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Title/Desc:

FINAL REPORT FOR TANK 241U203 PUSH MODE CORES 79 &
80

COMPLETE

ENGINEERING CHANGE NOTICE

Page 1 of 2

1. ECN **No 623828**Proj.
ECN

2. ECN Category (mark one) Supplemental ☐ Direct Revision ☒ Change ECN ☐ Temporary ☐ Standby ☐ Supersedeure ☐ Cancel/Void ☐	3. Originator's Name, Organization, MSIN, and Telephone No. R. D. Schreiber/ Characterization Plans, Coordination and Reports/R2- 12/373-5589	3a. USQ Required? ☐ Yes ☒ No	4. Date 07/26/95	
	5. Project Title/No./Work Order No. Tank 241-U-203, Push Mode, Cores 79 and 80	6. Bldg./Sys./Fac. No. N/A	7. Approval Designator Q	
	8. Document Numbers Changed by this ECN (includes sheet no. and rev.) WHC-SD-WM-DP-109, Rev. 0	9. Related ECN No(s). N/A	10. Related PO No. N/A	

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

12. Description of Change

This ECN is being generated in order to update/add additional information to the existing document.

13a. Justification (mark one)

Criteria Change ☐	Design Improvement ☐	Environmental ☐	Facility Deactivation ☐
As-Found ☐	Facilitate Const ☐	Const. Error/Omission ☐	Design Error/Omission ☒

13b. Justification Details

This ECN will assist in the completion of the documentation process for this document.

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

See attached distribution sheet.

RELEASE STAMP

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 BY WHC

DATE OCT 31 1995

Sta 4

3

ENGINEERING CHANGE NOTICE				Page 2 of 2	1. ECN (use no. from pg. 1) ECN-623828											
15. Design Verification Required ☐ Yes ☒ No	16. Cost Impact <table style="width:100%; border: none;"> <tr> <td colspan="2" style="text-align: center; border-bottom: 1px solid black;">ENGINEERING</td> <td colspan="2" style="text-align: center; border-bottom: 1px solid black;">CONSTRUCTION</td> </tr> <tr> <td style="width: 30%;">Additional</td> <td style="width: 10%; text-align: center;">☐</td> <td style="width: 10%;">\$</td> <td style="width: 50%;">Additional</td> </tr> <tr> <td>Savings</td> <td style="text-align: center;">☐</td> <td>\$</td> <td>Savings</td> </tr> </table>			ENGINEERING		CONSTRUCTION		Additional	☐	\$	Additional	Savings	☐	\$	Savings	17. Schedule Impact (days) Improvement ☐ Delay ☐
ENGINEERING		CONSTRUCTION														
Additional	☐	\$	Additional													
Savings	☐	\$	Savings													
18. Change Impact Review: Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 12. Enter the affected document number in Block 19.																
SDD/DD	☐	Seismic/Stress Analysis	☐	Tank Calibration Manual	☐											
Functional Design Criteria	☐	Stress/Design Report	☐	Health Physics Procedure	☐											
Operating Specification	☐	Interface Control Drawing	☐	Spares Multiple Unit Listing	☐											
Criticality Specification	☐	Calibration Procedure	☐	Test Procedures/Specification	☐											
Conceptual Design Report	☐	Installation Procedure	☐	Component Index	☐											
Equipment Spec.	☐	Maintenance Procedure	☐	ASME Coded Item	☐											
Const. Spec.	☐	Engineering Procedure	☐	Human Factor Consideration	☐											
Procurement Spec.	☐	Operating Instruction	☐	Computer Software	☐											
Vendor Information	☐	Operating Procedure	☐	Electric Circuit Schedule	☐											
OM Manual	☐	Operational Safety Requirement	☐	ICRS Procedure	☐											
FSAR/SAR	☐	IEFD Drawing	☐	Process Control Manual/Plan	☐											
Safety Equipment List	☐	Cell Arrangement Drawing	☐	Process Flow Chart	☐											
Radiation Work Permit	☐	Essential Material Specification	☐	Purchase Requisition	☐											
Environmental Impact Statement	☐	Fac. Proc. Samp. Schedule	☐	Tickler File	☐											
Environmental Report	☐	Inspection Plan	☐		☐											
Environmental Permit	☐	Inventory Adjustment Request	☐		☐											
19. Other Affected Documents: (NOTE: Documents listed below will not be revised by this ECN.) Signatures below indicate that the signing organization has been notified of other affected documents listed below.																
Document Number/Revision		Document Number/Revision		Document Number/Revision												
20. Approvals																
Signature		Date	Signature		Date											
<u>OPERATIONS AND ENGINEERING</u>			<u>ARCHITECT-ENGINEER</u>													
Cog. Eng. R. D. Schreiber		10/30/95	PE													
Cog. Mgr. J. G. Kristofzski		10/31/95	QA													
QA W.A. Hendrickson		10/30/95	Safety													
Safety			Design													
Environ.			Environ.													
Other			Other													
Program Support A.D. Rice		10-30-95														
			<u>DEPARTMENT OF ENERGY</u>													
			Signature or a Control Number that tracks the Approval Signature													
			<u>ADDITIONAL</u>													

RELEASE AUTHORIZATION

Document Number: WHC-SD-WM-DP-109, REV 1

Document Title: Final Report for Tank 241-U-203, Push Mode Cores 79 and 80

Release Date: 10/31/95

**This document was reviewed following the
procedures described in WHC-CM-3-4 and is:**

APPROVED FOR PUBLIC RELEASE

WHC Information Release Administration Specialist:

Kara Broz

10/31/95

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SUPPORTING DOCUMENT		1. Total Pages <i>169</i>
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5. Key Words Organic, Tank 241-U-203, Push Mode, Core 79, Core 80	6. Author Name: R. D. Schreiber <i>Ruth D. Schreiber</i> Signature Organization/Charge Code 75310/mdr21	
7. Abstract		
8. RELEASE STAMP <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: fit-content;"> OFFICIAL RELEASE BY WHC DATE OCT 31 1995 <i>Sta 4</i> </div>

Westinghouse
Hanford Company

P.O. Box 1970 Richland, WA 99352

WHC-SD-WM-DP-109, REV. 1

ANALYTICAL SERVICES

FINAL REPORT FOR TANK 241-U-203,
PUSH-MODE, CORES 79 AND 80

DATE PRINTED:

OCTOBER 30, 1995

WHC-SD-WM-DP-109, REV. 1

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PART I

WHC-SD-WM-DP-109, REV. 1

FINAL REPORT FOR TANK 241-U-203,
PUSH-MODE, CORES 79 AND 80

WHC-SD-WM-DP-109, REV. 1

NARRATIVE

FINAL REPORT FOR TANK 241-U-203,
PUSH MODE, CORES 79 AND 80

ANALYTICAL SUMMARY

This is the final report for tank 241-U-203, cores 79 and 80. These samples were analyzed for safety screening purposes in accordance with the Tank 241-U-203 Tank Characterization Plan (TCP; Reference 1), and these primary safety screening results were provided in the 45-day report for tank 241-U-203 (Reference 2). The results of the lithium analysis by inductively coupled plasma atomic emission spectroscopy (ICP) analysis, performed to determine the extent of any possible hydrostatic head fluid (HHF) contamination due to sampling, were also provided in Reference 2. This final report contains the analysis results requested by the organic data quality objective (DQO), namely the total organic carbon (TOC) results.

None of the safety screening or organic DQO analyses performed on tank 241-U-203 violated their respective notification limits, indicating that this tank may be classified as "safe". Further, no lithium or bromide was observed in the sample material suggesting that HHF was not used during core sampling, or that it did not intrude into the samples if it was used.

As the final report, the following items are also included: chain of custody forms, photographs of the extruded segments, sample preparation data, and the raw data for all analyses other than the differential scanning calorimetry (DSC) and thermogravimetric analysis (TGA), which were provided in Reference 2. Information regarding the hot cell activities may be found in Reference 3.

SAMPLE RECEIPT, EXTRUSION, AND SUBSAMPLING

A description of the sample receipt and extrusion is contained in Reference 2. Chain of custody forms, photographs of the extruded segments, and extrusion worklists are provided in subsequent sections of this report.

ANALYTICAL RESULTS

Analytical results for DSC, TGA, total alpha analysis, and lithium analysis are discussed in Reference 2, and are presented in Tables 1, 2, and 3 with the TOC analytical results.

Total Organic Carbon (TOC)

The direct persulfate oxidation and coulometric detection method, procedure LA-342-100, Rev. A-0, was used to analyze each solid subsegment (S95T000639, S95T000685, and S95T000689), while the furnace oxidation method (procedure LA-344-105, Rev. B-3) was used to analyze liquid subsample S95T000658. Sample and duplicate values for the solid subsamples were all less than 80 $\mu\text{g C/g}$ (less than detection limit), while the results for the liquid sample averaged 341.5 $\mu\text{g C/mL}$. All results obtained were well below the notification limit of 30,000 $\mu\text{g C/g}$ (or $\mu\text{g C/mL}$). The relative percent difference (RPD) for the

liquid sample was 2.05%, which was within the TCP specified precision criterion of 10% RPD. Since all of the solid results were below the detection limit, no RPD values were calculated. The Laboratory Measurement Control System (LMCS) control standard exhibited recoveries ranging from 92.7 to 101.0 percent, which were within the program's specified accuracy control limits of 90 to 110 percent.

REFERENCES

1. Schreiber, R. D., 1995, *Tank 241-U-203 Tank Characterization Plan*, WHC-SD-WM-TP-310, Revision 0, Westinghouse Hanford Company, Richland, Washington.
2. Schreiber, R. D., 1995, *45-Day Safety Screen Results for Tank 241-U-203, Push Mode, Cores 79 and 80*, WHC-SD-WM-DP-109, Revision 0, Westinghouse Hanford Company, Richland, Washington.
3. Fuller, R. K., 1995, *Tank 241-U-203*, WHC-N-1147, Westinghouse Hanford Company, Richland, Washington.

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SAMPLE DATA SUMMARY

ORGANIC AND FINAL REPORT FOR TANK
U-203

Table 1

CORE NUMBER: 79
SEGMENT #: 1

SEGMENT PORTION: L Lower Half of Segment

Sample#	R A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T000639		IOC by Persulfate/Coulometry	ug/g	94.33	37.20	< 8.00e1	<80	n/a	n/a	n/a	80.00	n/a
S95T000639		% Water by TGA using Mettler	%	99.70	n/a	67.19	61.83	64.51	8.31	n/a	n/a	n/a
S95T000639		DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	n/a	n/a	n/a	n/a	1.00e-04	n/a
S95T000639		DSC Exotherm using Mettler	Joules/g	99.12	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T000642	F	Alpha of Digested Solid	uci/g	97.64	<8.03e-04	< 1.51e-3	<1.47e-3	n/a	n/a	70.30	1.80e-03	207.7
S95T000642	F	Lithium - ICP-Fusion	ug/g	103.0	2.00e-03	< 49.2400	<49.1300	n/a	n/a	95.85	49.20	n/a

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ORGANIC AND FINAL REPORT FOR TANK
U-203

CORE NUMBER: 79
SEGMENT #: 1

SEGMENT PORTION: Drainable Liquid

Sample#	R A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T000658		Tot. Organic Carbon by Coul.	ug/mL	101.0	5.500	338.0	345.0	341.5	2.05	101.5	18.00	n/a
S95T000658		% Water by TGA on Perkin Elmer	%	96.77	n/a	69.86	69.99	69.92	0.19	n/a	n/a	n/a
S95T000658		DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	n/a	n/a	n/a	n/a	n/a	n/a
S95T000658		DSC Exotherm using Mettler	Joules/g	93.15	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T000662	B	Lithium -ICP-Acid Digest-Liq	ug/mL	98.89	2.40e-03	< 10.0000	<10.0000	n/a	n/a	102.0	10.00	n/a

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ORGANIC AND FINAL REPORT FOR TANK
U-203

CORE NUMBER: 80
SEGMENT #: 1

SEGMENT PORTION: U Upper Half of Segment

Sample#	R A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T000685		IOC by Persulfate/Coulometry	ug/g	92.67	38.00	< 80	<80	n/a	n/a	n/a	80.00	n/a
S95T000685		% Water by TGA using Mettler	%	99.41	n/a	24.50	22.94	23.72	6.58	n/a	n/a	n/a
S95T000685		DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	n/a	n/a	n/a	n/a	1.00e-04	n/a
S95T000685		DSC Exotherm using Mettler	Joules/g	99.12	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T000686	F	Alpha of Digested Solid	uCi/g	97.64	<5.86e-04	< 1.21e-3	<1.31e-3	n/a	n/a	59.20	1.31e-03	136.9
S95T000686	F	Lithium -ICP-Fusion	ug/g	104.1	1.63e-02	< 35.9131	<38.7372	n/a	n/a	92.64	35.90	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T000689		IOC by Persulfate/Coulometry	ug/g	92.67	38.00	< 80	<80	n/a	n/a	88.60	80.00	n/a
S95T000689		% Water by TGA using Mettler	%	99.41	n/a	33.25	31.51	32.38	5.37	n/a	n/a	n/a
S95T000689		DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	n/a	n/a	n/a	n/a	1.00e-04	n/a
S95T000689		DSC Exotherm using Mettler	Joules/g	99.12	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T000690	F	Alpha of Digested Solid	uCi/g	97.64	<5.86e-04	9.75e-04	<1.15e-3	n/a	n/a	49.70	1.47e-03	110.2
S95T000690	F	Lithium -ICP-Fusion	ug/g	104.1	1.63e-02	< 40.2	<36.5564	n/a	n/a	91.92	40.20	n/a

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WHC-SD-WM-DP-109, REV. 1

CHAIN OF CUSTODY FORMS

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

Ad109

(1) Shipment Number RMS-019 (2) Sample Number 95-059 (3) Supervisor M.C. Jones
 (4) Tank U-203 (5) Riser 2 (6) Segment 001 (7) Core 79 (8) Cask Serial Number SN-25-G

Radiation Survey Data:		(9) FIELD	(33) LABORATORY	(10) Shipment Description	
Over Top Dose Rate	<u><0.5</u>		<u>1.5</u>	A. Work Package Number	<u>W5-9500035</u>
Side Dose Rate	<u>1.0</u>		<u>1.5</u>	B. Cask Seal Number	<u>1748</u>
Bottom Dose Rate	<u>1.5</u>		<u>1.5</u>	C. Sampler Serial Number	<u>94-248</u>
Smearable Contamination	<u><20</u>		<u><20</u>	D. Date and Time Sampler Unseated	<u>3/31/95/11:49</u>
	(Alpha)		(Alpha)	E. Expected Liquid Content	<u>30%</u>
	<u><1K</u>		<u>1K</u>	F. Expected Solid Content	<u>70%</u>
	(Beta-Gamma)		(Beta-Gamma)	G. Dose Rate Through Drill String	<u>150 mR/hr</u>
RCT* <u>gmBauer</u>	(HPT)	RCT* <u>L. J. Laine</u>	(HPT)	H. Expected Sample Length	<u>94</u>
	(Signature)		(Signature)		

(11) INFORMATION (Include statement of laboratory tests to be performed.)

WHC-SD-WM-DP-109, REV. 1

(12) Field Comments

BOTTOM DETECTOR WENT OFF 9" INTO THE
STROKE.

(34) Laboratory Comments

(13) Point of Origin <u>U-203</u>	(14) Destination <u>222S</u>	(15) Sender Name (Sign and PRINT) <u>D. Hartley D. Hartley</u>	(16) Date/Time <u>4/3/95 1325</u>	(17) Sender Comments
(19) Relinquished By (Sign and PRINT) <u>D. Hartley D. Hartley</u>	(20) Received By (Sign and PRINT) <u>Lubal D Helms Lubal D Helms</u>	(21) Date/Time <u>4/3/95 1335</u>	(22) Receiver Comments	
(23) Relinquished By (Sign and PRINT) <u>Lubal D Helms Lubal D Helms</u>	(24) Received By (Sign and PRINT) <u>EEDubbs EEDubbs</u>	(25) Date/Time <u>4/3/95 1415</u>	(26) Receiver Comments	
(27) Relinquished By (Sign and PRINT)	(28) Received By (Sign and PRINT)	(29) Date/Time	(30) Receiver Comments	

(18) Seal Intact Upon Release?

☒ Yes ☐ No

(31) Seal Intact Upon Receipt?

☒ Yes ☐ No

(32) Seal Data Consistent with this Record?

Shipment No.

☒ Yes ☐ No

Cask Seal No.

☒ Yes ☐ No

Sample No.

☒ Yes ☐ No

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

109

(1) Shipment Number RMS-019 (2) Sample Number 95-061 (3) Supervisor D. Hartley (8) Cask Serial Number C1029
 (4) Tank 4-203 (5) Riser #6 (6) Segment 1 (7) Core 80

Radiation Survey Data:		(9) FIELD		(33) LABORATORY		(10) Shipment Description	
Over Top Dose Rate		<u>20.5</u>		<u>1.5</u>		A. Work Package Number	<u>W5-95-000356</u>
Side Dose Rate		<u>20.5</u>		<u>1.5</u>		B. Cask Seal Number	<u>94041205</u>
Bottom Dose Rate		<u>1.6</u>		<u>1.6</u>		C. Sampler Serial Number	<u>94-185</u>
Smearable Contamination		<u>< 20</u>	(Alpha)	<u>220</u>		D. Date and Time Sampler Unseated	<u>4-3-95 1110</u>
		<u>< 1K</u>	(Beta-Gamma)	<u>1100</u>		E. Expected Liquid Content	<u>80%</u>
RCT* (HPT)	<u>800000</u>	(Signature)		<u>4/3/95</u>	(Signature)	F. Expected Solid Content	<u>20%</u>
RCT* (HPT)						G. Dose Rate Through Drill String	<u>37 Mr/Hr</u>
						H. Expected Sample Length	<u>19"</u>

(11) INFORMATION (Include statement of laboratory tests to be performed.)

WHC-SD-WM-DP-109, REV. 1

(34) Laboratory Comments

(12) Field Comments

Sample is 11 3/4" long

(13) Point of Origin		(14) Destination	(15) Sender Name (Sign and PRINT)		(16) Date/Time	(17) Sender Comments
<u>4-202</u>	<u>222.5</u>		<u>D. Hartley</u>	<u>4/3/95</u>	<u>1325</u>	
(19) Relinquished By (Sign and PRINT)			(20) Received By (Sign and PRINT)		(21) Date/Time	(22) Receiver Comments
<u>D. Hartley</u>			<u>Subal D Helms</u>		<u>4/3/95 1335</u>	
(23) Relinquished By (Sign and PRINT)			(24) Received By (Sign and PRINT)		(25) Date/Time	(26) Receiver Comments
<u>Subal D Helms</u>			<u>EE Pickers</u>		<u>4/3/95 1405</u>	
(27) Relinquished By (Sign and PRINT)			(28) Received By (Sign and PRINT)		(29) Date/Time	(30) Receiver Comments

(18) Seal Intact Upon Release? ☒ Yes ☐ No

(31) Seal Intact Upon Receipt? ☒ Yes ☐ No

(32) Seal Data Consistent with this Record?

Shipment No. ☒ Yes ☐ No

Cask Seal No. ☒ Yes ☐ No

Sample No. ☒ Yes ☐ No

WHC-SD-WM-DP-109, REV. 1

PHOTOGRAPHS

U-203 Core 79 Segment *1

U-203 Core 80 Segment #2 #1

WHC-SD-WM-DP-109, REV. 1

WHC-SD-WM-DP-109, REV. 1

SAMPLE HANDLING

LABCORE Data Entry Template for Worklist# 966

Analyst: EL Instrument: BA000 NA Book # NA

Method: LO-160-103 Rev/Mod A-7

WHC-SD-WM-DP-109, REV. L

Worklist Comment: U-203 C79 Seg #1 Extrusion

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 INSTCHK01			EXTRUD01	SOLID	<u>20</u>	<u>19.99</u>	<u>N/A</u>	
		2 INSTCHK02			EXTRUD01	SOLID	<u>500</u>	<u>499.97</u>	<u>N/A</u>	
95000051	U-203	3 SAMPLE	S95T000559	0	DLIQVOL1	SOLID	<u>N/A</u>	<u>44</u>		ml
95000051	U-203	4 SAMPLE	S95T000559	0	DLIQWT01	SOLID	<u>N/A</u>	<u>44</u>		g
95000051	U-203	5 SAMPLE	S95T000559	0	EST.G/ML	SOLID	<u>N/A</u>	<u>1</u>		g/ml
95000051	U-203	6 SAMPLE	S95T000559	0	EXTRUD01	SOLID	<u>N/A</u>	<u>complete</u>		
95000051	U-203	7 SAMPLE	S95T000559	0	LLIQWT01	SOLID	<u>N/A</u>	<u>0</u>		g
95000051	U-203	8 SAMPLE	S95T000559	0	NOTEBOOK	SOLID	<u>N/A</u>	<u>WHC-W-1147</u>		
95000051	U-203	9 SAMPLE	S95T000559	0	SLDVOL01	SOLID	<u>N/A</u>	<u>105</u>		ml
95000051	U-203	10 SAMPLE	S95T000559	0	SLDWT-01	SOLID	<u>N/A</u>	<u>105</u>		g
95000051	U-203	11 SAMPLE	S95T000559	0	ORGVOL01	SOLID	<u>N/A</u>	<u>0</u>		ml

Final page for worklist # 966

EL 4-5-95
Analyst Signature Date

EL 4-5-95
Analyst Signature Date

Data Entry Comments:

Reviewed by
JK 4/5/95

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# 967

Analyst: EC Instrument: BA000 Book # NA

Method: LO-160-103 Rev/Mod A-7

WHC-SD-WM-DP-109, REV. 1

Worklist Comment: U-203 C80 Seg #1 Extrusion

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	INSTCHK01				EXTRUD01	SOLID	<u>20</u>	<u>19.99</u>	<u>N/A</u>	
		2	INSTCHK02				EXTRUD01	SOLID	<u>500</u>	<u>499.97</u>	<u>N/A</u>	
95000053	U-203	3	SAMPLE	S95T000563	0		DLIQVOL1	SOLID	<u>N/A</u>	<u>0</u>		mL
95000053	U-203	4	SAMPLE	S95T000563	0		DLIQWT01	SOLID	<u>N/A</u>	<u>0</u>		g
95000053	U-203	5	SAMPLE	S95T000563	0		EST.G/ML	SOLID	<u>N/A</u>	<u>0</u>		g/mL
95000053	U-203	6	SAMPLE	S95T000563	0		EXTRUD01	SOLID	<u>N/A</u>	<u>complete</u>		
95000053	U-203	7	SAMPLE	S95T000563	0		LLIQWT01	SOLID	<u>N/A</u>	<u>0</u>		g
95000053	U-203	8	SAMPLE	S95T000563	0		NOTEBOOK	SOLID	<u>N/A</u>	<u>WHC-N-1147</u>		
95000053	U-203	9	SAMPLE	S95T000563	0		SLDVOL01	SOLID	<u>N/A</u>	<u>221</u>		mL
95000053	U-203	10	SAMPLE	S95T000563	0		SLDWT-01	SOLID	<u>N/A</u>	<u>221</u>		g
95000053	U-203	11	SAMPLE	S95T000563	0		ORGVOL01	SOLID	<u>N/A</u>	<u>0</u>		mL

Final page for worklist # 967

EC 4-5-95
Analyst Signature Date

EC 4-5-95
Analyst Signature Date

Data Entry Comments:

Reviewed by
PK 4/5/95

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# 1071

Analyst: ec 41 Instrument: BA000 Book # N/A

Method: LO-160-103 Rev/Mod A-7

Worklist Comment: U-203 Archive Samples

WHC-SD-WM-DP-109, REV. 1

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 INSTCHK01			EXTRUD01	SOLID	<u>20</u>	<u>19.90</u>	N/A	
		2 INSTCHK02			EXTRUD01	SOLID	<u>500</u>	<u>499.66</u>	N/A	
95000051	U-203	3 SAMPLE	S95T000683	0 X	ARCHIVE <u>6769</u>	SOLID	N/A	<u>57.62</u>		g
95000053	U-203	4 SAMPLE	S95T000687	0 X	ARCHIVE <u>6879</u>	SOLID	N/A	<u>79.09</u>		g
95000053	U-203	5 SAMPLE	S95T000691	0 X	ARCHIVE <u>6878</u>	SOLID	N/A	<u>76.85</u>		g
95000051	U-203	6 SAMPLE	S95T000657	0 X	ARCHIVE <u>6766</u>	LIQUID	N/A	<u>21.29</u>		g

Final page for worklist # 1071

EC 4-26-95
Analyst Signature Date

EC 4-26-95
Analyst Signature Date

Data Entry Comments:

Revised / ABX 5/1/95

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-109, REV. 1

SAMPLE PREPARATIONS

LABCORE Data Entry Template for Worklist# 1077

Analyst: Jds Instrument: FUS01 Book # _____
Method: LA-549-141 Rev/Mod C-2 WHC-SD-WM-DP-109, REV. 1
Worklist Comment: U-203 FUSION DIGEST - 685--->686, 689--->690

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK-PREP				FUSION01	SOLID		200ml	N/A	g/L
95000053	U-203	2	SAMPLE	S95T000686	0	F	FUSION01	SOLID	N/A	2.7845		g/L
95000053	U-203	3	DUP	S95T000686	0	F	FUSION01	SOLID	2.7845	2.5845	N/A	g/L
95000053	U-203	4	SAMPLE	S95T000690	0	F	FUSION01	SOLID	N/A	2.440		g/L
95000053	U-203	5	DUP	S95T000690	0	F	FUSION01	SOLID	2.440	2.735	N/A	g/L

Final page for worklist # 1077

Jack Spellman 4/16/95
Analyst Signature Date

[Signature] 4-17-95
Analyst Signature Date

Weights
S95T000686 = .5569g → 200ml
S95T000686 DUP = .5163g → 200ml
S95T000690 = .4979g → 200ml
S95T000690 DUP = .5471g → 200ml

Data Entry Comments:

No visible solids or colors <.5mR/hr - Chuck Felder
Bertland Giff II 4-24-95

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# 1079

Analyst: KRM Instrument: FUS01 4L11066 Book # _____

Method: LA-549-141 Rev/Mod C-2

WHC-SD-WM-DP-109, REV. 1

Worklist Comment: U-203 FUSION DIGEST - 639--- > 642

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			FUSION01	SOLID	<u>250 mL</u>		N/A	g/L
95000051	U-203	2 SAMPLE	S95T000642	0 F	FUSION01	SOLID	N/A	<u>2.0308</u>		g/L
95000051	U-203	3 DUP	S95T000642	0 F	FUSION01	SOLID	<u>2.0308</u>	<u>2.0352</u>	N/A	g/L

Final page for worklist # 1079

[Signature]
Analyst Signature

4-19-95
Date

[Signature]
Analyst Signature

4-19-95
Date

642
SAM

$$\frac{.5077 \text{ g}}{.250 \text{ L}} = 2.0308 \text{ g/L}$$

30 mL HCL

642
Dup

$$\frac{.5088 \text{ g}}{.250 \text{ L}} = 2.0352 \text{ g/L}$$

30 mL HCL

Data Entry Comments:

3.5 mL/h $< 0.5 \text{ mL/h}$ Bob Clements

Bertrand Buff II

4-19-95

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# 1084

Analyst: LMH2 Instrument: ACD01 N/A Book # Y4JWAC1A10
Method: LA-505-158 Rev/Mod A-4-BDD 4-20-95 WHC-SD-WM-DP-109, REV. 1
Worklist Comment: U-203 ACID DIGEST (LIQUID) - 658--->662; LI STD ONLY

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			ACIDIG02	LIQUID	<u>100mL</u>	<u>100mL</u>	<u>N/A</u>	DF
		2 STD-PREP			ACIDIG02	LIQUID	<u>20DF</u>	<u>20DF</u>	<u>N/A</u>	DF
		3 SAMPLE	S95T000662	0 B	ACIDIG02	LIQUID	<u>N/A</u>	<u>100DF</u>		DF
		4 DUP	S95T000662	0 B	ACIDIG02	LIQUID	<u>100DF</u>	<u>100DF</u>	<u>N/A</u>	DF

100mL Tot. Vol.
5mL → 100mL
1mL → 100mL
1mL → 100mL

Final page for worklist # 1084

Sig Landoe 04/19/95
Analyst Signature Date

Dug Hummel 4/20/95
Analyst Signature Date

Data Entry Comments:

Samples dose rated at 2 mR/hr by
Sig Landoe <S. Landoe 04/19/95>
Bertrand Giffert II 4-20-95

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-109, REV. 1

INORGANIC ANALYSES

LABCORE Data Entry Template for Worklist# 1104

Analyst: B. GORCOK Instrument: ICP01 Book# 418481
Method: LA-505-151 46 Rev/Mod A-1
Worklist Comment: ICP U-203 FUSION DIGEST Li only WHC-SD-WM-DP-109, REV. 1

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	ICSA				@ICP-QC	QC		
4	ICSAB				@ICP-QC	QC		
5	PREPBLKTJA				@ICP-F03	SOLID		
6	SAMPLE	S95T000642	0	F	@ICP-F03	SOLID	95000051	U-203
	Analytes Requested: LI-F-01							
7	DUP	S95T000642	0	F	@ICP-F03	SOLID		
8	SPK	S95T000642	0	F	@ICP-F03	SOLID		
9	ICSA				@ICP-QC	QC		
10	ICSAB				@ICP-QC	QC		
11	CCV				@ICP-QC	QC		
12	CCB				@ICP-QC	QC		

Final page for worklist # 1104

[Signature] 4-28-95
Analyst Signature Date

Analyst Signature Date

PREP BLKTJA DIRECT
Sample .5077g in 250.0L - 1mL - 9mL D.F.
DUP .5088g in 250.0L - 1mL - 9mL 4824
POST spike .5077g in 250.0L - 1mL - 24-7mL 4913
5X ~~5077~~ .5077g in 250.0L - 1mL - 9mL - 2m - 9mL 4924
24621

Data Entry Comments:

SP 05/01/95

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICV	950428C	ICP2	04/28/95	13:11	BJG	Q	CONC
2	ICB	950428C	ICP2	04/28/95	13:15	BJG	Q	CONC
3	ICSA	950428C	ICP2	04/28/95	13:19	BJG	Q	CONC
4	ICSAB	950428C	ICP2	04/28/95	13:23	BJG	Q	CONC
5	PREPBLKTJA	950428C	ICP2	04/28/95	13:29	BJG	S	CONC
6	S95T000642 L	950428C	ICP2	04/28/95	13:33	BJG	S	CONC
7	S95T000642	950428C	ICP2	04/28/95	13:37	BJG	S	CONC
8	S95T000642 D	950428C	ICP2	04/28/95	13:41	BJG	S	CONC
9	S95T000642 A	950428C	ICP2	04/28/95	13:45	BJG	S	CONC
10	ICSA	950428C	ICP2	04/28/95	13:49	BJG	Q	CONC
11	ICSAB	950428C	ICP2	04/28/95	13:52	BJG	Q	CONC
12	CCV	950428C	ICP2	04/28/95	13:56	BJG	Q	CONC
13	CCB	950428C	ICP2	04/28/95	14:00	BJG	Q	CONC

Handwritten notes:
B/K 4-28-95
U-203 Fusion Li Only
24 .50779 in 200u, 1ml-2ml, 5X
DOP .50779 in 200u, 1ml-2ml
Post 3/4 .50779 in 200u - 1ml-2ml

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 25 TO 28.

WHC-SD-WM-DP-109, REV. 1

#	Sample Name	Ag	Al	As	B	Ba	Be
1	ICV	5.083	5.124	5.266	5.092	5.057	5.354
2	ICB	.0005	-.0048	.0092	-.0063	-.0001	-.0003
3	ICSA	-.0016	253.8	.0092	-.0086	.0018	-.0000
4	ICSAB	1.002	279.7	.0457	-.0067	.4876	.5115
5	PREPBLKTJA	.0042	.0726	.0228	-.0027	.0020	-.0003
6	S95T000642_L	27.91	81390.	19.76	-140.5	7.469	-12.56
7	S95T000642-	.0374	80980.	92.31	-59.02	3.610	-1.838
8	S95T000642_D	.9181	96450.	20.45	-39.25	3.348	-2.057
9	S95T000642-A	4606.	86180.	5232.	4782.	4731.	5144.
10	ICSA	.0018	256.0	.0052	-.0073	.0019	-.0002
11	ICSAB	1.006	277.4	.0156	-.0137	.4800	.5080
12	CCV	5.238	5.213	5.405	5.194	5.159	5.481
13	CCB	.0024	-.0111	.0166	-.0006	-.0001	-.0003

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	ICV	5.186	5.257	5.223	5.179	5.250	5.209
2	ICB	.0080	.0104	-.0009	.0042	.0007	.0003
3	ICSA	.0311	256.9	.0019	.0060	.0014	-.0032
4	ICSAB	.0671	283.9	.9863	.0084	.4909	.4831
5	PREPBLKTJA	-6.423	.1129	-.0004	.0027	.0030	.0007
6	S95T000642_L	-3280.	416.5	5.604	205.2	65.39	395.1
7	S95T000642-	-3572.	189.4	-4.035	36.82	5.865	344.3
8	S95T000642_D	-3600.	165.6	-3.295	31.51	7.109	438.7
9	S95T000642-A	1264.	5416.	5088.	4977.	5085.	5461.
10	ICSA	.0479	265.1	.0011	.0096	.0014	.0007
11	ICSAB	.0507	285.2	.9763	.0067	.4906	.4805
12	CCV	5.293	5.523	5.385	5.293	5.422	5.389
13	CCB	.0420	.0137	-.0013	.0014	.0010	.0007

#	Sample Name	Cu	Eu	Fe	K	La	Li
1	ICV	5.213	.0012	5.218	5.054	5.170	5.150
2	ICB	.0002	.0009	.0014	.0091	.0006	.0007
3	ICSA	-.0050	-.0659	96.14	-.0191	-.0009	.0033
4	ICSAB	.5131	-.0870	105.5	.0714	-.0010	1.025
5	PREPBLKTJA	.0075	.0044	.0593	8968.	-.0010	.0020
6	S95T000642_L	.4859	13.54	777.1	5825e3	13.36	18.34
7	S95T000642-	10.41	6.134	704.2	5674e3	-.7536	4.125
8	S95T000642_D	15.19	3.727	783.6	5792e3	1.365	3.659
9	S95T000642-A	4923.	7.819	5769.	5689e3	4936.	4720.
10	ICSA	-.0047	-.0789	98.11	.1954	-.0009	.0037
11	ICSAB	.5046	-.0936	105.1	.0612	-.0012	1.009
12	CCV	5.291	.0022	5.361	5.192	5.272	5.196
13	CCB	-.0003	.0008	.0023	.0439	.0000	.0010

WHC-SD-WM-DP-109, REV. 1

SP 05/01/95

#	Sample Name	Mg	Mn	Mo	Na	Nd	Ni
1	ICV	5.112	5.093	5.223	5.131	5.327	5.181
2	ICB	-.0035	.0002	-.0043	.0084	.0007	.0045
3	ICSA	257.1	.0014	-.0165	202.0	-.0022	-.0153
4	ICSAB	282.6	.4770	-.0174	204.1	-.0035	.9460
5	PREPBLKTJA	.1017	.0374	-.0016	3.728	-.0030	4.439
6	S95T000642 L	125.0	35.49	-48.68	143200.	13.59	6817.
7	S95T000642	64.81	32.75	-8.652	139200.	-5.879	6553.
8	S95T000642 D	125.5	34.59	-11.27	144600.	3.429	7498.
9	S95T000642 A	4714.	4908.	5155.	143500.	5044.	11590.
10	ICSA	259.6	.0020	-.0136	201.7	-.0028	-.0211
11	ICSAB	280.8	.4751	-.0212	201.1	-.0053	.9416
12	CCV	5.196	5.258	5.375	5.187	5.419	5.362
13	CCB	.0014	.0003	-.0012	.0084	-.0008	-.0056

#	Sample Name	P	Pb	S	Sb	Se	Si
1	ICV	5.460	5.208	5.240	4.924	5.136	Q4.629
2	ICB	.0472	.0297	.0047	-.0015	.0077	-.0013
3	ICSA	.1167	.0665	.0474	-.0116	.0848	.0112
4	ICSAB	.1159	1.052	.0651	-.0070	.1055	.0137
5	PREPBLKTJA	.1093	.1189	.0277	-.0057	-1.772	.3145
6	S95T000642 L	47710.	1040.	133.8	362.7	-522.4	699.3
7	S95T000642	48840.	411.1	184.6	-26.81	-1122.	771.8
8	S95T000642 D	46860.	371.0	175.2	-9.551	-1147.	931.2
9	S95T000642 A	53160.	5407.	5100.	4827.	4009.	5454.
10	ICSA	.1216	.0956	.0297	.0024	.0794	.0154
11	ICSAB	.1336	1.079	.0570	.0022	.1217	.0166
12	CCV	Q5.678	5.389	5.361	5.073	5.272	4.768
13	CCB	.0380	.0279	.0175	-.0056	.0230	-.0005

#	Sample Name	Sm	Sr	Th	Ti	Tl	U
1	ICV	5.181	5.088	-.1471	5.049	5.110	10.30
2	ICB	.0083	.0000	-.0051	.0005	-.0216	.0353
3	ICSA	-.0054	-.0007	-.0488	.0016	-.0035	.1206
4	ICSAB	-.0098	-.0005	-.0524	.0016	.0270	.0464
5	PREPBLKTJA	.0273	.0033	.1393	.0016	-.0245	-2.259
6	S95T000642 L	133.3	-.0146	151.1	25.91	-1286.	-986.8
7	S95T000642	53.17	4.733	88.10	2.649	-232.8	-1409.
8	S95T000642 D	21.32	4.960	84.38	11.57	-115.3	-1516.
9	S95T000642 A	4958.	4841.	-55.34	4893.	4758.	8406.
10	ICSA	-.0018	-.0007	-.0487	.0016	.0366	.1071
11	ICSAB	-.0045	-.0006	-.0498	.0016	.0385	.0752
12	CCV	5.271	5.180	-.1537	5.164	5.215	10.47
13	CCB	.0095	.0000	-.0075	.0005	-.0268	.0393

WHC-SD-WM-DP-109, REV. 1

#	Sample Name	V	Y	Zn	Zr
1	ICV	5.147	.0105	5.229	5.147
2	ICB	.0022	.0003	.0012	.0019
3	ICSA	.0011	.0064	-.0033	.0017
4	ICSAB	.4969	.0067	1.002	.0022
5	PREPBLKTJA	.0112	.0012	.0025	.0624
6	S95T000642 L	57.20	3.858	328.7	53.28
7	S95T000642	34.63	1.929	191.5	34.67
8	S95T000642 D	28.03	.3849	234.3	34.97
9	S95T000642 A	5055.	13.12	5292.	5030.
10	ICSA	.0036	.0069	-.0034	.0030
11	ICSAB	.4970	.0071	1.006	.0027
12	CCV	5.299	.0110	5.412	5.271
13	CCB	.0022	.0005	-.0007	.0009

SP 05/01/95

WHC-SD-WM-DP-109, REV. 1

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	1104	1			ICV	AG				5.0827			1.0000	04/28/95	13:11	bfg	0.01	@ICP-QC		
2	1104	1			ICV	AL				5.1241			1.0000	04/28/95	13:11	bfg	0.05	@ICP-QC		
3	1104	1			ICV	AS				5.2658			1.0000	04/28/95	13:11	bfg	0.05	@ICP-QC		
4	1104	1			ICV	B				5.0915			1.0000	04/28/95	13:11	bfg	0.05	@ICP-QC		
5	1104	1			ICV	BA				5.0567			1.0000	04/28/95	13:11	bfg	0.05	@ICP-QC		
6	1104	1			ICV	BE				5.3540			1.0000	04/28/95	13:11	bfg	0.005	@ICP-QC		
7	1104	1			ICV	BI				5.1859			1.0000	04/28/95	13:11	bfg	0.1	@ICP-QC		
8	1104	1			ICV	CA				5.2573			1.0000	04/28/95	13:11	bfg	0.1	@ICP-QC		
9	1104	1			ICV	CD				5.2229			1.0000	04/28/95	13:11	bfg	0.01	@ICP-QC		
10	1104	1			ICV	CE				5.1791			1.0000	04/28/95	13:11	bfg	0.1	@ICP-QC		
11	1104	1			ICV	CO				5.2504			1.0000	04/28/95	13:11	bfg	0.02	@ICP-QC		
12	1104	1			ICV	CR				5.2088			1.0000	04/28/95	13:11	bfg	0.01	@ICP-QC		
13	1104	1			ICV	CU				5.2132			1.0000	04/28/95	13:11	bfg	0.01	@ICP-QC		
14	1104	1			ICV	EU				0.0012			1.0000	04/28/95	13:11	bfg	0.05	@ICP-QC		
15	1104	1			ICV	FE				5.2183			1.0000	04/28/95	13:11	bfg	0.05	@ICP-QC		
16	1104	1			ICV	K				5.0543			1.0000	04/28/95	13:11	bfg	0.3	@ICP-QC		
17	1104	1			ICV	LA				5.1701			1.0000	04/28/95	13:11	bfg	0.05	@ICP-QC		
18	1104	1			ICV	LI				5.1500			1.0000	04/28/95	13:11	bfg	0.01	@ICP-QC		
19	1104	1			ICV	MG				5.1122			1.0000	04/28/95	13:11	bfg	0.1	@ICP-QC		
20	1104	1			ICV	MN				5.0928			1.0000	04/28/95	13:11	bfg	0.01	@ICP-QC		
21	1104	1			ICV	MO				5.2232			1.0000	04/28/95	13:11	bfg	0.05	@ICP-QC		
22	1104	1			ICV	NA				5.1311			1.0000	04/28/95	13:11	bfg	0.1	@ICP-QC		
23	1104	1			ICV	ND				5.3269			1.0000	04/28/95	13:11	bfg	0.1	@ICP-QC		
24	1104	1			ICV	NI				5.1806			1.0000	04/28/95	13:11	bfg	0.02	@ICP-QC		
25	1104	1			ICV	P				5.4599			1.0000	04/28/95	13:11	bfg	0.2	@ICP-QC		
26	1104	1			ICV	PB				5.2076			1.0000	04/28/95	13:11	bfg	0.1	@ICP-QC		
27	1104	1			ICV	S				5.2397			1.0000	04/28/95	13:11	bfg	0.05	@ICP-QC		
28	1104	1			ICV	SB				4.9239			1.0000	04/28/95	13:11	bfg	0.2	@ICP-QC		
29	1104	1			ICV	SE				5.1361			1.0000	04/28/95	13:11	bfg	0.1	@ICP-QC		
30	1104	1			ICV	SI				4.6286			1.0000	04/28/95	13:11	bfg	0.05	@ICP-QC		
31	1104	1			ICV	SM				5.1810			1.0000	04/28/95	13:11	bfg	0.1	@ICP-QC		
32	1104	1			ICV	SR				5.0881			1.0000	04/28/95	13:11	bfg	0.01	@ICP-QC		
33	1104	1			ICV	TH				-0.1471			1.0000	04/28/95	13:11	bfg	0	@ICP-QC		
34	1104	1			ICV	TI				5.0486			1.0000	04/28/95	13:11	bfg	0.01	@ICP-QC		
35	1104	1			ICV	TL				5.1104			1.0000	04/28/95	13:11	bfg	0.2	@ICP-QC		
36	1104	1			ICV	U				10.2997			1.0000	04/28/95	13:11	bfg	0.4	@ICP-QC		
37	1104	1			ICV	V				5.1466			1.0000	04/28/95	13:11	bfg	0.05	@ICP-QC		
38	1104	1			ICV	Y				0.0105			1.0000	04/28/95	13:11	bfg	0.01	@ICP-QC		
39	1104	1			ICV	ZN				5.2287			1.0000	04/28/95	13:11	bfg	0.01	@ICP-QC		
40	1104	1			ICV	ZR				5.1468			1.0000	04/28/95	13:11	bfg	0.01	@ICP-QC		
41	1104	2			ICB	AG				0.0005			1.0000	04/28/95	13:15	bfg	0.01	@ICP-QC		
42	1104	2			ICB	AL				-0.0048			1.0000	04/28/95	13:15	bfg	0.05	@ICP-QC		
43	1104	2			ICB	AS				0.0092			1.0000	04/28/95	13:15	bfg	0.05	@ICP-QC		
44	1104	2			ICB	B				-0.0063			1.0000	04/28/95	13:15	bfg	0.05	@ICP-QC		
45	1104	2			ICB	BA				-0.0001			1.0000	04/28/95	13:15	bfg	0.05	@ICP-QC		
46	1104	2			ICB	BE				-0.0003			1.0000	04/28/95	13:15	bfg	0.005	@ICP-QC		
47	1104	2			ICB	BI				0.0080			1.0000	04/28/95	13:15	bfg	0.1	@ICP-QC		
48	1104	2			ICB	CA				0.0104			1.0000	04/28/95	13:15	bfg	0.1	@ICP-QC		
49	1104	2			ICB	CD				-0.0009			1.0000	04/28/95	13:15	bfg	0.01	@ICP-QC		
50	1104	2			ICB	CE				0.0042			1.0000	04/28/95	13:15	bfg	0.1	@ICP-QC		
51	1104	2			ICB	CO				0.0007			1.0000	04/28/95	13:15	bfg	0.02	@ICP-QC		
52	1104	2			ICB	CR				0.0003			1.0000	04/28/95	13:15	bfg	0.01	@ICP-QC		
53	1104	2			ICB	CU				0.0002			1.0000	04/28/95	13:15	bfg	0.01	@ICP-QC		
54	1104	2			ICB	EU				0.0009			1.0000	04/28/95	13:15	bfg	0.05	@ICP-QC		
55	1104	2			ICB	FE				0.0014			1.0000	04/28/95	13:15	bfg	0.05	@ICP-QC		
56	1104	2			ICB	K				0.0091			1.0000	04/28/95	13:15	bfg	0.3	@ICP-QC		
57	1104	2			ICB	LA				0.0006			1.0000	04/28/95	13:15	bfg	0.05	@ICP-QC		
58	1104	2			ICB	LI				0.0007			1.0000	04/28/95	13:15	bfg	0.01	@ICP-QC		
59	1104	2			ICB	MG				-0.0035			1.0000	04/28/95	13:15	bfg	0.1	@ICP-QC		
60	1104	2			ICB	MN				0.0002			1.0000	04/28/95	13:15	bfg	0.01	@ICP-QC		
61	1104	2			ICB	MO				-0.0043			1.0000	04/28/95	13:15	bfg	0.05	@ICP-QC		
62	1104	2			ICB	NA				0.0084			1.0000	04/28/95	13:15	bfg	0.1	@ICP-QC		
63	1104	2			ICB	ND				0.0007			1.0000	04/28/95	13:15	bfg	0.1	@ICP-QC		
64	1104	2			ICB	NI				0.0045			1.0000	04/28/95	13:15	bfg	0.02	@ICP-QC		
65	1104	2			ICB	P				0.0472			1.0000	04/28/95	13:15	bfg	0.2	@ICP-QC		
66	1104	2			ICB	PB				0.0297			1.0000	04/28/95	13:15	bfg	0.1	@ICP-QC		
67	1104	2			ICB	S				0.0047			1.0000	04/28/95	13:15	bfg	0.05	@ICP-QC		
68	1104	2			ICB	SB				-0.0015			1.0000	04/28/95	13:15	bfg	0.2	@ICP-QC		
69	1104	2			ICB	SE				0.0077			1.0000	04/28/95	13:15	bfg	0.1	@ICP-QC		
70	1104	2			ICB	SI				-0.0013			1.0000	04/28/95	13:15	bfg	0.05	@ICP-QC		
71	1104	2			ICB	SM				0.0083			1.0000	04/28/95	13:15	bfg	0.1	@ICP-QC		
72	1104	2			ICB	SR				0.0000			1.0000	04/28/95	13:15	bfg	0.01	@ICP-QC		
73	1104	2			ICB	TH				-0.0051			1.0000	04/28/95	13:15	bfg	0	@ICP-QC		
74	1104	2			ICB	TI				0.0005			1.0000	04/28/95	13:15	bfg	0.01	@ICP-QC		
75	1104	2			ICB	TL				-0.0216			1.0000	04/28/95	13:15	bfg	0.2	@ICP-QC		
76	1104	2			ICB	U				0.0353			1.0000	04/28/95	13:15	bfg	0.4	@ICP-QC		
77	1104	2			ICB	V				0.0022			1.0000	04/28/95	13:15	bfg	0.05	@ICP-QC		
78	1104	2			ICB	Y				0.0003			1.0000	04/28/95	13:15	bfg	0.01	@ICP-QC		
79	1104	2			ICB	ZN				0.0012			1.0000	04/28/95	13:15	bfg	0.01	@ICP-QC		
80	1104	2			ICB	ZR				0.0019			1.0000	04/28/95	13:15	bfg	0.01	@ICP-QC		
81	1104	3			ICSA	AG				-0.0016			1.0000	04/28/95	13:19	bfg	0.01	@ICP-QC		
82	1104	3			ICSA	AL				253.8043			1.0000	04/28/95	13:19	bfg	0.05	@ICP-QC		
83	1104	3			ICSA	AS				0.0092			1.0000	04/28/95	13:19	bfg	0.05	@ICP-QC		
84	1104	3			ICSA	B				-0.0086			1.0000	04/28/95	13:19	bfg	0.05	@ICP-QC		
85	1104	3			ICSA	BA				0.0018										

OJTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
123	1104	4			ICISAB	AS				0.0457		1.0000	04/28/95	13:23	bfg	0.05	ICP-QC			
124	1104	4			ICISAB	B				-0.0087		1.0000	04/28/95	13:23	bfg	0.05	ICP-QC			
125	1104	4			ICISAB	BA				0.4876		1.0000	04/28/95	13:23	bfg	0.05	ICP-QC			
126	1104	4			ICISAB	BE				0.5115		1.0000	04/28/95	13:23	bfg	0.0005	ICP-QC			
127	1104	4			ICISAB	BI				0.0671		1.0000	04/28/95	13:23	bfg	0.1	ICP-QC			
128	1104	4			ICISAB	CA				283.8845		1.0000	04/28/95	13:23	bfg	0.1	ICP-QC			
129	1104	4			ICISAB	CD				0.9863		1.0000	04/28/95	13:23	bfg	0.01	ICP-QC			
130	1104	4			ICISAB	CE				0.0084		1.0000	04/28/95	13:23	bfg	0.1	ICP-QC			
131	1104	4			ICISAB	CO				0.4909		1.0000	04/28/95	13:23	bfg	0.02	ICP-QC			
132	1104	4			ICISAB	CR				0.4831		1.0000	04/28/95	13:23	bfg	0.01	ICP-QC			
133	1104	4			ICISAB	CU				0.5131		1.0000	04/28/95	13:23	bfg	0.01	ICP-QC			
134	1104	4			ICISAB	EU				-0.0870		1.0000	04/28/95	13:23	bfg	0.05	ICP-QC			
135	1104	4			ICISAB	FE				105.5430		1.0000	04/28/95	13:23	bfg	0.05	ICP-QC			
136	1104	4			ICISAB	K				0.0714		1.0000	04/28/95	13:23	bfg	0.3	ICP-QC			
137	1104	4			ICISAB	LA				-0.0010		1.0000	04/28/95	13:23	bfg	0.05	ICP-QC			
138	1104	4			ICISAB	LI				1.0251		1.0000	04/28/95	13:23	bfg	0.01	ICP-QC			
139	1104	4			ICISAB	MG				282.6195		1.0000	04/28/95	13:23	bfg	0.1	ICP-QC			
140	1104	4			ICISAB	MN				0.4770		1.0000	04/28/95	13:23	bfg	0.01	ICP-QC			
141	1104	4			ICISAB	MO				-0.0174		1.0000	04/28/95	13:23	bfg	0.05	ICP-QC			
142	1104	4			ICISAB	NA				204.1319		1.0000	04/28/95	13:23	bfg	0.1	ICP-QC			
143	1104	4			ICISAB	ND				-0.0035		1.0000	04/28/95	13:23	bfg	0.1	ICP-QC			
144	1104	4			ICISAB	NI				0.9460		1.0000	04/28/95	13:23	bfg	0.02	ICP-QC			
145	1104	4			ICISAB	P				0.1159		1.0000	04/28/95	13:23	bfg	0.2	ICP-QC			
146	1104	4			ICISAB	PB				1.0520		1.0000	04/28/95	13:23	bfg	0.1	ICP-QC			
147	1104	4			ICISAB	S				0.0651		1.0000	04/28/95	13:23	bfg	0.05	ICP-QC			
148	1104	4			ICISAB	SB				-0.0070		1.0000	04/28/95	13:23	bfg	0.2	ICP-QC			
149	1104	4			ICISAB	SE				0.1055		1.0000	04/28/95	13:23	bfg	0.1	ICP-QC			
150	1104	4			ICISAB	SI				0.0137		1.0000	04/28/95	13:23	bfg	0.05	ICP-QC			
151	1104	4			ICISAB	SM				-0.0098		1.0000	04/28/95	13:23	bfg	0.1	ICP-QC			
152	1104	4			ICISAB	SR				-0.0005		1.0000	04/28/95	13:23	bfg	0.01	ICP-QC			
153	1104	4			ICISAB	TH				-0.0524		1.0000	04/28/95	13:23	bfg	0	ICP-QC			
154	1104	4			ICISAB	TI				0.0016		1.0000	04/28/95	13:23	bfg	0.01	ICP-QC			
155	1104	4			ICISAB	TL				0.0270		1.0000	04/28/95	13:23	bfg	0.2	ICP-QC			
156	1104	4			ICISAB	U				0.4464		1.0000	04/28/95	13:23	bfg	0.4	ICP-QC			
157	1104	4			ICISAB	V				0.4969		1.0000	04/28/95	13:23	bfg	0.05	ICP-QC			
158	1104	4			ICISAB	Y				0.0067		1.0000	04/28/95	13:23	bfg	0.01	ICP-QC			
159	1104	4			ICISAB	ZN				1.0017		1.0000	04/28/95	13:23	bfg	0.01	ICP-QC			
160	1104	4			ICISAB	ZR				0.0022		1.0000	04/28/95	13:23	bfg	0.01	ICP-QC			
161	1104	5			PREPBLKTJA	AG-F-01				0.0042		1.0000	04/28/95	13:29	bfg	0.01	ICP-F03			
162	1104	5			PREPBLKTJA	AL-F-01				0.0726		1.0000	04/28/95	13:29	bfg	0.05	ICP-F03			
163	1104	5			PREPBLKTJA	AS-F-01				0.0228		1.0000	04/28/95	13:29	bfg	0.05	ICP-F03			
164	1104	5			PREPBLKTJA	B-F-01				-0.0027		1.0000	04/28/95	13:29	bfg	0.05	ICP-F03			
165	1104	5			PREPBLKTJA	BA-F-01				0.0020		1.0000	04/28/95	13:29	bfg	0.05	ICP-F03			
166	1104	5			PREPBLKTJA	BE-F-01				-0.0003		1.0000	04/28/95	13:29	bfg	0.005	ICP-F03			
167	1104	5			PREPBLKTJA	BI-F-01				-8.4226		1.0000	04/28/95	13:29	bfg	0.1	ICP-F03			
168	1104	5			PREPBLKTJA	CA-F-01				0.1129		1.0000	04/28/95	13:29	bfg	0.1	ICP-F03			
169	1104	5			PREPBLKTJA	CD-F-01				-0.0004		1.0000	04/28/95	13:29	bfg	0.01	ICP-F03			
170	1104	5			PREPBLKTJA	CE-F-01				0.0027		1.0000	04/28/95	13:29	bfg	0.1	ICP-F03			
171	1104	5			PREPBLKTJA	CO-F-01				0.0030		1.0000	04/28/95	13:29	bfg	0.02	ICP-F03			
172	1104	5			PREPBLKTJA	CR-F-01				0.0007		1.0000	04/28/95	13:29	bfg	0.01	ICP-F03			
173	1104	5			PREPBLKTJA	CU-F-01				0.0075		1.0000	04/28/95	13:29	bfg	0.01	ICP-F03			
174	1104	5			PREPBLKTJA	EU-F-01				0.0044		1.0000	04/28/95	13:29	bfg	0.05	ICP-F03			
175	1104	5			PREPBLKTJA	FE-F-01				0.0593		1.0000	04/28/95	13:29	bfg	0.05	ICP-F03			
176	1104	5			PREPBLKTJA	K-F-01				8968.0596		1.0000	04/28/95	13:29	bfg	0.3	ICP-F03			
177	1104	5			PREPBLKTJA	LA-F-01				-0.0010		1.0000	04/28/95	13:29	bfg	0.05	ICP-F03			
178	1104	5			PREPBLKTJA	LI-F-01				0.0020		1.0000	04/28/95	13:29	bfg	0.01	ICP-F03			
179	1104	5			PREPBLKTJA	MG-F-01				0.1017		1.0000	04/28/95	13:29	bfg	0.1	ICP-F03			
180	1104	5			PREPBLKTJA	MN-F-01				0.0374		1.0000	04/28/95	13:29	bfg	0.01	ICP-F03			
181	1104	5			PREPBLKTJA	MO-F-01				-0.0018		1.0000	04/28/95	13:29	bfg	0.05	ICP-F03			
182	1104	5			PREPBLKTJA	NA-F-01				3.7278		1.0000	04/28/95	13:29	bfg	0.1	ICP-F03			
183	1104	5			PREPBLKTJA	ND-F-01				-0.0030		1.0000	04/28/95	13:29	bfg	0.1	ICP-F03			
184	1104	5			PREPBLKTJA	NI-F-01				4.4390		1.0000	04/28/95	13:29	bfg	0.02	ICP-F03			
185	1104	5			PREPBLKTJA	P-F-01				0.1093		1.0000	04/28/95	13:29	bfg	0.2	ICP-F03			
186	1104	5			PREPBLKTJA	PB-F-01				0.1189		1.0000	04/28/95	13:29	bfg	0.1	ICP-F03			
187	1104	5			PREPBLKTJA	S-F-01				0.0277		1.0000	04/28/95	13:29	bfg	0.05	ICP-F03			
188	1104	5			PREPBLKTJA	SB-F-01				-0.0057		1.0000	04/28/95	13:29	bfg	0.2	ICP-F03			
189	1104	5			PREPBLKTJA	SE-F-01				-1.7716		1.0000	04/28/95	13:29	bfg	0.1	ICP-F03			
190	1104	5			PREPBLKTJA	SI-F-01				0.3145		1.0000	04/28/95	13:29	bfg	0.05	ICP-F03			
191	1104	5			PREPBLKTJA	SM-F-01				0.0273		1.0000	04/28/95	13:29	bfg	0.1	ICP-F03			
192	1104	5			PREPBLKTJA	SR-F-01				0.0033		1.0000	04/28/95	13:29	bfg	0.01	ICP-F03			
193	1104	5			PREPBLKTJA	TH-F-01				0.1393		1.0000	04/28/95	13:29	bfg	0	ICP-F03			
194	1104	5			PREPBLKTJA	TI-F-01				0.0016		1.0000	04/28/95	13:29	bfg	0.01	ICP-F03			
195	1104	5			PREPBLKTJA	TL-F-01				-0.0245		1.0000	04/28/95	13:29	bfg	0.2	ICP-F03			
196	1104	5			PREPBLKTJA	U-F-01				-2.2588		1.0000	04/28/95	13:29	bfg	0.4	ICP-F03			
197	1104	5			PREPBLKTJA	V-F-01				0.0112		1.0000	04/28/95	13:29	bfg	0.05	ICP-F03			
198	1104	5			PREPBLKTJA	Y-F-01				0.0012		1.0000	04/28/95	13:29	bfg	0.01	ICP-F03			
199	1104	5			PREPBLKTJA	ZN-F-01				0.0025		1.0000	04/28/95	13:29	bfg	0.01	ICP-F03			
200	1104	5			PREPBLKTJA	ZR-F-01				0.0624		1.0000	04/28/95	13:29	bfg	0.01	ICP-F03			
201	1104	6	S95T000642		LI-F-01					49.2400		4924.0000	04/28/95	13:37	bfg	0.01	ICP-F03			
202	1104	7	S95T000642	DUP	LI-F-01			<49.2400		<49.1300		4913.0000	04/28/95	13:41	bfg	0.01	ICP-F03			
203	1104	8	S95T000642_A	SPK	LI-F-01			4924.0		4719.8857		4924.0000	04/28/95	13:45	bfg	0.01	IC			

ICP MACRO

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
245	1104	10			ICSAB	AL				277.4421			1.0000	04/28/95	13:52	bjo	0.05	@ICP-QC		
246	1104	10			ICSAB	AS				0.0156			1.0000	04/28/95	13:52	bjo	0.05	@ICP-QC		
247	1104	10			ICSAB	B				-0.0137			1.0000	04/28/95	13:52	bjo	0.05	@ICP-QC		
248	1104	10			ICSAB	BA				0.4800			1.0000	04/28/95	13:52	bjo	0.05	@ICP-QC		
249	1104	10			ICSAB	BE				0.5080			1.0000	04/28/95	13:52	bjo	0.0005	@ICP-QC		
250	1104	10			ICSAB	BI				0.0507			1.0000	04/28/95	13:52	bjo	0.1	@ICP-QC		
251	1104	10			ICSAB	CA				285.1823			1.0000	04/28/95	13:52	bjo	0.1	@ICP-QC		
252	1104	10			ICSAB	CD				0.9763			1.0000	04/28/95	13:52	bjo	0.01	@ICP-QC		
253	1104	10			ICSAB	CE				0.0067			1.0000	04/28/95	13:52	bjo	0.1	@ICP-QC		
254	1104	10			ICSAB	CO				0.4906			1.0000	04/28/95	13:52	bjo	0.02	@ICP-QC		
255	1104	10			ICSAB	CR				0.4805			1.0000	04/28/95	13:52	bjo	0.01	@ICP-QC		
256	1104	10			ICSAB	CU				0.5046			1.0000	04/28/95	13:52	bjo	0.01	@ICP-QC		
257	1104	10			ICSAB	EU				-0.0936			1.0000	04/28/95	13:52	bjo	0.05	@ICP-QC		
258	1104	10			ICSAB	FE				105.1480			1.0000	04/28/95	13:52	bjo	0.05	@ICP-QC		
259	1104	10			ICSAB	K				0.0612			1.0000	04/28/95	13:52	bjo	0.3	@ICP-QC		
260	1104	10			ICSAB	LA				-0.0012			1.0000	04/28/95	13:52	bjo	0.05	@ICP-QC		
261	1104	10			ICSAB	LI				1.0090			1.0000	04/28/95	13:52	bjo	0.01	@ICP-QC		
262	1104	10			ICSAB	MG				280.7749			1.0000	04/28/95	13:52	bjo	0.1	@ICP-QC		
263	1104	10			ICSAB	MN				0.4751			1.0000	04/28/95	13:52	bjo	0.01	@ICP-QC		
264	1104	10			ICSAB	MO				-0.0212			1.0000	04/28/95	13:52	bjo	0.05	@ICP-QC		
265	1104	10			ICSAB	NA				201.1175			1.0000	04/28/95	13:52	bjo	0.1	@ICP-QC		
266	1104	10			ICSAB	ND				-0.0053			1.0000	04/28/95	13:52	bjo	0.1	@ICP-QC		
267	1104	10			ICSAB	NI				0.9416			1.0000	04/28/95	13:52	bjo	0.02	@ICP-QC		
268	1104	10			ICSAB	P				0.1336			1.0000	04/28/95	13:52	bjo	0.2	@ICP-QC		
269	1104	10			ICSAB	PB				1.0788			1.0000	04/28/95	13:52	bjo	0.1	@ICP-QC		
270	1104	10			ICSAB	S				0.0570			1.0000	04/28/95	13:52	bjo	0.05	@ICP-QC		
271	1104	10			ICSAB	SB				0.0022			1.0000	04/28/95	13:52	bjo	0.2	@ICP-QC		
272	1104	10			ICSAB	SE				0.1217			1.0000	04/28/95	13:52	bjo	0.1	@ICP-QC		
273	1104	10			ICSAB	SI				0.0186			1.0000	04/28/95	13:52	bjo	0.35	@ICP-QC		
274	1104	10			ICSAB	SM				-0.0045			1.0000	04/28/95	13:52	bjo	0.1	@ICP-QC		
275	1104	10			ICSAB	SR				-0.0006			1.0000	04/28/95	13:52	bjo	0.01	@ICP-QC		
276	1104	10			ICSAB	TH				-0.0498			1.0000	04/28/95	13:52	bjo	0	@ICP-QC		
277	1104	10			ICSAB	TI				0.0016			1.0000	04/28/95	13:52	bjo	0.01	@ICP-QC		
278	1104	10			ICSAB	TL				0.0385			1.0000	04/28/95	13:52	bjo	0.2	@ICP-QC		
279	1104	10			ICSAB	U				0.0752			1.0000	04/28/95	13:52	bjo	0.4	@ICP-QC		
280	1104	10			ICSAB	V				0.4970			1.0000	04/28/95	13:52	bjo	0.05	@ICP-QC		
281	1104	10			ICSAB	Y				0.0071			1.0000	04/28/95	13:52	bjo	0.01	@ICP-QC		
282	1104	10			ICSAB	ZN				1.0061			1.0000	04/28/95	13:52	bjo	0.01	@ICP-QC		
283	1104	10			ICSAB	ZR				0.0027			1.0000	04/28/95	13:52	bjo	0.01	@ICP-QC		
284	1104	11			CCV	AG				5.2380			1.0000	04/28/95	13:56	bjo	0.01	@ICP-QC		
285	1104	11			CCV	AL				5.2131			1.0000	04/28/95	13:56	bjo	0.05	@ICP-QC		
286	1104	11			CCV	AS				5.4047			1.0000	04/28/95	13:56	bjo	0.05	@ICP-QC		
287	1104	11			CCV	B				5.1940			1.0000	04/28/95	13:56	bjo	0.05	@ICP-QC		
288	1104	11			CCV	BA				5.1588			1.0000	04/28/95	13:56	bjo	0.05	@ICP-QC		
289	1104	11			CCV	BE				5.4809			1.0000	04/28/95	13:56	bjo	0.0005	@ICP-QC		
290	1104	11			CCV	BI				5.2935			1.0000	04/28/95	13:56	bjo	0.1	@ICP-QC		
291	1104	11			CCV	CA				5.5228			1.0000	04/28/95	13:56	bjo	0.1	@ICP-QC		
292	1104	11			CCV	CD				5.3849			1.0000	04/28/95	13:56	bjo	0.01	@ICP-QC		
293	1104	11			CCV	CE				5.2925			1.0000	04/28/95	13:56	bjo	0.1	@ICP-QC		
294	1104	11			CCV	CO				5.4225			1.0000	04/28/95	13:56	bjo	0.02	@ICP-QC		
295	1104	11			CCV	CR				5.3891			1.0000	04/28/95	13:56	bjo	0.01	@ICP-QC		
296	1104	11			CCV	CU				5.2908			1.0000	04/28/95	13:56	bjo	0.01	@ICP-QC		
297	1104	11			CCV	EU				0.0022			1.0000	04/28/95	13:56	bjo	0.05	@ICP-QC		
298	1104	11			CCV	FE				5.3609			1.0000	04/28/95	13:56	bjo	0.05	@ICP-QC		
299	1104	11			CCV	K				5.1919			1.0000	04/28/95	13:56	bjo	0.3	@ICP-QC		
300	1104	11			CCV	LA				5.2723			1.0000	04/28/95	13:56	bjo	0.05	@ICP-QC		
301	1104	11			CCV	LI				5.1965			1.0000	04/28/95	13:56	bjo	0.01	@ICP-QC		
302	1104	11			CCV	MG				5.1964			1.0000	04/28/95	13:56	bjo	0.1	@ICP-QC		
303	1104	11			CCV	MN				5.2581			1.0000	04/28/95	13:56	bjo	0.01	@ICP-QC		
304	1104	11			CCV	MO				5.3752			1.0000	04/28/95	13:56	bjo	0.05	@ICP-QC		
305	1104	11			CCV	NA				5.1870			1.0000	04/28/95	13:56	bjo	0.1	@ICP-QC		
306	1104	11			CCV	ND				5.4192			1.0000	04/28/95	13:56	bjo	0.1	@ICP-QC		
307	1104	11			CCV	NI				5.3822			1.0000	04/28/95	13:56	bjo	0.02	@ICP-QC		
308	1104	11			CCV	P				5.6776			1.0000	04/28/95	13:56	bjo	0.2	@ICP-QC		
309	1104	11			CCV	PB				5.3887			1.0000	04/28/95	13:56	bjo	0.1	@ICP-QC		
310	1104	11			CCV	S				5.3615			1.0000	04/28/95	13:56	bjo	0.05	@ICP-QC		
311	1104	11			CCV	SB				5.0732			1.0000	04/28/95	13:56	bjo	0.2	@ICP-QC		
312	1104	11			CCV	SE				5.2718			1.0000	04/28/95	13:56	bjo	0.1	@ICP-QC		
313	1104	11			CCV	SI				4.7879			1.0000	04/28/95	13:56	bjo	0.05	@ICP-QC		
314	1104	11			CCV	SM				5.2712			1.0000	04/28/95	13:56	bjo	0.1	@ICP-QC		
315	1104	11			CCV	SR				5.1802			1.0000	04/28/95	13:56	bjo	0.01	@ICP-QC		
316	1104	11			CCV	TH				-0.1537			1.0000	04/28/95	13:56	bjo	0	@ICP-QC		
317	1104	11			CCV	TI				5.1636			1.0000	04/28/95	13:56	bjo	0.01	@ICP-QC		
318	1104	11			CCV	TL				5.2149			1.0000	04/28/95	13:56	bjo	0.2	@ICP-QC		
319	1104	11			CCV	U				10.4747			1.0000	04/28/95	13:56	bjo	0.4	@ICP-QC		
320	1104	11			CCV	V				5.2989			1.0000	04/28/95	13:56	bjo	0.05	@ICP-QC		
321	1104	11			CCV	Y				0.0110			1.0000	04/28/95	13:56	bjo	0.01	@ICP-QC		
322	1104	11			CCV	ZN				5.4123			1.0000	04/28/95	13:56	bjo	0.01	@ICP-QC		
323	1104	11			CCV	ZR				5.2714			1.0000	04/28/95	13:56	bjo	0.01	@ICP-QC		
324	1104	12			CCB	AG				0.0024			1.0000	04/28/95	14:00	bjo	0.01	@ICP-QC		
325	1104	12			CCB	AL				-0.0111			1.0000	04/28/95	14:00	bjo	0.05	@ICP-QC		
326	1104	12			CCB	AS				0.0186			1.0000	04/28/95	14:00	bjo	0.05	@ICP-QC		
327	1104	12			CCB	B				-0.0006			1.0000	04/28/95	14:00	bjo	0.05	@ICP-QC		
328	1104	12			CCB															

LABCORE Data Entry Template for Worklist# 1105

Analyst: K. Sato Instrument: ICP01 Book# 41848Q
Method: LA-505-151 Rev/Mod D-2 WHC-SD-WM-DP-109, REV. 1
Worklist Comment: ICP U-203 FUSION DIGEST Li only File: 950427Q

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	ICSA				@ICP-QC	QC		
4	ICSAB				@ICP-QC	QC		
5	PREPBLK	<u>TJA GR</u>			@ICP-F03	SOLID		
6	SAMPLE	S95T000686	0	F	@ICP-F03	SOLID	95000053	U-203
Analytes Requested: LI-F-01								
7	DUP	S95T000686	0	F	@ICP-F03	SOLID		
8	SPK	S95T000686	0	F	@ICP-F03	SOLID		
9	CCV				@ICP-QC	QC		
10	CCB				@ICP-QC	QC		
11	SAMPLE	S95T000690	0	F	@ICP-F03	SOLID	95000053	U-203
Analytes Requested: LI-F-01								
12	DUP	S95T000690	0	F	@ICP-F03	SOLID		
13	SPK	S95T000690	0	F	@ICP-F03	SOLID		
14	ICSA				@ICP-QC	QC		
15	ICSAB				@ICP-QC	QC		
16	CCV				@ICP-QC	QC		
17	CCB				@ICP-QC	QC		

Data Entry Comments:

LABCORE Data Entry Template for Worklist# 1105

S Type Sample# R A Test Matrix Group# Project

Final page for worklist # 1105

JK JLD 04-27-95
Analyst Signature Date Analyst Signature Date

Prepbl/KQrL 1-9

S457000686-L	.5569 g in 200 mL	1-9-1-4	$(200 \times 50) / .5569 = 17957$	
S457000686	.5569 g in 200	1-9	$(200 \times 10) / .5569 = 3591$	
S457000686-D	.5163 g in 200	1-9	$(200 \times 10) / .5163 = 3874$	
S457000686-Q	.5569 g in 200	1-9	$(200 \times 10) / .5569 = 3591$	1 mL sample + 2 mL SST5 + 7 mL HNO ₃
S457000690-L	.4979 g in 200 mL	1-9-1-4	$(200 \times 50) / .4979 = 20084$	
S457000690	.4979 g in 200	1-9	$(200 \times 10) / .4979 = 4017$	
S457000690-D	.5471 g in 200	1-9	$(200 \times 10) / .5471 = 3656$	
S457000690-Q	.4979 g in 200	1-9	$(200 \times 10) / .4979 = 4017$	1 mL sample + 2 mL SST5 + 7 mL HNO ₃

Data Entry Comments:

SP 04/28/95

LABCORE Data Entry Template for Worklist# 1105

Analyst: _____ Instrument: ICP01 _____ Book# _____

Method: LA-505-151 Rev/Mod _____

Worklist Comment: ICP U-203 FUSION DIGEST Li only WHC-SD-WM-DP-109, REV. 1

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	ICSA				@ICP-QC	QC		
4	ICSAB				@ICP-QC	QC		
5	PREPBLKARL				@ICP-F03	SOLID		
6	SAMPLE	S95T000686	0	F	@ICP-F03	SOLID	95000053	U-203
		Analytes Requested: LI-F-01						
7	DUP	S95T000686	0	F	@ICP-F03	SOLID		
8	SPK	S95T000686	0	F	@ICP-F03	SOLID		
9	CCV				@ICP-QC	QC		
10	CCB				@ICP-QC	QC		
11	SAMPLE	S95T000690	0	F	@ICP-F03	SOLID	95000053	U-203
		Analytes Requested: LI-F-01						
12	DUP	S95T000690	0	F	@ICP-F03	SOLID		
13	SPK	S95T000690	0	F	@ICP-F03	SOLID		
14	ICSA				@ICP-QC	QC		
15	ICSAB				@ICP-QC	QC		
16	CCV				@ICP-QC	QC		
17	CCB				@ICP-QC	QC		

Data Entry Comments:

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LABCORE Data Entry Template for Worklist# 1105

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
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Final page for worklist # 1105

Analyst Signature Date

Analyst Signature Date

Data Entry Comments:

S = Worklist Slot Number, R = Replicate Number, A = Aliquot Code.

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	1105	1			ICV	AG				4.9128		1.0000	04/27/95	12:15	dks	0.01	@ICP-QC			
2	1105	1			ICV	AL				5.0724		1.0000	04/27/95	12:15	dks	0.05	@ICP-QC			
3	1105	1			ICV	AS				5.1081		1.0000	04/27/95	12:15	dks	0.05	@ICP-QC			
4	1105	1			ICV	B				5.1182		1.0000	04/27/95	12:15	dks	0.05	@ICP-QC			
5	1105	1			ICV	BA				5.1250		1.0000	04/27/95	12:15	dks	0.05	@ICP-QC			
6	1105	1			ICV	BE				5.3351		1.0000	04/27/95	12:15	dks	0.005	@ICP-QC			
7	1105	1			ICV	BI				5.1019		1.0000	04/27/95	12:15	dks	0.1	@ICP-QC			
8	1105	1			ICV	CA				5.1738		1.0000	04/27/95	12:15	dks	0.1	@ICP-QC			
9	1105	1			ICV	CD				5.1273		1.0000	04/27/95	12:15	dks	0.01	@ICP-QC			
10	1105	1			ICV	CE				5.2300		1.0000	04/27/95	12:15	dks	0.1	@ICP-QC			
11	1105	1			ICV	CO				5.2669		1.0000	04/27/95	12:15	dks	0.02	@ICP-QC			
12	1105	1			ICV	CR				5.1270		1.0000	04/27/95	12:15	dks	0.01	@ICP-QC			
13	1105	1			ICV	CU				5.1823		1.0000	04/27/95	12:15	dks	0.01	@ICP-QC			
14	1105	1			ICV	FE				5.0478		1.0000	04/27/95	12:15	dks	0.05	@ICP-QC			
15	1105	1			ICV	K				4.7048		1.0000	04/27/95	12:15	dks	0.3	@ICP-QC			
16	1105	1			ICV	LA				5.0640		1.0000	04/27/95	12:15	dks	0.05	@ICP-QC			
17	1105	1			ICV	LI				5.2038		1.0000	04/27/95	12:15	dks	0.01	@ICP-QC			
18	1105	1			ICV	MG				5.1148		1.0000	04/27/95	12:15	dks	0.1	@ICP-QC			
19	1105	1			ICV	MN				5.0711		1.0000	04/27/95	12:15	dks	0.01	@ICP-QC			
20	1105	1			ICV	MO				5.2813		1.0000	04/27/95	12:15	dks	0.05	@ICP-QC			
21	1105	1			ICV	NA				5.1150		1.0000	04/27/95	12:15	dks	0.1	@ICP-QC			
22	1105	1			ICV	ND				5.0688		1.0000	04/27/95	12:15	dks	0.1	@ICP-QC			
23	1105	1			ICV	NI				5.0980		1.0000	04/27/95	12:15	dks	0.02	@ICP-QC			
24	1105	1			ICV	P				5.4879		1.0000	04/27/95	12:15	dks	0.2	@ICP-QC			
25	1105	1			ICV	PB				5.0751		1.0000	04/27/95	12:15	dks	0.1	@ICP-QC			
26	1105	1			ICV	SE				5.3656		1.0000	04/27/95	12:15	dks	0.05	@ICP-QC			
27	1105	1			ICV	SB				4.9258		1.0000	04/27/95	12:15	dks	0.2	@ICP-QC			
28	1105	1			ICV	SI				5.3587		1.0000	04/27/95	12:15	dks	0.1	@ICP-QC			
29	1105	1			ICV	SM				4.7884		1.0000	04/27/95	12:15	dks	0.05	@ICP-QC			
30	1105	1			ICV	SR				5.0745		1.0000	04/27/95	12:15	dks	0.1	@ICP-QC			
31	1105	1			ICV	TI				5.1084		1.0000	04/27/95	12:15	dks	0.01	@ICP-QC			
32	1105	1			ICV	TL				5.0412		1.0000	04/27/95	12:15	dks	0.01	@ICP-QC			
33	1105	1			ICV	U				4.9987		1.0000	04/27/95	12:15	dks	0.2	@ICP-QC			
34	1105	1			ICV	V				10.0280		1.0000	04/27/95	12:15	dks	0.4	@ICP-QC			
35	1105	1			ICV	ZN				5.0383		1.0000	04/27/95	12:15	dks	0.05	@ICP-QC			
36	1105	1			ICV	36				5.1252		1.0000	04/27/95	12:15	dks	0.01	@ICP-QC			
37	1105	1			ICV	36				5.0532		1.0000	04/27/95	12:15	dks	0.01	@ICP-QC			
38	1105	2			ICB	AG				0.0014		1.0000	04/27/95	12:20	dks	0.01	@ICP-QC			
39	1105	2			ICB	AL				-0.0178		1.0000	04/27/95	12:20	dks	0.05	@ICP-QC			
40	1105	2			ICB	AS				0.0017		1.0000	04/27/95	12:20	dks	0.05	@ICP-QC			
41	1105	2			ICB	B				0.0042		1.0000	04/27/95	12:20	dks	0.05	@ICP-QC			
42	1105	2			ICB	BA				0.0019		1.0000	04/27/95	12:20	dks	0.05	@ICP-QC			
43	1105	2			ICB	BE				0.0026		1.0000	04/27/95	12:20	dks	0.005	@ICP-QC			
44	1105	2			ICB	BI				-0.0065		1.0000	04/27/95	12:20	dks	0.1	@ICP-QC			
45	1105	2			ICB	CA				0.0012		1.0000	04/27/95	12:20	dks	0.1	@ICP-QC			
46	1105	2			ICB	CD				0.0035		1.0000	04/27/95	12:20	dks	0.01	@ICP-QC			
47	1105	2			ICB	CE				-0.0316		1.0000	04/27/95	12:20	dks	0.1	@ICP-QC			
48	1105	2			ICB	CO				0.0064		1.0000	04/27/95	12:20	dks	0.02	@ICP-QC			
49	1105	2			ICB	CR				0.0026		1.0000	04/27/95	12:20	dks	0.01	@ICP-QC			
50	1105	2			ICB	CU				-0.0031		1.0000	04/27/95	12:20	dks	0.01	@ICP-QC			
51	1105	2			ICB	FE				-0.0074		1.0000	04/27/95	12:20	dks	0.05	@ICP-QC			
52	1105	2			ICB	K				-0.4128		1.0000	04/27/95	12:20	dks	0.3	@ICP-QC			
53	1105	2			ICB	LA				0.0025		1.0000	04/27/95	12:20	dks	0.05	@ICP-QC			
54	1105	2			ICB	LI				0.0024		1.0000	04/27/95	12:20	dks	0.01	@ICP-QC			
55	1105	2			ICB	MG				0.0014		1.0000	04/27/95	12:20	dks	0.1	@ICP-QC			
56	1105	2			ICB	MN				-0.0019		1.0000	04/27/95	12:20	dks	0.01	@ICP-QC			
57	1105	2			ICB	MO				0.0037		1.0000	04/27/95	12:20	dks	0.05	@ICP-QC			
58	1105	2			ICB	NA				-0.0188		1.0000	04/27/95	12:20	dks	0.1	@ICP-QC			
59	1105	2			ICB	ND				0.0041		1.0000	04/27/95	12:20	dks	0.1	@ICP-QC			
60	1105	2			ICB	NI				-0.0009		1.0000	04/27/95	12:20	dks	0.02	@ICP-QC			
61	1105	2			ICB	P				0.0109		1.0000	04/27/95	12:20	dks	0.2	@ICP-QC			
62	1105	2			ICB	PB				0.0163		1.0000	04/27/95	12:20	dks	0.1	@ICP-QC			
63	1105	2			ICB	S				-0.0087		1.0000	04/27/95	12:20	dks	0.05	@ICP-QC			
64	1105	2			ICB	SB				-0.0086		1.0000	04/27/95	12:20	dks	0.2	@ICP-QC			
65	1105	2			ICB	SE				0.0263		1.0000	04/27/95	12:20	dks	0.1	@ICP-QC			
66	1105	2			ICB	SI				-0.0114		1.0000	04/27/95	12:20	dks	0.05	@ICP-QC			
67	1105	2			ICB	SM				-0.0184		1.0000	04/27/95	12:20	dks	0.1	@ICP-QC			
68	1105	2			ICB	SR				0.0026		1.0000	04/27/95	12:20	dks	0.01	@ICP-QC			
69	1105	2			ICB	TI				0.0009		1.0000	04/27/95	12:20	dks	0.01	@ICP-QC			
70	1105	2			ICB	TL				-0.0602		1.0000	04/27/95	12:20	dks	0.2	@ICP-QC			
71	1105	2			ICB	U				-0.1238		1.0000	04/27/95	12:20	dks	0.4	@ICP-QC			
72	1105	2			ICB	V				0.0010		1.0000	04/27/95	12:20	dks	0.05	@ICP-QC			
73	1105	2			ICB	ZN				0.0026		1.0000	04/27/95	12:20	dks	0.01	@ICP-QC			
74	1105	2			ICB	36				-0.0001		1.0000	04/27/95	12:20	dks	0.01	@ICP-QC			
75	1105	3			ICSA	AG				0.0063		1.0000	04/27/95	12:23	dks	0.01	@ICP-QC			
76	1105	3			ICSA	AL				207.1234		1.0000	04/27/95	12:23	dks	0.05	@ICP-QC			
77	1105	3			ICSA	AS				0.0188		1.0000	04/27/95	12:23	dks	0.05	@ICP-QC			
78	1105	3			ICSA	B				-0.0420		1.0000	04/27/95	12:23	dks	0.05	@ICP-QC			
79	1105	3			ICSA	BA				0.0010		1.0000	04/27/95	12:23	dks	0.05	@ICP-QC			
80	1105	3			ICSA	BE				0.0029		1.0000	04/27/95	12:23	dks	0.005	@ICP-QC			
81	1105	3			ICSA	BI				0.0176		1.0000	04/27/95	12:23	dks	0.1	@ICP-QC			
82	1105	3			ICSA	CA				19.2177		1.0000	04/27/95	12:23	dks	0.1	@ICP-QC			
83	1105	3			ICSA	CD				0.0161		1.0000	04/27/95	12:23	dks	0.01	@ICP-QC			
84	1105	3			ICSA	CE				0.0332		1.0000	04/27/95	12:23	dks	0.1	@ICP-QC			
85	1105	3			ICSA	CO				0.0055										

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
123	1105	4			ICSAB	CR				0.5037		1.0000	04/27/95	12:27	dks	0.01	ICP-QC			
124	1105	4			ICSAB	CU				0.4817		1.0000	04/27/95	12:27	dks	0.01	ICP-QC			
125	1105	4			ICSAB	FE				150.2573		1.0000	04/27/95	12:27	dks	0.05	ICP-QC			
126	1105	4			ICSAB	K				-0.3613		1.0000	04/27/95	12:27	dks	0.3	ICP-QC			
127	1105	4			ICSAB	LA				0.0183		1.0000	04/27/95	12:27	dks	0.05	ICP-QC			
128	1105	4			ICSAB	LI				0.9342		1.0000	04/27/95	12:27	dks	0.01	ICP-QC			
129	1105	4			ICSAB	MG				19.7022		1.0000	04/27/95	12:27	dks	0.1	ICP-QC			
130	1105	4			ICSAB	MN				0.5132		1.0000	04/27/95	12:27	dks	0.01	ICP-QC			
131	1105	4			ICSAB	MO				0.0034		1.0000	04/27/95	12:27	dks	0.05	ICP-QC			
132	1105	4			ICSAB	NA				190.1410		1.0000	04/27/95	12:27	dks	0.1	ICP-QC			
133	1105	4			ICSAB	ND				-0.0113		1.0000	04/27/95	12:27	dks	0.1	ICP-QC			
134	1105	4			ICSAB	NI				0.8422		1.0000	04/27/95	12:27	dks	0.02	ICP-QC			
135	1105	4			ICSAB	P				0.0273		1.0000	04/27/95	12:27	dks	0.2	ICP-QC			
136	1105	4			ICSAB	PB				1.0362		1.0000	04/27/95	12:27	dks	0.1	ICP-QC			
137	1105	4			ICSAB	S				0.1458		1.0000	04/27/95	12:27	dks	0.05	ICP-QC			
138	1105	4			ICSAB	SB				-0.0174		1.0000	04/27/95	12:27	dks	0.2	ICP-QC			
139	1105	4			ICSAB	SE				0.0980		1.0000	04/27/95	12:27	dks	0.1	ICP-QC			
140	1105	4			ICSAB	SI				0.1094		1.0000	04/27/95	12:27	dks	0.05	ICP-QC			
141	1105	4			ICSAB	SM				0.0434		1.0000	04/27/95	12:27	dks	0.1	ICP-QC			
142	1105	4			ICSAB	SR				0.0013		1.0000	04/27/95	12:27	dks	0.01	ICP-QC			
143	1105	4			ICSAB	TI				0.0027		1.0000	04/27/95	12:27	dks	0.01	ICP-QC			
144	1105	4			ICSAB	TL				0.0398		1.0000	04/27/95	12:27	dks	0.2	ICP-QC			
145	1105	4			ICSAB	U				0.1794		1.0000	04/27/95	12:27	dks	0.4	ICP-QC			
146	1105	4			ICSAB	V				0.5053		1.0000	04/27/95	12:27	dks	0.05	ICP-QC			
147	1105	4			ICSAB	ZN				1.0045		1.0000	04/27/95	12:27	dks	0.01	ICP-QC			
148	1105	4			ICSAB	ZR				0.0031		1.0000	04/27/95	12:27	dks	0.01	ICP-QC			
149	1105	5			PREPBLKARL	AG-F-01				0.0387		10.0000	04/27/95	12:34	dks	0.01	ICP-F03			
150	1105	5			PREPBLKARL	AL-F-01				1.3423		10.0000	04/27/95	12:34	dks	0.05	ICP-F03			
151	1105	5			PREPBLKARL	AS-F-01				-0.0289		10.0000	04/27/95	12:34	dks	0.05	ICP-F03			
152	1105	5			PREPBLKARL	B-F-01				0.0346		10.0000	04/27/95	12:34	dks	0.05	ICP-F03			
153	1105	5			PREPBLKARL	BA-F-01				0.0148		10.0000	04/27/95	12:34	dks	0.05	ICP-F03			
154	1105	5			PREPBLKARL	BE-F-01				0.0105		10.0000	04/27/95	12:34	dks	0.005	ICP-F03			
155	1105	5			PREPBLKARL	BI-F-01				-0.1471		10.0000	04/27/95	12:34	dks	0.1	ICP-F03			
156	1105	5			PREPBLKARL	CA-F-01				0.2820		10.0000	04/27/95	12:34	dks	0.1	ICP-F03			
157	1105	5			PREPBLKARL	CD-F-01				0.0395		10.0000	04/27/95	12:34	dks	0.01	ICP-F03			
158	1105	5			PREPBLKARL	CE-F-01				-0.1315		10.0000	04/27/95	12:34	dks	0.1	ICP-F03			
159	1105	5			PREPBLKARL	CO-F-01				0.0448		10.0000	04/27/95	12:34	dks	0.02	ICP-F03			
160	1105	5			PREPBLKARL	CR-F-01				0.0445		10.0000	04/27/95	12:34	dks	0.01	ICP-F03			
161	1105	5			PREPBLKARL	CU-F-01				0.0077		10.0000	04/27/95	12:34	dks	0.01	ICP-F03			
162	1105	5			PREPBLKARL	FE-F-01				0.8853		10.0000	04/27/95	12:34	dks	0.05	ICP-F03			
163	1105	5			PREPBLKARL	K-F-01				1362.3378		10.0000	04/27/95	12:34	dks	0.3	ICP-F03			
164	1105	5			PREPBLKARL	LA-F-01				0.0406		10.0000	04/27/95	12:34	dks	0.05	ICP-F03			
165	1105	5			PREPBLKARL	LI-F-01				0.0163		10.0000	04/27/95	12:34	dks	0.01	ICP-F03			
166	1105	5			PREPBLKARL	MG-F-01				0.1200		10.0000	04/27/95	12:34	dks	0.1	ICP-F03			
167	1105	5			PREPBLKARL	MN-F-01				0.0068		10.0000	04/27/95	12:34	dks	0.01	ICP-F03			
168	1105	5			PREPBLKARL	MO-F-01				0.0399		10.0000	04/27/95	12:34	dks	0.05	ICP-F03			
169	1105	5			PREPBLKARL	NA-F-01				1.5856		10.0000	04/27/95	12:34	dks	0.1	ICP-F03			
170	1105	5			PREPBLKARL	NO-F-01				0.1252		10.0000	04/27/95	12:34	dks	0.1	ICP-F03			
171	1105	5			PREPBLKARL	NI-F-01				9.1853		10.0000	04/27/95	12:34	dks	0.02	ICP-F03			
172	1105	5			PREPBLKARL	P-F-01				0.1075		10.0000	04/27/95	12:34	dks	0.2	ICP-F03			
173	1105	5			PREPBLKARL	PB-F-01				0.3245		10.0000	04/27/95	12:34	dks	0.1	ICP-F03			
174	1105	5			PREPBLKARL	S-F-01				-0.0684		10.0000	04/27/95	12:34	dks	0.05	ICP-F03			
175	1105	5			PREPBLKARL	SB-F-01				-0.0534		10.0000	04/27/95	12:34	dks	0.2	ICP-F03			
176	1105	5			PREPBLKARL	SE-F-01				0.3318		10.0000	04/27/95	12:34	dks	0.1	ICP-F03			
177	1105	5			PREPBLKARL	SI-F-01				0.2471		10.0000	04/27/95	12:34	dks	0.05	ICP-F03			
178	1105	5			PREPBLKARL	SM-F-01				0.3650		10.0000	04/27/95	12:34	dks	0.1	ICP-F03			
179	1105	5			PREPBLKARL	SR-F-01				0.0118		10.0000	04/27/95	12:34	dks	0.01	ICP-F03			
180	1105	5			PREPBLKARL	TI-F-01				0.0214		10.0000	04/27/95	12:34	dks	0.01	ICP-F03			
181	1105	5			PREPBLKARL	TL-F-01				0.6344		10.0000	04/27/95	12:34	dks	0.2	ICP-F03			
182	1105	5			PREPBLKARL	U-F-01				1.1677		10.0000	04/27/95	12:34	dks	0.4	ICP-F03			
183	1105	5			PREPBLKARL	V-F-01				0.0263		10.0000	04/27/95	12:34	dks	0.05	ICP-F03			
184	1105	5			PREPBLKARL	ZN-F-01				-0.1644		10.0000	04/27/95	12:34	dks	0.01	ICP-F03			
185	1105	5			PREPBLKARL	ZR-F-01				0.0485		10.0000	04/27/95	12:34	dks	0.01	ICP-F03			
186	1105	6	S95T000686		LI-F-01					35.9131		3591.3090	04/27/95	12:43	dks	0.01	ICP-F03			
187	1105	7	S95T000686	DUP	LI-F-01		<35.9131			<38.7372		3873.7188	04/27/95	12:47	dks	0.01	ICP-F03			
188	1105	8	S95T000686_A	SPK	LI-F-01		3591.309			3327.1576		3591.3090	04/27/95	12:51	dks	0.01	ICP-F03			
189	1105	9		CCV	AG					3.2950		1.0000	04/27/95	12:59	dks	0.01	ICP-QC			
190	1105	9		CCV	AL					5.0327		1.0000	04/27/95	12:59	dks	0.05	ICP-QC			
191	1105	9		CCV	AS					5.1329		1.0000	04/27/95	12:59	dks	0.05	ICP-QC			
192	1105	9		CCV	B					5.2318		1.0000	04/27/95	12:59	dks	0.05	ICP-QC			
193	1105	9		CCV	BA					5.0823		1.0000	04/27/95	12:59	dks	0.05	ICP-QC			
194	1105	9		CCV	BE					5.3482		1.0000	04/27/95	12:59	dks	0.005	ICP-QC			
195	1105	9		CCV	BI					5.1116		1.0000	04/27/95	12:59	dks	0.1	ICP-QC			
196	1105	9		CCV	CA					5.2148		1.0000	04/27/95	12:59	dks	0.1	ICP-QC			
197	1105	9		CCV	CD					5.2157		1.0000	04/27/95	12:59	dks	0.01	ICP-QC			
198	1105	9		CCV	CE					4.9765		1.0000	04/27/95	12:59	dks	0.1	ICP-QC			
199	1105	9		CCV	CO					5.2937		1.0000	04/27/95	12:59	dks	0.02	ICP-QC			
200	1105	9		CCV	CR					5.2167		1.0000	04/27/95	12:59	dks	0.01	ICP-QC			
201	1105	9		CCV	CU					5.1745		1.0000	04/27/95	12:59	dks	0.01	ICP-QC			
202	1105	9		CCV	FE					5.2136		1.0000	04/27/95	12:59	dks	0.05	ICP-QC			
203	1105	9		CCV	K					5.7462		1.0000	04/27/95	12:59	dks</					

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
245	1105	10			CCB	MO				0.0086		1.0000	04/27/95	13:04	dks	0.05	ICP-QC			
246	1105	10			CCB	NA				0.0175		1.0000	04/27/95	13:04	dks	0.1	ICP-QC			
247	1105	10			CCB	ND				0.0082		1.0000	04/27/95	13:04	dks	0.1	ICP-QC			
248	1105	10			CCB	NI				0.0065		1.0000	04/27/95	13:04	dks	0.02	ICP-QC			
249	1105	10			CCB	P				0.0176		1.0000	04/27/95	13:04	dks	0.2	ICP-QC			
250	1105	10			CCB	PB				0.0102		1.0000	04/27/95	13:04	dks	0.1	ICP-QC			
251	1105	10			CCB	S				-0.0034		1.0000	04/27/95	13:04	dks	0.05	ICP-QC			
252	1105	10			CCB	SB				-0.0020		1.0000	04/27/95	13:04	dks	0.2	ICP-QC			
253	1105	10			CCB	SE				0.0488		1.0000	04/27/95	13:04	dks	0.1	ICP-QC			
254	1105	10			CCB	SI				0.0049		1.0000	04/27/95	13:04	dks	0.05	ICP-QC			
255	1105	10			CCB	SM				0.0003		1.0000	04/27/95	13:04	dks	0.1	ICP-QC			
256	1105	10			CCB	SR				0.0026		1.0000	04/27/95	13:04	dks	0.01	ICP-QC			
257	1105	10			CCB	TI				0.0038		1.0000	04/27/95	13:04	dks	0.01	ICP-QC			
258	1105	10			CCB	TL				0.1040		1.0000	04/27/95	13:04	dks	0.2	ICP-QC			
259	1105	10			CCB	U				0.2019		1.0000	04/27/95	13:04	dks	0.4	ICP-QC			
260	1105	10			CCB	V				0.0055		1.0000	04/27/95	13:04	dks	0.05	ICP-QC			
261	1105	10			CCB	Z				0.0067		1.0000	04/27/95	13:04	dks	0.01	ICP-QC			
262	1105	10			CCB	ZR				0.0080		1.0000	04/27/95	13:04	dks	0.01	ICP-QC			
263	1105	11	S95T000690		LI-F-01					40.1687		4016.8709	04/27/95	13:13	dks	0.01	ICP-F03			
264	1105	12	S95T000690		LI-F-01					<38.5564		3855.8388	04/27/95	13:18	dks	0.01	ICP-F03			
265	1105	13	S95T000690_A		LI-F-01					4016.870		4016.8709	04/27/95	13:22	dks	0.01	ICP-F03			
266	1105	14			SPK					3692.2734		4016.8709	04/27/95	13:22	dks	0.01	ICP-F03			
267	1105	14			ICSA	AG				0.0489		1.0000	04/27/95	13:38	dks	0.01	ICP-QC			
268	1105	14			ICSA	AL				208.1284		1.0000	04/27/95	13:38	dks	0.05	ICP-QC			
269	1105	14			ICSA	AS				0.0139		1.0000	04/27/95	13:38	dks	0.05	ICP-QC			
270	1105	14			ICSA	B				-0.0438		1.0000	04/27/95	13:38	dks	0.05	ICP-QC			
271	1105	14			ICSA	BA				-0.0018		1.0000	04/27/95	13:38	dks	0.05	ICP-QC			
272	1105	14			ICSA	BE				0.0022		1.0000	04/27/95	13:38	dks	0.005	ICP-QC			
273	1105	14			ICSA	BI				-0.0125		1.0000	04/27/95	13:38	dks	0.1	ICP-QC			
274	1105	14			ICSA	CA				19.2248		1.0000	04/27/95	13:38	dks	0.1	ICP-QC			
275	1105	14			ICSA	CD				0.0128		1.0000	04/27/95	13:38	dks	0.01	ICP-QC			
276	1105	14			ICSA	CE				0.0229		1.0000	04/27/95	13:38	dks	0.1	ICP-QC			
277	1105	14			ICSA	CO				0.0046		1.0000	04/27/95	13:38	dks	0.02	ICP-QC			
278	1105	14			ICSA	CR				-0.0129		1.0000	04/27/95	13:38	dks	0.01	ICP-QC			
279	1105	14			ICSA	CU				0.0239		1.0000	04/27/95	13:38	dks	0.01	ICP-QC			
280	1105	14			ICSA	FE				147.0644		1.0000	04/27/95	13:38	dks	0.05	ICP-QC			
281	1105	14			ICSA	K				0.0478		1.0000	04/27/95	13:38	dks	0.3	ICP-QC			
282	1105	14			ICSA	LA				0.0069		1.0000	04/27/95	13:38	dks	0.05	ICP-QC			
283	1105	14			ICSA	LI				0.0092		1.0000	04/27/95	13:38	dks	0.01	ICP-QC			
284	1105	14			ICSA	MG				19.1190		1.0000	04/27/95	13:38	dks	0.1	ICP-QC			
285	1105	14			ICSA	MN				0.0039		1.0000	04/27/95	13:38	dks	0.01	ICP-QC			
286	1105	14			ICSA	MO				-0.0010		1.0000	04/27/95	13:38	dks	0.05	ICP-QC			
287	1105	14			ICSA	NA				195.7118		1.0000	04/27/95	13:38	dks	0.1	ICP-QC			
288	1105	14			ICSA	ND				-0.0312		1.0000	04/27/95	13:38	dks	0.1	ICP-QC			
289	1105	14			ICSA	NI				-0.0041		1.0000	04/27/95	13:38	dks	0.02	ICP-QC			
290	1105	14			ICSA	P				0.0209		1.0000	04/27/95	13:38	dks	0.2	ICP-QC			
291	1105	14			ICSA	PB				0.0321		1.0000	04/27/95	13:38	dks	0.1	ICP-QC			
292	1105	14			ICSA	S				0.1493		1.0000	04/27/95	13:38	dks	0.05	ICP-QC			
293	1105	14			ICSA	SB				-0.0209		1.0000	04/27/95	13:38	dks	0.2	ICP-QC			
294	1105	14			ICSA	SE				0.1010		1.0000	04/27/95	13:38	dks	0.1	ICP-QC			
295	1105	14			ICSA	SI				0.0643		1.0000	04/27/95	13:38	dks	0.05	ICP-QC			
296	1105	14			ICSA	SM				-0.0898		1.0000	04/27/95	13:38	dks	0.1	ICP-QC			
297	1105	14			ICSA	SR				-0.0003		1.0000	04/27/95	13:38	dks	0.01	ICP-QC			
298	1105	14			ICSA	TI				-0.0032		1.0000	04/27/95	13:38	dks	0.01	ICP-QC			
299	1105	14			ICSA	TL				-0.2108		1.0000	04/27/95	13:38	dks	0.2	ICP-QC			
300	1105	14			ICSA	U				-0.3594		1.0000	04/27/95	13:38	dks	0.4	ICP-QC			
301	1105	14			ICSA	V				-0.0100		1.0000	04/27/95	13:38	dks	0.05	ICP-QC			
302	1105	14			ICSA	Z				0.0238		1.0000	04/27/95	13:38	dks	0.01	ICP-QC			
303	1105	14			ICSA	ZR				-0.0112		1.0000	04/27/95	13:38	dks	0.01	ICP-QC			
304	1105	15			ICSA	AG				1.0048		1.0000	04/27/95	13:41	dks	0.01	ICP-QC			
305	1105	15			ICSA	AL				205.3829		1.0000	04/27/95	13:41	dks	0.05	ICP-QC			
306	1105	15			ICSA	AS				0.0184		1.0000	04/27/95	13:41	dks	0.05	ICP-QC			
307	1105	15			ICSA	B				-0.0419		1.0000	04/27/95	13:41	dks	0.05	ICP-QC			
308	1105	15			ICSA	BA				0.4893		1.0000	04/27/95	13:41	dks	0.05	ICP-QC			
309	1105	15			ICSA	BE				0.4929		1.0000	04/27/95	13:41	dks	0.005	ICP-QC			
310	1105	15			ICSA	BI				0.0171		1.0000	04/27/95	13:41	dks	0.1	ICP-QC			
311	1105	15			ICSA	CA				18.9866		1.0000	04/27/95	13:41	dks	0.1	ICP-QC			
312	1105	15			ICSA	CD				1.0069		1.0000	04/27/95	13:41	dks	0.01	ICP-QC			
313	1105	15			ICSA	CE				0.0692		1.0000	04/27/95	13:41	dks	0.1	ICP-QC			
314	1105	15			ICSA	CO				0.5056		1.0000	04/27/95	13:41	dks	0.02	ICP-QC			
315	1105	15			ICSA	CR				0.4915		1.0000	04/27/95	13:41	dks	0.01	ICP-QC			
316	1105	15			ICSA	CU				0.4758		1.0000	04/27/95	13:41	dks	0.01	ICP-QC			
317	1105	15			ICSA	FE				147.6762		1.0000	04/27/95	13:41	dks	0.05	ICP-QC			
318	1105	15			ICSA	K				0.0476		1.0000	04/27/95	13:41	dks	0.3	ICP-QC			
319	1105	15			ICSA	LA				0.0197		1.0000	04/27/95	13:41	dks	0.05	ICP-QC			
320	1105	15			ICSA	LI				0.9272		1.0000	04/27/95	13:41	dks	0.01	ICP-QC			
321	1105	15			ICSA	MG				19.2990		1.0000	04/27/95	13:41	dks	0.1	ICP-QC			
322	1105	15			ICSA	MN				0.5022		1.0000	04/27/95	13:41	dks	0.01	ICP-QC			
323	1105	15			ICSA	MO				0.0001		1.0000	04/27/95	13:41	dks	0.05	ICP-QC			
324	1105	15			ICSA	NA				188.7809		1.0000	04/27/95	13:41	dks	0.1	ICP-QC			
325	1105	15			ICSA	ND				-0.0020		1.0000	04/27/95	13:41	dks	0.1	ICP-QC			
326	1105	15			ICSA	NI				0.9210		1.0000	04/27/95	13:41	dks	0.02	ICP-QC			
327	1105	15			ICSA	P				0.0336		1.0000	04/27/95	13:41	dks	0.2	ICP-QC			
328	1105	15			ICSA	PB				1.0173		1.0000	04/27/95	13:41	dks	0.1	ICP-QC			
329	1105	15			ICSA	S				0.1371		1.0000	04/27/95	13:41	dks	0.05	ICP-QC			
330	1105	15																		

ICP MACRO																				
OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
367	1105	16			CCV	SE				5.3802		1.0000	04/27/95	13:54	dks	0.1	@ICP-QC			
368	1105	16			CCV	SI				4.8370		1.0000	04/27/95	13:54	dks	0.05	@ICP-QC			
369	1105	16			CCV	SM				4.8270		1.0000	04/27/95	13:54	dks	0.1	@ICP-QC			
370	1105	16			CCV	SR				4.9972		1.0000	04/27/95	13:54	dks	0.01	@ICP-QC			
371	1105	16			CCV	TI				5.0166		1.0000	04/27/95	13:54	dks	0.01	@ICP-QC			
372	1105	16			CCV	TL				4.8276		1.0000	04/27/95	13:54	dks	0.2	@ICP-QC			
373	1105	16			CCV	U				9.4773		1.0000	04/27/95	13:54	dks	0.4	@ICP-QC			
374	1105	16			CCV	V				5.0853		1.0000	04/27/95	13:54	dks	0.05	@ICP-QC			
375	1105	16			CCV	ZN				5.3177		1.0000	04/27/95	13:54	dks	0.01	@ICP-QC			
376	1105	16			CCV	ZR				5.0136		1.0000	04/27/95	13:54	dks	0.01	@ICP-QC			
377	1105	17			CCB	AG				0.0215		1.0000	04/27/95	13:58	dks	0.01	@ICP-QC			
378	1105	17			CCB	AL				0.0740		1.0000	04/27/95	13:58	dks	0.05	@ICP-QC			
379	1105	17			CCB	AS				0.0085		1.0000	04/27/95	13:58	dks	0.05	@ICP-QC			
380	1105	17			CCB	B				0.0082		1.0000	04/27/95	13:58	dks	0.05	@ICP-QC			
381	1105	17			CCB	BA				0.0082		1.0000	04/27/95	13:58	dks	0.05	@ICP-QC			
382	1105	17			CCB	BE				0.0046		1.0000	04/27/95	13:58	dks	0.005	@ICP-QC			
383	1105	17			CCB	BI				0.0092		1.0000	04/27/95	13:58	dks	0.1	@ICP-QC			
384	1105	17			CCB	CA				0.0081		1.0000	04/27/95	13:58	dks	0.1	@ICP-QC			
385	1105	17			CCB	CD				0.0084		1.0000	04/27/95	13:58	dks	0.01	@ICP-QC			
386	1105	17			CCB	CE				0.0415		1.0000	04/27/95	13:58	dks	0.1	@ICP-QC			
387	1105	17			CCB	CO				0.0082		1.0000	04/27/95	13:58	dks	0.02	@ICP-QC			
388	1105	17			CCB	CR				0.0077		1.0000	04/27/95	13:58	dks	0.01	@ICP-QC			
389	1105	17			CCB	CU				0.0007		1.0000	04/27/95	13:58	dks	0.01	@ICP-QC			
390	1105	17			CCB	FE				0.0416		1.0000	04/27/95	13:58	dks	0.05	@ICP-QC			
391	1105	17			CCB	K				-0.0379		1.0000	04/27/95	13:58	dks	0.3	@ICP-QC			
392	1105	17			CCB	LA				0.0122		1.0000	04/27/95	13:58	dks	0.05	@ICP-QC			
393	1105	17			CCB	LI				0.0058		1.0000	04/27/95	13:58	dks	0.01	@ICP-QC			
394	1105	17			CCB	MG				0.0090		1.0000	04/27/95	13:58	dks	0.1	@ICP-QC			
395	1105	17			CCB	MN				0.0001		1.0000	04/27/95	13:58	dks	0.01	@ICP-QC			
396	1105	17			CCB	MO				0.0063		1.0000	04/27/95	13:58	dks	0.05	@ICP-QC			
397	1105	17			CCB	NA				0.0786		1.0000	04/27/95	13:58	dks	0.1	@ICP-QC			
398	1105	17			CCB	ND				0.0259		1.0000	04/27/95	13:58	dks	0.1	@ICP-QC			
399	1105	17			CCB	NI				0.0115		1.0000	04/27/95	13:58	dks	0.02	@ICP-QC			
400	1105	17			CCB	P				0.0013		1.0000	04/27/95	13:58	dks	0.2	@ICP-QC			
401	1105	17			CCB	PB				0.0303		1.0000	04/27/95	13:58	dks	0.1	@ICP-QC			
402	1105	17			CCB	S				0.0056		1.0000	04/27/95	13:58	dks	0.05	@ICP-QC			
403	1105	17			CCB	SB				0.0301		1.0000	04/27/95	13:58	dks	0.2	@ICP-QC			
404	1105	17			CCB	SE				0.0662		1.0000	04/27/95	13:58	dks	0.1	@ICP-QC			
405	1105	17			CCB	SI				0.0212		1.0000	04/27/95	13:58	dks	0.05	@ICP-QC			
406	1105	17			CCB	SM				0.1402		1.0000	04/27/95	13:58	dks	0.1	@ICP-QC			
407	1105	17			CCB	SR				0.0046		1.0000	04/27/95	13:58	dks	0.01	@ICP-QC			
408	1105	17			CCB	TI				0.0080		1.0000	04/27/95	13:58	dks	0.01	@ICP-QC			
409	1105	17			CCB	TL				0.2244		1.0000	04/27/95	13:58	dks	0.2	@ICP-QC			
410	1105	17			CCB	U				0.4896		1.0000	04/27/95	13:58	dks	0.4	@ICP-QC			
411	1105	17			CCB	V				0.0119		1.0000	04/27/95	13:58	dks	0.05	@ICP-QC			
412	1105	17			CCB	ZN				0.0081		1.0000	04/27/95	13:58	dks	0.01	@ICP-QC			
413	1105	17			CCB	ZR				0.0166		1.0000	04/27/95	13:58	dks	0.01	@ICP-QC			

WHC-SD-WM-DP-109, REV. 1

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04/28/95

LABCORE Data Entry Template for Worklist# 1106

Analyst: JK Suto Instrument: ICP01 Book# 41848Q

Method: LA-505-151 Rev/Mod D-2

Worklist Comment: ICP U-203 ACID DIGEST

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	ICSA				@ICP-QC	QC		
4	ICSAB				@ICP-QC	QC		
5	PREPSTD	<u>5-1-45</u> TJA QRL			@ICP-B01	LIQUID		
6	PREPBLK	<u>5-1-45</u> TJA QRL			@ICP-B01	LIQUID		
7	SAMPLE	S95T000658	0	B	@ICP-B01	LIQUID	95000051	U-203
		Analytes Requested: LI-B-01						
8	DUP	S95T000658	0	B	@ICP-B01	LIQUID		
9	SPK	S95T000658	0	B	@ICP-B01	LIQUID		
10	CCV				@ICP-QC	QC		
11	CCB				@ICP-QC	QC		
12	SAMPLE	S95T000662	0	B	@ICP-B01	LIQUID	95000051	U-203
		Analytes Requested: LI-B-01						
13	DUP	S95T000662	0	B	@ICP-B01	LIQUID		
14	SPK	S95T000662	0	B	@ICP-B01	LIQUID		
15	ICSA				@ICP-QC	QC		
16	ICSAB				@ICP-QC	QC		
17	CCV				@ICP-QC	QC		
18	CCB				@ICP-QC	QC		

Data Entry Comments:

LABCORE Data Entry Template for Worklist# 1106

S Type Sample# R A Test Matrix Group# Project

Final page for worklist # 1106

JK
Analyst Signature Date 05-01-95

Analyst Signature Date

PrepStdGrL 5ml WHUQ → 100 ml

PrepbllGrL 100 ml Direct

595T000662-L 1 ml → 100 ml 1-9-1-4 $(100 \times 50) = 5000$

595T000662 1 ml → 100 ml 1-9 $100 \times 10 = 1000$

595T000662-D 1 ml → 100 ml 1-9 $100 \times 10 = 1000$

595T000662-Q 1 ml → 100 ml 1-9 $100 \times 10 = 1000$ 1 ml sample + 2 ml SST5 + 7 ml HNO₃

Data Entry Comments:

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LABCORE Data Entry Template for Worklist# 1106

Analyst: JK. Soto Instrument: ICP01 Book# 41B480

Method: LA-505-151 Rev/Mod D-2

Worklist Comment: ICP U-203 ACID DIGEST

S	Type	Sample#	R	A	Test	Matrix	Group#	Project
1	ICV				@ICP-QC	QC		
2	ICB				@ICP-QC	QC		
3	ICSA				@ICP-QC	QC		
4	ICSAB				@ICP-QC	QC		
5	PREPSTDARL				@ICP-B01	LIQUID		
6	PREPBLKARL				@ICP-B01	LIQUID		
7	SAMPLE	S95T000662	0	B	@ICP-B01	LIQUID	95000051	U-203
		Analytes Requested: LI-B-01						
8	DUP	S95T000662	0	B	@ICP-B01	LIQUID		
9	SPK	S95T000662	0	B	@ICP-B01	LIQUID		
10	ICSA				@ICP-QC	QC		
11	ICSAB				@ICP-QC	QC		
12	CCV				@ICP-QC	QC		
13	CCB				@ICP-QC	QC		

Final page for worklist # 1106

David K. Soto 05-01-95
Analyst Signature Date

Analyst Signature Date

Data Entry Comments:

85-05/02/95

1106	1	ICV	AG	4.9387	1 5/1/95	12:11	dks	0.01	@ICP-QC
1106	1	ICV	AL	5.0525	1 5/1/95	12:11	dks	0.05	@ICP-QC
1106	1	ICV	AS	5.0816	1 5/1/95	12:11	dks	0.05	@ICP-QC
1106	1	ICV	B	5.0821	1 5/1/95	12:11	dks	0.05	@ICP-QC
1106	1	ICV	BA	5.0598	1 5/1/95	12:11	dks	0.05	@ICP-QC
1106	1	ICV	BE	5.284	1 5/1/95	12:11	dks	0.005	@ICP-QC
1106	1	ICV	BI	5.0212	1 5/1/95	12:11	dks	0.1	@ICP-QC
1106	1	ICV	CA	5.0928	1 5/1/95	12:11	dks	0.1	@ICP-QC
1106	1	ICV	CD	5.1121	1 5/1/95	12:11	dks	0.01	@ICP-QC
1106	1	ICV	CE	5.0281	1 5/1/95	12:11	dks	0.1	@ICP-QC
1106	1	ICV	CO	5.1822	1 5/1/95	12:11	dks	0.02	@ICP-QC
1106	1	ICV	CR	5.1	1 5/1/95	12:11	dks	0.01	@ICP-QC
1106	1	ICV	CU	5.1059	1 5/1/95	12:11	dks	0.01	@ICP-QC
1106	1	ICV	FE	5.0804	1 5/1/95	12:11	dks	0.05	@ICP-QC
1106	1	ICV	K	4.7682	1 5/1/95	12:11	dks	0.3	@ICP-QC
1106	1	ICV	LA	5.0389	1 5/1/95	12:11	dks	0.05	@ICP-QC
1106	1	ICV	LI	5.1795	1 5/1/95	12:11	dks	0.01	@ICP-QC
1106	1	ICV	MG	5.0735	1 5/1/95	12:11	dks	0.1	@ICP-QC
1106	1	ICV	MN	5.0653	1 5/1/95	12:11	dks	0.01	@ICP-QC
1106	1	ICV	MO	5.1198	1 5/1/95	12:11	dks	0.05	@ICP-QC
1106	1	ICV	NA	5.0878	1 5/1/95	12:11	dks	0.1	@ICP-QC
1106	1	ICV	ND	5.1245	1 5/1/95	12:11	dks	0.1	@ICP-QC
1106	1	ICV	NI	5.0835	1 5/1/95	12:11	dks	0.02	@ICP-QC
1106	1	ICV	P	5.3371	1 5/1/95	12:11	dks	0.2	@ICP-QC
1106	1	ICV	PB	5.0953	1 5/1/95	12:11	dks	0.1	@ICP-QC
1106	1	ICV	S	5.234	1 5/1/95	12:11	dks	0.05	@ICP-QC
1106	1	ICV	SB	4.7747	1 5/1/95	12:11	dks	0.2	@ICP-QC
1106	1	ICV	SE	5.789	1 5/1/95	12:11	dks	0.1	@ICP-QC
1106	1	ICV	SI	4.8289	1 5/1/95	12:11	dks	0.05	@ICP-QC
1106	1	ICV	SM	4.9031	1 5/1/95	12:11	dks	0.1	@ICP-QC
1106	1	ICV	SR	5.0334	1 5/1/95	12:11	dks	0.01	@ICP-QC
1106	1	ICV	TI	4.9316	1 5/1/95	12:11	dks	0.01	@ICP-QC
1106	1	ICV	TL	4.8453	1 5/1/95	12:11	dks	0.2	@ICP-QC
1106	1	ICV	U	9.4316	1 5/1/95	12:11	dks	0.4	@ICP-QC
1106	1	ICV	V	4.9748	1 5/1/95	12:11	dks	0.05	@ICP-QC
1106	1	ICV	ZN	4.8452	1 5/1/95	12:11	dks	0.01	@ICP-QC
1106	1	ICV	ZR	4.9713	1 5/1/95	12:11	dks	0.01	@ICP-QC
1106	2	ICB	AG	0.0024	1 5/1/95	12:15	dks	0.01	@ICP-QC
1106	2	ICB	AL	-0.0342	1 5/1/95	12:15	dks	0.05	@ICP-QC
1106	2	ICB	AS	0.0045	1 5/1/95	12:15	dks	0.05	@ICP-QC
1106	2	ICB	B	0.0056	1 5/1/95	12:15	dks	0.05	@ICP-QC
1106	2	ICB	BA	0.0033	1 5/1/95	12:15	dks	0.05	@ICP-QC
1106	2	ICB	BE	0.0045	1 5/1/95	12:15	dks	0.005	@ICP-QC
1106	2	ICB	BI	-0.0245	1 5/1/95	12:15	dks	0.1	@ICP-QC
1106	2	ICB	CA	0.0073	1 5/1/95	12:15	dks	0.1	@ICP-QC
1106	2	ICB	CD	0.0024	1 5/1/95	12:15	dks	0.01	@ICP-QC
1106	2	ICB	CE	0.0375	1 5/1/95	12:15	dks	0.1	@ICP-QC
1106	2	ICB	CO	0.0039	1 5/1/95	12:15	dks	0.02	@ICP-QC
1106	2	ICB	CR	0.0007	1 5/1/95	12:15	dks	0.01	@ICP-QC
1106	2	ICB	CU	0	1 5/1/95	12:15	dks	0.01	@ICP-QC
1106	2	ICB	FE	0.0058	1 5/1/95	12:15	dks	0.05	@ICP-QC
1106	2	ICB	K	-0.3187	1 5/1/95	12:15	dks	0.3	@ICP-QC
1106	2	ICB	LA	0.0033	1 5/1/95	12:15	dks	0.05	@ICP-QC
1106	2	ICB	LI	0.0043	1 5/1/95	12:15	dks	0.01	@ICP-QC
1106	2	ICB	MG	0.0016	1 5/1/95	12:15	dks	0.1	@ICP-QC
1106	2	ICB	MN	0.0012	1 5/1/95	12:15	dks	0.01	@ICP-QC
1106	2	ICB	MO	0.0059	1 5/1/95	12:15	dks	0.05	@ICP-QC
1106	2	ICB	NA	-0.0387	1 5/1/95	12:15	dks	0.1	@ICP-QC
1106	2	ICB	ND	0.0185	1 5/1/95	12:15	dks	0.1	@ICP-QC
1106	2	ICB	NI	0.0024	1 5/1/95	12:15	dks	0.02	@ICP-QC
1106	2	ICB	P	-0.0106	1 5/1/95	12:15	dks	0.2	@ICP-QC
1106	2	ICB	PB	0.0177	1 5/1/95	12:15	dks	0.1	@ICP-QC
1106	2	ICB	S	-0.0687	1 5/1/95	12:15	dks	0.05	@ICP-QC
1106	2	ICB	SB	-0.0187	1 5/1/95	12:15	dks	0.2	@ICP-QC
1106	2	ICB	SE	0.0233	1 5/1/95	12:15	dks	0.1	@ICP-QC
1106	2	ICB	SI	-0.0052	1 5/1/95	12:15	dks	0.05	@ICP-QC
1106	2	ICB	SM	-0.0235	1 5/1/95	12:15	dks	0.1	@ICP-QC
1106	2	ICB	SR	0.0036	1 5/1/95	12:15	dks	0.01	@ICP-QC
1106	2	ICB	TI	0.0017	1 5/1/95	12:15	dks	0.01	@ICP-QC
1106	2	ICB	TL	-0.0589	1 5/1/95	12:15	dks	0.2	@ICP-QC
1106	2	ICB	U	-0.1017	1 5/1/95	12:15	dks	0.4	@ICP-QC
1106	2	ICB	V	0.0017	1 5/1/95	12:15	dks	0.05	@ICP-QC
1106	2	ICB	ZN	-0.2582	1 5/1/95	12:15	dks	0.01	@ICP-QC
1106	2	ICB	ZR	0.0005	1 5/1/95	12:15	dks	0.01	@ICP-QC
1106	3	ICSA	AG	0.0035	1 5/1/95	12:18	dks	0.01	@ICP-QC
1106	3	ICSA	AL	211.8544	1 5/1/95	12:18	dks	0.05	@ICP-QC
1106	3	ICSA	AS	0.0282	1 5/1/95	12:18	dks	0.05	@ICP-QC
1106	3	ICSA	B	-0.0424	1 5/1/95	12:18	dks	0.05	@ICP-QC
1106	3	ICSA	BA	0.0016	1 5/1/95	12:18	dks	0.05	@ICP-QC
1106	3	ICSA	BE	0.0043	1 5/1/95	12:18	dks	0.005	@ICP-QC
1106	3	ICSA	BI	-0.0088	1 5/1/95	12:18	dks	0.1	@ICP-QC
1106	3	ICSA	CA	19.1866	1 5/1/95	12:18	dks	0.1	@ICP-QC
1106	3	ICSA	CD	0.015	1 5/1/95	12:18	dks	0.01	@ICP-QC
1106	3	ICSA	CE	0.0589	1 5/1/95	12:18	dks	0.1	@ICP-QC
1106	3	ICSA	CO	0.0019	1 5/1/95	12:18	dks	0.02	@ICP-QC
1106	3	ICSA	CR	-0.0087	1 5/1/95	12:18	dks	0.01	@ICP-QC
1106	3	ICSA	CU	-0.018	1 5/1/95	12:18	dks	0.01	@ICP-QC
1106	3	ICSA	FE	151.2493	1 5/1/95	12:18	dks	0.05	@ICP-QC
1106	3	ICSA	K	-0.3272	1 5/1/95	12:18	dks	0.3	@ICP-QC
1106	3	ICSA	LA	0.0145	1 5/1/95	12:18	dks	0.05	@ICP-QC
1106	3	ICSA	LI	0.0017	1 5/1/95	12:18	dks	0.01	@ICP-QC
1106	3	ICSA	MG	19.9523	1 5/1/95	12:18	dks	0.1	@ICP-QC
1106	3	ICSA	MN	0.0081	1 5/1/95	12:18	dks	0.01	@ICP-QC
1106	3	ICSA	MO	0.0034	1 5/1/95	12:18	dks	0.05	@ICP-QC
1106	3	ICSA	NA	194.9171	1 5/1/95	12:18	dks	0.1	@ICP-QC
1106	3	ICSA	ND	-0.0155	1 5/1/95	12:18	dks	0.1	@ICP-QC
1106	3	ICSA	NI	-0.0585	1 5/1/95	12:18	dks	0.02	@ICP-QC
1106	3	ICSA	P	0.0182	1 5/1/95	12:18	dks	0.2	@ICP-QC
1106	3	ICSA	PB	0.0304	1 5/1/95	12:18	dks	0.1	@ICP-QC
1106	3	ICSA	S	0.0373	1 5/1/95	12:18	dks	0.05	@ICP-QC
1106	3	ICSA	SB	-0.0561	1 5/1/95	12:18	dks	0.2	@ICP-QC
1106	3	ICSA	SE	0.0808	1 5/1/95	12:18	dks	0.1	@ICP-QC
1106	3	ICSA	SI	0.0845	1 5/1/95	12:18	dks	0.1	@ICP-QC
1106	3	ICSA	SM	-0.0077	1 5/1/95	12:18	dks	0.05	@ICP-QC
1106	3	ICSA	SR	0.0018	1 5/1/95	12:18	dks	0.1	@ICP-QC
1106	3	ICSA	TI	0.0018	1 5/1/95	12:18	dks	0.01	@ICP-QC
1106	3	ICSA	TL	-0.0524	1 5/1/95	12:18	dks	0.01	@ICP-QC
1106	3	ICSA	U	-0.0016	1 5/1/95	12:18	dks	0.2	@ICP-QC
1106	3	ICSA	V	-0.0037	1 5/1/95	12:18	dks	0.4	@ICP-QC
1106	3	ICSA	ZN	-0.4942	1 5/1/95	12:18	dks	0.05	@ICP-QC
1106	3	ICSA	ZR	-0.0007	1 5/1/95	12:18	dks	0.01	@ICP-QC
1106	4	ICSA	AG	1.0053	1 5/1/95	12:21	dks	0.01	@ICP-QC
1106	4	ICSA	AL	210.4118	1 5/1/95	12:21	dks	0.05	@ICP-QC
1106	4	ICSA	AS	0.036	1 5/1/95	12:21	dks	0.05	@ICP-QC
1106	4	ICSA	B	-0.0418	1 5/1/95	12:21	dks	0.05	@ICP-QC
1106	4	ICSA	BA	0.5083	1 5/1/95	12:21	dks	0.05	@ICP-QC
1106	4	ICSA	BE	0.5116	1 5/1/95	12:21	dks	0.005	@ICP-QC
1106	4	ICSA	BI	-0.0004	1 5/1/95	12:21	dks	0.1	@ICP-QC

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Initials and date on left represent chemical technologist/chemist that completed/verified the calibration/analysis on pages 43 to 46.

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05/02/95

1106	4	ICSAB	CA	19.1503	1	5/1/95	12:21	dk	0.1	ICP-QC	
1106	4	ICSAB	CD	1.0303	1	5/1/95	12:21	dk	0.01	ICP-QC	
1106	4	ICSAB	CE	0.0475	1	5/1/95	12:21	dk	0.1	ICP-QC	
1106	4	ICSAB	CO	0.5071	1	5/1/95	12:21	dk	0.02	ICP-QC	
1106	4	ICSAB	CR	0.5049	1	5/1/95	12:21	dk	0.01	ICP-QC	
1106	4	ICSAB	CU	0.4925	1	5/1/95	12:21	dk	0.01	ICP-QC	
1106	4	ICSAB	FE	149.7455	1	5/1/95	12:21	dk	0.05	ICP-QC	
1106	4	ICSAB	K	-0.3356	1	5/1/95	12:21	dk	0.3	ICP-QC	
1106	4	ICSAB	LA	0.0165	1	5/1/95	12:21	dk	0.05	ICP-QC	
1106	4	ICSAB	LI	8.2701	1	5/1/95	12:21	dk	0.01	ICP-QC	
1106	4	ICSAB	MG	19.5420	1	5/1/95	12:21	dk	0.1	ICP-QC	
1106	4	ICSAB	MN	0.5179	1	5/1/95	12:21	dk	0.01	ICP-QC	
1106	4	ICSAB	MO	0.0013	1	5/1/95	12:21	dk	0.05	ICP-QC	
1106	4	ICSAB	NA	195.4863	1	5/1/95	12:21	dk	0.1	ICP-QC	
1106	4	ICSAB	ND	-0.0003	1	5/1/95	12:21	dk	0.1	ICP-QC	
1106	4	ICSAB	NI	0.9431	1	5/1/95	12:21	dk	0.02	ICP-QC	
1106	4	ICSAB	P	0.0438	1	5/1/95	12:21	dk	0.2	ICP-QC	
1106	4	ICSAB	PB	1.0587	1	5/1/95	12:21	dk	0.1	ICP-QC	
1106	4	ICSAB	S	0.0223	1	5/1/95	12:21	dk	0.05	ICP-QC	
1106	4	ICSAB	SB	-0.0368	1	5/1/95	12:21	dk	0.2	ICP-QC	
1106	4	ICSAB	SE	0.0834	1	5/1/95	12:21	dk	0.1	ICP-QC	
1106	4	ICSAB	SI	0.0968	1	5/1/95	12:21	dk	0.05	ICP-QC	
1106	4	ICSAB	SM	-0.0289	1	5/1/95	12:21	dk	0.1	ICP-QC	
1106	4	ICSAB	SR	0.004	1	5/1/95	12:21	dk	0.01	ICP-QC	
1106	4	ICSAB	TI	0.0028	1	5/1/95	12:21	dk	0.01	ICP-QC	
1106	4	ICSAB	TL	-0.0919	1	5/1/95	12:21	dk	0.2	ICP-QC	
1106	4	ICSAB	U	-0.0759	1	5/1/95	12:21	dk	0.4	ICP-QC	
1106	4	ICSAB	V	0.4982	1	5/1/95	12:21	dk	0.05	ICP-QC	
1106	4	ICSAB	ZN	0.552	1	5/1/95	12:21	dk	0.01	ICP-QC	
1106	4	ICSAB	ZR	-0.0019	1	5/1/95	12:21	dk	0.01	ICP-QC	
1106	5	PREPSTDARL	AG-B-01	0.8499	1	5/1/95	12:32	dk	0.01	ICP-B01	
1106	5	PREPSTDARL	AL-B-01	4.9333	1	5/1/95	12:32	dk	0.05	ICP-B01	
1106	5	PREPSTDARL	AS-B-01	4.7279	1	5/1/95	12:32	dk	0.05	ICP-B01	
1106	5	PREPSTDARL	B-B-01	0.8936	1	5/1/95	12:32	dk	0.05	ICP-B01	
1106	5	PREPSTDARL	BA-B-01	4.8621	1	5/1/95	12:32	dk	0.05	ICP-B01	
1106	5	PREPSTDARL	BE-B-01	4.9799	1	5/1/95	12:32	dk	0.005	ICP-B01	
1106	5	PREPSTDARL	BI-B-01	4.6087	1	5/1/95	12:32	dk	0.1	ICP-B01	
1106	5	PREPSTDARL	CA-B-01	5.4403	1	5/1/95	12:32	dk	0.1	ICP-B01	
1106	5	PREPSTDARL	CD-B-01	4.7546	1	5/1/95	12:32	dk	0.01	ICP-B01	
1106	5	PREPSTDARL	CE-B-01	4.8126	1	5/1/95	12:32	dk	0.1	ICP-B01	
1106	5	PREPSTDARL	CO-B-01	4.8543	1	5/1/95	12:32	dk	0.02	ICP-B01	
1106	5	PREPSTDARL	CR-B-01	4.7532	1	5/1/95	12:32	dk	0.01	ICP-B01	
1106	5	PREPSTDARL	CU-B-01	4.8365	1	5/1/95	12:32	dk	0.01	ICP-B01	
1106	5	PREPSTDARL	FE-B-01	4.9641	1	5/1/95	12:32	dk	0.05	ICP-B01	
1106	5	PREPSTDARL	K-B-01	4.4893	1	5/1/95	12:32	dk	0.3	ICP-B01	
1106	5	PREPSTDARL	LA-B-01	4.8738	1	5/1/95	12:32	dk	0.05	ICP-B01	
1106	5	PREPSTDARL	LI-B-01	4.9447	1	5/1/95	12:32	dk	0.01	ICP-B01	
1106	5	PREPSTDARL	MG-B-01	4.8032	1	5/1/95	12:32	dk	0.1	ICP-B01	
1106	5	PREPSTDARL	MN-B-01	4.7889	1	5/1/95	12:32	dk	0.01	ICP-B01	
1106	5	PREPSTDARL	MO-B-01	0.0073	1	5/1/95	12:32	dk	0.05	ICP-B01	
1106	5	PREPSTDARL	NA-B-01	5.9569	1	5/1/95	12:32	dk	0.1	ICP-B01	
1106	5	PREPSTDARL	ND-B-01	4.9389	1	5/1/95	12:32	dk	0.1	ICP-B01	
1106	5	PREPSTDARL	NI-B-01	4.7761	1	5/1/95	12:32	dk	0.02	ICP-B01	
1106	5	PREPSTDARL	P-B-01	0.0401	1	5/1/95	12:32	dk	0.2	ICP-B01	
1106	5	PREPSTDARL	PB-B-01	4.6317	1	5/1/95	12:32	dk	0.1	ICP-B01	
1106	5	PREPSTDARL	S-B-01	-0.0534	1	5/1/95	12:32	dk	0.05	ICP-B01	
1106	5	PREPSTDARL	SB-B-01	-0.002	1	5/1/95	12:32	dk	0.2	ICP-B01	
1106	5	PREPSTDARL	SE-B-01	5.2861	1	5/1/95	12:32	dk	0.1	ICP-B01	
1106	5	PREPSTDARL	SI-B-01	0.7961	1	5/1/95	12:32	dk	0.05	ICP-B01	
1106	5	PREPSTDARL	SM-B-01	4.869	1	5/1/95	12:32	dk	0.1	ICP-B01	
1106	5	PREPSTDARL	SR-B-01	4.8575	1	5/1/95	12:32	dk	0.01	ICP-B01	
1106	5	PREPSTDARL	TI-B-01	-0.0021	1	5/1/95	12:32	dk	0.01	ICP-B01	
1106	5	PREPSTDARL	TL-B-01	4.4803	1	5/1/95	12:32	dk	0.2	ICP-B01	
1106	5	PREPSTDARL	U-B-01	8.324	1	5/1/95	12:32	dk	0.4	ICP-B01	
1106	5	PREPSTDARL	V-B-01	4.7966	1	5/1/95	12:32	dk	0.05	ICP-B01	
1106	5	PREPSTDARL	ZN-B-01	4.3873	1	5/1/95	12:32	dk	0.01	ICP-B01	
1106	5	PREPSTDARL	ZR-B-01	0.0041	1	5/1/95	12:32	dk	0.01	ICP-B01	
1106	6	PREPBLKARL	AG-B-01	-0.0011	1	5/1/95	12:35	dk	0.01	ICP-B01	
1106	6	PREPBLKARL	AL-B-01	0.0112	1	5/1/95	12:35	dk	0.05	ICP-B01	
1106	6	PREPBLKARL	AS-B-01	0.001	1	5/1/95	12:35	dk	0.05	ICP-B01	
1106	6	PREPBLKARL	B-B-01	0.0056	1	5/1/95	12:35	dk	0.05	ICP-B01	
1106	6	PREPBLKARL	BA-B-01	0.0007	1	5/1/95	12:35	dk	0.05	ICP-B01	
1106	6	PREPBLKARL	BE-B-01	0.0021	1	5/1/95	12:35	dk	0.005	ICP-B01	
1106	6	PREPBLKARL	BI-B-01	-0.0149	1	5/1/95	12:35	dk	0.1	ICP-B01	
1106	6	PREPBLKARL	CA-B-01	0.061	1	5/1/95	12:35	dk	0.1	ICP-B01	
1106	6	PREPBLKARL	CD-B-01	-0.001	1	5/1/95	12:35	dk	0.01	ICP-B01	
1106	6	PREPBLKARL	CE-B-01	0.0271	1	5/1/95	12:35	dk	0.1	ICP-B01	
1106	6	PREPBLKARL	CO-B-01	0.0049	1	5/1/95	12:35	dk	0.02	ICP-B01	
1106	6	PREPBLKARL	CR-B-01	-0.0028	1	5/1/95	12:35	dk	0.01	ICP-B01	
1106	6	PREPBLKARL	CU-B-01	0.0009	1	5/1/95	12:35	dk	0.01	ICP-B01	
1106	6	PREPBLKARL	FE-B-01	0.0342	1	5/1/95	12:35	dk	0.05	ICP-B01	
1106	6	PREPBLKARL	K-B-01	-0.3371	1	5/1/95	12:35	dk	0.3	ICP-B01	
1106	6	PREPBLKARL	LA-B-01	-0.0019	1	5/1/95	12:35	dk	0.05	ICP-B01	
1106	6	PREPBLKARL	LI-B-01	0.0024	1	5/1/95	12:35	dk	0.01	ICP-B01	
1106	6	PREPBLKARL	MG-B-01	0.0007	1	5/1/95	12:35	dk	0.1	ICP-B01	
1106	6	PREPBLKARL	MN-B-01	-0.0016	1	5/1/95	12:35	dk	0.01	ICP-B01	
1106	6	PREPBLKARL	MO-B-01	0.0011	1	5/1/95	12:35	dk	0.05	ICP-B01	
1106	6	PREPBLKARL	NA-B-01	-0.0021	1	5/1/95	12:35	dk	0.1	ICP-B01	
1106	6	PREPBLKARL	ND-B-01	0.0065	1	5/1/95	12:35	dk	0.1	ICP-B01	
1106	6	PREPBLKARL	NI-B-01	-0.0017	1	5/1/95	12:35	dk	0.02	ICP-B01	
1106	6	PREPBLKARL	P-B-01	0.0204	1	5/1/95	12:35	dk	0.2	ICP-B01	
1106	6	PREPBLKARL	PB-B-01	0.0162	1	5/1/95	12:35	dk	0.1	ICP-B01	
1106	6	PREPBLKARL	S-B-01	-0.1035	1	5/1/95	12:35	dk	0.05	ICP-B01	
1106	6	PREPBLKARL	SB-B-01	-0.0151	1	5/1/95	12:35	dk	0.2	ICP-B01	
1106	6	PREPBLKARL	SE-B-01	0.0133	1	5/1/95	12:35	dk	0.1	ICP-B01	
1106	6	PREPBLKARL	SI-B-01	0.0831	1	5/1/95	12:35	dk	0.05	ICP-B01	
1106	6	PREPBLKARL	SM-B-01	-0.0339	1	5/1/95	12:35	dk	0.1	ICP-B01	
1106	6	PREPBLKARL	SR-B-01	0.0011	1	5/1/95	12:35	dk	0.01	ICP-B01	
1106	6	PREPBLKARL	TI-B-01	-0.002	1	5/1/95	12:35	dk	0.01	ICP-B01	
1106	6	PREPBLKARL	TL-B-01	-0.0694	1	5/1/95	12:35	dk	0.2	ICP-B01	
1106	6	PREPBLKARL	U-B-01	-0.1253	1	5/1/95	12:35	dk	0.4	ICP-B01	
1106	6	PREPBLKARL	V-B-01	-0.0035	1	5/1/95	12:35	dk	0.05	ICP-B01	
1106	6	PREPBLKARL	ZN-B-01	-0.5352	1	5/1/95	12:35	dk	0.01	ICP-B01	
1106	6	PREPBLKARL	ZR-B-01	-0.0025	1	5/1/95	12:35	dk	0.01	ICP-B01	
1106	7	S95T000982	LI-B-01	10	1000	5/1/95	12:45	dk	0.01	ICP-B01	
1106	8	S95T000982	LI-B-01	<10.0000	<10.0000	1000	5/1/95	12:48	dk	0.01	ICP-B01
1106	9	S95T000982_A	LI-B-01	1000	1020.142	1000	5/1/95	12:52	dk	0.01	ICP-B01
1106	10	ICSA	AG	-0.0014	1	5/1/95	12:59	dk	0.01	ICP-QC	
1106	10	ICSA	AL	211.9486	1	5/1/95	12:59	dk	0.05	ICP-QC	
1106	10	ICSA	AS	0.0166	1	5/1/95	12:59	dk	0.05	ICP-QC	
1106	10	ICSA	B	-0.0508	1	5/1/95	12:59	dk	0.05	ICP-QC	
1106	10	ICSA	BA	-0.0004	1	5/1/95	12:59	dk	0.05	ICP-QC	
1106	10	ICSA	BE	0.0036	1	5/1/95	12:59	dk	0.035	ICP-QC	
1106	10	ICSA	BI	-0.0288	1	5/1/95	12:59	dk	0.1	ICP-QC	
1106	10	ICSA	CA	19.0855	1	5/1/95	12:59	dk	0.1	ICP-QC	
1106	10	ICSA	CD	0.014	1	5/1/95	12:59	dk	0.01	ICP-QC	
1106	10	ICSA	CE	0.0181	1	5/1/95	12:59	dk	0.1	ICP-QC	
1106	10	ICSA	CO	0.0039	1	5/1/95	12:59	dk	0.02	ICP-QC	

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1106	10	ICSA	CR	-0.0058	1 5/1/95	12:59	dks	0.01	ICP-QC
1106	10	ICSA	CU	-0.018	1 5/1/95	12:59	dks	0.01	ICP-QC
1106	10	ICSA	FE	150.0792	1 5/1/95	12:59	dks	0.05	ICP-QC
1106	10	ICSA	K	-0.3931	1 5/1/95	12:59	dks	0.3	ICP-QC
1106	10	ICSA	LA	0.0113	1 5/1/95	12:59	dks	0.05	ICP-QC
1106	10	ICSA	LI	0.0023	1 5/1/95	12:59	dks	0.01	ICP-QC
1106	10	ICSA	MG	19.8321	1 5/1/95	12:59	dks	0.1	ICP-QC
1106	10	ICSA	MN	0.0068	1 5/1/95	12:59	dks	0.01	ICP-QC
1106	10	ICSA	MO	-0.0003	1 5/1/95	12:59	dks	0.05	ICP-QC
1106	10	ICSA	NA	198.8343	1 5/1/95	12:59	dks	0.1	ICP-QC
1106	10	ICSA	ND	0.0111	1 5/1/95	12:59	dks	0.1	ICP-QC
1106	10	ICSA	NI	-0.0841	1 5/1/95	12:59	dks	0.02	ICP-QC
1106	10	ICSA	P	0.0119	1 5/1/95	12:59	dks	0.2	ICP-QC
1106	10	ICSA	PB	0.0512	1 5/1/95	12:59	dks	0.1	ICP-QC
1106	10	ICSA	S	0.0217	1 5/1/95	12:59	dks	0.05	ICP-QC
1106	10	ICSA	SB	-0.0009	1 5/1/95	12:59	dks	0.2	ICP-QC
1106	10	ICSA	SE	0.1258	1 5/1/95	12:59	dks	0.1	ICP-QC
1106	10	ICSA	SI	0.0738	1 5/1/95	12:59	dks	0.05	ICP-QC
1106	10	ICSA	SM	-0.0422	1 5/1/95	12:59	dks	0.1	ICP-QC
1106	10	ICSA	SR	0.001	1 5/1/95	12:59	dks	0.01	ICP-QC
1106	10	ICSA	TI	-0.002	1 5/1/95	12:59	dks	0.01	ICP-QC
1106	10	ICSA	TL	-0.1254	1 5/1/95	12:59	dks	0.2	ICP-QC
1106	10	ICSA	U	-0.1503	1 5/1/95	12:59	dks	0.4	ICP-QC
1106	10	ICSA	V	-0.0089	1 5/1/95	12:59	dks	0.05	ICP-QC
1106	10	ICSA	ZN	-0.4744	1 5/1/95	12:59	dks	0.01	ICP-QC
1106	10	ICSA	ZR	-0.0059	1 5/1/95	12:59	dks	0.01	ICP-QC
1106	11	ICSAB	AG	1.0125	1 5/1/95	13:02	dks	0.01	ICP-QC
1106	11	ICSAB	AL	211.574	1 5/1/95	13:02	dks	0.05	ICP-QC
1106	11	ICSAB	AS	0.0292	1 5/1/95	13:02	dks	0.05	ICP-QC
1106	11	ICSAB	B	-0.0447	1 5/1/95	13:02	dks	0.05	ICP-QC
1106	11	ICSAB	BA	0.4995	1 5/1/95	13:02	dks	0.05	ICP-QC
1106	11	ICSAB	BE	0.5082	1 5/1/95	13:02	dks	0.005	ICP-QC
1106	11	ICSAB	BI	-0.0478	1 5/1/95	13:02	dks	0.1	ICP-QC
1106	11	ICSAB	CA	19.0937	1 5/1/95	13:02	dks	0.1	ICP-QC
1106	11	ICSAB	CD	1.0308	1 5/1/95	13:02	dks	0.01	ICP-QC
1106	11	ICSAB	CE	-0.0005	1 5/1/95	13:02	dks	0.1	ICP-QC
1106	11	ICSAB	CO	0.5148	1 5/1/95	13:02	dks	0.02	ICP-QC
1106	11	ICSAB	CR	0.5028	1 5/1/95	13:02	dks	0.01	ICP-QC
1106	11	ICSAB	CU	0.484	1 5/1/95	13:02	dks	0.01	ICP-QC
1106	11	ICSAB	FE	150.5714	1 5/1/95	13:02	dks	0.05	ICP-QC
1106	11	ICSAB	K	-0.3828	1 5/1/95	13:02	dks	0.3	ICP-QC
1106	11	ICSAB	LA	0.008	1 5/1/95	13:02	dks	0.05	ICP-QC
1106	11	ICSAB	LI	8.2808	1 5/1/95	13:02	dks	0.01	ICP-QC
1106	11	ICSAB	MG	19.7112	1 5/1/95	13:02	dks	0.1	ICP-QC
1106	11	ICSAB	MN	0.5154	1 5/1/95	13:02	dks	0.01	ICP-QC
1106	11	ICSAB	MO	-0.0001	1 5/1/95	13:02	dks	0.05	ICP-QC
1106	11	ICSAB	NA	195.779	1 5/1/95	13:02	dks	0.1	ICP-QC
1106	11	ICSAB	ND	-0.0206	1 5/1/95	13:02	dks	0.1	ICP-QC
1106	11	ICSAB	NI	0.8443	1 5/1/95	13:02	dks	0.02	ICP-QC
1106	11	ICSAB	P	0.0239	1 5/1/95	13:02	dks	0.2	ICP-QC
1106	11	ICSAB	PB	1.0295	1 5/1/95	13:02	dks	0.1	ICP-QC
1106	11	ICSAB	S	0.0199	1 5/1/95	13:02	dks	0.05	ICP-QC
1106	11	ICSAB	SB	-0.0121	1 5/1/95	13:02	dks	0.2	ICP-QC
1106	11	ICSAB	SE	0.1204	1 5/1/95	13:02	dks	0.1	ICP-QC
1106	11	ICSAB	SI	0.0839	1 5/1/95	13:02	dks	0.05	ICP-QC
1106	11	ICSAB	SM	-0.0377	1 5/1/95	13:02	dks	0.1	ICP-QC
1106	11	ICSAB	SR	0.0004	1 5/1/95	13:02	dks	0.01	ICP-QC
1106	11	ICSAB	TI	-0.0013	1 5/1/95	13:02	dks	0.01	ICP-QC
1106	11	ICSAB	TL	-0.0983	1 5/1/95	13:02	dks	0.2	ICP-QC
1106	11	ICSAB	U	-0.1245	1 5/1/95	13:02	dks	0.4	ICP-QC
1106	11	ICSAB	V	0.4988	1 5/1/95	13:02	dks	0.05	ICP-QC
1106	11	ICSAB	ZN	0.5733	1 5/1/95	13:02	dks	0.01	ICP-QC
1106	11	ICSAB	ZR	-0.006	1 5/1/95	13:02	dks	0.01	ICP-QC
1106	12	CCV	AG	4.9866	1 5/1/95	13:07	dks	0.01	ICP-QC
1106	12	CCV	AL	5.2907	1 5/1/95	13:07	dks	0.05	ICP-QC
1106	12	CCV	AS	5.1103	1 5/1/95	13:07	dks	0.05	ICP-QC
1106	12	CCV	B	5.0957	1 5/1/95	13:07	dks	0.05	ICP-QC
1106	12	CCV	BA	5.0745	1 5/1/95	13:07	dks	0.05	ICP-QC
1106	12	CCV	BE	5.3342	1 5/1/95	13:07	dks	0.005	ICP-QC
1106	12	CCV	BI	5.0602	1 5/1/95	13:07	dks	0.1	ICP-QC
1106	12	CCV	CA	5.1114	1 5/1/95	13:07	dks	0.1	ICP-QC
1106	12	CCV	CD	5.1853	1 5/1/95	13:07	dks	0.01	ICP-QC
1106	12	CCV	CE	5.1402	1 5/1/95	13:07	dks	0.1	ICP-QC
1106	12	CCV	CO	5.2578	1 5/1/95	13:07	dks	0.02	ICP-QC
1106	12	CCV	CR	5.1686	1 5/1/95	13:07	dks	0.01	ICP-QC
1106	12	CCV	CU	5.1007	1 5/1/95	13:07	dks	0.01	ICP-QC
1106	12	CCV	FE	5.2702	1 5/1/95	13:07	dks	0.05	ICP-QC
1106	12	CCV	K	4.7913	1 5/1/95	13:07	dks	0.3	ICP-QC
1106	12	CCV	LA	5.0587	1 5/1/95	13:07	dks	0.05	ICP-QC
1106	12	CCV	LI	5.1567	1 5/1/95	13:07	dks	0.01	ICP-QC
1106	12	CCV	MG	5.1505	1 5/1/95	13:07	dks	0.1	ICP-QC
1106	12	CCV	MN	5.1254	1 5/1/95	13:07	dks	0.01	ICP-QC
1106	12	CCV	MO	5.1809	1 5/1/95	13:07	dks	0.05	ICP-QC
1106	12	CCV	NA	5.2791	1 5/1/95	13:07	dks	0.1	ICP-QC
1106	12	CCV	ND	5.1108	1 5/1/95	13:07	dks	0.1	ICP-QC
1106	12	CCV	NI	5.1412	1 5/1/95	13:07	dks	0.02	ICP-QC
1106	12	CCV	P	5.2487	1 5/1/95	13:07	dks	0.2	ICP-QC
1106	12	CCV	PB	5.1102	1 5/1/95	13:07	dks	0.1	ICP-QC
1106	12	CCV	S	5.2511	1 5/1/95	13:07	dks	0.05	ICP-QC
1106	12	CCV	SB	4.7872	1 5/1/95	13:07	dks	0.2	ICP-QC
1106	12	CCV	SE	5.8438	1 5/1/95	13:07	dks	0.1	ICP-QC
1106	12	CCV	SI	4.876	1 5/1/95	13:07	dks	0.05	ICP-QC
1106	12	CCV	SM	5.2701	1 5/1/95	13:07	dks	0.1	ICP-QC
1106	12	CCV	SR	5.0558	1 5/1/95	13:07	dks	0.01	ICP-QC
1106	12	CCV	TI	4.9751	1 5/1/95	13:07	dks	0.01	ICP-QC
1106	12	CCV	TL	5.0046	1 5/1/95	13:07	dks	0.2	ICP-QC
1106	12	CCV	U	8.78	1 5/1/95	13:07	dks	0.4	ICP-QC
1106	12	CCV	V	5.0247	1 5/1/95	13:07	dks	0.05	ICP-QC
1106	12	CCV	ZN	4.91	1 5/1/95	13:07	dks	0.01	ICP-QC
1106	12	CCV	ZR	5.0007	1 5/1/95	13:07	dks	0.01	ICP-QC
1106	13	CCB	AG	0.0015	1 5/1/95	13:11	dks	0.01	ICP-QC
1106	13	CCB	AL	0.0803	1 5/1/95	13:11	dks	0.05	ICP-QC
1106	13	CCB	AS	0.0022	1 5/1/95	13:11	dks	0.05	ICP-QC
1106	13	CCB	B	0.0055	1 5/1/95	13:11	dks	0.05	ICP-QC
1106	13	CCB	BA	0.0031	1 5/1/95	13:11	dks	0.05	ICP-QC
1106	13	CCB	BE	0.0044	1 5/1/95	13:11	dks	0.005	ICP-QC
1106	13	CCB	BI	-0.0199	1 5/1/95	13:11	dks	0.1	ICP-QC
1106	13	CCB	CA	0.0114	1 5/1/95	13:11	dks	0.1	ICP-QC
1106	13	CCB	CD	0.004	1 5/1/95	13:11	dks	0.01	ICP-QC
1106	13	CCB	CE	0.0414	1 5/1/95	13:11	dks	0.1	ICP-QC
1106	13	CCB	CO	0.003	1 5/1/95	13:11	dks	0.02	ICP-QC
1106	13	CCB	CR	0.0029	1 5/1/95	13:11	dks	0.01	ICP-QC
1106	13	CCB	CU	-0.0002	1 5/1/95	13:11	dks	0.01	ICP-QC
1106	13	CCB	FE	0.0892	1 5/1/95	13:11	dks	0.05	ICP-QC
1106	13	CCB	K	-0.3582	1 5/1/95	13:11	dks	0.3	ICP-QC
1106	13	CCB	LA	0.0011	1 5/1/95	13:11	dks	0.05	ICP-QC
1106	13	CCB	LI	0.0068	1 5/1/95	13:11	dks	0.01	ICP-QC
1106	13	CCB	MG	0.0097	1 5/1/95	13:11	dks	0.1	ICP-QC

WHC-SD-WM-DP-102, REV. 1

1106	13	CCB	MN	0.0013	1 5/1/85	13:11	dks	0.01 @ICP-QC
1106	13	CCB	MO	0.0052	1 5/1/85	13:11	dks	0.05 @ICP-QC
1106	13	CCB	NA	0.0078	1 5/1/85	13:11	dks	0.1 @ICP-QC
1106	13	CCB	NO	0.0053	1 5/1/85	13:11	dks	0.1 @ICP-QC
1106	13	CCB	NI	0.0014	1 5/1/85	13:11	dks	0.02 @ICP-QC
1106	13	CCB	P	0.0001	1 5/1/85	13:11	dks	0.2 @ICP-QC
1106	13	CCB	PB	0.0087	1 5/1/85	13:11	dks	0.1 @ICP-QC
1106	13	CCB	S	-0.0796	1 5/1/85	13:11	dks	0.05 @ICP-QC
1106	13	CCB	SB	0.0141	1 5/1/85	13:11	dks	0.2 @ICP-QC
1106	13	CCB	SE	0.0499	1 5/1/85	13:11	dks	0.1 @ICP-QC
1106	13	CCB	SI	-0.0083	1 5/1/85	13:11	dks	0.05 @ICP-QC
1106	13	CCB	SM	-0.0249	1 5/1/85	13:11	dks	0.1 @ICP-QC
1106	13	CCB	SR	0.0033	1 5/1/85	13:11	dks	0.01 @ICP-QC
1106	13	CCB	TI	0.0012	1 5/1/85	13:11	dks	0.01 @ICP-QC
1106	13	CCB	TL	-0.0446	1 5/1/85	13:11	dks	0.2 @ICP-QC
1106	13	CCB	U	-0.1232	1 5/1/85	13:11	dks	0.4 @ICP-QC
1106	13	CCB	V	0.0006	1 5/1/85	13:11	dks	0.05 @ICP-QC
1106	13	CCB	ZN	-0.2681	1 5/1/85	13:11	dks	0.01 @ICP-QC
1106	13	CCB	ZR	-0.0001	1 5/1/85	13:11	dks	0.01 @ICP-QC

8/ 05/02/16

WHC-SD-WM-DP-109, REV. 1

LABCORE Data Entry Template for Worklist# 1175

Analyst: RAW Instrument: TOC01 WB39937 Book # 10N12-G

Method: LA-344-105 Rev/Mod B-3 (SPIKE) 11N12-F

Worklist Comment: TOC: S-110, U-107, and (U-203)

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT	
		1 BLNK			TOC-01	LIQUID	<u>1</u>	<u>3.08</u>	N/A	ug/mL	<u>4-27-95</u>
		2 STD			TOC-01	LIQUID	<u>3.00</u>	<u>3.03</u>	N/A	ug/mL	<u>4-28-95</u>
95000060	S-110 GRAB	3 SAMPLE	S95T000735	0	TOC-01	LIQUID	<u>N/A</u>	<u>2.12</u>	<u>5.50E1</u>	ug/mL	
95000060	S-110 GRAB	4 DUP	S95T000735	0	TOC-01	LIQUID	<u>2.12</u>	<u>2.16</u>	N/A	ug/mL	
95000060	S-110 GRAB	5 SPK	S95T000735	0	TOC-01	LIQUID	<u>100</u>	<u>93.9</u>	N/A	ug/mL	
95000060	S-110 GRAB	6 SAMPLE	S95T000736	0	TOC-01	LIQUID	<u>N/A</u>	<u>2.38</u>	<u>5.50E1</u>	ug/mL	
95000060	S-110 GRAB	7 DUP	S95T000736	0	TOC-01	LIQUID	<u>2.38</u>	<u>2.41</u>	N/A	ug/mL	
95000060	S-110 GRAB	8 SPK	S95T000736	0	TOC-01	LIQUID	<u>100</u>	<u>98.5</u>	N/A	ug/mL	
95000051	U-203	9 SAMPLE	S95T000658	0	TOC-01	LIQUID	<u>N/A</u>	<u>3.38</u>	<u>1.75E1</u>	ug/mL	
95000051	U-203	10 DUP	S95T000658	0	TOC-01	LIQUID	<u>3.38</u>	<u>3.45</u>	N/A	ug/mL	
95000051	U-203	11 SPK	S95T000658	0	TOC-01	LIQUID	<u>100</u>	<u>101.5</u>	N/A	ug/mL	
95000064	U-107 GRAB	12 SAMPLE	S95T000792	0	TOC-01	LIQUID	<u>N/A</u>	<u>4.83</u>	<u>5.50E1</u>	ug/mL	
95000064	U-107 GRAB	13 DUP	S95T000792	0	TOC-01	LIQUID	<u>4.83</u>	<u>4.77</u>	N/A	ug/mL	
95000064	U-107 GRAB	14 SPK	S95T000792	0	TOC-01	LIQUID	<u>100</u>	<u>98.5</u>	N/A	ug/mL	
		15 BLNK			TOC-01	LIQUID	<u>1</u>	<u>5.50</u>	N/A	ug/mL	

Final page for worklist # 1175

RAW WENDLAND 4-26-95
ANALYST SIGNATURE DATE

Reviewed RW Schweden 4/28/95
ANALYST SIGNATURE DATE

Data Entry Comments:

ALL SAMPLES 2.0M H₂SO₄

735, 6, 792 .200 - 2mL - .200, 658 .400 - 1mL - .200

SPIKE .400 (mixture) + .200 (11N12-F) - .200 INF

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

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-109, REV. 1

TOC : LA-344-105 (B-3)

LIQUIDS

STANDARD

Sample Volume in mL (SS)	0.200
H2SO4 Volume in mL (VR)	2.000
Volume Injected in mL (VI)	0.200
Dilution Factor (DF)	11
Digest Dilution Factor (DDF)	1
µg of Carbon in Sample (C1)	58.8
µg of Carbon in Blank (C2)	3.8
g of Carbon/L =	3.02E+00

Sample #
STD
Instrument Code
WB39937
Analyst
WENDLAND
Date
04/26/95
Time
07:30 AM

$$\text{g of Carbon/L} = \frac{(C1-C2) * DF * DDF}{VI * 1000}$$

$$\mu\text{g of Carbon/mL} = \text{g of Carbon/L} * 1000000 \mu\text{g/g} / 1000 \text{ mL/L}$$

$$\text{Detection Level } (\mu\text{g/mL}) = \frac{1 \mu\text{g C} * DF * DDF}{VI}$$

$\mu\text{g Carbon/mL} =$	3.03E+03	DETECTION LEVEL
		in $\mu\text{g/mL}$
		5.50E+01

Data Entry by: <i>[Signature]</i>	Date: 04/27/95
Approved by: <i>[Signature]</i>	Date: 4/28/95
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PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-109, REV. 1

TOC : LA-344-105 (B-3)

LIQUIDS

		BLANK
Sample Volume in mL (SS)		0.200
H2SO4 Volume in mL (VR)		0.000
Volume Injected in mL (VI)		0.200
Dilution Factor (DF)		1
Digest Dilution Factor (DDF)		1
µg of Carbon in Sample (C1)		3.2
µg of Carbon in Blank (C2)		3.8
g of Carbon/L =		5.00E-03

Sample
BLK
Instrument Code
WB39937
ANALYST
WENDLAND
DATE
04/26/95
TIME
07:30 AM

$$\text{g of Carbon/L} = \frac{(C1 - C2) * DF * DDF}{VI * 1000}$$

$$\mu\text{g of Carbon/mL} = \text{g of Carbon/L} * 1000000 \mu\text{g/g} / 1000 \text{ mL/L}$$

$$\text{Detection Level } (\mu\text{g/mL}) = \frac{1 \mu\text{g C} * DF * DDF}{VI}$$

NOTE: Reported Result is Below Detection Level.

$\mu\text{g Carbon/mL} = < 5.00\text{E}+00$	DETECTION LEVEL
	in $\mu\text{g/mL}$ 5.00E+00

Data Entry by: <i>[Signature]</i>	Date: 04/27/95
Approved by: <i>[Signature]</i>	Date: 4/28/95
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PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-109, REV. 1

TOC : LA-344-105 (B-3)

LIQUIDS

		SAMPLE
	Sample Volume in mL (SS)	0.200
SAMPLE	H2SO4 Volume in mL (VR)	2.000
	Volume Injected in mL (VI)	0.200
1175	Dilution Factor (DF)	11
	Digest Dilution Factor (DDF)	1
TOC-01	µg of Carbon in Sample (C1)	42.3
	µg of Carbon in Blank (C2)	3.8
LIQUID	g of Carbon/L =	2.12E+00
Sample ID	g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{VI * 1000}$	
S95T735		
Instrument Code		
WB39937		
Analyst	µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 mL/L	
WENDLAND		
DATE	Detection Level (µg/mL) = $\frac{1 \mu\text{g C} * DF * DDF}{VI}$	
04/26/95		
TIME		
07:30 AM		

µg Carbon/mL =	2.12E+03	DETECTION LEVEL
		in µg/mL
		5.50E+01

Data Entry by:	<i>[Signature]</i>	Date:	04/27/95
Approved by:	<i>RW Schmoeder</i>	Date:	4/28/95

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PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-129, REV. 1

TOC : LA-344-105 (B-3)

LIQUIDS

		DUPLICATE
Type	Sample Volume in mL (SS)	0.200
DUPLICATE	H2SO4 Volume in mL (VR)	2.000
Work Cell	Volume Injected in mL (VI)	0.200
1175	Dilution Factor (DF)	11
Test Code	Digest Dilution Factor (DDF)	1
TOC-01	µg of Carbon in Sample (C1)	43
Method	µg of Carbon in Blank (C2)	3.8
LIQUID	g of Carbon/L =	2.16E+00
Sample #	g of Carbon/L = $\frac{(C1-C2) * DF * DDF}{VI * 1000}$	
S95T735DUP		
Instrument Code		
WB39937	µg of Carbon/mL = g of Carbon/L * 1000000 µg/g / 1000 mL/L	
Analyst		
WENDLAND		
Date	Detection Level (µg/mL) = $\frac{1 \mu g C * DF * DDF}{VI}$	
04/26/95		
Time		
07:30 AM		

µg Carbon/mL =	2.16E+03	DETECTION LEVEL
		in µg/mL
		5.50E+01

Data Entry by:	<i>[Signature]</i>	Date:	04/27/95
Approved by:	<i>[Signature]</i>	Date:	4/28/95
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TOC: LA-344-105		SPIKED SAMPLE		SPIKE
Type	>>>>> Sample Vial Data <<<<<		>>>>> Spiked Vial Data <<<<<	
SPIKE	Sample Volume in mL	0.200	Sample Size in mL (SS)	0.400
Worklist	H2SO4 Volume in mL	2.000	Spike Volume in mL	0.200
1175	Volume Injected in mL	0.200	H2SO4 Volume in mL	0.000
Lab Code	µg of Carbon in Sample	42.3	Volume Injected in mL	0.200
TOC-01	µg of Carbon in Blank	3.8	Sample Pre-Spike Dil. Factor (PDF)	11
Matrix			Spike Value (µg/mL)	748
LIQUID			µg C in Sample + Spike	76.3
Sample			µg C in Blank	3.8
S95T735SPK				
Instrument Code				
WB39937	PERCENT SPIKE REC = $\frac{\mu\text{g Carbon Recovered from Spike} * 100}{\mu\text{g Carbon in Spike}}$			
Analyst	WHERE : $\mu\text{g Carbon Recovered from Spike} =$			
WENDLAND	[$(\mu\text{gC in sample} + \text{spike} - \mu\text{gC in blank}) * (\text{Spike Correction Factor})$]			
Date	- [$(\mu\text{gC sample} - \mu\text{gC blank}) * (\text{Sample Correction Factor}) * (\text{Sample Size Correction Factor})$]			
04/26/95				
Time				
07:30 AM				

Spike Correction Factor = $\frac{\text{Total volume in spiked sample vial (mL)}}{\text{Volume injected (mL)}}$

Sample Correction Factor = $\frac{\text{Total volume in sample vial (mL)}}{\text{Volume injected (mL)}}$

Sample Size Correction Factor = $\frac{\text{Sample size in (mL) in spiked vial}}{\text{Sample size (mL) in sample}}$

Sample Pre-Spike Dilution Factor = $\frac{1}{\text{Dilution of Sample Before Added to Spike Vial}}$

WHERE : $\mu\text{g Carbon in Spike} = \text{Spike Value } (\mu\text{g/mL}) * \text{Spike Volume (mL)}$

Percent Spike Recovery 93.9%

Data Entry by: <i>[Signature]</i>	Date: 27-Apr-95
Approved by: <i>[Signature]</i>	Date: 4-28-95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-109, REV. 1

TOC : LA-344-105 (B-3)

LIQUIDS

		SAMPLE
Type	Sample Volume in mL (SS)	0.200
SAMPLE	H2SO4 Volume in mL (VR)	2.000
Work List	Volume Injected in mL (VI)	0.200
1175	Dilution Factor (DF)	11
Test Code	Digest Dilution Factor (DDF)	1
TOC-01	µg of Carbon in Sample (C1)	47.1
Matrix	µg of Carbon in Blank (C2)	3.8
LIQUID	g of Carbon/L =	2.38E+00
Sample #	$\text{g of Carbon/L} = \frac{(C1 - C2) \cdot DF \cdot DDF}{VI \cdot 1000}$	
S95T736		
Instrument Code		
WB39937		
Analyst	$\mu\text{g of Carbon/mL} = \text{g of Carbon/L} \cdot 1000000 \mu\text{g/g} / 1000 \text{ mL/L}$	
WENDLAND		
Date	$\text{Detection Level } (\mu\text{g/mL}) = \frac{1 \mu\text{g C} \cdot DF \cdot DDF}{VI}$	
04/26/95		
Time		
07:30 AM		

$\mu\text{g Carbon/mL} =$	2.38E+03	DETECTION LEVEL
		in $\mu\text{g/mL}$
		5.50E+01

Data Entry by: <i>[Signature]</i>	Date: 04/27/95
Approved by: <i>Ruf, Schroeder</i>	Date: 4/28/95

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PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-108, REV. 1

TOC : LA-344-105 (B-3)

LIQUIDS

DUPLICATE

Sample Volume in mL (SS)	0.200
H2SO4 Volume in mL (VR)	2.000
Volume Injected in mL (VI)	0.200
Dilution Factor (DF)	11
Digest Dilution Factor (DDF)	1
µg of Carbon in Sample (C1)	47.7
µg of Carbon in Blank (C2)	3.8
g of Carbon/L =	2.41E+00

Sample #
S95T736DUP
Instrument Code
WB39937
Analyst
WENDLAND
Date
04/26/95
Time
07:30 AM

$$\text{g of Carbon/L} = \frac{(C1 - C2) * DF * DDF}{VI * 1000}$$

$$\mu\text{g of Carbon/mL} = \text{g of Carbon/L} * 1000000 \mu\text{g/g} / 1000 \text{ mL/L}$$

$$\text{Detection Level } (\mu\text{g/mL}) = \frac{1 \mu\text{g C} * DF * DDF}{VI}$$

µg Carbon/mL = 2.41E+03

DETECTION LEVEL

in µg/mL

5.50E+01

Data Entry by: <i>[Signature]</i>	Date: 04/27/95
Approved by: <i>Rui Schneider</i>	Date: 4-27-95

TOC: LA-344-105

SPIKED SAMPLE

SPIKE

Type	>>>>> Sample Vial Data <<<<<<		>>>>> Spiked Vial Data <<<<<<	
SPIKE	Sample Volume in mL	0.200	Sample Size in mL (SS)	0.400
Work List	H2SO4 Volume in mL	2.000	Spike Volume in mL	0.200
1175	Volume Injected in mL	0.200	H2SO4 Volume in mL	0.000
Test Code	µg of Carbon in Sample	47.1	Volume Injected in mL	0.200
TOC-01	µg of Carbon in Blank	3.8	Sample Pre-Spike Dil. Factor (PDF)	11
Matrix			Spike Value (µg/mL)	748
LIQUID			µg C in Sample + Spike	81.8
Sample #			µg C in Blank	3.8
S95T736SPK				
Instrument Code				
WB39937				
Analyst				
WENDLAND				
Date				
04/26/95				
Time				
07:30 AM				

PERCENT SPIKE REC = $\frac{\mu\text{g Carbon Recovered from Spike} * 100}{\mu\text{g Carbon in Spike}}$

WHERE : $\mu\text{g Carbon Recovered from Spike} = [(\mu\text{gC in sample} + \text{spike} - \mu\text{gC in blank}) * (\text{Spike Correction Factor})]$
 $- [(\mu\text{gC sample} - \mu\text{gC blank}) * (\text{Sample Correction Factor}) * (\text{Sample Size Correction Factor})]$

Spike Correction Factor = $\frac{\text{Total volume in spiked sample vial (mL)}}{\text{Volume injected (mL)}}$

Sample Correction Factor = $\frac{\text{Total volume in sample vial (mL)}}{\text{Volume injected (mL)}}$

Sample Size Correction Factor = $\frac{\text{Sample size in (mL) in spiked vial}}{\text{Sample size (mL) in sample}}$

Sample Pre-Spike Dilution Factor = $\frac{1}{\text{Dilution of Sample Before Added to Spike Vial}}$

WHERE : $\mu\text{g Carbon in Spike} = \text{Spike Value } (\mu\text{g/mL}) * \text{Spike Volume (mL)}$

Percent Spike Recovery 98.5%

Data Entry by: *[Signature]* Date: 27-Apr-95
 Approved by: *[Signature]* Date: 4-28-95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-109, REV. 1

TOC : LA-344-105 (B-3)

LIQUIDS

SAMPLE

Type	Sample Volume in mL	(SS)	0.400
SAMPLE	H2SO4 Volume in mL	(VR)	1.000
Work List	Volume Injected in mL	(VI)	0.200
1175	Dilution Factor	(DF)	3.5
Test Code	Digest Dilution Factor	(DDF)	1
TOC-01	µg of Carbon in Sample	(C1)	23.1
Method	µg of Carbon in Blank	(C2)	3.8
LIQUID	g of Carbon/L	=	3.38E-01

Sample #
S95T658
Instrument Code
WB39937
Analysis
WENDLAND
Date
04/26/95
Time
07:30 AM

$$\text{g of Carbon/L} = \frac{(C1-C2) * DF * DDF}{VI * 1000}$$

$$\mu\text{g of Carbon/mL} = \text{g of Carbon/L} * 1000000 \mu\text{g/g} / 1000 \text{ mL/L}$$

$$\text{Detection Level } (\mu\text{g/mL}) = \frac{1 \mu\text{g C} * DF * DDF}{VI}$$

$\mu\text{g Carbon/mL} =$	3.38E+02	DETECTION LEVEL
		in µg/mL
		1.75E+01

Data Entry by:	<i>[Signature]</i>	Date:	04/27/95
Approved by:	<i>R. W. Schroeder</i>	Date:	4/28/95
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PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-109, REV. 1

TOC : LA-344-105 (B-3)

LIQUIDS

SAMPLE

Sample Volume in mL (SS)	0.400
H2SO4 Volume in mL (VR)	1.000
Volume Injected in mL (VI)	0.200
Dilution Factor (DF)	3.5
Digest Dilution Factor (DDF)	1
µg of Carbon in Sample (C1)	23.5
µg of Carbon in Blank (C2)	3.8
g of Carbon/L =	3.45E-01

Sample #	S95T658DUP
Instrument Code	WB39937
Analyst	WENDLAND
Date	04/26/95
Time	07:30 AM

$$\text{g of Carbon/L} = \frac{(C1-C2) * DF * DDF}{VI * 1000}$$

$$\mu\text{g of Carbon/mL} = \text{g of Carbon/L} * 1000000 \mu\text{g/g} / 1000 \text{ mL/L}$$

$$\text{Detection Level } (\mu\text{g/mL}) = \frac{1 \mu\text{g C} * DF * DDF}{VI}$$

$\mu\text{g Carbon/mL} =$	3.45E+02	DETECTION LEVEL
		in $\mu\text{g/mL}$
		1.75E+01

Data Entry by: <i>[Signature]</i>	Date: 04/27/95
Approved by: <i>[Signature]</i>	Date: 4/28/95
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PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

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WHC-SD-WM-DP-109, REV. 1

TOC: LA-344-105

SPIKED SAMPLE

SPIKE

Type	>>>>> Sample Vial Data <<<<<<		>>>>> Spiked Vial Data <<<<<	
SPIKE	Sample Volume in mL	0.200	Sample Size in mL (SS)	0.400
Work List	H2SO4 Volume in mL	2.000	Spike Volume in mL	0.200
1175	Volume Injected in mL	0.200	H2SO4 Volume in mL	0.000
Test Code	µg of Carbon in Sample	23.1	Volume Injected in mL	0.200
TOC-01	µg of Carbon in Blank	3.8	Sample Pre-Spike Dil. Factor (PDF)	11
Matrix			Spike Value (µg/mL)	748
LIQUID			µg C in Sample + Spike	67.3
Sample #			µg C in Blank	3.8
S95T658SPK				
Instrument Code				
WB39937				
Analyst				
WENDLAND				
Date				
04/26/95				
Time				
07:30 AM				

$$\text{PERCENT SPIKE REC} = \frac{\mu\text{g Carbon Recovered from Spike} * 100}{\mu\text{g Carbon in Spike}}$$

$$\text{WHERE: } \mu\text{g Carbon Recovered from Spike} = [(\mu\text{gC in sample} + \mu\text{gC in spike} - \mu\text{gC in blank}) * (\text{Spike Correction Factor})] - [(\mu\text{gC sample} - \mu\text{gC blank}) * (\text{Sample Correction Factor}) * (\text{Sample Size Correction Factor})]$$

$$\text{Spike Correction Factor} = \frac{\text{Total volume in spiked sample vial (mL)}}{\text{Volume injected (mL)}}$$

$$\text{Sample Correction Factor} = \frac{\text{Total volume in sample vial (mL)}}{\text{Volume injected (mL)}}$$

$$\text{Sample Size Correction Factor} = \frac{\text{Sample size in (mL) in spiked vial}}{\text{Sample size (mL) in sample}}$$

$$\text{Sample Pre-Spike Dilution Factor} = \frac{1}{\text{Dilution of Sample Before Added to Spike Vial}}$$

$$\text{WHERE: } \mu\text{g Carbon in Spike} = \text{Spike Value } (\mu\text{g/mL}) * \text{Spike Volume (mL)}$$

Percent Spike Recovery 101.5%

Data Entry by: *[Signature]* Date: 27-Apr-95
Approved by: *[Signature]* Date: 4-28-95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-109, REV. 1

TOC : LA-344-105 (B-3)

LIQUIDS

		SAMPLE
Sample Volume in mL (SS)		0.200
H2SO4 Volume in mL (VR)		2.000
Volume Injected in mL (VI)		0.200
Dilution Factor (DF)		11
Digest Dilution Factor (DDF)		1
µg of Carbon in Sample (C1)		91.7
µg of Carbon in Blank (C2)		3.8
g of Carbon/L	=	4.83E+00

Sample #
S95T792
Instrument Code
WB39937
Analyst
WENDLAND
Date
04/26/95
Time
07:30 AM

$$\text{g of Carbon/L} = \frac{(C1 - C2) * DF * DDF}{VI * 1000}$$

$$\mu\text{g of Carbon/mL} = \text{g of Carbon/L} * 1000000 \mu\text{g/g} / 1000 \text{ mL/L}$$

$$\text{Detection Level } (\mu\text{g/mL}) = \frac{1 \mu\text{g C} * DF * DDF}{VI}$$

$\mu\text{g Carbon/mL} = 4.83\text{E}+03$	DETECTION LEVEL
	in $\mu\text{g/mL}$ 5.50E+01

Data Entry by: <i>[Signature]</i>	Date: 04/27/95
Approved by: <i>[Signature]</i>	Date: 4/28/95
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PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-109, REV. 1

TOC : LA-344-105 (B-3)

LIQUIDS

		DUPLICATE
Sample Volume in mL (SS)		0.200
H2SO4 Volume in mL (VR)		2.000
Volume Injected in mL (VI)		0.200
Dilution Factor (DF)		11
Digest Dilution Factor (DDF)		1
µg of Carbon in Sample (C1)		90.6
µg of Carbon in Blank (C2)		3.8
g of Carbon/L =		4.77E+00
g of Carbon/L =	$\frac{(C1-C2) * DF * DDF}{VI * 1000}$	
µg of Carbon/mL =	$g \text{ of Carbon/L} * 1000000 \mu\text{g/g} / 1000 \text{ mL/L}$	
Detection Level (µg/mL) =	$\frac{1 \mu\text{g C} * DF * DDF}{VI}$	

Sample #	S95T792DUP
Instrument Code	WB39937
Analysis	WENDLAND
Date	04/26/95
Time	07:30 AM

µg Carbon/mL = 4.77E+03	DETECTION LEVEL
	in µg/mL 5.50E+01

Data Entry by: <i>[Signature]</i>	Date: 04/27/95
Approved by: <i>[Signature]</i>	Date: 4/27/95

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PLACE ANALYTICAL CARD IN BOX BELOW-DO NOT WRITE IN SPACE

WHC-SD-WM-DP-119, REV. 1

TOC: LA-344-105		SPIKED SAMPLE		SPIKE	
Type	>>>>> Sample Vial Data <<<<<		>>>>> Spiked Vial Data <<<<<		
SPIKE	Sample Volume in mL	0.200	Sample Size in mL (SS)	0.400	
Worklist	H2SO4 Volume in mL	2.000	Spike Volume in mL	0.200	
1175	Volume Injected in mL	0.200	H2SO4 Volume in mL	0.000	
Test Code	µg of Carbon in Sample	91.7	Volume Injected in mL	0.200	
TOC-01	µg of Carbon in Blank	3.8	Sample Pre-Spike Dil. Factor (PDF)	11	
Matrix			Spike Value (µg/mL)	748	
LIQUID			µg C in Sample + Spike	111.5	
Sample #			µg C in Blank	3.8	
S95T792SPK					
Instrument Code					
WB39937	PERCENT SPIKE REC = $\frac{\mu\text{g Carbon Recovered from Spike} * 100}{\mu\text{g Carbon in Spike}}$				
Analyst	WHERE : $\mu\text{g Carbon Recovered from Spike} =$				
WENDLAND	[$(\mu\text{gC in sample} + \text{spike} - \mu\text{gC in blank}) * (\text{Spike Correction Factor})$]				
Date	- [$(\mu\text{gC sample} - \mu\text{gC blank}) * (\text{Sample Correction Factor}) * (\text{Sample Size Correction Factor})$]				
04/26/95					
Time					
07:30 AM					

Spike Correction Factor = $\frac{\text{Total volume in spiked sample vial (mL)}}{\text{Volume injected (mL)}}$

Sample Correction Factor = $\frac{\text{Total volume in sample vial (mL)}}{\text{Volume injected (mL)}}$

Sample Size Correction Factor = $\frac{\text{Sample size in (mL) in spiked vial}}{\text{Sample size (mL) in sample}}$

Sample Pre-Spike Dilution Factor = $\frac{1}{\text{Dilution of Sample Before Added to Spike Vial}}$

WHERE : $\mu\text{g Carbon in Spike} = \text{Spike Value } (\mu\text{g/mL}) * \text{Spike Volume (mL)}$

Percent Spike Recovery 98.5%

Data Entry by: *[Signature]* Date: 27-Apr-95
 Approved by: *[Signature]* Date: 4/23/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-109, REV. 1

TOC : LA-344-105 (B-3)

LIQUIDS

BLANK

Sample Volume in mL (SS)	0.200
H2SO4 Volume in mL (VR)	0.000
Volume Injected in mL (VI)	0.200
Dilution Factor (DF)	1
Digest Dilution Factor (DDF)	1
µg of Carbon in Sample (C1)	4.9
µg of Carbon in Blank (C2)	3.8
g of Carbon/L =	5.50E-03

Sample	g of Carbon/L =	$\frac{(C1-C2) * DF * DDF}{VI * 1000}$
BLK	µg of Carbon/mL =	g of Carbon/L * 1000000 µg/g / 1000 mL/L
Instrument Code	Detection Level (µg/mL) =	$\frac{1 \mu g C * DF * DDF}{VI}$
WB39937		
ANALYST		
WENDLAND		
DATE		
04/26/95		
TIME		
07:30 AM		

µg Carbon/mL =	5.50E+00	DETECTION LEVEL
		in µg/mL
		5.00E+00

Data Entry by:	<i>[Signature]</i>	Date:	04/27/95
Approved by:	<i>RW. Schneider</i>	Date:	4/28/95
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TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT

TICTOC REV 2.0

<<< BLANK ANALYSIS >>> WHC-SD-WM-DP-109, REV. 1

Sample: BLK

Date: 04/26/95

Time: 07:07:58

Sample Size = 200 uL
Dil Factor = 1
Blank ID # = BLK
Blank Value = N/A

Analyst : RA WENDLAND
Min Readings = 14
Max Readings = 14
% Difference = 10

== Reading ==	==== Analysis Time ==	==== Coulometer ==	==== % Difference ==
1	0.51	0.60	0.00
2	1.01	0.90	33.33
3	1.51	1.30	30.77
4	2.01	1.60	18.75
5	2.51	1.80	11.11
6	3.01	2.10	14.29
7	3.51	2.30	8.70
8	4.00	2.60	11.54
9	4.50	2.80	7.14
10	5.00	3.00	6.67
11	5.50	3.20	6.25
12	6.00	3.30	3.03
13	6.50	3.50	5.71
14	7.00	3.80	7.89

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 63 TO 78.

BLANK VALUE = 3.8 micrograms carbon

BLANK FACTOR = $3.8 / 7.004028 =$

+5.4E-01 ug/min Carbon

Sample Run By:

RA WENDLAND

00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT

TICTOC REV 2.0

WHC-SD-WM-DP- 109, REV. 1

Sample: STD

Date: 04/26/95

Time: 07:30:26

Sample Size = 200 uL

Dil Factor = 11

Blank ID # = BLK

Blank Value = .5425449 ug/minute C

Analyst : RA WENDLAND

Min Readings = 14

Max Readings = 14

% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.00	0.00
2	1.01	28.00	96.43
3	1.51	46.40	39.66
4	2.01	53.00	12.45
5	2.51	55.20	3.99
6	3.01	56.10	1.60
7	3.51	56.60	0.88
8	4.01	57.00	0.70
9	4.51	57.40	0.70
10	5.01	57.80	0.69
11	5.51	58.00	0.34
12	6.01	58.40	0.68
13	6.51	58.50	0.17
14	7.00	58.80	0.51

BLANK VALUE = 3.8 micrograms carbon

BLANK FACTOR = 3.8 / 7.004028 =

+5.4E-01 ug/min Carbon

SAMPLE RESULTS:

(58.8 - 3.800447) (11) / (200) =

+3.02E+00 g/L Carbon

(58.8 - 3.800447) (11) / (200) (12) =

+2.52E-01 Molar Carbon

Sample Run By:

RA WENDLAND

00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT

TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: BLK

Date: 04/26/95

Time: 07:43:36

Sample Size = 200 uL

Dil Factor = 1

Blank ID # = BLK

Blank Value = .5425449 ug/minute C

Analyst : RA WENDLAND

Min Readings = 14

Max Readings = 14

% Difference = 10

== Reading ==	== Analysis Time ==	== Coulometer ==	== % Difference ==
1	0.51	0.00	0.00
2	1.01	0.50	100.00
3	1.51	0.90	44.44
4	2.01	1.10	18.18
5	2.51	1.30	15.38
6	3.01	1.60	18.75
7	3.51	1.80	11.11
8	4.01	2.00	10.00
9	4.51	2.20	9.09
10	5.01	2.40	8.33
11	5.51	2.60	7.69
12	6.01	2.90	10.34
13	6.51	3.00	3.33
14	7.00	3.20	6.25

BLANK VALUE = 3.8 micrograms carbon

BLANK FACTOR = 3.8 / 7.004028 =

+5.4E-01 ug/min Carbon

SAMPLE RESULTS:

(3.2 - 3.800447) (1) / (200) =

< 5.00 E-3 g/L Carbon

(3.2 - 3.800447) (1) / (200) (12) =

< 4.17 E-4 Molar Carbon

Sample Run By:

RA WENDLAND

00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 735

Date: 04/26/95

Time: 08:30:18

Sample Size = 200 uL

Dil Factor = 11

Blank ID # = BLK

Blank Value = .5425449 ug/minute C

Analyst : RA WENDLAND

Min Readings = 14

Max Readings = 14

% Difference = 10

== Reading ==	Analysis Time ==	Coulometer ==	% Difference ==
1	0.51	0.10	0.00
2	1.01	12.80	99.22
3	1.51	29.00	55.86
4	2.01	35.10	17.38
5	2.51	37.70	6.90
6	3.01	38.90	3.08
7	3.50	39.60	1.77
8	4.01	40.30	1.74
9	4.51	40.80	1.23
10	5.01	41.10	0.73
11	5.51	41.50	0.96
12	6.01	41.70	0.48
13	6.51	42.00	0.71
14	7.01	42.30	0.71

BLANK VALUE = 3.8 micrograms carbon

BLANK FACTOR = 3.8 / 7.004028 =

+5.4E-01 ug/min Carbon

SAMPLE RESULTS:

(42.3 - 3.800877) (11) / (200) =

+2.12E+00 g/L Carbon

(42.3 - 3.800877) (11) / (200) (12) =

+1.76E-01 Molar Carbon

Sample Run By:

RA WENDLAND

00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT

TICTOC REV 2.0

WHC-SD-WM-DP-119, REV. 1

Sample: 735D

Date: 04/26/95

Time: 08:21:34

Sample Size = 200 uL

Dil Factor = 11

Blank ID # = BLK

Blank Value = .5425449 ug/minute C

Analyst : RA WENDLAND

Min Readings = 14

Max Readings = 14

% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.10	0.00
2	1.01	12.40	99.19
3	1.51	29.90	58.53
4	2.01	35.90	16.71
5	2.51	38.20	6.02
6	3.01	39.50	3.29
7	3.51	40.30	1.99
8	4.00	40.80	1.23
9	4.50	41.30	1.21
10	5.00	41.80	1.20
11	5.51	42.10	0.71
12	6.01	42.50	0.94
13	6.50	42.60	0.23
14	7.00	43.00	0.93

BLANK VALUE = 3.8 micrograms carbon

BLANK FACTOR = 3.8 / 7.004028 =

+5.4E-01 ug/min Carbon

SAMPLE RESULTS:

(43 - 3.80043) (11) / (200) =

+2.16E+00 g/L Carbon

(43 - 3.80043) (11) / (200) (12) =

+1.80E-01 Molar Carbon

Sample Run By:

RA WENDLAND

00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 735S

Date: 04/26/95

Time: 08:37:54

Sample Size = 200 uL

Dil Factor = 1

Blank ID # = BLK

Blank Value = .5425449 ug/minute C

Analyst : RA WENDLAND

Min Readings = 14

Max Readings = 14

% Difference = 10

== Reading ==	== Analysis Time ==	== Coulometer ==	== % Difference ==
1	0.51	0.00	0.00
2	1.01	35.10	100.00
3	1.51	58.50	40.00
4	2.01	67.10	12.82
5	2.51	70.60	4.96
6	3.01	72.20	2.22
7	3.51	73.50	1.77
8	4.01	74.00	0.68
9	4.51	74.50	0.67
10	5.01	74.90	0.53
11	5.51	75.40	0.66
12	6.01	75.70	0.40
13	6.50	76.20	0.66
14	7.00	76.30	0.13

BLANK VALUE = 3.8 micrograms carbon

BLANK FACTOR = 3.8 / 7.004028 =

+5.4E-01 ug/min Carbon

SAMPLE RESULTS:

(76.3 - 3.799983) (1) / (200) =

+3.63E-01 g/L Carbon

(76.3 - 3.799983) (1) / (200) (12) =

+3.02E-02 Molar Carbon

Sample Run By:

RA WENDLAND

00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 736

Date: 04/26/95

Time: 08:57:20

Sample Size = 200 uL

Dil Factor = 11

Blank ID # = BLK

Blank Value = .5425449 ug/minute C

Analyst : RA WENDLAND

Min Readings = 14

Max Readings = 14

% Difference = 10

== Reading ==	== Analysis Time ==	== Coulometer ==	== % Difference ==
1	0.51	0.30	0.00
2	1.01	22.00	98.64
3	1.51	34.50	36.23
4	2.01	39.40	12.44
5	2.51	41.80	5.74
6	3.01	43.40	3.69
7	3.51	44.40	2.25
8	4.01	44.90	1.11
9	4.50	45.30	0.88
10	5.00	45.70	0.88
11	5.50	46.10	0.87
12	6.00	46.50	0.86
13	6.51	46.80	0.64
14	7.00	47.10	0.64

BLANK VALUE = 3.8 micrograms carbon

BLANK FACTOR = 3.8 / 7.004028 =

+5.4E-01 ug/min Carbon

SAMPLE RESULTS:

(47.1 - 3.80043) (11) / (200) =

+2.38E+00 g/L Carbon

(47.1 - 3.80043) (11) / (200) (12) =

+1.98E-01 Molar Carbon

Sample Run By:

RA WENDLAND

00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-119, REV. 1

Sample: 736D

Date: 04/26/95

Time: 08:46:55

Sample Size = 200 uL

Dil Factor = 11

Blank ID # = BLK

Blank Value = .5425449 ug/minute C

Analyst : RA WENDLAND

Min Readings = 14

Max Readings = 14

% Difference = 10

== Reading ==	==== Analysis Time ==	==== Coulometer ==	==== % Difference ==
1	0.51	0.10	0.00
2	1.01	19.10	99.48
3	1.51	34.60	44.80
4	2.01	40.10	13.72
5	2.51	42.90	6.53
6	3.01	44.00	2.50
7	3.51	44.80	1.79
8	4.01	45.60	1.75
9	4.50	46.10	1.08
10	5.00	46.40	0.65
11	5.50	46.80	0.85
12	6.00	47.10	0.64
13	6.50	47.40	0.63
14	7.00	47.70	0.63

BLANK VALUE = 3.8 micrograms carbon

BLANK FACTOR = 3.8 / 7.004028 =

+5.4E-01 ug/min Carbon

SAMPLE RESULTS:

(47.7 - 3.799437) (11) / (200) =

+2.41E+00 g/L Carbon

(47.7 - 3.799437) (11) / (200) (12) =

+2.01E-01 Molar Carbon

Sample Run By:

RA WENDLAND

00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 736S

Date: 04/26/95

Time: 09:05:21

Sample Size = 200 uL

Dil Factor = 1

Blank ID # = BLK

Blank Value = .5425449 ug/minute C

Analyst : RA WENDLAND

Min Readings = 14

Max Readings = 14

% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	38.50	98.96
3	1.51	62.40	38.30
4	2.00	70.70	11.74
5	2.50	74.80	5.48
6	3.00	77.00	2.86
7	3.50	78.30	1.66
8	4.00	79.30	1.26
9	4.50	79.80	0.63
10	5.00	80.30	0.62
11	5.50	80.70	0.50
12	6.00	81.10	0.49
13	6.50	81.50	0.49
14	7.00	81.80	0.37

BLANK VALUE = 3.8 micrograms carbon

BLANK FACTOR = 3.8 / 7.004028 =

+5.4E-01 ug/min Carbon

SAMPLE RESULTS:

(81.8 - 3.799901) (1) / (200) =

+3.90E-01 g/L Carbon

(81.8 - 3.799901) (1) / (200) (12) =

+3.25E-02 Molar Carbon

Sample Run By:

RA WENDLAND

00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 658

Date: 04/26/95

Time: 09:50:30

Sample Size = 200 uL

Dil Factor = 1

Blank ID # = BLK

Blank Value = .5425449 ug/minute C

Analyst : RA WENDLAND

Min Readings = 14

Max Readings = 14

% Difference = 10

== Reading ==	Analysis Time ==	Coulometer ==	% Difference ==
1	0.51	0.10	0.00
2	1.01	8.20	98.78
3	1.51	13.30	38.35
4	2.01	15.70	15.29
5	2.51	17.40	9.77
6	3.01	18.70	6.95
7	3.51	19.50	4.10
8	4.01	20.20	3.47
9	4.51	20.80	2.88
10	5.01	21.40	2.80
11	5.51	21.90	2.28
12	6.01	22.30	1.79
13	6.51	22.70	1.76
14	7.00	23.10	1.73

BLANK VALUE = 3.8 micrograms carbon

BLANK FACTOR = 3.8 / 7.004028 =

+5.4E-01 ug/min Carbon

SAMPLE RESULTS: 3.5 RWS 4-28-95

(23.1 - 3.80043) (X) / (200) =

(23.1 - 3.80043) (1) / (200) (12) =

3.38E-1 RWS 4-28-95

+9.65E-02 g/L Carbon

+8.04E-03 Molar Carbon

Sample Run By:

RA WENDLAND

00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT

TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 658D

Date: 04/26/95

Time: 09:57:58

Sample Size = 200 uL

Dil Factor = 1

Blank ID # = BLK

Blank Value = .5425449 ug/minute C

Analyst : RA WENDLAND

Min Readings = 14

Max Readings = 14

% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	6.20	96.77
3	1.51	12.40	50.00
4	2.00	15.20	18.42
5	2.50	17.30	12.14
6	3.00	18.50	6.49
7	3.50	19.40	4.64
8	4.00	20.30	4.43
9	4.50	21.20	4.25
10	5.00	21.60	1.85
11	5.50	22.30	3.14
12	6.00	22.60	1.33
13	6.50	23.00	1.74
14	7.00	23.50	2.13

BLANK VALUE = 3.8 micrograms carbon

BLANK FACTOR = 3.8 / 7.004028 =

+5.4E-01 ug/min Carbon

SAMPLE RESULTS: *3.5 RWS 4-28-95*
 (23.5 - 3.799437) *11* / (200) =
 (23.5 - 3.799437) (1) / (200) (12) =

5.45E-1
~~+9.85E-02~~ *RWS 4-28-95* g/L Carbon
 +8.21E-03 Molar Carbon

Sample Run By:

RA WENDLAND

00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP- 109, REV. 1

Sample: 658S

Date: 04/26/95

Time: 10:05:34

Sample Size = 200 uL

Dil Factor = 1

Blank ID # = BLK

Blank Value = .5425449 ug/minute C

Analyst : RA WENDLAND

Min Readings = 14

Max Readings = 14

% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.60	0.00
2	1.01	20.50	97.07
3	1.51	46.10	55.53
4	2.01	53.60	13.99
5	2.51	57.90	7.43
6	3.01	60.40	4.14
7	3.51	62.20	2.89
8	4.01	63.40	1.89
9	4.51	64.50	1.71
10	5.01	65.10	0.92
11	5.51	65.80	1.06
12	6.01	66.30	0.75
13	6.51	66.80	0.75
14	7.01	67.30	0.74

BLANK VALUE = 3.8 micrograms carbon

BLANK FACTOR = 3.8 / 7.004028 =

+5.4E-01 ug/min Carbon

SAMPLE RESULTS:

(67.3 - 3.800993) (1) / (200) =

+3.17E-01 g/L Carbon

(67.3 - 3.800993) (1) / (200) (12) =

+2.65E-02 Molar Carbon

Sample Run By:

RA WENDLAND

00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 792

Date: 04/26/95

Time: 09:13:29

Sample Size = 200 uL

Dil Factor = 11

Blank ID # = BLK

Blank Value = .5425449 ug/minute C

Analyst : RA WENDLAND

Min Readings = 14

Max Readings = 14

% Difference = 10

== Reading ==	==== Analysis Time ==	==== Coulometer ==	==== % Difference ==
1	0.51	0.60	0.00
2	1.01	46.10	98.70
3	1.51	69.30	33.48
4	2.01	78.10	11.27
5	2.51	82.90	5.79
6	3.01	85.50	3.04
7	3.51	87.30	2.06
8	4.01	88.40	1.24
9	4.51	89.20	0.90
10	5.01	90.00	0.89
11	5.51	90.50	0.55
12	6.01	90.90	0.44
13	6.50	91.40	0.55
14	7.00	91.70	0.33

BLANK VALUE = 3.8 micrograms carbon

BLANK FACTOR = 3.8 / 7.004028 =

+5.4E-01 ug/min Carbon

SAMPLE RESULTS:

(91.7 - 3.8) (11) / (200) =

+4.83E+00 g/L Carbon

(91.7 - 3.8) (11) / (200) (12) =

+4.03E-01 Molar Carbon

Sample Run By:

RA WENDLAND

00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 792D

Date: 04/26/95

Time: 09:25:54

Sample Size = 200 uL

Dil Factor = 11

Blank ID # = BLK

Blank Value = .5425449 ug/minute C

Analyst : RA WENDLAND

Min Readings = 14

Max Readings = 14

% Difference = 10

== Reading ==	== Analysis Time ==	== Coulometer ==	== % Difference ==
1	0.51	0.70	0.00
2	1.01	47.70	98.53
3	1.51	67.60	29.44
4	2.01	76.10	11.17
5	2.51	81.00	6.05
6	3.01	83.90	3.46
7	3.51	85.80	2.21
8	4.00	86.90	1.27
9	4.50	88.00	1.25
10	5.00	88.60	0.68
11	5.50	89.30	0.78
12	6.00	89.80	0.56
13	6.50	90.20	0.44
14	7.00	90.60	0.44

BLANK VALUE = 3.8 micrograms carbon

BLANK FACTOR = 3.8 / 7.004028 =

+5.4E-01 ug/min Carbon

SAMPLE RESULTS:

(90.6 - 3.799901) (11)/(200) =

+4.77E+00 g/L Carbon

(90.6 - 3.799901) (11)/(200) (12) =

+3.98E-01 Molar Carbon

Sample Run By:

RA WENDLAND

00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 792S

Date: 04/26/95

Time: 09:36:56

Sample Size = 200 uL

Dil Factor = 1

Blank ID # = BLK

Blank Value = .5425449 ug/minute C

Analyst : RA WENDLAND

Min Readings = 14

Max Readings = 14

% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.80	0.00
2	1.01	58.70	98.64
3	1.51	85.70	31.51
4	2.01	95.50	10.26
5	2.51	100.90	5.35
6	3.01	104.30	3.26
7	3.51	106.40	1.97
8	4.01	107.70	1.21
9	4.50	108.70	0.92
10	5.00	109.70	0.91
11	5.50	110.10	0.36
12	6.00	110.80	0.63
13	6.50	111.20	0.36
14	7.00	111.50	0.27

BLANK VALUE = 3.8 micrograms carbon

BLANK FACTOR = 3.8 / 7.004028 =

+5.4E-01 ug/min Carbon

SAMPLE RESULTS:

(111.5 - 3.799901) (1)/(200) =

+5.385E-01 g/L Carbon

(111.5 - 3.799901) (1)/(200) (12) =

+4.488E-02 Molar Carbon

Sample Run By:

RA WENDLAND

00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: BLK

Date: 04/26/95

Time: 10:13:05

Sample Size = 200 uL

Dil Factor = 1

Blank ID # = BLK

Blank Value = .5425449 ug/minute C

Analyst : RA WENDLAND

Min Readings = 14

Max Readings = 14

% Difference = 10

== Reading ==	== Analysis Time ==	== Coulometer ==	== % Difference ==
1	0.51	0.40	0.00
2	1.01	1.20	66.67
3	1.51	1.50	20.00
4	2.01	1.90	21.05
5	2.51	2.20	13.64
6	3.01	2.60	15.38
7	3.51	2.90	10.34
8	4.01	3.20	9.37
9	4.51	3.50	8.57
10	5.01	3.80	7.89
11	5.51	4.10	7.32
12	6.01	4.30	4.65
13	6.51	4.70	8.51
14	7.00	4.90	4.08

BLANK VALUE = 3.8 micrograms carbon

BLANK FACTOR = 3.8 / 7.004028 =

+5.4E-01 ug/min Carbon

SAMPLE RESULTS:

(4.9 - 3.80043) (1) / (200) =

+5.5E-03 g/L Carbon

(4.9 - 3.80043) (1) / (200) (12) =

+4.6E-04 Molar Carbon

Sample Run By:

RA WENDLAND

00000

LABCORE Data Entry Template for Worklist# 1348

Analyst: KRM Instrument: TOC01 Book # 10N12G

Method: LA-342-100 Rev/Mod A-0

Worklist Comment: C-111 U203 TOC-02 krm

WHC-SD-WM-DP-169, REV. 1

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK			TOC-02	SOLID	<u>1</u>	<u>37.2</u>	<u>N/A</u>	ug/g
		2 STD			TOC-02	SOLID	<u>3.00E³</u>	<u>2.83E³</u>	<u>N/A</u>	ug/g
95000041	C-111	3 SAMPLE	S95T000572	0	TOC-02	SOLID	<u>N/A</u>	<u>9.09E²</u>	<u>80</u>	ug/g
95000041	C-111	4 DUP	S95T000572	0	TOC-02	SOLID	<u>9.09E²</u>	<u>8.93E²</u>	<u>N/A</u>	ug/g
95000051	U-203	5 SAMPLE	S95T000639	0	TOC-02	SOLID	<u>N/A</u>	<u>6.55E¹</u>	<u>80</u>	ug/g
95000051	U-203	6 DUP	S95T000639	0	TOC-02	SOLID	<u>6.55E¹</u>	<u>6.56E¹</u>	<u>N/A</u>	ug/g

Final page for worklist # 1348

Analyst Signature Date 5-7-95

Analyst Signature Date

Reviewed RW Schneider 5-8-95

Data Entry Comments:

TOC result for sample 639 was detectable, but less than
detection limit of 80. Therefore, it was reported as <80 in
Labcore.

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.

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT

TICTOC REV 2.0

<<< BLANK ANALYSIS >>>

WHC-SD-WM-DP-109, REV. 1

Sample: BLK

Date: 05/05/95

Time: 17:11:41

Sample Size = 1 uL

Dil Factor = 1

Blank ID # = BLK

Blank Value = N/A

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	==== Analysis Time ==	==== Coulometer ==	==== % Difference ==
1	0.51	0.10	0.00
2	1.01	0.20	50.00
3	1.51	0.50	60.00
4	2.01	0.80	37.50
5	2.51	1.10	27.27
6	3.00	1.30	15.38
7	3.50	1.50	13.33
8	4.00	1.70	11.76
9	4.50	1.90	10.53
10	5.00	2.10	9.52
11	5.50	2.30	8.70
12	6.00	2.40	4.17
13	6.50	2.50	4.00
14	7.00	2.80	10.71
15	7.50	2.90	3.45
16	8.00	3.00	3.33
17	8.50	3.20	6.25
18	9.00	3.40	5.88
19	9.50	3.60	5.56
20	10.00	3.70	2.70
21	10.50	3.90	5.13
22	11.00	4.10	4.88

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
 COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 80 TO 91.

BLANK VALUE = 4.1 micrograms carbon

BLANK FACTOR = 4.1 / 11.00073 =

+3.7E-01 ug/min Carbon

Sample Run By

KR MONTEITH

00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT

TICTOC REV 2.0

<<< BLANK ANALYSIS >>> WHC-SD-WM-DP-109, REV. 1

Sample: BLK

Date: 05/05/95

Time: 17:29:54

Sample Size = 1 uL

Dil Factor = 1

Blank ID # = BLK

Blank Value = N/A

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	==== Analysis Time ==	==== Coulometer ==	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	4.40	100.00
3	1.50	11.80	62.71
4	2.00	18.70	36.90
5	2.50	23.90	21.76
6	3.01	26.50	9.81
7	3.51	28.00	5.36
8	4.01	29.30	4.44
9	4.50	30.30	3.30
10	5.00	31.00	2.26
11	5.50	31.70	2.21
12	6.00	32.30	1.86
13	6.50	32.80	1.52
14	7.00	33.30	1.50
15	7.50	33.80	1.48
16	8.00	34.40	1.74
17	8.50	34.90	1.43
18	9.00	35.40	1.41
19	9.50	35.80	1.12
20	10.00	36.20	1.10
21	10.50	36.70	1.36
22	11.00	37.20	1.34

BLANK VALUE = 37.2 micrograms carbon

BLANK FACTOR = 37.2 / 11.00073 = +3.38E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!>>>>

Sample Run By:

KR MONTEITH

00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: STD

Date: 05/05/95

Time: 17:45:45

Sample Size = 1000 uL

Dil Factor = 1

Blank ID # =

Blank Value = .37 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	== Analysis Time ==	== Coulometer ==	== % Difference ==
1	0.51	123.10	0.00
2	1.01	285.60	56.90
3	1.51	398.90	28.40
4	2.00	465.90	14.38
5	2.50	505.10	7.76
6	3.00	526.90	4.14
7	3.50	536.20	1.73
8	4.00	541.20	0.92
9	4.50	543.70	0.46
10	5.00	545.50	0.33
11	5.50	546.70	0.22
12	6.00	547.40	0.13
13	6.50	548.20	0.15
14	7.00	548.90	0.13
15	7.50	549.60	0.13
16	8.00	550.10	0.09
17	8.50	550.70	0.11
18	9.00	551.20	0.09
19	9.50	551.60	0.07
20	10.00	552.10	0.09
21	10.50	552.40	0.05
22	11.00	552.80	0.07

USER INPUT BLANK VALUE

BLANK VALUE = 4.070271 micrograms carbon

BLANK FACTOR = 4.070271 / 11.00073 = +3.7E-01 ug/min Carbon

SAMPLE RESULTS:

(552.8 - 4.069955) (1) / (1000) = +5.487E-01 g/L Carbon
(552.8 - 4.069955) (1) / (1000) (12) = +4.573E-02 Molar Carbon

Sample Run By:

KR MONTEITH

00000

82

SUPPORTING
DATA

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: STD

Date: 05/05/95

Time: 17:57:57

Sample Size = 300 uL

Dil Factor = 1

Blank ID # =

Blank Value = 3.38 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	== Analysis Time ==	== Coulometer ==	== % Difference ==
1	0.51	0.00	0.00
2	1.01	24.40	100.00
3	1.51	182.80	86.65
4	2.00	505.40	63.83
5	2.50	741.50	31.84
6	3.00	823.00	9.90
7	3.50	853.80	3.61
8	4.00	865.90	1.40
9	4.50	871.00	0.59
10	5.00	874.40	0.39
11	5.50	876.40	0.23
12	6.00	878.30	0.22
13	6.50	879.70	0.16
14	7.00	881.00	0.15
15	7.50	882.00	0.11
16	8.00	882.90	0.10
17	8.50	883.70	0.09
18	9.00	884.50	0.09
19	9.50	885.30	0.09
20	10.00	885.80	0.06
21	10.50	886.60	0.09
22	11.00	887.10	0.06

USER INPUT BLANK VALUE

BLANK VALUE = 37.18248 micrograms carbon

BLANK FACTOR = 37.18248 / 11.00073 = +3.4E+00 ug/min Carbon

SAMPLE RESULTS:

(887.1 - 37.18536) (1) / (300) = +2.833E+00 g/L Carbon
 (887.1 - 37.18536) (1) / (300) (12) = +2.361E-01 Molar Carbon
 <<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!>>>>

Sample Run By:

KR MONTEITH

00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 572

Date: 05/05/95

Time: 18:34:50

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = .37 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	==== Analysis Time ==	==== Coulometer ==	==== % Difference ==
1	0.51	0.30	0.00
2	1.01	4.70	93.62
3	1.51	50.00	90.60
4	2.00	152.70	67.26
5	2.50	277.00	44.87
6	3.00	372.30	25.60
7	3.50	432.10	13.84
8	4.00	467.70	7.61
9	4.50	485.30	3.63
10	5.00	494.10	1.78
11	5.50	498.40	0.86
12	6.00	501.10	0.54
13	6.50	503.40	0.46
14	7.00	505.50	0.42
15	7.50	507.00	0.30
16	8.00	508.40	0.28
17	8.50	509.40	0.20
18	9.00	510.50	0.22
19	9.50	511.30	0.16
20	10.00	512.30	0.20
21	10.50	512.90	0.12
22	11.00	513.80	0.18

USER INPUT BLANK VALUE

BLANK VALUE = 4.070271 micrograms carbon

BLANK FACTOR = 4.070271 / 11.00073 = +3.7E-01 ug/min Carbon

SAMPLE RESULTS:

(513.8 - 4.069955) (1) / (1) = +5.097E+02 g/L Carbon
(513.8 - 4.069955) (1) / (1) (12) = +4.248E+01 Molar Carbon

Sample Run By:

KR MONTEITH

00000

34

23909

SUPPORTING DATA

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT

TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 572

Date: 05/05/95

Time: 18:46:38

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = 3.38 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	== Analysis Time ==	== Coulometer ==	== % Difference ==
1	0.51	0.70	0.00
2	1.01	13.30	94.74
3	1.50	56.40	76.42
4	2.00	104.70	46.13
5	2.50	141.90	26.22
6	3.00	166.10	14.57
7	3.50	182.70	9.09
8	4.00	195.00	6.31
9	4.50	205.50	5.11
10	5.00	213.70	3.84
11	5.50	220.60	3.13
12	6.00	226.20	2.48
13	6.50	231.50	2.29
14	7.00	235.60	1.74
15	7.50	239.20	1.51
16	8.00	241.90	1.12
17	8.50	244.60	1.10
18	9.00	247.00	0.97
19	9.50	249.20	0.88
20	10.00	250.90	0.68
21	10.50	252.80	0.75
22	11.00	254.40	0.63

USER INPUT BLANK VALUE

BLANK VALUE = 37.18248 micrograms carbon

BLANK FACTOR = 37.18248 / 11.00073 = +3.4E+00 ug/min Carbon

SAMPLE RESULTS:

(254.4 - 37.17588) (1) / (1) = +2.172E+02 g/L Carbon
 (254.4 - 37.17588) (1) / (1) (12) = +1.810E+01 Molar Carbon
 <<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!>>>>

Sample Run By:

KR MONTEITH

00000

85

.2390g

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT

TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 572

Date: 05/05/95

Time: 18:58:23

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = .37 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	== Analysis Time ==	== Coulometer ==	== % Difference ==
1	0.51	1.50	0.00
2	1.01	5.80	74.14
3	1.51	46.40	87.50
4	2.00	157.70	70.58
5	2.50	305.70	48.41
6	3.01	432.80	29.37
7	3.51	519.10	16.62
8	4.01	571.20	9.12
9	4.50	598.80	4.61
10	5.00	612.20	2.19
11	5.50	619.80	1.23
12	6.00	623.80	0.64
13	6.50	626.70	0.46
14	7.00	628.70	0.32
15	7.50	630.20	0.24
16	8.00	631.60	0.22
17	8.50	633.10	0.24
18	9.00	634.30	0.19
19	9.50	635.50	0.19
20	10.00	636.40	0.14
21	10.50	637.60	0.19
22	11.00	638.40	0.13

USER INPUT BLANK VALUE

BLANK VALUE = 4.070271 micrograms carbon

BLANK FACTOR = 4.070271 / 11.00073 = +3.7E-01 ug/min Carbon

SAMPLE RESULTS:

(638.4 - 4.070903) (1) / (1)	=	+6.343E+02	g/L Carbon
(638.4 - 4.070903) (1) / (1) (12)	=	+5.286E+01	Molar Carbon

Sample Run By:

KR MONTEITH

00000

86

3265

SUPPORTING
DATA

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 572

Date: 05/05/95

Time: 20:25:15

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = 3.38 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	1.30	0.00
2	1.01	23.70	94.51
3	1.51	115.40	79.46
4	2.00	171.40	32.67
5	2.50	204.40	16.14
6	3.00	229.20	10.82
7	3.50	250.40	8.47
8	4.00	264.90	5.47
9	4.50	270.10	1.93
10	5.00	279.00	3.19
11	5.50	287.20	2.86
12	6.00	300.40	4.39
13	6.50	307.90	2.44
14	7.00	312.40	1.44
15	7.50	315.80	1.08
16	8.00	318.50	0.85
17	8.50	320.70	0.69
18	9.00	322.50	0.56
19	9.50	324.20	0.52
20	10.00	325.90	0.52
21	10.50	327.30	0.43
22	11.00	328.80	0.46

USER INPUT BLANK VALUE

BLANK VALUE = 37.18248 micrograms carbon

BLANK FACTOR = 37.18248 / 11.00073 = +3.4E+00 ug/min Carbon

SAMPLE RESULTS:

(328.8 - 37.18206) (1)/(1) = +2.916E+02 g/L Carbon
 (328.8 - 37.18206) (1)/(1) (12) = +2.430E+01 Molar Carbon
 <<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!>>>>

Sample Run By:

KR MONTEITH

00000

87 .3265g

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT

TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 639

Date: 05/05/95

Time: 20:39:35

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = .37 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	== Analysis Time ==	== Coulometer ==	== % Difference ==
1	0.51	0.30	0.00
2	1.01	6.30	95.24
3	1.51	71.00	91.13
4	2.00	165.10	57.00
5	2.50	234.40	29.56
6	3.00	280.20	16.35
7	3.50	311.30	9.99
8	4.00	331.90	6.21
9	4.50	344.80	3.74
10	5.00	352.20	2.10
11	5.50	357.60	1.51
12	6.00	361.60	1.11
13	6.50	364.50	0.80
14	7.00	367.30	0.76
15	7.50	369.60	0.62
16	8.00	371.60	0.54
17	8.50	373.30	0.46
18	9.00	375.00	0.45
19	9.50	376.60	0.42
20	10.00	378.00	0.37
21	10.50	379.60	0.42
22	11.00	380.80	0.32

USER INPUT BLANK VALUE

BLANK VALUE = 4.070271 micrograms carbon

BLANK FACTOR = 4.070271 / 11.00073 = +3.7E-01 ug/min Carbon

SAMPLE RESULTS:

(380.8 - 4.06991) (1) / (1) =

+3.767E+02 g/L Carbon

(380.8 - 4.06991) (1) / (1) (12) =

+3.139E+01 Molar Carbon

Sample Run By:

KR MONTEITH

00000

88 - 9729₂SUPPORTING
DATA

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-119, REV. 1

Sample: 639

Date: 05/05/95

Time: 20:51:47

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = 3.38 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	== Analysis Time ==	== Coulometer ==	== % Difference ==
1	0.51	1.20	0.00
2	1.01	5.00	76.00
3	1.51	17.30	71.10
4	2.01	37.60	53.99
5	2.51	54.20	30.63
6	3.01	64.30	15.71
7	3.51	70.60	8.92
8	4.01	74.90	5.74
9	4.51	78.60	4.71
10	5.00	81.40	3.44
11	5.50	84.00	3.10
12	6.00	86.30	2.67
13	6.50	88.50	2.49
14	7.00	89.90	1.56
15	7.50	91.60	1.86
16	8.00	93.40	1.93
17	8.50	94.80	1.48
18	9.00	96.00	1.25
19	9.50	97.30	1.34
20	10.00	98.40	1.12
21	10.50	99.70	1.30
22	11.00	100.90	1.19

USER INPUT BLANK VALUE

BLANK VALUE = 37.18248 micrograms carbon

BLANK FACTOR = 37.18248 / 11.00073 = +3.4E+00 ug/min Carbon

SAMPLE RESULTS:

(100.9 - 37.18867) (1) / (1) = +6.371E+01 g/L Carbon
 (100.9 - 37.18867) (1) / (1) (12) = +5.309E+00 Molar Carbon
 <<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!>>>>

Sample Run By:

KR MONTEITH

00000

89 47297

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-189, REV. 1

Sample: 639

Date: 05/05/95

Time: 21:06:02

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = .37 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	==== Analysis Time ==	==== Coulometer ==	==== % Difference ==
1	0.51	1.30	0.00
2	1.01	9.40	86.17
3	1.50	97.20	90.33
4	2.00	214.80	54.75
5	2.50	297.00	27.68
6	3.00	349.30	14.97
7	3.50	385.90	9.48
8	4.00	416.70	7.39
9	4.50	445.70	6.51
10	5.00	471.60	5.49
11	5.50	492.90	4.32
12	6.00	510.40	3.43
13	6.50	522.20	2.26
14	7.00	530.70	1.60
15	7.50	535.60	0.91
16	8.00	539.20	0.67
17	8.50	542.10	0.53
18	9.00	544.20	0.39
19	9.50	546.10	0.35
20	10.00	547.70	0.29
21	10.50	549.20	0.27
22	11.00	550.70	0.27

USER INPUT BLANK VALUE

BLANK VALUE = 4.070271 micrograms carbon

BLANK FACTOR = 4.070271 / 11.00073 = +3.7E-01 ug/min Carbon

SAMPLE RESULTS:

(550.7 - 4.070226) (1) / (1) = +5.466E+02 g/L Carbon
(550.7 - 4.070226) (1) / (1) (12) = +4.555E+01 Molar Carbon

Sample Run By:

KR MONTEITH

00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-189, REV./

Sample: 639

Date: 05/05/95

Time: 21:39:19

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = 3.38 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	==== Analysis Time ==	==== Coulometer ==	==== % Difference ==
1	0.51	0.40	0.00
2	1.01	7.00	94.29
3	1.50	28.60	75.52
4	2.00	51.50	44.47
5	2.50	66.30	22.32
6	3.00	74.70	11.24
7	3.50	80.70	7.43
8	4.00	85.60	5.72
9	4.50	89.20	4.04
10	5.00	92.40	3.46
11	5.50	95.20	2.94
12	6.00	97.70	2.56
13	6.50	100.30	2.59
14	7.00	102.20	1.86
15	7.50	104.20	1.92
16	8.00	105.90	1.61
17	8.50	107.60	1.58
18	9.00	109.30	1.56
19	9.50	110.80	1.35
20	10.00	112.10	1.16
21	10.50	113.50	1.23
22	11.00	115.00	1.30

USER INPUT BLANK VALUE

BLANK VALUE = 37.18248 micrograms carbon

BLANK FACTOR = 37.18248 / 11.00073 = +3.4E+00 ug/min Carbon

SAMPLE RESULTS:

(115 - 37.17876) (1)/(1) = +7.782E+01 g/L Carbon
 (115 - 37.17876) (1)/(1) (12) = +6.485E+00 Molar Carbon
 <<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!>>>>

Sample Run By:

KR MONTEITH

00000

1.18612

31

LABCORE Data Entry Template for Worklist# 1349

Analyst: KRM Instrument: TOC01 Book # 10N12G

Method: LA-342-100 Rev/Mod A-0

Worklist Comment: U203 toc-02 krm

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK			TOC-02	SOLID	<u>1</u>	<u>38.0</u>	<u>N/A</u>	ug/g
		2 STD			TOC-02	SOLID	<u>3.00e3</u>	<u>2.78e3</u>	<u>N/A</u>	ug/g <u>ug/g</u> <u>5/8/95</u>
95000053	U-203	3 SAMPLE	S95T000685	0	TOC-02	SOLID	<u>N/A</u>	<u>76.5</u>	<u>80</u>	ug/g
95000053	U-203	4 DUP	S95T000685	0	TOC-02	SOLID	<u>76.5</u>	<u>59.2</u>	<u>N/A</u>	ug/g
95000053	U-203	5 SAMPLE	S95T000689	0	TOC-02	SOLID	<u>N/A</u>	<u>67.9</u>	<u>80</u>	ug/g
95000053	U-203	6 DUP	S95T000689	0	TOC-02	SOLID	<u>67.9</u>	<u>70.5</u>	<u>N/A</u>	ug/g
95000053	U-203	7 SPK	S95T000689	0	TOC-02	SOLID	<u>100</u>	<u>88.6</u>	<u>N/A</u>	ug/g <u>ug/g</u> <u>5/8/95</u>

Final page for worklist # 1349

Analyst Signature _____ Date _____

Analyst Signature _____ Date _____

[Signature] 5/8/95
Reviewed *[Signature]* 5-8-95

Data Entry Comments:

TOC results for samples 685 and 689 were less than det. limit (< 80 ug/g), and were reported accordingly in Labcore.

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# 1349

Analyst: KRM Instrument: TOC01 Book # 10N126

Method: LA-342-100 Rev/Mod A-0

Worklist Comment: U203 toc-02 krm

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK			TOC-02	SOLID	<u>1</u>	<u>38.0</u>	<u>N/A</u>	ug/g
		2 STD			TOC-02	SOLID	<u>3.00E³</u>	<u>2.78E³</u>	<u>N/A</u>	ug/g
95000053	U-203	3 SAMPLE	S95T000685	0	TOC-02	SOLID	<u>N/A</u>			ug/g
95000053	U-203	4 DUP	S95T000685	0	TOC-02	SOLID			<u>N/A</u>	ug/g
95000053	U-203	5 SAMPLE	S95T000689	0	TOC-02	SOLID	<u>N/A</u>	<u>6.80E¹</u>		ug/g
95000053	U-203	6 DUP	S95T000689	0	TOC-02	SOLID	<u>6.80E¹</u>	<u>7.05E¹</u>	<u>N/A</u>	ug/g

Final page for worklist # 1349

Analyst Signature Date 5-7-95

Analyst Signature Date

Data Entry Comments: S95T000685 - NON HOMOGENEOUS - THIN PASTR WITH LARGE CRYSTALS
S95T000689 - TRIED SPIKE

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT

TICTOC REV 2.0

<<< BLANK ANALYSIS >>> WHC-SD-WM-DP-109, REV. 1

Sample: BLK

Date: 05/06/95

Time: 17:16:18

Sample Size = 1 uL

Dil Factor = 1

Blank ID # = BLK

Blank Value = N/A

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	== Analysis Time ==	== Coulometer ==	== % Difference ==
1	0.51	0.20	0.00
2	1.01	0.60	66.67
3	1.51	1.00	40.00
4	2.01	1.50	33.33
5	2.51	1.80	16.67
6	3.01	2.10	14.29
7	3.51	2.40	12.50
8	4.00	2.80	14.29
9	4.50	3.00	6.67
10	5.00	3.30	9.09
11	5.50	3.60	8.33
12	6.00	3.90	7.69
13	6.50	4.20	7.14
14	7.00	4.50	6.67
15	7.50	4.80	6.25
16	8.00	5.10	5.88
17	8.50	5.40	5.56
18	9.00	5.60	3.57
19	9.50	6.00	6.67
20	10.00	6.20	3.23
21	10.50	6.40	3.13
22	11.00	6.80	5.88

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 94 TO 109.

BLANK VALUE = 6.8 micrograms carbon

BLANK FACTOR = $6.8 / 10.99976 =$

+6.2E-01 ug/min Carbon

Sample Run By:

KR MONTEITH

00000

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT

TICTOC REV 2.0
 <<< BLANK ANALYSIS >>> WHC-SD-WM-DP-124, REV. 1

Sample: BLK

Date: 05/06/95

Time: 17:28:19

Sample Size = 1 uL
 Dil Factor = 1
 Blank ID # = BLK
 Blank Value = N/A

Analyst : KR MONTEITH
 Min Readings = 22
 Max Readings = 22
 % Difference = 10

== Reading ==	== Analysis Time ==	== Coulometer ==	== % Difference ==
1	0.51	0.00	0.00
2	1.01	6.60	100.00
3	1.50	14.40	54.17
4	2.00	19.20	25.00
5	2.50	21.70	11.52
6	3.00	23.90	9.21
7	3.50	25.40	5.91
8	4.00	27.10	6.27
9	4.50	28.20	3.90
10	5.00	29.70	5.05
11	5.50	30.80	3.57
12	6.00	31.70	2.84
13	6.50	32.70	3.06
14	7.00	33.50	2.39
15	7.50	34.20	2.05
16	8.00	34.90	2.01
17	8.50	35.60	1.97
18	9.00	36.00	1.11
19	9.50	36.60	1.64
20	10.00	37.10	1.35
21	10.50	37.60	1.33
22	11.00	38.00	1.05

BLANK VALUE = 38 micrograms carbon

BLANK FACTOR = 38 / 11.00146 = +3.45E+00 ug/min Carbon

<<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!>>>>

Sample Run By:

KR MONTEITH

00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-129, REV. 1

Sample: STD

Date: 05/06/95

Time: 17:41:13

Sample Size = 1000 uL

Dil Factor = 1

Blank ID # =

Blank Value = .62 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.50	0.00
2	1.01	93.40	99.46
3	1.51	283.50	67.05
4	2.00	435.50	34.90
5	2.50	514.90	15.42
6	3.00	546.40	5.77
7	3.50	558.50	2.17
8	4.00	563.90	0.96
9	4.50	566.20	0.41
10	5.00	567.90	0.30
11	5.50	569.30	0.25
12	6.00	570.40	0.19
13	6.50	571.40	0.18
14	7.00	572.20	0.14
15	7.50	572.90	0.12
16	8.00	573.60	0.12
17	8.50	574.30	0.12
18	9.00	574.90	0.10
19	9.50	575.50	0.10
20	10.00	576.00	0.09
21	10.50	576.50	0.09
22	11.00	576.90	0.07

USER INPUT BLANK VALUE

BLANK VALUE = 6.820908 micrograms carbon

BLANK FACTOR = 6.820908 / 11.00146 = +6.2E-01 ug/min Carbon

SAMPLE RESULTS:

(576.9 - 6.819773) (1) / (1000) = +5.701E-01 g/L Carbon
(576.9 - 6.819773) (1) / (1000) (12) = +4.751E-02 Molar Carbon

Sample Run By:

KR MONTEITH

00000

SUPPORTING DATA 96

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP- 129, REV. 1

Sample: STD

Date: 05/06/95

Time: 17:55:05

Sample Size = 300 uL

Dil Factor = 1

Blank ID # =

Blank Value = 3.45 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	== Analysis Time ==	== Coulometer ==	== % Difference ==
1	0.51	10.80	0.00
2	1.01	153.70	92.97
3	1.51	560.20	72.56
4	2.00	771.20	27.36
5	2.50	824.30	6.44
6	3.00	842.90	2.21
7	3.50	851.40	1.00
8	4.00	855.00	0.42
9	4.50	857.90	0.34
10	5.00	860.20	0.27
11	5.50	862.00	0.21
12	6.00	863.70	0.20
13	6.50	865.00	0.15
14	7.00	866.20	0.14
15	7.50	867.20	0.12
16	8.00	868.30	0.13
17	8.50	869.20	0.10
18	9.00	870.10	0.10
19	9.50	870.70	0.07
20	10.00	871.40	0.08
21	10.50	872.00	0.07
22	11.00	872.60	0.07

USER INPUT BLANK VALUE

BLANK VALUE = 37.95506 micrograms carbon

BLANK FACTOR = 37.95506 / 11.00146 = +3.5E+00 ug/min Carbon

SAMPLE RESULTS:

(872.6 - 37.94958) (1) / (300) = +2.782E+00 g/L Carbon
 (872.6 - 37.94958) (1) / (300) (12) = +2.318E-01 Molar Carbon
 <<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!>>>>

Sample Run By:

KR MONTEITH

00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-109, REV.1

Sample: 685

Date: 05/06/95

Time: 18:16:38

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = .62 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	== Analysis Time ==	== Coulometer ==	== % Difference ==
1	0.51	0.20	0.00
2	1.01	16.70	98.80
3	1.50	116.70	85.69
4	2.01	242.20	51.82
5	2.51	336.40	28.00
6	3.01	395.90	15.03
7	3.50	428.90	7.69
8	4.00	445.40	3.70
9	4.50	454.10	1.92
10	5.00	459.90	1.26
11	5.50	463.10	0.69
12	6.00	465.90	0.60
13	6.50	468.30	0.51
14	7.00	469.80	0.32
15	7.50	471.20	0.30
16	8.00	472.50	0.28
17	8.50	473.40	0.19
18	9.00	474.30	0.19
19	9.50	475.10	0.17
20	10.00	475.90	0.17
21	10.50	476.70	0.17
22	11.00	477.40	0.15

USER INPUT BLANK VALUE

BLANK VALUE = 6.820908 micrograms carbon

BLANK FACTOR = 6.820908 / 11.00146 = +6.2E-01 ug/min Carbon

SAMPLE RESULTS:

(477.4 - 6.819319) (1)/(1) = +4.706E+02 g/L Carbon
(477.4 - 6.819319) (1)/(1) (12) = +3.922E+01 Molar Carbon

Sample Run By:

KR MONTEITH

00000

38 1.0890g

SUPPORTING DATA

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT

TICTOC REV 2.0

WHC-SD-WM-DP- 109, REV. 1

Sample: 685

Date: 05/06/95

Time: 18:28:52

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = 3.45 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading	==== Analysis Time	==== Coulometer	==== % Difference ==
1	0.51	0.60	0.00
2	1.01	21.30	97.18
3	1.50	63.40	66.40
4	2.00	80.70	21.44
5	2.50	89.50	9.83
6	3.00	94.40	5.19
7	3.50	98.10	3.77
8	4.00	100.60	2.49
9	4.50	103.20	2.52
10	5.00	105.40	2.09
11	5.50	107.50	1.95
12	6.00	109.30	1.65
13	6.50	111.00	1.53
14	7.00	112.30	1.16
15	7.50	114.00	1.49
16	8.00	115.20	1.04
17	8.50	116.50	1.12
18	9.00	117.40	0.77
19	9.50	118.50	0.93
20	10.00	119.40	0.75
21	10.50	120.40	0.83
22	11.00	121.30	0.74

USER INPUT BLANK VALUE

BLANK VALUE = 37.95506 micrograms carbon

BLANK FACTOR = 37.95506 / 11.00146 = +3.5E+00 ug/min Carbon

SAMPLE RESULTS:

(121.3 - 37.94916) (1)/(1) = +8.335E+01 g/L Carbon
 (121.3 - 37.94916) (1)/(1) (12) = +6.946E+00 Molar Carbon
 <<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!>>>>

Sample Run By:

KR MONTEITH

00000

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT

TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 685

Date: 05/06/95

Time: 18:41:08

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = .62 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==== Analysis Time ==== Coulometer ==== % Difference ==

1	0.51	0.60	0.00
2	1.01	10.70	94.39
3	1.51	75.20	85.77
4	2.00	172.00	56.28
5	2.50	258.90	33.57
6	3.00	316.70	18.25
7	3.50	357.40	11.39
8	4.00	393.60	9.20
9	4.50	428.30	8.10
10	5.00	457.30	6.34
11	5.50	482.70	5.26
12	6.00	501.10	3.67
13	6.50	513.70	2.45
14	7.00	521.00	1.40
15	7.50	524.90	0.74
16	8.00	527.50	0.49
17	8.50	529.40	0.36
18	9.00	531.00	0.30
19	9.50	532.30	0.24
20	10.00	533.40	0.21
21	10.50	534.40	0.19
22	11.00	535.30	0.17

USER INPUT BLANK VALUE

BLANK VALUE = 6.820908 micrograms carbon

BLANK FACTOR = 6.820908 / 11.00146 = +6.2E-01 ug/min Carbon

SAMPLE RESULTS:

(535.3 - 6.819243) (1) / (1)	=	+5.285E+02	g/L Carbon
(535.3 - 6.819243) (1) / (1) (12)	=	+4.404E+01	Molar Carbon

Sample Run By:

KR MONTEITH

00000

110772 100 SUPPORTING DATA

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 685

Date: 05/06/95

Time: 19:00:17

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = 3.45 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	== Analysis Time ==	== Coulometer ==	== % Difference ==
1	0.51	0.90	0.00
2	1.01	13.90	93.53
3	1.50	47.40	70.68
4	2.00	66.50	28.72
5	2.50	74.20	10.38
6	3.00	78.90	5.96
7	3.50	82.60	4.48
8	4.00	85.30	3.17
9	4.50	87.80	2.85
10	5.00	89.60	2.01
11	5.50	91.30	1.86
12	6.00	92.90	1.72
13	6.50	94.40	1.59
14	7.00	95.70	1.36
15	7.50	97.10	1.44
16	8.00	98.20	1.12
17	8.50	99.20	1.01
18	9.00	100.20	1.00
19	9.50	101.10	0.89
20	10.00	101.90	0.79
21	10.50	102.80	0.88
22	11.00	103.60	0.77

USER INPUT BLANK VALUE

BLANK VALUE = 37.95506 micrograms carbon

BLANK FACTOR = 37.95506 / 11.00146 = +3.5E+00 ug/min Carbon

SAMPLE RESULTS:

(103.6 - 37.94916) (1)/(1) = +6.565E+01 g/L Carbon
 (103.6 - 37.94916) (1)/(1) (12) = +5.471E+00 Molar Carbon
 <<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!>>>>

Sample Run By:

KR MONTEITH

00000

1.1077g 101

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT

TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 685

Date: 05/06/95

Time: 20:28:09

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = .62 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	==== Analysis Time ==	==== Coulometer ==	==== % Difference ==
1	0.51	0.00	0.00
2	1.01	0.00	0.00
3	1.51	0.00	0.00
4	2.00	0.00	0.00
5	2.50	0.00	0.00
6	3.00	0.00	0.00
7	3.50	0.30	100.00
8	4.00	7.70	96.10
9	4.50	24.80	68.95
10	5.00	38.40	35.42
11	5.50	46.30	17.06
12	6.00	50.00	7.40
13	6.50	52.40	4.58
14	7.00	54.20	3.32
15	7.50	55.50	2.34
16	8.00	56.40	1.60
17	8.50	57.20	1.40
18	9.00	57.90	1.21
19	9.50	58.50	1.03
20	10.00	59.00	0.85
21	10.50	59.50	0.84
22	11.00	59.90	0.67

USER INPUT BLANK VALUE

BLANK VALUE = 6.820908 micrograms carbon

BLANK FACTOR = 6.820908 / 11.00146 = +6.2E-01 ug/min Carbon

SAMPLE RESULTS:

(59.9 - 6.819849) (1)/(1) = +5.31E+01 g/L Carbon
 (59.9 - 6.819849) (1)/(1) (12) = +4.42E+00 Molar Carbon

Sample Run By:

KR MONTEITH

00000

1.0348g 102 SUPPORTING DATA

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT

TICTOC REV 2.0

WHC-SD-WM-DP- 109, REV. 1

Sample: 685

Date: 05/06/95

Time: 20:43:28

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = 3.45 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==== Analysis Time ==== Coulometer ==== % Difference ==

1	0.51	0.30	0.00
2	1.01	5.80	94.83
3	1.50	23.60	75.42
4	2.00	44.50	46.97
5	2.50	56.70	21.52
6	3.00	62.40	9.13
7	3.50	66.30	5.88
8	4.00	69.00	3.91
9	4.50	71.50	3.50
10	5.00	73.30	2.46
11	5.50	75.30	2.66
12	6.00	76.80	1.95
13	6.50	78.00	1.54
14	7.00	79.30	1.64
15	7.50	80.60	1.61
16	8.00	81.60	1.23
17	8.50	82.50	1.09
18	9.00	83.50	1.20
19	9.50	84.30	0.95
20	10.00	85.10	0.94
21	10.50	85.90	0.93
22	11.00	86.60	0.81

USER INPUT BLANK VALUE

BLANK VALUE = 37.95506 micrograms carbon

BLANK FACTOR = 37.95506 / 11.00146 = +3.5E+00 ug/min Carbon

SAMPLE RESULTS:

(86.6 - 37.93989) (1)/(1) = +4.87E+01 g/L Carbon
 (86.6 - 37.93989) (1)/(1) (12) = +4.06E+00 Molar Carbon
 <<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!>>>>

Sample Run By:

KR MONTEITH

00000

1.0340g

103

SUPPORTING
DATA

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT

TICTOC REV 2.0

WHC-SD-WM-DP- 109, REV. 1

Sample: 689

Date: 05/06/95

Time: 20:56:46

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = .62 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	==== Analysis Time ==	==== Coulometer ==	==== % Difference ==
1	0.51	0.20	0.00
2	1.01	13.80	98.55
3	1.50	110.90	87.56
4	2.00	252.40	56.06
5	2.50	349.70	27.82
6	3.00	413.30	15.39
7	3.50	460.80	10.31
8	4.00	502.70	8.33
9	4.50	543.60	7.52
10	5.00	579.00	6.11
11	5.50	610.10	5.10
12	6.00	633.70	3.72
13	6.50	649.50	2.43
14	7.00	661.10	1.75
15	7.50	669.00	1.18
16	8.00	674.70	0.84
17	8.50	678.10	0.50
18	9.00	680.60	0.37
19	9.50	682.60	0.29
20	10.00	684.30	0.25
21	10.50	686.00	0.25
22	11.00	687.10	0.16

USER INPUT BLANK VALUE

BLANK VALUE = 6.820908 micrograms carbon

BLANK FACTOR = 6.820908 / 11.00146 = +6.2E-01 ug/min Carbon

SAMPLE RESULTS:

(687.1 - 6.820454) (1) / (1) = +6.803E+02 g/L Carbon
 (687.1 - 6.820454) (1) / (1) (12) = +5.669E+01 Molar Carbon

Sample Run By:

KR MONTEITH

00000

1.0985 g
104SUPPORTING
DATA

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 689

Date: 05/06/95

Time: 21:08:46

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = 3.45 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	Analysis Time ==	Coulometer ==	% Difference ==
1	0.51	1.10	0.00
2	1.01	9.30	88.17
3	1.50	35.50	73.80
4	2.00	61.40	42.18
5	2.50	75.30	18.46
6	3.00	82.70	8.95
7	3.50	87.10	5.05
8	4.00	90.40	3.65
9	4.50	93.50	3.32
10	5.00	95.90	2.50
11	5.50	97.90	2.04
12	6.00	99.80	1.90
13	6.50	101.60	1.77
14	7.00	103.30	1.65
15	7.50	104.70	1.34
16	8.00	106.10	1.32
17	8.50	107.30	1.12
18	9.00	108.50	1.11
19	9.50	109.70	1.09
20	10.00	110.70	0.90
21	10.50	111.60	0.81
22	11.00	112.60	0.89

USER INPUT BLANK VALUE

BLANK VALUE = 37.95506 micrograms carbon

BLANK FACTOR = 37.95506 / 11.00146 = +3.5E+00 ug/min Carbon

SAMPLE RESULTS:

(112.6 - 37.95211) (1) / (1) = +7.465E+01 g/L Carbon
 (112.6 - 37.95211) (1) / (1) (12) = +6.221E+00 Molar Carbon
 <<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!>>>>

Sample Run By:

KR MONTEITH

00000

105

1.09852

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 689

Date: 05/06/95

Time: 21:22:57

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = .62 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	== Analysis Time ==	== Coulometer ==	== % Difference ==
1	0.51	0.50	0.00
2	1.01	9.30	94.62
3	1.51	111.60	91.67
4	2.00	264.30	57.78
5	2.50	379.30	30.32
6	3.00	448.50	15.43
7	3.50	489.40	8.36
8	4.00	517.80	5.48
9	4.50	544.40	4.89
10	5.00	576.00	5.49
11	5.50	606.70	5.06
12	6.00	633.10	4.17
13	6.50	655.20	3.37
14	7.00	671.50	2.43
15	7.50	682.50	1.61
16	8.00	690.40	1.14
17	8.50	695.90	0.79
18	9.00	700.50	0.66
19	9.50	703.60	0.44
20	10.00	706.00	0.34
21	10.50	708.20	0.31
22	11.00	709.90	0.24

USER INPUT BLANK VALUE

BLANK VALUE = 6.820908 micrograms carbon

BLANK FACTOR = 6.820908 / 11.00146 = +6.2E-01 ug/min Carbon

SAMPLE RESULTS:

(709.9 - 6.819243) (1) / (1) = +7.031E+02 g/L Carbon
(709.9 - 6.819243) (1) / (1) (12) = +5.859E+01 Molar Carbon

Sample Run By:

KR MONTEITH

00000

1.1079

106

SUPPORTING DATA

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 689

Date: 05/06/95

Time: 21:35:01

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = 3.45 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	==== Analysis Time ==	==== Coulometer ==	==== % Difference ==
1	0.51	2.00	0.00
2	1.01	8.90	77.53
3	1.50	30.60	70.92
4	2.00	57.90	47.15
5	2.50	74.50	22.28
6	3.00	83.50	10.78
7	3.50	88.20	5.33
8	4.00	92.10	4.23
9	4.50	95.30	3.36
10	5.00	97.60	2.36
11	5.50	99.80	2.20
12	6.00	102.00	2.16
13	6.50	103.90	1.83
14	7.00	105.60	1.61
15	7.50	107.30	1.58
16	8.00	108.90	1.47
17	8.50	110.30	1.27
18	9.00	111.60	1.16
19	9.50	112.80	1.06
20	10.00	114.00	1.05
21	10.50	115.00	0.87
22	11.00	116.10	0.95

USER INPUT BLANK VALUE

BLANK VALUE = 37.95506 micrograms carbon

BLANK FACTOR = 37.95506 / 11.00146 = +3.5E+00 ug/min Carbon

SAMPLE RESULTS:

(116.1 - 37.94621) (1) / (1) = +7.815E+01 g/L Carbon
 (116.1 - 37.94621) (1) / (1) (12) = +6.513E+00 Molar Carbon
 <<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!>>>>

Sample Run By:

KR MONTEITH

00000

1.1079g

107

TIC- TOTAL INORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 689 + SPK

Date: 05/06/95

Time: 21:46:54

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = .62 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

== Reading ==	== Analysis Time ==	== Coulometer ==	== % Difference ==
1	0.51	0.00	0.00
2	1.01	0.20	100.00
3	1.51	0.40	50.00
4	2.00	0.60	33.33
5	2.50	1.00	40.00
6	3.00	1.50	33.33
7	3.50	4.90	69.39
8	4.00	39.90	87.72
9	4.50	87.90	54.61
10	5.00	123.50	28.83
11	5.50	148.00	16.55
12	6.00	164.80	10.19
13	6.50	176.40	6.58
14	7.00	184.10	4.18
15	7.50	189.30	2.75
16	8.00	193.20	2.02
17	8.50	196.20	1.53
18	9.00	198.10	0.96
19	9.50	199.70	0.80
20	10.00	201.20	0.75
21	10.50	202.50	0.64
22	11.00	203.60	0.54

USER INPUT BLANK VALUE

BLANK VALUE = 6.820908 micrograms carbon

BLANK FACTOR = 6.820908 / 11.00146 = +6.2E-01 ug/min Carbon

SAMPLE RESULTS:

(203.6 - 6.818638) (1) / (1) = +1.968E+02 g/L Carbon
(203.6 - 6.818638) (1) / (1) (12) = +1.640E+01 Molar Carbon

Sample Run By:

KR MONTEITH

00000

89 .4367g x .500 mL 15N12F
108
SUPPORTING DATA

TOC- TOTAL ORGANIC CARBON ANALYSIS REPORT
TICTOC REV 2.0

WHC-SD-WM-DP-109, REV. 1

Sample: 689 + SPK

Date: 05/06/95

Time: 21:58:53

Sample Size = 1 uL

Dil Factor = 1

Blank ID # =

Blank Value = 3.45 ug/minute C

Analyst : KR MONTEITH

Min Readings = 22

Max Readings = 22

% Difference = 10

Reading	Analysis Time	Coulometer	% Difference
1	0.51	1.70	0.00
2	1.01	44.60	96.19
3	1.51	157.20	71.63
4	2.00	264.90	40.66
5	2.50	310.20	14.60
6	3.00	330.10	6.03
7	3.50	338.40	2.45
8	4.00	343.70	1.54
9	4.50	347.20	1.01
10	5.00	350.20	0.86
11	5.50	352.00	0.51
12	6.00	354.30	0.65
13	6.50	356.20	0.53
14	7.00	357.60	0.39
15	7.50	359.30	0.47
16	8.00	360.70	0.39
17	8.50	362.00	0.36
18	9.00	363.30	0.36
19	9.50	364.40	0.30
20	10.00	365.50	0.30
21	10.50	366.50	0.27
22	11.00	367.40	0.24

USER INPUT BLANK VALUE

BLANK VALUE = 37.95506 micrograms carbon

BLANK FACTOR = 37.95506 / 11.00146 = +3.5E+00 ug/min Carbon

SAMPLE RESULTS:

(367.4 - 37.95253) (1) / (1) = +3.294E+02 g/L Carbon
 (367.4 - 37.95253) (1) / (1) (12) = +2.745E+01 Molar Carbon
 <<<< WARNING - BLANK VALUE EXCEEDS 1.5 ug/min Carbon!!!!>>>>

Sample Run By:

KR MONTEITH

00000

109

.9367g + .100mc 10N12G

WHC-SD-WM-DP-109, REV. 1

RADIOCHEMICAL ANALYSES

LABCORE Data Entry Template for Worklist# 1197

Analyst: AKL Instrument: AB00 16 Book # 111152
Method: LA-508-101 Rev/Mod 0-2 015 17806

Worklist Comment: Determine sample size using Ludlum. Use .100 mL A-SPK. SLF

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		1 STD			@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		2 BLNK-PREP			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		2 BLNK-PREP			@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		3 BLNK/BKG	<u>.25</u>		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000051	U-203	4 SAMPLE	S95T000642	0 F	@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000051	U-203	4 SAMPLE	S95T000642	0 F	@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000051	U-203	5 DUP	S95T000642	0 F	@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000051	U-203	5 DUP	S95T000642	0 F	@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000051	U-203	6 SPK	S95T000642	0 F	@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		7 STD			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		7 STD			@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		8 BLNK-PREP			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
		8 BLNK-PREP			@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
		9 BLNK/BKG	<u>.17</u>		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000053	U-203	10 SAMPLE	S95T000686	0 F	@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000053	U-203	10 SAMPLE	S95T000686	0 F	@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000053	U-203	11 DUP	S95T000686	0 F	@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Data Entry Comments:

The SPK recoveries are low due to the high solids content in the sample. No. Perm requested.
5/2/95

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# 1197

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
95000053	U-203	11 DUP	S95T000686	0 F	@ALPHA01 ALPHA01E	SOLID	_____	_____	N/A	% Ct. Error
95000053	U-203	12 SPK	S95T000686	0 F	@ALPHA01 ALPHA01	SOLID	_____	_____	N/A	uCi/g
95000053	U-203	13 SAMPLE	S95T000690	0 F	@ALPHA01 ALPHA01	SOLID	N/A	_____	_____	uCi/g
95000053	U-203	13 SAMPLE	S95T000690	0 F	@ALPHA01 ALPHA01E	SOLID	N/A	_____	_____	% Ct. Error
95000053	U-203	14 DUP	S95T000690	0 F	@ALPHA01 ALPHA01	SOLID	_____	_____	N/A	uCi/g
95000053	U-203	14 DUP	S95T000690	0 F	@ALPHA01 ALPHA01E	SOLID	_____	_____	N/A	% Ct. Error
95000053	U-203	15 SPK	S95T000690	0 F	@ALPHA01 ALPHA01	SOLID	_____	_____	N/A	uCi/g

Final page for worklist # 1197

Alita Lewis 4/27/95
Analyst Signature Date

Sharon Holden 4-28-95
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.

READ IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-109, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3)

LIQUIDS

		STANDARD	REPLICATE
Type	DETECTOR NUMBER	16	16
STANDARD	DISH SIZE 1, 2, or 5 (MS)	2	2
Work List	TOTAL COUNTS (TC)	4117	4028
1197	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.8	0.8
AT	SAMPLE SIZE in mL (SS)	10.000	10.000
Test Code	DILUTION FACTOR (DF)	1	1
@ALPHA01	DIGEST DILUTION FACTOR (DDF)	1	1
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
Liquid	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	136.433	133.400
Sample #	Sample Concentration in $\mu\text{Ci/L}$	2.92E-02	BOOK#
WRKLST 1197	Replicate Concentration in $\mu\text{Ci/L}$	2.86E-02	107B52
Instrument Code			
WB27806	Average Concentration in $\mu\text{Ci/L}$	2.8885E-02	
Analyst			
AKL	R_s (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/L}$ = $R_s * 1000\text{mL/L} * DF * DDF / (EFF * SS * 2220000\text{dpm}/\mu\text{Ci})$		
04/27/95	ALPHA TOTAL $\mu\text{Ci/mL}$ = ALPHA TOTAL $\mu\text{Ci/L} / 1000\text{mL/L}$		
Time	Relative Counting Error = $[(\text{The Square Root of } TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$		
10:40 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

RESULTS

ALPHA TOTAL	in $\mu\text{Ci/mL}$	(Average) =	2.89E-05	DETECTION LEVEL
				1.83E-07 $\mu\text{Ci/mL}$
RELATIVE COUNTING ERROR		=	3.1%	

Data Entry by: *Sharon L. H. H. H.* Date: 04/28/95
 Approved by: *[Signature]* Date: 5/1/95
 Form 508101_C Rev. 1.3 Page 1 of 1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-109, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3)

SOLIDS

		BLANK	REPLICATE
Type	DETECTOR NUMBER	16	16
BLANK	DISH SIZE 1, 2, or 5 (MS)	2	2
Work List	TOTAL COUNTS (TC)	8	4
1197	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.8	0.8
AT	SAMPLE SIZE in mL (SS)	0.500	0.500
Test Code	DILUTION FACTOR (DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.0308	2.0308
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.381	0.381
Sample #	Sample Concentration in $\mu\text{Ci/g}$	< 8.03E-04	BOOK#
S95T642	Replicate Concentration in $\mu\text{Ci/g}$	< 8.03E-04	
Instrument Code			
WB27806	Maximum Concentration in $\mu\text{Ci/g}$	< 8.0343E-04	
Analyst			
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/ μCi)		
04/27/95			
Time	Relative Counting Error = [(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100		
10:40 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

RESULTS

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Maximum) =	< 8.03E-04	DETECTION LEVEL
LESS Than Value was Determined from Lc.				1.80E-03 $\mu\text{Ci/g}$
RELATIVE COUNTING ERROR	=		69.3%	

Data Entry by: <i>Sharon L. Hight</i>	Date: 04/28/95
Approved by: <i>[Signature]</i>	Date: 5/1/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP- / 09, REV. /

AT : LA-508-101 (D-2)

LA-548-101 (A-3)

SOLIDS

		SAMPLE	REPLICATE
Type	DETECTOR NUMBER	16	16
SAMPLE	DISH SIZE 1, 2, or 5 (MS)	2	2
Work List	TOTAL COUNTS (TC)	31	33
1197	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.8	0.8
AT	SAMPLE SIZE in mL (SS)	0.500	0.500
Test Code	DILUTION FACTOR (DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.0308	2.0308
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.641	0.715
Sample #	Sample Concentration in $\mu\text{Ci/g}$	< 1.35E-03	BOOK#
S95T642	Replicate Concentration in $\mu\text{Ci/g}$	< 1.51E-03	
Instrument Code			
WB27806	Maximum Concentration in $\mu\text{Ci/g}$	< 1.5081E-03	
Analyst			
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/ μCi)		
04/27/95			
Time	Relative Counting Error = [(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100		
10:40 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

▼ RESULTS ▼

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Maximum) =	< 1.51E-03	DETECTION LEVEL
LESS THAN Value was Determined from Rmax.				1.80E-03 $\mu\text{Ci/g}$
RELATIVE COUNTING ERROR	=		207.7%	

Data Entry by: <i>Sharon L. Upfiter</i>	Date: 04/28/95
Approved by: <i>[Signature]</i>	Date: 5/1/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-109, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3)

SOLIDS

		SAMPLE	REPLICATE
Type	DETECTOR NUMBER	16	16
DUPLICATE	DISH SIZE 1, 2, or 5 (MS)	2	2
Work List	TOTAL COUNTS (TC)	32	45
1197	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.8	0.8
AT	SAMPLE SIZE in mL (SS)	0.500	0.500
Test Code	DILUTION FACTOR (DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.0352	2.0352
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.678	0.700
Sample #	Sample Concentration in $\mu\text{Ci/g}$	< 1.43E-03	BOOK#
S95T642	Replicate Concentration in $\mu\text{Ci/g}$	1.47E-03	
Instrument Code			
WB27806	Maximum Concentration in $\mu\text{Ci/g}$	< 1.4727E-03	
Analyst			
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/ μCi)		
04/27/95			
Time	Relative Counting Error = [(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100		
10:40 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

▼ RESULTS ▼

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Maximum) =	< 1.47E-03	DETECTION LEVEL
LESS THAN Value was Determined from Rs.				1.79E-03 $\mu\text{Ci/g}$
RELATIVE COUNTING ERROR	=		183.3%	

Data Entry by: <i>Sharon L. Galt</i>	Date: 04/28/95
Approved by: <i>[Signature]</i>	Date: 5/1/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-109, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

		SPIKE	REPLICATE
Type	DETECTOR NUMBER	16	16
SPIKE	DISH SIZE 1, 2, or 5 (MS)	2	2
Work List	TOTAL COUNTS (TC)	35300	36410
1197	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.8	0.8
AT	SAMPLE VOLUME in mL (Spiked Vial) (SS)	0.500	0.500
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial) (DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.0308	2.0308
Matrix	SPIKE VOLUME in mL (SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR (SDF)	1	1
Sample #	SPIKE VALUE in µCi/L (SVal)	36.372	36.372
S95T842	INSTRUMENT EFFICIENCY FACTOR (EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE µCi/g (S+S)	2.48E+00	2.56E+00
WB27806	AVERAGE or MAXIMUM µCi/g from FORM C	<1.5081E-3	
Analyst	BOOK#	94B43	
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG		
Date	SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)		
04/27/95	PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/(SVal))*100		
Time			
10:40 AM			

RESULT AVG. PERCENT SPIKE RECOVERY = 70.3%

Data Entry by: *Sharon L. Hadden* Date: 28-Apr-95
 Approved by: *[Signature]* Date: 5/1/95
 Form 508101_X Rev. 1.3 Page 1 of 1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-109, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3)

SOLIDS

		BLANK	REPLICATE
Type	DETECTOR NUMBER	16	16
BLANK	DISH SIZE 1, 2, or 5 (MS)	2	2
Work List	TOTAL COUNTS (TC)	0	8
1197	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.8	0.8
AT	SAMPLE SIZE in mL (SS)	0.500	0.500
Test Code	DILUTION FACTOR (DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.7845	2.7845
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.381	0.381
Sample #	Sample Concentration in $\mu\text{Ci/g}$	< 5.86E-04	BOOK#
S95T686	Replicate Concentration in $\mu\text{Ci/g}$	< 5.86E-04	
Instrument Code			
WB27806	Maximum Concentration in $\mu\text{Ci/g}$	< 5.8596E-04	
Analyst			
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/ μCi)		
04/27/95			
Time	Relative Counting Error = [(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100		
10:40 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

▼ RESULTS ▼

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Maximum) =	< 5.86E-04	DETECTION LEVEL
LESS Than Value was Determined from Lc.				1.31E-03 $\mu\text{Ci/g}$
RELATIVE COUNTING ERROR		=	69.3%	

Data Entry by: <i>Sharon L. Upton</i>	Date: 04/28/95
Approved by: <i>[Signature]</i>	Date: 5/1/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WQC-SD-WM-DP-109, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3)

SOLIDS

		SAMPLE	REPLICATE
Type	DETECTOR NUMBER	16	16
SAMPLE	DISH SIZE 1, 2, or 5 (MS)	2	2
Work List	TOTAL COUNTS (TC)	35	46
1197	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.8	0.8
AT	SAMPLE SIZE in mL (SS)	0.500	0.500
Test Code	DILUTION FACTOR (DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.7845	2.7845
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.789	0.733
Sample #	Sample Concentration in $\mu\text{Ci/g}$	< 1.21E-03	BOOK#
S95T686	Replicate Concentration in $\mu\text{Ci/g}$	1.13E-03	
Instrument Code			
WB27806	Maximum Concentration in $\mu\text{Ci/g}$	< 1.2135E-03	
Analyst			
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/ μCi)		
04/27/95			
Time	Relative Counting Error = [(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100		
10:40 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

▼ RESULTS ▼

ALPHA TOTAL	in $\mu\text{Ci/g}$ (Maximum) =	< 1.21E-03	DETECTION LEVEL
LESS THAN Value was Determined from Rs.			
RELATIVE COUNTING ERROR	=	136.9%	1.31E-03 $\mu\text{Ci/g}$

Data Entry by: <i>Sharon L. Heston</i>	Date: 04/28/95
Approved by: <i>AKL</i>	Date: 5/1/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-109, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3)

SOLIDS

		SAMPLE	REPLICATE
Type	DETECTOR NUMBER	16	16
DUPLICATE	DISH SIZE 1, 2, or 5 (MS)	2	2
Work List	TOTAL COUNTS (TC)	40	35
1197	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.8	0.8
AT	SAMPLE SIZE in mL (SS)	0.500	0.500
Test Code	DILUTION FACTOR (DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.5815	2.5815
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.533	0.789
Sample #	Sample Concentration in $\mu\text{Ci/g}$	8.85E-04	BOOK#
S95T686	Replicate Concentration in $\mu\text{Ci/g}$	< 1.31E-03	
Instrument Code			
WB27806	Maximum Concentration in $\mu\text{Ci/g}$	< 1.3089E-03	
Analyst			
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/ μCi)		
04/27/95			
Time	Relative Counting Error = [(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100		
10:40 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

▼ RESULTS ▼

ALPHA TOTAL	in $\mu\text{Ci/g}$ (Maximum) =	< 1.31E-03	DETECTION LEVEL
LESS THAN Value was Determined from Rs.			1.41E-03 $\mu\text{Ci/g}$
RELATIVE COUNTING ERROR	=	136.9%	

Data Entry by: <i>Sharon L. Updegraff</i>	Date: 04/28/95
Approved by: <i>[Signature]</i>	Date: 5/1/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-109, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3)

SOLIDS

			SPIKE	REPLICATE
Type	DETECTOR NUMBER		16	16
SPIKE	DISH SIZE 1, 2, or 5 (MS)		2	2
Work List	TOTAL COUNTS (TC)		30037	30381
1197	COUNT TIME in MINUTES (CT)		30	30
AT or TB ?	BACKGROUND in cpm (BKG)		0.8	0.8
AT	SAMPLE VOLUME in mL (Spiked Vial) (SS)		0.500	0.500
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial) (DF)		1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)		2.7845	2.7845
Matrix	SPIKE VOLUME in mL (SVol)		0.100	0.100
SOLID	SPIKE DILUTION FACTOR (SDF)		1	1
Sample #	SPIKE VALUE in µCi/L (SVal)		36.372	36.372
S95T886	INSTRUMENT EFFICIENCY FACTOR (EFF)		0.2104	0.2104
Instrument Code	SAMPLE + SPIKE µCi/g (S+S)		1.54E+00	1.56E+00
WB27806	AVERAGE or MAXIMUM µCi/g from FORM C		<1.2135E-3	
Analyst	BOOK#		94B43	
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG			
Date	SAMPLE + SPIKE µCi/g = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/µCi)			
04/27/95	PERCENT SPIKE RECOVERY = (((S+S µCi/g - SAMPLE µCi/g) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100			
Time				
10:40 AM				

RESULT **AVG. PERCENT SPIKE RECOVERY** = **59.2%**

Data Entry by: *Sharon L. Hinkle* Date: 28-Apr-95
 Approved by: *[Signature]* Date: 5/1/95
 Form 508101_X Rev. 1.3 121 Page 1 of 1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

W/C-SD-WM-DP-107, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

		SAMPLE	REPLICATE
Type	DETECTOR NUMBER	16	16
SAMPLE	DISH SIZE 1, 2, or 5 (MS)	2	2
Work List	TOTAL COUNTS (TC)	38	44
1197	COUNT TIME in MINUTES (CT)	30	30
AT or TS ?	BACKGROUND in cpm (BKG)	0.8	0.8
AT	SAMPLE SIZE in mL (SS)	0.500	0.500
Test Code	DILUTION FACTOR (DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.4895	2.4895
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.467	0.667
Sample #	Sample Concentration in $\mu\text{Ci/g}$	8.03E-04	BOOK#
S95T690	Replicate Concentration in $\mu\text{Ci/g}$	1.15E-03	
Instrument Code			
WB27806	Average Concentration in $\mu\text{Ci/g}$	9.7465E-04	
Analyst			
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/ μCi)		
04/27/95			
Time	Relative Counting Error = [(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100		
10:40 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

▼ RESULTS ▼

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Average)	=	9.75E-04	DETECTION LEVEL
					1.47E-03 $\mu\text{Ci/g}$
RELATIVE COUNTING ERROR			=	110.2%	

Data Entry by: <i>Sharon L. Hight</i>	Date: 04/28/95
Approved by: <i>St. J. Hight</i>	Date: 5/1/95
Form 508101_C Rev. 1.3	

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-109, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3)

SOLIDS

		SAMPLE	REPLICATE
Type	DETECTOR NUMBER	16	16
DUPLICATE	DISH SIZE 1, 2, or 5 (MS)	2	2
Work List	TOTAL COUNTS (TC)	32	46
1197	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.8	0.8
AT	SAMPLE SIZE in mL (SS)	0.500	0.500
Test Code	DILUTION FACTOR (DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.7355	2.7355
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.678	0.733
Sample #	Sample Concentration in $\mu\text{Ci/g}$	< 1.06E-03	BOOK#
S95T690	Replicate Concentration in $\mu\text{Ci/g}$	1.15E-03	
Instrument Code			
WB27806	Maximum Concentration in $\mu\text{Ci/g}$	< 1.1479E-03	
Analyst			
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/ μCi)		
04/27/95			
Time	Relative Counting Error = [(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100		
10:40 AM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

▼ RESULTS ▼

ALPHA TOTAL	in $\mu\text{Ci/g}$ (Maximum) =	< 1.15E-03	DETECTION LEVEL
LESS THAN Value was Determined from Rs.			
RELATIVE COUNTING ERROR	=	183.3%	1.33E-03 $\mu\text{Ci/g}$

Data Entry by: <i>Sharon L. H. [Signature]</i>	Date: 04/28/95
Approved by: <i>[Signature]</i>	Date: 5/1/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-109, REV. 1

AT : LA-508-101 (D-2)

LA-548-101 (A-3) SOLIDS

		SPIKE	REPLICATE
Type	DETECTOR NUMBER	16	16
SPIKE	DISH SIZE 1, 2, or 5 (MS)	2	2
Work List	TOTAL COUNTS (TC)	24399	26328
1197	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.8	0.8
AT	SAMPLE VOLUME in mL (Spiked Vial) (SS)	0.500	0.500
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial) (DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.4895	2.4895
Matrix	SPIKE VOLUME in mL (SVol)	0.100	0.100
SOLID	SPIKE DILUTION FACTOR (SDF)	1	1
Sample #	SPIKE VALUE in $\mu\text{Ci/L}$ (SVal)	36.372	36.372
S95T690	INSTRUMENT EFFICIENCY FACTOR (EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE $\mu\text{Ci/g}$ (S+S)	1.40E+00	1.51E+00
WB27806	AVERAGE or MAXIMUM $\mu\text{Ci/g}$ from FORM C	9.7465E-04	
Analyst	BOOK#	94843	
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG		
Date	SAMPLE + SPIKE $\mu\text{Ci/g}$ = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/ μCi)		
04/27/95	PERCENT SPIKE RECOVERY = (((S+S $\mu\text{Ci/g}$ - SAMPLE $\mu\text{Ci/g}$) * ((SDF/SVol)/(DF/SS/Dg/L)))/(SVal))*100		
Time			
10:40 AM			

RESULT AVG. PERCENT SPIKE RECOVERY = 49.7%

Data Entry by: *Sharon L. Goff* Date: 28-Apr-95
 Approved by: *[Signature]* Date: 5/1/95
 Form 508101_X Rev. 1.3 124 Page 1 of 1

Westinghouse
Hanford Company

WHC-SD-WM-DP-109, REV. 1

P.O. Box 1970 Richland, WA 99352

PART II

WHC-SD-WM-DP-109, REV. 0

ANALYTICAL SERVICES

45-DAY SAFETY SCREEN RESULTS FOR TANK 241-U-203,
PUSH-MODE, CORES 79 AND 80

DATE PRINTED:

MAY 4, 1995

125

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This Document consists of pages 1 through 38.

WHC-SD-WM-DP-109, REV. 1

WHC-SD-WM-DP-109, REV. 0

NARRATIVE

45-DAY SAFETY SCREEN RESULTS FOR TANK 241-U-203,
PUSH MODE, CORES 79 AND 80ANALYTICAL SUMMARY

Two one-segment core samples from tank 241-U-203 (U-203) were received by the 222-S Laboratories and underwent safety screening analysis, consisting of differential scanning calorimetry (DSC), thermogravimetric analysis (TGA), and total alpha activity. In addition to the safety screening requirements, inductively coupled plasma (ICP) spectrographic analysis for lithium was performed to determine the extent of hydrostatic head fluid contamination during the sampling event. No notification limits were exceeded for these analyses.

SCOPE

This document serves as the 45-day report deliverable for the tank U-203 push mode core samples collected on March 31, 1995 and April 3, 1995 (samples 95-059 and 95-061, respectively). Each sample was received, extruded, and analyzed by the 222-S Laboratories in accordance with the below referenced Tank Characterization Plan (TCP). Included in this report are the primary safety screening results obtained from the analyses and copies of all DSC and TGA raw data scans as requested per the TCP. Photographs of the push mode core samples were taken during extrusion and, although not included in this report, are available.

SAMPLE RECEIPT, EXTRUSION, AND SUBSAMPLINGCore 79, Sample 95-059

Sample 95-059 was collected from riser 2 of tank U-203 using the push mode core sampling system. It was received into the 222-S Laboratories on April 3, 1995 at 1415 hours and extruded on April 5, 1995. 44.96 grams of drainable liquid and 105.28 grams of solid material were collected. The drainable liquid was yellow, and the solids consisted of yellow crystals with black specks dispersed throughout the crystals. The drainable liquid was subsampled into jar #6766, and the solids were subsampled into jar #6693 and identified as lower half solids. All archiving requirements per the TCP were performed on the unfiltered liquid and solid subsamples, while all analysis of the drainable liquid was run after filtration.

Core 80, Sample 95-061

Sample 95-061 was collected from riser 6 of tank U-203 using the push mode core sampling system. It was received into the 222-S Laboratories on April 3, 1995 at 1405 hours and extruded on April 5, 1995. There was no drainable liquid obtained, but approximately six inches (221.64 grams) of solids were collected. The first three inches of solids extruded consisted of yellow crystals, and the last three inches of solids were yellow sludge. In

accordance with the referenced TCP, the material from sample 95-061 was divided into half-segments. The crystalline material was identified as the lower half solids and subsampled into jar #6696, and the sludge material was identified as the upper half solids and subsampled into jar #6697. All analyses and sample archives in the TCP were performed on these samples.

ANALYTICAL RESULTS

Analytical results are presented in Tables 1, 2 and 3, with the applicable notification limits shaded.

DSC (Energetics Content)

DSC analyses were performed under a nitrogen atmosphere using procedure LA-514-113, Rev. B-1. The results are given in Tables 1, 2 and 3. For all four samples (S95T000639, S95T000658, S95T000685, and S95T000689), no exotherms were detected. Since no exotherms were detected for all samples and duplicates, no dry weight basis results were calculated or reported. The Laboratory Management Control System (LMCS) control standard exhibited a recovery of 99.12 percent for the solid samples and 93.15 percent for the liquid sample, which were within the program's specified accuracy control limits of 90 to 110 percent recovery.

TGA (Moisture Content)

Weight percent water was performed under a nitrogen atmosphere using procedure LA-560-112, Rev. A-2 (for samples S95T000639, S95T000685, and S95T000689), and procedure LA-514-114, Rev. B-0 (for sample S95T000658). Results for the four samples and their duplicates ranged in value from 22.94 to 69.99 percent water by weight. Although there was a significant variation in the TGA results between core samples, the results within each core were relatively similar. The relative percent difference (RPD) values between the samples and their duplicates ranged from 0.19 to 8.31 and met the TCP specified precision requirement of 10%. Three LMCS control standards were run for these TGA analyses and exhibited recoveries ranging from 96.77 to 99.70 percent, which were within the program's specified accuracy control limits of 90 to 110 percent.

Total Alpha Activity

Analyses for total alpha activity were performed for the three solid samples (S95T000642, S95T000686, and S95T000690). Total alpha activity analysis was not required for the drainable liquid sample. Samples were prepared by fusion using procedure LA-549-141, Rev. C-2, and analyses were performed using procedure LA-508-101, Rev. D-2. A sample duplicate and spike were performed on all three samples. Results for the samples (except sample S95T000690) and duplicates were below their corresponding detection limits, so no RPD values were generated. Lower than normal spike recoveries caused all three samples to exceed the accuracy control limits of 90 to 110 percent recovery, with

values of 70.3%, 59.2%, and 49.7%. This poor spike recovery was attributed to solids observed in the sample mount. Since the majority of the sample and duplicate results were below the detection limits, no additional runs were performed.

ICP - Lithium

It is occasionally necessary to use hydrostatic head fluid (water with lithium bromide tracer) to aid in the collection of core samples. In order to determine if sample contamination by this fluid occurred during sampling, analyses for lithium by ICP were performed on samples S95T000642, S95T000662, S95T000686, and S95T000690. The solid samples were prepared by fusion digestion using procedure LA-549-141, Rev. C-2, and the drainable liquid sample was prepared by acid digestion using procedure LA-505-158, Rev. A-4. A sample duplicate and spike were performed on all four samples. Results for the samples and duplicates were below their corresponding detection limits, so no RPD values were generated. The spike recoveries for the samples ranged from 91.92 to 102.0 percent, which were within the accuracy control limits specified in the TCP.

REFERENCE WHC-SD-WM-TP-310, Revision 0, "Tank 241-U-203 Tank Characterization Plan, dated March 27, 1995.

WHC-SD-WM-DP-109, REV. 1

WHC-SD-WM-DP-109, REV. 0

SAMPLE DATA SUMMARY

45 Day Safety Screen Results for U-203
U-203

CORE NUMBER: 79
SEGMENT #: 1

TABLE 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									
S95T000639			% Water by TGA using Mettler	%	17.000	100.000	99.70	n/a	67.19	61.83	64.51	8.31	n/a	n/a	n/a
S95T000639			DSC Exotherm using Mettler	Joules/g	-999.000	481.000	99.12	n/a	0.00e+00	0	0.000	n/a	n/a	n/a	n/a
S95T000642	F		Lithium - ICP-Fusion	ug/g	-999.000	100.000	103.0	2.00e-03	< 49.2400	<49.1300	n/a	n/a	95.85	49.20	n/a
S95T000642	F		Alpha of Digested Solid	uCi/g	-999.000	71.000	97.64	<8.03e-04	< 1.51e-3	<1.47e-3	n/a	n/a	70.30	2.00e-03	207.7

=> Limit violated

=> Selected Limit

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WHC-SD-WM-DP-109, REV. 1

45 Day Safety Screen Results for U-203
U-203

TABLE 2

CORE NUMBER: 79
SEGMENT #: 1

SEGMENT PORTION: Drainable Liquid

Sample#	R #	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S951000650		% Water by ICA on Perkin Elmer	%	Lower	Upper	96.77	n/a	69.86	69.99	69.92	0.19	n/a	n/a	n/a
S951000658		DSC Exotherm using Mettler	Joules/g	-999.000	481.000	93.15	n/a	0.00e+00	0	0.000	n/a	n/a	n/a	n/a
S951000662	B	Lithium - ICP-Acid Adjust	ug/mL	-999.000	100.000	103.6	2.00e-03	< 10.0000	<10.0000	n/a	n/a	102.0	10.00	n/a

⇒ Limit violated
⇒ Selected Limit

WHC-SD-WM-DP-109, REV. 1

45 Day Safety Screen Results for U-203
U-203

CORE NUMBER: 00
SEGMENT #: 1

TABLE 3

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	AA#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S95T000685			% Water by TGA using Mettler	%	17.000	100.000	99.41	n/a	24.50	22.94	23.72	6.58	n/a	n/a	n/a
S95T000685			DSC Exotherm using Mettler	Joules/g	-999.000	481.000	99.12	n/a	0.00e+00	0	0.000	n/a	n/a	n/a	n/a
S95T000686	F		Lithium -ICP-Fusion	ug/g	-999.000	100.000	104.1	1.60e-02	< 35.9131	<38.7372	n/a	n/a	92.64	35.90	n/a
S95T000686	F		Alpha of Digested Solid	uCi/g	-999.000	41.000	97.64	<5.86e-04	< 1.21e-3	<1.31e-3	n/a	n/a	59.20	1.00e-03	136.9

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	AA#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S95T000689			% Water by TGA using Mettler	%	17.000	100.000	99.41	n/a	33.25	31.51	32.38	5.37	n/a	n/a	n/a
S95T000689			DSC Exotherm using Mettler	Joules/g	-999.000	481.000	99.12	n/a	0.00e+00	0	0.000	n/a	n/a	n/a	n/a
S95T000690	F		Lithium -ICP-Fusion	ug/g	-999.000	100.000	104.1	1.60e-02	< 40.2	<36.5564	n/a	n/a	91.92	40.20	n/a
S95T000690	F		Alpha of Digested Solid	uCi/g	-999.000	41.000	97.64	<5.86e-04	9.75e-04	<1.15e-3	n/a	n/a	49.70	1.00e-03	110.2

=> Limit violated

=> Selected Limit

WHC-SD-WM-DP-109, REV. 1

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WHC-SD-WM-DP-109, REV. 1

WHC-SD-WM-DP-109, REV. 0

UNDIGESTED ANALYSES RESULTS - DIRECT

LABCORE Data Entry Template for Worklist# 1013

Analyst: KRM Instrument: DSC01 Book # 12N14-A

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

WHC-SD-WM-DP-109, REV. 1

Worklist Comment: Please run U-203 DSC under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID	<u>28.45</u>	<u>28.2</u>	<u>N/A</u>	Joules/g
95000053	U-203	2 SAMPLE	S95T000685	0	DSC-01	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g
95000053	U-203	3 DUP	S95T000685	0	DSC-01	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g
95000053	U-203	4 SAMPLE	S95T000689	0	DSC-01	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g
95000053	U-203	5 DUP	S95T000689	0	DSC-01	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g

Final page for worklist # 1013

Analyst Signature

Date

4-30-95

Verified by

Blandina Valenzuela

5-1-95

Analyst Signature

Date

Data Entry Comments:

S95T000685 produced three endotherms, one at 103.6°C with a delta H of 667.9 J/g second at 180.9°C with a delta H of 3.5 J/g and third at 284.0°C with a delta H of 706.1 J/g. S95T000689 produced three endotherms one at 119.6°C with a delta H of 960.6 J/g second at 179.1°C with a delta H of 3.8 J/g and third at 283.4°C with a delta H of 509.3 J/g

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 137 TO 141.

DSC STD 12N14-A
6.340 mg
Rate: 10.0 °C/min
File: 00007.001
DSC METTLER
Ident: 0.0
222-S Laboratory
29-Apr-95

[Signature]
4-30-95

BEST AVAILABLE COPY

S95T000685 N2

14.810 mg

Rate: 10.0 °C/min

File: 00009.001

Ident: 0.0

DSC METTLER

29-Apr-95

222-S Laboratory

WHCSD-WM-DP-109, REV. 1

S95T000685 (DUP) N2
 13.224 mg
 Rate: 10.0 °C/min
 File: 00011.001 DSC METTLER 28-Apr-95
 Ident: 0.0 222-S Laboratory

S95T000689 N2
12.057 mg

File: 00013.001 DSC METTLER 30-Apr-95
Ident: 0.0 222-S Laboratory

Rate: 10.0 °C/min

BEST AVAILABLE COPY

LABCORE Data Entry Template for Worklist# 1014

Analyst: Edm Instrument: DSC01 Book # 12N/4A
Method: LA-514-113 Rev/Mod 5/1/95 BDV
B-17 B-1

Worklist Comment: Please run U-203 DSC under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID	28.45	28.2	N/A	Joules/g
95000051	U-203	2 SAMPLE	S95T000639	0	DSC-01	SOLID	N/A	Ø		Joules/g
95000051	U-203	3 DUP	S95T000639	0	DSC-01	SOLID	Ø	Ø	N/A	Joules/g

Final page for worklist # 1014

Edm 4/25/95
Analyst Signature Date

[Signature] 4-26-95
Analyst Signature Date

Verified by Blandina Valenzuela 4-26-95

Data Entry Comments: S95T000639 produced two endotherms one at 115.3°C
with a delta H of 1517.8 J/g and the second at 227.2°C with a
delta H of 15.8 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 43 TO 45.

DSC STD 12N14-A
6.654 mg
Rate: 10.0 °C/min
File: 00041.001
DSC METTLER
222-S Laboratory
25-Apr-95

BEST AVAILABLE COPY

S95T000639 N2

13.100 mg

Rate: 10.0 °C/min

File: 00043.001

Ident: 0.0

DSC METTLER

25-Apr-95

222-S Laboratory

exo>

50. mW

Integration

Delta H 19883 mJ

1517.8 J/g

Peak 115.3 °C

-85.8 mW

Integration

Delta H 208 mJ

15.8 J/g

Peak 227.2 °C

-2.2 mW

100.

200.

300.

400.

°C

144

WHC-SD-WM-DP-109, REV. 1

BEST AVAILABLE COPY

S95T000639 (DUP) N2

18.920 mg

Rate: 10.0 °C/min

File: 00044.001

DSC METTLER

25-Apr-95

Ident: 0.0

222-S Laboratory

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WHC-SD-WM-DP-109 REV. 1

LABCORE Data Entry Template for Worklist# 1032

Analyst: RDM Instrument: DSC01 Book # 12N14A

Method: LA-514-113 Rev/Mod B-81

WHC-SD-WM-DP-109, REV. 1

Worklist Comment: Please run U-203 DSC under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	LIQUID	<u>28.45</u>	<u>26.5</u>	<u>N/A</u>	Joules/g
95000051	U-203	2 SAMPLE	S95T000658	0	DSC-01	LIQUID	<u>N/A</u>	<u>Ø</u>		Joules/g
95000051	U-203	3 DUP	S95T000658	0	DSC-01	LIQUID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g

Final page for worklist # 1032

RDM 4/30/95
Analyst Signature Date

Dan H. H. S. 5/1/95
Analyst Signature Date

Verified by Blandina Valenzuela 5/1/95

Data Entry Comments: S95T000658 produced two endotherms one at 113.3°C with a
delta H of 1592.1 J/g, and the second at ^{5/1/95}228.9°C with a delta H of
37.7 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.

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 147 TO 149.

BEST AVAILABLE COPY

DSC STD 12N14-A
6.340 mg 5/4/95
BDV

Rate: 10.0 °C/min

File: 00004.001

DSC METTLER 29-Apr-95

Ident: 0.0

222-S Laboratory

WHC-SD-WM-DP-1C9, REV. 1

BEST AVAILABLE COPY

File: 00005.001 DSC METTLER 29-Apr-95
Ident: 0.0 222-S Laboratory

S95T000658 N2
14.625 mg

Rate: 10.0 °C/min

BEST AVAILABLE COPY

S95T000658 (DUP) N2

14.450 mg

Rate: 10.0 °C/min

File: 00006.001

DSC METTLER

29-Apr-95

Ident: 0.0

222-S Laboratory

1-19

WHC-SD-WM-DP-109, REV. 1

LABCORE Data Entry Template for Worklist# 1038

Analyst: SMF Instrument: TGA^{D3}₀₁ Book # 42N8-A
Method: LA-514-114 Rev/Mod B-0 _{5/5/95 BDV}

Worklist Comment: Please run U-203 TGA under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-03	LIQUID	<u>59.19</u>	<u>57.28</u>	<u>N/A</u>	%
95000051	U-203	2 SAMPLE	S95T000658	0	TGA-03	LIQUID	<u>N/A</u>	<u>69.86</u>		%
95000051	U-203	3 DUP	S95T000658	0	TGA-03	LIQUID	<u>69.86</u>	<u>69.99</u>	<u>N/A</u>	%

Final page for worklist # 1038

See attached for signatures
Analyst Signature _____ Date _____

Data entered + verified by
Blandina Valenzuela 5/2/95
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# 1038

Analyst: SMF Instrument: TGA01 Book # 42N8-A

Method: LA-560-112 Rev/Mod LA-514-114/B0
SMF 5/5/95 BDV

Worklist Comment: Please run U-203 TGA under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	LIQUID			N/A	%
95000051	U-203	2 SAMPLE	S95T000658	0	TGA-01	LIQUID	N/A			%
95000051	U-203	3 DUP	S95T000658	0	TGA-01	LIQUID			N/A	%

Final page for worklist # 1038

Lusie M. Fulton 5/02/95
Analyst Signature Date 5/5/95
BDV

Analyst Signature Date

Data Entry Comments:

S95T000658 - Bright yellow liquid
The other instrument was used.

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: TER050201 Tue May 2 09:16:09 1995
 Sample Weight: 16.162 mg
 42N8A Terliq

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
 COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 52 TO 54.

SM Fulton
 PERKIN-ELMER
 7 Series Thermal Analysis System
 Tue May 2 09:55:40 1995

N2
 TEMPI: 35.0 °C
 TEMPE: 200.0 °C
 TIME1: 0.0 min
 RATE1: 10.0 °C/min

Curve 1: TGA
File info: SAM050201 Tue May 2 11:24:59 1995
Sample Weight: 13.022 mg
S956T000658, 10C/min

N2
TEMP1: 35.0 C
TEMP2: 500.0 C
TIME: 0.0 min RATE: 10.0 C/min

SM Fulton
PERKIN-ELMER
7 Series Thermal Analysis System
Tue May 2 11:39:17 1995

WHC-SD-WM-DP-109, REV. 1

Curve 1: TGA
 File info: SAM050202 Tue May 2 12:31:29 1995
 Sample Weight: 13.305 mg
 S95T000658 (DUP), 10C/min

SM Fulton
 PERKIN-ELMER
 7 Series Thermal Analysis System
 Tue May 2 12:58:36 1995

Temperature (°C)

N2
 TEMPI: 36.0 °C
 TEMPE: 500.0 °C
 TIME: 0.0 min
 RATE: 10.0 °C/min

LABCORE Data Entry Template for Worklist# 1042

Analyst: KRM Instrument: TGA01 Book # 42N8A

Method: LA-560-112 Rev/Mod A-2

WHC-SD-WM-DP-109, REV. 1

Worklist Comment: Please run U-203 TGA under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD				TGA-01	SOLID	<u>59.19</u>	<u>58.84</u>	<u>N/A</u>	%
95000053	U-203	2 SAMPLE	S95T000685	0		TGA-01	SOLID	<u>N/A</u>	<u>24.50</u>		%
95000053	U-203	3 DUP	S95T000685	0		TGA-01	SOLID	<u>24.50</u>	<u>22.94</u>	<u>N/A</u>	%
95000053	U-203	4 SAMPLE	S95T000689	0		TGA-01	SOLID	<u>N/A</u>	<u>33.25</u>		%
95000053	U-203	5 DUP	S95T000689	0		TGA-01	SOLID	<u>33.25</u>	<u>31.51</u>	<u>N/A</u>	%

Final page for worklist # 1042

Analyst Signature Date 4-30-95

Analyst Signature Date 5/1/95

Verified by Blandina Valenzuela 5/1/95

Data Entry Comments:

S95T000685 produced a second weight loss step of 20.61% at
305.0°C. Sample S95T000689 produced a second weight loss step of 16.63%
at 301.0°C

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 156 TO 162.

TGA STD 42N8-A File: 00008.001 TG METTLER 29-Apr-95
27.242 mg Rate: 10.0 °C/min Ident: 0.0 222-S Laboratory

Step Analysis
Height-16.03 mg
-58.84 %
ResidC. 11.21 mg
41.16 %
Dpeak 104.2°C

[Signature]
1-30-95

S95T000685 N2

15.837 mg

Rate: 10.0 °C/min

File: 00010.001

TG

METTLER

29-Apr-95

Ident: 0.0

222-S Laboratory

Step Analysis

Height -3.88 mg

-24.50 %

ResiC. 11.95 mg

75.50 %

Dpeak 51.0 °C

Step Analysis

Height -3.26 mg

-20.61 %

ResiC. 8.59 mg

54.23 %

Dpeak 305.0 °C

WHC:SD-WM-DP-109, REV. 1

S95T000685 (DUP) N2

File: 00012.001 TG

Ident: 0.0

Rate: 10.0 °C/min

13.431 mg

File: 00014.001 TG METTLER 30-Apr-95
 Ident: 0.0 222-S Laboratory

Rate: 10.0 °C/min

S95T000689 N2

19.821 mg

S95T000689 (DUP) N2

16.061 mg

Rate: 10.0 °C/min

File: 00016.001

TG

METTLER

30-Apr-95

Ident: 0.0

222-S Laboratory

Step Analysis

Height -5.06 mg

-31.51 %

ResiC. 11.00 mg

68.49 %

Dpeak 59.0 °C

Step Analysis

Height -2.86 mg

-17.81 %

ResiC. 8.11 mg

50.47 %

Dpeak 297.0 °C

0.91

5. mg

WHC-SD-WM-DP-109, REV. 1

LABCORE Data Entry Template for Worklist# 1054

Analyst: RDM Instrument: TGA01 Book # 42N8-A

Method: LA-560-112 Rev/Mod A-2

Worklist Comment: Please run U-203 TGA under N2. bdv

WHC-SD-WM-DP-109, REV. 1

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	<u>59.19</u>	<u>59.01</u>	<u>N/A</u>	%
95000051	U-203	2 SAMPLE	S95T000639	0	TGA-01	SOLID	<u>N/A</u>	<u>67.19</u>		%
95000051	U-203	3 DUP	S95T000639	0	TGA-01	SOLID	<u>67.19</u>	<u>61.83</u>	<u>N/A</u>	%

Final page for worklist # 1054

RDM 5/2/95
Analyst Signature Date

[Signature] 5/2/95
Analyst Signature Date

Verified by Blandina Valenzuela 5-2-95

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 162 TO 164.

WHC-SD-WM-DP-162, REV. 1

TGA STD 42NB-A

13.952 mg

Rate: 10.0 °C/min

File: 00031.001

Ident: 0.0

TG METTLER 01-May-95

222-S Laboratory

Step Analysis

Height -8.23 mg

-59.01 %

Resid. 5.72 mg

40.99 %

Dpeak 81.0 °C

Blundina Valenzuela 5-2-95

400.-for RD Meyers C

S95T000639 N2

12.565 mg

Rate: 10.0 °C/min

File: 00032.001

TG

METTLER

01-May-95

Ident: 0.0

222-S Laboratory

Step Analysis

Height -8.44 mg

-67.19 %

ResiC. 4.12 mg

32.81 %

Dpeak 77.0 °C

163

5. mg

WHC-SD-WM-DP-109, REV.1

S95T000639 (DUP) N2

9.307 mg

Rate: 10.0 °C/min

File: 00033.001

Ident: 0.0

TG

METTLER

01-May-95

222-S Laboratory

Step Analysis

Height -5.75 mg

-61.83 %

ResidC. 3.55 mg

38.17 %

Dpeak 67.0 °C

164

WHC-SD-WM-DP-102, REV. 1

DISTRIBUTION SHEET

To Distribution	From Characterization Plans, Coordination and Reports	Page 1 of 2
		Date: 07/26/95
Project Title/Work Order 216-Day Organic and Final Report for Tank 241-U-203, Push Mode, Cores 79 and 80		EDT NO.: EDT-61218 ^{CLM} 1031
		ECN NO.: ECN-623828

Name	MSIN	Text With all Attach	EDT/ECN ONLY
<u>Pacific Northwest Laboratory</u>			
J. R. Gormsen	K7-28		X
S. J. Harris	K7-22	X	
K. L. Silvers	P7-27		X
<u>U.S. Department of Energy, RL</u>			
C. A. Babel	S7-54	X	
<u>Westinghouse Hanford Company</u>			
J. N. Appel	G3-21		X
H. Babad	S7-30	X	
R. J. Cash	S7-15	X	
G. D. Forehand	S7-31		X
C. E. Golberg	H5-49		X
V. W. Hall	H4-21		X
D. C. Hetzer	S6-31		X
L. Jensen	T6-07	X	
G. D. Johnson	S7-15	X	
N. W. Kirch	R2-11	X	
J. G. Kristofzski	T6-06	X	
M. J. Kupfer	H5-49	X	
E. J. Lipke	S7-14		X
N. G. McDuffie	S7-15	X	
J. E. Meacham	S7-15	X	
P. M. Morant	H4-25	X	
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To Distribution	From Characterization Plans, Coordination and Reports	Page 2 of 2
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		ECN NO.: ECN-623828

Name	MSIN	Text With all Attach	EDT/ECN ONLY
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Washington State Department of Ecology
Single-Shell Tank Unit Manager
S. E. McKinney
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Olympia, Washington 98504-7600

X

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