks were added to those missing stabilization data: 241-A-104, BX-101, and SX-115.

(4) Tank 241-U-109 was declared Interim Stabilized on April 5, 2002. The declaration letter to DOE was issued on June 20, 2002. The surface is primarily a brown colored waste with irregular patches of white salt crystal. Approximately 70% of the waste surface is covered by the salt formations. The waste surface appears dry and shows signs of cracking due to saltwell pumping. There is no visible liquid within the tank.

(5) Tank 241-U-102 was declared Interim Stabilized on June 19, 2002. The declaration letter to DOE was issued June 28, 2002. The surface is primarily a gray-brown colored cracked waste with irregular patches of white salt crystal. Approximately 50% of the waste surface is covered by the salt formations. The waste surface appears dry and shows signs of cracking due to saltwell pumping. There is approximately a 5-foot wide pool of visible liquid within the saltwell screen depression.

(6) Tank 241-SX-105 was declared Interim Stabilized on August 1, 2002; the declaration letter to DOE was issued August 20, 2002. The surface is a rough, yellowish-gray saltcake waste with an irregular surface of visible cracks and shelves due to saltwell pumping. The waste surface appears to be dry and shows no standing water within the tank.

(7) Tank 241-BY-105 was declared Interim Stabilized on March 7, 2003; the declaration letter to DOE was issued March 25, 2003. An in-tank video was taken January 5, 2003. The surface is a rough, yellowish brown saltcake waste with an irregular surface of visible lumps and shelves that were created as the surface was dried out by saltwell pumping. The waste surface appears to be dry and shows no standing water within the tank. A large hole around the saltwell screen shows no evidence of supernatant liquid.

(8) Tank 241-SX-103 was declared Interim Stabilized on May 31, 2003; the declaration letter to DOE was issued June 13, 2003. An in-tank video was taken December 31, 2001. The upper waste surface is uneven and rough, with many cracks and shelves due to surface drying caused by saltwell pumping. All estimations regarding waste dimensions were obtained by comparison with known dimensions of installed in-tank equipment.

(9) Tank 241-AX-101 was declared Interim Stabilized on June 2, 2003. The declaration letter to DOE was issued January 19, 2004. An in-tank video was taken November 5, 2003. The surface is a dry flaky, crystalline, yellowish-white saltcake waste in a fairly uniform surface of large cracks that were created as the surface dried out by saltwell pumping. The surface is dry and shows no standing water in the tank.

(10) Tank 241-U-111 was declared Interim Stabilized on June 25, 2003, due to major equipment failure; the declaration letter to DOE was issued July 14, 2003. An in-tank video was taken March 25, 2003. The surface is a dry, crusty, flat surface saltcake waste with a fairly uniform surface of large cracks and pocked holes that were created as the surface was dried out by saltwell pumping. The waste surface is dry and shows no standing water.

(11) Tank 241-C-103 was declared Interim Stabilized on July 11, 2003, due to major equipment failure; the declaration letter to DOE was issued August 13, 2003. An in-tank video was taken March 3, 2003. The surface is a dry-cracked brown sludge type waste, which appears to be relatively level and to have more cracking near the tank walls. There is a roughly 3-foot diameter supernatant pool around the saltwell screen. There are also small supernatant pools around two risers and many liquid pockets across the center waste surface. The ENRAF is out of service and there is no liquid observation well (LOW) installed in the tank.

(12) Tank 241-SX-101 was declared Interim Stabilized on August 14, 2003; the declaration letter to DOE was issued August 22, 2003. An in-tank video was taken August 6, 2003. The surface is a rough, yellowish gray saltcake waste with an irregular surface of visible cracks and shelves that were created as the waste was dried out by saltwell pumping. The waste surface appears to be dry and shows no standing water. A cylindrical pool (approximately 5 foot diameter) around the saltwell screen shows evidence of apparent supernatant liquid, but upon closer examination, was determined to be interstitial liquid.

Table 4-2. – Footnotes continued

(13) Tank 241-S-107 was declared Interim Stabilized on August 28, 2003, due to major equipment failure. Interim Stabilization documentation was issued February 4, 2004; the declaration letter to DOE was issued February 26, 2004. An in-tank video was taken December 12, 2003. The waste appears as a flat, dark, sludge-type waste with an irregular surface of visible cracks created as the waste dried out from saltwell pumping. The waste surface appears to be dry except for a small pool surrounding the saltwell screen.

(14) Tank 241-SX-102 was declared Interim Stabilized on August 28, 2003, due to major equipment failure. The declaration letter to DOE was issued August 4, 2004. An in-tank video was taken December 10, 2003. The waste is a rough, yellowish-tray saltcake with an irregular surface of visible cracks and shelves that were created as the waste was dried out by saltwell pumping. The waste surface appears to be dry and shows no standing water on the surface.

(15) Tank 241-U-107 was declared Interim Stabilized on October 7, 2003. The declaration letter to DOE was issued January 19, 2004. An in-tank video was taken February 4, 2003. The surface is a smooth, brownish saltcake with irregular patches of white salt crystals created as the waste was dried out from saltwell pumping. The waste surface appears to be dry and shows no standing water on the surface.

(16) Tank 241-A-101 was declared Interim Stabilized on November 10, 2003. The declaration letter to DOE was issued June 30, 2004. An in-tank video was taken September 5, 2003. The waste appears as a flat, dark, sludge-type waste with an irregular surface with white clumps of a saltcake-type material. Cracks in the waste surface were created as the waste was dried out by saltwell pumping. The waste surface is dry except for a small pool around the saltwell screen.

(17) Tank 241-S-111 was declared Interim Stabilized on December 15, 2003, due to major equipment failure. The declaration letter to DOE was issued May 26, 2005.

(18) Tank 241-S-101 was declared Interim Stabilized on December 29, 2003. The declaration letter to DOE was issued April 30, 2004. An in-tank video was taken March 2, 2004. The waste appears to be a flat, dark, sludge-type waste with an irregular surface with white clumps of saltcake. Also visible are cracks in the waste surface that were created as the waste was dried out by saltwell pumping. The waste surface is dry except for this small pool.

(19) Tank BY-106 was declared Interim Stabilized on December 31, 2003. The declaration letter to DOE was issued June 30, 2005.

(20) Tank U-108 was declared Interim Stabilized on March 18, 2004, due to major equipment failure. The declaration letter to DOE was issued September 8, 2004. An in-tank video was taken March 8, 2004. The waste is a smooth, brownish saltcake waste with irregular patches of white salt crystals that were created as the waste was dried out by saltwell pumping. The surface appears to be dry with evidence of cracking and no standing water.

(21) A 1000 gal leak is estimated from C-105 ancillary equipment (RPP-23405). In 1974, increased gamma readings in the drywells surrounding C-105 were attributed to a leak in the cascade line between C-104 and C-105, and C-105 was determined to be sound. The current drywell data indicate that no additional leakage has occurred. In 2004, a review of the potential for tank leaks during waste retrieval, presented in RPP-20820, determined that the data were inconclusive as to the source of the radiation plume detected in the drywells, therefore, C-105 will be treated as an assumed leaker.

Table 4-3. Single-Shell Tank, Ancillary Equipment and Waste Management Area Leak Volume Estimates[1,3] (Sheet 1 of 3)

Tank leak volume estimates have been revised per RPP-23405, *Tank Farm Vadose Zone Contamination Volume Estimates.* Tank Farm leak volumes estimates presented in Table 4-3 are from tank/ancillary equipment leaks and unplanned releases in the tank farms.

Tank/Ancillary Equipment		UPR	Leak Volume (gal)
A-Farm	241-A-103	NA	5500
	241-A-104	UPR-200-E-125	2000
	241-A-105	UPR-200-E-126	1000 (2)
		UPR-200-E-119	<1
		UPR-200-E-145	1650
		Total	10150
AX-Farm	241-AX-102	NA	3000
	241-AX-104	NA	No basis for estimate (4)
		Total	3000
B-Farm	241-B-101	NA	No basis for estimate (4)
	241-B-103	NA	No basis for estimate (4)
	241-B-105	NA	No basis for estimate (4)
	241-B-107	UPR-200-E-127	14000
	241-B-110	UPR-200-E-128	10000
	241-B-111	NA	No basis for estimate (4)
	241-B-112	NA	2000
	241-B-201	UPR-200-E-129	1200
	241-B-203	UPR-200-E-130	300
	241-B-204	NA	400
		UPR-200-E-6	1017
		UPR-200-E-38	5400
		UPR-200-E-73	92.5
		UPR-200-E-74	10
		UPR-200-E-75	1017
		UPR-200-E-108	196
		UPR-200-E-109	150
		Total	35782.5
BX-Farm	241-BX-101	UPR-200-E-131	4000
	241-BX-102	UPR-200-E-132 UPR-200-E-5	91600
	241-BX-108	UPR-200-E-133	2500
	241-BX-110	NA	No basis for estimate (4)
	241-BX-111	NA	No basis for estimate (4)
		Total	98100

Table 4-3. Single-Shell Tank, Ancillary Equipment and Waste Management Area Leak Volume Estimates[1,3] (Sheet 2 of 3)

Tank/Ancillary Equipment		UPR	Leak Volume (gal)
BY-Farm	241-BY-103	UPR-200-E-134	400
	241-BY-105	NA	No basis for estimate (4)
	241-BY-106	NA	No basis for estimate (4)
	241-BY-107	NA	1200
	241-BY-108	UPR-200-E-135	400
		200-E-60	1370
		UPR-200-E-105	23000
		UPR-200-E-110	5086
		Total	31456
C-Farm	241-C-101	UPR-200-E-136	1000
	241-C-105 (5)	UPR-200-E-16	1000
	241-C-110	NA	2000
	241-C-111	NA	5500
	241-C-201	NA	550
	241-C-202	NA	450
	241-C-203	UPR-200-E-137	400
	241-C-204	NA	350
		UPR-200-E-81	36000
		UPR-200-E-82	2600
		UPR-200-E-86	18500
		UPR-200-E-107	5
		Total	68355
S-Farm	241-S-104	NA	24000
		UPR-200-W-127	87
		Total	24087
SX-Farm	241-SX-104	NA	6000
	241-SX-107	UPR-200-W-140	15000
	241-SX-108	UPR-200-W-141	35000
	241-SX-109	UPR-200-W-142	2000
	241-SX-110	NA	1000
	241-SX-111	UPR-200-W-143	500
	241-SX-112	UPR-200-W-144	1000
	241-SX-113	UPR-200-W-145	15000
	241-SX-114	NA	No basis for estimate (4)
	241-SX-115	UPR-200-W-146	50000
		Total	125500

Table 4-3. Single-Shell Tank, Ancillary Equipment and Waste Management Area Leak Volume Estimates[1,3] (Sheet 3 of 3)

Tank/Ancillary Equipment		UPR	Leak Volume (gal)
T-Farm	241-T-101	NA	10000
	241-T-103	UPR-200-W-147	3000
	241-T-106	UPR-200-W-148	115000
	241-T-107	NA	No basis for estimate (4)
	241-T-108	NA	1000
	241-T-109	NA	1000
	241-T-111	NA	1000
		UPR-200-W-12	5
		Total	131005
TX-Farm	241-TX-105	NA	No basis for estimate (4)
	241-TX-107	UPR-200-W-149	8000
	241-TX-110	NA	No basis for estimate (4)
	241-TX-113	NA	No basis for estimate (4)
	241-TX-114	NA	No basis for estimate (4)
	241-TX-115	NA	No basis for estimate (4)
	241-TX-116	NA	No basis for estimate (4)
	241-TX-117	NA	No basis for estimate (4)
		UPR-200-W-100	2543
		Total	10543
TY-Farm	241-TY-101	NA	1000
	241-TY-103	UPR-200-W-150	3000
	241-TY-104	UPR-200-W-151	1400
	241-TY-105	UPR-200-W-152	35000
	241-TY-106	UPR-200-W-153	20000
		Total	60400
U-Farm	241-U-101	UPR-200-W-154	5000
	241-U-104	UPR-200-W-155	55000
	241-U-110	UPR-200-W-156	6500
	241-U-112	UPR-200-W-157	8500
		UPR-200-W-24	36
		UPR-200-W-132	500
		Total	75536
68 Tanks			

Table 4-3. - Footnotes:

(1) Tank Farm leak volumes estimates presented in this table are from tank leaks and unplanned releases in tank farm management areas. The values are consistent with RPP-23405, *Tank Farm Vadose Zone Contamination Volume Estimates* and are used in the Single Shell Tank Performance Assessment (DOE/ORP-2005-01). Uncertainties associated with these contamination volumes are addressed in the SST Performance Assessment.

(2) Revised volume does not include cooling water losses.

Table 4-3. - Footnotes continued

(3) New data has been, and continues to be, obtained by the vadose program to validate tank Farm leak volume estimates. This table will be updated as new information is obtained.

(4) These tanks are classified as assumed leakers, although no liquid level decreases were observed for any of these tanks. RPP-23405 concludes that, in general, vadose activity observed near these tanks is negligible.

(5) A 1000 gal leak is estimated from C-105 ancillary equipment (RPP-23405). In 1974, increased gamma readings in the drywells surrounding C-105 were attributed to a leak in the cascade line between C-104 and C-105, and C-105 was determined to be sound. The current drywell data indicate that no additional leakage has occurred. In 2004, a review of the potential for tank leaks during waste retrieval, presented in RPP-20820, determined that the data were inconclusive as to the source of the radiation plume detected in the drywells, therefore, C-105 will be treated as an assumed leaker.

Table 4-3. - References:

(a) Field, J. G. and T. E. Jones, September 2005, *Tank Farm Vadose Zone Contamination Volume Estimates*, RPP-23405, CH2M Hill Hanford Group, Richland, Washington.

(b) Johnson, M. E., October 2004, *Waste Retrieval Leak Evaluation Report: Single-Shell Tanks*, RPP-20820, CH2M Hill Hanford Group, Richland, Washington.

(c) DOE-ORP, 2005, *Single-Shell Tank Performance Assessment for the Hanford Site*, DOE/ORP-2005-01, Predecisional Draft Rev. C, U.S. Department of Energy, Office of River Protection, Richland, Washington.

5.0 MISCELLANEOUS UNDERGROUND STORAGE TANKS AND SPECIAL SURVEILLANCE FACILITIES

Table 5-1. East and West Area Miscellaneous Underground Storage Tanks and Special Surveillance Facilities.

ACTIVE - still running transfers through the associated diversion boxes or pipeline encasements					
Facility	**Location**	**Receives Waste From:**	**Waste (Gallons)**	**Monitored By:**	**Remarks**
EAST AREA					
241-A-302-A	A Farm	A-151 DB	660	SACS/ENRAF/TMACS	
241-ER-311	B Plant	ER-151, ER-152 DB	1827	SACS/ENRAF/Manual	
241-AZ-151	AZ Farm	AZ-702 Condensate	3772	SACS/ENRAF/TMACS	Volume changes daily - pumped to AZ-101 or AY-102 as needed
241-AZ-154	AZ Farm		25	SACS/MT	
244-BX-TK-SMP	BX Complex	DCRT - Receives from several farms	9703	SACS/MT	Receives transfers and is pumped as needed
244-A-TK/SMP	A Complex	DCRT - Receives from several farms	2981	MCS/SACS/WTF	WTF - Receives transfers and is pumped as needed
A-350	A Farm	Collects drainage	366	MCS/SACS/WTF	WTF (uncorrected), pumped as needed
AR-204	AY Farm	Tanker trucks from various facilities	775	DIP TUBE	
A-417	A Farm		1176	SACS/WTF	WTF
CR-003-TK-SMP	C Farm	DCRT	2146	ZIP CORD	Zip cord installed; MT removed; more accurate conversion table used
WEST AREA					
241-TX-302-C	T Plant	TX-154 DB	189	SACS/ENRAF/TMACS	
241-U-301-B	U Farm	U-151, 152, 153, 252 DB	1442	SACS/ENRAF/Manual	Pumped to SY-101, 12/03
241-UX-302-A	U Plant	UX-154	1736	SACS/ENRAF/Manual	Rain intrusion 2/03; recalibration caused decrease 6/03
241-S-304	S Farm	S-151 DB	135	SACS/ENRAF/Manual	Sump not alarming
244-S-TK/SMP	S Farm	From SSTs for transfer to SY-102	2424	SACS/Manual	WTF
244-TX-TK/SMP	TX Farm	From SSTs and PFP for transfer to SY-102	5077	SACS/Manual	Received from 241-Z, tank D-5, 11/04
Vent Station Catch Tank		Cross Site Transfer Line	505	SACS/Manual	MT. Rain intrusion, 1/03
Total Active Facilities - 17					

LEGEND:	
DB	Diversion Box
DCRT	Double-Contained Receiver Tank
ENRAF, MT, Zip Cord	Surface Level Measurement Devices
MCS	Monitor and Control System
Manual	Not connected to any automated system
O/S	Out of Service
PFP	Plutonium Finishing Plant
SACS	Surveillance Automated Control System
SST	Single-Shell Tank
TMACS	Tank Monitor and Control System
WTF	Weight Factor (can be recorded as WTF, WTF [uncorrected] or CWF [uncorrected])

Table 5-2. East Area Inactive Miscellaneous Underground Storage Tanks and Special Surveillance Facilities.

INACTIVE - No longer receiving waste transfers - currently managed by Tank Farm Contractor					
Facility	**Location**	**Received Waste From:**	**Waste (Gallons)**	**Monitored By:**	**Remarks**
209-E-TK-111	209 E Bldg.	Decon Catch Tank	Unknown	NM	Removed from service 1988
241-A-302-B	A Farm	A-152 DB	6071	SACS/MT	Isolated 1985, Project B-138, Interim Stabilized 1990, rain intrusion
241-AX-151	N. of PUREX	PUREX	Unknown	NM	Isolated 1985
241-AX-152	AX Farm	AX-152 DB	0	SACS/MT	Declared Assumed Leaker, pumped to AY-102, 3/01, no longer being used
241-B-301-B	B Farm	B-151, 152, 153, 252 DB	22250	NM	Isolated 1985 (1)
241-B-302-B	B Farm	B-154 DB	4930	NM	Isolated 1985 (1)
241-BX-302-A	BX Farm	BR-152, BX-153, BXR-152, BYR-152 DB	840	NM	Isolated 1985 (1)
241-BX-302-B	BX Farm	BX-154 DB	1040	NM	Isolated 1985 (1)
241-BX-302-C	BX Farm	BX-155 DB	870	NM	Isolated 1985 (1)
241-BY-1TS2-TK 1	BY Farm	Vapor condenser	Unknown	NM	Isolated
241-BY-1TS2-TK 2	BY Farm	Heater Flush Tank	Unknown	NM	Stabilized 1977
241-C-301-C	C Farm	C-151, 152, 153, 252 DB	10470	NM	Isolated 1985 (1)
241-ER-311A	SW of B Plant	ER-151 DB	Empty	NM	Abandoned in place 1954
241-AR Vault	A Complex	Between farms and B Plant	Unknown	NM	Stabilized 8/03, RPP-12051
241-BXR-TK/SMP-001	BX Farm	Transfer lines	7200	NM	Interim Stabilization 1985 (1)
241-BXR-TK/SMP-002	BX Farm	Transfer Lines	2180	NM	Interim Stabilization 1985 (1)
241-BXR-TK/SMP-003	BX Farm	Transfer Lines	1810	NM	Interim Stabilization 1985 (1)
241-BXR-TK/SMP-004	BX Farm	Transfer Lines	7100	NM	Interim Stabilization 1985 (1)
Total East Area Inactive Facilities - 18					

LEGEND:	
DB	Diversion Box
MT	Surface Level measurement Device
NM	Not Monitored
SACS	Surveillance Automated Control System
TK, SMP	Tank, Sump

(1) WHC-SD-WM-TI-356, *Waste Storage Tank Status and Leak Detection Criteria,* Rev. 0, September 30, 1988

Table 5-3. West Area Inactive Miscellaneous Underground Storage Tanks and Special Surveillance Facilities.

INACTIVE - No longer receiving waste transfers - currently managed by Tank Farm Contractor					
Facility	**Location**	**Received Waste From:**	**Waste (Gallons)**	**Monitored By:**	**Remarks**
213-W-TK-1	E. of 213-W Compactor Facility	Water Retention Tank	Unknown	NM	Contains only water
231-W-151-001	N. of Z Plant	231-Z Floor drains	Unknown	NM	Inactive, last data 1974
231-W-151-002	N. of Z Plant	231-Z Floor drains	Unknown	NM	Inactive, last data 1974
240-S-302	S Plant	240-S-151-DB	9866		Assumed Leaker, EPDA 85-04
241-S-302-A	S Farm	241-S-151-DB	0		Assumed Leaker TF-EFS-90-042
	Partially filled with grout 2/91, determined to be an Assumed Leaker after leak test. No surface level or intrusion readings obtainable. S-304 (active) replaced S-302				
241-S-302-B	SX Farm	S Encasements	Empty	NM	Isolated 1985 (1)
241-SX-302 (SX-304)	SX Farm	SX-151 DB, 151 TB	Unknown	NM	Isolated 1987
241-T-301	T Farm	DB T-151, 151, 153, 252	Unknown	NM	Isolated 1985 (T-301-B)
241-TX-302	TX Farm	TX-153 DB	Unknown	NM	Isolated 1985 (1)
241-TX-302-X-B	TX Farm	TX Encasements	Unknown	NM	Isolated 1985 (1)
241-TX-302-B	E. of TX Farm	TX-155 DB	3254	SACS/ ENRAF	New ENRAF installed 9/02
241-TX-302-B(R)	E. of TX Farm	TX-155 DB	Unknown	NM	Isolated, replaced TX-302-B
241-TY-302-A	TY Farm	TX-153 DB	Unknown	NM	Isolated 1985 (1)
241-TY-302-B	TY Farm	TY Encasements	Empty	NM	Isolated 1985 (1)
241-Z-8	E. of Z Plant	Recuplex waste	Unknown	NM	Isolated, 1974, 1975
242-T-135	T Evaporator	T Evaporator	Unknown	NM	Isolated
242-TA-R1	T Evaporator	Z Plant waste	Unknown	NM	Isolated
243-S-TK-1	NW of S Farm	Personnel Decon. Facility	Empty	NM	Isolated
244-TXR-TK/SMP-001	TX Farm	Transfer lines	Unknown	NM	Interim Stabilized, MT removed 1984 (1)
244-TXR-TK/SMP-002	TX Farm	Transfer lines	Unknown	NM	Interim Stabilized, MT removed 1984 (1)
244-TXR-TK/SMP-003	TX Farm	Transfer lines	Unknown	NM	Interim Stabilized, MT removed 1984 (1)
244-UR-001 Vault TK	U Farm	Tank, Sump and Cell	4220	NM	Stabilized 1985
244-UR-002 Vault TK	U Farm	Tank, Sump and Cell	1400	NM	Stabilized 1985
244-UR-003 Vault TK	U Farm	Tank, Sump and Cell	5996	NM	Stabilized 1985
244-UR-004 Vault TK	U Farm	Tank, Sump and Cell	Empty	NM	Stabilized 1985
Total East Area Inactive Facilities - 25					

LEGEND:	
DB, TD	Diversion Box, Transfer Box
FIC, ENRAF	Surface Level Measurement Devices
MT	Manual Tape - Surface Level measurement Device
NM	Not Monitored
SACS	Surveillance Automated Control System
TK, SMP	Tank, Sump
SACS	Surveillance Automated Control System
TK, SMP	Tank, Sump

(1) WHC-SD-WM-TI-356, *Waste Storage Tank Status and Leak Detection Criteria,* Rev. 0, September 30, 1988

APPENDIX A - TANK CONFIGURATION AND FACILITIES CHARTS

Figure A-1. High Level Waste Tank Configurations

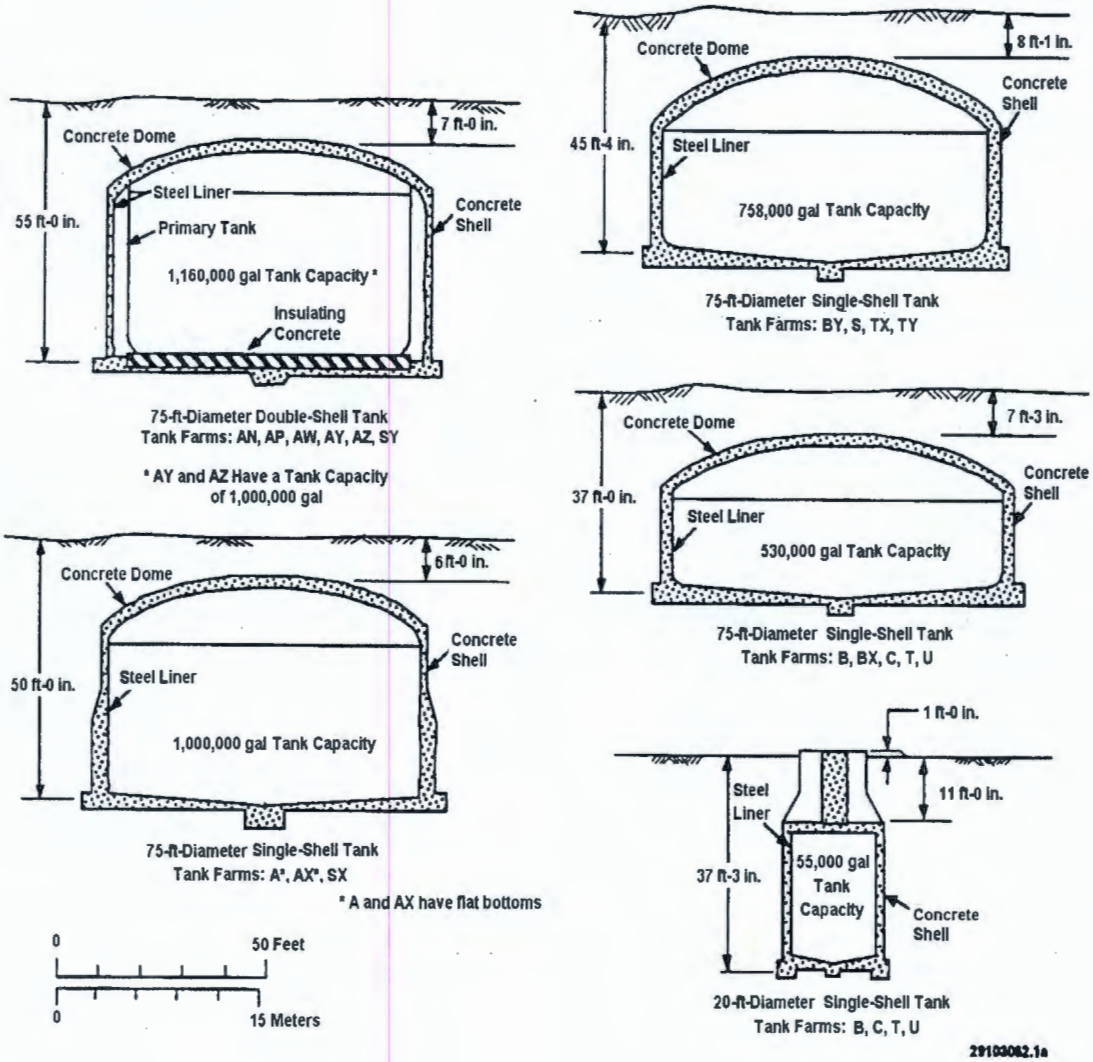


Figure A-2. Double-Shell Tank Instrumentation Configuration

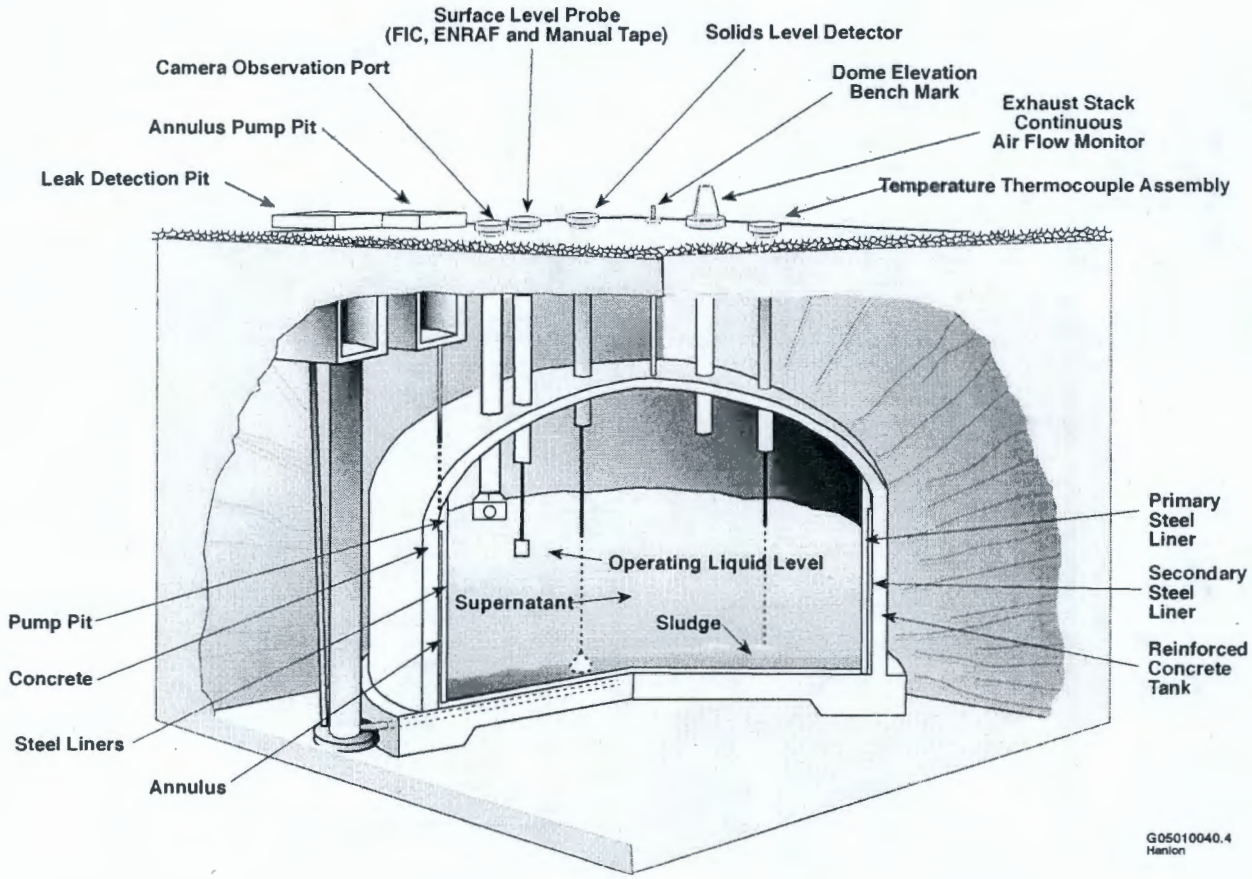
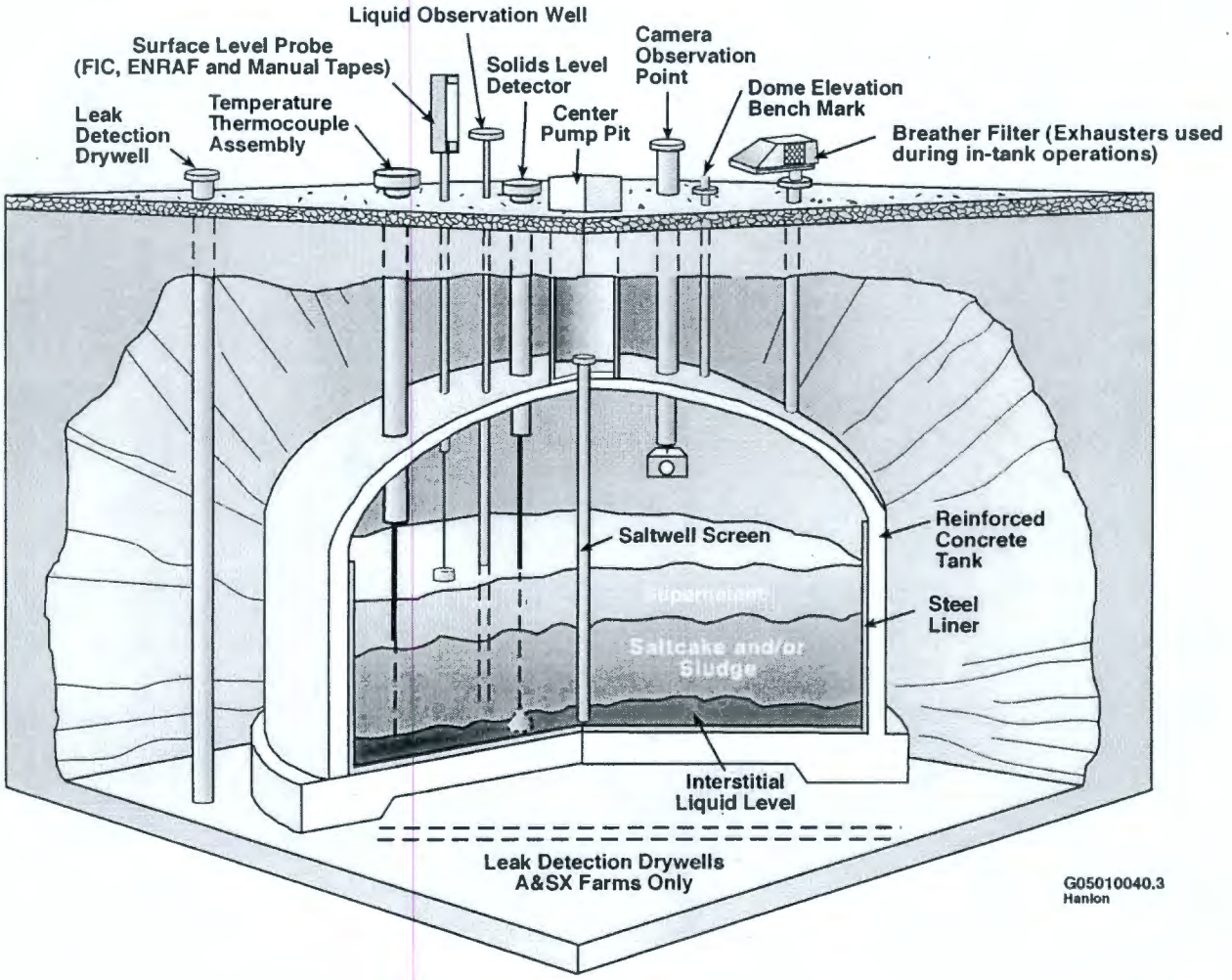


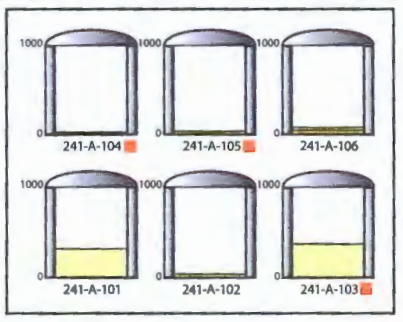
Figure A-3. Single-Shell Tank Instrumentation Configuration



200 East Tank Waste Contents

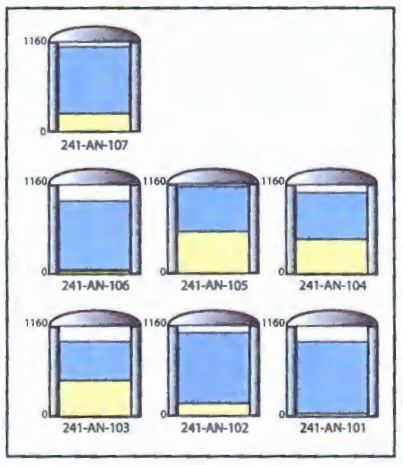
A-Tank Farm- 1954-55
6 @ 1,000 Kgal Tank Capacity, Single-Shell

Tank	Kgal Sludge	Saltcake	Supernatant
241-A-101	3	317	0
241-A-102	0	37	3
241-A-103 ■	2	372	4
241-A-104 ■	28	0	0
241-A-105 ■	37	0	0
241-A-106	50	29	0



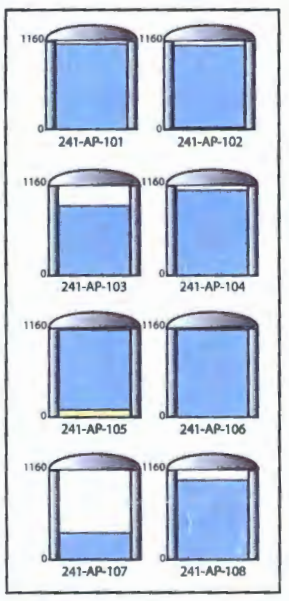
AN-Tank Farm- 1981
7 @ 1,160 Kgal Tank Capacity, Double-Shell

Tank	Kgal Sludge	Saltcake	Supernatant
241-AN-101	0	31	925
241-AN-102	0	154	913
241-AN-103	0	459	501
241-AN-104	0	445	610
241-AN-105	0	538	589
241-AN-106	32	17	899
241-AN-107	0	230	871



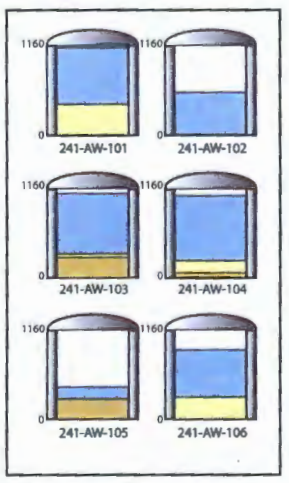
AP-Tank Farm-1986
8 @ 1,160 Kgal Tank Capacity, Double-Shell

Tank	Kgal Sludge	Saltcake	Supernatant
241-AP-101	0	0	1116
241-AP-102	23	0	1074
241-AP-103	0	0	895
241-AP-104	0	0	1099
241-AP-105	0	89	1048
241-AP-106	0	0	1135
241-AP-107	0	0	345
241-AP-108	0	0	1029



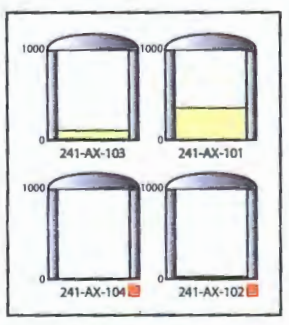
AW-Tank Farm-1980
6 @ 1,160 Kgal Tank Capacity, Double-Shell

Tank	Kgal Sludge	Saltcake	Supernatant
241-AW-101	0	396	733
241-AW-102	7	0	549
241-AW-103	273	40	785
241-AW-104	66	157	849
241-AW-105	263	0	156
241-AW-106	0	283	617



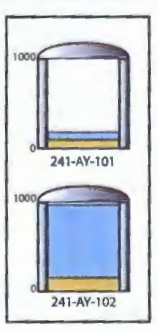
AX-Tank Farm- 1965-66
4 @ 1,000 Kgal Tank Capacity, Single-Shell

Tank	Kgal Sludge	Saltcake	Supernatant
241-AX-101	3	355	0
241-AX-102 ■	6	24	0
241-AX-103	8	99	0
241-AX-104 ■	7	0	0



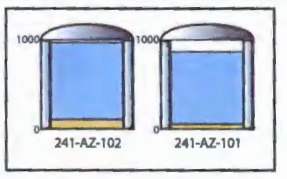
AY-Tank Farm- 1971-76
2 @ 1,000 Kgal Tank Capacity, Double-Shell

Tank	Kgal Sludge	Saltcake	Supernatant
241-AY-101	96	0	84
241-AY-102	151	0	817



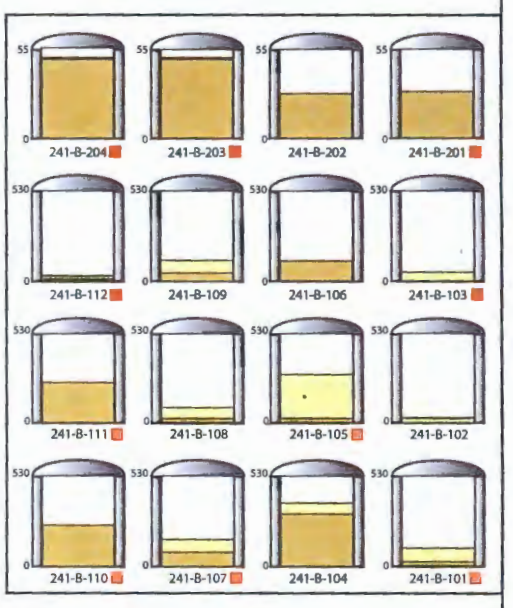
AZ-Tank Farm- 1975-76
2 @ 1,000 Kgal Tank Capacity, Double-Shell

Tank	Kgal Sludge	Saltcake	Supernatant
241-AZ-101	52	0	819
241-AZ-102	105	0	867



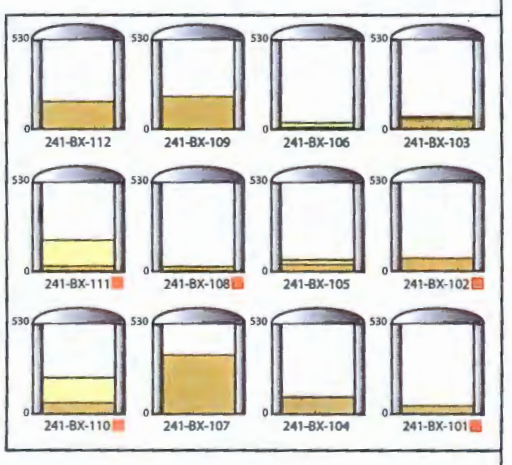
B-Tank Farm- 1945-47
12 @ 530 Kgal Tank Capacity, Single-Shell
4 @ 55 Kgal Tank Capacity, Single-Shell

Tank	Kgal Sludge	Saltcake	Supernatant
241-B-101 ■	28	81	0
241-B-102	0	28	4
241-B-103 ■	1	55	0
241-B-104	309	65	0
241-B-105 ■	28	262	0
241-B-106	122	0	1
241-B-107 ■	86	75	0
241-B-108	27	65	0
241-B-109	50	75	0
241-B-110 ■	244	0	1
241-B-111 ■	241	0	1
241-B-112 ■	15	17	3
241-B-201 ■	29	0	0
241-B-202	28	0	0
241-B-203 ■	49	0	1
241-B-204 ■	49	0	1



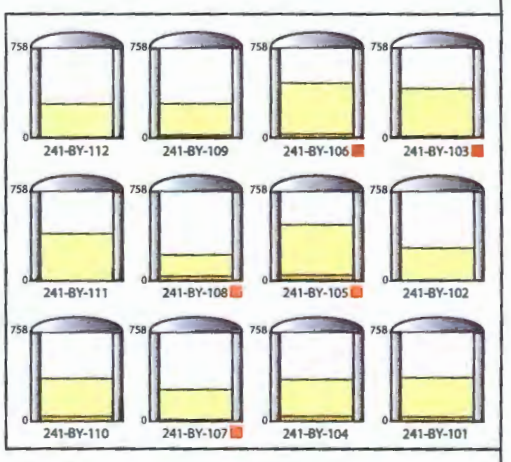
BX- Tank Farm- 1948-50
12 @ 530 Kgal Tank Capacity, Single-Shell

Tank	Kgal Sludge	Saltcake	Supernatant
241-BX-101 ■	48	0	0
241-BX-102 ■	79	0	0
241-BX-103	62	0	13
241-BX-104	97	0	3
241-BX-105	42	25	5
241-BX-106	10	28	0
241-BX-107	347	0	0
241-BX-108 ■	31	0	0
241-BX-109	193	0	0
241-BX-110 ■	65	148	1
241-BX-111 ■	32	156	0
241-BX-112	163	0	1



BY-Tank Farm- 1950-51
12 @ 758 Kgal Tank Capacity, Single-Shell

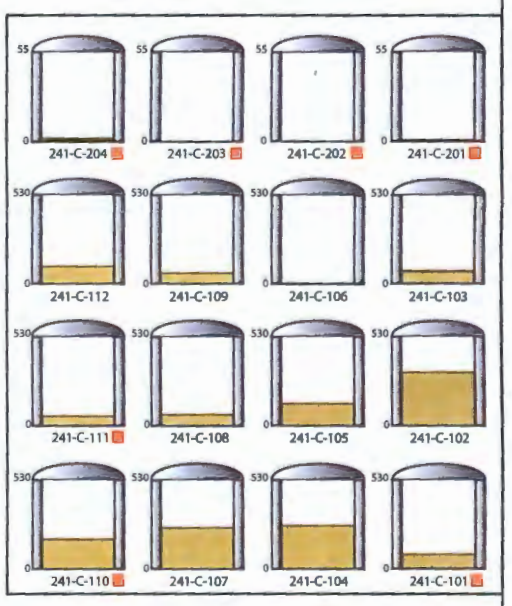
Tank	Kgal Sludge	Saltcake	Supernatant
241-BY-101	37	333	0
241-BY-102	0	278	0
241-BY-103 ■	9	405	0
241-BY-104	45	313	0
241-BY-105 ■	48	433	0
241-BY-106 ■	32	430	0
241-BY-107 ■	15	256	0
241-BY-108 ■	40	182	0
241-BY-109	24	263	0
241-BY-110	43	323	0
241-BY-111	0	402	0
241-BY-112	2	284	0



C-Tank Farm- 1946-53
12 @ 530 Kgal Tank Capacity, Single-Shell
4 @ 55 Kgal Tank Capacity, Single-Shell

Tank	Kgal Sludge	Saltcake	Supernatant
241-C-101 ■	88	0	0
241-C-102	316	0	0
241-C-103	71	0	5
241-C-104	259	0	0
241-C-105	132	0	0
241-C-106	3	0	0
241-C-107	247	0	0
241-C-108	66	0	0
241-C-109	63	0	0
241-C-110 ■	177	0	1
241-C-111 ■	57	0	0
241-C-112	104	0	0
241-C-201 ■	1	0	0
241-C-202 ■	0*	0	0
241-C-203 ■	0*	0	0
241-C-204 ■	2	0	0

* (Less than 500 gallons)



LEGEND: Sludge, Saltcake, Supernatant, Available Space, Assumed/Confirmed Leaker ■

Data Derived From Waste Tank Summary Report Dated 09/30/05

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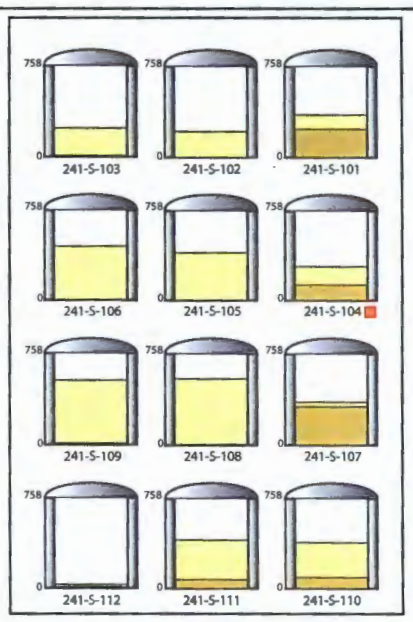
Figure A-4

200 West Tank Waste Contents

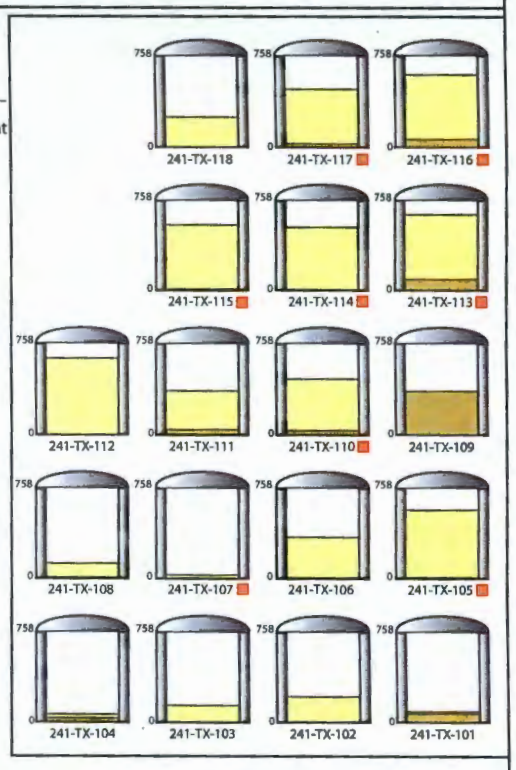
S-Tank Farm- 1950-51
12 @ 758 Kgal Tank Capacity, Single-Shell

Tank	Sludge (Kgal)	Saltcake (Kgal)	Supernatant (Kgal)
241-S-101	235	117	0
241-S-102	0	214	0
241-S-103	9	227	1
241-S-104 ■	132	156	0
241-S-105	2	404	0
241-S-106	0	455	0
241-S-107	320	38	0
241-S-108	5	545	0
241-S-109	13	520	0
241-S-110	96	293	0
241-S-111	76	335	0
241-S-112	6	25	0



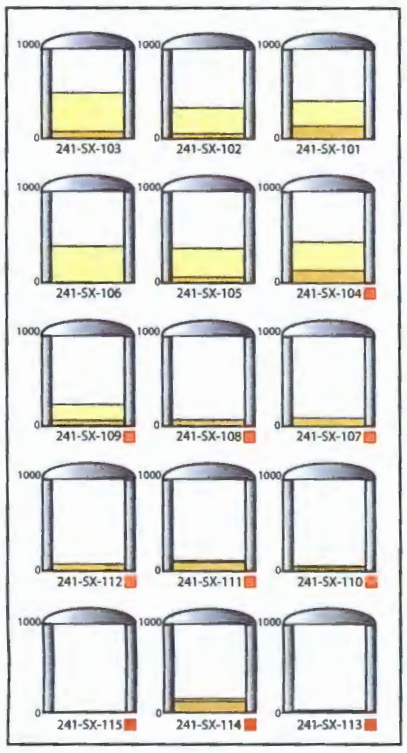
TX-Tank Farm- 1947-48
18 @ 758 Kgal Tank Capacity, Single-Shell

Tank	Sludge (Kgal)	Saltcake (Kgal)	Supernatant (Kgal)
241-TX-101	74	17	0
241-TX-102	2	215	0
241-TX-103	0	145	0
241-TX-104	34	33	2
241-TX-105 ■	8	568	0
241-TX-106	5	343	0
241-TX-107 ■	0	29	0
241-TX-108	6	121	0
241-TX-109	363	0	0
241-TX-110 ■	37	430	0
241-TX-111	43	321	0
241-TX-112	0	634	0
241-TX-113 ■	93	545	0
241-TX-114 ■	4	528	0
241-TX-115 ■	8	545	0
241-TX-116 ■	66	533	0
241-TX-117 ■	29	451	0
241-TX-118	0	247	0



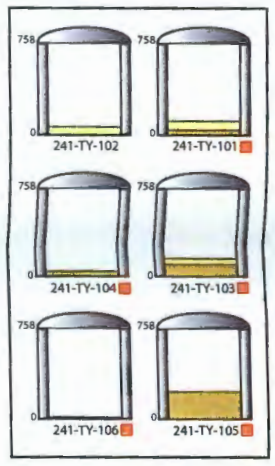
SX-Tank Farm- 1953-54
15 @ 1,000 Kgal Tank Capacity, Single-Shell

Tank	Sludge (Kgal)	Saltcake (Kgal)	Supernatant (Kgal)
241-SX-101	144	276	0
241-SX-102	55	287	0
241-SX-103	78	431	0
241-SX-104 ■	136	310	0
241-SX-105	63	312	0
241-SX-106	0	396	0
241-SX-107 ■	94	0	0
241-SX-108 ■	74	0	0
241-SX-109 ■	66	175	0
241-SX-110 ■	49	7	0
241-SX-111 ■	97	18	0
241-SX-112 ■	75	0	0
241-SX-113 ■	19	0	0
241-SX-114 ■	126	29	0
241-SX-115 ■	4	0	0



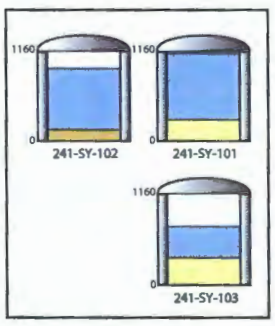
TY-Tank Farm- 1951-52
6 @ 758 Kgal Tank Capacity, Single-Shell

Tank	Sludge (Kgal)	Saltcake (Kgal)	Supernatant (Kgal)
241-TY-101 ■	42	76	0
241-TY-102	0	69	0
241-TY-103 ■	103	51	0
241-TY-104 ■	43	0	1
241-TY-105 ■	231	0	0
241-TY-106 ■	16	0	0



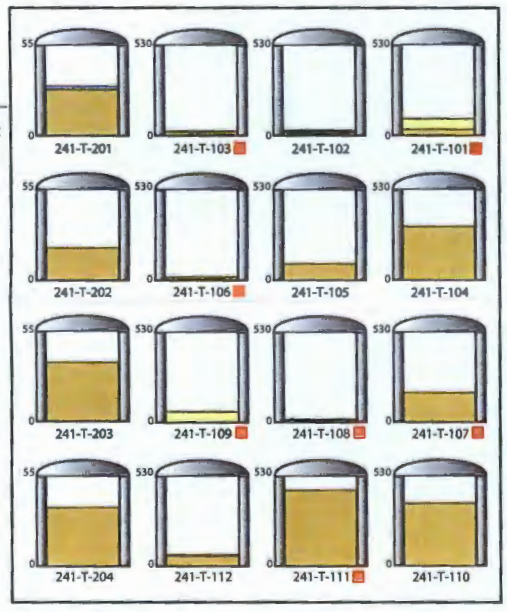
SY-Tank Farm- 1977
3 @ 1,160 Kgal Tank Capacity, Double-Shell

Tank	Sludge (Kgal)	Saltcake (Kgal)	Supernatant (Kgal)
241-SY-101	0	275	857
241-SY-102	145	0	793
241-SY-103	0	342	398



T-Tank Farm- 1943-44
12 @ 530 Kgal Tank Capacity, Single-Shell
4 @ 55 Kgal Tank Capacity, Single-Shell

Tank	Sludge (Kgal)	Saltcake (Kgal)	Supernatant (Kgal)
241-T-101 ■	37	62	0
241-T-102	19	0	13
241-T-103 ■	23	0	4
241-T-104	317	0	0
241-T-105	98	0	0
241-T-106 ■	22	0	0
241-T-107 ■	173	0	0
241-T-108 ■	5	11	0
241-T-109 ■	0	62	0
241-T-110	369	0	1
241-T-111 ■	447	0	0
241-T-112	60	0	7
241-T-201	28	0	2
241-T-202	20	0	0
241-T-203	36	0	0
241-T-204	36	0	0



U-Tank Farm- 1946-49
12 @ 530 Kgal Tank Capacity, Single-Shell
4 @ 55 Kgal Tank Capacity, Single-Shell

Tank	Sludge (Kgal)	Saltcake (Kgal)	Supernatant (Kgal)
241-U-101 ■	23	0	0
241-U-102	43	283	1
241-U-103	11	405	1
241-U-104 ■	122	0	0
241-U-105	32	321	0
241-U-106	0	168	2
241-U-107	15	279	0
241-U-108	29	405	0
241-U-109	35	366	0
241-U-110 ■	176	0	0
241-U-111	26	196	0
241-U-112 ■	45	0	0
241-U-201	3	0	1
241-U-202	3	0	1
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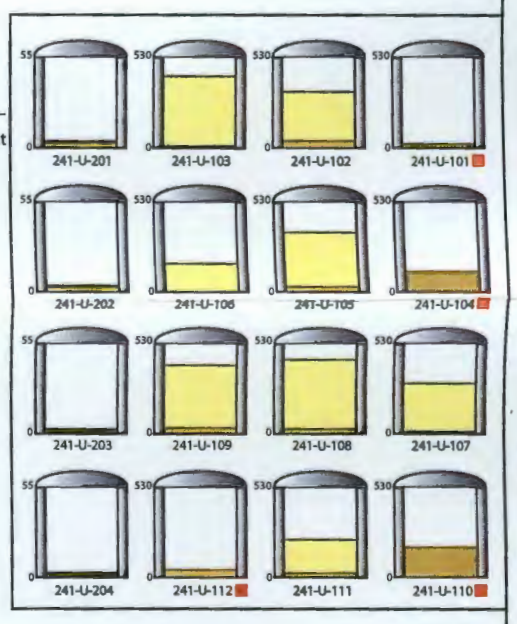
241-U-204	2	0	1



LEGEND: Sludge; Saltcake; Supernatant; Available Space; Assumed/Confirmed Leaker ■

Data Derived From Waste Tank Summary Report Dated 09/30/05

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Figure A-5

Hanford Tank Farm Facilities 200 East

Note:
All single-shell tanks were removed from service (not allowed to receive waste) on or before November 21, 1980

Active Lines Only

- Concrete encased or pipe-in-pipe
- Direct Buried Pipe
- Cross-Site Transfer Lines (concrete encased or pipe-in-pipe)

Retrieval

Controlled, Clean and Stable | Single-Shell | Double-Shell | Intrusion Prevention Completed

All tanks 75 ft. dia. except 200 series tanks which are 20 ft. dia. @ 55,000 gal

DST = Double-Shell Tank
SST = Single-Shell Tank
DCRT = Double Contained Receiver Tank
ENRAF/FIC/MT = Liquid Level Monitoring Devices
TMACS = Tank Monitor and Control System

Inactive Cross -Site Transfer Lines

Replacement Cross - Site Transfer System (RCSTS) (From 6241-V)

Tank Number

Radiation Monitoring Laterals Under Tank (None Currently Used)

Radiation Monitoring Dry Well – Approx Location
● = Active
○ = Inactive
Dry Well Monitoring No Longer Being Routinely Done; By Special Request/Project Only.

Liquid-Level Gauges
▼ = FIC read manually
Y = Tape read manually

Exhauster (A-104/105/106 inoperative)

Interim Stabilized (Yellow Tank)

■ =ENRAF Read Manually
Ø =Auto ENRAF on TMACS

Airlift Circulators (AN-107 and AW-102 are inoperative)

Temperature Reading:
● Automatic (TMACS)
○ Manual

Liquid Observation Well (LOW)

Screen – Jet Pump –

Assumed Leaked Date

Assumed Leaker

BY-Tank Farm
In Service 1950-51
12 @ 758,000 gal

B-Tank Farm
In Service 1945-47
12 @ 530,000 gal
4 @ 55,000 gal

BX-Tank Farm
In Service 1948-50
12 @ 530,000 gal

C-Tank Farm
In Service 1946-53
12 @ 530,000 gal
4 @ 55,000 gal

AN-Tank Farm
In Service 1981
7 @ 1,160,000 gal

AZ-Tank Farm
In Service 1975-76
(Aging Waste Tanks)
2 @ 1,000,000 gal

AY-Tank Farm
In Service 1971-76
(Aging Waste Tanks) 2 @ 1,000,000 gal

AX-Tank Farm
In Service 1965-66
4 @ 1,000,000 gal

A-Tank Farm
In Service 1956-57
6 @ 1,000,000 gal

AW-Tank Farm
In Service 1980
6 @ 1,160,000 gal

AP-Tank Farm
In Service 1986
8 @ 1,160,000 gal

244-BX DCRT
ER-152
ER-151
ER-153
CR Vault
244-A DCRT
WESF
B-Plant
AX-155
Valve Pits
AR-151
204 AR
AR Vault
AX-152
Valve Pits
Valve Pits
242-A Evaporator
AP Valve Pit
Valve Pits
PUREX
A-151
Grout Equip
Vault Field

Status as of September 30, 2005
Updated Quarterly
Issued by River Protection Project

Figure A-6
(Schematic)

G05080008.E
09/30/05

Hanford
Tank Farm Facilities
200 West

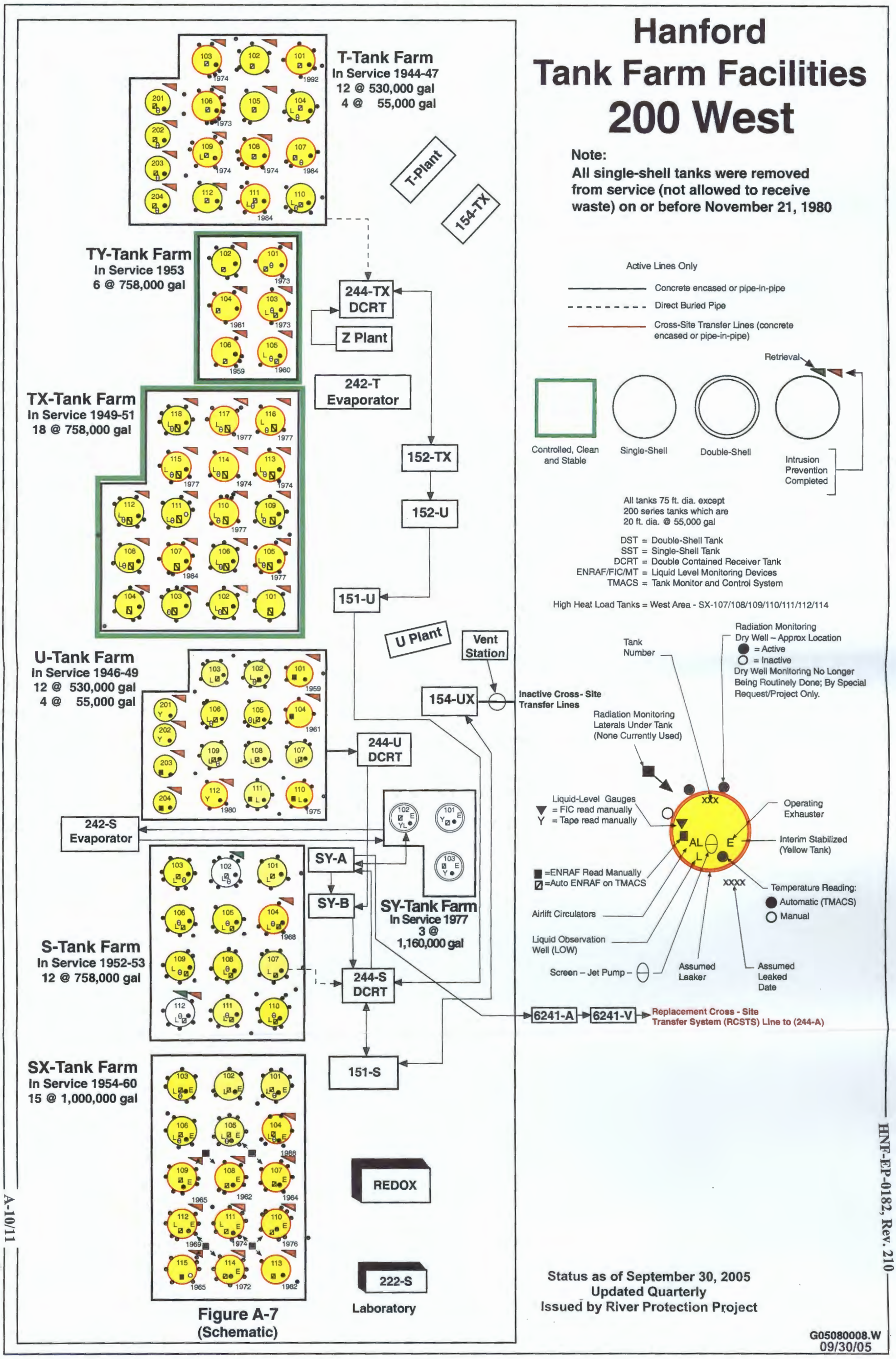

Figure A-7
(Schematic)

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