JUN 04 1996

16

ENGINEERING DATA TRANSMITTAL

Page 1 of 1

1. EDT NO 614792

2. To: (Receiving Organization) DISTRIBUTION	3. From: (Originating Organization) Data Assessment & Interpretation	4. Related EDT No.: NA
5. Proj./Prog./Dept./Div.: 241-U-107/Waste Management/DA&I/ Technical Basis	6. Cog. Engr.: Jaiduk Jo	7. Purchase Order No.: NA
8. Originator Remarks: This document is being released into the supporting document system for retrievability purposes		9. Equip./Component No.: NA
11. Receiver Remarks: For Release		10. System/Bldg./Facility: NA
		12. Major Assm. Dwg. No.: NA
		13. Permit/Permit Application No.: NA
		14. Required Response Date: 05/28/96

15. DATA TRANSMITTED					(F)	(G)	(H)	(I)
(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	Approval Designator	Reason for Transmittal	Originator Disposition	Receiver Disposition
1	WHC-SD-WM-DP-184	NA	0	45-Day Safety Screening Results for Tank 241-U-107, Push Mode Cores 129, 134 & 135	Q	2	1	1

16. KEY			
Approval Designator (F)	Reason for Transmittal (G)	Disposition (H) & (I)	
E, S, Q, D or N/A (see WHC-CM-3-5, Sec.12.7)	1. Approval 2. Release 3. Information 4. Review 5. Post-Review 6. Dist. (Receipt Acknow. Required)	1. Approved 2. Approved w/comment 3. Disapproved w/comment	4. Reviewed no/comment 5. Reviewed w/comment 6. Receipt acknowledged

(G)		(H)	17. SIGNATURE/DISTRIBUTION (See Approval Designator for required signatures)				(G)	(H)	
Rea	Dis	(J) Name	(K) Signature (M) MSIN	(L) Date	(J) Name	(K) Signature (M) MSIN	(L) Date	Rea	Dis
2	1	Cog. Eng. J. Jo	<i>[Signature]</i>	6/4/96					
2	1	Cog. Mgr. J. K. Kristofzski	<i>[Signature]</i>	6/4/96					
2	1	QA T. L. Tung	<i>[Signature]</i>	6/4/96					
2	1	Peer Review							
2	1	Production Planning & Control A.D. Rice	<i>[Signature]</i>	6-4-96					
2	1	Peer Review L.M. Sasaki	<i>[Signature]</i>	6/4/96					

18. Signature of EDT Originator <i>L. B. Webb</i> <i>[Signature]</i>	19. Authorized Representative Date for Receiving Organization	20. Cognizant Manager Date <i>J. G. Kristofzski</i> <i>[Signature]</i> 6/4/96	21. DOE APPROVAL (if required) Ctrl. No. ☐ Approved ☐ Approved w/comments ☐ Disapproved w/comments
--	---	--	---

BD-7400-172-2 (04/94) GEF097

"45-DAY SAFETY SCREENING RESULTS FOR TANK 241-U-107, PUSH MODE CORES 129, 134 AND 135."

Jaiduk Jo

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

EDT/ECN: EDT-614792 UC: 2070
Org Code: 79400 Charge Code: MD378
B&R Code: EW 3120074 Total Pages: 310

Key Words: 45-Day Safety Screening Results for Tank 241-U-107,
Push Mode Cores 129, 134 and 135, Tank 241-U-107

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.

Camela K. Salazar 6-4-96
Release Approval Date

Release Stamp

Approved for Public Release

**Westinghouse
Hanford Company**

P.O. Box 1970 Richland, WA 99352

WHC-SD-WM-DP-184, REV. 0

ANALYTICAL SERVICES

45-DAY SAFETY SCREENING RESULTS FOR TANK 241-U-107, PUSH MODE CORES 129, 134 AND 135

Project Coordinator: JAIDUK JO

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

by

**Westinghouse Hanford Company
Box 1970
Richland, Washington**

WHC-SD-WM-DP-184, REV. 0

THIS PAGE WAS INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

Narrative	1
Sample Data Summary	12
Dome Space Vapor Flammability Data Sheets	30
Statistical Analysis	39
Inorganic Analyses	44
Differential Scanning Calorimetry (DSC)	
DSC Worklist # 5892 (644, 647)	46
DSC Worklist # 5893 (650, 653)	52
DSC Worklist # 6035 (683)	58
DSC Worklist # 6511 (1055, 1056)	62
DSC Worklist # 6512 (1057, 1058)	69
DSC Worklist # 6515 (1064, 1065)	77
DSC Worklist # 6516 (1068, 1143)	83
DSC Worklist # 6624 (1128)	92
DSC Worklist # 6627 (1059, 1070)	97
DSC Worklist # 6655 (665, 682)	106
DSC Worklist # 6753 (1159)	112
DSC Worklist # 7587 (1119, 1120, 1121)	116
DSC Worklist # 8025 (1867, 1873)	124
DSC Worklist # 8229 (2034)	132
DSC Worklist # 8230 (1874)	136
DSC Worklist # 8245 (2132)	141
DSC Worklist # 8437 (2140, 2141)	146
DSC Worklist # 8438 (2142)	152
DSC Worklist # 8439 (2133)	157
DSC Worklist # 8949 (1866)	161
DSC Worklist # 9021 (665, 682, 2140, 1119, 1120, 1121, 2034, 2141, 2142)	165
DSC Worklist # 9022 (650, 653, 644, 647, 683, 1055, 1128, 1143, 1159)	168
DSC Worklist # 9023 (2131, 1056, 1057, 1058, 1059, 1064, 1065, 1068, 1070)	171
DSC Worklist # 9024 (1867, 1873, 1874, 2132, 2133)	174
DSC Worklist # 9028 (2131)	176
DSC Worklist # 9283 (1866)	180
Thermogravimetric Analysis (TGA)	
TGA Worklist # 5890 (650, 653)	181
TGA Worklist # 5891 (644, 647)	187
TGA Worklist # 6027 (683)	193
TGA Worklist # 6499 (1055, 1056)	196

TABLE OF CONTENTS (Continued)

TGA Worklist # 6500	(1057, 1058)	203
TGA Worklist # 6501	(1064, 1065)	211
TGA Worklist # 6502	(1068, 1143)	216
TGA Worklist # 6633	(665, 682)	225
TGA Worklist # 6648	(1059, 1070)	231
TGA Worklist # 6656	(1128)	240
TGA Worklist # 6758	(1159)	245
TGA Worklist # 7585	(1119, 1120, 1121)	251
TGA Worklist # 7908	(1867)	260
TGA Worklist # 8037	(1873)	264
TGA Worklist # 8223	(2131, 2132)	268
TGA Worklist # 8224	(1874)	274
TGA Worklist # 8226	(2034)	279
TGA Worklist # 8434	(2140, 2141)	283
TGA Worklist # 8435	(2142)	289
TGA Worklist # 8436	(2133)	293
TGA Worklist # 8947	(1866)	299

This Document consists of pages 1 through 302, plus page 123.1, 194.1, 214.1. Also pages ii, 2, 13, 31, 40 and 45 were intentionally left blank.

TRADEMARKS:

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

WHC-SD-WM-DP-184, REV. 0

NARRATIVE

WHC-SD-WM-DP-184, REV. 0

THIS PAGE WAS INTENTIONALLY LEFT BLANK

45-Day Safety Screening Results for Tank 241-U-107, Push Mode
Cores 129, 134, and 135

SUMMARY

This is the 45-day safety screening report for rotary mode core samples taken from risers 9, 7, and 2 of tank 241-U-107 (U-107) from February 6, 1996 through March 28, 1996. The samples were received at the 222-S Laboratories from February 9, 1995 through April 2, 1996, and are undergoing analyses consistent with the safety screening data quality objective (DQO) (Dukelow et al. 1995), the organic safety program DQO (Turner et al. 1995), the historical DQO (Simpson and McCain 1995), and the compatibility DQO (Fowler 1995). All subsegments from the three cores obtained are being analyzed for those tests identified in the sampling and analysis plan (Raphael 1996), except in circumstances where insufficient material prevented the analysis. This interim report, however, only summarizes the results of the primary safety screening analyses: differential scanning calorimetry (DSC), thermogravimetric analysis (TGA), total alpha analysis, and density/specific gravity analyses. The remaining analyses shall be discussed in the final report for this project. In addition to the analytical requirements of above references, a test for flammable gas concentration was requested; the data from these measurements obtained by the field operations crews are also provided.

None of the data indicate that the tank is "unsafe" when compared to the criteria in the Safety Screening Data Quality Objective (Dukelow et al. 1995) with the exception of the energetic results for two samples (liquid samples). However, there is a high moisture content of greater than 45% in the liquid portion of the tank. The one-sided 95-percent confidence interval for total alpha results are well below the notification limit. Furthermore, the vapor in the tank U-107 dome space is far below the 25% lower flammability limit (LFL) stated in the SAP. Therefore, the results show that this tank may be considered "conditionally" safe.

Water solution with a lithium bromide tracer was used to soften the sample when the sampling crew encountered hard surfaces. However, no water solution blank was taken. If needed, the water solution blank data from the tank 241-U-109 sampling event may be used. Bromide analysis by ion chromatography (IC) and lithium analysis by inductively coupled plasma atomic emission spectroscopy (ICP) are being performed to determine the extent of water contamination in the samples. These results will be summarized in the final report for this analysis event.

SCOPE

This document serves as the 45-day report deliverable for the tank 241-U-107 core samples collected between February 6 and March 28, 1996. Each sample was received, extruded, and analyzed by the 222-S Laboratory in accordance with the SAP (Raphael 1996).

This report includes the primary safety screening results (tank headspace flammability, DSC, TGA, total alpha, and bulk density or specific gravity) and copies of all DSC and TGA raw data scans as requested per the SAP. Photographs of the extruded segments were taken and, although not included in this report, are available.

SAMPLE RECEIPT AND EXTRUSION

Eight segments per core were expected to be taken from this tank. Segment 1 was expected to be 26 cm (10 inches) in depth and 2 through 8 segments expected to be 48 cm (19 inches) in depth. However, the sampling crew encountered very hard surface at different levels for each core and the waste could not be further penetrated. Therefore, the three cores were only 3, 6, and 2 segments in length.

Information on the receipt and extrusion of the core samples, including sampling date, sample receipt date, extrusion date, amount of sample, and sample description, is provided in Table 1. No separable organic liquid was observed in any of the segments, and no field blank was delivered to the 222-S Laboratory with this sampling event.

Table 1. Sample Receipt and Extrusion for Tank 241-U-107 Core Samples

Sample	Date Sampled	Date Received at Lab	Date Extruded	Sample Recovered	Sample Description
Core 129, Segment 1	02/06/96	02/09/96	02/13/96	Drainable Liquid: Lower Half Solid: 3.5 g	The drainable liquid was clear light yellow/green in color. Estimated volume of the sample collected was 210 mL. Extruded approximately 0.5 inches of crystalline saltcake. The solids were light yellow in color. Solids were put into one jar.
Core 129, Segment 1R	02/09/96	02/09/96	02/13/96	None	N/A
Core 129, Segment 2	02/06/96	02/09/96	02/13/96	Drainable Liquid: Upper Half Solid: 273.5 g Lower Half Solid: 75.1 g 37.2 g	Extruded approximately 3 inches of solids. Solids were dark brown to black in color and texture resembled a wet saltcake. Solids were subsampled in half segments. Collected approximately 225 mL of drainable liquid. The liquid was dark brown in color and opaque.
Core 129, Segment 2R	02/09/96	02/09/96	02/13/96	None	N/A
Core 129, Segment 3	02/07/96	02/09/96	02/13/96	Upper Half Solid: 194.9 g Lower Half Solid: 179.1 g	Extruded approximately 15 inches of solids. Solids were light brown gray in color and the texture resembled a wet saltcake. Solids were subsampled in half segments.
Core 129, Segment 3R	02/09/96	02/15/96	02/20/96	Upper Half Solid: 163.2 g	Extruded approximately 7 inches of solids. Solids were medium gray in color and the texture resembled a crystalline saltcake. No drainable liquid.

WHC-SD-WM-DP-184, REV. 0

Sample	Date Sampled	Date Received at Lab	Date Extruded	Sample Recovered	Sample Description
Core 134, Segment 1	02/16/96	02/20/96	02/23/96	None	N/A
Core 134, Segment 2	02/16/96	02/20/96	02/23/96	Upper Half Solid: 249.2 g	Extruded approximately 12 inches of solids. Solids were white/gray in color and the texture resembled a dry saltcake. Solids were subsampled in one jar.
Core 134, Segment 3	02/16/96	02/20/96	02/27/96	Upper Half Solid: 143.9 g	Extruded approximately 6.5 inches of solids. Solids were medium gray in color and the texture resembled a saltcake.
Core 134, Segment 4	02/16/96	02/20/96	02/27/96	Lower Half Solid: 184.4 g Quarter Segment B: 92.8 g Quarter Segment A: 81.8 g	Extruded approximately 17.5 inches of solids. Facies was present, the lower section was black sludge and the upper section was dark gray saltcake. The solids were subsampled in quarter segments.
Core 134, Segment 5	02/16/96	02/20/96	02/27/96	Quarter Segment B: 49.7 g Quarter Segment A: 59.8 g	Extruded approximately 5 inches of solids. Solids were gray saltcake (lower section) and black sludge (upper section). Solids contained facies.
Core 134, Segment 5A	02/20/96	02/20/96	02/27/96	Quarter Segment A: 19.4 g Liner Liquid: 32.8 g	Extruded approximately 1 inch of solids. Solids were gray in color with some brown tint. The texture resembled a saltcake.
Core 134, Segment 5B	02/21/96	02/23/96	02/27/96	Drainable Liquid: 106.3 g	Collected approximately 70 mL of drainable liquid. The liquid was dark brown in color and opaque. No solids extruded other than those suspended in drainable liquid.
Core 134, Segment 6	02/21/96	02/23/96	02/27/96	None	N/A
Core 134, Segment 6A	02/26/96	02/27/96	03/01/96	Whole Segment: 29.3 g Drainable liquid: 89.6 g Liner Liquid: 16.8 g	Extruded approximately 6 inches of solids. Solids were light brown in color and texture resembled a wet saltcake. Collected approximately 70 mL of drainable liquid. The liquid was light brown in color and opaque.

WHC-SD-WW-DP-184, REV. 0

Sample	Date Sampled	Date Received at Lab	Date Extruded	Sample Recovered	Sample Description
Core 135, Segment 1	03/20/96	04/01/96	04/15/96	Upper Half Solid: Drainable Liquid:	Extruded approximately 1 1/2 inch of solids. Solids were dark brown in color and the texture resembled a wet sludge. The solids were subsampled in one jar. Collected approximately 50 ml. of drainable liquid. The liquid was dark brown in color and opaque.
Core 135, Segment 1R	03/26/96	04/01/96	04/16/96	Whole segment: Drainable liquid:	Extruded approximately less than 0.25 inch of solids. Solids were yellow in color and a crystalline saltcake. Collected approximately 250 ml. of drainable liquid. The liquid was yellow in color and clear.
Core 135, Segment 2	03/20/96	04/01/96	04/08/96	Upper Half Solid: Liner Liquid:	Extruded approximately 1/4 inch of solids. The solids were dark black in color and the texture resembled a wet saltcake.
Core 135, Segment 2A	03/22/96	04/01/96	04/16/96	Whole Segment: Drainable Liquid:	Extruded approximately 1 inch of solids. Solids were light brown in color and the texture resembled a saltcake. Collected approximately 25 ml. of drainable liquid. The liquid was yellowish brown in color and opaque.
Core 135, Segment 2R	03/28/96	04/02/96	04/08/96	Upper Half Solid: Lower Half Solid:	Extruded approximately 10 inches of solids. Solids were light gray in color and the texture resembled a saltcake. No drainable liquid.

TANK HEADSPACE FLAMMABILITY

Prior to core sampling, the flammability of the tank headspace was measured to address the vapor flammability issue of the safety screening data quality objective (Dukelow et al. 1995). The tank vapor space was sampled periodically from February 6 through February 21, 1996 to determine the flammability of the vapor space gasses. Sampling was done through risers 7 and 9 in the dome space. The average combustible gas meter readings were between 0 to 4 percent of the LFL (attachment), indicating no flammability concerns with this tank.

ANALYTICAL RESULTS

Analytical results appear in the Sample Data Summary and a discussion of the results is presented below. Any deviations from the requirements of the SAP are noted in the following sections.

Thermogravimetric Analysis (TGA) Moisture

The weight percent water by TGA was performed under a nitrogen purge using either procedure LA-560-112, Rev B-1 on a Mettler TG 50 instrument or procedure LA-514-114, Rev. C-1 on a Perkin Elmer TGA 7 instrument.

Results ranged from 0.73 to 49.9 weight percent water for the solids. Drainable liquids ranged from 47.0 to 92.2 weight percent water. Three liner liquid sample were analyzed and the results ranged from 89.1 to 98.2 weight percent water. The weight percent water for sample S96T001070 (Core 134, Segment 6A) was 92%. The probable cause for the high water content in this sample is due to the contamination by the water solution.

All standards run with the samples had recoveries which fell within the required range of 90 to 110 percent. Ten subsegments had RPD values that exceeded the desired 10 percent criterion. No reruns were requested due to the heterogeneity of the samples.

Differential Scanning Calorimetry (DSC)

Differential scanning calorimetry analyses under a nitrogen purge were performed using either procedure LA-514-113, Rev. C-1 on a Mettler DSC 20 instrument or procedure LA-514-114, Rev. C-1 on a Perkin Elmer DSC 7 instrument. It should be noted that the DSC scans from these two instruments show exotherms differently; exotherms on the Perkin Elmer are shown as downward peaks while the Mettler shows them as upward peaks. Using the average percent water by TGA for each sample, dry weight basis results were calculated from the wet weight basis results. Both wet and dry results are given in the Sample Data Summary.

Sixteen out of twenty-eight of the waste samples showed no exotherm. Two of the twelve samples which had observable energetics had DSC exotherms that exceeded the action limit of 480 joules/g (dry weight basis) stated in the SAP (Raphael 1996) and the Safety Screening Data Quality Objective (Dukelow et al. 1995). Appropriate notifications of a limit violation were made.

For the two samples with DSC results above 480 joules/g, the upper limit of a one-sided 95% Confidence Interval were calculated (see attachment). The upper limit of the 95% Confidence Intervals were 674.0 to 678.0 joules/g (dry weight basis). For the other ten samples with DSC results above 0 joules/g, the upper limit of a one-sided 95% Confidence Intervals ranged from 16.6 to 467.8 joules/g (dry weight basis).

Standards run with the samples had recoveries which fell within the required range of 90 to 110 percent for all but two of the samples (112.5 and 113.9 percent). RPDs between the sample and duplicate sample analyses were below 10 percent for all but five of the samples. The RPDs for these five samples were ranged from 15.7 to 150 percent. No reruns were requested due to the heterogeneity of the samples.

Total Alpha

The total alpha analyses were performed using procedure LA-508-101, Rev. D-2. Solid samples were prepared by fusion prior to the total alpha analysis; the fusion was performed using procedure LA-549-141, Rev. D-0.

Individual sample and duplicate results ranged from 0.00243 $\mu\text{Ci/g}$ to 0.91 $\mu\text{Ci/g}$ in the solids. In the drainable liquid, the results ranged from less than values from $<2.25\text{E-}03$ to $<1.72\text{E-}03$ $\mu\text{Ci/mL}$ with only one value reported that was not a less than value ($5.36\text{E-}03$ $\mu\text{Ci/mL}$). The low sample activities and high dissolved solids in the samples resulted in high RPDs and low spike recoveries for the tank U-107 samples. Six samples have spike recoveries out of range (from 66.0 to 87.2 percent) and 9 RPDs were above the 10 percent criterion with RPDs ranging from 11.3 to 56.1 percent. Thirteen standard recoveries were out of limits with values ranging from 110.9 to 119.5 percent.

The one-sided 95-percent upper confidence interval limit was calculated for samples where the total alpha results were above the detection limit. Results are presented in the attachment. The upper confidence intervals ranged from $2.40\text{E-}03$ $\mu\text{Ci/mL}$ to $1.65\text{E-}02$ $\mu\text{Ci/mL}$ for liquid samples and $3.20\text{E-}03$ $\mu\text{Ci/g}$ to 1.71 $\mu\text{Ci/g}$ for solids. All of these results are well below the notification limit of 34.9 $\mu\text{Ci/g}$; therefore, no reruns were requested.

Bulk Density and Specific Gravity

Bulk density measurements were performed on the solid samples using procedure I0-160-103, Rev. A-7, and specific gravity measurements were performed on the liquid samples using procedure LA-510-112, Rev. C-3.

Bulk densities of the solids ranged from 1.30 to 1.76 g/mL. Bulk density for sample S96T001046 (Core 134, Segment 6A) was 1.1 g/mL. The probable cause for low density is due to the water solution contamination. A density of 1.5 g/mL is assumed in converting the total alpha notification limit from g/L of plutonium to $\mu\text{Ci/g}$. A value below 1.5 is conservative; therefore, the total alpha notification should be adjusted to 34.9 $\mu\text{Ci/g}$ (from density of 1.76 g/mL). The specific gravities of the liquids ranged from 1.38 to 1.67 g/mL. The standard recoveries for the specific gravity and density measurements were between 97.7 and 99.6 percent.

Project Coordinator: Jaiduk Jo

REFERENCES

- Dukelow, G. T., J. W. Hunt, H. Babad, and J. E. Meacham, 1995, *Tank Safety Screening Data Quality Objective*, WHC-SD-WM-SP-004, Rev. 2, Westinghouse Hanford Company, Richland, Washington.
- Fowler, K. D., 1995, *Data Quality Objectives for Tank Farms Waste Compatibility Program*, WHC-SD-WM-DQO-001, Rev. 1, Westinghouse Hanford Company, Richland, Washington.
- Raphael, G. F., 1996, *Tank 241-U-107 Push Mode Core Sampling and Analysis Plan*, WHC-SD-WM-TSAP-076, Rev. 0, Westinghouse Hanford Company, Richland, Washington.
- Simpson, B. C., and D. J. McCain, 1995, *Historical Model Evaluation Data Requirements*, WHC-SD-WM-DQO-018, Rev. 0A, Westinghouse Hanford Company, Richland, Washington.
- Turner, D. A., H. Babad, L. L. Buckley, and J. E. Meacham, 1995, *Data Quality Objective to Support Resolution of the Organic Complexant Safety Issue*, WHC-SD-WM-DQO-006, Rev. 2, Westinghouse Hanford Company, Richland, Washington.

WHC-SD-WM-DP-184, REV. 0

SAMPLE DATA SUMMARY

WHC-SD-WM-DP-184, REV. 0

THIS PAGE WAS INTENTIONALLY LEFT BLANK

INTERIM

U-107 Safety Screening Report
U-107

CORE NUMBER: 129
SEGMENT #: 3R

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S96T001140			Bulk Density of Sample	g/mL	None	None	n/a	n/a	1.360	n/a	n/a	n/a	n/a	5.000e-1	n/a
S96T001143			% Water by TGA on Perkin Elmer	%	None	None	99.41	n/a	4.960	6.360e0	5.660e0	24.7	n/a	n/a	n/a
S96T001143			DSC Exotherm on Perkin Elmer	Joules/g	None	None	92.86	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001143			DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	20.0	n/a	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001153			Alpha of Digested Solid	uCi/g	-7.0e+00	61.00	98.44	<1.450e-3	4.64e-02	3.220e-2	3.930e-2	36.1	73.82	4.000e-3	1.75E+01

==> Limit violated
==> Selected Limit

INTERIM

WHC-SD-WM-DP-184, REV.0

INTERIM

U-107 Safety Screening Report
U-107

CORE NUMBER: 129
SEGMENT #: 1

SEGMENT PORTION: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S96T000683			% Water by TGA using Mettler	%	None	None	102.3	n/a	18.52	1.937e1	1.895e1	4.49	n/a	n/a	n/a
S96T000683			DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	438.0	n/a	n/a	15.30	1.407e1	1.469e1	8.38	n/a	n/a	n/a
S96T000683			DSC Exotherm using Mettler	Joules/g	None	None	108.6	n/a	12.40	1.140e1	1.190e1	8.40	n/a	n/a	n/a
S96T000684	F		Alpha of Digested Solid	uCi/g	-7.0e+00	41.300	104.6	2.00e-03	2.43e-03	<5.12E-3	n/a	n/a	92.60	4.000e-3	1.06E+02

Drainable Liquid: Drainable Liquid

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S96T000637			Specific Gravity	Sp.G.	None	None	98.24	n/a	1.381	n/a	n/a	n/a	n/a	1.000e-3	n/a
S96T000665			% Water by TGA using Mettler	%	None	None	99.61	n/a	51.94	5.451e1	5.322e1	4.83	n/a	n/a	n/a
S96T000665			DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	438.0	n/a	n/a	1.17e+02	1.148e2	1.160e2	2.07	n/a	n/a	n/a
S96T000665			DSC Exotherm using Mettler	Joules/g	None	None	105.8	n/a	54.80	5.370e1	5.425e1	2.03	n/a	n/a	n/a
S96T000665			Alpha in Liquid Samples	uCi/mL	-7.0e+00	61.50	98.04	<1.210e-2	<1.72e-02	<1.72E-2	n/a	n/a	95.41	2.500e-2	5.00E+02

⇒ Limit violated
⇒ Selected Limit

15

WHC-SD-WM-DP-184, REV. 0

INTERIM

U-107 Safety Screening Report
U-107

CORE NUMBER: 129
SEGMENT #: 2

SEGMENT PORTION: U Upper Half of Segment

Sample#	R A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
				Lower	Upper									
S96T000642		Bulk Density of Sample	g/mL	None	None	n/a	n/a	1.520	n/a	n/a	n/a	n/a	5.000e-1	n/a
S96T000644		% Water by TGA using Mettler	%	None	None	100.2	n/a	48.57	4.734e1	4.795e1	2.56	n/a	n/a	n/a
S96T000644		DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	2.71e+02	2.538e2	2.626e2	6.67	n/a	n/a	n/a
S96T000644		DSC Exotherm using Mettler	Joules/g	None	None	105.4	n/a	1.41e+02	1.321e2	1.366e2	6.66	n/a	n/a	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
				Lower	Upper									
S96T000645		Bulk Density of Sample	g/mL	None	None	n/a	n/a	1.5	n/a	n/a	n/a	n/a	5.000e-1	n/a
S96T000647		% Water by TGA using Mettler	%	None	None	100.2	n/a	21.10	1.826e1	1.968e1	14.4	n/a	n/a	n/a
S96T000647		DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	11.95	1.021e1	1.108e1	15.7	n/a	n/a	n/a
S96T000647		DSC Exotherm using Mettler	Joules/g	None	None	105.4	n/a	9.600	8.200e0	8.900e0	15.7	n/a	n/a	n/a
S96T000687	F	Alpha of Digested Solid	uCi/g	-7.0e+00	4.1200	104.6	2.00e+02	1.54e-01	1.700e-1	1.620e-1	9.88	n/a	4.000e-3	1.01E+01

Drainable Liquid: Drainable Liquid

Sample#	R A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
				Lower	Upper									
S96T000641		Specific Gravity	Sp.G.	None	None	98.24	n/a	1.435	n/a	n/a	n/a	n/a	1.000e-3	n/a
S96T000682		% Water by TGA using Mettler	%	None	None	99.61	n/a	49.79	4.955e1	4.967e1	0.48	n/a	n/a	n/a
S96T000682		DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	1.30e+02	1.266e2	1.281e2	2.42	n/a	n/a	n/a
S96T000682		DSC Exotherm using Mettler	Joules/g	None	None	105.8	n/a	65.30	6.370e1	6.450e1	2.48	n/a	n/a	n/a
S96T000682		Alpha in Liquid Samples	uCi/mL	-7.0e+00	4.1200	98.04	<1.210e-2	<1.09e-02	<1.09e-2	n/a	n/a	n/a	2.500e-2	5.00E+02
S96T000685		Bulk Density of Sample	g/mL	None	None	n/a	n/a	1.400	n/a	n/a	n/a	n/a	5.000e-1	n/a

⇒ Limit violated
⇒ Selected Limit

INTERIM

U-107 Safety Screening Report
U-107

CORE NUMBER: 129
SEGMENT #: 3

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S96T000648			Bulk Density of Sample	g/ml	None	None	n/a	n/a	1.480	n/a	n/a	n/a	n/a	5.000e-1	n/a
S96T000650			% Water by TGA using Mettler	%	None	None	102.1	n/a	22.19	2.684e1	2.452e1	19.0	n/a	n/a	n/a
S96T000650			DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	33.78	1.418e1	2.398e1	81.7	n/a	n/a	n/a
S96T000650			DSC Exotherm using Mettler	Joules/g	None	None	106.2	n/a	25.58	1.070e1	1.810e1	81.8	n/a	n/a	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S96T000651			Bulk Density of Sample	g/ml	None	None	n/a	n/a	1.460	n/a	n/a	n/a	n/a	5.000e-1	n/a
S96T000653			% Water by TGA using Mettler	%	None	None	102.1	n/a	16.78	1.743e1	1.711e1	3.80	n/a	n/a	n/a
S96T000653			DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	16.77	3.619e1	2.648e1	73.3	n/a	n/a	n/a
S96T000653			DSC Exotherm using Mettler	Joules/g	None	None	106.2	n/a	13.90	3.000e1	2.195e1	73.3	n/a	n/a	n/a
S96T000689	F		Alpha of Digested Solid	uCi/g	-7.0e+00	41.08	95.42	5.230e-3	3.36e-02	3.710e-2	3.530e-2	9.90	85.46	6.000e-3	2.36e+01

=> Limit violated
Selected Limit

INTERIM

U-107 Safety Screening Report
U-107

CORE NUMBER: 134
SEGMENT #: 5A

SEGMENT PORTION: Liner Liquid

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S96T001110			Alpha in Liquid Samples	uCi/mL	-7.0e+00	61.50	112.5	<4.450e-5	<6.30e-05	<4.54E-5	n/a	n/a	98.05	1.090e-4	5.00E+02
S96T002034			% Water by TGA using Mettler	%	None	None	100.1	n/a	98.17	9.814e1	9.816e1	0.03	n/a	n/a	n/a
S96T002034			DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T002034			DSC Exotherm using Mettler	Joules/g	None	None	110.7	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a

A Top Quarter of Segment: A Top Quarter of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S96T001045			Bulk Density of Sample	g/mL	None	None	n/a	n/a	1.5	n/a	n/a	n/a	n/a	5.000e-1	n/a
S96T001059			% Water by TGA using Mettler	%	None	None	100.1	n/a	21.25	2.126e1	2.126e1	0.05	n/a	n/a	n/a
S96T001059			DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001059			DSC Exotherm using Mettler	Joules/g	None	None	112.5	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001096	F		Alpha of Digested Solid	uCi/g	-7.0e+00	41.00	119.5	<7.050e-3	1.83e-01	1.830e-1	1.830e-1	0.00	n/a	9.000e-3	1.41E+01

=> Limit violated
=> Selected Limit

INTERIM

U-107 Safety Screening Report
U-107

CORE NUMBER: 134
SEGMENT #: 5B

SEGMENT PORTION: Drainable Liquid

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count	Err%
					Lower	Upper										
S96T001107			Specific Gravity	Sp.G.	None	None	97.74	n/a	1.437	1.419e0	1.428e0	1.26	n/a	1.000e-3		n/a
S96T001119			% Water by TGA on Perkin Elmer	%	None	None	99.61	n/a	51.01	5.114e1	5.108e1	0.25	n/a	n/a		n/a
S96T001119			DSC Exotherm on Perkin Elmer	Joules/g	None	None	97.64	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a		n/a
S96T001119			DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.8	n/a	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a		n/a
S96T001119			Alpha in Liquid Samples	uCi/mL	-7.0e+00	61.58	112.5	<4.450e-5	5.36e-03	<4.94E-3	n/a	n/a	n/a	5.000e-3	7.34E+01	

=> Limit violated
=> Selected Limit

19

INTERIM

WHC-SD-WM-DP-184, REV. 0

INTERIM

U-107 Safety Screening Report
U-107

CORE NUMBER: 134
SEGMENT #: 6A

SEGMENT PORTION: Liner Liquid

Sample#	R A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
				Lower	Upper									
S96T001120		% Water by TGA on Perkin Elmer	%	None	None	99.61	n/a	89.27	8.910e1	8.919e1	0.19	n/a	n/a	n/a
S96T001120		DSC Exotherm on Perkin Elmer	Joules/g	None	None	97.64	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001120		DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	489.3	n/a	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001120		Alpha in Liquid Samples	uCi/mL	-7.0e+00	61.50	112.5	<4.450e-5	<2.25e-03	<2.29E-3	n/a	n/a	n/a	5.000e-3	5.00E+02

W Whole Segment: W Whole Segment

Sample#	R A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
				Lower	Upper									
S96T001046		Bulk Density of Sample	g/mL	None	None	n/a	n/a	1.100	n/a	n/a	n/a	n/a	5.000e-1	n/a
S96T001070		% Water by TGA using Mettler	%	None	None	102.9	n/a	91.44	9.102e1	9.123e1	0.46	n/a	n/a	n/a
S96T001070		DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	489.3	n/a	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001070		DSC Exotherm using Mettler	Joules/g	None	None	113.9	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001097	F	Alpha of Digested Solid	uCi/g	-7.0e+00	61.50	119.5	<7.050e-3	1.76e-02	1.270e-2	1.520e-2	32.3	n/a	4.000e-3	3.46E+01

Drainable Liquid: Drainable Liquid

Sample#	R A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
				Lower	Upper									
S96T001121		% Water by TGA on Perkin Elmer	%	None	None	99.61	n/a	91.70	9.222e1	9.196e1	101	n/a	n/a	n/a
S96T001121		Specific Gravity	Sp.G.	None	None	97.46	n/a	1.026	1.009e0	1.018e0	1.67	n/a	1.000e-3	n/a
S96T001121		DSC Exotherm on Perkin Elmer	Joules/g	None	None	97.34	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001121		DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	489.3	n/a	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001121		Alpha in Liquid Samples	uCi/mL	-7.0e+00	61.50	112.5	<4.450e-5	<2.25e-03	<2.29E-3	n/a	n/a	n/a	5.000e-3	5.00E+02

⇒ Limit violated
⇒ Selected Limit

INTERIM

U-107 Safety Screening Report
U-107

CORE NUMBER: 134
SEGMENT #: 2

SEGMENT PORTION: U Upper Half of Segment

Sample#	R A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
				Lower	Upper									
S96T001043		Bulk Density of Sample	g/mL	None	None	n/a	n/a	1.410	n/a	n/a	n/a	n/a	5.000e-1	n/a
S96T001055		% Water by TGA on Perkin Elmer	%	None	None	100.3	n/a	6.940	7.600e0	7.270e0	9.08	n/a	n/a	n/a
S96T001055		DSC Exotherm on Perkin Elmer	Joules/g	None	None	96.63	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001055		DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001089	F	Alpha of Digested Solid	uCi/g	-7.0e+00	41.00	116.4	<3.220e-3	1.53e-02	2.030e-2	1.780e-2	28.1	71.31	6.000e-3	3.77E+01

⇒ Limit violated
⇒ Selected Limit

21

WHC-SD-WM-DP-184, REV. 0

INTERIM

U-107 Safety Screening Report
U-107

CORE NUMBER: 134
SEGMENT #: 3

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S96T001044			Bulk Density of Sample	g/mL	None	None	n/a	n/a	1.540	n/a	n/a	n/a	n/a	5.000e-1	n/a
S96T001056			% Water by IGA on Perkin Elmer	%	None	None	100.3	n/a	13.12	1.226e1	1.269e1	6.78	n/a	n/a	n/a
S96T001056			DSC Exotherm on Perkin Elmer	Joules/g	None	None	96.63	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001056			DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	680.8	n/a	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001090	F		Alpha of Digested Solid	uCi/g	-7.0e+00	61.00	116.4	<3.220e-3	2.74e-02	4.030e-2	3.390e-2	38.1	n/a	4.000e-3	2.31E+01

=> Limit violated
=> Selected Limit

WHC-SD-WM-DP-184, REV. 0

INTERIM

U-107 Safety Screening Report
U-107

CORE NUMBER: 134
SEGMENT #: 4

SEGMENT PORTION: A Top Quarter of Segment

Sample#	R A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
				Lower	Upper									
S96T001061		Bulk Density of Sample	g/mL	None	None	n/a	n/a	1.740	n/a	n/a	n/a	n/a	5.000e-1	n/a
S96T001064		% Water by TGA using Mettler	%	None	None	102.4	n/a	23.61	2.276e1	2.319e1	3.67	n/a	n/a	n/a
S96T001064		DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001064		DSC Exotherm using Mettler	Joules/g	None	None	106.2	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001092	F	Alpha of Digested Solid	uCi/g	-7.0e+00	41.00	110.9	<8.720e-3	7.61e-02	7.510e-2	7.560e-2	1.32	94.71	1.400e-2	2.21E+01

B Second Quarter of Segment: B Second Quarter of Segment

Sample#	R A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
				Lower	Upper									
S96T001062		Bulk Density of Sample	g/mL	None	None	n/a	n/a	1.730	n/a	n/a	n/a	n/a	5.000e-1	n/a
S96T001065		% Water by TGA using Mettler	%	None	None	102.4	n/a	28.65	2.764e1	2.814e1	1.47	n/a	n/a	n/a
S96T001065		DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001065		DSC Exotherm using Mettler	Joules/g	None	None	106.2	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001093	F	Alpha of Digested Solid	uCi/g	-7.0e+00	41.00	110.9	<8.720e-3	9.65e-02	9.800e-2	9.730e-2	1.54	n/a	3.000e-2	3.03E+01

L Lower Half of Segment: L Lower Half of Segment

Sample#	R A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
				Lower	Upper									
S96T001047		Bulk Density of Sample	g/mL	None	None	n/a	n/a	1.660	n/a	n/a	n/a	n/a	5.000e-1	n/a
S96T001057		% Water by TGA using Mettler	%	None	None	99.97	n/a	34.53	3.923e1	3.688e1	12.7	n/a	n/a	n/a
S96T001057		DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	2.33e+02	2.345e2	2.337e2	0.68	n/a	n/a	n/a
S96T001057		DSC Exotherm using Mettler	Joules/g	None	None	94.90	n/a	1.47e+02	1.480e2	1.475e2	0.68	n/a	n/a	n/a
S96T001091	F	Alpha of Digested Solid	uCi/g	-7.0e+00	41.00	108.6	<1.180e-2	2.85e-01	3.190e-1	3.020e-1	11.3	n/a	2.000e-2	1.08E+01

=> Limit violated
= Selected Limit

WHO-SD-WM-DP-184, REV. 0

INTERIM

U-107 Safety Screening Report
U-107

CORE NUMBER: 134
SEGMENT #: 5

SEGMENT PORTION: A Top Quarter of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S96T001067			Bulk Density of Sample	g/mL	None	None	n/a	n/a	1.680	n/a	n/a	n/a	n/a	5.000e-1	n/a
S96T001068			% Water by TGA on Perkin Elmer	%	None	None	99.93	n/a	38.28	4.335e1	4.081e1	12.4	n/a	n/a	n/a
S96T001068			DSC Exotherm on Perkin Elmer	Joules/g	None	None	93.78	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001068			DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001095	F		Alpha of Digested Solid	uCi/g	-7.0e+00	43.00	119.5	<7.050e-3	9.10e-01	6.090e-1	7.600e-1	39.6	87.19	1.500e-2	8.08E+00

B Second Quarter of Segment: B Second Quarter of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S96T001058			% Water by TGA using Mettler	%	None	None	99.97	n/a	44.27	2.819e1	3.620e1	44.3	n/a	n/a	n/a
S96T001058			DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	18.11	1.255e2	7.181e1	150	n/a	n/a	n/a
S96T001058			DSC Exotherm using Mettler	Joules/g	None	None	94.90	n/a	11.50	7.970e1	4.560e1	150	n/a	n/a	n/a
S96T001066			Bulk Density of Sample	g/mL	None	None	n/a	n/a	1.760	n/a	n/a	n/a	n/a	5.000e-1	n/a
S96T001094	F		Alpha of Digested Solid	uCi/g	-7.0e+00	43.00	110.9	<8.720e-3	4.30e-01	3.820e-1	4.060e-1	11.8	n/a	2.900e-2	1.28E+01

=> Limit violated
=> Selected Limit

INTERIM

U-107 Safety Screening Report
U-107

CORE NUMBER: 135
SEGMENT #: 1R

SEGMENT PORTION: W Whole Segment

Sample#	R A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
				Lower	Upper									
S96T002132		% Water by TGA using Mettler	%	None	None	99.70	n/a	18.55	1.645e1	1.750e1	12.0	n/a	n/a	n/a
S96T002132		DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T002132		DSC Exotherm using Mettler	Joules/g	None	None	104.7	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T002135	F	Alpha of Digested Solid	uCi/g	-7.0e+00	4.1e03	98.44	<1.750e-3	<2.88e-03	<2.76E-3	n/a	n/a	n/a	4.000e-3	2.53E+02

Drainable Liquid: Drainable Liquid

Sample#	R A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
				Lower	Upper									
S96T002141		% Water by TGA using Mettler	%	None	None	99.53	n/a	47.03	4.702e1	4.703e1	0.02	n/a	n/a	n/a
S96T002141		Specific Gravity	Sp.G.	None	None	97.93	n/a	1.474	1.412e0	1.443e0	4.30	n/a	1.000e-3	n/a
S96T002141		DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	5.59e+02	5.160e2	5.376e2	8.04	n/a	n/a	n/a
S96T002141		DSC Exotherm using Mettler	Joules/g	None	None	106.5	n/a	2.96e+02	2.732e2	2.848e2	8.04	n/a	n/a	n/a
S96T002141		Alpha in Liquid Samples	uCi/mL	-7.0e+00	61.50	109.4	<1.330e-2	<1.65e-02	<1.65E-2	n/a	n/a	n/a	2.000e-2	1.67E+02

⇒ Limit violated
⇒ Selected Limit

WHC-SD-WM-DP-184, REV. 0

INTERIM

U-107 Safety Screening Report
U-107

CORE NUMBER: 135
SEGMENT #: 2A

SEGMENT PORTION: W Whole Segment

Sample#	R A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
				Lower	Upper									
S96T002130		Bulk Density of Sample	g/mL	None	None	n/a	n/a		n/a	n/a	n/a	n/a	5.000e-1	n/a
S96T002133		% Water by TGA using Mettler	%	None	None	99.53	n/a	16.38	1.546e1	1.592e1	5.78	n/a	n/a	n/a
S96T002133		DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T002133		DSC Exotherm using Mettler	Joules/g	None	None	102.6	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T002136	F	Alpha of Digested Solid	uCi/g	-7.0e+00	41.00	115.6	<1.730e-3	1.09e-02	1.940e-2	1.520e-2	56.1	n/a	4.000e-3	4.07E+01

Drainable Liquid: Drainable Liquid

Sample#	R A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
				Lower	Upper									
S96T002142		% Water by TGA using Mettler	%	None	None	99.88	n/a	52.45	5.218e1	5.231e1	0.52	n/a	n/a	n/a
S96T002142		Specific Gravity	Sp.G.	None	None	97.93	n/a	1.665	1.373e0	1.519e0	19.2	n/a	1.000e-3	n/a
S96T002142		DSC Exotherm on Perkin Elmer	Joules/g	None	None	101.6	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T002142		DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T002142		Alpha in Liquid Samples	uCi/mL	-7.0e+00	61.50	109.4	<1.330e-2	<1.17e-02	<1.17E-2	n/a	n/a	n/a	2.000e-2	5.00E+02

=> Limit violated
=> Selected Limit

INTERIM

U-107 Safety Screening Report
U-107

CORE NUMBER: 135

SEGMENT #: 2R

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S96T001869			Bulk Density of Sample	g/mL	None	None	n/a	n/a	1.300	n/a	n/a	n/a	n/a	5.000e-1	n/a
S96T001873			% Water by TGA using Mettler	%	None	None	99.22	n/a	4.670	4.150e0	4.410e0	11.8	n/a	n/a	n/a
S96T001873			DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480e0	n/a	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001873			DSC Exotherm using Mettler	Joules/g	None	None	96.31	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001879	F		Alpha of Digested Solid	uCi/g	-7.0e+00	41.00	115.6	<1.730e-3	1.47e-02	1.510e-2	1.490e-2	2.68	66.02	4.000e-3	3.33E+01

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S96T001870			Bulk Density of Sample	g/mL	None	None	n/a	n/a	1.310	n/a	n/a	n/a	n/a	5.000e-1	n/a
S96T001874			% Water by TGA on Perkin Elmer	%	None	None	98.82	n/a	7.30e-01	9.200e-1	8.250e-1	23.0	n/a	n/a	n/a
S96T001874			DSC Exotherm on Perkin Elmer	Joules/g	None	None	102.6	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001874			DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480e0	n/a	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001880	F		Alpha of Digested Solid	uCi/g	-7.0e+00	41.00	115.6	<1.730e-3	1.02e-02	1.220e-2	1.120e-2	17.9	n/a	4.000e-3	4.92E+01

=> Limit violated

=> Selected Limit

WHC-SD-WM-DP-184, REV. 0

INTERIM

U-107 Safety Screening Report
U-107

CORE NUMBER: 135
SEGMENT #: 1

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S96T002131			% Water by TGA using Mettler	%	None	None	99.70	n/a	32.41	3.723e1	3.482e1	13.8	n/a	n/a	n/a
S96T002131			DSC Exotherm on Perkin Elmer	Joules/g	None	None	101.7	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T002131			DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T002134	F		Alpha of Digested Solid	uCi/g	-7.0e+00	41.00	98.44	<1.750e-3	1.03e-01	9.840e-2	1.010e-1	4.57	79.11	7.000e-3	1.50E+01

Drainable Liquid: Drainable Liquid

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S96T002140			% Water by TGA using Mettler	%	None	None	99.53	n/a	52.73	5.228e1	5.250e1	0.86	n/a	n/a	n/a
S96T002140			Specific Gravity	Sp.G.	None	None	97.93	n/a	1.470	1.392e0	1.431e0	5.45	n/a	1.000e-3	n/a
S96T002140			DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	5.40e+02	5.776e2	5.588e2	6.75	n/a	n/a	n/a
S96T002140			DSC Exotherm using Mettler	Joules/g	None	None	106.5	n/a	2.56e+02	2.743e2	2.654e2	6.75	n/a	n/a	n/a
S96T002140			Alpha in Liquid Samples	uCi/mL	-7.0e+00	61.50	109.4	<1.330e-2	<1.33e-02	<1.33e-2	n/a	n/a	99.44	2.000e-2	5.00E+02

⇒ Limit violated
⇒ Selected Limit

INTERIM

U-107 Safety Screening Report
U-107

CORE NUMBER: 135
SEGMENT #: 2

SEGMENT PORTION: Liner Liquid

Sample#	R A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
				Lower	Upper									
S96T001865		Specific Gravity	Sp.G.	None	None	98.38	n/a	1.030	1.030e0	1.030e0	0.00	n/a	1.000e-3	n/a
S96T001866		% Water by TGA using Mettler	%	None	None	100.3	n/a	94.44	9.393e1	9.419e1	0.54	n/a	n/a	n/a
S96T001866		DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001866		DSC Exotherm using Mettler	Joules/g	None	None	113.5	n/a	0.00e+00	0.000e0	0.000e0	0.00	n/a	n/a	n/a
S96T001866		Alpha in Liquid Samples	uci/mL	-7.0e+00	61.50	112.5	<7.280e-4	<5.51e-04	<6.41E-4	n/a	n/a	114.8	1.000e-3	5.00E+02

U Upper Half of Segment: U Upper Half of Segment

Sample#	R A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
				Lower	Upper									
S96T001867		% Water by TGA using Mettler	%	None	None	99.19	n/a	49.90	4.974e1	4.982e1	0.32	n/a	n/a	n/a
S96T001867		DSC Exotherm Dry Calculated	Joules/g Dry	-7.0e+00	480.0	n/a	n/a	2.80e+02	2.096e2	2.449e2	28.8	n/a	n/a	n/a
S96T001867		DSC Exotherm using Mettler	Joules/g	None	None	96.31	n/a	1.41e+02	1.052e2	1.229e2	28.8	n/a	n/a	n/a
S96T001868	F	Alpha of Digested Solid	uci/g	-7.0e+00	41.00	98.44	<1.750e-3	3.29e-01	3.480e-1	3.390e-1	5.61	n/a	4.000e-3	6.07E+00

=> Limit violated
=> Selected Limit

23

WHC-SD-WM-DP-184, REV. 0

WHC-SD-WM-DP-184, REV. 0

DOMESTIC SPACE VAPOR FLAMMABILITY DATA SHEETS

WHC-SD-WM-DP-184, REV. 0

THIS PAGE WAS INTENTIONALLY LEFT BLANK

WHC-SD-WM-DP-184, REV. 0

CONTROLLED COPY

Printed on: Jan 30, 96 16:19 pm

DATA SHEET 7 - IH&S VAPOR SURVEY

Tank No. U-107 2/6/96Riser No. 9Location (Breather/Vent, Riser,
Dome Space, Breathing zone)

Vapor:

10:15 AM

Results:

LEL0%O₂21.1%TOL2 ppmNH₃~90 ppmTank No. U-107Riser No. 9Location (Breather/Vent, Riser,
Dome Space, Breathing zone)

Vapor:

10:00 AM

Results:

LEL1%O₂20.8%TOL14 ppmNH₃400 ppmTank No. U-107Riser No. 9Location (Breather/Vent, Riser,
Dome Space, Breathing zone)

Vapor:

TruckShielded Rock / Drill Rod / Drill StringLEL

Results:

0% / 0% / 0%O₂20.9% / 14% / 12%TOL0 ppm / <2 ppm / <2 ppmNH₃- / <5 ppm / <5 ppm

CONTROLLED COPY

Printed on: Jan 30, 96 16:19 pm

WHC-SD-WM-DP-184, REV. 0
DATA SHEET 7 - IH&S VAPOR SURVEY

Tank No. 41072/9/96Riser No. 9Location (Breather/Vent), Riser,
Dome Space, Breathing zone)

Vapor:

O₂
CG
TOV
NH₃

Results:

20.9 %
0 %
0 ppm
0 ppm

Tank No. U-107Riser No. 9Location (Breather/Vent), Riser,
Dome Space Breathing zone)

Vapor:

O₂
CG
TOV
NH₃

Results:

20.8 %
1 %
75 ppm
600 ppm

Tank No. truck

Riser No. _____

Location (Breather/Vent, Riser,
Dome Space, Breathing zone)

Vapor:

O₂
CG
TOV

Results:

17.9 % / 20.8 % / 4 %
0 % / 0 % / 0 %
0 ppm / 0 ppm / 0 ppm

drill string / shielded receiver / gull rod

WORKING COPY

Printed on: Feb 15, 96 16:17 pm

WHC-SD-WM-DP-184, REV. 0
DATA SHEET 7 - IH&S VAPOR SURVEY

Tank No. U-107Riser No. 7Location (Breather/Vent, Riser,
Dome Space, Breathing zone)

Vapor:

LELO₂TUCNH₃Tank No. U-107Location (Breather/Vent, Riser,
Dome Space, Breathing zone)

Vapor:

LELO₂TUCNH₃Tank No. U-107Location (Breather/Vent, Riser,
Dome Space, Breathing zone)

Vapor:

LELO₂TUCNH₃

Results:

0%21.2%0ppm0ppmRiser No. 7

Results:

0%21.1%20 ppm400 ppmRiser No. 7

Results:

0% / 0%15% / 21.2%0ppm / 0ppm— / —

100% / 100%

0%15%0ppm0ppm

* Riser sample pushed

WORKING COPY

Printed on: Feb 15, 96 16:17 pm

WHC-SD-WM-DP-184, REV. 0**DATA SHEET 7 - IH&S VAPOR SURVEY**Tank No. 4-107

2/20/96

Riser No. 7Location (~~Breather~~/Vent, Riser,
Dome Space, Breathing zone)

Vapor:

LELO₂TOCNH₃Tank No. U-107Location (~~Breather~~/Vent, Riser,
~~Dome Space~~, Breathing zone)

Vapor:

LELO₂TOCNH₃Tank No. U-107Location (~~Breather~~/Vent, Riser,
Dome Space, Breathing zone)

Vapor:

LELO₂TOCNH₃

Results:

0%26.1%1 ppm0.5 ppmRiser No. 7

Results:

3%22.8%22 ppm400 ppmRiser No. 7

Results:

0.1% Rod 0.1% Shroud 0.1% Riser 0.1% Drill11.5%2 ppm0 ppm1 ppm15.5%2 ppm0 ppm

37

Document No.

TC-080-516

Rev/Mod

B-10

Page

77

WORKING COPY

Printed on: Feb 20, 96 3:30 am

WHC-SD-WM-DP-184, REV. 0
DATA SHEET 7 - IH&S VAPOR SURVEY

Tank No. 4-1072/21/96Riser No. 7Location (Breather/Vent, Riser,
Dome Space, Breathing zone)

Vapor:

LELO₂TOLNH₃

Results:

0%21.1%0 ppm0 ppmTank No. U-107Riser No. 7Location (Breather/Vent, Riser,
Dome Space, Breathing zone)

Vapor:

LELO₂TOLNH₃

Results:

4%20.8%26 ppm400 ppmTank No. U-107Riser No. 7Location (Breather/Vent, Riser,
Dome Space, Breathing zone)

Vapor:

LELO₂TOLNH₃

Results:

Room Air / shld. Reur / Drill String0%0%0%11.2%20.9%2 ppm0 ppm1 ppm

38

Document No.

TO-080-516

Rev/Mod

B-10

Page

77

WHC-SD-WM-DP-184, REV. 0

STATISTICAL ANALYSIS

WHC-SD-WM-DP-184, REV. 0

THIS PAGE WAS INTENTIONALLY LEFT BLANK

Sample	Result	DUP	TRIP	Mean	StdDev(Mean)	95% LL	Core	Riser	Seg	Segment Portion
S961000665	51.94	54.51		52.23	1.29	45.11	129	9	1	Drainable Liquid
S961000683	18.52	19.37		18.95	0.43	16.26	129	9	1	L Lower Half of Segment
S961000644	48.57	47.34		47.96	0.62	44.07	129	9	2	U Upper Half of Segment
S961000550	22.19	26.84		24.52	2.33	9.83	129	9	3	U Upper Half of Segment
S961000553	16.78	17.43		17.11	0.32	15.05	129	9	3	L Lower Half of Segment
S961001159	18.01	21.43	21.25	20.23	1.11	16.99	129	9	3R	Core Composite
S961001055	6.94	7.6		7.27	0.33	5.19	134	7	2	Drainable Liquid
S961001056	13.12	12.26		12.69	0.43	9.97	134	7	3	W Whole Segment
S961001057	34.53	39.23		36.88	2.35	22.04	134	7	4	L Lower Half of Segment
S961001064	23.61	22.76		23.19	0.42	20.50	134	7	4	A Top Quarter of Segment
S961001065	28.65	27.64		28.15	0.50	24.98	134	7	4	B Second Quarter of Segment
S961001058	44.21	43.35	37.14	36.51	4.64	22.87	134	7	5	B Second Quarter of Segment
S961001066	38.28	43.35		40.82	2.54	24.81	134	7	5	A First Quarter of Segment
S961001059	21.25	21.26		21.26	0.00	21.22	134	7	5A	W Whole Segment
S961001119	51.01	51.14		51.08	0.06	50.66	134	7	5A	U Upper Half of Segment
S961001070	91.44	91.02		91.23	0.21	89.80	134	7	5B	U Upper Half of Segment
S961001120	69.27	69.1		69.19	0.08	68.65	134	7	6A	U Upper Half of Segment
S961001121	91.7	92.22		91.96	0.26	90.32	134	7	6A	Drainable Liquid
S961001128	18.94	24.24		21.59	2.65	4.86	134	7	na	na
S961002131	32.41	37.23		34.82	2.41	19.60	135	2	1	W Whole Segment
S961002140	52.73	52.28		52.51	0.23	51.08	135	2	1	Drainable Liquid
S961001667	49.9	49.74		49.82	0.08	49.31	135	2	2	W Whole Segment
S961002132	16.55	16.45		17.50	1.05	10.87	135	2	1R	W Whole Segment
S961002141	47.03	47.02		47.03	0.00	46.99	135	2	1R	Drainable Liquid
S961002133	15.46	15.46		15.92	0.46	13.02	135	2	2A	W Whole Segment
S961002142	52.45	52.18		52.32	0.14	51.46	135	2	2A	Drainable Liquid
S961001873	4.67	4.15		4.41	0.26	2.77	135	2	2R	A Top Quarter of Segment
S961001874	0.73	0.92		0.83	0.10	0.23	135	2	2R	B Second Quarter of Segment
S961000792	51.31	51.47		51.39	0.08	50.88	na	7	U-10-1	na
Alpha										
S961000665	1.72E-02			1.72E-02	0.00E+00	1.72E-02	129	9	1	Drainable Liquid
S961000684	5.12E-03			3.78E-03	1.35E-03	1.23E-02	129	9	1	L Lower Half of Segment
S961000682	1.09E-02			1.09E-02	0.00E+00	1.09E-02	129	9	2	U Upper Half of Segment
S961000687	1.54E-01			1.62E-01	8.00E-03	2.13E-01	129	9	2	L Lower Half of Segment
S961000688	3.36E-02			3.54E-02	1.75E-03	4.64E-02	129	9	3	U Upper Half of Segment
S961001153	4.64E-02			3.89E-02	7.10E-03	6.41E-02	129	9	3R	Core Composite
S961001162	3.87E-02			3.74E-02	1.35E-03	4.59E-02	134	9	2	W Whole Segment
S961001089	2.03E-02			1.78E-02	2.50E-03	3.38E-02	134	7	2	Core Composite
S961001090	4.03E-02			3.39E-02	6.45E-03	7.46E-02	134	7	3	U Upper Half of Segment
S961001091	2.85E-01			3.02E-01	1.70E-02	4.09E-01	134	7	4	L Lower Half of Segment
S961001092	7.61E-02			7.58E-02	3.00E-04	7.68E-02	134	7	4	A Top Quarter of Segment
S961001093	9.65E-02			8.73E-02	7.50E-04	1.02E-01	134	7	4	B Second Quarter of Segment
S961001094	4.30E-01			4.06E-01	2.40E-02	5.58E-01	134	7	5	B Second Quarter of Segment

S96T001095	9.10E-01	6.09E-01		7.60E-01	1.51E-01	1.71E+00	134	7	5	A Top Quarter of Segment
S96T001096	1.83E-01	1.83E-01		1.83E-01	0.00E+00	1.83E-01	134	7	5A	WV Whole Segment
S96T001110	6.30E-05	4.54E-05		5.42E-05	6.80E-06	1.10E-04	134	7	5A	Liner Liquid
S96T001119	5.36E-03	4.94E-03		5.15E-03	2.10E-04	6.48E-03	134	7	5B	Drainable Liquid
S96T001097	1.76E-02	1.27E-02		1.52E-02	2.45E-03	3.06E-02	134	7	6A	WV Whole Segment
S96T001120	2.25E-03	2.29E-03		2.27E-03	2.00E-05	2.40E-03	134	7	6A	Liner Liquid
S96T001121	2.25E-03	2.29E-03		2.27E-03	2.00E-05	2.40E-03	134	7	6A	Drainable Liquid
S96T001132	1.71E-01	1.54E-01		1.63E-01	8.50E-03	2.16E-01	134	7	Core Compo	Core Composite
S96T002134	1.03E-01	9.84E-02		1.01E-01	2.30E-03	1.15E-01	135	2	1	WV Whole Segment
S96T002140	1.33E-02	1.33E-02		1.33E-02	0.00E+00	1.33E-02	135	2	1	Drainable Liquid
S96T001866	5.51E-04	6.41E-04		5.96E-04	4.50E-05	8.80E-04	135	2	2	Liner Liquid
S96T001868	3.29E-01	3.48E-01		3.39E-01	9.50E-03	3.98E-01	135	2	2	WV Whole Segment
S96T002135	2.88E-03	2.76E-03		2.82E-03	6.00E-05	3.20E-03	135	2	1R	WV Whole Segment
S96T002141	1.65E-02	1.65E-02		1.65E-02	0.00E+00	1.65E-02	135	2	1R	Drainable Liquid
S96T002136	1.09E-02	1.94E-02		1.52E-02	4.25E-03	4.20E-02	135	2	2A	WV Whole Segment
S96T002142	1.17E-02	1.17E-02		1.17E-02	0.00E+00	1.17E-02	135	2	2A	Drainable Liquid
S96T001879	1.47E-02	1.51E-02		1.49E-02	2.00E-04	1.62E-02	135	2	2R	A Top Quarter of Segment
S96T001880	1.02E-02	1.22E-02		1.12E-02	1.00E-03	1.75E-02	135	2	2R	B Second Quarter of Segment

DSC	Sample#	Result	DUP	TRIP	Mean	StdDev(Mean)	95% UL	Matrix	Core #	Riser	Seg#	Segment Portion
	\$9610010085	117.2	114.8		116.00	1.20	123.58	Liquid	129	9	1	Drainable Liquid
	\$9610000883	15.3	14.07		14.69	0.62	18.57	SOLID	129	9	1	Drainable Liquid
	\$9610000844	271.3	253.8		262.55	8.75	317.80	SOLID	129	9	2	Upper Half of Segment
	\$961000847	11.95	10.21		11.06	0.87	16.57	SOLID	129	9	2	Lower Half of Segment
	\$961000882	129.7	126.6		128.15	1.55	137.97	Liquid	129	9	2	Drainable Liquid
	\$961000850	33.78	14.18		23.98	8.80	85.88	SOLID	129	9	3	Upper Half of Segment
	\$961000853	16.77	36.19		26.48	9.71	87.79	SOLID	129	9	3	Lower Half of Segment
	\$961001143	0	0	0	0.00	0.00	0.00	SOLID	129	9	3R	W Whole Segment
	\$961001159	11.8	18.2		15.00	3.20	35.20	SOLID	129	9		Core Composite
	\$961001055	0	0		0.00	0.00	0.00	SOLID	134	7	2	W Whole Segment
	\$961001056	0	0		0.00	0.00	0.00	SOLID	134	7	3	W Whole Segment
	\$961001057	232.9	234.5		233.70	0.80	238.75	SOLID	134	7	4	Lower Half of Segment
	\$961001064	0	0		0.00	0.00	0.00	SOLID	134	7	4	A Top Quarter of Segment
	\$961001065	0	0		0.00	0.00	0.00	SOLID	134	7	4	B Second Quarter of Segment
	\$961001058	18.11	125.5	39.22	60.94	32.85	156.86	SOLID	134	7	5	B Second Quarter of Segment
	\$961001068	0	0		0.00	0.00	0.00	SOLID	134	7	5	A Top Quarter of Segment
	\$961001059	0	0		0.00	0.00	0.00	SOLID	134	7	5A	W Whole Segment
	\$961002034	0	0		0.00	0.00	0.00	Liquid	134	7	5A	Liner Liquid
	\$961001119	0	0		0.00	0.00	0.00	Liquid	134	7	5B	Drainable Liquid
	\$961001070	0	0		0.00	0.00	0.00	SOLID	134	7	6A	W Whole Segment
	\$961001120	0	0		0.00	0.00	0.00	Liquid	134	7	6A	Liner Liquid
	\$961001121	0	0		0.00	0.00	0.00	Liquid	134	7	6A	Drainable Liquid
	\$961001128	0	0		0.00	0.00	0.00	SOLID	134	7	n/a	
	\$961002131	0	0		0.00	0.00	0.00	SOLID	135	2	1	W Whole Segment
	\$961002140	539.9	577.6		558.75	18.85	677.77	Liquid	135	2	1	Drainable Liquid
	\$9610021867	280.2	209.6		244.90	35.30	467.78	SOLID	135	2	2	W Whole Segment
	\$961002132	0	0		0.00	0.00	0.00	SOLID	135	2	1R	W Whole Segment
	\$961002141	558.2	516		537.60	21.60	673.88	Liquid	135	2	1R	Drainable Liquid
	\$961002133	0	0		0.00	0.00	0.00	SOLID	135	2	2A	W Whole Segment
	\$961002142	0	0		0.00	0.00	0.00	Liquid	135	2	2A	Drainable Liquid
	\$961001873	0	0		0.00	0.00	0.00	SOLID	135	2	2R	A Top Quarter of Segment
	\$961001874	0	0		0.00	0.00	0.00	SOLID	135	2	2R	B Second Quarter of Segment

WHC-SD-WM-DP-184, REV. 0

INORGANIC ANALYSES

WHC-SD-WM-DP-184, REV. 0

THIS PAGE WAS INTENTIONALLY LEFT BLANK

LABCORE Data Entry Template for Worklist#

5892

Analyst: RL McCorn

Instrument: DSC0 1

Book # 12N14B

Method: LA-514-113 Rev/Mod C-1

Worklist Comment: U-107 DSC RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID	<u>28.45</u>	<u>30.0</u>	<u>N/A</u>	Joules/g
96000085	U-107	2 SAMPLE	S96T000644	0	DSC-01	SOLID	<u>N/A</u>	<u>141.2</u>		Joules/g
96000085	U-107	3 DUP	S96T000644	0	DSC-01	SOLID	<u>141.2</u>	<u>132.1</u>	<u>N/A</u>	Joules/g
96000085	U-107	4 SAMPLE	S96T000647	0	DSC-01	SOLID	<u>N/A</u>	<u>9.6</u>		Joules/g
96000085	U-107	5 DUP	S96T000647	0	DSC-01	SOLID	<u>9.6</u>	<u>8.2</u>	<u>N/A</u>	Joules/g

Final page for worklist #

5892

RL McCorn 3/6/96
Analyst Signature Date

Dan Hammond 3-13-96
Analyst Signature Date

Verified by Blandina Valenzuela
3/19/96

Data Entry Comments:

S96T000644 produced an endotherm at 125.3°C with a
delta H of 1243.8 J/g.

S96T000647 produced two additional endotherms one at 136.2°C with a delta H of 42
J/g and second at 303.2°C with a delta H of 106.3 J/g.

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.

DSC STD 12N14B

8.901 mg

Rate: 10.0 °C/min

File: 00058.001

Ident: 0.0

DSC METTLER 07-Mar-96

222-S Laboratory

R McCown 3/6/96

exo

10. mW

Integration

Delta H 267 mJ

30.0 J/g

Peak 158.1°C

-18.4 mW

120.

140.

160.

180. °C

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 47 TO 51.

WHC-SD-WM-DP-184, REV. 0

S96T000644 SAM N2

21.138 mg

Rate: 10.0 °C/min

File: 00060.001

Ident: 0.0

DSC METTLER

06-Mar-96

S96T000644 DUP N2
 25.271 mg
 Rate: 10.0 °C/min
 File: 00062.001 DSC METTLER 06-Mar-96
 Ident: 0.0 222-S Laboratory

S96T000647 SAM N2

31.042 mg

File: 00064.001 DSC METTLER 06-Mar-96

Ident: 0.0 222-S Laboratory

Rate: 10.0 °C/min

exo >

S96T000647 DUP N2

46.918 mg

Rate: 10.0 °C/min

File: 00066.001

Ident: 0.0

06-Mar-96

DSC METTLER

222-S Laboratory

exo

50. mW

LABCORE Data Entry Template for Worklist#

5893

Analyst: RM Instrument: DSC0 1 Book # 12N14B

Method: LA-514-113 Rev/Mod C-1

Worklist Comment: U-107 DSC RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID	<u>28.45</u>	<u>30.2*</u>	<u>N/A</u>	Joules/g
96000085	U-107	2 SAMPLE	S96T000650	0	DSC-01	SOLID	<u>N/A</u>	<u>25.5</u>		Joules/g
96000085	U-107	3 DUP	S96T000650	0	DSC-01	SOLID	<u>25.5</u>	<u>10.7</u>	<u>N/A</u>	Joules/g
96000085	U-107	4 SAMPLE	S96T000653	0	DSC-01	SOLID	<u>N/A</u>	<u>13.9</u>		Joules/g
96000085	U-107	5 DUP	S96T000653	0	DSC-01	SOLID	<u>13.9</u>	<u>30.0</u>	<u>N/A</u>	Joules/g

Final page for worklist #

5893

Analyst Signature RM Date 3/6/96

Analyst Signature LS Date 3-6-96

Verified by Blandina Valenzuela
3/7/96

Data Entry Comments: S96T000650 produced a large endotherm at 123.3°C
with a delta H of 1074.5 J/g.

S96T000653 produced a large endotherm at ^{ADV} 8/133.3°C with a delta
H of 858.2 J/g.

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.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 53 TO 57.

DSC STD 12N14B

8.901 mg

Rate: 10.0 °C/min

File: 00041.001

Ident: 0.0

DSC METTLER 06-Mar-96

222-S Laboratory

exo >

10. mW

Integration
Delta H 269 mJ
30.2 J/g
Peak 157.8 °C
-20.1 mW

Blandina Valenzuela for RD Meyers
3/7/96

120.

140.

160.

180. °C

WHC-SD-WM-DP-184, REV. 0

S96T000650DUP N2
 52.300 mg
 Rate: 10.0 °C/min
 File: 00052.001
 Ident: 0.0
 DSC METTLER
 222-S Laboratory
 06-Mar-96

File: 00054.001 DSC METTLER 07-Mar-96

Ident: 0.0 222-S Laboratory

S96T000653 N2

73.010 mg

Rate: 10.0 °C/min

expt

50. mW

Integration

Delta H 1013 mJ

13.9 J/g

Peak 447.3°C

3.5 mW

Integration

Delta H 62219 mJ

852.2 J/g

Peak 133.3°C

-73.7 mW

S96T000653DUP N2

64.750 mg

Rate: 10.0 °C/min

File: 00056.001

Ident: 0.0

DSC METTLER 07-Mar-96

222-S Laboratory

 Δexo

50. mW

Integration
Delta H48039 mJ
741.9 J/g
Peak 135.3°C
-71.0 mW

Integration
Delta H 1945 mJ
30.0 J/g
Peak 449.5°C
6.6 mW

100.

200.

300.

400.

°C

LABCORE Data Entry Template for Worklist#

6035

Analyst: SMF Instrument: DSC0 1 Book # 12N14B

Method: LA-514-113 Rev/Mod C-1

Worklist Comment: U-107 DSC-01 RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID	<u>28.45</u>	<u>30.9*</u>	<u>N/A</u>	Joules/g
96000085	U-107	2 SAMPLE	S96T000683 0		DSC-01	SOLID	<u>N/A</u>	<u>12.4</u>		Joules/g
96000085	U-107	3 DUP	S96T000683 0		DSC-01	SOLID	<u>12.4</u>	<u>11.4</u>	<u>N/A</u>	Joules/g

Final page for worklist #

6035

Susan M. Jultor 3-5-96
Analyst Signature Date

Leisha Corlin
Analyst Signature Date

Verified by Blandina
Valenzuela 3/7/96

Data Entry Comments: Sample produced two endotherms, one at 136.3°C with
a delta H of 735.7J/g and second at 289.3°C with a delta H of
103.85J/g

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.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 59 TO 61.

DSC STD 12N14B

15.317 mg

Rate: 10.0 °C/min

File: 00031.001

Ident: 0.0

DSC METTLER 05-Mar-96

222-S Laboratory

S96T000683 N2

34.681 mg

Rate: 10.0 °C/min

File: 00037.001 DSC METTLER 06-Mar-96

Ident: 0.0 222-S Laboratory

exov

20. mW

°C

400.

300.

200.

100.

S96T000683 DUP N2

25.901 mg

Rate: 10.0 °C/min

File: 00039.001

Ident: 0.0

DSC METTLER

06-Mar-96

222-s Laboratory

exo

10. mW

°C

400.

300.

200.

100.

worklist rpt Version 2.1 05/15/95
04/16/96 15:46

WHC-SD-WM-DP-184, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist#

6511

Analyst: SME Instrument: DSC0 3 Book # 12N14BMethod: LA-514-114 Rev/Mod C-1

Worklist Comment: U-107 DSC RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-03	SOLID	28.45	27.49*	N/A	Joules/g
96000126	U-107	2 SAMPLE	S96T001055	0	DSC-03	SOLID	N/A	Ø		Joules/g
96000126	U-107	3 DUP	S96T001055	0	DSC-03	SOLID	Ø	Ø	N/A	Joules/g
96000126	U-107	4 SAMPLE	S96T001056	0	DSC-03	SOLID	N/A	Ø		Joules/g
96000126	U-107	5 DUP	S96T001056	0	DSC-03	SOLID	Ø	Ø	N/A	Joules/g

Final page for worklist #

6511

See attached for signatures
 Analyst Signature _____ Date 4/16/96
 Verified by H. Anastas 4-22-96

R. Stok 4/19/96
 Analyst Signature _____ Date

S96T001055 produced two endotherms, one at 109.3°C with a delta H of 211.1 J/g and second at 301.96°C with a delta H of 178.7 J/g.

Data Entry Comments: S96T001056 produced two endotherms, one at 109.0°C with a delta H of 296.4 J/g and second at 290.76°C with a delta H of 91.1 J/g

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.

WHC-SD-WM-DP-184, REV. 0

worklistrpt Version 2.1 05/15/95
03/14/96 14:32

Page: 1

LABCORE Data Entry Template for Worklist#

6511

Analyst: SME Instrument: DSC0 _____ Book # 12N14B

Method: LA-514-113 Rev/Mod _____

Worklist Comment: U-107 DSC RUN UNDER N2. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID	_____	_____	N/A	Joules/g
96000126	U-107	2	SAMPLE	S96T001055	0		DSC-01	SOLID	N/A	_____	_____	Joules/g
96000126	U-107	3	DUP	S96T001055	0		DSC-01	SOLID	_____	_____	N/A	Joules/g
96000126	U-107	4	SAMPLE	S96T001056	0		DSC-01	SOLID	N/A	_____	_____	Joules/g
96000126	U-107	5	DUP	S96T001056	0		DSC-01	SOLID	_____	_____	N/A	Joules/g

Final page for worklist #

6511

Susie M. Fulton 4-15-96
Analyst Signature Date

Analyst Signature Date

Other instrument
was used
4/16/96
P88V

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.

Curve 1: DSC

File info: IND041501 Mon Apr 15 05:53:45 1996

Sample Weight: 7.900 mg

12N14-B INDIUM AT 10C/MIN

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 64 TO 68.69
Heat Flow (mW)

WHC-SD-WM-DP-184, REV.0

N2, EXOTHERM DOWN

Temperature (°C)

TEMP: 140.0 °C TIME: 0.0 min RATE: 10.0 °C/min

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Mon Apr 15 05:54:43 1996

Curve 1: DSC

File info: SAM041504 Mon Apr 15 07:30:07 1996

Sample Weight: 26.740 mg

S96T001055

WHC-SD-WM-DP-184, REV 0

exotherm down, N2 purge gas

TEMP: 30.0 °C TIME: 0.0 min RATE: 10.0 °C/min

Temperature (°C)

SM FULTON

PERKIN-ELMER

7 Series Thermal Analysis System

Mon Apr 15 08:28:17 1996

Curve 1: DSC

File info: SAM041505 Mon Apr 15 09:23:21 1996

Sample Weight: 16.110 mg

S96T001055 DUP

WHC-SD-WM-DP-184, REV. 0

exotherm down, N2 purge gas
TEMP: 25.0 °C
TIME: 0.0 min RATE: 10.0 °C/min

Temperature (°C)

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Mon Apr 15 12:17:21 1996

Curve 1: DSC
File info: SAM041506 Mon Apr 15 13:19:28 1996
Sample Weight: 16.800 mg
S96T001055

WHC-SD-WM-DP-184, REV. 0

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Mon Apr 15 13:29:26 1996

Curve 1: DSC
File Info: SAM041507 Mon Apr 15 14:36:33 1996
Sample Weight: 22.080 mg
SS6T001056 DUP

89

WHC-SD-WM-DP-184, REV. 0

SM FILTON
PERKIN-ELMER
7 Series Thermal Analysis System
Mon Apr 15 15:36:48 1996

worklistrpt Version 2.1 05/15/95
04/17/96 11:51

WHC-SD-WM-DP-184, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist#

6512

Analyst: JDS

Instrument: DSC0 1

Book # 12N14B

Method: LA-514-113 Rev/Mod C-1

Worklist Comment: U-107 DSC RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID	28.45	27.0	N/A	Joules/g
96000126	U-107	2 SAMPLE	S96T001057	0	DSC-01	SOLID	N/A	147.0		Joules/g
96000126	U-107	3 DUP	S96T001057	0	DSC-01	SOLID	147.0	148.0	N/A	Joules/g
96000126	U-107	4 SAMPLE	S96T001058	0	DSC-01	SOLID	N/A	11.5		Joules/g
96000126	U-107	5 DUP	S96T001058	0	DSC-01	SOLID	11.5	79.7	N/A	Joules/g
96000126	U-107	6 TRIPL	S96T001058	0	DSC-01	SOLID	11.5	24.9	N/A	Joules/g

Final page for worklist #

6512

See attached for signatures

Analyst Signature

Date

4/17/96

Analyst Signature

Date

4-18-96

Verified by Blandina Valenzuela
4-22-96

Data Entry Comments:

S96T001057 produced an endotherm at 114.5°C with a delta H of 994.1 J/g.

S96T001058 produced two endotherms, one at 97.3°C with a delta H of 972.3 J/g and second at 270.5°C with a delta H of 25.7 J/g.

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.

The triplicate was run because the thermograms did not look alike. The dup and trip did not have two endotherms.

worklistrpt Version 2.1 05/15/95
03/14/96 14:34

WHC-SD-WM-DP-184, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist#

6512

Analyst: Jds Instrument: DSC0 Book # 12/1/90

Method: LA-514-113 Rev/Mod

Worklist Comment: U-107 DSC RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID			N/A	Joules/g
96000126	U-107	2 SAMPLE	S96T001057	0	DSC-01	SOLID	N/A			Joules/g
96000126	U-107	3 DUP	S96T001057	0	DSC-01	SOLID			N/A	Joules/g
96000126	U-107	4 SAMPLE	S96T001058	0	DSC-01	SOLID	N/A			Joules/g
96000126	U-107	5 DUP	S96T001058	0	DSC-01	SOLID			N/A	Joules/g

Final page for worklist #

6512

Analyst Signature Jds Date 4/17/96

Analyst Signature Date

Data Entry Comments:

Ran a Trip on S96T001058

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

11

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 71 TO 76.

72

S96T001057DUP N2

24.890 mg

Rate: 10.0 °C/min

File: 00053.001

DSC METTLER

16-Apr-96

Ident: 0.0

222-S Laboratory

ex>

50. mW

Integration
Delta H 3684 mJ
148.0 J/g
Peak 243.8°C
7.1 mW

Integration
Delta H34152 mJ
1372.1 J/g
Peak 133.4°C
-60.1 mW

°C

400.

300.

200.

100.

File: 00055.001 DSC METTLER 16-Apr-96
 Ident: 0.0 222-S Laboratory

Rate: 10.0 °C/min

S96T001058 N2
 54.750 mg

S96T001058DUP N2

11.490 mg

Rate: 10.0 °C/min

File: 00057.001 DSC METTLER 17-Apr-96

Ident: 0.0 222-S Laboratory

exo >

20. mW

Integration
Delta H 915 mJ
79.7 J/g
Peak 284.3 °C
2.2 mW

Integration
Delta H 9922 mJ
863.6 J/g
Peak 125.1 °C
-31.1 mW

100. 200. 300. 400. °C

LABCORE Data Entry Template for Worklist#

6515

Analyst: SME Instrument: DSC0 1 Book # 12K1413

Method: LA-514-113 Rev/Mod C-1

Worklist Comment: U-107 DSC RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID	<u>28.45</u>	<u>30.2</u>	<u>N/A</u>	Joules/g
96000126	U-107	2 SAMPLE	S96T001064	0	DSC-01	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g
96000126	U-107	3 DUP	S96T001064	0	DSC-01	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g
96000126	U-107	4 SAMPLE	S96T001065	0	DSC-01	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g
96000126	U-107	5 DUP	S96T001065	0	DSC-01	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g

Final page for worklist # 6515

Lusie M. Fulton 3-18-96
Analyst Signature Date 1500

Frank Coulin 3/23/96
Analyst Signature Date

Verified by Blandina Valenzuela 3/25/96

S96T001064 produced a large endotherm at 139.3°C with a delta H
with ^{slight} _{err} of 768.0J/g.

Data Entry Comments: S96T001065 produced two endotherms one at 111.3°C with
a delta H of 894.4J/g and second at 262.3°C with a delta H of
41.3J/g.

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.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 78 TO 82.

DSC STD 12N14B

10.800 mg

Rate: 10.0 °C/min

File: 00026.001

Ident: 0.0

DSC METTLER

18-Mar-96

222-S Laboratory

exo >

10. mW

Integration
Delta H 326 mJ
30.2 J/g
Peak 158.2°C
-21.7 mW

120.

140.

160.

180.

°C

Luis M. Fulton 3-18-96

WHC-SD-WM-DP-184, REV. 0

S96T001064 DUP N2
20.185 mg
Rate: 10.0 °C/min
File: 00030.001
Ident: 0.0
DSC METTLER
222-S Laboratory
18-Mar-96

S96T001065 DUP N2

15.631 mg

Rate: 10.0 °C/min

File: 00034.001

DSC METTLER

18-Mar-96

Ident: 0.0

222-S Laboratory

WHC-SD-WM-DP-184, REV. 0

worklistrpt Version 2.1 05/15/95

04/23/96 09:36

Page: 1

LABCORE Data Entry Template for Worklist#

6516

Analyst: SMF Instrument: DSC0 3 Book # 12N14BMethod: LA-514-114 Rev/Mod C-1

Worklist Comment: U-107 DSC RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-03	SOLID	<u>28.45</u>	<u>26.68</u>	<u>N/A</u>	Joules/g
96000126	U-107	2 SAMPLE	S96T001068	0	DSC-03	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g
96000126	U-107	3 DUP	S96T001068	0	DSC-03	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g
		4 STD			DSC-03	SOLID	<u>28.45</u>	<u>26.42</u>	<u>N/A</u>	Joules/g
96000085	U-107	5 SAMPLE	S96T001143	0	DSC-03	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g
96000085	U-107	6 DUP	S96T001143	0	DSC-03	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g
96000085	U-107	7 TRIPL	S96T001143	0	DSC-03	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g

Final page for worklist #

6516

See attached for signatures

Analyst Signature

Date

4/23/96

Analyst Signature

Date

Verified by Blandina Valenzuela

4/29/96

S96T001068 produced one large endotherm at 135.99°C with a delta H of 1218.6 J/g.

Data Entry Comments:

S96T001143 produced two endotherms one at 101.99°C

with a delta H of 141.82 J/g and second at 304.95°C with a delta H of 134.18 J/g

The AH was recalculated to include the correct sample weight.

4/29/96

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.

worklistrpt Version 2.1 05/15/95
03/14/96 14:40

WHC-SD-WM-DP-184, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist#

6516

Analyst: SMF Instrument: DSC0 Book # 12N14B

Method: LA-514-113 Rev/Mod _____

Worklist Comment: U-107 DSC RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID	_____	_____	N/A	Joules/g
96000126	U-107	2 SAMPLE	S96T001068	0	DSC-01	SOLID	N/A	_____	_____	Joules/g
96000126	U-107	3 DUP	S96T001068	0	DSC-01	SOLID	_____	_____	N/A	Joules/g
96000085	U-107	4 SAMPLE	S96T001143	0	DSC-01	SOLID	N/A	_____	_____	Joules/g
96000085	U-107	5 DUP	S96T001143	0	DSC-01	SOLID	_____	_____	N/A	Joules/g

Final page for worklist #

6516

Susie M. Fulbon 4-17-96
 Analyst Signature Date

Rev. Wright 4/22/96
 Analyst Signature Date

R. McLown 4/17/96

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.

85

Curve 1: DSC

File info: IND041701 Wed Apr 17 06:57:58 1996

Sample Weight: 7.900 mg

12N14-B INDIUM AT 10C/MIN

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 85 TO 91.

N2, EXOTHERM DOWN

TEMP: 140.0 °C TIME: 0.0 min RATE: 10.0 °C/min

TEMP: 180.0 °C

SM FULTON

PERKIN-ELMER

7 Series Thermal Analysis System

Wed Apr 17 06:59:20 1996

WHC-SD-WM-DP-184, REV. 0

98

Curve 1: DSC

File info: SAM041701 Wed Apr 17 07:49:42 1996

Sample Weight: 37.540 mg

S96T001068

exotherm down, N2 purge gas

 TEMP: 35.0 °C
 TEMPE: 500.0 °C
 TIMEs: 0.0 min
 RATEs: 10.0 °/min

Temperature (°C)

 SM FULTON
 PERKIN-ELMER
 7 Series Thermal Analysis System
 Wed Apr 17 08:32:53 1996

WHC-SD-WM-DP-184, REV. 0

87

Curve 1: DSC

File info: SAM041702 Wed Apr 17 09:29:00 1996

Sample Weight: 17.320 mg

S96T001058 DUP

WHC-SD-WM-DP-184, REV. 0

exotherm down, N2 purge gas

TEMP: 50.0 °C THERM: 500.0 °C TIMES: 0.0 min RATE: 10.0 °C/min

Temperature (°C)

SH FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Wed Apr 17 09:34:05 1996

12N14-B INDIUM AT 10C\MIN

WHC-SD-MM-DP-184, REV. 0

N2. EXOTHERM DOWN

TEMP: 140.0 C TIME: 0.0 min RATE: 10.0 C/min
TEMP: 180.0 C

PJ MCCOWN
PERKIN-ELMER
7 Series Thermal Analysis System
Wed Apr 17 18:33:20 1996

WHC-SD-WM-DP-184, REV. 0

Curve 1: DSC
 File Info: SAK041703 Wed Apr 17 20:09:28 1996
 Sample Weight: 187.130 mg
 SS6T001143 SAM
 should be 18.130 mg
 24m 4/17/96

Curve 1: DSC
 File info: SAM041704 Wed Apr 17 21:41:59 1996
 Sample Weight: 19.070 mg
 S96T001143 DUP

exotherm down, N2 purge gas

TEMP: 30.0 °C TIMES: 0.0 min RATE: 10.0 °C/min

Temperature (°C)

PJ MCCOWN
 PERKIN-ELMER
 7 Series Thermal Analysis System
 Wed Apr 17 21:47:22 1996

WHC-SD-WM-DP-184, REV. 0

04/23/96 10:12

509 372 2929

WESTINGHOUSE

MO-924 200W

023

WHC-SD-WM-DP-184, REV. 0

Curve 1: DSC
 File info: SAM041705 Wed Apr 17 23:05:39 1996
 Sample Height: 27.430 mg
 S95T001143 TRIP

worklistrpt Version 2.1 05/15/95
04/08/96 12:07

WHC-SD-WM-DP-184, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist#

6624

Analyst: RDM Instrument: DSC0 3 Book # 12N14BMethod: LA-514-114 Rev/Mod C-1

Worklist Comment: U-107 DSC RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-03	SOLID	<u>28.45</u>	<u>28.17</u>	<u>N/A</u>	Joules/g
96000126	U-107	2 SAMPLE	S96T001128	0	DSC-03	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g
96000126	U-107	3 DUP	S96T001128	0	DSC-03	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g

Final page for worklist #

6624

Analyst Signature

Date

Analyst Signature

Date

This is a composite sample 98 6-3-96

Data Entry Comments:

Sample produced two endotherms one at 145.45°C with a delta H of 423.48 J/g and second at 281.6°C with a delta H of 73.16 J/g.

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.

worklistrpt Version 2.1 05/15/95
03/18/96 13:29

WHC-SD-WM-DP-184, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist#

6624

Analyst: RM

Instrument: DSC0

Book # 7674 4/5/96Method: LA-514-113 Rev/Mod C-1

12N14B

Worklist Comment: U-107 DSC RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID			N/A	Joules/g
96000126	U-107	2 SAMPLE	S96T001128	0	DSC-01	SOLID	N/A			Joules/g
96000126	U-107	3 DUP	S96T001128	0	DSC-01	SOLID			N/A	Joules/g

Final page for worklist #

6624

RM 4/5/96
Analyst Signature Date

Analyst Signature Date

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.

Curve 1: DSC

File info: IND040401 Thu Apr 4 06:40:50 1996

Sample Weight: 7.900 mg

12N14-B INDIUM AT 10C/MIN

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 94 TO 96.

N2, EXOTHERM DOWN

TEMP: 140.0 °C TIME: 0.0 min RATES: 10.0 °C/min

Temperature (°C)

PJ MCCOWN
PERKIN-ELMER
7 Series Thermal Analysis System
Fri Apr 5 01:12:45 1996

Curve 1: DSC
 File info: sam040401 Thu Apr 4 22:24:09 1996
 Sample Weight: 50.100 mg
 S96T001128

WHC-SD-WM-DP-184, REV. 0

exotherm down, N2 purge gas
 TEMP: 35.0 °C
 TIME: 0.0 min RATE: 10.0 °C/min

Temperature (°C)

rd meyers
 PERKIN-ELMER
 7 Series Thermal Analysis System
 Fri Apr 5 00:51:34 1996

Curve 1: DSC

File info: sam040501 Fri Apr 5 01:42:46 1996

Sample Weight: 45.360 mg

S96T001128 DUP

96

Heat Flow (mW)

WHC-SD-MM-DP-184, REV. 0

exotherm down, N2 purge gas

Temperature (°C)

TEMP: 35.0 °C TIME: 0.0 min RATE: 10.0 °C/min

rd meyers
PERKIN-ELMER
7 Series Thermal Analysis System
Fri Apr 5 02:10:20 1996

worklistpt Version 2.1 05/15/95
04/03/96 11:38

WHC-SD-WM-DP-184, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist#

6627

Analyst: RDM Instrument: DSC0 1 Book # 12N14B

Method: LA-514-113 Rev/Mod C-1

Worklist Comment: U-107 DSC RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID	<u>28.45</u>	<u>32.0</u>	<u>N/A</u>	Joules/g
96000126	U-107	2 SAMPLE	S96T001059	0	DSC-01	SOLID	<u>N/A</u>	<u>0</u>		Joules/g
		3 STD			DSC-01	SOLID	<u>28.45</u>	<u>32.4</u>	<u>N/A</u>	Joules/g
96000126	U-107	4 DUP	S96T001059	0	DSC-01	SOLID	<u>0</u>	<u>0</u>	<u>N/A</u>	Joules/g
		5 STD			DSC-01	SOLID	<u>28.45</u>	<u>32.4</u>	<u>N/A</u>	Joules/g
96000126	U-107	6 SAMPLE	S96T001070	0	DSC-01	SOLID	<u>N/A</u>	<u>0</u>		Joules/g
96000126	U-107	7 DUP	S96T001070	0	DSC-01	SOLID	<u>0</u>	<u>0</u>	<u>N/A</u>	Joules/g

Final page for worklist#

6627

See Attached for Signatures

Analyst Signature Date

Jenik Conh 4/11/96

Analyst Signature Date

Verified by Blandina Valenzuela 4/15/96

S96T001059 produced two endotherms, one at 95.6°C with a delta H of 794.0 J/g and second at 286.0°C with a delta H of 88.17 J/g.

Data Entry Comments: S96T001070 produced one endotherm at 103.3°C with a delta H of 1801.0 J/g.

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.

worklistrpt Version 2.1 05/15/95
03/18/96 13:31

WHC-SD-WM-DP-184, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist#

6627

Analyst: ERM Instrument: DSC0 1 Book # 12M14-BMethod: LA-514-113 Rev/Mod C1

Worklist Comment: U-107 DSC RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID	<u>28.45</u>	<u>32.0</u>	<u>N/A</u>	Joules/g
96000126	U-107	2 SAMPLE	S96T001059	0	DSC-01	SOLID	<u>N/A</u>			Joules/g
96000126	U-107	3 DUP	S96T001059	0	DSC-01	SOLID			<u>N/A</u>	Joules/g
96000126	U-107	4 SAMPLE	S96T001070	0	DSC-01	SOLID	<u>N/A</u>			Joules/g
96000126	U-107	5 DUP	S96T001070	0	DSC-01	SOLID			<u>N/A</u>	Joules/g

Final page for worklist #

6627

ERM 3/21/96
 Analyst Signature Date

 Analyst Signature Date

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.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 99 TO 105.

DSC STD 12N14-B

9.010 mg

Rate: 10.0 °C/min

File: 00079.001

DSC METTLER 29-Mar-96

Ident: 0.0

222-S Laboratory

Heather Anastos for Rob Meyers 4296

WHC-SD-WM-DP-184, REV. 0

100

LOI

10. mW

DSC STD 12N14-B

9.010 mg

Rate: 10.0 °C/min

File: 00094.001

DSC METTLER 30-Mar-96

Ident: 0.0

222-S Laboratory

exo>

Integration

Delta H 292 mJ

32.4 J/g

Peak 158.5°C

-19.1 mW

120.

140.

160.

180.

°C

Blandina Valenzuela for RD Meyers 4/15/96

WHC-SD-WM-DP-184, REV. 0

103

WHC-SD-WM-DP-184, REV. 0

worklistrpt Version 2.1 05/15/95

03/18/96 14:39

Page: 1

LABCORE Data Entry Template for Worklist#

6655

Analyst: SMF Instrument: DSC0 1 Book # 12N14BMethod: LA-514-113 Rev/Mod C-1

Worklist Comment: U-107 DSC RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	LIQUID	<u>28.45</u>	<u>30.1</u>	<u>N/A</u>	Joules/g
96000085	U-107	2 SAMPLE	S96T000665	0	DSC-01	LIQUID	<u>N/A</u>	<u>54.8</u>		Joules/g
96000085	U-107	3 DUP	S96T000665	0	DSC-01	LIQUID	<u>54.8</u>	<u>53.7</u>	<u>N/A</u>	Joules/g
96000085	U-107	4 SAMPLE	S96T000682	0	DSC-01	LIQUID	<u>N/A</u>	<u>65.3</u>		Joules/g
96000085	U-107	5 DUP	S96T000682	0	DSC-01	LIQUID	<u>65.3</u>	<u>63.7</u>	<u>N/A</u>	Joules/g

Final page for worklist #

6655

Lusie M. Dalton 4-17-96
 Analyst Signature Date

L. Jones 4-18-96
 Analyst Signature Date

Verified by Al Knaster 4-22-96

Data Entry Comments: S96T000665 produced an endotherm at 117.6°C with a delta H of 1008.2 J/g

The results given are the sum of two exotherms.

S96T000682 produced an endotherm at 112.5°C with a delta H of 958.2 J/g.

The results given are the sum of two exotherms

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.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 107 TO 111.

DSC STD 12N14B

7.900 mg

Rate: 10.0 °C/min

File: 00061.001

Ident: 0.0

DSC METTLER 17-Apr-96

222-S Laboratory

WHC-SD-WM-DP-184, REV. 0

108

109

S96T000665 DUP N2

17.488 mg

Rate: 10.0 °C/min

File: 00065.001

DSC METTLER 17-Apr-96

Ident: 0.0

222-S Laboratory

WHC-SD-WM-DP-184, REV. 0

S96T000682 N2
12.749 mg
File: 00067.001 DSC METTLER 17-Apr-96
Ident: 0.0 222-S Laboratory

Rate: 10.0 °C/min

exo >

100. 200. 300. 400. °C

20. mW

110

111

S96T000682 DUP N2

13.452 mg

Rate: 10.0 °C/min

File: 00069.001 DSC METTLER 17-Apr-96

Ident: 0.0

222-S Laboratory

worklistrpt Version 2.1 05/15/95
03/20/96 11:13

WHC-SD-WM-DP-184, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist#

6753

Analyst: RK Instrument: DSC0 1 Book # 12114-BMethod: LA-514-113 Rev/Mod C-1

Worklist Comment: U-107 FOR DSC-01 PLEASE RUN UNDER N2 RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID	<u>28.45</u>	<u>28.6*</u>	<u>N/A</u>	Joules/g
96000085	U-107	2 SAMPLE	S96T001159	0	DSC-01	SOLID	<u>N/A</u>	<u>9.4</u>		Joules/g
96000085	U-107	3 DUP	S96T001159	0	DSC-01	SOLID	<u>9.4</u>	<u>14.5</u>	<u>N/A</u>	Joules/g

Final page for worklist #

6753

Analyst Signature RK Date 4/22/96Analyst Signature [Signature] Date 4/24/96Verified by Blandina Valenzuela
4-29-96

This sample is a composite sample 99- 6-3-96

Data Entry Comments: Sample produced two endothermic regions, one with a peak at 45.4°C with a delta H of 582.4 J/g and second at 283.9°C with a delta H of 88.1 J/g.

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.

113

Mob Rem 4/22/96

S96T001159 N2

15.855 mg

Rate: 10.0 °C/min

File: 00059.001 DSC METTLER 22-Apr-96

Ident: 0.0 222-S Laboratory

exov

10. mW

Integration

Delta H 9816 mJ
582.4 J/g
Peak 145.4°C
-20.8 mW

Integration

Delta H 1485 mJ
88.1 J/g
Peak 283.9°C
-6.3 mW

Integration

Delta H 159 mJ
9.4 J/g
Peak 380.3°C
0.5 mW

Not N2 4/22/01

111

115

S96T001159 DUP N2

10.725 mg

Rate: 10.0 °C/min

File: 00060.001

DSC METTLER

22-Apr-96

Ident: 0.0

222-S Laboratory

Not Wing 4/22/96

worklistrpt Version 2.1 05/15/95

WHC-SD-WM-DP-184, REV. 0

Page: 1

04/17/96 10:35

LABCORE Data Entry Template for Worklist#

7587

Analyst: SME Instrument: DSC0 3 Book # 12N14BMethod: LA-514-114 Rev/Mod C-1

Worklist Comment: U-107 DSC RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-03	LIQUID	<u>28.45</u>	<u>27.78</u>	<u>N/A</u>	Joules/g
96000126	U-107	2 SAMPLE	S96T001119	0	DSC-03	LIQUID	<u>N/A</u>	<u>Ø</u>		Joules/g
96000126	U-107	3 DUP	S96T001119	0	DSC-03	LIQUID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g
96000126	U-107	4 SAMPLE	S96T001120	0	DSC-03	LIQUID	<u>N/A</u>	<u>Ø</u>		Joules/g
96000126	U-107	5 DUP	S96T001120	0	DSC-03	LIQUID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g
96000126	U-107	6 SAMPLE	S96T001121	0	DSC-03	LIQUID	<u>N/A</u>	<u>Ø</u>		Joules/g
96000126	U-107	7 DUP	S96T001121	0	DSC-03	LIQUID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g

Final page for worklist #

7587

See attached for signatures

Analyst Signature

Date

4/17/96

Bor

Analyst Signature

Date

4-19-96Verified by Alanastos 4-22-96

S96T001119 produced an endotherm at 124.5°C with a delta H of 1094.9 J/g.

S96T001120 produced an endotherm at 110.69°C with a delta H of 1947.5 J/g.

Data Entry Comments: S96T001121 produced two endotherms one at 113.8°C

With a delta H of 2097.76 J/g and second at 301.5°C with a delta H of 11.7 J/g.

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.

WHC-SD-WM-DP-184, REV. 0

worklistrpt Version 2.1 05/15/95

04/11/96 09:55

Page: 1

LABCORE Data Entry Template for Worklist#

7587

Analyst: SMF Instrument: DSC0 _____ Book # 12N14B

Method: LA-514-113 Rev/Mod _____

Worklist Comment: U-107 DSC RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	LIQUID	_____	_____	N/A	Joules/g
96000126	U-107	2 SAMPLE	S96T001110	0	DSC-01	LIQUID	N/A	_____	_____	Joules/g
96000126	U-107	3 DUP	S96T001110	0	DSC-01	LIQUID	_____	_____	N/A	Joules/g
96000126	U-107	4 SAMPLE	S96T001119	0	DSC-01	LIQUID	N/A	_____	_____	Joules/g
96000126	U-107	5 DUP	S96T001119	0	DSC-01	LIQUID	_____	_____	N/A	Joules/g
96000126	U-107	6 SAMPLE	S96T001120	0	DSC-01	LIQUID	N/A	_____	_____	Joules/g
96000126	U-107	7 DUP	S96T001120	0	DSC-01	LIQUID	_____	_____	N/A	Joules/g
96000126	U-107	8 SAMPLE	S96T001121	0	DSC-01	LIQUID	N/A	_____	_____	Joules/g
96000126	U-107	9 DUP	S96T001121	0	DSC-01	LIQUID	_____	_____	N/A	Joules/g

Final page for worklist #

7587

Susie M. Dalton 4-16-96
 Analyst Signature _____ Date _____

 Analyst Signature _____ Date _____

Data Entry Comments:

S96T001110 - EMPTY

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.

Curve 1: DSC

File info: IND041601 Tue Apr 16 06:46:25 1996

Sample Height: 7.900 mg

12N14-B INDIUM AT 10C/MIN

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 118 TO 123.1

N2, EXOTHERM DOWN

TEMP: 180.0 °C TIMES: 0.0 min RATE: 10.0 °C/min

Temperature (°C)

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Tue Apr 16 06:56:14 1996

WHC-SD-WM-DP-184, REV. 0

Curve 1: DSC

File info: SAM041501 Tue Apr 16 09:20:00 1996

Sample Weight: 15.240 mg

S96T001119

119

exotherm down, N2 purge gas

TEMP: 25.0 °C TIME: 0.0 min RATE: 10.0 °C/min

Temperature (°C)

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Tue Apr 16 09:21:52 1996

WHC-SD-WM-DP-184, REV. 0

Curve 1: DSC

File Info: SAN041502 Tue Apr 16 10:20:29 1996

Sample Weight: 13.480 mg

S96T004119 DUP

SM FULTON
 PERKIN-ELMER
 7 Series Thermal Analysis System
 Tue Apr 16 10:23:50 1996

WHC-SD-WM-DP-184, REV. 0

Curve 1: DSC

File info: SAM041603 Tue Apr 16 11:28:17 1996

Sample Weight: 10.900 mg

S96T001120

WHC-SD-WM-DP-184, REV. 0

exotherm down, N2 purge gas

TEMP: 35.0 °C
TEMP: 500.0 °C

TIME: 0.0 min RATE: 10.0 °C/min

Temperature (°C)

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Tue Apr 16 12:41:07 1996

Curve 1: DSC

File info: SAM041604 Tue Apr 16 13:38:49 1996

Sample Weight: 10.780 mg

S96T001120 DUP

Curve 1: DSC
 File info: SAM041605 Tue Apr 16 14:51:28 1996
 Sample Weight: 10.430 mg
 S96T001124

SH FULTON
 PERKIN-ELMER
 7 Series Thermal Analysis System
 Tue Apr 16 15:28:25 1996

04/17/96 14:33 3509 372 2929 WESTINGHOUSE MO-924 200W 013

123.1

Curve 1: DSC
 File info: SAM041606 Tue Apr 16 16:27:03 1996
 Sample Weight: 10.040 mg
 S96T001121 DUP

WHC-SD-WM-DP-184, REV. 0

exotherm down, N2 purge gas
 TEM: 35.0 °C TIME: 0.0 min RATE: 10.0 °/min
 TMR: 606.0 °C

Temperature (°C)

SM FULTON
 PERKIN-ELMER
 7 Series Thermal Analysis System
 Tue Apr 16 16:26:32 1996

LABCORE Data Entry Template for Worklist#

8025

Analyst: KRM **Instrument:** DSC0 1 **Book #** 12N14B

Method: LA-514-113 Rev/Mod C-1

Worklist Comment: U-107, Run under Nitrogen. new

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	SOLID	<u>28.45</u>	<u>27.4</u>	*	Joules/g
96000422	U-107	2	SAMPLE	S96T001867	0		DSC-01	SOLID	<u>N/A</u>	<u>140.6</u>		Joules/g
96000422	U-107	3	DUP	S96T001867	0		DSC-01	SOLID	<u>140.6</u>	<u>105.2</u>	<u>N/A</u>	Joules/g
96000422	U-107	4	SAMPLE	S96T001873	0		DSC-01	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g
		5	STD				DSC-01	SOLID	<u>28.45</u>	<u>30.3</u>	*	Joules/g
96000422	U-107	6	DUP	S96T001873	0		DSC-01	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g

Final page for worklist #

8025

See Attached for Signatures

Analyst Signature Date

Analyst Signature Date

Validated by Hhanastos 5-13-96

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.

LABCORE Data Entry Template for Worklist#

8025

Analyst: KRM **Instrument:** DSC0 **Book #** 12N14B

Method: LA-514-113 Rev/Mod C-1

Worklist Comment: U-107, Run under Nitrogen. new

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID			N/A	Joules/g
96000422	U-107	2 SAMPLE	S96T001867	0	DSC-01	SOLID	N/A			Joules/g
96000422	U-107	3 DUP	S96T001867	0	DSC-01	SOLID			N/A	Joules/g
96000422	U-107	4 SAMPLE	S96T001873	0	DSC-01	SOLID	N/A			Joules/g
		STD								
96000422	U-107	5 DUP	S96T001873	0	DSC-01	SOLID			N/A	Joules/g

Final page for worklist #

8025

5-7-96
Analyst Signature Date

5/13/96
Analyst Signature Date

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.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 126 TO 131.

DSC STD 12N14-B

10.500 mg

Rate: 10.0 °C/min

File: 00039.001

DSC METTLER 07-May-96

Ident: 0.0

222-S Laboratory

exo

10. mW

Integration

Delta H 288 mJ

27.4 J/g

Peak 159.2°C

-17.9 mW

120.

140.

160.

180. °C

Handwritten signature 5-7-96

S96T001867 DUP N2

8.130 mg

Rate: 10.0 °C/min

File: 00047.001 DSC METTLER 08-May-96

Ident: 0.0 222-S Laboratory

128

WHC-SD-WM-DP-184, REV. 0

DSC STD 12N14-B

10.500 mg

Rate: 10.0 °C/min

File: 00050.001

Ident: 0.0

DSC METTLER

06-May-96

222-S Laboratory

exo

10. mW

Integration

Delta H 318 mJ

30.3 J/g

Peak

158.6 °C

-19.6 mW

120. 140. 160. 180. °C

Robert J. Miller 5-8-96

S96T001873 DUP N2
11.469 mg
Rate: 10.0 °C/min
File: 00060.001
Ident: 0.0
DSC METTLER
222-S Laboratory
09-May-96

LABCORE Data Entry Template for Worklist#

8229

Analyst: ADP **Instrument:** DSC0 1 **Book #** 12N14B

Method: LA-514-113 Rev/Mod C-1

Worklist Comment: U-107. Run under nitrogen. new

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	LIQUID	28.45	31.5*	N/A	Joules/g
96000126	U-107	2 SAMPLE	S96T002034	0	DSC-01	LIQUID	N/A	Ø		Joules/g
96000126	U-107	3 DUP	S96T002034	0	DSC-01	LIQUID	Ø	Ø	N/A	Joules/g

Final page for worklist #

8229

Analyst Signature

5-12-96
Date

Analyst Signature

5-13-96
Date

Validated by Hanastis 5-14-96

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.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 133 TO 135.

DSC STD 12N14-B N2

10.500 mg

Rate: 10.0 °C/min

File: 00007.001

Ident: 0.0

DSC METTLER 12-May-96

222-S Laboratory

133

WHC-SD-WM-DP-184, REV. 0

S96T002034 SAM N2

19.600 mg

Rate: 10.0 °C/min

File: 00012.001 DSC METTLER 12-May-96

Ident: 0.0

222-S Laboratory

exo

50. mW

Integration
Delta H16348 mJ
834.1 J/g
Peak 101.3°C
-73.4 mW

100.

200.

300.

400.

°C

S96T002034 DUP N2

18.855 mg

Rate: 10.0 °C/min

File: 00013.001 DSC METTLER 12-May-96

Ident: 0.0

222-S Laboratory

135

LABCORE Data Entry Template for Worklist#

8230

Analyst: ADP **Instrument:** DSC0 3 **Book #** 12N14B

Method: LA-514-114 Rev/Mod C-1

Worklist Comment: U-107. Run under nitrogen. new

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-03	SOLID	<u>28.45</u>	<u>29.20</u>	<u>N/A</u>	Joules/g
96000422	U-107	2 SAMPLE	S96T001874	0	DSC-03	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g
96000422	U-107	3 DUP	S96T001874	0	DSC-03	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g

Final page for worklist #

8230

See attached for signatures

Analyst Signature ADP **Date** 5-21-96

KE Wright 5/21/96

Analyst Signature KE Wright **Date** 5/21/96

Validated by Hhnastr 5-22-96

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.

LABCORE Data Entry Template for Worklist#

8230

Analyst: ADD Instrument: DSC0 3 Book # 12N14B

Method: LA-514-113 Rev/Mod C-1

Worklist Comment: U-107. Run under nitrogen. new

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID			N/A	Joules/g
96000422	U-107	2 SAMPLE	S96T001874	0	DSC-01	SOLID	N/A			Joules/g
96000422	U-107	3 DUP	S96T001874	0	DSC-01	SOLID			N/A	Joules/g

Final page for worklist #

8230

Arthur Parente 5-16-96
Analyst Signature Date

Analyst Signature Date

Other instrument was used.

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.

Curve 1: DSC

File Info: IND051603 Thu May 16 22:33:50 1996

Sample Weight: 11.620 mg

12N14-B INDIUM AT 10C/MIN

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 139 TO 140.

WHC-SD-WM-DP-184, REV. 0

Curve 1: DSC

File info: SAM051601 Thu May 16 23:51:23 1996

Sample Weight: 28.110 mg

S96T001874 SAM

139

WHC-SD-WM-DP-184, REV.0

AD PURINTON
PERKIN-ELMER
7 Series Thermal Analysis System
Thu May 16 23:58:47 1996

Curve 1: DSC

File info: SAM051602 Fri May 17 01:00:20 1996

Sample Weight: 30.990 mg

S96T001674 SAM

exotherm down, N2 purge gas

TEMP 555.0 °C TIME 1: 0.0 min RATE: 10.0 °C/min

AD PURINTON
PERKIN-ELMER

7 Series Thermal Analysis System
Fri May 17 01:02:48 1996

LABCORE Data Entry Template for Worklist#

8245

Analyst: ADP Instrument: DSC0 71 Book # 12N14B

Method: LA-514-113 Rev/Mod C-1

Worklist Comment: U-107. Run under nitrogen. new

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID	<u>28.45</u>	<u>27.8</u>	<u>N/A</u>	Joules/g
96000422	U-107	2 SAMPLE	S96T002132	0	DSC-01	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g
96000422	U-107	3 DUP	S96T002132	0	DSC-01	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g

Final page for worklist #

8245

See attached for signatures
Analyst Signature _____ Date 5-21-96

Analyst Signature _____ Date _____

Validated by H. Anestis 5-22-96

Data Entry Comments:

*The second endotherm on the thermogram
maybe due to Aluminum Hydroxide.*

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.

LABCORE Data Entry Template for Worklist#

8245

Analyst: APD Instrument: DSC0 Book # 12N19B

Method: LA-514-113 Rev/Mod C-1

Worklist Comment: U-107. Run under nitrogen, new

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID			N/A	Joules/g
96000422	U-107	2 SAMPLE	S96T002131	0	DSC-01	SOLID	N/A			Joules/g
96000422	U-107	3 DUP	S96T002131	0	DSC-01	SOLID			N/A	Joules/g
96000422	U-107	4 SAMPLE	S96T002132	0	DSC-01	SOLID	N/A			Joules/g
96000422	U-107	5 DUP	S96T002132	0	DSC-01	SOLID			N/A	Joules/g

Final page for worklist # 8245

Anthony Parente 05-15-96
Analyst Signature Date

Herb Wright 5/21/96
Analyst Signature Date

S96T002131 moved to WL# 9028

5-21-96
DW

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.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 143 TO 145.

DSC STD 12N14B

10.500 mg

Rate: 10.0 °C/min

File: 00043.001

Ident: 0.0

DSC METTLER 15-May-96

222-S Laboratory

exo

10. mW

Integration

Delta H 313 mJ

29.8 J/g

Peak 158.6 °C

-19.9 mW

120.

140.

160.

180. °C

Anthony P. Smith 051576

WHCSD-WM-DP-184, REV. 0

S96T002132 DUP N2

25.183 mg

Rate: 10.0 °C/min

File: 00045.001

DSC METTLER

15-May-96

Ident: 0.0 222-S Laboratory

LABCORE Data Entry Template for Worklist#

8437

Analyst: KRM **Instrument:** DSC0 | **Book #** 12N14B

Method: LA-514-113 Rev/Mod C-1

Worklist Comment: U-107 DSC RUN UNDER N2. RCJ

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	STD				DSC-01	LIQUID	<u>28.45</u>	<u>30.3</u>	<u>N/A</u>	Joules/g
96000422	U-107	2	SAMPLE	S96T002140	0		DSC-01	LIQUID	<u>N/A</u>	<u>256.4</u>		Joules/g
96000422	U-107	3	DUP	S96T002140	0		DSC-01	LIQUID	<u>256.4</u>	<u>274.3</u>	<u>N/A</u>	Joules/g
96000422	U-107	4	SAMPLE	S96T002141	0		DSC-01	LIQUID	<u>N/A</u>	<u>296.2</u>		Joules/g
96000422	U-107	5	DUP	S96T002141	0		DSC-01	LIQUID	<u>296.2</u>	<u>273.3</u>	<u>N/A</u>	Joules/g

Final page for worklist # 8437

Analyst Signature

5-8-96
Date

Analyst Signature

5-13-96
Date

Validated by HAnastor 5-14-96

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.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 147 TO 151.

DSC STD 12N14-B

10.500 mg

Rate: 10.0 °C/min

File: 00050.001

DSC METTLER 08-May-96

Ident: 0.0

222-S Laboratory

WHC-SD-WM-DP-184, REV. 0

John F. White 5-8-96

S96T002140 N2

17.232 mg

Rate: 10.0 °C/min

File: 00052.001 DSC METTLER 08-May-96

Ident: 0.0

222-S Laboratory

S96T002140 DUP N2

18.781 mg

Rate: 10.0 °C/min

File: 00054.001

DSC METTLER 08-May-96

Ident: 0.0

222-S Laboratory

S96T002141 N2

25.381 mg

Rate: 10.0 °C/min

File: 00056.001

DSC METTLER 08-May-96

Ident: 0.0

222-S Laboratory

S96T002141 DUP N2

18.053 mg

Rate: 10.0 °C/min

File: 00058.001

DSC METTLER 09-May-96

Ident: 0.0

222-S Laboratory

LABCORE Data Entry Template for Worklist#

8438

Analyst: ADP **Instrument:** DSC0 3 **Book #** 12N14B

Method: LA-514-114 Rev/Mod C-1

Worklist Comment: U-107 DSC RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-03	LIQUID	28.45	28.91	* N/A	Joules/g
96000422	U-107	2 SAMPLE	S96T002142	0	DSC-03	LIQUID	N/A	Ø		Joules/g
96000422	U-107	3 DUP	S96T002142	0	DSC-03	LIQUID	Ø	Ø	N/A	Joules/g

Final page for worklist #

8438

See Attached for Signatures
Analyst Signature **Date**

PLB/LL 5-14-96
Analyst Signature **Date**

Validated by H Anastro 5-15-96

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.

LABCORE Data Entry Template for Worklist#

8438

Analyst: ADP **Instrument:** DSC0 3 **Book #** 12N14B

Method: LA-514-113 Rev/Mod C-1

Worklist Comment: U-107 DSC RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	LIQUID			N/A	Joules/g
96000422	U-107	2 SAMPLE	S96T002142	0	DSC-01	LIQUID	N/A			Joules/g
96000422	U-107	3 DUP	S96T002142	0	DSC-01	LIQUID			N/A	Joules/g

Final page for worklist #

8438

Anthony Purnator 5-12-96
Analyst Signature **Date**

Analyst Signature **Date**

Other Instrument was used.

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.

Curve 1: DSC

File info: IND051201 Sun May 12 05:48:54 1996

Sample Weight: 12.080 mg

12N14-B INDIUM AT 10C/MIN

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 154 TO 156.

N₂, EXOTHERM DOWN

TEMP: 140.0 °C TIMES: 0.0 min RATE: 10.0 °C/min

Curve 1: DSC

File info: SAM051208 Sun May 12 14:08:35 1996

Sample Weight: 15.800 mg

S96T002142 SAM

WHC-SD-WM-DP-184, REV. 0

AD PURINTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sun May 12 14:09:39 1996

Curve 1: DSC

File info: SAM051209 Sun May 12 15:04:10 1996

Sample Weight: 29.510 mg

S96T002142 DUP

AD PURINTON
PERKIN-ELMER
7 Series Thermal Analysis System
Sun May 12 15:23:42 1996

LABCORE Data Entry Template for Worklist#

8439

Analyst: ADP

Instrument: DSC01

Book # 12N14B

Method: LA-514-113 Rev/Mod C-1

Worklist Comment: U-107 DSC RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID	<u>28.45</u>	<u>29.2*</u>	<u>N/A</u>	Joules/g
96000422	U-107	2 SAMPLE	S96T002133	0	DSC-01	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g
96000422	U-107	3 DUP	S96T002133	0	DSC-01	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g

Final page for worklist #

8439

Anthony Purno 5-15-96
Analyst Signature Date

TE Wright 5/21/96
Analyst Signature Date

Validated by HAnast 5-22-96

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.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 158 TO 160.

DSC STD 12N14B

10.500 mg

Rate: 10.0 °C/min

File: 00043.001

DSC METTLER

15-May-96

Ident: 0.0

222-S Laboratory

exo

10. mW

Integration

Delta H 307 mJ

29.2 J/g

Peak 158.6°C

-19.9 mW

120.

140.

160.

180. °C

Anthony P. ... 05-15-96

S96T002133 SAM N2

32.850 mg

Rate: 10.0 °C/min

File: 00054.001

DSC METTLER

15-May-96

Ident: 0.0

222-S Laboratory

exo >

20. mW

S96T002133 DUP N2
 21.010 mg
 Rate: 10.0 °C/min
 File: 00056.001
 Ident: 0.0
 DSC METTLER
 222-S Laboratory
 15-May-96

LABCORE Data Entry Template for Worklist#

8949

Analyst: RMcCown **Instrument:** DSC0 1 **Book #** 12N14B

Method: LA-514-113 Rev/Mod C-1

Worklist Comment: U-107 FOR DSC-01 RUN UNDER N2 . RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	LIQUID	<u>28.45</u>	<u>32.3</u>	<u>N/A</u>	Joules/g
96000422	U-107	2 SAMPLE	S96T001866 0		DSC-01	LIQUID	<u>N/A</u>	<u>Ø</u>		Joules/g
96000422	U-107	3 DUP	S96T001866 0		DSC-01	LIQUID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g

Final page for worklist #

8949

RMcCown 5/23/96
Analyst Signature **Date**

RHStal 5-28-96
Analyst Signature **Date**

Verified/Validated by

Blandina Valenzuela
5-31-96

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.

DSC STD 12N148

8.148 mg

Rate: 10.0 °C/min

File: 00015.001

Ident: 0.0

DSC METTLER 23-May-96

222-S Laboratory

Re McCorn 5/23/96

exo

10. mW

Integration
Delta H 263 mJ
32.3 J/g
Peak 159.9°C
-15.4 mW

120.

140.

160.

180. °C

S96T001866 N2

15.117 mg

Rate: 10.0 °C/min

File: 00017.001

Ident: 0.0

DSC METTLER 23-May-96

222-S Laboratory

R. McCorn 5/23/96

exo

50.05 mW

Integration

Delta H22179 mJ

1467.2 J/g

Peak 95.3°C

-73.4 mW

100.

200.

300.

400.

°C

163

WMC-SD-WM-MDP-184, REV. 0

S96T001866 DUP N2

20.707 mg

Rate: 10.0 °C/min

File: 00020.001

DSC METTLER 23-May-96

Ident: 0.0

222-S Laboratory

DSMCCown 5/23/96

164

LABCORE Data Entry Template for Worklist#

9021

Analyst: BOY Instrument: DSC01 Book #

Method: LA-514-113 Rev/Mod

Worklist Comment: Dry DSC for U-107. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
96000085	U-107	1 SAMPLE	S96T000665	0	DSC-02	LIQUID	N/A	117.2		Joules/g Dry
96000085	U-107	2 DUP	S96T000665	0	DSC-02	LIQUID	117.2	114.8	N/A	Joules/g Dry
96000085	U-107	3 SAMPLE	S96T000682	0	DSC-02	LIQUID	N/A	129.7		Joules/g Dry
96000085	U-107	4 DUP	S96T000682	0	DSC-02	LIQUID	129.7	126.6	N/A	Joules/g Dry
96000422	U-107	5 SAMPLE	S96T002140	0	DSC-02	LIQUID	N/A	539.9		Joules/g Dry
96000422	U-107	6 DUP	S96T002140	0	DSC-02	LIQUID	539.9	577.6	N/A	Joules/g Dry
96000126	U-107	7 SAMPLE	S96T001119	0	DSC-02	LIQUID	N/A	Ø		Joules/g Dry
96000126	U-107	8 DUP	S96T001119	0	DSC-02	LIQUID	Ø	Ø	N/A	Joules/g Dry
96000126	U-107	9 SAMPLE	S96T001120	0	DSC-02	LIQUID	N/A	Ø		Joules/g Dry
96000126	U-107	10 DUP	S96T001120	0	DSC-02	LIQUID	Ø	Ø	N/A	Joules/g Dry
96000126	U-107	11 SAMPLE	S96T001121	0	DSC-02	LIQUID	N/A	Ø		Joules/g Dry
96000126	U-107	12 DUP	S96T001121	0	DSC-02	LIQUID	Ø	Ø	N/A	Joules/g Dry
96000126	U-107	13 SAMPLE	S96T002034	0	DSC-02	LIQUID	N/A	Ø		Joules/g Dry
96000126	U-107	14 DUP	S96T002034	0	DSC-02	LIQUID	Ø	Ø	N/A	Joules/g Dry
96000422	U-107	15 SAMPLE	S96T002141	0	DSC-02	LIQUID	N/A	559.2		Joules/g Dry
96000422	U-107	16 DUP	S96T002141	0	DSC-02	LIQUID	559.2	516.0	N/A	Joules/g Dry
96000422	U-107	17 SAMPLE	S96T002142	0	DSC-02	LIQUID	N/A	Ø		Joules/g Dry
96000422	U-107	18 DUP	S96T002142	0	DSC-02	LIQUID	Ø	Ø	N/A	Joules/g Dry

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.

LABCORE Data Entry Template for Worklist#

9021

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

Final page for worklist #

9021

Blandina Valenzuela 5-28-96
Analyst Signature Date

Analyst Signature Date

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.

U-107

WHC-SD-WM-DP-184, REV. 0

CALCULATED DRY DSC			
SAMPLE NO.	DSC RESULT (J/g)	TGA RESULT (% water)	DRY DSC RESULT
S96T000665	54.8	53.23	117.2
665D	53.7	53.23	114.8
682	65.3	49.67	5-24-18 DOSE 129.7
682D	63.7	49.67	126.6
1866	5-24-18 DOSE DOSE	5-24-18 DOSE DOSE	
1866D			
2140	256.4	52.51	539.9
2140D	274.3	52.51	577.6
1119	Ø	—	Ø
1119D	Ø	—	Ø
1120	Ø	—	Ø
1120D	Ø	—	Ø
1121	Ø	—	Ø
1121D	Ø	—	Ø
2034	Ø	98.16	Ø
2034D	Ø	98.16	Ø
2141	296.2	47.03	559.2
2141D	273.3	47.03	516.0
2142	Ø	—	Ø
2142D	Ø	—	Ø

WHC-SD-WM-DP-184, REV. 0
LABCORE Data Entry Template for Worklist#

9022

Analyst: BDY Instrument: DSC01 Book # —

Method: LA-514-113 Rev/Mod —

Worklist Comment: Dry DSC for U-107. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
96000085	U-107	1 SAMPLE	S96T000650	0	DSC-02	SOLID	N/A	<u>33.78</u>		Joules/g Dry
96000085	U-107	2 DUP	S96T000650	0	DSC-02	SOLID	<u>33.78</u>	<u>14.18</u>	N/A	Joules/g Dry
96000085	U-107	3 SAMPLE	S96T000653	0	DSC-02	SOLID	N/A	<u>16.77</u>		Joules/g Dry
96000085	U-107	4 DUP	S96T000653	0	DSC-02	SOLID	<u>16.77</u>	<u>36.19</u>	N/A	Joules/g Dry
96000085	U-107	5 SAMPLE	S96T000644	0	DSC-02	SOLID	N/A	<u>271.3</u>		Joules/g Dry
96000085	U-107	6 DUP	S96T000644	0	DSC-02	SOLID	<u>271.3</u>	<u>253.8</u>	N/A	Joules/g Dry
96000085	U-107	7 SAMPLE	S96T000647	0	DSC-02	SOLID	N/A	<u>11.95</u>		Joules/g Dry
96000085	U-107	8 DUP	S96T000647	0	DSC-02	SOLID	<u>11.95</u>	<u>10.21</u>	N/A	Joules/g Dry
96000085	U-107	9 SAMPLE	S96T000683	0	DSC-02	SOLID	N/A	<u>15.30</u>		Joules/g Dry
96000085	U-107	10 DUP	S96T000683	0	DSC-02	SOLID	<u>15.30</u>	<u>14.07</u>	N/A	Joules/g Dry
96000126	U-107	11 SAMPLE	S96T001055	0	DSC-02	SOLID	N/A	<u>0</u>		Joules/g Dry
96000126	U-107	12 DUP	S96T001055	0	DSC-02	SOLID	<u>0</u>	<u>0</u>	N/A	Joules/g Dry
96000126	U-107	13 SAMPLE	S96T001128	0	DSC-02	SOLID	N/A	<u>0</u>		Joules/g Dry
96000126	U-107	14 DUP	S96T001128	0	DSC-02	SOLID	<u>0</u>	<u>0</u>	N/A	Joules/g Dry
96000085	U-107	15 SAMPLE	S96T001143	0	DSC-02	SOLID	N/A	<u>0</u>		Joules/g Dry
96000085	U-107	16 DUP	S96T001143	0	DSC-02	SOLID	<u>0</u>	<u>0</u>	N/A	Joules/g Dry
96000085	U-107	17 TRIPL	S96T001143	0	DSC-02	SOLID	<u>0</u>	<u>0</u>	N/A	Joules/g Dry
96000085	U-107	18 SAMPLE	S96T001159	0	DSC-02	SOLID	N/A	<u>11.80</u>		Joules/g Dry

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.

LABCORE Data Entry Template for Worklist#

9022

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
96000085	U-107	19 DUP	S96T001159	0	DSC-02	SOLID	<u>11.80</u>	<u>18.20</u>	<u>N/A</u>	Joules/g Dry

Final page for worklist #

9022

Blandina Valenzuela 5-28-96
Analyst Signature Date

Analyst Signature Date

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.

11-107

WHC-SD-WM-DP-184, REV. 0

CALCULATED DRY DSC			
SAMPLE NO.	DSC RESULT (J/g)	TGA RESULT (% water)	DRY DSC RESULT
SP16T000650	25.5	24.52	33.78
650D	10.7	24.52	14.18
653	13.9	17.11	16.77
653D	30.0	17.11	36.19
644	141.2	47.96	271.3
644D	132.1	47.96	253.8
647	9.6	19.68	11.95
647D	8.2	19.68	10.21
683	12.4	18.95	15.30
683D	11.4	18.95	14.07
794		5-29-96 B001	
794D			
1055	Ø	—	Ø
1055D	Ø	—	Ø
1128	Ø	—	Ø
1128D	Ø	—	Ø
1143	Ø	6.40 *	Ø
1143D	Ø	6.40 *	Ø
1159	9.4	20.33	11.80
1159D	14.5	20.33	18.20
1143T	Ø	—	Ø

* Avg of 3 results

LABCORE Data Entry Template for Worklist#

9023

Analyst: BDY Instrument: DSC01 Book #

Method: LA-514-113 Rev/Mod

Worklist Comment: Dry DSC for U-107. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
96000422	U-107	1 SAMPLE	S96T002131	0	DSC-02	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g Dry
96000422	U-107	2 DUP	S96T002131	0	DSC-02	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g Dry
96000126	U-107	3 SAMPLE	S96T001056	0	DSC-02	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g Dry
96000126	U-107	4 DUP	S96T001056	0	DSC-02	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g Dry
96000126	U-107	5 SAMPLE	S96T001057	0	DSC-02	SOLID	<u>N/A</u>	<u>232.9</u>		Joules/g Dry
96000126	U-107	6 DUP	S96T001057	0	DSC-02	SOLID	<u>232.9</u>	<u>234.5</u>	<u>N/A</u>	Joules/g Dry
96000126	U-107	7 SAMPLE	S96T001058	0	DSC-02	SOLID	<u>N/A</u>	<u>18.11</u>		Joules/g Dry
96000126	U-107	8 DUP	S96T001058	0	DSC-02	SOLID	<u>18.11</u>	<u>125.5</u>	<u>N/A</u>	Joules/g Dry
96000126	U-107	9 TRIPL	S96T001058	0	DSC-02	SOLID	<u>18.11</u>	<u>39.22</u>	<u>N/A</u>	Joules/g Dry
96000126	U-107	10 SAMPLE	S96T001059	0	DSC-02	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g Dry
96000126	U-107	11 DUP	S96T001059	0	DSC-02	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g Dry
96000126	U-107	12 SAMPLE	S96T001064	0	DSC-02	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g Dry
96000126	U-107	13 DUP	S96T001064	0	DSC-02	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g Dry
96000126	U-107	14 SAMPLE	S96T001065	0	DSC-02	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g Dry
96000126	U-107	15 DUP	S96T001065	0	DSC-02	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g Dry
96000126	U-107	16 SAMPLE	S96T001068	0	DSC-02	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g Dry
96000126	U-107	17 DUP	S96T001068	0	DSC-02	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g Dry
96000126	U-107	18 SAMPLE	S96T001070	0	DSC-02	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g Dry

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.

LABCORE Data Entry Template for Worklist#

9023

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
96000126	U-107	19 DUP	S96T001070	0	DSC-02	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g Dry

Final page for worklist #

9023

Blandina Valenzuela 5-28-96
Analyst Signature Date

Analyst Signature Date

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.

U-107

WHC-SD-WM-DP-184, REV. 0

CALCULATED DRY DSC			
SAMPLE NO.	DSC RESULT (J/g)	TGA RESULT (% water)	DRY DSC RESULT
S96TD02131	Ø	—	Ø
2131D	Ø	—	Ø
1056	Ø	—	Ø
1056D	Ø	—	Ø
1057	147.0	36.88	232.9
1057D	148.0	36.88	234.5
1058	11.5	36.51 *	18.11
1058D	79.7	36.51 *	125.5
1059	Ø	21.26	Ø
1059D	Ø	21.26	Ø
1064	Ø	—	Ø
1064D	Ø	—	Ø
1065	Ø	—	Ø
1065D	Ø	—	Ø
1068	Ø	40.82	Ø
1068D	Ø	40.82	Ø
1070	Ø	91.23	Ø
1070D	Ø	91.23	Ø
1058T	24.9	36.51 *	39.22

5-29-96 BSV

* ~~average of 3 numbers~~ Avg of 3 numbers

LABCORE Data Entry Template for Worklist#

9024

Analyst: Bdv Instrument: DSC01 Book # _____

Method: LA-514-113 Rev/Mod _____

Worklist Comment: Dry DSC for U-107. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
96000422	U-107	1 SAMPLE	S96T001867	0	DSC-02	SOLID	N/A	280.2		Joules/g Dry
96000422	U-107	2 DUP	S96T001867	0	DSC-02	SOLID	280.2	209.6	N/A	Joules/g Dry
96000422	U-107	3 SAMPLE	S96T001873	0	DSC-02	SOLID	N/A	Ø		Joules/g Dry
96000422	U-107	4 DUP	S96T001873	0	DSC-02	SOLID	Ø	Ø	N/A	Joules/g Dry
96000422	U-107	5 SAMPLE	S96T001874	0	DSC-02	SOLID	N/A	Ø		Joules/g Dry
96000422	U-107	6 DUP	S96T001874	0	DSC-02	SOLID	Ø	Ø	N/A	Joules/g Dry
96000422	U-107	7 SAMPLE	S96T002132	0	DSC-02	SOLID	N/A	Ø		Joules/g Dry
96000422	U-107	8 DUP	S96T002132	0	DSC-02	SOLID	Ø	Ø	N/A	Joules/g Dry
96000422	U-107	9 SAMPLE	S96T002133	0	DSC-02	SOLID	N/A	Ø		Joules/g Dry
96000422	U-107	10 DUP	S96T002133	0	DSC-02	SOLID	Ø	Ø	N/A	Joules/g Dry

Final page for worklist #

9024

Blandina Valenzuela 5/22/96
Analyst Signature Date

Analyst Signature Date

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.

WHC-SD-WM-DP-184, REV. 0

[illegible]

LABCORE Data Entry Template for Worklist#

9028

Analyst: ADP **Instrument:** DSC0 3 **Book #** 12N14B

Method: LA-514-114 Rev/Mod C-1

Worklist Comment: U-107. Run under N2.

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-03	SOLID	<u>28.45</u>	<u>28.94</u>	<u>*</u>	Joules/g
96000422	U-107	2 SAMPLE	S96T002131	0	DSC-03	SOLID	<u>N/A</u>	<u>Ø</u>	<u>N/A</u>	Joules/g
96000422	U-107	3 DUP	S96T002131	0	DSC-03	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g

Final page for worklist #

9028

Blandina Valenzuela for AD Purinton RH 5-22-96
Analyst Signature **Date** **Analyst Signature** **Date**
Validated by H. Anastro 5-22-96

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.

Curve 1: DSC

File info: IND051502 Wed May 15 16:29:24 1996

Sample Weight: 11.620 mg

12N14-B INDIUM AT 10C/MIN

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 177 TO 179.

N2, EXOTHERM DOWN

TEMP: 140.0 °C TIME: 0.0 min RATE: 10.0 °C/min

Temperature (°C)

AD PURINTON
PERKIN-ELMER
7 Series Thermal Analysis System
Wed May 15 16:32:15 1996

Curve 1: DSC

File info: SAM051505 Wed May 15 21:10:51 1996

Sample Weight: 42.390 mg

S96T002131 SAM

TEMP: 25.0 °C

TEMP: 500.0 °C

TIME: 0.0 min

RATE: 10.0 °C/min

Temperature (°C)

AD PURINTON

PERKIN-ELMER

7 Series Thermal Analysis System

Wed May 15 21:23:13 1996

WHC-SD-WM-DP-184, REV.0

Curve 1: DSC

File info: SAM051506 Wed May 15 22:19:47 1996

Sample Weight: 29.090 mg

S96T002131 DUP

exotherm down, N2 purge gas

Temperature (°C)

TEMP: 25.0 °C

TIME: 0.0 min

RATE: 10.0 °C/min

AD PURINTON

PERKIN-ELMER

7 Series Thermal Analysis System

Wed May 15 22:20:25 1996

LABCORE Data Entry Template for Worklist#

9283

Analyst: BDV Instrument: DSC01 Book # _____

Method: LA-514-113 Rev/Mod _____

Worklist Comment: Dry DSC for U-107. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
96000422	U-107	1 SAMPLE	S96T001866	0	DSC-02	LIQUID	N/A	Ø		Joules/g Dry
96000422	U-107	2 DUP	S96T001866	0	DSC-02	LIQUID	Ø	Ø	N/A	Joules/g Dry

Final page for worklist #

9283

Analyst Signature

Date

Analyst Signature

Date

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.

LABCORE Data Entry Template for Worklist#

5890

Analyst:

Rom

Instrument: TGA0

1

Book #

75N0A

Method: LA-560-112 Rev/Mod

B-1

Worklist Comment: U-107 TGA RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	59.2	60.43*	N/A	%
96000085	U-107	2 SAMPLE	S96T000650	0	TGA-01	SOLID	N/A	22.19		%
96000085	U-107	3 DUP	S96T000650	0	TGA-01	SOLID	22.19	26.84	N/A	%
96000085	U-107	4 SAMPLE	S96T000653	0	TGA-01	SOLID	N/A	16.78		%
96000085	U-107	5 DUP	S96T000653	0	TGA-01	SOLID	16.78	17.43	N/A	%

Final page for worklist #

5890

Analyst Signature

Date

3/6/96

Analyst Signature

Date

3-6-96

Verified by Blandina Valenzuela

3/7/96

Data Entry Comments:

^{RCJ}
^{3/6/96}
S96T000650 results are the sum of two ^{RCJ} ^{3/6/96} weight loss steps

S96T000653 results are the sum of two weight loss steps.

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.

TGA STD 75N8A

25.608 mg

Rate: 10.0 °C/min

File: 00042.001

TG

METTLER

06-Mar-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height-15.47 mg

-60.43 %

Resid. 10.13 mg

39.57 %

Dpeak 99.2 °C

WHC-SD-WM-DP-184, REV. 0

Blandina Valenzuela for RD Meyers

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 182 TO 186.

S96T000650 N2

67.851 mg

Rate: 10.0 °C/min

File: 00051.001 TG METTLER 06-Mar-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -4.85 mg

-7.15 %

ResiC. 63.00 mg

92.85 %

Step Analysis

Height-10.21 mg

-15.04 %

ResiC. 52.79 mg

77.80 %

Dpeak 143.0 °C

5.5 mg

100. 200. 300. 400. °C

183

WHC-SD-WM-DP-184, REV. 0

S96T000650DUP N2

File: 00053.001

TG

METTLER

06-Mar-96

49.194 mg

Rate: 10.0 °C/min

Ident: 0.0

222-S Laboratory

Step Analysis

Height -5.96 mg

-12.12 %

ResidC. 43.20 mg

87.82 %

Step Analysis

Height -7.24 mg

-14.72 %

ResidC. 35.96 mg

73.09 %

Dpeak 143.0 °C

184

5. mg

100. 200. 300. 400. °C

WHC-SD-WM-DP-184, REV. 0

S96T000653 N2

77.143 mg

Rate: 10.0 °C/min

File: 00055.001 TG METTLER 07-Mar-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -3.67 mg

-4.75 %

ResiC. 73.42 mg

95.17 %

Step Analysis

Height -9.28 mg

-12.03 %

ResiC. 64.14 mg

83.15 %

Dpeak 145.0 °C

185

5 mg

100. 200. 300. 400. °C

S96T000653DUP N2

50.690 mg

Rate: 10.0 °C/min

File: 00057.001 TG METTLER 07-Mar-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -2.90 mg

-5.73 %

ResiC. 47.76 mg

94.22 %

Step Analysis

Height -5.93 mg

-11.70 %

ResiC. 41.83 mg

82.52 %

Dpeak 137.0 °C

LABCORE Data Entry Template for Worklist#

5891

Analyst: RL McCown Instrument: TGA0 1 Book # 7528A

Method: LA-560-112 Rev/Mod B-1

Worklist Comment: U-107 TGA RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	59.2	51.32	0.19/76001	%
96000085	U-107	2 SAMPLE	S96T000644	0	TGA-01	SOLID	N/A	48.57		%
96000085	U-107	3 DUP	S96T000644	0	TGA-01	SOLID	48.57	47.34	N/A	%
96000085	U-107	4 SAMPLE	S96T000647	0	TGA-01	SOLID	N/A	21.1		%
96000085	U-107	5 DUP	S96T000647	0	TGA-01	SOLID	21.1	18.26	N/A	%

Final page for worklist #

5891

RL McCown 3/6/96
Analyst Signature Date

Paul Condo 3/12/96
Analyst Signature Date

Verified by Blandina Valenzuela 3/18/96

Data Entry Comments: S96T000644 results are the sum of two weight loss steps
S96T000647 results are the sum of two weight loss steps

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.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 188 TO 192

TGA STD 75N8A

20.334 mg

Rate: 10.0 °C/min

File: 00059.001 TG METTLER 07-Mar-96

Ident: 0.0

222-S Laboratory

B. McLow 2/6/96

Step Analysis

Height-12.06 mg

-59.32 %

Resid. 8.27 mg

40.68 %

Dpeak 85.8 °C

S96T000644 SAM N2

34.073 mg

Rate: 10.0 °C/min

File: 00061.001 TG METTLER 06-Mar-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -8.03 mg

-23.56 %

ResiC. 26.04 mg

76.44 %

Step Analysis

Height -8.52 mg

-25.01 %

ResiC. 17.52 mg

51.43 %

Dpeak 137.0 °C

S96T000644 DUP N2

File: 00063.001 TG METTLER 06-Mar-96

30.100 mg

Rate: 10.0 °C/min

Ident: 0.0

222-S Laboratory

Step Analysis

Height -8.52 mg

-28.30 %

ResiC. 21.58 mg

71.70 %

Step Analysis

Height -5.73 mg

-19.04 %

ResiC. 15.85 mg

52.66 %

Dpeak 137.0 °C

190

6w. g
5. g

100. 200. 300. 400. °C

S96T000647 SAM N2

31.939 mg

Rate: 10.0 °C/min

File: 00065.001

Ident: 0.0

TG

METTLER

06-Mar-96

222-S Laboratory

Step Analysis

Height -3.45 mg
-10.81 %
Resid. 28.49 mg
89.19 %

Step Analysis

Height -3.29 mg
-10.29 %
Resid. 25.20 mg
78.90 %
Dpeak 137.0 °C

S96T000647 DUP N2

34.217 mg

Rate: 10.0 °C/min

File: 00067.001

TG

METTLER

06-Mar-96

Ident: 0.0

222-S Laboratory

LABCORE Data Entry Template for Worklist#

6027

Analyst: SMF **Instrument:** TGA0 1 **Book #** 7508A

Method: LA-560-112 Rev/Mod B-1

Worklist Comment: U-107 TGA-01 RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	<u>59.2</u>	<u>60.58*</u>	<u>N/A</u>	%
96000085	U-107	2 SAMPLE	S96T000683	0	TGA-01	SOLID	<u>N/A</u>	<u>18.52</u>		%
96000085	U-107	3 DUP	S96T000683	0	TGA-01	SOLID	<u>18.52</u>	<u>19.37</u>	<u>N/A</u>	%

Final page for worklist #

6027

Susie M. Fuller 3-5-96
Analyst Signature **Date**

RMH 3/7/96
Analyst Signature **Date**

Verified by Bandina
Valenzuela
3/7/96

Data Entry Comments: The results given are the sum of two weight loss steps.

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.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 184 TO 195.

TGA STD 75N8A

16.087 mg

Rate: 10.0 °C/min

File: 00032.001 TG METTLER 05-Mar-96

Ident: 0.0 222-S Laboratory

Step Analysis

Height -9.75 mg

-60.58 %

ResiC. 6.34 mg

39.42 %

Dpeak 83.3 °C

194

WHC-SD-WM-DF-184, REV. 0

S96T000683 N2

18.868 mg

Rate: 10.0 °C/min

File: 00038.001 TG METTLER 06-Mar-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -1.98 mg

-10.48 %

ResiC. 16.89 mg

89.52 %

Step Analysis

Height -1.52 mg

-8.04 %

ResiC. 15.36 mg

81.40 %

Dpeak 135.0 °C

194,1

WHC-SD-WM-DP-184, REV. 0

S96T000683 DUP N2

28.499 mg

Rate: 10.0 °C/min

File: 00040.001

TG

METTLER

06-Mar-96

Ident: 0.0

222-S Laboratory

Step Analysis
Height -3.03 mg
-10.63 %
ResiC. 25.47 mg
89.37 %

Step Analysis
Height -2.49 mg
-8.74 %
ResiC. 22.98 mg
80.63 %
Dpeak 137.0 °C

worklistrpt Version 2.1 05/15/95
04/16/96 15:44

WHC-SD-WM-DP-184, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist#

6499

Analyst: SMF Instrument: TGA0 3 Book # 82N8AMethod: LA-514-114 Rev/Mod C-1

Worklist Comment: U-107 TGA RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-03	SOLID	<u>59.2</u>	<u>59.37</u>	*	N/A %
96000126	U-107	2 SAMPLE	S96T001055	0	TGA-03	SOLID	<u>N/A</u>	<u>6.94</u>	<u>6.94</u>	<u>4/16/96</u> %
96000126	U-107	3 DUP	S96T001055	0	TGA-03	SOLID	<u>6.94</u>	<u>7.60</u>		N/A %
96000126	U-107	4 SAMPLE	S96T001056	0	TGA-03	SOLID	<u>N/A</u>	<u>13.12</u>		%
96000126	U-107	5 DUP	S96T001056	0	TGA-03	SOLID	<u>13.12</u>	<u>12.26</u>		N/A %

Final page for worklist #

6499

See attached for signatures
Analyst Signature _____ Date 4/16/96RLP/SL 04/19/96
Analyst Signature _____ Date _____Verified by
HAnastos 4-22-96

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.

WHC-SD-WM-DP-184, REV. 0

worklistrpt Version 2.1 05/15/95

03/14/96 13:29

Page: 1

LABCORE Data Entry Template for Worklist#

6499

Analyst: SMF Instrument: TGA0 _____ Book # 82N8A

Method: LA-560-112 Rev/Mod _____

Worklist Comment: U-107 TGA RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	_____	_____	N/A	%
96000126	U-107	2 SAMPLE	S96T001055	0	TGA-01	SOLID	N/A	_____	_____	%
96000126	U-107	3 DUP	S96T001055	0	TGA-01	SOLID	_____	_____	N/A	%
96000126	U-107	4 SAMPLE	S96T001056	0	TGA-01	SOLID	N/A	_____	_____	%
96000126	U-107	5 DUP	S96T001056	0	TGA-01	SOLID	_____	_____	N/A	%

Final page for worklist #

6499

Susie M. Julton 4-15-96
Analyst Signature Date_____
Analyst Signature Date

Other instrument
was used
4/16/96
BBV

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.

197

0009
WESTINGHOUSE
MO-924 200W
372 2829
10.56
04/18/96

Curve 1: TGA
File info: TER041501 Mon Apr 15 06:12:10 1996
Sample Weight: 21.445 mg
TGA STD 82N8-A

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 198 TO 202

198

Weight (Wt. %)

WHC-SD-WM-DP-184, REV. 0

Susie M. Daulton 4-15-96

N2 10C/MIN
TEMP: 35.0 °C
TIME: 0.0 min RATE: 10.0 °C/min

Temperature (°C)

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Mon Apr 15 06:18:26 1996

Curve 1: TGA

File info: SAM041504 Mon Apr 15 07:35:48 1996

Sample Weight: 12.179 mg

S96T001055

WHC-SD-WM-DP-184, REV. 0

10C/MIN N2

TEMP: 35.0 °C
TEMP: 500.0 °C

TIME: 0.0 min RATE: 10.0 °C/min

Temperature (°C)

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Mon Apr 15 08:34:51 1996

Curve 1: TGA

File info: SAM041505 Mon Apr 15 09:27:07 1996

Sample Weight: 21.256 mg

S96T001055 DUP

WHC-SD-WM-DP-184, REV. 0

10C/MIN N2

TEMP: 35.0 °C
TEMP: 500.0 °C

TIME: 0.0 min RATE: 10.0 °C/min

Temperature (°C)

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Mon Apr 15 12:26:16 1996

Curve 1: TGA

File info: SAM041506 Mon Apr 15 13:21:51 1996

Sample Weight: 22.822 mg

S96T001056

201

Weight (Wt. %)

WHC-SD-MM-DP-184, REV. 0

10C/MIN N2

TEMP: 35.0 °C TIME: 0.0 min RATE: 10.0 °C/min

Temperature (°C)

SM FULTON

PERKIN-ELMER

7 Series Thermal Analysis System

Mon Apr 15 13:37:22 1996

Curve 1: TGA
 File Infor: SAM041507 Mon Apr 15 14:38:55 1996
 Sample Weight: 17.932 mg
 S96T001056 DUP

WHC-SD-WM-DP-184, REV. 0

SH FULLTON
 PERKIN-ELMER
 7 Series Thermal Analysis System
 Mon Apr 15 15:30:49 1996

worklistrpt Version 2.1 05/15/95
04/17/96 11:54

WHC-SD-WM-DP-184, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist#

6500

Analyst: JDS Instrument: TGA0 1 Book # 82N8AMethod: LA-560-112 Rev/Mod B-1Worklist Comment: U-107 TGA RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	<u>59.2</u>	<u>59.18*</u>	<u>N/A</u>	%
96000126	U-107	2 SAMPLE	S96T001057 0		TGA-01	SOLID	<u>N/A</u>	<u>34.53</u>		%
96000126	U-107	3 DUP	S96T001057 0		TGA-01	SOLID	<u>34.53</u>	<u>39.23</u>	<u>N/A</u>	%
96000126	U-107	4 SAMPLE	S96T001058 0		TGA-01	SOLID	<u>N/A</u>	<u>44.21</u>		%
96000126	U-107	5 DUP	S96T001058 0		TGA-01	SOLID	<u>44.21</u>	<u>38.19</u>	<u>N/A</u>	%
96000126	U-107	6 TRIPL	S96T001058 0		TGA-01	SOLID	<u>44.21</u>	<u>37.14</u>	<u>N/A</u>	%

Final page for worklist #

6500

See attached for signatures

Analyst Signature 4/17/96 Date

Analyst Signature _____ Date _____

Verified by Blandina Valenzuela
4-22-96Data Entry Comments: S96T001057 produced an additional weight loss step of 1.67%S96T001058 results are the sum of two weight loss steps. A trip was run because of the difference between thermograms.

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.

worklistrpt Version 2.1 05/15/95
03/14/96 13:31

WHC-SD-WM-DP-184, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist#

6500

Analyst:

JCS

Instrument: TGA0

Book #

82N8A

Method: LA-560-112 Rev/Mod

Worklist Comment: U-107 TGA RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID			N/A	%
96000126	U-107	2 SAMPLE	S96T001057	0	TGA-01	SOLID	N/A			%
96000126	U-107	3 DUP	S96T001057	0	TGA-01	SOLID			N/A	%
96000126	U-107	4 SAMPLE	S96T001058	0	TGA-01	SOLID	N/A			%
96000126	U-107	5 DUP	S96T001058	0	TGA-01	SOLID			N/A	%

Final page for worklist #

6500

Analyst Signature

Date

Analyst Signature

Date

Data Entry Comments:

Ran a Trip on S96T001058

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.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 225 TO 210.

TGA STD 82N8A

22.553 mg

Rate: 10.0 °C/min

File: 00041.001

TG

METTLER

16-Apr-96

Ident: 0.0

222-S Laboratory

WHC-SD-WM-DP-184, REV. 0

206

207

S96T001057DUP N2

16.320 mg

Rate: 10.0 °C/min

File: 00054.001

TG

METTLER

16-Apr-96

Ident: 0.0

222-S Laboratory

S96T001058 N2

13.445 mg

Rate: 10.0 °C/min

File: 00056.001
Ident: 0.0
TG METTLER
222-S Laboratory

Step Analysis
Height -5.00 mg
-37.16 %
Resic. 8.45 mg
62.84 %

Step Analysis
Height -0.95 mg
-7.05 %
Resic. 7.46 mg
55.51 %

2. mg

100. 200. 300. 400. °C

208

602

S96T001058DUP N2

18.346 mg

Rate: 10.0 °C/min

File: 00058.001 TG METTLER 17-Apr-96

Ident: 0.0

222-S Laboratory

210

S96T001058 TRP N2

19.894 mg

Rate: 10.0 °C/min

File: 00060.001

TG

METTLER

17-Apr-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -2.09 mg

-10.51 %

ResiC. 17.80 mg

89.49 %

5. mg

Step Analysis

Height -5.30 mg

-26.63 %

ResiC. 12.49 mg

62.76 %

Dpeak 147.0 °C

LABCORE Data Entry Template for Worklist#

6501

Analyst: SMF Instrument: TGA0 1 Book # 75 N8-A

Method: LA-560-112 Rev/Mod B-1

Worklist Comment: U-107 TGA RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	<u>59.2</u>	<u>60.62</u>	<u>N/A</u>	%
96000126	U-107	2 SAMPLE	S96T001064	0	TGA-01	SOLID	<u>N/A</u>	<u>23.61</u>		%
96000126	U-107	3 DUP	S96T001064	0	TGA-01	SOLID	<u>23.61</u>	<u>22.76</u>	<u>N/A</u>	%
96000126	U-107	4 SAMPLE	S96T001065	0	TGA-01	SOLID	<u>N/A</u>	<u>22.65</u> <u>27.64</u>	<u>3/21/96</u>	<u>NDV</u> %
96000126	U-107	5 DUP	S96T001065	0	TGA-01	SOLID	<u>27.64</u>	<u>27.64</u>	<u>N/A</u>	%

Final page for worklist #

6501

Lucie M. Fulton 3-18-96
Analyst Signature Date
1500

RPD/SL 3/22/96
Analyst Signature Date

Verified by Heather Anastas 3-25-96

Data Entry Comments:

S95T001065 results are the sum of three weight
loss steps.

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.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 212 TO 215.

TGA STD 75N8A

13.258 mg

Rate: 10.0 °C/min

File: 00027.001

TG

METTLER

18-Mar-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -8.04 mg

-60.62 %

ResiC. 5.22 mg

39.38 %

Dpeak 75.0 °C

212

5. mg

WHCSD-WM-DP-184, REV. 0

Signature 3-18-96

S96T001064 N2

26.801 mg

Rate: 10.0 °C/min

File: 00029.001

TG

METTLER

18-Mar-96

Ident: 0.0

222-S Laboratory

Step Analysis
Height -6.33 mg
-23.61 %
ResiC. 20.47 mg
76.39 %
Dpeak 63.0°C

242

5. mg

S96T001065 N2

17.027 mg

Rate: 10.0 °C/min

File: 00033.001 TG METTLER 18-Mar-96

Ident: 0.0 222-S Laboratory

Step Analysis

Height -1.72 mg

-10.11 %

ResiC. 15.31 mg

89.89 %

Step Analysis

Height -2.40 mg

-14.11 %

ResiC. 12.87 mg

75.61 %

Step Analysis

Height -0.75 mg

-4.43 %

ResiC. 12.12 mg

71.15 %

Dpeak 179.0 °C

2. mg

°C

400.

300.

200.

100.

214.1

S96T001065 DUP N2

26.154 mg

Rate: 10.0 °C/min

File: 00035.001

TG METTLER

18-Mar-96

Ident: 0.0 222-S Laboratory

worklist rpt Version 2.1 05/15/95
04/23/96 09:48

WHC-SD-WM-DP-184, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist#**6502**Analyst: SMF Instrument: TGA0 3 Book # 82N8AMethod: LA-514-114 Rev/Mod C-1Worklist Comment: U-107 TGA RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-03	SOLID	<u>59.2</u>	<u>59.16</u>	<u>N/A</u>	%
96000126	U-107	2 SAMPLE	S96T001068	0	TGA-03	SOLID	<u>N/A</u>	<u>38.28</u>		%
96000126	U-107	3 DUP	S96T001068	0	TGA-03	SOLID	<u>38.28</u>	<u>43.35</u>	<u>N/A</u>	%
		4 STD			TGA-03	SOLID	<u>59.2</u>	<u>58.85</u>	<u>N/A</u>	%
96000085	U-107	5 SAMPLE	S96T001143	0	TGA-03	SOLID	<u>N/A</u>	<u>4.96</u>		%
96000085	U-107	6 DUP	S96T001143	0	TGA-03	SOLID	<u>4.96</u>	<u>6.36</u>	<u>N/A</u>	%
96000085	U-107	7 TRIPL	S96T001143	0	TGA-03	SOLID	<u>4.96</u>	<u>7.87</u>	<u>N/A</u>	%

Final page for worklist #**6502**See Attached for Signatures.
Analyst Signature _____ Date _____Revised 4/24/96
Analyst Signature _____ Date _____S96T001068 results are the sum of two
weight loss steps (9.57 + 28.71%).

Verified by H Anastos 4-24-96

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.

worklistrpt Version 2.1 05/15/95
03/14/96 13:34

WHC-SD-WM-DP-184, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist#

6502

Analyst: SMF

Instrument: TGA0

Book # 82N/8A

Method: LA-560-112 Rev/Mod

Worklist Comment: U-107 TGA RUN UNDER N2, RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID			N/A	%
96000126	U-107	2 SAMPLE	S96T001068	0	TGA-01	SOLID	N/A			%
96000126	U-107	3 DUP	S96T001068	0	TGA-01	SOLID			N/A	%
96000085	U-107	4 SAMPLE	S96T001143	0	TGA-01	SOLID	N/A			%
96000085	U-107	5 DUP	S96T001143	0	TGA-01	SOLID			N/A	%

Final page for worklist #

6502

Lusie M. Dalton 4-17-96
Analyst Signature Date

Analyst Signature Date

R. McCown 4/17/96

Other Instrument was Used.

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.

Curve 1: TGA
 File info: T6041701 Wed Apr 17 06:48:20 1996
 Sample Weight: 20.738 mg
 TGA STD 82N8-A

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
 COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 218 TO 224.

N2 10C/MIN
 TEMP: 30.0 °C
 TIME: 300.0 s

0.0 min RATE: 50.0 °C/min

Temperature (°C)

Curve 1: TGA

File info: SAM041701 Wed Apr 17 07:52:09 1996

Sample Weight: 30.536 mg

996T001068

6T2

100/MIN N2
TEMP: 35.0 C
TEMP: 555.0 C

TIME: 0.0 min RATE: 10.0 C/min

Temperature (°C)

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Wed Apr 17 08:40:33 1996

WHC-SD-WM-DP-184, REV. 0

Curve 1: TGA

File info: SAM041702 Wed Apr 17 09:32:26 1996

Sample Weight: 19.384 mg

S96T001068 DUP

10C/MIN N2

TEMP: 35.0 C
500.0 C

TIME: 0.0 min RATE: 10.0 C/min

Temperature (°C)

SM FULTON

PERKIN-ELMER

7 Series Thermal Analysis System

Wed Apr 17 09:40:08 1996

WHC-SD-WM-DP-184, REV.0

Curve 1: TGA
 File Info: TGA041705 Wed Apr 17 18:57:56 1996
 Sample Weight: 20.559 mg
 TGA STD 82N8-A

221

Weight (Wt. %)

N2 100%/MIN
 TGA041705
 20.559 g

TIME:

0.0

MIN RATE:

10.0 C/min

Temperature (°C)

25.0

75.0

125.0

175.0

225.0

275.0

PJ MCCOMM
 PERKIN-ELMER
 7 Series Thermal Analysis System
 Wed Apr 17 18:01:02 1996

WHC-SD-WM-DP-184, REV. 0

Curve 1: TGA
File Info: SAH041703 Wed Apr 17 20:09:24 1996
Sample Weight: 15.606 mg
S957001143 SAM

PJ MCCOWN
PERKIN-ELMER
77 Series Thermal Analysis System
Wed Apr 17 20:29:28 1996

Curve 1: TGA
 File info: SAM041704 Wed Apr 17 21: 41:51 1996
 Sample Weight: 19.944 mg
 S96T001143 DUP

10C/MIN N2
 TEMPE 35.0 S
 TIME 555.0 S

0.0 MIN RATE: 10.0 C/min

Curve 1: T6A
 File Info: SAM041705 Wed Apr 17 22:56:09 1996
 Sample Weight: 20.775 mg
 S96T004143 TRIP

P.J. MCCOWN
 PERKIN-ELMER
 7 Series Thermal Analysis System
 Wed Apr 17 22:56:19 1996

10C/MIN H2
 T6A
 20.775 mg
 0.0 min RATE
 10.0 C/min

WHC-SD-WM-DP-184, REV. 0

worklistrpt Version 2.1 05/15/95

03/18/96 13:50

Page: 1

LABCORE Data Entry Template for Worklist#

6633

Analyst: SMF Instrument: TGA0 1 Book # 82 N 817Method: LA-560-112 Rev/Mod B-1

Worklist Comment: U-107 FOR TGA (RUN UNDER N2) RTS

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	LIQUID	<u>59.2</u>	<u>58.97</u>	<u>N/A</u>	%
96000085	U-107	2 SAMPLE	S96T000665	0	TGA-01	LIQUID	<u>N/A</u>	<u>51.94</u>		%
96000085	U-107	3 DUP	S96T000665	0	TGA-01	LIQUID	<u>51.94</u>	<u>54.51</u>	<u>N/A</u>	%
96000085	U-107	4 SAMPLE	S96T000682	0	TGA-01	LIQUID	<u>N/A</u>	<u>49.79</u>		%
96000085	U-107	5 DUP	S96T000682	0	TGA-01	LIQUID	<u>49.79</u>	<u>49.55</u>	<u>N/A</u>	%

Final page for worklist #

6633

Susie M. Fulton 4-17-96
 Analyst Signature Date

[Signature] 4-18-96
 Analyst Signature Date

Verified by Hanastos
 4-22-96

Data Entry Comments: S96T000665 results are the sum of two weight loss steps.

S96T000682 results are the sum of two weight loss steps

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.

225

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 226 TO 230.

TGA STD 82N8A

21.137 mg

Rate: 10.0 °C/min

File: 00062.001 TG METTLER 17-Apr-96

Ident: 0.0 222-S Laboratory

WHC-SD-WM-DP-184, REV. 0

S96T000665 N2

16.088 mg

Rate: 10.0 °C/min

File: 00064.001

TG METTLER 17-Apr-96

Ident: 0.0

222-S Laboratory

Step Analysis
Height -7.01 mg
-43.59 %
ResiC. 9.08 mg
56.41 %

Step Analysis
Height -1.34 mg
-8.35 %
ResiC. 7.73 mg
48.06 %

S96T000665 DUP N2

17.116 mg

Rate: 10.0 °C/min

File: 00066.001 TG METTLER 17-Apr-96

Ident: 0.0

222-S Laboratory

622

S96T000682 N2

11.492 mg

Rate: 10.0 °C/min

File: 00068.001 TG METTLER 17-Apr-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -4.84 mg

-42.12 %

Resid. 6.65 mg

57.88 %

Step Analysis

Height -0.88 mg

-7.67 %

Resid. 5.77 mg

50.21 %

Dpeak 111.0 °C

230

S96T000682 DUP N2

11.544 mg

Rate: 10.0 °C/min

File: 00070.001 TG METTLER 17-Apr-96

Ident: 0.0

222-S Laboratory

Step Analysis
Height -4.83 mg
-41.88 %
ResiC. 6.71 mg
58.12 %

Step Analysis
Height -0.89 mg
-7.67 %
ResiC. 5.82 mg
50.45 %
Dpeak 115.0 °C

2. mg

100. 200. 300. 400. °C

worklistrpt Version 2.1 05/15/95
04/03/96 15:21

WHC-SD-WM-DP-184, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist#

6648

Analyst: RDM Instrument: TGA0 1 Book # 100CN2Method: LA-560-112 Rev/Mod B-1Worklist Comment: U-107 FOR TGA (RUN UNDER N2) RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	<u>59.4</u>	<u>61.71</u>	<u>N/A</u>	%
96000126	U-107	2 SAMPLE	S96T001059	0	TGA-01	SOLID	<u>N/A</u>	<u>21.25</u>		%
		3 STD			TGA-01	SOLID	<u>59.4</u>	<u>59.44</u>	<u>N/A</u>	%
96000126	U-107	4 DUP	S96T001059	0	TGA-01	SOLID	<u>21.25</u>	<u>21.26</u>	<u>N/A</u>	%
		5 STD			TGA-01	SOLID	<u>59.4</u>	<u>61.10</u>	<u>N/A</u>	%
96000126	U-107	6 SAMPLE	S96T001070	0	TGA-01	SOLID	<u>N/A</u>	<u>91.44</u>		%
96000126	U-107	7 DUP	S96T001070	0	TGA-01	SOLID	<u>91.44</u>	<u>91.02</u>	<u>N/A</u>	%

Final page for worklist #

6648

See Attached for Signatures

Analyst Signature

Date

Analyst Signature

Date

4/11/96

Verified by Blandina Valenzuela
4/15/96

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.

worklistrpt Version 2.1 05/15/95

03/18/96 14:19

WHC-SD-WM-DP-184, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist#

6648

Analyst:

ROM

Instrument:

TGA0

Book #

1006N2

Method: LA-560-112 Rev/Mod

B-1

Worklist Comment: U-107 FOR TGA (RUN UNDER N2) RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	<u>59.4</u>	<u>61.71</u>	<u>N/A</u>	%
96000126	U-107	2 SAMPLE	S96T001059	0	TGA-01	SOLID	<u>N/A</u>	<u>21.25</u>		%
96000126	U-107	3 DUP	S96T001059	0	TGA-01	SOLID	<u>21.25</u>		<u>N/A</u>	%
96000126	U-107	4 SAMPLE	S96T001070	0	TGA-01	SOLID	<u>N/A</u>			%
96000126	U-107	5 DUP	S96T001070	0	TGA-01	SOLID			<u>N/A</u>	%

Final page for worklist #

6648

Analyst Signature

Date

Analyst Signature

Date

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.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 233 TO 239

TGA STD 100CN2

12.493 mg

Rate: 10.0 °C/min

File: 00077.001

TG

METTLER

29-Mar-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -7.71 mg

-61.71 %

ResiC. 4.78 mg

38.29 %

Dpeak 189.2 °C

WHC-SD-WM-DP-184, REV. 0

482

S96T001059 SAM N2

33.382 mg

Rate: 10.0 °C/min

File: 00081.001 TG METTLER 29-Mar-96

Ident: 0.0

222-S Laboratory

235

5. mg

TGA-STD 100NC2

13.231 mg

Rate: 10.0 °C/min

File: 00001.001

TG

METTLER

30-Mar-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -7.87 mg

-59.44 %

ResidC. 5.37 mg

40.56 %

Dpeak 124.2 °C

Blandina Valenzuela for RD Meyers

4/15/96

236

S96T001059 DUP N2

25.225 mg

Rate: 10.0 °C/min

File: 00003.001 TG METTLER 30-Mar-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -5.36 mg

-21.26 %

ResidC. 19.86 mg

78.74 %

Dpeak 129.0 °C

2. mg

100. 200. 300. 400. °C

File: 00015.001 TG METTLER 09-Apr-96
 Ident: 0.0 222-S Laboratory

Rate: 10.0 °C/min

TGA STD 75N8-A
 6.049 mg

Step Analysis
 Height -3.68 mg
 -61.10 %
 Resid. 2.32 mg
 38.48 %
 Dpeak 59.2 °C

Blandina Valenzuela for RD Meyers

238

239

WHC-SD-WM-DP-184, REV. 0

worklistrpt Version 2.1 05/15/95

04/08/96 12:09

Page: 1

LABCORE Data Entry Template for Worklist#**6656**Analyst: RDM Instrument: TGA01/ 3 Book # 75N8AMethod: LA-514-114 Rev/Mod C-1

Worklist Comment: U-107 FOR TGA (RUN UNDER N2 PLEASE!) RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-03	SOLID	<u>59.2</u>	<u>60.40</u>	<u>N/A</u> %
96000126	U-107	2 SAMPLE	S96T001128	0		TGA-03	SOLID	<u>N/A</u>	<u>18.94</u>	<u> </u> %
96000126	U-107	3 DUP	S96T001128	0		TGA-03	SOLID	<u>18.94</u>	<u>24.24</u>	<u>N/A</u> %

Final page for worklist #

6656

See attached for signatures

Analyst Signature Date 4-8-96

[Signature]

Analyst Signature Date 4-9-96

Verified by HAnastos 4-11-96

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.

worklistrpt Version 2.1 05/15/95
03/18/96 14:41

WHC-SD-WM-DP-184, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist#

6656

Analyst:

RDM

Instrument: TGA01

Book #

75N8A

Method: LA-560-112 Rev/Mod C-1

Worklist Comment: U-107 FOR TGA (RUN UNDER N2 PLEASE!) RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID			N/A	%
96000126	U-107	2 SAMPLE	S96T001128 0		TGA-01	SOLID	N/A			%
96000126	U-107	3 DUP	S96T001128 0		TGA-01	SOLID			N/A	%

Final page for worklist #

6656

Analyst Signature

Date

Analyst Signature

Date

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.

011
MO-924 200W
WESTINGHOUSE
372 2929
14:52
04/08/96

Curve 1: TGA
File info: TER040401 Thu Apr 4 07:03:08 1996
Sample Weight: 22.156 mg
TGA STD 75N8-A

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 242 TO 244.

WHC-SD-WM-DP-184, REV. 0

N2 10C/MIN
TEMP1: 35.0 °C
TEMP2: 300.0 °C
TIMEs: 0.0 min RATEs: 10.0 C/min

PJ MCCOWN
PERKIN-ELMER
7 Series Thermal Analysis System
Fri Apr 5 01:21:22 1996

Curve 1: TGA

File info: sam040401 Thu Apr 4 22:29:48 1996

Sample Weight: 32.221 mg

S96T001128

243

WHC-SD-MM-DP-184, REV. 0

10C/MIN N2

TEMP: 35.0 °C

TIME: 0.0 min

RATE: 10.0 °C/min

Temperature (°C)

rd meyers

PERKIN-ELMER

7 Series Thermal Analysis System

Mon Apr 8 11:29:47 1996

Curve 1: TGA
File info: sam040501 Fri Apr 5 01:54:25 1996
Sample Weight: 9.630 mg
S96T001128 DUP

WHC-SD-WM-DP-184, REV. 0

10C/MIN N2

TEMP: 35.0 C
TEMP: 500.0 C

TIME: 0.0 min RATE: 10.0 C/min

Temperature (°C)

rd meyers
PERKIN-ELMER
7 Series Thermal Analysis System
Mon Apr 8 11:42:43 1996

worklistprt Version 2.1 05/15/95
04/23/96 11:30

WHC-SD-WM-DP-184, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist#

6758

Analyst: PJM Instrument: TGA0 1 Book # 82N8AMethod: LA-560-112 Rev/Mod B-1

Worklist Comment: U-107 FOR TGA-01 PLEASE RUN UNDER N2 RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	<u>59.2</u>	<u>58.64</u>	<u>*</u>	%
96000085	U-107	2 SAMPLE	S96T001159 0		TGA-01	SOLID	<u>N/A</u>	<u>18.01</u>		%
96000085	U-107	3 DUP	S96T001159 0		TGA-01	SOLID	<u>18.01</u>	<u>21.43</u>	<u>N/A</u>	%
96000085	U-107	4 TRIPL	S96T001159 0		TGA-01	SOLID	<u>18.01</u>	<u>21.25</u>	<u>N/A</u>	%

Final page for worklist #

6758

See attached for signatures

Analyst Signature Date 4/23/96PC Wright 4/24/96
Analyst Signature DateVerified by ANASTOS 4-25-96

Data Entry Comments:

Sample results are the sum of two weight loss stepsUnits shown for QC (SPK & STD) may not reflect the actual units. DL = Detection Limit, S = Worklist Slot Number,
R = Replicate Number, A = Aliquot Code.

worklistrpt Version 2.1 05/15/95
03/20/96 11:32

WHC-SD-WM-DP-184, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist#

6758

Analyst: RMcCown Instrument: TGA0 _____ Book # 8208AMethod: LA-560-112 Rev/Mod B-1

Worklist Comment: U-107 FOR TGA-01 PLEASE RUN UNDER N2 RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	_____	_____	N/A	%
96000085	U-107	2 SAMPLE	S96T001159	0	TGA-01	SOLID	N/A	_____	_____	%
96000085	U-107	3 DUP	S96T001159	0	TGA-01	SOLID	_____	_____	N/A	%

Final page for worklist #

6758

RMcCown 4/19/96
Analyst Signature Date_____
Analyst Signature DateData 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.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 247 TO 250.

TGA STD 82N8A

27.898 mg

Rate: 10.0 °C/min

File: 00002.001

TG

METTLER

19-Apr-96

Ident: 0.0

222-S Laboratory

RMeloun 4/19/96

Step Analysis

Height-16.36 mg

-58.64 %

Resid. 11.53 mg

41.33 %

Dpeak 100.8 °C

WHC-SD-WM-DP-184, REV. 0

248

S96T001159 SAM N2

43.785 mg

Rate: 10.0 °C/min

File: 00007.001

TG

METTLER

19-Apr-96

Ident: 0.0

222-S Laboratory

R McLean 4/19/96

Step Analysis

Height -3.45 mg

-7.88 %

ResidC. 40.33 mg

92.12 %

5. mg

Step Analysis

Height -4.44 mg

-10.13 %

ResidC. 35.90 mg

81.99 %

Dpeak 137.0 °C

249

S96T001159 DUP N2

24.352 mg

Rate: 10.0 °C/min

File: 00008.001 TG METTLER 19-Apr-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -2.53 mg

-10.38 %

ResiC. 21.82 mg

89.62 %

Step Analysis

Height -2.69 mg

-11.05 %

ResiC. 19.13 mg

78.57 %

252

worklistrpt Version 2.1 05/15/95
04/17/96 10:34

WHC-SD-WM-DP-184, REV. 0

Page: 1

LABCORE Data Entry Template for Worklist#

7585

Analyst: SMF Instrument: TGA0 3 Book # 82N8AMethod: LA-514-114 Rev/Mod C-1

Worklist Comment: U-107 TGA RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-03	LIQUID	<u>59.2</u>	<u>58.97</u>	<u>N/A</u>	%
96000126	U-107	2 SAMPLE	S96T001119 0		TGA-03	LIQUID	<u>N/A</u>	<u>51.01</u>		%
96000126	U-107	3 DUP	S96T001119 0		TGA-03	LIQUID	<u>51.01</u>	<u>51.14</u>	<u>N/A</u>	%
96000126	U-107	4 SAMPLE	S96T001120 0		TGA-03	LIQUID	<u>N/A</u>	<u>89.27</u>		%
96000126	U-107	5 DUP	S96T001120 0		TGA-03	LIQUID	<u>89.27</u>	<u>89.10</u>	<u>N/A</u>	%
96000126	U-107	6 SAMPLE	S96T001121 0		TGA-03	LIQUID	<u>N/A</u>	<u>91.70</u>		%
96000126	U-107	7 DUP	S96T001121 0		TGA-03	LIQUID	<u>91.70</u>	<u>92.22</u>	<u>N/A</u>	%

Final page for worklist # 7585

See attached for signatures
Analyst Signature Date 4/17/96 4-19-96
Analyst Signature DateVerified by
HAnastor 4-22-96

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.

WHC-SD-WM-DP-184, REV. 0

worklist rpt Version 2.1 05/15/95

04/11/96 09:54

Page: 1

LABCORE Data Entry Template for Worklist#

7585

Analyst: SMF Instrument: TGA0 Book # 8208A

Method: LA-560-112 Rev/Mod _____

Worklist Comment: U-107 TGA RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	LIQUID			N/A	%
96000126	U-107	2 SAMPLE	S96T001110	0	TGA-01	LIQUID	N/A			%
96000126	U-107	3 DUP	S96T001110	0	TGA-01	LIQUID			N/A	%
96000126	U-107	4 SAMPLE	S96T001119	0	TGA-01	LIQUID	N/A			%
96000126	U-107	5 DUP	S96T001119	0	TGA-01	LIQUID			N/A	%
96000126	U-107	6 SAMPLE	S96T001120	0	TGA-01	LIQUID	N/A			%
96000126	U-107	7 DUP	S96T001120	0	TGA-01	LIQUID			N/A	%
96000126	U-107	8 SAMPLE	S96T001121	0	TGA-01	LIQUID	N/A			%
96000126	U-107	9 DUP	S96T001121	0	TGA-01	LIQUID			N/A	%

Final page for worklist #

7585

Lusie M. Dalton 4-16-96
 Analyst Signature Date

 Analyst Signature Date

Other instrument
 was used.

4/17/96
 BJS

Data Entry Comments:

S96T001110 - EMPTY

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.

Curve 1: TGA

File info: TER041601 Tue Apr 16 07:24:33 1996

Sample Weight: 24.029 mg

TGA STD 82N8-A

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 253 TO 259.

WHC-SD-WM-DP-184, REV. 0

N2 10C/MIN

TEMP: 300.0 °C TIME: 0.0 min RATE: 10.0 C/min

Temperature (°C)

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Tue Apr 16 07:25:27 1996

Curve 1: TGA

File info: SAM041601 Tue Apr 16 09:22:17 1996

Sample Weight: 14.242 mg

S96T001119

10C/MIN N2

TEMP: 35.0 °C

TIME: 0.0 min RATE: 10.0 C/min

Temperature (°C)

SM FULTON

PERKIN-ELMER

7 Series Thermal Analysis System

Tue Apr 16 09:29:43 1996

WHC-SD-WM-DP-184, REV. 0

Curve 1: TGA

File info: SAM041602 Tue Apr 16 10:29:17 1996

Sample Weight: 15.617 mg

S96T001119 DUP

255

10C/MIN N2

TEMP: 350.0 °C

TIME: 0.0 min RATE: 10.0 °C/min

Temperature (°C)

SM FULTON

PERKIN-ELMER

7 Series Thermal Analysis System

Tue Apr 16 10:31:41 1996

WHC-SD-WM-DP-184, REV. 0

Curve 1: TGA
 File info: SAK041603 Tue Apr 16 11:35:14 1996
 Sample Weight: 11.199 mg
 S96T001120

WHC-SD-WM-DP-184, REV. 0

SM FULTON
 PERKIN-ELMER
 7 Series Thermal Analysis System
 Tue Apr 16 13:07:01 1996

Curve 1: TGA
 File Info: SAM041604 Tue Apr 16 13:42:15 1996
 Sample Weight: 11.262 mg
 596T001120 DUP

SM FULTON
 PERKIN-ELMER
 7 Series Thermal Analysis System
 Tue Apr 16 13:55:19 1996

10C/MIN N2
 TEMPS: 550.0 °C
 TIME: 0.0 min RATE: 10.0 C/min

WHC-SD-WM-DP-184, REV. 0

Curve 1: TGA

File info: SAM041605 Tue Apr 16 14:53:41 1996

Sample Weight: 10.095 mg

S96T001121

852

Weight (Wt. %)

WHC-SD-WM-DP-184, REV. 0

10C/MIN N2
TEMP: 35.0 C
TEMP: 500.0 C

TIME: 0.0 min RATE: 10.0 C/min

Temperature (°C)

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Tue Apr 16 15:36:38 1996

Curve 1: TGA

File info: SAM041606 Tue Apr 16 16:28:23 1996

Sample Weight: 10.279 mg

S96T001121 DUP

259

10C/MIN N2
TEMP: 35.0 °C
TIME: 0.0 min RATE: 10.0 °C/min

Temperature (°C)

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Tue Apr 16 16:34:29 1996

WHC-SD-WM-DP-184, REV. 0

LABCORE Data Entry Template for Worklist#

7908

Analyst: SMF Instrument: TGA0 1 Book # 82N8A

Method: LA-560-112 Rev/Mod B-1

Worklist Comment: U-07 for tga-01 please run under N2 RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	<u>59.2</u>	<u>58.72</u> *	N/A	%
96000422	U-107	2 SAMPLE	S96T001867 0		TGA-01	SOLID	<u>N/A</u>	<u>49.90</u>		%
96000422	U-107	3 DUP	S96T001867 0		TGA-01	SOLID	<u>49.90</u>	<u>49.74</u>	N/A	%

Final page for worklist # 7908

Smfulton 4-29-96
Analyst Signature Date

[Signature] 5-4-96
Analyst Signature Date

Verified by WAnastor 5-6-96

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.

261

TGA STD 82N8A

41.082 mg

Rate: 10.0 °C/min

File: 00052.001 TG METTLER 29-Apr-96

Ident: 0.0

222-S Laboratory

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 261 TO 263.

WHC-SD-WM-DP-184, REV. 0

S96T001867 N2

21.518 mg

Rate: 10.0 °C/min

File: 00059.001 TG METTLER 30-Apr-96

Ident: 0.0 222-S Laboratory

Step Analysis

Height-10.74 mg

-49.90 %

ResidC. 10.78 mg

50.10 %

Dpeak 131.0 °C

WHC-SD-WM-DP-184, REV. 0

262

S96T001867 DUP N2

25.198 mg

Rate: 10.0 °C/min

File: 00060.001

TG METTLER 30-Apr-86

Ident: 0.0

222-S Laboratory

Step Analysis
Height-12.53 mg
-49.74 %
ResidC. 12.66 mg
50.26 %
Dpeak 135.0°C

5. mg

100.

200.

300.

400.

°C

LABCORE Data Entry Template for Worklist#

8037

Analyst: SMH Instrument: TGA0 1 Book # 82N08-7

Method: LA-560-112 Rev/Mod B-1

Worklist Comment: U-107 TGA RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	59.2	58.74	*N/A	%
96000422	U-107	2 SAMPLE	S96T001873	0	TGA-01	SOLID	N/A	4.67		%
96000422	U-107	3 DUP	S96T001873	0	TGA-01	SOLID	4.67	4.15	N/A	%

Final page for worklist #

8037

Ludie M. Julton 2-26-96
Analyst Signature Date

Gay Hansen 4-29-96
Analyst Signature Date

Verified by Blandina
Valenzuela
4-30-96

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.

264

100-100/96-04-29-12:22/001-001

--/

--

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 265 TO 267

TGA STD 82N8-A

16.007 mg

Rate: 10.0 °C/min

File: 00017.001 TG METTLER 26-Apr-96

Ident: 0.0 222-S Laboratory

Step Analysis

Height -9.40 mg

-58.74 %

Resid. 6.61 mg

41.26 %

Dpeak 81.7°C

265

Lucinda J. Sutton 4-26-96

S96T001873 N2

24.412 mg

Rate: 10.0 °C/min

File: 00027.001 TG METTLER 26-Apr-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -1.14 mg

-4.67 %

Resid. 23.27 mg

95.33 %

Dpeak 47.0 °C

0.5 mg

100.

200.

300.

400.

°C

S96T001873 DUP N2

18.965 mg

Rate: 10.0 °C/min

File: 00028.001

TG

METTLER

26-Apr-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -0.79 mg

-4.15 %

ResidC. 18.18 mg

95.85 %

Dpeak 47.0 °C

LABCORE Data Entry Template for Worklist#

8223

Analyst: SLJ Instrument: TGA0 1 Book # 82X8A

Method: LA-560-112 Rev/Mod B-1

Worklist Comment: U-107, Run under nitrogen. new

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL*	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	<u>59.2</u>	<u>59.02</u>	<u>N/A</u>	%
96000422	U-107	2 SAMPLE	S96T002131	0	TGA-01	SOLID	<u>N/A</u>	<u>32.41</u>		%
96000422	U-107	3 DUP	S96T002131	0	TGA-01	SOLID	<u>32.41</u>	<u>37.23</u>	<u>N/A</u>	%
96000422	U-107	4 SAMPLE	S96T002132	0	TGA-01	SOLID	<u>N/A</u>	<u>18.55</u>		%
96000422	U-107	5 DUP	S96T002132	0	TGA-01	SOLID	<u>18.55</u>	<u>16.45</u>	<u>N/A</u>	%

Final page for worklist #

8223

SLJ 5-1-96
Analyst Signature Date

SLJ 5-4-96
Analyst Signature Date

Verified by Anastor
5-6-96

S96T002131 also produced a second weight loss step of 2.16%. However, the dup only showed one weight loss step.

S96T002132 results are the sum of three weight loss steps (8.78, 1.55, + 8.22%).

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.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 269 TO 273.

TGA STD 82N8A

32.902 mg

Rate: 10.0 °C/min

File: 00070.001

Ident: 0.0

TG METTLER 01-May-96

222-S Laboratory

Step Analysis
Height-19.42 mg
-59.02 %
ResidC. 13.48 mg
40.97 %
Dpeak 103.3 °C

269

10. mg

50. 100. 150. 200. °C

Jul Spr 5-1-96

WHC-SD-WM-DP-184, REV. 0

S96T002131 N2

12.766 mg

Rate: 10.0 °C/min

File: 00076.001 TG METTLER 01-May-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -4.14 mg

-32.41 %

ResidC. 8.63 mg

67.59 %

Dpeak 49.0°C

Step Analysis

Height -0.28 mg

-2.16 %

ResidC. 8.35 mg

65.41 %

S96T002131DUP N2

41.488 mg

Rate: 10.0 °C/min

File: 00077.001 T6 METTLER 02-May-96

Ident: 0.0

222-8 Laboratory

Step Analysis

Height-15.45 mg

-37.23 %

Resid. 26.01 mg

62.70 %

Dpeak 139.0 °C

271

WHC-SD-WM-DP-184, REV. 0

S96T002132 N2

26.069 mg

Rate: 10.0 °C/min

File: 00078.001 TG METTLER 02-May-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -2.29 mg

-8.78 %

ResidC. 23.78 mg

91.22 %

Step Analysis

Height -0.40 mg

-1.55 %

ResidC. 23.34 mg

89.55 %

Step Analysis

Height -2.14 mg

-8.22 %

ResidC. 21.14 mg

81.08 %

Dpeak 135.0°C

S96T002132 DUP N2

42.491 mg

Rate: 10.0 °C/min

File: 00079.001

TG METTLER 02-May-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -2.61 mg

-6.15 %

ResidC. 39.88 mg

93.85 %

Step Analysis

Height -0.42 mg

-0.99 %

ResidC. 39.46 mg

92.86 %

Step Analysis

Height -3.95 mg

-9.31 %

ResidC. 35.50 mg

83.56 %

Dpeak 133.0°C

WHC-SD-WM-DE-184, REV. 0

LABCORE Data Entry Template for Worklist#

8224

Analyst: Jds **Instrument:** TGA0 3 **Book #** 82N8A

Method: LA-514-114 Rev/Mod C-1

Worklist Comment: U-107. Run under nitrogen. new

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-03	SOLID	<u>59.2</u>	<u>58.5</u> *	<u>N/A</u>	%
96000422	U-107	2 SAMPLE	S96T001874 0		TGA-03	SOLID	<u>N/A</u>	<u>0.73</u>		%
96000422	U-107	3 DUP	S96T001874 0		TGA-03	SOLID	<u>0.73</u>	<u>0.92</u>	<u>N/A</u>	%

Final page for worklist # 8224

See Attached for Signatures.

Analyst Signature **Date**

Day H. H. H. 5-1-96
Analyst Signature **Date**

Verified by H. H. H. 5-6-96

Sample showed quite a bit of noise and drift, Pve to the low level of moisture in it.

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.

LABCORE Data Entry Template for Worklist#

8224

Analyst:

JOS

Instrument: TGA0

Book #

82 NFA

Method: LA-560-112 Rev/Mod

Worklist Comment: U-107. Run under nitrogen. new

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID			N/A	%
96000422	U-107	2 SAMPLE	S96T001874 0		TGA-01	SOLID	N/A			%
96000422	U-107	3 DUP	S96T001874 0		TGA-01	SOLID			N/A	%

Final page for worklist #

8224

Analyst Signature

Date

Analyst Signature

Date

Other Instrument was used.

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.

Curve 1: TGA

File info: TER050101 Wed May 1 08:59:10 1996

Sample Weight: 22.801 mg

TGA STD 82N8-A

N2 10C/MIN
TEMP: 35.0 C
TEMP: 300.0 C

TIMES: 0.0 min RATE: 10.0 C/min

Temperature (°C)

PJ MCCOWN
PERKIN-ELMER
7 Series Thermal Analysis System
Wed May 1 22:02:18 1996

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 276 TO 278.

Curve 1: TGA

File info: SAM050108 Wed May 1 23:09:25 1996

Sample Weight: 23.471 mg

S96T000833 1874 SAM

5/2/96

277

WHC-SD-MM-DP-184, REV. 0

10C/MIN N2
TEMP: 35.0 C
TEMP: 500.0 C
TIME: 0.0 min RATE: 10.0 C/min

Temperature (°C)

JD SPELLMAN
PERKIN-ELMER
7 Series Thermal Analysis System
Fri May 3 09:25:51 1996

Curve 1: TGA

File info: SAM050201 Thu May 2 01:55:58 1996

Sample Weight: 27.505 mg

S96T001874DUP

84.2
WHC-SD-WM-DP-184, REV. 0

JD SPELLMAN
PERKIN-ELMER
7 Series Thermal Analysis System
Fri May 3 09:31:00 1996

LABCORE Data Entry Template for Worklist#

8226

Analyst: P. McCoun Instrument: TGA0 1 Book # 8218A

Method: LA-560-112 Rev/Mod B-1

Worklist Comment: U-107. Run under nitrogen. new

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	LIQUID	<u>59.2</u>	<u>59.26</u>	<u>N/A</u>	%
96000126	U-107	2 SAMPLE	S96T002034 0		TGA-01	LIQUID	<u>N/A</u>	<u>98.17</u>		%
96000126	U-107	3 DUP	S96T002034 0		TGA-01	LIQUID	<u>98.17</u>	<u>98.14</u>	<u>N/A</u>	%

Final page for worklist #

8226

P. McCoun 5/3/96 new
Analyst Signature Date

Gary Hanastin 5-4-96
Analyst Signature Date

Verified by Hanastin 5-6-96

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.

TGA STD 82N8A

25.087 mg

Rate: 10.0 °C/min

File: 00080.001

TG

METTLER

02-May-86

Ident: 0.0

222-S Laboratory

Phil McCown

Step Analysis

Height-14.85 mg

-59.26 %

ResidC. 10.21 mg

40.74 %

Dpeak 90.0 °C

082

5. mg

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 280 TO 282.

WHC-SD-WM-DP-184, REV. 0

S96T002034 N2

18.405 mg

Rate: 10.0 °C/min

File: 00081.001

TG

METTLER

02-May-96

Ident: 0.0

222-S Laboratory

Step Analysis
Height-18.07 mg
-98.17 %
ResidC. 0.34 mg
1.83 %
Dpeak 103.0 °C

281

S96T002034 DUP N2

19.893 mg

Rate: 10.0 °C/min

File: 00082.001

TG

METTLER

02-May-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height-19.52 mg

-98.14 %

Resid. 0.37 mg

1.86 %

Dpeak 105.0 °C

282

LABCORE Data Entry Template for Worklist#

8434

Analyst: KRM Instrument: TGA0 1 Book # 82WB.A

Method: LA-560-112 Rev/Mod B-1

Worklist Comment: U-107 TGA RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	LIQUID	<u>59.2</u>	<u>58.92</u>	<u>N/A</u>	%
96000422	U-107	2 SAMPLE	S96T002140	0	TGA-01	LIQUID	<u>N/A</u>	<u>52.73</u>		%
96000422	U-107	3 DUP	S96T002140	0	TGA-01	LIQUID	<u>52.73</u>	<u>52.28</u>	<u>N/A</u>	%
96000422	U-107	4 SAMPLE	S96T002141	0	TGA-01	LIQUID	<u>N/A</u>	<u>47.03</u>		%
96000422	U-107	5 DUP	S96T002141	0	TGA-01	LIQUID	<u>47.03</u>	<u>47.02</u>	<u>N/A</u>	%

Final page for worklist #

8434

[Signature]
Analyst Signature

5-8-96
Date

[Signature]
Analyst Signature

5-13-96
Date

Validated by Hanastin 5-14-96

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.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 264 TO 288.

TGA STD 82N8-A

14.853 mg

Rate: 10.0 °C/min

File: 00051.001 TG METTLER 08-May-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -8.75 mg

-58.92 %

ResidC. 6.09 mg

41.03 %

Dpeak 82.5 °C

284

WHC-SD-WM-DP-184, REV. 0

[Signature] 5-8-96

S96T002140 N2

17.892 mg

Rate: 10.0 °C/min

File: 00053.001

TG

METTLER

08-May-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -9.44 mg

-52.73 %

ResidC. 8.46 mg

47.26 %

Dpeak 87.0 °C

S96T002141 N2

19.754 mg

Rate: 10.0 °C/min

File: 00057.001 TG METTLER 08-May-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -9.29 mg

-47.03 %

ResidC. 10.46 mg

52.97 %

Dpeak 81.0 °C

S96T002141 DUP N2

18.777 mg

Rate: 10.0 °C/min

File: 00059.001 TG METTLER 09-May-96

Ident: 0.0

222-S Laboratory

288

5. mg

Step Analysis
Height -8.83 mg
-47.02 %
ResidC. 9.95 mg
52.98 %
Dpeak 85.0 °C

LABCORE Data Entry Template for Worklist#

8435

Analyst: KRM **Instrument:** TGA0 1 **Book #** 82NB1A

Method: LA-560-112 Rev/Mod B-1

Worklist Comment: U-107 TGA RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	LIQUID	59.2	59.13*	N/A	%
96000422	U-107	2 SAMPLE	S96T002142	0	TGA-01	LIQUID	N/A	52.45		%
96000422	U-107	3 DUP	S96T002142	0	TGA-01	LIQUID	52.45	52.18	N/A	%

Final page for worklist #

8435

Analyst Signature 5-7-96
Date

Analyst Signature 5-9-96
Date

Validated by HLanastor 5-10-96

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.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 290 TO 292

TGA STD 82N8-A

16.236 mg

Rate: 10.0 °C/min

File: 00035.001

TG

METTLER

07-May-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -9.60 mg

-59.13 %

Resid. 6.57 mg

40.46 %

Dpeak 74.2°C

S96T002142 N2

16.105 mg

Rate: 10.0 °C/min

File: 00044.001 TG METTLER 08-May-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -8.45 mg

-52.45 %

ResidC. 7.66 mg

47.55 %

Dpeak 77.0 °C

291

S96T002142 DUP N2

File: 00046.001

TG METTLER 08-May-96

14.697 mg

Rate: 10.0 °C/min

Ident: 0.0

222-S Laboratory

worklistrpt Version 2.1 05/15/95
05/13/96 08:54

Page: 1

LABCORE Data Entry Template for Worklist#

8436

Analyst: KRM Instrument: TGA0 1 Book # 82N8AMethod: LA-560-112 Rev/Mod B-1

Worklist Comment: U-107 TGA RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	<u>59.2</u>	<u>59.13*</u>	<u>N/A</u>	%
96000422	U-107	2 SAMPLE	S96T002133	0	TGA-01	SOLID	<u>N/A</u>	<u>16.38</u>		%
		3 STD			TGA-01	SOLID	<u>59.2</u>	<u>58.92*</u>	<u>N/A</u>	%
96000422	U-107	4 DUP	S96T002133	0	TGA-01	SOLID	<u>16.38</u>	<u>15.46</u>	<u>N/A</u>	%

Final page for worklist #

8436

See attached for signatures
Analyst SignatureDate 5-13-96
Analyst SignatureDate 5-13-96Validated by HAnastos 5-14-96

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.

LABCORE Data Entry Template for Worklist#

8436

Analyst: KRM **Instrument:** TGA0 **Book #** Q2NBA

Method: LA-560-112 Rev/Mod B-1

Worklist Comment: U-107 TGA RUN UNDER N2. RCJ

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID			N/A	%
96000422	U-107	2 SAMPLE	S96T002133	0	TGA-01	SOLID	N/A			%
96000422	U-107	3 DUP	S96T002133	0	TGA-01	SOLID			N/A	%

Final page for worklist #

8436

5-7-96
Analyst Signature **Date**

Analyst Signature **Date**

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.

295

16.236 mg

File: 00035.001

TG

METTLER

07-May-96

Ident: 0.0

222-S Laboratory

S96T002133 N2

27.370 mg

Rate: 10.0 °C/min

File: 00048.001

TG

METTLER

08-May-96

Ident: 0.0

222-S Laboratory

Step Analysis

Height -4.48 mg

-16.38 %

ResidC. 22.89 mg

83.62 %

Dpeak 133.0 °C

962

2. mg

100. 200. 300. 400. °C

S96T002133 DUP N2

File: 00061.001

TG

METTLER

09-May-96

26.063 mg

Rate: 10.0 °C/min

Ident: 0.0

222-S Laboratory

298

WHC SD MM DP 184 REV 0

LABCORE Data Entry Template for Worklist#

8947

Analyst: RSMcCown Instrument: TGA0 1 Book # 82 N 8A

Method: LA-560-112 Rev/Mod B-1

Worklist Comment: U-107 TGA-01 RUN UNDER N2 RTS!

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	LIQUID	<u>59.2</u>	<u>59.37</u>	<u>N/A</u>	%
96000422	U-107	2 SAMPLE	S96T001866	0	TGA-01	LIQUID	<u>N/A</u>	<u>94.44</u>		%
96000422	U-107	3 DUP	S96T001866	0	TGA-01	LIQUID	<u>94.44</u>	<u>93.93</u>	<u>N/A</u>	%

Final page for worklist #

8947

RSMcCown 5/23/96
Analyst Signature Date

RLA 5-28-96
Analyst Signature Date

Verified / Validated by

Blandina

Valenzuela 5-31-96

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.

TGA STD 82N8A

15.074 mg

Rate: 10.0 °C/min

File: 00016.001

Ident: 0.0

TG METTLER 23-May-96

222-S Laboratory

BlumCowan 5/23/96

300

WHC-SD-WM-DP-184, REV.0

S96T001866 N2

19.689 mg

Rate: 10.0 °C/min

File: 00021.001

Ident: 0.0

TG METTLER 23-May-96

222-S Laboratory

Bl Mc Cown 5/23/96

Step Analysis

Height-18.60 mg

-94.44 %

Resid. 1.09 mg

5.56 %

Dpeak 103.0 °C

S96T001866 DUP N2

20.661 mg

Rate: 10.0 °C/min

File: 00019.001

Ident: 0.0

TG METTLER 23-May-96

222-S Laboratory

BlumCowan 5/23/96

Step Analysis

Height-19.41 mg

-93.93 %

ResidC. 1.26 mg

6.07 %

Dpeak 103.0 °C

DISTRIBUTION SHEET

To Distribution	From Data Assessment and Interpretation	Page 1 of 1
		Date: 05/28/96
Project Title/Work Order WHC-SD-WM-DP-184, REV. 0 "45-Day Safety Screening Results for Tank 241-U-107, Push Mode Cores 129, 134 and 135"		EDT NO.: 614792
		ECN NO.: N/A

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	
G. D. Forehand	S7-31		X
D. C. Hetzer	S6-31		X
J. E. Hyatt	S3-31	X	
J. Jo	R2-12	X	
N. W. Kirch	R2-11	X	
M. J. Kupfer	H5-49	X	
J. Jo	R2-12	X	
J. E. Meacham	S7-15	X	
K. L. Powell	T6-04		X
J. B. Schaffer (SD COV. SHT., DST. SHT, ROR)	R2-12		X*
L. W. Shelton	H5-49	X	
M. J. Sutey	T4-07	X	
T. T. Tran (LATA)	B1-44	X	
J. A. Voogd	H5-03		X
L. R. Webb (SD COV. SHT., DST. SHT, ROR)	T6-06		X*
Central Files	A3-88	2	
EDMC	H6-08	X	
LTIC	T6-03		X

U. S. Department of Energy

Jim Poppitt			X
12800 Middlebrook Rd.			
Trevion II, EM-36			
Germantown, MD 20874			

Defense Nuclear Federal Safety Board

Rich Tontodonato	X
625 Indiana Ave. N. W.	
Washington D.C. 20004	

* Needs only releasing paperwork, not a copy of the released document.