ENGINEERING CHANGE NOTICE

Page 1 of 2

1. ECN 629016

Proj. ECN

2. ECN Category (mark one)	3. Originator's Name, Organization, MSIN, and Telephone No.	3a. USQ Required?	4. Date
Supplemental [] Direct Revision [X] Change ECN [] Temporary [] Standby [] Supersedure [] Cancel/Void []	John M. Conner, Data Assessment & Interpretation/R2-12/372-2711	[] Yes [X] No	02-29-96
	5. Project Title/No./Work Order No. Tank 241-T-109	6. Bldg./Sys./Fac. No. NA	7. Approval Designator NA
	8. Document Numbers Changed by this ECN (includes sheet no. and rev.) WHC-SD-WM-DP-144, REV. 1	9. Related ECN No(s). NA	10. Related PO No. NA

11a. Modification Work	11b. Work Package No.	11c. Modification Work Complete	11d. Restored to Original Condition (Temp. or Standby ECN only)
[] Yes (fill out Blk. 11b) [X] No (NA Blks. 11b, 11c, 11d)	NA	N/A Cog. Engineer Signature & Date	N/A Cog. Engineer Signature & Date

12. Description of Change

This ECN is being generated in order to exchange page 16. The Antimony (Sb) result for sample S95T001619 (ICP analysis on a fused subsample from the lower half segment of Auger 95-AUG-041) has been changed from "n/a" to "<565.0209" ug/g. Also several pages of raw data from the gravimetric water analyses are being added as they were inadvertently omitted from the earlier report.

Remove cover page Rev. 1 and insert cover page Rev. 1A
Remove Table of Contents page ii Rev. 1 and insert page ii Rev. 1A
Remove Table of Contents page iii Rev. 1 and insert page iii Rev. 1A
Remove page 16 Rev. 1 and insert page 16 Rev. 1A
Remove page 39.1.1 and 39.2 Rev. 1 and insert page 39.2 through 39.11 Rev. 1A

13a. Justification (mark one)

Criteria Change	[X]	Design Improvement	[]	Environmental	[]	Facility Deactivation	[]
As-Found	[]	Facilitate Const	[]	Const. Error/Omission	[]	Design Error/Omission	[]

13b. Justification Details

During Tank Characterization Report preparation, it was noted that no result was given for Sb for sample S95T001619, where a "less than" result should have been indicated. The raw data for gravimetric water analyses are being added for completeness.

14. Distribution (include name, MSIN, and no. of copies)

See Attached Distribution Sheet.

RELEASE STAMP

DATE: HANFORD RELEASE

STA: 4

ID:

MAR 12 1996

A-7900-013-2 (11/94) GEF095

ENGINEERING CHANGE NOTICE

1. ECN (use no. from pg. 1) 629016

15. Design Verification Required	16. Cost Impact				17. Schedule Impact (days)	
	ENGINEERING		CONSTRUCTION			
[] Yes	Additional	[] $	Additional	[] $	Improvement	[]
[X] No	Savings	[] $	Savings	[] $	Delay	[]

18. Change Impact Review: Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 12. Enter the affected document number in Block 19.

SDD/DD	[]	Seismic/Stress Analysis	[]	Tank Calibration Manual	[]
Functional Design Criteria	[]	Stress/Design Report	[]	Health Physics Procedure	[]
Operating Specification	[]	Interface Control Drawing	[]	Spares Multiple Unit Listing	[]
Criticality Specification	[]	Calibration Procedure	[]	Test Procedures/Specificatio n	[]
Conceptual Design Report	[]	Installation Procedure	[]	Component Index	[]
Equipment Spec.	[]	Maintenance Procedure	[]	ASME Coded Item	[]
Const. Spec.	[]	Engineering Procedure	[]	Human Factor Consideration	[]
Procurement Spec.	[]	Operating Instruction	[]	Computer Software	[]
Vendor Information	[]	Operating Procedure	[]	Electric Circuit Schedule	[]
OM Manual	[]	Operational Safety Requirement	[]	ICRS Procedure	[]
FSAR/SAR	[]	IEFD Drawing	[]	Process Control Manual/Plan	[]
Safety Equipment List	[]	Cell Arrangement Drawing	[]	Process Flow Chart	[]
Radiation Work Permit	[]	Essential Material Specification	[]	Purchase Requisition	[]
Environmental Impact Statement	[]	Fac. Proc. Samp. Schedule	[]	Tickler File	[]
Environmental Report	[]	Inspection Plan	[]		[]
Environmental Permit	[]	Inventory Adjustment Request	[]		[]

19. Other Affected Documents: (NOTE: Documents listed below will not be revised by this ECN.) Signatures below indicate that the signing organization has been notified of other affected documents listed below.

Document Number/Revision	Document Number/Revision	Document Number Revision
NA		

20. Approvals

	Signature	Date		Signature	Date
OPERATIONS AND ENGINEERING			ARCHITECT-ENGINEER		
Cog. Eng. J. M. Conner	JM Conner	3-4-96	PE		
Cog. Mgr. J. G. Kristofzski	[illegible]	3-6-96	QA		
QA			Safety		
Safety			Design		
Environ.			Environ.		
Other	R.H. Beckitt	3-7-96	Other		
Production Planning & Control	A. D. Rice	3-8-96			
	JE Hyatt	[illegible]			
			DEPARTMENT OF ENERGY		
			Signature or a Control Number that tracks the Approval Signature		
			ADDITIONAL		

REVISED FINAL REPORT FOR TANK 241-T-109, AUGER SAMPLES 95-AUG-040 AND 95-AUG-041

John M. Conner
Westinghouse Hanford Company, Richland, WA 99352
U.S. Department of Energy Contract DE-AC06-87RL10930

EDT/ECN: ECN-629016 UC: 2070
Org Code: 79400 Charge Code: MD378
B&R Code: EW 3120074 Total Pages: 204

Key Words: Revised Final Report for Tank 241-T-109, Auger Samples 95-AUG-040 and 95-AUG-041

Abstract: N/A

TRADEMARK DISCLAIMER. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof or its contractors or subcontractors.

Printed in the United States of America. To obtain copies of this document, contact: WHC/BCS Document Control Services, P.O. Box 1970, Mailstop H6-08, Richland WA 99352, Phone (509) 372-2420; Fax (509) 376-4989.

Release Approval 3/12/96 Date

DATE: HANFORD RELEASE
STA: 4 ID: 3
MAR 12 1996
Release Stamp

Approved for Public Release

RECORD OF REVISION	(1) Document Number WHC-SD-WM-DP-144	Page 1

(2) Title REVISED
Final Report for Tank 241-T-109, Auger Samples 95-AUG-040 and 95-AUG-041

CHANGE CONTROL RECORD

(3) Revision	(4) Description of Change - Replace, Add, and Delete Pages	Authorized for Release (5) Cog. Engr.	(6) Cog. Mgr. Date
0	(7) Initially released 10/02/95 on EDT-613120.	J.M. Conner	J.G. Kristofzski
1 RS	Incorporate per ECN-627027.	J.M. Conner	J.G. Kristofzski 12-7-95
1A RS	Incorporate per ECN-629016	J.M. Conner	J.G. Kristofzski 3-6-96

A-7320-005 (08/91) WEF168

Westinghouse
Hanford Company

P.O. Box 1970 Richland, WA 99352

WHC-SD-WM-DP-144, REV. 1-A

ANALYTICAL SERVICES

REVISED FINAL REPORT FOR TANK 241-T-109, AUGER SAMPLES 95-AUG-040 AND 95-AUG-041

Project Coordinator: JOHN M. CONNER

Prepared for the U.S. Department of Energy
Office of Environmental Restoration
and Waste Management

by

Westinghouse Hanford Company
Box 1970
Richland, Washington

54 7600.075

Hanford Operations and Engineering Contractor for the US Department of Energy

TABLE OF CONTENTS

Narrative 1

Sample Data Summary 11

Chain of Custody Forms 18

Photographs 21

Sample Handling 24

Extrusion Worklist # 2096 25
Extrusion Worklist # 2089 26

Sample Preparations 27

Fusion Digestion Worklist # 2105 28
Fusion Digestion Worklist # 2106 29

Water Digestion Worklist # 2263 30
Water Digestion Worklist # 2494 31

Acid Digestion Worklist # 2457 32

Inorganic Analyses 33

Percent Solid/Percent Water Analysis Worklist # 2887 34
Percent Solid/Percent Water Analysis Worklist # 3687 . . . . . 39.1

Ion Chromatographic Analysis (IC)
IC Worklist # 2456 40
IC Worklist # 2601 62
IC Worklist # 2668 72

Inductively Coupled Plasma Spectrographic Analysis (ICP)
ICP Worklist # 2511 (Direct) 88
ICP Worklist # 2211 (Fusion) 94
ICP Worklist # 2213 (Fusion) 100

Radiochemical Analyses 121

Total Alpha Analysis (AT)
AT Worklist # 2235 122
AT Worklist # 2236 128

TABLE OF CONTENTS (Continued)

PART II 45-Day Safety Screening Results for Tank 241-T-109, Auger Samples 95-AUG-040 and 95-AUG-041 138

Narrative 140

Sample Data Summary 147

Inorganic Analyses 150

Differential Scanning Calorimetry (DSC)
DSC Worklist # 2118 151
DSC Worklist # 2138 156

Thermogravimetric Analyses (TGA)
TGA Worklist # 2184 162
TGA Worklist # 2195 168
TGA Worklist # 2197 175

This Document consists of pages 1 through 180, plus pages 10.1 and 39.1 through 39.11.

TRADEMARKS:

Perkin-Elmer is a Registered Trademark of Research and Manufacturing Company, Inc. Mettler is a Registered Trademark of Mettler Electronics

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001630		F	Thallium -ICP-Fusion	ug/g	None	None	97.00	-1.24e+00	<2514.020	<2491.37	n/a	n/a	97.02	2.51e+03	n/a
S95T001630		F	Uranium -ICP-Fusion	ug/g	None	None	94.58	3.930	<5028.041	<4982.75	n/a	n/a	89.94	5.03e+03	n/a
S95T001630		F	Vanadium -ICP-Fusion	ug/g	None	None	99.58	-2.30e+00	<628.5051	<622.844	n/a	n/a	97.97	629.0	n/a
S95T001630		F	Zinc -ICP-Fusion	ug/g	None	None	100.1	1.900	270.8	266.2	268.5	1.72	96.32	126.0	n/a
S95T001630		F	Zirconium -ICP-Fusion	ug/g	None	None	98.89	1.000	<125.7010	<124.568	n/a	n/a	97.05	126.0	n/a
S95T001631		W	Bromide by Ion Chromatograph	ug/g	None	None	108.2	<6.32e-01	< 1.01e03	<1.01e03	n/a	n/a	n/a	1.01e+03	n/a
S95T001631		W	Chloride-IC-Dionex 4000i/4500	ug/g	None	None	104.5	<8.30e-02	< 1.32e02	<1.32e02	n/a	n/a	n/a	132.0	n/a
S95T001631		W	Fluoride-IC-Dionex 4000i/4500	ug/g	None	None	108.[illegible]	<6.20e-02	2.31e+04	2.29e+04	2.30e+04	0.87	n/a	475.0	n/a
S95T001631		W	Nitrite-IC - Dionex 4000i/4500	ug/g	None	None	95.11	<5.47e-01	< 8.72e02	<8.72e02	n/a	n/a	n/a	8.72e+03	n/a
S95T001631		W	Nitrate by IC-Dionex4000i/4500	ug/g	None	None	109.3	<6.99e-01	3.78e+03	2.97e+03	3.38e+03	24.0	n/a	1.11e+03	n/a
S95T001631		W	Oxalate by IC - Dionex 4000i	ug/g	None	None	96.58	<4.96e-01	< 7.91e02	<7.91e02	n/a	n/a	n/a	791.0	n/a
S95T001631		W	Phosphate-IC-Dionex 4000i/4500	ug/g	None	None	111.7	<5.96e-01	2.66e+05	2.71e+05	2.68e+05	1.86	n/a	4.57e+03	n/a
S95T001631		W	Sulfate by IC-Dionex4000i/4500	ug/g	None	None	104.3	<6.78e-01	< 1.08e03	<1.08e03	n/a	n/a	n/a	1.08e+03	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits Lower	Action Limits Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001618			% Water by Gravimetric	%	17.00	115.0	100.4	n/a	46.60	45.70	46.15	1.95	n/a	1.00e-02	n/a
S95T001618			% Water by TGA using Mettler	%	17.00	115.0	100.9	n/a	39.37	45.76	42.56	15.0	n/a	n/a	n/a
S95T001618			DSC Exotherm using Mettler	Joules/g	-9.9e+01	480.0	103.3	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S95T001619		F	Alpha of Digested Solid	uCi/g	-9.9e+01	41.00	108.1	<1.32e-03	6.23e-03	6.53e-03	6.38e-03	4.70	83.30	1.58e-03	31.5
S95T001619		F	Silver -ICP-Fusion	ug/g	None	None	98.66	-1.00e+00	<113.0042	<114.577	n/a	n/a	62.54	113.0	n/a
S95T001619		F	Aluminium -ICP-Fusion	ug/g	None	None	100.5	7.300	1.09e+03	1.01e+03	1.05e+03	7.58	98.09	565.0	n/a
S95T001619		F	Arsenic -ICP-Fusion	ug/g	None	None	102.5	-5.00e+00	<565.0209	<572.889	n/a	n/a	99.72	565.0	n/a
S95T001619		F	Boron -ICP-Fusion	ug/g	None	None	101.7	1.400	<565.0209	<572.889	n/a	n/a	96.33	565.0	n/a
S95T001619		F	Barium -ICP-Fusion	ug/g	None	None	101.1	9.000	<565.0209	<572.889	n/a	n/a	99.05	565.0	n/a
S95T001619		F	Beryllium -ICP-Fusion	ug/g	None	None	104.9	3.000	< 56.5021	<57.2889	n/a	n/a	98.63	56.50	n/a
S95T001619		F	Bismuth -ICP-Fusion	ug/g	None	None	101.0	-2.90e+00	<1130.041	<1145.77	n/a	n/a	95.78	1.13e+03	n/a
S95T001619		F	Calcium -ICP-Fusion	ug/g	None	None	99.39	-1.95e-01	<1130.041	<1145.77	n/a	n/a	76.57	1.13e+03	n/a
S95T001619		F	Cadmium -ICP-Fusion	ug/g	None	None	102.1	1.200	<113.0042	<114.577	n/a	n/a	98.41	113.0	n/a
S95T001619		F	Cerium -ICP-Fusion	ug/g	None	None	101.8	0.00e+00	<1130.041	<1145.77	n/a	n/a	100.8	1.13e+03	n/a
S95T001619		F	Cobalt -ICP-Fusion	ug/g	None	None	99.36	0.00e+00	<226.0083	<229.155	n/a	n/a	95.43	226.0	n/a
S95T001619		F	Chromium -ICP-Fusion	ug/g	None	None	101.5	3.000	<113.0042	<114.577	n/a	n/a	98.99	113.0	n/a
S95T001619		F	Copper -ICP-Fusion	ug/g	None	None	101.9	2.100	<113.0042	<114.577	n/a	n/a	100.6	113.0	n/a
S95T001619		F	Iron -ICP-Fusion	ug/g	None	None	103.7	1.460	5.45e+03	4.80e+03	5.13e+03	12.8	101.4	565.0	n/a
S95T001619		F	Potassium -ICP-Fusion	ug/g	None	None	102.0	-7.27e+00	7.20e+06	n/a	n/a	n/a	n/a	3.39e+03	n/a
S95T001619		F	Lanthanum -ICP-Fusion	ug/g	None	None	103.0	-4.00e+00	<565.0209	<572.889	n/a	n/a	102.0	565.0	n/a
S95T001619		F	Lithium -ICP-Fusion	ug/g	None	None	102.1	-2.00e+00	<113.0042	<114.577	n/a	n/a	92.59	113.0	n/a
S95T001619		F	Magnesium -ICP-Fusion	ug/g	None	None	99.34	2.400	<1130.041	<1145.77	n/a	n/a	94.97	1.13e+03	n/a
S95T001619		F	Manganese -ICP-Fusion	ug/g	None	None	101.5	2.000	555.1	423.3	489.2	26.9	98.76	113.0	n/a
S95T001619		F	Molybdenum -ICP-Fusion	ug/g	None	None	100.0	-2.50e+00	<565.0209	<572.889	n/a	n/a	95.63	565.0	n/a
S95T001619		F	Sodium -ICP-Fusion	ug/g	None	None	101.0	1.96e-01	2.03e+05	2.04e+05	2.03e+05	0.62	94.98	1.13e+03	n/a
S95T001619		F	Neodymium -ICP-Fusion	ug/g	None	None	108.6	1.040	<1130.041	<1145.77	n/a	n/a	110.4	1.13e+03	n/a
S95T001619		F	Nickel -ICP-Fusion	ug/g	None	None	101.7	3.66e-01	5.24e+03	5.77e+03	5.51e+03	9.54	97.79	226.0	n/a
S95T001619		F	Phosphorus -ICP-Fusion	ug/g	None	None	102.2	7.500	8.14e+04	7.94e+04	8.04e+04	2.53	72.85	2.26e+03	n/a
S95T001619		F	Lead -ICP-Fusion	ug/g	None	None	101.8	-2.44e+00	<1130.041	<1145.77	n/a	n/a	98.21	1.13e+03	n/a
S95T001619		F	Sulfur -ICP-Fusion	ug/g	None	None	98.62	1.870	<565.0209	<572.889	n/a	n/a	94.08	565.0	n/a
S95T001619		F	Antimony -ICP-Fusion	ug/g	None	None	93.12	6.900	<565.0209	n/a	n/a	n/a	93.06	565.0	n/a
S95T001619		F	Selenium -ICP-Fusion	ug/g	None	None	102.4	2.230	<1130.041	<1145.77	n/a	n/a	99.50	1.13e+03	n/a
S95T001619		F	Silicon -ICP-Fusion	ug/g	None	None	93.95	-3.00e+00	<565.0209	<572.889	n/a	n/a	94.27	565.0	n/a

=> Limit violated
=> Selected Limit

WHC-SD-WM-DP-144, REV. 1A

BLK	STD	595T001616	595T001616 DUP.
w1 15.13000g	w1 14.92355g	w1 15.02137g	w1 15.04020g
w2 15.13015g	w2 14.44523g	w2 15.31164g	w2 15.43327g
w3 15.12997g	w3 15.53416g	w3 15.17959g	w3 15.25467g
w4 ~~15.14983g~~ gmf 15.12983g 11.29.95	w4 15.53154g	w4 15.17940g	w4 15.25455g

595T001618	595T001618 DUP	595T001626	595T001626 DUP
w1 14.92313g	w1 14.99480g	w1 15.16249g	w1 15.10871g
w2 15.52074g	w2 15.50513g	w2 15.67342g	w2 15.75032g
w3 15.24218g	w3 15.27170g	w3 15.42371g	w3 15.43467g
w4 15.24233g	w4 15.27167g	w4 15.42363g	w4 15.43476g

595T001629	595T001629 DUP	595T003538	595T003538 DUP
w1 15.13468g	w1 15.10552g	w1 15.17783g	w1 14.96932g
w2 15.64454g	w2 15.64952g	w2 15.79106g	w2 15.29274g
w3 15.40095g	w3 15.39213g	w3 15.52226g	w3 15.15152g
w4 15.40096g	w4 15.39212g	w4 15.52325g	w4 15.15216g

595T003539	595T003539 DUP	595T003540	595T003540 DUP
w1 15.04413g	w1 15.00056g	w1 14.96837g	w1 15.13767g
w2 15.61143g	w2 15.72187g	w2 15.55663g	w2 15.84522g
w3 15.48953g	w3 15.55621g	w3 15.43518g	w3 15.69957g
w4 15.49023g	w4 15.55730g	w4 15.43560g	w4 15.70020g

LABCORE Data Entry Template for Worklist# 3687

GROUP	PROJECT	S TYPE	SAMPLE#	R A -------TEST------	MATRIX	ACTUAL	FOUND	DL	UNIT

Final page for worklist # 3687

R L McCown 11/27/95
Analyst Signature Date

Stu Pitt 11-30-95
Analyst Signature Date

Susie M. Fulton 11.28.95 1700

Data Entry Comments:

Units shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-144, REV. 111

% WATER : LA-564-101 (F-1)

		SAMPLE	REPLICATE
Type	Tare Weight (W1) grams	15.0214	
SAMPLE	Gross Weight (W2) grams	15.3116	
Work List	First Residue Weight (W3) grams	15.1796	
3687	Second Residue Weight (W4) grams	15.1794	
Test Code	Percent Difference	0.0013	N/A
WATER-01	QC Check	Pass	N/A
Matrix	Percent Weight Loss	45.56	N/A
SOLID			
Sample #			
S95T001616			
Instrument Code			
BA001			
Analyst			
SMF			
Date			
11/28/95			
Time			
05:00 PM			

(If it is necessary to do a 3rd heating then substitute the last weight measured for W4 and the second to last weight measured for W3 in the calculations above.)

Sample = W2 - W1	= Gross Weight - Tare Weight
Weight = W2 - W4	= Gross Weight - Residue Weight
Percent Difference	= Absolute Value of [(W3-W4)/W4]*100.00
QC Check "Pass" if % Difference	= < +/- 0.1500%
Percent Water Weight Loss	= [(W2-W4)/(W2-W1)]*100 = % H2O
Percent Water (Average)	= [(% H2O for A) + (% H2O for B)] / 2

RESULT

% H2O =	45.6

Data Entry by:	Dan Hammett	Date:	11/29/95
Approved by:	RW Schroeder	Date:	11/30/95

Form 564101L1 Rev. 1.2

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-144, REV. 1A

% WATER : LA-564-101 (F-1)

		SAMPLE	REPLICATE
Type	Tare Weight (W1) grams	15.0402	
DUPLICATE	Gross Weight (W2) grams	15.4333	
Work List	First Residue Weight (W3) grams	15.2547	
3687	Second Residue Weight (W4) grams	15.2546	
Test Code	Percent Difference	0.0008	N/A
WATER-01	QC Check	Pass	N/A
Matrix	Percent Weight Loss	45.47	N/A
SOLID			
Sample #			
S95T001616			
Instrument Code			
BA001			
Analyst			
SMF			
Date			
11/28/95			
Time			
05:00 PM			

(If it is necessary to do a 3rd heating then substitute the last weight measured for W4 and the second to last weight measured for W3 in the calculations above.)

Sample = W2 - W1	= Gross Weight - Tare Weight
Weight = W2 - W4	= Gross Weight - Residue Weight
Percent Difference	= Absolute Value of [(W3-W4)/W4]*100.00
QC Check "Pass" if % Difference	= < +/- 0.1500%
Percent Water Weight Loss	= [(W2-W4)/(W2-W1)]*100 = % H2O
Percent Water (Average)	= [(% H2O for A) + (% H2O for B)] / 2

RESULT

% H2O =	45.5

Data Entry by:	[signature]	Date:	11/29/95
Approved by:	[signature]	Date:	11/30/95

Form 564101L1 Rev. 1.2

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-144, REV. 1A

% WATER : LA-564-101 (F-1)

		SAMPLE	REPLICATE
Type	Tare Weight (W1) grams	14.9231	
SAMPLE	Gross Weight (W2) grams	15.5207	
Work List	First Residue Weight (W3) grams	15.2422	
3687	Second Residue Weight (W4) grams	15.2423	
Test Code	Percent Difference	0.0010	N/A
WATER-01	QC Check	Pass	N/A
Matrix	Percent Weight Loss	46.59	N/A
SOLID			
Sample #			
S95T001618			
Instrument Code			
BA001			
Analyst			
SMF			
Date			
11/28/95			
Time			
05:00 PM			

(If it is necessary to do a 3rd heating then substitute the last weight measured for W4 and the second to last weight measured for W3 in the calculations above.)

Sample = W2 - W1	= Gross Weight - Tare Weight
Weight = W2 - W4	= Gross Weight - Residue Weight
Percent Difference	= Absolute Value of [(W3-W4)/W4]*100.00
QC Check "Pass" if % Difference	= < +/- 0.1500%
Percent Water Weight Loss	= [(W2-W4)/(W2-W1)]*100 = % H2O
Percent Water (Average)	= [(% H2O for A) + (% H2O for B)] / 2

RESULT

% H2O =	46.6

Data Entry by:	[signature]	Date:	11/29/95
Approved by:	Rw Schroeder	Date:	11/30/95

Form 564101L1 Rev. 1.2

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-144, REV. 1A

% WATER : LA-564-101 (F-1)

		SAMPLE	REPLICATE
Type	Tare Weight (W1) grams	14.9948	
DUPLICATE	Gross Weight (W2) grams	15.5051	
Work List	First Residue Weight (W3) grams	15.2717	
3687	Second Residue Weight (W4) grams	15.2717	
Test Code	Percent Difference	0.0002	N/A
WATER-01	QC Check	Pass	N/A
Matrix	Percent Weight Loss	45.75	N/A
SOLID			
Sample #			
S95T001618			
Instrument Code			
BA001			
Analyst			
SMF			
Date			
11/28/95			
Time			
05:00 PM			

(If it is necessary to do a 3rd heating then substitute the last weight measured for W4 and the second to last weight measured for W3 in the calculations above.)

Sample = W2 - W1	= Gross Weight - Tare Weight
Weight = W2 - W4	= Gross Weight - Residue Weight
Percent Difference	= Absolute Value of [(W3-W4)/W4]*100.00
QC Check "Pass" if % Difference	= < +/- 0.1500%
Percent Water Weight Loss	= [(W2-W4)/(W2-W1)]*100 = % H2O
Percent Water (Average)	= [(% H2O for A) + (% H2O for B)] / 2

RESULT

% H2O =	45.7

Data Entry by:	Dan Shumate	Date:	11/29/95
Approved by:	Ron Schroeder	Date:	11/30/95

Form 564101L1 Rev. 1.2

39.7

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-144, REV. 1A

% WATER : LA-564-101 (F-1)

		SAMPLE	REPLICATE
Type	Tare Weight (W1) grams	15.1625	
SAMPLE	Gross Weight (W2) grams	15.6734	
Work List	First Residue Weight (W3) grams	15.4237	
3687	Second Residue Weight (W4) grams	15.4236	
Test Code	Percent Difference	0.0005	N/A
WATER-01	QC Check	Pass	N/A
Matrix	Percent Weight Loss	48.89	N/A
SOLID			
Sample #			
S95T001626			
Instrument Code			
BA001			
Analyst			
SMF			
Date			
11/28/95			
Time			
05:00 PM			

(If it is necessary to do a 3rd heating then substitute the last weight measured for W4 and the second to last weight measured for W3 in the calculations above.)

Sample = W2 - W1	= Gross Weight - Tare Weight
Weight = W2 - W4	= Gross Weight - Residue Weight
Percent Difference	= Absolute Value of [(W3-W4)/W4]*100.00
QC Check "Pass" if % Difference	= < +/- 0.1500%
Percent Water Weight Loss	= [(W2-W4)/(W2-W1)]*100 = % H2O
Percent Water (Average)	= [(% H2O for A) + (% H2O for B)] / 2

RESULT

% H2O =	48.9

Data Entry by:	[signature]	Date:	11/29/95
Approved by:	RW Schroeder	Date:	11/30/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-144, REV 1A

% WATER : LA-564-101 (F-1)

		SAMPLE	REPLICATE
Type	Tare Weight (W1) grams	15.1087	
DUPLICATE	Gross Weight (W2) grams	15.7503	
Work List	First Residue Weight (W3) grams	15.4347	
3687	Second Residue Weight (W4) grams	15.4348	
Test Code	Percent Difference	0.0006	N/A
WATER-01	QC Check	Pass	N/A
Matrix	Percent Weight Loss	49.18	N/A
SOLID			
Sample #			
S95T001626			
Instrument Code			
BA001			
Analyst			
SMF			
Date			
11/28/95			
Time			
05:00 PM			

(If it is necessary to do a 3rd heating then substitute the last weight measured for W4 and the second to last weight measured for W3 in the calculations above.)

Sample = W2 - W1	= Gross Weight - Tare Weight
Weight = W2 - W4	= Gross Weight - Residue Weight
Percent Difference	= Absolute Value of [(W3-W4)/W4]*100.00
QC Check "Pass" if % Difference	= < +/- 0.1500%
Percent Water Weight Loss	= [(W2-W4)/(W2-W1)]*100 = % H2O
Percent Water (Average)	= [(% H2O for A) + (% H2O for B)] / 2

RESULT

% H2O =	49.2

Data Entry by:	[signature]	Date:	11/29/95
Approved by:	Ray Schroeder	Date:	11/30/95

Form 564101L1 Rev. 1.2

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-144, REV. 1A

% WATER : LA-564-101 (F-1)

		SAMPLE	REPLICATE
Type	Tare Weight (W1) grams	15.1347	
SAMPLE	Gross Weight (W2) grams	15.6475	
Work List	First Residue Weight (W3) grams	15.4010	
3687	Second Residue Weight (W4) grams	15.4010	
Test Code	Percent Difference	0.0001	N/A
WATER-01	QC Check	Pass	N/A
Matrix	Percent Weight Loss	48.08	N/A
SOLID			
Sample #			
S95T001629			
Instrument Code			
BA001			
Analyst			
SMF			
Date			
11/28/95			
Time			
05:00 PM			

(If it is necessary to do a 3rd heating then substitute the last weight measured for W4 and the second to last weight measured for W3 in the calculations above.)

Sample = W2 - W1	= Gross Weight - Tare Weight
Weight = W2 - W4	= Gross Weight - Residue Weight
Percent Difference	= Absolute Value of [(W3-W4)/W4]*100.00
QC Check "Pass" if % Difference	= < +/- 0.1500%
Percent Water Weight Loss	= [(W2-W4)/(W2-W1)]*100 = % H2O
Percent Water (Average)	= [(% H2O for A) + (% H2O for B)] / 2

RESULT

% H2O =	48.1

Data Entry by:	[signature]	Date:	11/29/95
Approved by:	[signature]	Date:	11/30/95

Form 564101L1 Rev. 1.2

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-144, REV. 1A

% WATER : LA-564-101 (F-1)

		SAMPLE	REPLICATE
Type	Tare Weight (W1) grams	15.1055	
DUPLICATE	Gross Weight (W2) grams	15.6495	
Work List	First Residue Weight (W3) grams	15.3921	
3687	Second Residue Weight (W4) grams	15.3921	
Test Code	Percent Difference	0.0000	N/A
WATER-01	QC Check	Pass	N/A
Matrix	Percent Weight Loss	47.31	N/A
SOLID			
Sample #			
S95T001629			
Instrument Code			
BA001			
Analyst			
SMF			
Date			
11/28/95			
Time			
05:00 PM			

(If it is necessary to do a 3rd heating then substitute the last weight measured for W4 and the second to last weight measured for W3 in the calculations above.)

Sample = W2 - W1	= Gross Weight - Tare Weight
Weight = W2 - W4	= Gross Weight - Residue Weight
Percent Difference	= Absolute Value of [(W3-W4)/W4]*100.00
QC Check "Pass" if % Difference	= < +/- 0.1500%
Percent Water Weight Loss	= [(W2-W4)/(W2-W1)]*100 = % H2O
Percent Water (Average)	= [(% H2O for A) + (% H2O for B)] / 2

RESULT

% H2O =	47.3

Data Entry by:	Gary Hammond	Date:	11/29/95
Approved by:	RW Schroeder	Date:	11/30/95

Form 564101L1 Rev. 1.2

DISTRIBUTION SHEET

To Distribution	From Data Assessment and Interpretation	Page 1 of 1
		Date: 02-29-96
Project Title/Work Order **WHC-SD-WM-DP-144, REV. 1A** "Revised Final Report for Tank 241-T-109, Auger Samples 95-AUG-040 and 95-AUG-041."		EDT NO.: 613120 (Ref)
		ECN NO.: 629016

Name	MSIN	Text With all Attach	EDT/ECN ONLY
Pacific Northwest Laboratory			
J. R. Gormsen	K7-28		X
S. J. Harris	K7-22	X	
K. L. Silvers	P7-27		X
U.S. Department of Energy, RL			
C. A. Babel	S7-54	X	
Westinghouse Hanford Company			
J. N. Appel	G3-21		X
H. Babad	S7-30	X	
J. M. Conner	R2-12	X	
S. D. Estey	R2-11	X	
G. D. Forehand	S7-31		X
V. W. Hall	T6-03	X	
D. C. Hetzer	S6-31		X
J. E. Hyatt	S3-31	X	
L. Jensen	R2-12	X	
N. W. Kirch	R2-11	X	
M. J. Kupfer	H5-49	X	
J. E. Meacham	S7-15	X	
K. L. Powell	T6-04		X
L. W. Shelton	H5-49	X	
B. C. Simpson	R2-12		X
M. J. Sutey	T4-07	X	
T. T. Tran (LATA)	B1-44	X	
J. A. Voogd	H5-03		X
L. R. Webb	T6-06	X	
Central Files	A3-88	2	
EDMC	H6-08	X	
LTIC	T6-03		X
TCRC	R2-12	X	
TFIC (Tank Farm Information Center)	R1-20		X
R.A. Bechtold	R2-12	X	
U. S. Department of Energy			
Jim Poppiti 12800 Middlebrook Rd. Trevion II, EM-36 Germantown, MD 20874			X