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TITLE: FINAL REPORT FOR TANK 241-B-101 PUSH MODE
CORES 90+91

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Page 1 of 2

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90-Day Safety Screening Results for Tank 241-B-101, Push-Mode Cores 90 and 91

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WHC-SD-WM-DP-139, REV. 1

ANALYTICAL SERVICES

FINAL REPORT FOR TANK 241-B-101, PUSH-MODE
CORES 90 AND 91

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PART I

WHC-SD-WM-DP-139, REV. 1

FINAL REPORT FOR TANK 241-B-101, PUSH-MODE
CORES 90 AND 91

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NARRATIVE

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FINAL REPORT FOR TANK 241-B-101,
PUSH MODE, CORES 90 AND 91

Summary

This is the final report for tank 241-B-101, cores 90 and 91. Samples from these cores were analyzed for safety screening purposes in accordance with the Tank 241-B-101 Tank Characterization Plan (TCP) (Reference 1). This final report contains the results for three sets of TGA and gravimetric analyses performed after the 90-day report was issued. Two of these TGA/gravimetric percent water sets of analyses were done because low original TGA results were obtained for the lower half segment of core 90, segment 2 and the facie of core 91, segment 2; the third set of analyses were performed because the TGA and gravimetric percent water results for the upper half segment of core 90, segment 2 differed by approximately a factor of three and further investigation was warranted.

All data other than the TGA and gravimetric percent water results mentioned above, including results for inductively coupled plasma atomic emission spectroscopy analysis for lithium, total alpha analysis, and ion chromatography analysis for bromide, have previously been discussed in Reference 2 and may be found in parts II and III of this report.

As the final report for this analysis project, this report also contains the following information: chains of custody forms, photographs of the extruded samples, sample preparation data, and the raw data for all analyses other than the differential scanning calorimetry (DSC) and thermogravimetric analyses (TGA) which were provided in Reference 2. Although not included in this report, the hot cell logbook notes may be found in Reference 3.

Sample Receipt and Extrusion

A description of the sample receipt and extrusion is contained in References 2 and 3. Chain of custody forms, photographs of the extruded segments, and extrusion worklists are provided in subsequent sections of this report.

Analytical Results

THERMOGRAVIMETRIC ANALYSIS (Percent Moisture)

Analyses for percent water by TGA were performed on samples S95T002532 (core 90, segment 2, upper half), S95T002533 (core 90, segment 2, lower half), and S95T002534 (core 91, segment 2, facie) using procedure LA-514-114, Rev. B-0. All samples were run under a nitrogen atmosphere. Percent water results for samples S95T002532 and S95T002534 were below the notification limit of 17 weight percent water with average values of 12.55% and 15.21% respectively, and notification of these occurrences was made on October 23, 1995. Sample S95T002533 had an average result of 48.20% water, although the first TGA analysis for this subsample (performed on sample S95T001551, a sister sample to S95T002533) yielded an average result of 19.86% water. This difference in the results may be due to inhomogeneity in the sample.

The maximum acceptable precision per the TCP (Reference 1) is a relative percent difference (RPD) of 10%. The TGA precision between the primary and duplicate results for samples S95T002532 and S95T002534 exceeded the acceptance criterion with RPD values of 16.2% and 18.5%. However, since neither sample exhibited any exothermic energy based on the DSC results

obtained, no reruns were requested. The RPD value for sample S95T002533 was 2.57% and is within the acceptable precision.

Statistical analyses were performed on the TGA data per the requirements of the revised Data Quality Objective for Safety Screening (Reference 4). This document requires comparison of sample data to the applicable limit (e.g. greater than 17% water by TGA) with a confidence level of 95%. The lower limit of the 95% confidence interval on the mean for the three subsegments are presented in Table 1 and were calculated based upon the two pair of primary and duplicate sample results for each subsegment. The standard deviation of the mean has one degree of freedom and was computed using the between pairs mean square from a one-way analysis of variance. The lower 95% confidence limit for all three of these samples fall below the minimum criterion of 17% water stated in Reference 1. However, since no exotherms were observed for these samples (Reference 2), the low moisture content of these samples does not constitute unsafe conditions.

Table 1. 95% Confidence Interval Lower Limits
for Percent Water (Units are in %).

Sample Number and Description	$\hat{\mu}$	LL
S95T001229 S95T002532 C90 S2 UH	14.06	4.58
S95T001551 S95T002533 C90 S2 LH	34.03	0.00
S95T001555 S95T002534 C91 S2 facie	16.62	7.74

C = Core Number $\hat{\mu}$ = mean
S = Segment Number LL = Lower Limit
UH = Upper Half
LH = Lower Half

Gravimetric Percent Water

Calculation of the lower limit of the 95% confidence interval on the mean indicated that results for subsamples S95T001551 (core 90, segment 2, lower half) and S95T001555 (core 91, segment 2, facie) were below the notification limit of 17 weight percent water (Reference 2). For these subsegments, gravimetric analysis for percent water was performed on sister samples S95T002533 and S95T002534 to better determine the moisture content. In addition, gravimetric analysis on material from the upper half of core 90, segment 2 (using sample S95T002532) was reanalyzed due to an inconsistency between the TGA and gravimetric percent water results. Procedure LA-564-101, Rev. F-1 was used for these analyses. For samples S95T002532, S95T002533, and S95T002534, the gravimetry results obtained were similar to those found for the accompanying TGA analyses. Sample S95T002532 produced primary and duplicate results below the notification limit of 17 weight percent water;

with an average value of 12.70%; notification of this occurrence was provided on October 23, 1995. These gravimetry results were more consistent with the subsample's two sets of TGA results than were the original gravimetry results, indicating that the original data (40.78% and 41.26% from sample S95T001543) were most likely erroneous. Primary and duplicate results for samples S95T002533 and S95T002534 were above the limit of 17 weight percent water, although the results obtained for sample S95T002534 were just above the limit with an average value of 18.45%.

The RPD value for sample S95T002532 was above the maximum acceptable precision criterion of 10% as specified in the TCP; however, since no exotherms were observed for this subsegment, no rerun was requested. The RPD values for samples S95T002533 and S95T002534 were both within the acceptable precision range, with values of 0% and 4.88%, respectively.

Project Coordinator: Ruth Schreiber

References:

- [1] Schreiber, R. D., "Tank 241-B-101 Tank Characterization Plan," WHC-SD-WM-TSAP-058, Rev. 0, Westinghouse Hanford Company, Richland, Washington.
- [2] Schreiber, R. D., "90-Day Safety Screen Results for Tank 241-B-101, Push Mode, Cores 90 and 91", WHC-SD-WM-DP-139, Rev. 0A, Westinghouse Hanford Company, Richland, Washington.
- [3] Fuller, R. K., Tank 241-B-101, WHC-N-1182, Westinghouse Hanford Company, Richland, Washington.
- [4] H. Babad, J. W. Hunt, and K. S. Redus, "Tank Safety Screening Data Quality Objective," WHC-SD-WM-SP-004, Rev. 2, Westinghouse Hanford Company, Richland, Washington.

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SAMPLE DATA SUMMARY

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FINAL REPORT FOR TANK
B-101CORE NUMBER: 90
SEGMENT #: 1

SEGMENT PORTION: Facie

Sample#	R/A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001220		% Water by IGA using Mettler	%	96.35	n/a	18.75	18.74	18.74	0.05	n/a	n/a	n/a
S95T001220		% Water by IGA using Mettler	%	96.35	n/a	18.75	18.74	18.74	0.05	n/a	n/a	n/a
S95T001220		DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001220		DSC Exotherm using Mettler	Joules/g	102.6	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001221	F	Alpha of Digested Solid	uCi/g	105.0	<3.92e-02	2.02e-01	1.24e-01	1.63e-01	47.9	99.70	8.71e-02	40.0
S95T001221	F	Lithium -ICP-Fusion	ug/g	103.1	1.50e-03	<44.8190	<45.2160	n/a	n/a	93.63	44.80	n/a
S95T001541		% Water by Gravimetric	%	100.9	n/a	23.45	23.25	23.35	0.86	n/a	1.00e-02	n/a

U Upper Half of Segment: U Upper Half of Segment

Sample#	R/A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001214		% Water by IGA using Mettler	%	101.6	n/a	33.07	33.09	33.08	0.06	n/a	n/a	n/a
S95T001214		DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	289.0	261.0	275.0	10.2	n/a	n/a	n/a
S95T001214		DSC Exotherm using Mettler	Joules/g	107.9	n/a	193.1	174.5	183.8	10.1	n/a	n/a	n/a
S95T001215	F	Alpha of Digested Solid	uCi/g	99.64	<3.97e-01	4.350	4.790	4.570	9.63	111.4	8.83e-01	20.3
S95T001215	F	Lithium -ICP-Fusion	ug/g	100.9	1.61e-02	<45.4200	<46.2800	n/a	n/a	90.53	45.40	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%
S95T001217		% Water by IGA using Mettler	%	101.6	n/a	41.51	42.49	42.00	2.33	n/a	n/a	n/a
S95T001217	1	DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	322.0	314.0	318.0	2.52	n/a	n/a	n/a
S95T001217		DSC Exotherm using Mettler	Joules/g	109.0	n/a	186.7	182.3	184.5	2.38	n/a	n/a	n/a
S95T001217	1	DSC Exotherm using Mettler	Joules/g	107.9	n/a	211.0	156.6	183.8	29.6	n/a	n/a	n/a
S95T001218	F	Alpha of Digested Solid	uCi/g	99.64	<3.97e-01	1.950	1.850	1.890	6.35	109.8	9.13e-01	39.4
S95T001218	F	Lithium -ICP-Fusion	ug/g	100.9	1.61e-02	<46.9800	<46.6600	n/a	n/a	90.73	47.00	n/a

WHC-SD-WM-DP-139, REV. 1

FINAL REPORT FOR TANK
B-101

CORE NUMBER: 90
SEGMENT #: 2

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001229			% Water by TGA using Mettler	%	103.6	n/a	16.42	14.69	15.55	11.1	n/a	n/a	n/a
S95T001229			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001229			DSC Exotherm using Mettler	Joules/g	103.3	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001230	F		Alpha of Digested Solid	uci/g	102.5	<6.26e-02	2.49e-01	2.28e-01	2.38e-01	8.81	104.3	8.39e-02	29.3
S95T001230	F		Lithium -ICP-Fusion	ug/g	96.47	2.28e-02	79.25	70.87	75.06	11.2	96.29	48.30	n/a
S95T001543			% Water by Gravimetric	%	100.9	n/a	40.78	41.26	41.02	1.17	n/a	1.00e-02	n/a
S95T001544	W		Bromide by Ion Chromatograph	ug/g	104.0	<6.32e-01	1.50e+03	1.51e+03	1.50e+03	0.66	93.90	1.28e+03	n/a
S95T001544	W		Chloride by IC - Dionex 4000i	ug/g	101.9	<8.30e-02	323.0	376.0	349.5	15.2	107.1	168.0	n/a
S95T001544	W		Fluoride by IC - Dionex 4000i	ug/g	109.0	<6.20e-02	141.0	144.0	142.5	2.11	96.40	125.0	n/a
S95T001544	W		Nitrite by IC - Dionex 4000i	ug/g	106.0	<5.47e-01	5.88e+04	6.92e+04	6.40e+04	16.2	130.4	5.31e+03	n/a
S95T001544	W		Nitrate by IC - Dionex 4000i	ug/g	102.8	<6.99e-01	1.92e+05	1.95e+05	1.94e+05	1.55	102.1	6.79e+03	n/a
S95T001544	W		Oxalate by IC - Dionex 4000i	ug/g	97.42	<4.96e-01	< 1.00e3	<1.00e3	n/a	n/a	103.2	1.00e+03	n/a
S95T001544	W		Phosphate by IC - Dionex 4000i	ug/g	104.9	<5.96e-01	3.59e+03	3.93e+03	3.76e+03	9.04	107.3	1.20e+03	n/a
S95T001544	W		Sulfate by IC - Dionex 4000i	ug/g	104.3	<6.78e-01	1.69e+04	1.50e+04	1.60e+04	11.9	90.30	1.37e+03	n/a
S95T002532			% Water by Gravimetric	%	100.3	n/a	11.70	13.70	12.70	15.7	n/a	1.00e-02	n/a
S95T002532			% Water by TGA using Mettler	%	102.0	n/a	13.57	11.54	12.55	16.2	n/a	n/a	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%
S95T001551			% Water by TGA on Perkin Elmer	%	101.4	n/a	18.75	20.97	19.86	11.2	n/a	n/a	n/a
S95T001551			DSC Exotherm on Perkin Elmer	Joules/g	96.45	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S95T001551			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S95T001552	F		Alpha of Digested Solid	uci/g	106.4	<5.22e-03	2.11e-02	2.99e-02	2.55e-02	34.5	93.60	1.23e-02	57.5
S95T001552	F		Lithium -ICP-Fusion	ug/g	104.2	<6.00e-04	< 47.0102	<47.1876	n/a	n/a	94.64	47.00	n/a
S95T001553	W		Bromide by Ion Chromatograph	ug/g	101.4	<6.32e-01	< 3.54e3	<3.54e3	n/a	n/a	99.10	3.54e+03	n/a
S95T001553	W		Chloride by IC - Dionex 4000i	ug/g	97.89	<8.30e-02	2.07e+03	<4.65e2	n/a	n/a	79.50	465.0	n/a
S95T001553	W		Fluoride by IC - Dionex 4000i	ug/g	107.3	<6.20e-02	< 3.48e2	<3.48e2	n/a	n/a	105.7	348.0	n/a
S95T001553	W		Nitrite by IC - Dionex 4000i	ug/g	101.5	<5.47e-01	1.63e+04	2.32e+04	1.98e+04	34.9	137.7	3.07e+03	n/a
S95T001553	W		Nitrate by IC - Dionex 4000i	ug/g	101.8	<6.99e-01	1.68e+05	2.57e+05	2.12e+05	41.9	347.7	3.92e+03	n/a
S95T001553	W		Oxalate by IC - Dionex 4000i	ug/g	103.9	<4.96e-01	< 2.78e3	<2.78e3	n/a	n/a	104.3	2.78e+03	n/a
S95T001553	W		Phosphate by IC - Dionex 4000i	ug/g	106.2	<5.96e-01	< 3.34e3	<3.34e3	n/a	n/a	111.1	3.34e+03	n/a
S95T001553	W		Sulfate by IC - Dionex 4000i	ug/g	102.9	<6.78e-01	1.90e+05	2.92e+05	2.41e+05	42.3	355.9	3.80e+03	n/a
S95T002533			% Water by Gravimetric	%	100.3	n/a	50.60	50.60	50.60	0.00	n/a	1.00e-02	n/a
S95T002533			% Water by TGA using Mettler	%	102.0	n/a	48.82	47.58	48.20	2.57	n/a	n/a	n/a

WHCSD-WM-DP-129, REV.1

Drainable Liquid: Drainable Liquid

Sample#	R A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001223		% Water by TGA using Mettler	%	101.0	n/a	49.63	49.41	49.52	0.44	n/a	n/a	n/a
S95T001223		DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	52.00	52.00	52.00	0.00	n/a	n/a	n/a
S95T001223		DSC Exotherm using Mettler	Joules/g	96.31	n/a	26.30	26.30	26.30	0.00	n/a	n/a	n/a
S95T001224	D	Lithium-ICP-Acid Dil.	ug/mL	97.67	1.30e-03	147.0	144.7	145.8	1.65	93.00	1.00e-02	n/a
S95T001542		Sulfate by IC - Dionex 4000i	ug/mL	101.9	<6.78e-01	2.23e+04	2.32e+04	2.28e+04	3.96	114.1	1.44e+03	n/a
S95T001542		Phosphate by IC - Dionex 4000i	ug/mL	101.6	<5.96e-01	7.23e+03	7.53e+03	7.38e+03	4.07	106.8	1.26e+03	n/a
S95T001542		Oxalate by IC - Dionex 4000i	ug/mL	97.64	<4.96e-01	< 1.05e3	<1.05e3	n/a	n/a	101.1	1.05e+03	n/a
S95T001542		Nitrate by IC - Dionex 4000i	ug/mL	102.7	<6.99e-01	3.72e+05	3.80e+05	3.76e+05	2.13	102.5	7.13e+03	n/a
S95T001542		Nitrite by IC - Dionex 4000i	ug/mL	108.0	<5.47e-01	1.30e+05	1.33e+05	1.32e+05	2.28	112.0	5.58e+03	n/a
S95T001542		Fluoride by IC - Dionex 4000i	ug/mL	108.8	<6.20e-02	238.0	238.0	238.0	0.00	91.10	132.0	n/a
S95T001542		Chloride by IC - Dionex 4000i	ug/mL	100.9	<8.30e-02	668.0	704.0	686.0	5.25	105.2	176.0	n/a
S95T001542		Bromide by Ion Chromatograph	ug/mL	102.3	<6.32e-01	< 1.34e3	<1.34e3	n/a	n/a	86.20	1.34e+03	n/a

WHC-SD-WM-DP-139, REV. 1

FINAL REPORT FOR TANK
B-101

CORE NUMBER: 91
SEGMENT #: Field Blank

SEGMENT PORTION: n/a

Sample#	R/A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001232		% Water by IGA using Hettler	%	101.0	n/a	99.76	99.89	99.83	0.13	n/a	n/a	n/a
S95T001232		DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001232		DSC Exotherm using Mettler	Joules/g	96.31	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S95T001233	b	Lithium-ICP-Acid Dil.	ug/mL	97.67	1.30e-03	2.48e-01	2.46e-01	2.47e-01	0.73	107.7	1.00e-02	n/a

WHC-SD-WM-DP-139, REV. 1

FINAL REPORT FOR TANK
B-101

CORE NUMBER: 91
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%
S95T001238			% Water by TGA using Mettler	%	103.8	n/a	33.48	34.72	34.10	3.64	n/a	n/a	n/a
S95T001238			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	248.0	251.0	249.5	1.20	n/a	n/a	n/a
S95T001238			DSC Exotherm using Mettler	Joules/g	102.3	n/a	163.6	165.4	164.5	1.09	n/a	n/a	n/a
S95T001336	F		Alpha of Digested Solid	uCi/g	109.0	<3.23e-01	3.660	4.640	4.150	23.6	106.9	7.55e-01	23.9
S95T001336	F		Lithium -ICP-Fusion	ug/g	99.68	4.60e-03	< 55.4324	<55.0661	n/a	n/a	92.14	55.40	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%
S95T001235			% Water by TGA using Mettler	%	103.6	n/a	41.68	44.13	42.91	5.71	n/a	n/a	n/a
S95T001235			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	42.00	43.00	42.50	2.35	n/a	n/a	n/a
S95T001235			DSC Exotherm using Mettler	Joules/g	103.3	n/a	24.00	24.80	24.40	3.28	n/a	n/a	n/a
S95T001236	F		Alpha of Digested Solid	uCi/g	102.5	<6.26e-02	13.80	14.20	14.00	2.86	103.8	8.83e-01	10.7
S95T001236	F		Lithium -ICP-Fusion	ug/g	96.47	2.28e-02	84.70	74.83	79.77	12.4	94.90	50.80	n/a
S95T001546	W		Bromide by Ion Chromatograph	ug/g	104.0	<6.32e-01	< 2.28e3	<2.28e3	n/a	n/a	100.8	2.28e+03	n/a
S95T001546	W		Chloride by IC - Dionex 4000i	ug/g	101.9	<8.30e-02	< 2.99e2	<2.99e2	n/a	n/a	103.3	299.0	n/a
S95T001546	W		Fluoride by IC - Dionex 4000i	ug/g	109.0	<6.20e-02	364.0	366.0	365.0	0.55	102.7	223.0	n/a
S95T001546	W		Nitrite by IC - Dionex 4000i	ug/g	106.0	<5.47e-01	3.72e+04	5.25e+04	4.48e+04	34.1	120.2	1.97e+03	n/a
S95T001546	W		Nitrate by IC - Dionex 4000i	ug/g	102.8	<6.99e-01	1.38e+05	1.40e+05	1.39e+05	1.44	99.60	2.52e+03	n/a
S95T001546	W		Oxalate by IC - Dionex 4000i	ug/g	97.42	<4.96e-01	< 1.79e3	<1.79e3	n/a	n/a	99.00	1.79e+03	n/a
S95T001546	W		Phosphate by IC - Dionex 4000i	ug/g	104.9	<5.96e-01	6.72e+03	6.98e+03	6.85e+03	3.80	103.7	2.15e+03	n/a
S95T001546	W		Sulfate by IC - Dionex 4000i	ug/g	104.3	<6.78e-01	1.07e+04	1.05e+04	1.06e+04	1.89	103.0	2.44e+03	n/a

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WHC-SD-WM-DP-139, REV. 1

FINAL REPORT FOR TANK
B-101

CORE NUMBER: 91
SEGMENT #: 2

SEGMENT PORTION: Facie

Sample#	R A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001555		% Water by TGA on Perkin Elmer	%	101.0	n/a	18.48	17.56	18.02	5.11	n/a	n/a	n/a
S95T001555		DSC Exotherm on Perkin Elmer	Joules/g	95.25	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S95T001555		DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S95T001556	F	Alpha of Digested Solid	uCi/g	106.4	< 5.22e-03	1.91e-01	1.76e-01	1.83e-01	8.17	93.50	1.37e-02	13.1
S95T001556	F	Lithium -ICP-Fusion	ug/g	104.2	< 6.00e-04	< 52.4659	< 52.3670	n/a	n/a	95.92	52.50	n/a
S95T001557	W	Bromide by Ion Chromatograph	ug/g	100.9	< 6.32e-01	< 2.08e3	< 2.08e3	n/a	n/a	104.3	2.08e+03	n/a
S95T001557	W	Fluoride by IC - Dionex 4000i	ug/g	99.71	< 8.30e-02	< 2.73e2	< 2.73e2	n/a	n/a	114.6	273.0	n/a
S95T001557	W	Nitrate by IC - Dionex 4000i	ug/g	102.1	< 4.47e-01	2.31e+04	1.85e+04	2.08e+04	22.1	108.8	2.86e+03	n/a
S95T001557	W	Nitrite by IC - Dionex 4000i	ug/g	100.4	< 6.99e-01	2.82e+05	3.13e+05	2.98e+05	10.4	96.10	7.25e+03	n/a
S95T001557	W	Oxalate by IC - Dionex 4000i	ug/g	95.22	< 4.96e-01	< 1.63e3	< 1.63e3	n/a	n/a	97.70	1.63e+03	n/a
S95T001557	W	Phosphate by IC - Dionex 4000i	ug/g	103.0	< 5.96e-01	< 3.12e3	< 3.12e3	n/a	n/a	103.4	3.12e+03	n/a
S95T001557	W	Sulfate by IC - Dionex 4000i	ug/g	100.9	< 6.78e-01	1.95e+05	1.95e+05	1.95e+05	0.30	104.3	7.03e+03	n/a
S95T002534		% Water by Gravimetric	%	100.3	n/a	18.90	18.00	18.45	4.88	n/a	1.00e-02	n/a
S95T002534		% Water by TGA on Perkin Elmer	%	100.8	n/a	16.62	13.80	15.21	18.5	n/a	n/a	n/a

U Upper Half of Segment: U Upper Half of Segment

Sample#	R A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001244		% Water by TGA using Mettler	%	101.0	n/a	38.58	48.11	43.34	22.0	n/a	n/a	n/a
S95T001244		DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	5.000	5.000	5.000	0.00	n/a	n/a	n/a
S95T001244		DSC Exotherm using Mettler	Joules/g	112.1	n/a	2.900	2.700	2.800	7.14	n/a	n/a	n/a
S95T001245	F	Alpha of Digested Solid	uCi/g	107.9	< 4.50e-04	< 7.00e-4	< 6.39e-4	n/a	n/a	61.60	7.71e-04	141.3
S95T001245	F	Lithium -ICP-Fusion	ug/g	103.1	1.50e-03	104.5	110.4	107.4	5.48	84.55	44.80	n/a
S95T001549	W	Bromide by Ion Chromatograph	ug/g	101.4	< 6.32e-01	< 2.19e3	< 2.19e3	302.0	n/a	102.0	2.19e+03	n/a
S95T001549	W	Fluoride by IC - Dionex 4000i	ug/g	100.5	< 8.30e-02	305.0	299.0	n/a	1.99	102.7	287.0	n/a
S95T001549	W	Nitrate by IC - Dionex 4000i	ug/g	107.6	< 6.20e-02	< 2.15e2	< 2.15e2	n/a	n/a	116.2	215.0	n/a
S95T001549	W	Nitrite by IC - Dionex 4000i	ug/g	101.5	< 5.47e-01	7.75e+04	6.73e+04	7.24e+04	14.1	45.30	1.89e+03	n/a
S95T001549	W	Oxalate by IC - Dionex 4000i	ug/g	101.8	< 6.99e-01	1.74e+05	1.54e+05	1.64e+05	12.2	-1.33e+01	2.42e+03	n/a
S95T001549	W	Phosphate by IC - Dionex 4000i	ug/g	95.20	< 4.96e-01	< 1.72e3	< 1.72e3	n/a	n/a	98.50	1.72e+03	n/a
S95T001549	W	Sulfate by IC - Dionex 4000i	ug/g	106.2	< 5.96e-01	1.50e+04	9.74e+03	1.24e+04	42.5	97.40	2.06e+03	n/a
S95T001549	W	% Water by Gravimetric	%	101.9	< 6.78e-01	1.20e+04	1.17e+04	1.18e+04	2.53	96.20	2.35e+03	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%
S95T001241		% Water by TGA using Mettler	%	96.18	n/a	29.27	9.200	19.23	104	n/a	n/a	n/a
S95T001241		DSC Exotherm Dry Calculated	Joules/g Dry	95.31	n/a	26.79	25.55	26.17	4.74	n/a	n/a	n/a
S95T001241		DSC Exotherm using Mettler	Joules/g	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001337	F	Alpha of Digested Solid	uCi/g	109.0	< 3.23e-01	< 5.27e-1	3.63e-01	n/a	n/a	108.1	5.86e-01	500
S95T001337	F	Lithium -ICP-Fusion	ug/g	99.68	4.60e-03	< 43.0441	< 45.7875	n/a	n/a	93.00	43.00	n/a
S95T001547		% Water by Gravimetric	%	100.9	n/a	28.44	28.03	28.23	1.45	n/a	1.00e-02	n/a

Drainable Liquid: Drainable Liquid

Sample#	R	A#	Analyte	Unit	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001247			% Water by TGA on Perkin Elmer	%	97.02	n/a	50.07	50.86	50.47	1.57	n/a	n/a	n/a
S95T001247			DSC Exotherm Dry Calculated	Joules/g Dry	n/a	n/a	6.000	6.000	6.000	0.00	n/a	n/a	n/a
S95T001247			DSC Exotherm using Mettler	Joules/g	101.2	n/a	3.100	3.200	3.150	3.17	n/a	n/a	n/a
S95T001248	D		Lithium-ICP-Acid Dil.	ug/mL	97.67	1.30e-03	135.0	135.4	135.2	0.22	93.00	1.00e-02	n/a
S95T001550			Sulfate by IC - Dionex 4000i	ug/mL	101.9	<6.78e-01	2.12e+04	2.12e+04	2.12e+04	0.00	117.6	1.44e+03	n/a
S95T001550			Phosphate by IC - Dionex 4000i	ug/mL	101.6	<5.96e-01	4.73e+03	4.88e+03	4.80e+03	3.12	106.0	1.26e+03	n/a
S95T001550			Oxalate by IC - Dionex 4000i	ug/mL	97.64	<4.96e-01	< 1.05e3	<1.05e3	n/a	n/a	100.0	1.05e+03	n/a
S95T001550			Nitrate by IC - Dionex 4000i	ug/mL	102.7	<6.99e-01	3.37e+05	3.36e+05	3.36e+05	0.30	99.20	7.13e+03	n/a
S95T001550			Nitrite by IC - Dionex 4000i	ug/mL	108.0	<5.47e-01	1.31e+05	1.32e+05	1.32e+05	0.76	103.2	5.58e+03	n/a
S95T001550			Fluoride by IC - Dionex 4000i	ug/mL	108.8	<6.20e-02	261.0	245.0	253.0	6.32	66.50	132.0	n/a
S95T001550			Chloride by IC - Dionex 4000i	ug/mL	100.9	<8.30e-02	580.0	602.0	591.0	3.72	106.4	176.0	n/a
S95T001550			Bromide by Ion Chromatograph	ug/mL	102.3	<6.32e-01	1.74e+03	1.77e+03	1.76e+03	1.71	79.60	1.34e+03	n/a

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WHC-SD-WM-DP-139, REV. 1

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WHC-SD-WM-DP-139, REV. 1

CHAIN OF CUSTODY FORMS

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SP-95-027

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

(1) Shipment Number 7000-08-IF-786-20-95 (2) Sample Number 95-099 (3) Supervisor Hartley
 (4) Tank 241 B-101 (5) Riser 2 (6) Segment 1 (7) Core 90 (8) Cask Serial Number C-2002

Radiation Survey Data:		(9) FIELD	(33) LABORATORY	(10) Shipment Description
Over Top Dose Rate	<u>40.5 mR/hr</u>	<u>1.5 mR/hr</u>		A. Work Package Number <u>ES-95-00312</u>
Side Dose Rate	<u>1.5 mR/hr</u>	<u>100 mR/hr</u>		B. Cask Seal Number <u>2752</u>
Bottom Dose Rate	<u>25 mR/hr</u>	<u>15 mR/hr</u>		C. Sampler Serial Number <u>95-017</u>
Smearable Contamination	<u>220 ^{MB}</u>	<u>220</u>		D. Date and Time Sampler Unseated <u>6-19-95 20:15</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>2.7 R/hr</u>
RCT* (HPT)	<u>[Signature]</u>	RCT* (HPT)	<u>[Signature]</u>	H. Expected Sample Length <u>19"</u>

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

(12) Field Comments

Hydrostatic HEAD fluid added

(34) Laboratory Comments

(13) Point of Origin <u>241-B-101</u>	(14) Destination <u>2225 Lab.</u>	(15) Sender Name (Sign and PRINT) <u>D. Hartley D. Hartley</u>	(16) Date/Time <u>6-21-95 0802</u>	(17) Sender Comments
(19) Relinquished By (Sign and PRINT) <u>D. Hartley D. Hartley</u>	(20) Received By (Sign and PRINT) <u>C.S. Parker C.S. Parker</u>	(21) Date/Time <u>6-21-95 0803</u>	(22) Receiver Comments	
(23) Relinquished By (Sign and PRINT) <u>C.S. Parker C.S. Parker</u>	(24) Received By (Sign and PRINT) <u>N. LAPIERS N. LAPIERS</u>	(25) Date/Time <u>6-21-95 0950</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

DISTRIBUTION: White - Office of Sample Management Yellow - Recipient of Sample Pink - Core Sampling, S6-85 Goldenrod - Tank Farm Operations, S4-43

BC-6000-309 (02/84)

WHC-SD-WM-DP-157 REV 1

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

(1) Shipment Number SP-95-027 (2) Sample Number 95-100 (3) Supervisor Marthey (8) Cask Serial Number C-2001
 (4) Tank 241-B-101 (5) Riser 2 (6) Segment 2 (7) Core 90

Radiation Survey Data:		(9) FIELD		(10) Shipment Description	
Over Top Dose Rate		<u><0.5</u>	(Alpha)	A. Work Package Number	<u>ES-95-00212</u>
Side Dose Rate		<u>0.5</u>	(Alpha)	B. Cask Seal Number	<u>2759</u>
Bottom Dose Rate		<u>8 mR/hr</u>	(Alpha)	C. Sampler Serial Number	<u>95-019</u>
Smearable Contamination		<u><20 dpm</u>	(Alpha)	D. Date and Time Sampler Unseated	<u>6-19-95 21:30</u>
		<u><1K dpm</u>	(Alpha)	E. Expected Liquid Content	<u>30</u>
		<u>21K</u>	(Beta-Gamma)	F. Expected Solid Content	<u>70</u>
RCT* (HPT)	<u>Dr. Bultner</u>	RCT* (HPT)	<u>[Signature]</u>	G. Dose Rate Through Drill String	<u>1.2 R/hr</u>
				H. Expected Sample Length	<u>19" (12")</u>

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

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(12) Field Comments

* Bottom detector alarm went off at 12"
 12" sample
 Hydrostatic head fluid added

(13) Laboratory Comments

WHC-SD-WM-DP-139, REV. 1

(13) Point of Origin	(14) Destination	(15) Sender Name (Sign and PRINT)	(16) Date/Time	(17) Sender Comments
241-B-101	2225 Lab.	Dr. Marthey, DC Marthey	6-21-95 08:09	
(19) Relinquished By (Sign and PRINT)		(20) Received By (Sign and PRINT)	(21) Date/Time	(22) Receiver Comments
Dr. Marthey, DC Marthey		C.S. Parker	6-21-95 08:50	
(23) Relinquished By (Sign and PRINT)		(24) Received By (Sign and PRINT)	(25) Date/Time	(26) Receiver Comments
C.S. Parker		Marthey, N.L. APIERS	6-21-95 09:50	
(27) Relinquished By (Sign and PRINT)		(28) Received By (Sign and PRINT)	(29) Date/Time	(30) Receiver Comments

(32) Seal Data Consistent with this Record?

(18) Seal Intact Upon Release?	(31) Seal Intact Upon Receipt?	Shipment No.	Cask Seal No.	Sample No.
☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

(1) Shipment Number SP-95-028 (2) Sample Number 95-101 (3) Supervisor Hartley
 (4) Tank 241-B-101 (5) Riser #7 (6) Segment 1 (7) Core 091 (8) Cask Serial Number C1034

Radiation Survey Data:		(9) FIELD	(33) LABORATORY	(10) Shipment Description
Over Top Dose Rate	<u>60.5 mR/hr</u>	<u>10.5 mR/hr</u>	A. Work Package Number	<u>ES-95-00212</u>
Side Dose Rate	<u>60 mR/hr</u>	<u>60 mR/hr</u>	B. Cask Seal Number	<u>2765</u>
Bottom Dose Rate	<u>10 mR/hr</u>	<u>10 mR/hr</u>	C. Sampler Serial Number	<u>94-243</u>
Smearable Contamination	<u>L20</u>	<u>L20</u>	D. Date and Time Sampler Unseated	<u>6-23-95 1835</u>
	(Alpha)	(Alpha)	E. Expected Liquid Content	<u>30%</u>
	<u>L1K</u>	<u>21000</u>	F. Expected Solid Content	<u>70%</u>
	(Beta-Gamma)	(Beta-Gamma)	G. Dose Rate Through Drill String	<u>3.5R/hr</u>
RCT* (HPT)	<u>Berni Oehm</u>	RCT* (HPT)	<u>[Signature]</u>	H. Expected Sample Length
	(Signature)		(Signature)	<u>19"</u>

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

17

(12) Field Comments	(34) Laboratory Comments

(13) Point of Origin <u>241-B-101</u>	(14) Destination <u>2225</u>	(15) Sender Name (Sign and PRINT) <u>Hartley, Hartley</u>	(16) Date/Time <u>6/26/95 1050</u>	(17) Sender Comments
(19) Relinquished By (Sign and PRINT) <u>Hartley, Hartley</u>	(20) Received By (Sign and PRINT) <u>C.S. Parker C.S. Parker</u>	(21) Date/Time <u>6/26/95 1050</u>	(22) Receiver Comments	
(23) Relinquished By (Sign and PRINT) <u>Chas. E. [Signature]</u>	(24) Received By (Sign and PRINT) <u>N. Lapiers N. LAPIERS</u>	(25) Date/Time <u>6-26-95 1200</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

WHCSD-WM-DP-137, REV. 1

CHAIN OF CUSTODY RECORD FOR CORE SAMPLING

(1) Shipment Number SP-95-028 (2) Sample Number 95-102 (3) Supervisor Kerfley
(4) Tank 841-B-101 (5) Riser 7 (6) Segment 2 (7) Core 691 (8) Cask Serial Number C/055

Radiation Survey Data:		(9) FIELD		(33) LABORATORY		(10) Shipment Description	
Over Top Dose Rate	<u>40.5 m/hr</u>		<u>40.5 m/hr</u>		A. Work Package Number	<u>55-2500 212</u>	
Side Dose Rate	<u>33 m/hr</u>		<u>35 m/hr</u>		B. Cask Seal Number	<u>2760</u>	
Bottom Dose Rate	<u>5 to 6 m/hr</u>		<u>7 m/hr</u>		C. Sampler Serial Number	<u>94-242</u>	
Smearable Contamination	<u>20</u>	(Alpha)	<u>20</u>	(Alpha)	D. Date and Time Sampler Unseated	<u>6-23-95, 2010</u>	
	<u>21K</u>	(Beta-Gamma)	<u>1000</u>	(Beta-Gamma)	E. Expected Liquid Content	<u>30%</u>	
ECT* (HPT)	<u>[Signature]</u>	(Signature)	<u>[Signature]</u>	(Signature)	F. Expected Solid Content	<u>70%</u>	
ECT* (HPT)	<u>[Signature]</u>	(Signature)	<u>[Signature]</u>	(Signature)	G. Dose Rate Through Drill String	<u>1.9 R/hr</u>	
					H. Expected Sample Length	<u>19", 19" actual</u>	

111) INFORMATION (include statement of laboratory tests to be performed.)

WHC-SD-WM-DP-139

(34) Laboratory Comments

12) Field Comments

Possible MTL IN LINER
17" Sample, Bottom Defect or Altered
2.1.2012

(13) Point of Origin 241-B-101	(14) Destination 222S	(15) Sender Name (Sign and PRINT) DeBartney, DeBartney	(16) Date/Time 6/20/95	(17) Sender Comments REV
(18) Relinquished By (Sign and PRINT) DeBartney, DeBartney	(19) Relinquished By (Sign and PRINT) DeBartney, DeBartney	(20) Received By (Sign and PRINT) Chris Parker	(21) Date/Time 6/20/95	(22) Receiver Comments /
(23) Relinquished By (Sign and PRINT) DeBartney, DeBartney	(24) Relinquished By (Sign and PRINT) DeBartney, DeBartney	(25) Received By (Sign and PRINT) M. LAPIERS	(26) Date/Time 6-26-95	(26) Receiver Comments
(27) Relinquished By (Sign and PRINT)	(28) Relinquished By (Sign and PRINT)	(29) Received By (Sign and PRINT)	(29) Date/Time	(30) Receiver Comments
(31) Seal Intact Upon Receipt? ☒ Yes ☐ No		(32) Seal Data Consistent with this Record?		
(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		

Yellow - Recipient of Sample
Pink - Sampling, S6-85
Goldenrod - Tank Farm Operations, S4-43
Black - Sampling, S4-43

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

(1) Shipment Number SP-95-028 (2) Sample Number Blank (3) Supervisor Marthey (8) Cask Serial Number C1045
 (4) Tank 241-B-101 (5) Riser #7 (6) Segment Blank (7) Core 091

Radiation Survey Data:		(9) FIELD		(33) LABORATORY		(10) Shipment Description	
Over Top Dose Rate		<u>LO.5 w/H</u>		<u>LO.5 w/H</u>		A. Work Package Number	<u>ES-95-00212</u>
Side Dose Rate		<u>LO.5 w/H</u>		<u>LO.5 w/H</u>		B. Cask Seal Number	<u>2764</u>
Bottom Dose Rate		<u>LO.5 w/H</u>		<u>LO.5 w/H</u>		C. Sampler Serial Number	<u>94-244</u>
Smearable Contamination		<u>L20</u>		<u>L30</u>		D. Date and Time Sampler Unseated	<u>6-23-95, 2000</u>
		<u>L1K</u>		<u>2000</u>		E. Expected Liquid Content	<u>Sample intact</u>
RCF* (HPT)	<u>Kim O'Brien</u>	(Beta-Gamma)	RCF* (HPT)	<u>[Signature]</u>	(Alpha)	F. Expected Solid Content	<u>Blank</u>
		(Signature)				G. Dose Rate Through Drill String	<u>1914</u>
						H. Expected Sample Length	

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

19

WHC-SD-WM-DP-139, REV. 1

(12) Field Comments		(34) Laboratory Comments	
<p>THANK YOU FOR BLANK SAMPLE</p>			

(13) Point of Origin	(14) Destination	(15) Sender Name (Sign and PRINT)	(16) Date/Time	(17) Sender Comments
<u>241-B-101</u>	<u>222S</u>	<u>Kim O'Brien</u>	<u>6/20/95</u>	
(19) Relinquished By (Sign and PRINT)		(20) Received By (Sign and PRINT)	(21) Date/Time	(22) Receiver Comments
<u>Kim O'Brien</u>		<u>C. S. Parker</u>	<u>6/20/95</u>	
(23) Relinquished By (Sign and PRINT)		(24) Received By (Sign and PRINT)	(25) Date/Time	(26) Receiver Comments
<u>David Keane</u>		<u>N. LAPIERS</u>	<u>6-20-95</u>	
(27) Relinquished By (Sign and PRINT)		(28) Received By (Sign and PRINT)	(29) Date/Time	(30) Receiver Comments

(31) Seal Intact Upon Receipt?	(32) Seal Data Consistent with this Record?
☒ Yes ☐ No	☒ Yes ☐ No

Shipment No. ☒ Yes ☐ No Cask Seal No. ☒ Yes ☐ No Sample No. ☒ Yes ☐ No

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WHC-SD-WM-DP-139, REV. 1

PHOTOGRAPHS

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2-101 Core 90 Segment #L

06-23-85

WHC-SD-WM-DP-139, REV. 1

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001 Core 90 Segment #2

0603-95

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101 Core 90 Segment #2

06-28-95

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B-101 Core 91 Segment #1

06-24-95

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6 3/95

B-101 Core 91 Segment #2

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06-28-95

Ball core 1 Field blank

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WHC-SD-WM-DP-139, REV. 1

SAMPLE HANDLING

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LABCORE Data Entry Template for Worklist#

1687

Analyst:

SC

Instrument: BA000

Book #

N/A

Method: LO-160-103 Rev/Mod

A-7

Worklist Comment: B-101 C90 Seg #1 Riser 2 Extrusion

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 INSTCHK01			EXTRUD01	SOLID	20g	19.99	N/A	
		2 INSTCHK02			EXTRUD01	SOLID	500g	499.99	N/A	
95000091	B-101	3 SAMPLE	S95T001175	0	DL1QVOL1	SOLID	N/A	0		mL
95000091	B-101	4 SAMPLE	S95T001175	0	DL1QWT01	SOLID	N/A	0		g
95000091	B-101	5 SAMPLE	S95T001175	0	EST.G/ML	SOLID	N/A	0		g/mL
95000091	B-101	6 SAMPLE	S95T001175	0	EXTRUD01	SOLID	N/A	complete		
95000091	B-101	7 SAMPLE	S95T001175	0	LL1QWT01	SOLID	N/A	<5		g
95000091	B-101	8 SAMPLE	S95T001175	0	NOTEBOOK	SOLID	N/A	N-1182		
95000091	B-101	9 SAMPLE	S95T001175	0	SLDVOL01	SOLID	N/A	220		mL
95000091	B-101	10 SAMPLE	S95T001175	0	SLDWT-01	SOLID	N/A	388.3		g
95000091	B-101	11 SAMPLE	S95T001175	0	ORGVOL01	SOLID	N/A	0		mL

Final page for worklist #

1687

Analyst Signature

Date

6-26-95

Analyst Signature

Date

6-26-95

Received by Attn: B. Day 6-27-95

Data Entry Comments:

LABCORE Data Entry Template for Worklist#

1688

Analyst: EC

Instrument: BA000

Book # N/A

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

Worklist Comment: B-101 C90 Seg #2 Riser 2 Extrusion

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 INSTCHK01			EXTRUD01	SOLID	<u>20</u>	<u>20.00</u>	<u>N/A</u>	
		2 INSTCHK02			EXTRUD01	SOLID	<u>500</u>	<u>499.98</u>	<u>N/A</u>	
95000091	B-101	3 SAMPLE	S95T001176	0	DLIQVOL1	SOLID	<u>N/A</u>	<u>50</u>		ml
95000091	B-101	4 SAMPLE	S95T001176	0	DLIQWT01	SOLID	<u>N/A</u>	<u>74.2</u>		g
95000091	B-101	5 SAMPLE	S95T001176	0	EST.G/ML	SOLID	<u>N/A</u>	<u>1.5</u>		g/mL
95000091	B-101	6 SAMPLE	S95T001176	0	EXTRUD01	SOLID	<u>N/A</u>	<u>complete</u>		
95000091	B-101	7 SAMPLE	S95T001176	0	LLIQWT01	SOLID	<u>N/A</u>	<u><5</u>		g
95000091	B-101	8 SAMPLE	S95T001176	0	NOTEBOOK	SOLID	<u>N/A</u>	<u>N-1182</u>		
95000091	B-101	9 SAMPLE	S95T001176	0	SLDVOL01	SOLID	<u>N/A</u>	<u>60</u> <u>194.8</u>		ml
95000091	B-101	10 SAMPLE	S95T001176	0	SLDWT-01	SOLID	<u>N/A</u>	<u>194.8</u>		g
95000091	B-101	11 SAMPLE	S95T001176	0	ORGVOL01	SOLID	<u>N/A</u>	<u>0</u>		ml

Final page for worklist #

1688

EC 6-26-95
Analyst Signature Date

EC 6-26-95
Analyst Signature Date

reviewed by ATL/BB 6-22-95

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.

LABCORE Data Entry Template for Worklist#

1710

Analyst: CC

Instrument: BA000

Book # NA

Method: LO-160-103 Rev/Mod A7

Worklist Comment: B-101 C91 Segment #2 Riser 7 Extrusion

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 INSTCHK01			EXTRUD01	SOLID	<u>20g</u>	<u>19.99</u>	<u>N/A</u>	
		2 INSTCHK02			EXTRUD01	SOLID	<u>500g</u>	<u>499.99</u>	<u>N/A</u>	
95000093	B-101	3 SAMPLE	S95T001190	0	DLI&VOL1	SOLID	<u>N/A</u>	<u>-30</u>		ml
95000093	B-101	4 SAMPLE	S95T001190	0	DLI&WT01	SOLID	<u>N/A</u>	<u>47.1</u>		g
95000093	B-101	5 SAMPLE	S95T001190	0	EST.G/ML	SOLID	<u>N/A</u>	<u>1.5</u>		g/ml
95000093	B-101	6 SAMPLE	S95T001190	0	EXTRUD01	SOLID	<u>N/A</u>	<u>complete</u>		
95000093	B-101	7 SAMPLE	S95T001190	0	NOTEBOOK	SOLID	<u>N/A</u>	<u>N-1182</u>		
95000093	B-101	8 SAMPLE	S95T001190	0	SLDVOL01	SOLID	<u>N/A</u>	<u>140</u>		ml
95000093	B-101	9 SAMPLE	S95T001190	0	SLDWT-01	SOLID	<u>N/A</u>	<u>271.1</u>		g
95000093	B-101	10 SAMPLE	S95T001190	0	ORGVOL01	SOLID	<u>N/A</u>	<u>0</u>		ml

Final page for worklist #

1710

CC 6-29-95
Analyst Signature Date

CC 6-29-95
Analyst Signature Date

Reviewed by ATG 6-29-95

Data Entry Comments:

LABCORE Data Entry Template for Worklist#

1709

Analyst: EC Instrument: BA000 Book # NA

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

Worklist Comment: B-101 C91 Segment #1 Riser 7 Extrusion

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	INSTCHK01				EXTRUD01	SOLID	<u>20g</u>	<u>20g</u>	<u>N/A</u>	
		2	INSTCHK02				EXTRUD01	SOLID	<u>500g</u>	<u>499.77g</u>	<u>N/A</u>	
95000093	B-101	3	SAMPLE	S95T001189	0		DLIQVOL1	SOLID	<u>N/A</u>	<u>0</u>		mL
95000093	B-101	4	SAMPLE	S95T001189	0		DLIQT01	SOLID	<u>N/A</u>	<u>0</u>		g
95000093	B-101	5	SAMPLE	S95T001189	0		EST.G/ML	SOLID	<u>N/A</u>	<u>0</u>		g/mL
95000093	B-101	6	SAMPLE	S95T001189	0		EXTRUD01	SOLID	<u>N/A</u>	<u>complete</u>		
95000093	B-101	7	SAMPLE	S95T001189	0		NOTEBOOK	SOLID	<u>N/A</u>	<u>N-1182</u>		
95000093	B-101	8	SAMPLE	S95T001189	0		SLDVOL01	SOLID	<u>N/A</u>	<u>230</u>		mL
95000093	B-101	9	SAMPLE	S95T001189	0		SLDWT-01	SOLID	<u>N/A</u>	<u>393.7</u>		g
95000093	B-101	10	SAMPLE	S95T001189	0		ORGVOL01	SOLID	<u>N/A</u>	<u>393.6</u>	<u>was 6/29/95</u>	mL

Final page for worklist #

1709

EC 6-29-95
Analyst Signature Date

EC 6-29-95
Analyst Signature Date

Reviewed by ATC B. Ry 6-29-95

Data Entry Comments:

LABCORE Data Entry Template for Worklist#

1711

Analyst: EC Instrument: BA000 Book # NA

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

Worklist Comment: B-101 C91 Field Blank Riser 7 Extrusion

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 INSTCHK01			EXTRUD01	SOLID	<u>20g</u>	<u>19.99</u>	<u>N/A</u>	
		2 INSTCHK02			EXTRUD01	SOLID	<u>500g</u>	<u>499.99</u>	<u>N/A</u>	
95000093	B-101	3 SAMPLE	S95T001191	0	DLIQVOL1	LIQUID	<u>N/A</u>	<u>270</u>		ml
95000093	B-101	4 SAMPLE	S95T001191	0	DLIQWT01	LIQUID	<u>N/A</u>	<u>270.6</u>		g
95000093	B-101	5 SAMPLE	S95T001191	0	EST.G/ML	LIQUID	<u>N/A</u>	<u>1</u>		g/mL
95000093	B-101	6 SAMPLE	S95T001191	0	EXTRUD01	LIQUID	<u>N/A</u>	<u>complete</u>		
95000093	B-101	7 SAMPLE	S95T001191	0	NOTEBOOK	LIQUID	<u>N/A</u>	<u>N-1182</u>		
95000093	B-101	8 SAMPLE	S95T001191	0	SLDVOL01	LIQUID	<u>N/A</u>	<u>0</u>		ml
95000093	B-101	9 SAMPLE	S95T001191	0	SLDWT-01	LIQUID	<u>N/A</u>	<u>0</u>		g
95000093	B-101	10 SAMPLE	S95T001191	0	ORGVOL01	LIQUID	<u>N/A</u>	<u>0</u>		ml

Final page for worklist #

1711

SALT 6-29-95
Analyst Signature Date

SALT 6-29-95
Analyst Signature Date

reviewed by John B. Bay 6-29-95

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.

LABCORE Data Entry Template for Worklist#

1767

Analyst: ABC Instrument: BA000 Book # _____

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

Worklist Comment: B-101 Core 90 Seg 1 Homogenization

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 INSTCHK01			EXTRUD01	SOLID	<u>20</u>	<u>19.98</u>	N/A	
		2 INSTCHK02			EXTRUD01	SOLID	<u>500</u>	<u>499.85</u>	N/A	
9500091	B-101	3 SAMPLE	S95T001198	0	<u>7344</u> HOMGNZ01	SOLID	N/A	<u>Complete</u>		
9500091	B-101	4 SAMPLE	S95T001214	0	<u>7133</u> SUBSMPL1	SOLID	N/A	<u>3.0 g</u>		g
9500091	B-101	5 SAMPLE	S95T001216	0	<u>X7405</u> ARCHIV01	SOLID	N/A	<u>65.8 g</u>		g
9500091	B-101	6 SAMPLE	S95T001199	0	<u>7134</u> HOMGNZ01	SOLID	N/A	<u>Complete</u>		
9500091	B-101	7 SAMPLE	S95T001217	0	<u>7134</u> SUBSMPL1	SOLID	N/A	<u>3.6 g</u>		g
9500091	B-101	8 SAMPLE	S95T001219	0	<u>X7406</u> ARCHIV01	SOLID	N/A	<u>60.9</u>		g
9500091	B-101	9 SAMPLE	S95T001200	0	<u>7075</u> HOMGNZ01	SOLID	N/A	<u>Complete</u>		
9500091	B-101	10 SAMPLE	S95T001220	0	<u>7135</u> SUBSMPL1	SOLID	N/A	<u>3.9 g</u>		g
9500091	B-101	11 SAMPLE	S95T001222	0	<u>X7407</u> ARCHIV01	SOLID	N/A	<u>57.2 g</u>		g

Final page for worklist #

1767

Alan B Campbell 7/12/95
Analyst Signature Date

Alan B Campbell 7/12/95
Analyst Signature Date

Data Entry Comments:

Reviewed by PR Full 7/12/95

LABCORE Data Entry Template for Worklist#

1770

Analyst: EC Instrument: BA000 Book # NA

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

Worklist Comment: B-101 C90 S2 Homogenization

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 INSTCHK01			EXTRUD01	SOLID	<u>20</u>	<u>19.98</u>	<u>N/A</u>	
		2 INSTCHK02			EXTRUD01	SOLID	<u>500</u>	<u>499.78</u>	<u>N/A</u>	
95000091	B-101	3 SAMPLE	S95T001223	0	SUBSMPL1	LIQUID	<u>N/A</u>	<u>3.3</u>		ml
95000091	B-101	4 SAMPLE	S95T001225	0 X	ARCHIV01	LIQUID	<u>N/A</u>	<u>56.4</u>		g
95000091	B-101	5 SAMPLE	S95T001203	0	HOMGNZ01	SOLID	<u>N/A</u>	<u>complete</u>		
95000091	B-101	6 SAMPLE	S95T001229	0	SUBSMPL1	SOLID	<u>N/A</u>	<u>3.1</u>		g
95000091	B-101	7 SAMPLE	S95T001231	0 X	ARCHIV01	SOLID	<u>N/A</u>	<u>83.9</u>		g

Final page for worklist #

1770

EC 7-11-95
Analyst Signature Date

EC 7-11-95
Analyst Signature Date

Data Entry Comments:

Revised by R.H. Fuller 7/12/95

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#

1829

Analyst: ABC Instrument: BA000 Book # _____

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

Worklist Comment: * B-101 Core 91 Seg 1 Homogenization

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>499.86</u>	<u>N/A</u>	
95000093	B-101	3 SAMPLE	S95T001208	0	<u>7345</u> HOMGNZ01	SOLID	<u>N/A</u>	<u>Complete</u>		
95000093	B-101	4 SAMPLE	S95T001238	0	<u>7272</u> SUBSMPL1	SOLID	<u>N/A</u>	<u>3.3</u>		g
95000093	B-101	5 SAMPLE	S95T001240	0	<u>x7414</u> ARCHIVO1	SOLID	<u>N/A</u>	<u>72.5</u>		g
95000093	B-101	6 SAMPLE	S95T001207	0	<u>7080</u> HOMGNZ01	SOLID	<u>N/A</u>	<u>Complete</u>		
95000093	B-101	7 SAMPLE	S95T001235	0	<u>7271</u> SUBSMPL1	SOLID	<u>N/A</u>	<u>3.3</u>		g
95000093	B-101	8 SAMPLE	S95T001237	0	<u>x7413</u> ARCHIVO1	SOLID	<u>N/A</u>	<u>66.0</u>		g

Final page for worklist #

1829

Alan B Campbell 7/14/95
Analyst Signature Date

Alan B Campbell 7/14/95
Analyst Signature Date

Reviewed by RK Fuller 7/14/95

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.

LABCORE Data Entry Template for Worklist#

1772

Analyst: ABC Instrument: BA000 Book # _____

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

Worklist Comment: B-101 C91 S2 homogenization

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>499.85</u>	<u>N/A</u>	
95000093	B-101	3 SAMPLE	S95T001247	0	SUBSMPL1	LIQUID	<u>N/A</u>	<u>6.3g</u>		ml
95000093	B-101	4 SAMPLE	S95T001249	0 X	ARCHIVO1	LIQUID	<u>N/A</u>	<u>38.2</u>		g
95000093	B-101	5 SAMPLE	S95T001212	0	HOMGNZ01	SOLID	<u>N/A</u>	<u>Complete</u>		
95000093	B-101	6 SAMPLE	S95T001241	0	SUBSMPL1	SOLID	<u>N/A</u>	<u>3.3g</u>		g
95000093	B-101	7 SAMPLE	S95T001243	0 X	ARCHIVO1	SOLID	<u>N/A</u>	<u>33.6g</u>		g
95000093	B-101	8 SAMPLE	S95T001213	0	HOMGNZ01	SOLID	<u>N/A</u>	<u>Complete</u>		
95000093	B-101	9 SAMPLE	S95T001244	0	SUBSMPL1	SOLID	<u>N/A</u>	<u>4.3g</u>		g
95000093	B-101	10 SAMPLE	S95T001246	0 X	ARCHIVO1	SOLID	<u>N/A</u>	<u>64.0g</u>		g

Final page for worklist #

1772

Alan B Campbell 7/11/95
Analyst Signature Date

Alan B Campbell 7/11/95
Analyst Signature Date

Data Entry Comments:

Reviewed by R.H. Fuller 7/12/95

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#

1771

Analyst: AR Instrument: BA000 Book # _____

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

Worklist Comment: B-101 C91 Field Blank DL Subsampling

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>499.86</u>	<u>N/A</u>	
<u>000093</u>	<u>B-101</u>	3 SAMPLE	<u>S95T001232</u>	<u>0 7401</u> SUBSMPL1	LIQUID	<u>N/A</u>	<u>41.7g</u>		<u>mL</u>
<u>000093</u>	<u>B-101</u>	4 SAMPLE	<u>S95T001234</u>	<u>0 x7402</u> ARCHIV01	LIQUID	<u>N/A</u>	<u>40.3g</u>		<u>g</u>

Final page for worklist # 1771

Alan B Campbell 7/12/95
Analyst Signature Date

Alan B Campbell 7/12/95
Analyst Signature Date

Data Entry Comments:

Reviewed by RK Fuller 7/12/95

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-139, REV. 1

SAMPLE PREPARATIONS

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LABCORE Data Entry Template for Worklist#

1793

Analyst:

Y. Murphy

Instrument:

FUS01 AL11066

Book #

N/A

Method: LA-549-141 Rev/Mod

D-0

Worklist Comment: B-101 FUSION - 1214->1215, 1217->1218

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK-PREP				FUSION01	SOLID	<u>250ml</u>		N/A	g/L
95000091	B-101	2	SAMPLE	S95T001215	0	F	FUSION01	SOLID	N/A	<u>2.2016</u>		g/L
				<u>.5504g -> 250ml</u>								
95000091	B-101	3	SAMPLE	S95T001215	0		DOSE-02	SOLID	N/A	<u>400</u>		mrad/hour
95000091	B-101	4	DUP	S95T001215	0	F	FUSION01	SOLID	<u>2.2016</u>	<u>2.1608</u>	N/A	g/L
				<u>.5402g -> 250ml</u>								
95000091	B-101	5	DUP	S95T001215	0		DOSE-02	SOLID		<u>400</u>	N/A	mrad/hour
95000091	B-101	6	SAMPLE	S95T001218	0	F	FUSION01	SOLID	N/A	<u>2.1284</u>		g/L
				<u>.5321g -> 250ml</u>								
95000091	B-101	7	SAMPLE	S95T001218	0		DOSE-02	SOLID	N/A	<u>400</u>		mrad/hour
95000091	B-101	8	DUP	S95T001218	0	F	FUSION01	SOLID	<u>2.1284</u>	<u>2.1432</u>	N/A	g/L
				<u>.5358g -> 250ml</u>								
0000091	B-101	9	DUP	S95T001218	0		DOSE-02	SOLID		<u>400</u>	N/A	mrad/hour

Final page for worklist #

1793

Analyst Signature

Date

Analyst Signature

Date

Data Entry Comments:

Blank - 20ml HCl, 20ml HNO₃ Sample 1215 - <1% solids, 20ml HCl, 35ml HNO₃
Dup 1215 - <1% solids, 20ml HCl, 45ml HNO₃ Sample 1218 - <1% solids, 20ml HCl
ml HNO₃ Dup 1218 - <1% solids, 20ml HCl, 35ml HNO₃ HPT. w/ Charles
Cooper.

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.

Bernard Buff II 39 7-24-95

LABCORE Data Entry Template for Worklist#

1794

Analyst: bg

Instrument: FUS01

Book #

111066

N/A

Method: LA-549-141 Rev/Mod

0-0

Worklist Comment: B-101 FUSION - 1220->1221

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			FUSION01	SOLID	250ml		N/A	g/L
95000091	B-101	2 SAMPLE	S95T001221 0 F		FUSION01	SOLID	N/A	2.2312		g/L
		.5578g → 250ml								
95000091	B-101	3 SAMPLE	S95T001221 0		DOSE-02	SOLID	N/A	30		mrad/hour
95000091	B-101	4 DUP	S95T001221 0 F		FUSION01	SOLID	2.2312	2.2116	N/A	g/L
		.5529g → 250ml								
95000091	B-101	5 DUP	S95T001221 0		DOSE-02	SOLID		35	N/A	mrad/hour

Final page for worklist #

1794

Analyst Signature

Date

Analyst Signature

Date

Data Entry Comments:

Blank - 20ml HCl, 20ml HNO₃, <1% solids. Sample - 20ml HCl, 20ml HNO₃, <1% solids. Dup - 20ml HCl, 20ml HNO₃, <1% solids. HPT was SCOT Corballe. Bernard Griffin II 7-25-95

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#

1795

Analyst:

[Signature]

Instrument:

FUS01 *AUS066*

Book #

N/A

Method: LA-549-141 Rev/Mod

0-0

Worklist Comment: B-101 FUSION - 1229->1230, 1235->1236

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			FUSION01	SOLID	<i>250ml</i>		N/A	g/L
95000091	B-101	2 SAMPLE <i>.5180g → 250ml</i>	S95T001230	0 F	FUSION01	SOLID	N/A	<i>2.0720</i>		g/L
95000091	B-101	3 SAMPLE	S95T001230	0	DOSE-02	SOLID	N/A	<i>15</i>		mrad/hour
95000091	B-101	4 DUP <i>.5285g → 250ml</i>	S95T001230	0 F	FUSION01	SOLID	<i>2.0720</i>	<i>2.1140</i>	N/A	g/L
95000091	B-101	5 DUP	S95T001230	0	DOSE-02	SOLID		<i>15</i>	N/A	mrad/hour
95000093	B-101	6 SAMPLE <i>.4917g → 250ml</i>	S95T001236	0 F	FUSION01	SOLID	N/A	<i>1.9668</i>		g/L
95000093	B-101	7 SAMPLE	S95T001236	0	DOSE-02	SOLID	N/A	<i>250</i>		mrad/hour
95000093	B-101	8 DUP <i>.4809g → 250ml</i>	S95T001236	0 F	FUSION01	SOLID	<i>1.9668</i>	<i>1.9220</i>	N/A	g/L
5000093	B-101	9 DUP	S95T001236	0	DOSE-02	SOLID		<i>250</i>	N/A	mrad/hour

Final page for worklist #

1795

Analyst Signature

Date

Analyst Signature

Date

Data Entry Comments:

Blank - 20ml HCl, 20ml HNO₃, <190 solids. Sampled dup 1230. 20ml HCl, 20ml HNO₃, <190 solids. Sampled dup 1236. 20ml HCl, 35ml HNO₃, <190 solids. HPT was Scot Corbaley.

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.

41

Berthine Giffen II

7-27-95

LABCORE Data Entry Template for Worklist#

1811

Analyst: EAL Instrument: FUS01 AL11066 Book # N/A

Method: LA-549-141 Rey/Mod D-0

Worklist Comment: B-101 FUSION - 1244->1245

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			FUSION01	SOLID		250ml	N/A	g/L
95000093	B-101	2 SAMPLE	S95T001245	0 F	FUSION01	SOLID	N/A	2.2312		g/L
			5578					250ml		
95000093	B-101	3 SAMPLE	S95T001245	0	DOSE-02	SOLID	N/A	50		mrads
								2.2312		mrads
95000093	B-101	4 DUP	S95T001245	0 F	FUSION01	SOLID	2.2312	2.1956	N/A	g/L
			5489					250ml		
95000093	B-101	5 DUP	S95T001245	0	DOSE-02	SOLID		25	N/A	mrads

Final page for worklist #

1811

Analyst Signature

Date

Analyst Signature

Date

Data Entry Comments:

HPT was Bill Bishop. Scale calibrated 150.000/g
Sample # S95T001245 & Dup 10ml HCL; 15 ml Con HNO₃.
1245 & Dup are clean looking & clear. EAL 07/16/95

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.

1245 = DOSE = 50 mrad/hr contact
Duplicate = DOSE = 25 mrad/hr contact
42 7-17-95

Bertrand Bishop II
7-17-95

LABCORE Data Entry Template for Worklist#

1931

Analyst: EAL Instrument: FUS01 AL11066 Book # N/A

Method: LA-549-141 Rev/Mod D-0

Worklist Comment: Run in duplicate, B-101 Fusion, 1238 → 1336, 1241 → 1337

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			FUSION01	SOLID	<u>250</u>	<u>250</u>	<u>N/A</u>	g/L
95000093	B-101	2 SAMPLE	S95T001336	0 F	FUSION01	SOLID	<u>N/A</u>	<u>1.8040g/L</u>		g/L
			<u>4510g → 250</u>							
95000093	B-101	3 SAMPLE	S95T001336	0	DOSE-02	SOLID	<u>N/A</u>	<u>1500m/rad</u>		mrads/hour
95000093	B-101	4 DUP	S95T001336	0 F	FUSION01	SOLID	<u>1.8040g/L</u>	<u>1.8160g/L</u>	<u>N/A</u>	g/L
			<u>4540g → 250</u>							
95000093	B-101	5 DUP	S95T001336	0	DOSE-02	SOLID		<u>1500m/rad</u>	<u>N/A</u>	mrads/hour
95000093	B-101	6 SAMPLE	S95T001337	0 F	FUSION01	SOLID	<u>N/A</u>	<u>2.3232g/L</u>		g/L
			<u>5808g → 250</u>							
95000093	B-101	7 SAMPLE	S95T001337	0	DOSE-02	SOLID	<u>N/A</u>	<u>250m/rad</u>		mrads/hour
95000093	B-101	8 DUP	S95T001337	0 F	FUSION01	SOLID	<u>2.3232g/L</u>	<u>2.1840g/L</u>	<u>N/A</u>	g/L
			<u>5460 → 250</u>							
95000093	B-101	9 DUP	S95T001337	0	DOSE-02	SOLID		<u>250m/rad</u>	<u>N/A</u>	mrads/hour

Final page for worklist #

1931

Bertrand Griff II

E.A. Lambel

8-11-95

Analyst Signature

Date

Anthony Renteria

7-30-95

Analyst Signature

Date

1336 - 20ml HCL / HNO₃ 20ml - color dark green - organic - cloudy samples heated
1336 DUP 20ml HCL / HNO₃ 40ml - color brn - organic - cloudy to dissolve am.
1337 20ml HCL / HNO₃ 20ml - color clear - Brownish
1337 DUP 20ml HCL / HNO₃ 20ml color clear - Brownish

Data Entry Comments:

HPT: Scott Corabely CARTON DOSE 200m/rad

Bertrand Griff II

8-11-95

30m/rad

Shielded w/ rubber

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#

2081

Analyst: KRM Instrument: FUS01 AL11066 Book # N/A

Method: LA-549-141 Rev/Mod 0-0

Worklist Comment: B-101 FUSION - 1551->1552, 1555->1556

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			FUSION01	SOLID		.250L	N/A	g/L
95000091	B-101	2 SAMPLE	S95T001552 0 F		FUSION01	SOLID	N/A	2.1272		g/L
			.5318 → .250L							
95000091	B-101	3 SAMPLE	S95T001552 0		DOSE-02	SOLID	N/A	3.5x5	17.5	mrad/hour
95000091	B-101	4 DUP	S95T001552 0 F		FUSION01	SOLID	2.1272	2.1192	N/A	g/L
			.5298 → .250L							
95000091	B-101	5 DUP	S95T001552 0		DOSE-02	SOLID		4x5	17.5	mrad/hour
									N/A	
95000093	B-101	6 SAMPLE	S95T001556 0 F		FUSION01	SOLID	N/A	1.9060		g/L
			.4765 → .250L							
95000093	B-101	7 SAMPLE	S95T001556 0		DOSE-02	SOLID	N/A	12x5	60	mrad/hour
95000093	B-101	8 DUP	S95T001556 0 F		FUSION01	SOLID	1.9060	1.9096	N/A	g/L
			.4774 → .250L							
95000093	B-101	9 DUP	S95T001556 0		DOSE-02	SOLID		12x5	N/A	60 mrad/hour

Final page for worklist #

2081

Analyst Signature

Date

Analyst Signature

Date

Data Entry Comments:

1 took over @ Step 7.15. All samples except prep blk have 10 ml HCL & 15 ml H₂O₂. Prep blk has 10 ml HCL. H₂O₂ is Jersey. Scale was calibrated by Ken. Mont with da? He did not record it in the logbook.

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.

44 All samples were clear upon completion. Ekt 08/26/95 Ott: 3m/hr

LABCORE Data Entry Template for Worklist#

2083

Analyst: KRM Instrument: H2001 AL11066 Book # V/A

Method: LA-504-101 Rev/Mod D-0

Worklist Comment: B-101 H2O DGST - 1543->1544, 1545->1546

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			H2ODIG01	SOLID		.100L	N/A	g/L
95000091	B-101	2 SAMPLE	S95T001544	0 W	H2ODIG01	SOLID	N/A	10.4030	10.403	g/L
			1.0403 → .12							2H 8/26/95
95000091	B-101	3 SAMPLE	S95T001544	0	DOSE-02	SOLID	N/A	40		mrad/hour
95000091	B-101	4 DUP	S95T001544	0 W	H2ODIG01	SOLID	10.4030	10.3440	N/A	g/L
			1.0344 → .12							
95000091	B-101	5 DUP	S95T001544	0	DOSE-02	SOLID	N/A	40	N/A	mrad/hour
95000093	B-101	6 SAMPLE	S95T001546	0 W	H2ODIG01	SOLID	N/A	5.8270		g/L
			5.827 → .12							
95000093	B-101	7 SAMPLE	S95T001546	0	DOSE-02	SOLID	N/A	65		mrad/hour
95000093	B-101	8 DUP	S95T001546	0 W	H2ODIG01	SOLID	5.8270	5.8070	N/A	g/L
			5.807 → .12							
95000093	B-101	9 DUP	S95T001546	0	DOSE-02	SOLID	N/A	65	N/A	mrad/hour

Final page for worklist #

2083

Analyst Signature

Date

Analyst Signature

Date

Data Entry Comments:

OTT: 5mr/hr HPT: Jerry
Bernard Griffin II 8-29-95

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#

2084

Analyst: KRM Instrument: H2O01 AL11066 Book # N/A

Method: LA-504-101 Rev/Mod 0-0

Worklist Comment: B-101 H2O DGST - 1548->1549, 1551->1553

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			H2ODIG01	SOLID		.100 L	N/A	g/L
95000093	B-101	2 SAMPLE	S95T001549	0 W	H2ODIG01	SOLID	N/A	7.5110		g/L
		.7511 → .1L								
95000093	B-101	3 SAMPLE	S95T001549	0	DOSE-02	SOLID	N/A	50		mrads/hour
95000093	B-101	4 DUP	S95T001549	0 W	H2ODIG01	SOLID	7.5110	7.5050	N/A	g/L
		.7505 → .1L								
95000093	B-101	5 DUP	S95T001549	0	DOSE-02	SOLID	N/A	50	N/A	mrads/hour
95000091	B-101	6 SAMPLE	S95T001553	0 W	H2ODIG01	SOLID	N/A	9.0970		g/L
		.9097 → .1L								
95000091	B-101	7 SAMPLE	S95T001553	0	DOSE-02	SOLID	N/A	35		mrads/hour
95000091	B-101	8 DUP	S95T001553	0 W	H2ODIG01	SOLID	9.0970	9.2060	N/A	g/L
		.9206 → .1L								
95000091	B-101	9 DUP	S95T001553	0	DOSE-02	SOLID	N/A	35	N/A	mrads/hour

Final page for worklist #

2084

Analyst Signature

Date

Analyst Signature

Date

Data Entry Comments:

OTT: 5mr/hr HPT Jerry

Bertand Giffen II 8-29-95

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#

2085

Analyst: KRM Instrument: H2001 AL11066 Book # N/A

Method: LA-504-101 Rev/Mod D-0

Worklist Comment: B-101 H2O DGST - 1555->1557

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			H20DIG01	SOLID		.100 L	N/A	g/L
95000093	B-101	2 SAMPLE	S95T001557	0 W	H20DIG01	SOLID	N/A	9.7380		g/L
			9.7380 → .12							
95000093	B-101	3 SAMPLE	S95T001557	0	DOSE-02	SOLID	N/A	25		mrad/hour
95000093	B-101	4 DUP	S95T001557	0 W	H20DIG01	SOLID	9.7380	9.7450	N/A	g/L
			9.7450 → .12							
95000093	B-101	5 DUP	S95T001557	0	DOSE-02	SOLID	N/A	25	N/A	mrad/hour

Final page for worklist #

2085

Analyst Signature

Date

Analyst Signature

Date

Data Entry Comments:

O.T. 5mr/hr HPT Jerry
Bertrand Duffin II 8-29-95

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-139 REV. 1
LABCORE Data Entry Template for Worklist#

1792

Analyst: elmh Instrument: ACD01 ACONE Book # WHC1A/G4JWHC1A01
WHC2/G3MWHC201

Method: LA-505-158 Rev/Mod A-4

Worklist Comment: B-101 ACID DIL. - 1223->1224, 1232->1233, 1247->1248

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			ACIDIL01	LIQUID	100	100	N/A	DF
		2 STD-PREP 5 ml → 100 ml			ACIDIL01	LIQUID	20	20	N/A	DF
95000091	B-101	3 SAMPLE 1 ml → 100 ml	S95T001224	0 D	ACIDIL01	LIQUID	N/A	100		DF
95000091	B-101	4 SAMPLE	S95T001224	0	DOSE-02	LIQUID	N/A	20		mrad/hour
95000091	B-101	5 DUP 1 ml → 100 ml	S95T001224	0 D	ACIDIL01	LIQUID	100	100	N/A	DF
95000091	B-101	6 DUP	S95T001224	0	DOSE-02	LIQUID		18	N/A	mrad/hour
95000091	B-101	7 SPK 1 ml → 100 ml + 5 ml of spikes	S95T001224	0 D	ACIDIL01	LIQUID	20	20	N/A	DF
95000091	B-101	8 SPK	S95T001224	0	DOSE-02	LIQUID		18	N/A	mrad/hour
95000093	B-101	9 SAMPLE 1 ml → 100 ml	S95T001233	0 D	ACIDIL01	LIQUID	N/A	100		DF
95000093	B-101	10 SAMPLE	S95T001233	0	DOSE-02	LIQUID	N/A	5.5 07/21/95		mrad/hour
95000093	B-101	11 DUP 1 ml → 100	S95T001233	0 D	ACIDIL01	LIQUID	100	100	N/A	DF
95000093	B-101	12 DUP	S95T001233	0	DOSE-02	LIQUID	2.9 07/21/95	2.9 07/21/95	N/A	mrad/hour
95000093	B-101	13 SAMPLE 1 ml → 100 ml	S95T001248	0 D	ACIDIL01	LIQUID	N/A	100		DF
95000093	B-101	14 SAMPLE	S95T001248	0	DOSE-02	LIQUID	N/A	15		mrad/hour
95000093	B-101	15 DUP 1 ml → 100 ml	S95T001248	0 D	ACIDIL01	LIQUID	100	100	N/A	DF
95000093	B-101	16 DUP	S95T001248	0	DOSE-02	LIQUID		20	N/A	mrad/hour

Data Entry Comments:

HPT is Charlene Cooper

OTR is 30 mA & 30 mrad

Bertrand Duff II

7-25-95

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#

1792

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

Final page for worklist #

1792

Analyst Signature

Date

7-21-95

Analyst Signature

Date

7-24-95

Bertie D. H. P. II
7-25-95

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.

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WHC-SD-WM-DP-139, REV. 1

INORGANIC ANALYSES

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LABCORE Data Entry Template for Worklist#

2451

Analyst: BDV Instrument: DSC0 1 Book #

Method: LA-514-113 Rev/Mod

Worklist Comment: Dry DSC for B-101
BY-110. bdv
10/31/95 BW

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
95000091	B-101	1 SAMPLE	S95T001551	0	DSC-02	SOLID	N/A	Ø		Joules/g Dry
95000091	B-101	2 DUP	S95T001551	0	DSC-02	SOLID	Ø	Ø	N/A	Joules/g Dry
95000093	B-101	3 SAMPLE	S95T001555	0	DSC-02	SOLID	N/A	Ø		Joules/g Dry
95000093	B-101	4 DUP	S95T001555	0	DSC-02	SOLID	Ø	Ø	N/A	Joules/g Dry

Data entered + verified by Final page for worklist # **2451**

Blandina Valenzuela 9/18/95
Analyst Signature Date

Analyst Signature Date

Data Entry Comments:

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

LABCORE Data Entry Template for Worklist#

2583

Analyst: SMF Instrument: TGA0 1 Book # 12A147 ^{Tom} 10/19/95
Method: LA-560-112 Rev/Mod B-D 65N8A

Worklist Comment: Please run B-101 TGAs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	<u>59.74</u>	<u>60.91</u>	<u>N/A</u>	%
95000091	B-101	2 SAMPLE	S95T002532	0	TGA-01	SOLID	<u>N/A</u>	<u>13.57</u>		%
95000091	B-101	3 DUP	S95T002532	0	TGA-01	SOLID	<u>13.57</u>	<u>11.54</u>	<u>N/A</u>	%
95000091	B-101	4 SAMPLE	S95T002533	0	TGA-01	SOLID	<u>N/A</u>	<u>48.82</u>		%
95000091	B-101	5 DUP	S95T002533	0	TGA-01	SOLID	<u>48.82</u>	<u>47.58</u>	<u>N/A</u>	%

Final page for worklist #

2583

Smf 10.17.95
Analyst Signature Date

Tom D. Mc 10/19/95
Analyst Signature Date

Verified by Blandina Valenzuela
10-23-95

S95T002532 produced a second weight loss step of 21.86% at approximately 300°C.

Data Entry Comments:

S95T002533 produced a second weight loss step of 2 however
the second weight loss step was close to 100°C the chemist made the decision
to take the sum of the two steps for the result.

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

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

BEST AVAILABLE COPY

WHC-SD-WM-DP-139, REV. 1

TGA STD 65N8A
14.646 mg
File: 00071.001 TG METTLER 17-Oct-95
Ident: 0.0 222-S Laboratory

Rate: 10.0 °C/min

Step Analysis
Height -8.92 mg
-60.91 %
Resid. 5.72 mg
39.09 %
Dpeak 85.0 °C

Lucie M. 200: Gulston 10.17.95

S95T002532 N2

64.184 mg

Rate: 10.0 °C/min

File: 00074.001

TG

METTLER

17-Oct-95

Ident: 0.0

222-S Laboratory

WHC-SD-MM-DP-139, REV. 1

S95T002532 DUP N2

43.487 mg

Rate: 10.0 °C/min

File: 00075.001

TG

METTLER

17-Oct-95

Ident: 0.0

222-S Laboratory

55

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

S95T002533 N2

14.124 mg

Rate: 10.0 °C/min

File: 00072.001

TG

METTLER

17-Oct-95

Ident: 0.0

222-S Laboratory

WHC-SD-WM-DP-139, REV. 1

S95T002533 DUP N2

File: 00073.001 TG METTLER 17-Oct-95

Rate: 10.0 °C/min

Ident: 0.0 222-S Laboratory

14.469 mg

LABCORE Data Entry Template for Worklist#

2590

Analyst: JDS Instrument: TGA0 3 Book # 65N8A

Method: LA-514-114 Rev/Mod C-0

Worklist Comment: Please run B-101 TGAs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-03	SOLID	<u>59.74</u>	<u>60.22</u>	<u>N/A</u>	%
95000093	B-101	2 SAMPLE	S95T002534	0	TGA-03	SOLID	<u>N/A</u>	<u>16.62</u>		%
95000093	B-101	3 DUP	S95T002534	0	TGA-03	SOLID	<u>16.62</u>	<u>13.8</u>	<u>N/A</u>	%

Final page for worklist #

2590

See attached for signatures
Analyst Signature Date

R. Jones 10-9-95
Analyst Signature Date

Verified by Blandina Valenzuela
10-11-95

Data Entry Comments:

LABCORE Data Entry Template for Worklist#

2590

Analyst: _____ Instrument: TGA0 _____ Book # _____

Method: LA-560-112 Rev/Mod _____

Worklist Comment: Please run B-101 TGAs under N2. bdv

37

GROUP	PROJECT	S TYPE	SAMPLE#	R A -----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD		TGA-01	SOLID	_____	_____	N/A	%
95000093	B-101	2 SAMPLE	S95T002534 0	TGA-01	SOLID	N/A	_____	_____	%
95000093	B-101	3 DUP	S95T002534 0	TGA-01	SOLID	_____	_____	N/A	%

Final page for worklist #

2590

JA Sp 10-4-95
Analyst Signature Date

Analyst Signature Date

Data Entry Comments:

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

File info: TER100402 Wed Oct 4 08:08:50 1995
Sample Weight: 18.695 mg

6548-A Ter11q

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 600 TO 601.

WHC-SD-WM-DP-139, REV. 1

N2 10C/MIN

[illegible]

Temperature (°C)

JD SPELLMAN
PERKIN-ELMER
7 Series Thermal Analysis System
Wed Oct 4 08:35:32 1995

Curve 1: TGA
 File info: SAM100403 Wed Oct 4 09:33:19 1995
 Sample Weight: 46.569 mg
 S95T002534

WHC-SD-WM-DP-139, REV. 1

N2
 TIME 000.0 g TIME 0.0 min RATE 10.0 g/min
 JD SPELLMAN
 PERKIN-ELMER
 7 Series Thermal Analysis System
 Fri Oct 6 10:19:39 1995

Curve 1: TGA

File info: SAM100404 Wed Oct 4 11:05:14 1995

Sample Weight: 17.445 mg

S95T002534 DUP

BEST AVAILABLE COPY

1 S95T002534 DUP: SAM100404

% Weight (Wt. %)

N2

TEMP: 35.0 °C
TEMP: 500.0 °C

TIME: 0.0 min

RATE: 10.0 °C/min

JD SPELLMAN
PERKIN-ELMER
7 Series Thermal Analysis System
Fri Nov 3 09:26:39 1995

WHC-SD-WM-DP-139, REV. 1

LABCORE Data Entry Template for Worklist#

2750

Analyst: RL McCown Instrument: BA001 Book # 65USA

Method: LA-564-101 Rev/Mod F-1 WHC-SD-WM-DP-139, REV. 1

Worklist Comment: % WATER B-101 - Do not run replicates

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			WATER-01	SOLID	59.74	59.9	N/A	%
95000091	B-101	2 SAMPLE	S95T002532	0	WATER-01	SOLID	N/A	11.7	0.01	%
95000091	B-101	3 DUP	S95T002532	0	WATER-01	SOLID	11.7	13.7	N/A	%
95000091	B-101	4 SAMPLE	S95T002533	0	WATER-01	SOLID	N/A	50.6	0.01	%
95000091	B-101	5 DUP	S95T002533	0	WATER-01	SOLID	50.6	50.6	N/A	%
95000093	B-101	6 SAMPLE	S95T002534	0	WATER-01	SOLID	N/A	18.9	0.01	%
95000093	B-101	7 DUP	S95T002534	0	WATER-01	SOLID	18.9	18.0	N/A	%

Final page for worklist #

2750

RL McCown 10/8/95
Analyst Signature Date

RL McCown 10-10-95
Reviewed Analyst Signature Date
RW Schmedt 10/10/95

STANDARD	BLANK	595T002532	595T002532 DUP
w1 17.4519	w1 17.4917	w1 17.5126	w1 17.4424
w2 18.7923	w2 17.4924	w2 18.0149	w2 18.0371
w3 17.9984	w3 17.4922	w3 17.9563	w3 17.9585
w4 17.9892	w4 17.4920	w4 17.9561	w4 17.9584

Data Entry Comments:

Reanalysis of B-101 gravimetric %H₂O. RUS
10/11/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-139, REV. 1

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

		STANDARD	REPLICATE
Type	Tare Weight (W1) grams	17.4519	
STANDARD	Gross Weight (W2) grams	18.7923	
Work List	First Residue Weight (W3) grams	17.9984	
2750	Second Residue Weight (W4) grams	17.9892	
Test Code	Percent Difference	0.0511	N/A
	QC Check	Pass	N/A
Matrix	Percent Weight Loss	59.91	N/A
LIQUID	(If it is necessary to do a 3rd heating then substitute the last weight measured for W4 and the second to last weight measured for W3 in the calculations above.)		
Sample #			
N/A			
Instrument Code			
BA001	Sample = W2 - W1	= Gross Weight - Tare Weight	
Analyst	Weight = W2 - W4	= Gross Weight - Residue Weight	
P.J.MCCOWN	Percent Difference	= Absolute Value of [(W3-W4)/W4]*100.0	
Date	QC Check "Pass" if % Difference	= < +/- 0.1500%	
10/08/95	Percent Water Weight Loss	= [(W2-W4)/(W2-W1)]*100 = % H2O	
Time	Percent Water (Average)	= [(% H2O for A) + (% H2O for B)] / 2	

RESULT

% H2O = 59.9

Data Entry by: *D. Schneider* Date: 10/10/95
 Approved by: *R. Schneider* Date: 10/10/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-139, REV. 1

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

	SAMPLE	REPLICATE
Type	Tare Weight (W1) grams	17.5126
SAMPLE	Gross Weight (W2) grams	18.0149
Work List	First Residue Weight (W3) grams	17.9563
2750	Second Residue Weight (W4) grams	17.9561
Test Code	Percent Difference	0.0011 N/A
WATER - 01	QC Check	Pass N/A
Matrix	Percent Weight Loss	11.71 N/A
LIQUID	(If it is necessary to do a 3rd heating then substitute the last weight measured for W4 and the second to last weight measured for W3 in the calculations above.)	
Sample #		
S95T002532		
Instrument Code		
BA001		
Analyst		
P.J.MCCOWN		
Date		
10/08/95		
Time		

RESULT

% H2O = 11.7

Data Entry by: *P. J. McCown* Date: 10/10/95
 Approved by: *R. W. Schroeder* Date: 10/10/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-139, REV. 1

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

	SAMPLE	REPLICATE
Type	Tare Weight (W1) grams	17.4624
DUPLICATE	Gross Weight (W2) grams	18.0371
Work List	First Residue Weight (W3) grams	17.9585
2750	Second Residue Weight (W4) grams	17.9584
Test Code	Percent Difference	0.0006 N/A
WATER - 01	QC Check	Pass N/A
Matrix	Percent Weight Loss	13.69 N/A
LIQUID	(If it is necessary to do a 3rd heating then substitute the last weight measured for W4 and the second to last weight measured for W3 in the calculations above.)	
Sample #		
S95T002532		
Instrument Code		
BA001		
Analyst		
P.J.MCCOWN		
Date		
10/08/95		
Time		

RESULT

% H2O = 13.7 *10-10-95*

Data Entry by: P.J. McCown Date: 10/10/95
 Approved by: R.W. Schneider Date: 10/10/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP- 139, REV. 1

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

		SAMPLE	REPLICATE
Type	Tare Weight (W1) grams	17.4780	
SAMPLE	Gross Weight (W2) grams	18.8500	
Work List	First Residue Weight (W3) grams	18.1563	
2750	Second Residue Weight (W4) grams	18.1560	
Test Code	Percent Difference	0.0017	N/A
WATER - 01	QC Check	Pass	N/A
Matrix	Percent Weight Loss	50.58	N/A
LIQUID	(If it is necessary to do a 3rd heating then substitute the last weight measured for W4 and the second to last weight measured for W3 in the calculations above.)		
Sample #			
S95T002533			
Instrument Code			
BA001			
Analyst			
P.J.MCCOWN			
Date			
10/08/95			
Time			

RESULT

% H2O = 50.6

Data Entry by: D. Honahan Date: 10/10/95
 Approved by: RW Schneider Date: 10/10/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-139, REV. 1

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

	SAMPLE	REPLICATE
Type	Tare Weight (W1) grams	17.7684
DUPLICATE	Gross Weight (W2) grams	19.1826
Work List	First Residue Weight (W3) grams	18.4679
2750	Second Residue Weight (W4) grams	18.4676
Test Code	Percent Difference	0.0016 N/A
WATER - 01	QC Check	Pass N/A
Matrix	Percent Weight Loss	50.56 N/A
LIQUID	(If it is necessary to do a 3rd heating then substitute the last weight measured for W4 and the second to last weight measured for W3 in the calculations above.)	
Sample #		
S95T002533		
Instrument Code		
BA001		
Analyst		
P.J.MCCOWN		
Date		
10/08/95		
Time		

Sample = W2 - W1	= Gross Weight - Tare Weight
Weight = W2 - W4	= Gross Weight - Residue Weight
Percent Difference	= Absolute Value of [(W3-W4)/W4]*100.0
QC Check "Pass" if % Difference	= < +/- 0.1500%
Percent Water Weight Loss	= [(W2-W4)/(W2-W1)]*100 = % H2O
Percent Water (Average)	= [(% H2O for A) + (% H2O for B)] / 2

RESULT

% H2O = 50.6

Data Entry by: *D. H. Mahan* Date: 10/10/95
 Approved by: *P. J. McCown* Date: 10/10/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP- 139, REV. 1

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

		SAMPLE	REPLICATE
Type	Tare Weight (W1) grams	17.4369	
SAMPLE	Gross Weight (W2) grams	17.9759	
Work List	First Residue Weight (W3) grams	17.8740	
2750	Second Residue Weight (W4) grams	17.8738	
Test Code	Percent Difference	0.0011	N/A
WATER - 01	QC Check	Pass	N/A
Matrix	Percent Weight Loss	18.94	N/A
LIQUID	(If it is necessary to do a 3rd heating then substitute the last weight measured for W4 and the second to last weight measured for W3 in the calculations above.)		
Sample #			
S95T002534			
Instrument Code			
BA001			
Analyst			
P.J.MCCOWN			
Date			
10/08/95			
Time			

RESULT

% H2O = **18.9**

Data Entry by: <i>D. H. H. H.</i>	Date: 10/10/95
Approved by: <i>R. W. Schneider</i>	Date: 10/10/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP- 139, REV. 1

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

	SAMPLE	REPLICATE
Type	Tare Weight (W1) grams	17.8398
DUPLICATE	Gross Weight (W2) grams	18.4021
Work List	First Residue Weight (W3) grams	18.3009
2750	Second Residue Weight (W4) grams	18.3008
Test Code	Percent Difference	0.0005 N/A
WATER - 01	QC Check	Pass N/A
Matrix	Percent Weight Loss	18.02 N/A
LIQUID	(If it is necessary to do a 3rd heating then substitute the last weight measured for W4 and the second to last weight measured for W3 in the calculations above.)	
Sample #	Sample = W2 - W1 = Gross Weight - Tare Weight	
S95T002534	Weight = W2 - W4 = Gross Weight - Residue Weight	
Instrument Code	Percent Difference = Absolute Value of $[(W3-W4)/W4]*100.0$	
BA001	QC Check "Pass" if % Difference = $< +/- 0.1500\%$	
Analyst	Percent Water Weight Loss = $[(W2-W4)/(W2-W1)]*100 = \% H_2O$	
P.J.MCCOWN	Percent Water (Average) = $[(\% H_2O \text{ for A}) + (\% H_2O \text{ for B})] / 2$	
Date		
10/08/95		
Time		

RESULT

% H2O = 18.0

Data Entry by: *P. J. McCown* Date: 10/10/95
 Approved by: *R. W. Schneider* Date: 10/10/95

RMIS View/Print Document Cover Sheet

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Accession #: D295181116

Document #: SD-WM-DP-139

Title/Desc:

FINAL REPORT FOR TANK 241B101 PUSH MODE CORES 90 &
91 [SEC 2 OF 5]

Pages: 95

This document was too large to scan as a whole document, therefore it required breaking into smaller sections.

DOCUMENT NUMBER: SD-WM-DP-139

SECTION 2 OF 5

TITLE: FINAL REPORT FOR TANK 241-B-101 PUSH MODE
CORES 90 + 91

DATE: 11/06/95

ORIGINATOR: SCHREIBER RD

CO: WHC

RECIPIENT: _____

CO: _____

REFERENCES: ECN-625769

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LABCORE Data Entry Template for Worklist#

2182

Analyst: DCD Instrument: BA001 Book # 65N8-A

Method: LA-564-101 Rev/Mod F-1 WHC-SD-WM-DP-139, REV. 1

Worklist Comment: % Water T-106 and B101 - Do NOT run in replicate.

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			WATER-01	SOLID	<u>59.74</u>	<u>60.3</u>	<u>N/A</u>	%
95000103	T-106	2 SAMPLE	S95T001343	0	WATER-01	SOLID	<u>N/A</u>	<u>14.18</u>		%
95000103	T-106	3 DUP	S95T001343	0	WATER-01	SOLID	<u>14.18</u>	<u>14.59</u>	<u>N/A</u>	%
95000109	T-106	4 SAMPLE	S95T001457	0	WATER-01	SOLID	<u>N/A</u>	<u>19.39</u>		%
95000109	T-106	5 DUP	S95T001457	0	WATER-01	SOLID	<u>19.39</u>	<u>20.49</u>	<u>N/A</u>	%
95000091	B-101	6 SAMPLE	S95T001541	0	WATER-01	SOLID	<u>N/A</u>	<u>23.45</u>		%
95000091	B-101	7 DUP	S95T001541	0	WATER-01	SOLID	<u>23.45</u>	<u>23.25</u>	<u>N/A</u>	%
95000091	B-101	8 SAMPLE	S95T001543	0	WATER-01	SOLID	<u>N/A</u>	<u>40.78</u>		%
95000091	B-101	9 DUP	S95T001543	0	WATER-01	SOLID	<u>40.78</u>	<u>41.26</u>	<u>N/A</u>	%
95000093	B-101	10 SAMPLE	S95T001547	0	WATER-01	SOLID	<u>N/A</u>	<u>28.44</u>		%
95000093	B-101	11 DUP	S95T001547	0	WATER-01	SOLID	<u>28.44</u>	<u>28.03</u>	<u>N/A</u>	%

Final page for worklist #

2182

David D. Dunham 9-15-95
Analyst Signature Date

Lucie M. Dulton 9-14-95
Analyst Signature Date

Steve Peter 9-14-95
Reviewed RW Schuch 9/15/95

Data Entry Comments:

See Wts on back of worklist. S.M.F.

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.

(#1) 340

W₁ 15.3987 g
W₂ 16.7620 g
W₃ 15.9526 g
W₄ ~~15.8678 g~~ 9/14/95
15.9403 g

(#2) 595T001343

W₁ 15.3889 g
W₂ 15.6089 g
W₃ 15.5794 g
W₄ 15.5777 g

(#3) 595T001343 S.P.
~~595T001343~~ 9-14-95
DUP

W₁ 15.3931 g
W₂ 15.5480 g
W₃ 15.5268 g
W₄ 15.5254 g

(#4) 595T001457

W₁ 15.6229 g
W₂ 15.7936 g
W₃ 15.7616 g
W₄ 15.7605 g

(#5) 595T001457
DUP

W₁ 15.4285 g
W₂ 15.5627 g
W₃ 15.5359 g
W₄ 15.5352 g

(#6) 595T001541

W₁ 15.3135 g
W₂ 15.7054 g
W₃ 15.6143 g
W₄ 15.6135 g

(#7) 595T001541
DUP

W₁ 15.3063 g
W₂ 15.7484 g
W₃ 15.6463 g
W₄ 15.6456 g

(#8) 595T001543

W₁ 15.5218 g
W₂ 16.2179 g
W₃ 15.9348 g
W₄ 15.9340 g

(#9) 595T001543
DUP

W₁ 15.2773 g
W₂ 16.1265 g
W₃ 15.7770 g
W₄ 15.7761 g

(#10) 595T001547

W₁ 15.4514 g
W₂ 15.5990 g
W₃ 15.5569 g
W₄ 15.5563 g

(#11) 595T001547
DUP

W₁ 15.4134 g
W₂ 15.6182 g
W₃ 15.5614 g
W₄ 15.5608 g

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-139, REV. 1

% WATER : LA-564-101 (F-0) ¹ ^{POWS} ^{11/2/95}

		STANDARD	REPLICATE
Type	Tare Weight (W1) grams	15.3987	
STANDARD	Gross Weight (W2) grams	16.7620	
Work List	First Residue Weight (W3) grams	15.9526	
2182	Second Residue Weight (W4) grams	15.9403	
Test Code	Percent Difference	0.0772	N/A
	QC Check	Pass	N/A
Matrix	Percent Weight Loss	60.27	N/A
LIQUID	(If it is necessary to do a 3rd heating then substitute the last weight measured for W4 and the second to last weight measured for W3 in the calculations above.)		
Sample #			
STANDARD			
Instrument Code			
BA001			
Analyst			
DAVE DUNHAM			
Date			
09/15/95			
Time			

Sample = W2 - W1	= Gross Weight - Tare Weight
Weight = W2 - W4	= Gross Weight - Residue Weight
Percent Difference	= Absolute Value of [(W3-W4)/W4]*100.0
QC Check "Pass" if % Difference	= < +/- 0.1500%
Percent Water Weight Loss	= [(W2-W4)/(W2-W1)]*100 = % H2O
Percent Water (Average)	= [(% H2O for A) + (% H2O for B)] / 2

RESULT

% H2O = 60.3

Data Entry by: *Stratton* Date: 09/14/95
 Approved by: *R. Schneider* Date: 9/15/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-~~45~~ REV. 1
139 *Rev*
10/19/95

% WATER : LA-564-101 (F-0) *ews*
11/2/95

	SAMPLE	REPLICATE
Type	15.3135	15.3063
SAMPLE	15.7054	15.7484
Work List	15.6143	15.6463
2182	15.6135	15.6456
Test Code	0.0051	0.0045
Matrix	Pass	Pass
LIQUID	23.45	23.25
Sample #	(If it is necessary to do a 3rd heating then substitute the last weight measured for W4 and the second to last weight measured for W3 in the calculations above.)	
S95T001541 & DUPE		
Instrument Code		
BA001	Sample = W2 - W1 = Gross Weight - Tare Weight	
Analyst	Weight = W2 - W4 = Gross Weight - Residue Weight	
DAVE DUNHAM	Percent Difference = Absolute Value of [(W3-W4)/W4]*100.0	
Date	= < +/- 0.1500%	
09/15/95	= [(W2-W4)/(W2-W1)]*100 = % H2O	
Time	= [(% H2O for A) + (% H2O for B)] / 2	
	Percent Water Weight Loss	
	Percent Water (Average)	

RESULT

% H2O (Average) = 23.4

Data Entry by: *Steve* Date: 09/14/95
Approved by: *Rw Schroeder* Date: 9/15/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHG-CD-WM-DP- 45 REV 1
139 10/19/95

% WATER : LA-564-101 (F-0) ¹ 2WS 11/2/95

		SAMPLE	REPLICATE
Type	Tare Weight (W1) grams	15.5218	15.2773
SAMPLE	Gross Weight (W2) grams	16.2179	16.1265
Work List	First Residue Weight (W3) grams	15.9348	15.7770
2182	Second Residue Weight (W4) grams	15.9340	15.7761
Test Code	Percent Difference	0.0050	0.0057
	QC Check	Pass	Pass
Matrix	Percent Weight Loss	40.78	41.26
LIQUID	(If it is necessary to do a 3rd heating then substitute the last weight measured for W4 and the second to last weight measured for W3 in the calculations above.)		
Sample #	Sample = W2 - W1	= Gross Weight - Tare Weight	
S95T001543 & DUPE	Weight = W2 - W4	= Gross Weight - Residue Weight	
Instrument Code	Percent Difference	= Absolute Value of [(W3-W4)/W4]*100.0	
BA001	QC Check "Pass" if % Difference	= < +/- 0.1500%	
Analyst	Percent Water Weight Loss	= [(W2-W4)/(W2-W1)]*100 = % H2O	
DAVE DUNHAM	Percent Water (Average)	= [(% H2O for A) + (% H2O for B)] / 2	
Date			
09/15/95			
Time			

RESULT

% H2O (Average) = 41.0

Data Entry by: Steve Ketter Date: 09/14/95
 Approved by: Ron Schneider Date: 9/15/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-143, REV. 1
139 *11/09/95*

% WATER : LA-564-101 (F-~~0~~) ¹ *pus*
11/2/95

		SAMPLE	REPLICATE
Type	Tare Weight (W1) grams	15.4514	15.4134
SAMPLE	Gross Weight (W2) grams	15.5980	15.6182
Work List	First Residue Weight (W3) grams	15.5569	15.5614
2182	Second Residue Weight (W4) grams	15.5563	15.5608
Test Code	Percent Difference	0.0039	0.0039
	QC Check	Pass	Pass
Matrix	Percent Weight Loss	28.44	28.03
LIQUID	(If it is necessary to do a 3rd heating then substitute the last weight measured for W4 and the second to last weight measured for W3 in the calculations above.)		
Sample #	Sample = W2 - W1	= Gross Weight - Tare Weight	
S95T001547 & DUPE	Weight = W2 - W4	= Gross Weight - Residue Weight	
Instrument Code	Percent Difference	= Absolute Value of [(W3-W4)/W4]*100.0	
BA001	QC Check "Pass" if % Difference	= < +/- 0.1500%	
Analyst	Percent Water Weight Loss	= [(W2-W4)/(W2-W1)]*100 = % H2O	
DAVE DUNHAM	Percent Water (Average)	= [(% H2O for A) + (% H2O for B)] / 2	
Date			
09/15/95			
Time			

RESULT

% H2O (Average) = 28.2

Data Entry by: <i>Steve Peter</i>	Date: 09/14/95
Approved by: <i>RW Johnson</i>	Date: 9/15/95

LABCORE Data Entry Template for Worklist#

2108

Analyst: DCD Instrument: IC01 IC01 Book # 106N9A

Method: LA-533-105 Rev/Mod D-0

Worklist Comment: B101 IC on liquid samples. JMF

WHC-SD-WM-DP- 139, REV. 1

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK			QIC-01 F-02	LIQUID		4.062	N/A	ug/mL
		1 BLNK			QIC-01 CL-02	LIQUID		4.083	N/A	ug/mL
		1 BLNK			QIC-01 NO2-02	LIQUID		4.547	N/A	ug/mL
		1 BLNK			QIC-01 BR-02	LIQUID		4.632	N/A	ug/mL
		1 BLNK			QIC-01 NO3-02	LIQUID		4.699	N/A	ug/mL
		1 BLNK			QIC-01 PO4-02	LIQUID		4.596	N/A	ug/mL
		1 BLNK			QIC-01 SO4-02	LIQUID		4.678	N/A	ug/mL
		1 BLNK			QIC-01 OXALATE2	LIQUID		4.496	N/A	ug/mL
		2 STD			QIC-01 F-02	LIQUID		64.2	N/A	ug/mL
		2 STD			QIC-01 CL-02	LIQUID		79.7	N/A	ug/mL
		2 STD			QIC-01 NO2-02	LIQUID		560.5	N/A	ug/mL
		2 STD			QIC-01 BR-02	LIQUID		588.1	N/A	ug/mL
		2 STD			QIC-01 NO3-02	LIQUID		630.7	N/A	ug/mL
		2 STD			QIC-01 PO4-02	LIQUID		554.9	N/A	ug/mL
		2 STD			QIC-01 SO4-02	LIQUID		643	N/A	ug/mL
		2 STD			QIC-01 OXALATE2	LIQUID		567.3	N/A	ug/mL
95000091	B-101	3 SAMPLE	S95T001542	0	QIC-01 F-02	LIQUID	N/A	2.38e2	1.32e2	ug/mL
95000091	B-101	3 SAMPLE	S95T001542	0	QIC-01 CL-02	LIQUID	N/A	6.68e2	1.76e2	ug/mL

Data Entry Comments: SAMPLE DF Sample size
S95T0001542 SAM+DIA P 2121 100-10-500-10
S95T0001542 SPIKE 2121 100-10-500-9.9 + .100 spk
S95T0001542 SAM+DWP 10201 100-10-100-10

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#

2108

SUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
0000091	B-101	3 SAMPLE	S95T001542	0	QIC-01 NO2-02	LIQUID	N/A	<u>1.30e5</u>	<u>5.58e3</u>	<u>7.13e3</u> ug/mL <i>gmF 2113/5</i>
95000091	B-101	3 SAMPLE	S95T001542	0	QIC-01 BR-02	LIQUID	N/A	<u>2.134e3</u>	<u>1.34e3</u>	ug/mL
95000091	B-101	3 SAMPLE	S95T001542	0	QIC-01 NO3-02	LIQUID	N/A	<u>3.72e5</u>	<u>7.13e3</u>	ug/mL
95000091	B-101	3 SAMPLE	S95T001542	0	QIC-01 PO4-02	LIQUID	N/A	<u>7.23e3</u>	<u>1.26e3</u>	ug/mL
95000091	B-101	3 SAMPLE	S95T001542	0	QIC-01 SO4-02	LIQUID	N/A	<u>2.23e4</u>	<u>1.44e3</u>	ug/mL
95000091	B-101	3 SAMPLE	S95T001542	0	QIC-01 OXALATE2	LIQUID	N/A	<u>1.05e3</u>	<u>1.05e3</u>	ug/mL
95000091	B-101	4 DUP	S95T001542	0	QIC-01 F-02	LIQUID	<u>2.38e2</u>	<u>2.38e2</u>	N/A	ug/mL
95000091	B-101	4 DUP	S95T001542	0	QIC-01 CL-02	LIQUID	<u>6.68e2</u>	<u>7.04e2</u>	N/A	ug/mL
95000091	B-101	4 DUP	S95T001542	0	QIC-01 NO2-02	LIQUID	<u>1.30e5</u>	<u>1.33e5</u>	N/A	ug/mL
95000091	B-101	4 DUP	S95T001542	0	QIC-01 BR-02	LIQUID	<u>1.34e3</u>	<u>1.34e3</u>	N/A	ug/mL
95000091	B-101	4 DUP	S95T001542	0	QIC-01 NO3-02	LIQUID	<u>3.72e5</u>	<u>3.80e5</u>	N/A	ug/mL
95000091	B-101	4 DUP	S95T001542	0	QIC-01 PO4-02	LIQUID	<u>7.23e3</u>	<u>7.53e3</u>	N/A	ug/mL
95000091	B-101	4 DUP	S95T001542	0	QIC-01 SO4-02	LIQUID	<u>2.23e4</u>	<u>2.32e4</u>	N/A	ug/mL
95000091	B-101	4 DUP	S95T001542	0	QIC-01 OXALATE2	LIQUID	<u>1.05e3</u>	<u>1.05e3</u>	N/A	ug/mL
95000091	B-101	5 SPK	S95T001542	0	QIC-01 F-02	LIQUID		<u>91.1</u>	N/A	ug/mL
95000091	B-101	5 SPK	S95T001542	0	QIC-01 CL-02	LIQUID		<u>105.2</u>	N/A	ug/mL
95000091	B-101	5 SPK	S95T001542	0	QIC-01 NO2-02	LIQUID		<u>112.0</u>	N/A	ug/mL
95000091	B-101	5 SPK	S95T001542	0	QIC-01 BR-02	LIQUID		<u>86.2</u>	N/A	ug/mL
95000091	B-101	5 SPK	S95T001542	0	QIC-01 NO3-02	LIQUID		<u>102.5</u>	N/A	ug/mL
95000091	B-101	5 SPK	S95T001542	0	QIC-01 PO4-02	LIQUID		<u>106.8</u>	N/A	ug/mL
95000091	B-101	5 SPK	S95T001542	0	QIC-01 SO4-02	LIQUID		<u>114.1</u>	N/A	ug/mL

Data Entry Comments:

S95T001542 SPIKE 10201 SAMPLE SIZE 100-10-100-9.9+.100 SPIKE

S95T001550 SAM + DUP 2121 100-10-500-10

S95T001550 SPIKE 2121 100-10-500-9.9+.100 SPIKE

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#

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GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
95000091	B-101	5 SPK	S95T001542	0	QIC-01	OXALATE2	LIQUID	101.1	N/A	ug/mL
95000093	B-101	6 SAMPLE	S95T001550	0	QIC-01	F-02	LIQUID	N/A 2.61e2	1.32e2	ug/mL
95000093	B-101	6 SAMPLE	S95T001550	0	QIC-01	CL-02	LIQUID	N/A 5.80e2	1.76e2	ug/mL
95000093	B-101	6 SAMPLE	S95T001550	0	QIC-01	NO2-02	LIQUID	N/A 1.31e5	5.58e3	ug/mL
95000093	B-101	6 SAMPLE	S95T001550	0	QIC-01	BR-02	LIQUID	N/A 1.74e3	1.34e3	ug/mL
95000093	B-101	6 SAMPLE	S95T001550	0	QIC-01	NO3-02	LIQUID	N/A 3.37e5	7.13e3	ug/mL
95000093	B-101	6 SAMPLE	S95T001550	0	QIC-01	PO4-02	LIQUID	N/A 4.73e3	1.26e3	ug/mL
95000093	B-101	6 SAMPLE	S95T001550	0	QIC-01	SO4-02	LIQUID	N/A 2.12e4	1.44e3	ug/mL
95000093	B-101	6 SAMPLE	S95T001550	0	QIC-01	OXALATE2	LIQUID	N/A 1.05e3	1.05e3	ug/mL
95000093	B-101	7 DUP	S95T001550	0	QIC-01	F-02	LIQUID	2.61e2	2.45e2	N/A ug/mL
95000093	B-101	7 DUP	S95T001550	0	QIC-01	CL-02	LIQUID	5.80e2	1.02e2	N/A ug/mL
95000093	B-101	7 DUP	S95T001550	0	QIC-01	NO2-02	LIQUID	1.31e5	1.32e5	N/A ug/mL
95000093	B-101	7 DUP	S95T001550	0	QIC-01	BR-02	LIQUID	1.74e3	1.77e3	N/A ug/mL
95000093	B-101	7 DUP	S95T001550	0	QIC-01	NO3-02	LIQUID	3.37e5	3.36e5	N/A ug/mL
95000093	B-101	7 DUP	S95T001550	0	QIC-01	PO4-02	LIQUID	4.73e3	4.88e3	N/A ug/mL
95000093	B-101	7 DUP	S95T001550	0	QIC-01	SO4-02	LIQUID	2.12e4	2.12e4	N/A ug/mL
95000093	B-101	7 DUP	S95T001550	0	QIC-01	OXALATE2	LIQUID	1.05e3	1.05e3	N/A ug/mL
95000093	B-101	8 SPK	S95T001550	0	QIC-01	F-02	LIQUID	66.5	N/A	ug/mL
95000093	B-101	8 SPK	S95T001550	0	QIC-01	CL-02	LIQUID	106.4	N/A	ug/mL
95000093	B-101	8 SPK	S95T001550	0	QIC-01	NO2-02	LIQUID	103.2	N/A	ug/mL
95000093	B-101	8 SPK	S95T001550	0	QIC-01	BR-02	LIQUID	70.6	N/A	ug/mL
95000093	B-101	8 SPK	S95T001550	0	QIC-01	NO3-02	LIQUID	99.2	N/A	ug/mL

Data Entry Comments:

S95T001550 SAMPLER DUP D.F. 10201 sample size 100-10-100-10
S95T001550 SPIKE 10201 100-10-100-99+100 spike

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#

2108

GROUP	PROJECT	S TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
95000093	B-101	8 SPK	S95T001550	0	@IC-01	PO4-02	LIQUID		106.0	N/A	ug/mL
95000093	B-101	8 SPK	S95T001550	0	@IC-01	SO4-02	LIQUID		117.6	N/A	ug/mL
95000093	B-101	8 SPK	S95T001550	0	@IC-01	OXALATE2	LIQUID		100.0	N/A	ug/mL

Final page for worklist #

2108

David C. Dunham 9-5-95
Analyst Signature Date

Analyst Signature Date

Entered & verified 9/13/95 JMF

Data Entry Comments:

S95T001542 also contains Br, but the quantity is just under 1.34e3 ug/ml detection limit. JMF

LAB LEADER INFO	
Method:	La-633-105 d-0
Matrix:	liquid
Test Code:	@lc-01
Work List #:	2108
Batch #:	
Result Units	
(µg/g or µg/mL):	µg/mL
Spike Book Number:	106N9A
Spike Sample #:	2
Prepared By:	Jann Frye
Prepared Date:	09/13/95
Chemist:	Jann Frye
Analyst:	Dave Dunham
Analysis Date:	09/05/95
Time Complete:	07:46 AM
Instrument Code:	lc01
Rerun:	0
Sample Prep:	direct
Sample Point:	
Sample Type	
STANDARD	106N9A
SAMPLE 1	S95T001542
DUPLICATE 1	S95T001542dup
SAMPLE 2	S95T001550
DUPLICATE 2	S95T001550dup
SAMPLE 3	
DUPLICATE 3	
SAMPLE 4	
DUPLICATE 4	
SPIKE	S95T001550spk
SPIKE DUPLICATE	

TECH INFO								
	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Blank Data (µg/mL)	<0.62	<0.63	<0.647	<0.699	<0.698	<0.670	<0.632	<0.496
Standard Data (µg/mL)	64.2	79.7	580.5	630.7	554.9	643	588.1	587.3

Sample 1 Data (µg/mL)	2.38E+02	6.68E+02	1.30E+05	3.72E+05	7.23E+03	2.23E+04	<632	<496
Sample 1 Dilution Factor	2121	2121	10201	10201	2121	2121	2121	2121
Sample 1 Prep DF	1	1	1	1	1	1	1	1
Duplicate 1 Data (µg/mL)	2.38E+02	7.04E+02	1.33E+05	3.60E+05	7.63E+03	2.32E+04	<632	<496
Duplicate 1 Dilution Factor	2121	2121	10201	10201	2121	2121	2121	2121
Duplicate 1 Prep DF	1	1	1	1	1	1	1	1

Sample 2 Data (µg/mL)	2.61E+02	6.80E+02	1.31E+05	3.37E+05	4.73E+03	2.12E+04	1.74E+03	<496
Sample 2 Dilution Factor	2121	2121	10201	10201	2121	2121	2121	2121
Sample 2 Prep DF	1	1	1	1	1	1	1	1
Duplicate 2 Data (µg/mL)	2.45E+02	6.02E+02	1.32E+05	3.38E+05	4.88E+03	2.12E+04	1.77E+03	<496
Duplicate 2 Dilution Factor	2121	2121	10201	10201	2121	2121	2121	2121
Duplicate 2 Prep DF	1	1	1	1	1	1	1	1

Sample 3 Data (µg/mL)								
Sample 3 Dilution Factor								
Sample 3 Prep DF								
Duplicate 3 Data (µg/mL)								
Duplicate 3 Dilution Factor								
Duplicate 3 Prep DF								

Sample 4 Data (µg/mL)								
Sample 4 Dilution Factor								
Sample 4 Prep DF								
Duplicate 4 Data (µg/mL)								
Duplicate 4 Dilution Factor								
Duplicate 4 Prep DF								

Spike + Sample 2 (µg/mL)	1.05E+03	2.28E+03	1.95E+05	3.99E+05	1.64E+04	3.62E+04	1.10E+04	1.17E+04
Spike + Dup 2 (µg/mL)								

Spike Volume (mL)	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
Total Volume (mL)	10.50	10.50	10.10	10.10	10.50	10.50	10.50	10.50
Std. Conc. (µg/mL)	59	79	519	614	546	631	575	581
Detection Limit	0.062	0.063	0.647	0.699	0.698	0.670	0.632	0.496
Matrix Detection Limit 1	1.32E+02	1.76E+02	5.58E+03	7.13E+03	1.26E+03	1.44E+03	1.34E+03	1.05E+03
Matrix Detection Limit 2	1.32E+02	1.76E+02	5.58E+03	7.13E+03	1.26E+03	1.44E+03	1.34E+03	1.05E+03
Matrix Detection Limit 3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Matrix Detection Limit 4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Spike Recovery = $\frac{((\text{Spike} + \text{Sample}) - (\text{Sample}) \times (\text{Total Volume}))}{(\text{Spike Vol.} \times (\text{Spike Std.} \times (\text{Sample DF})))} \times 100\%$

Note: (For spike recovery when the sample conc. is less than detection limit you do NOT subtract sample conc.)

Duplicate Relative % Difference = $\frac{((\text{Sample} - \text{Duplicate}))}{((\text{Sample} + \text{Duplicate}) / 2)} \times 100\%$

Less than Values are Calculated from the Detection Limit * Dilution Factor

v RESULTS v	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Standard % Recovery	108.8%	100.9%	108.0%	102.7%	101.6%	101.9%	102.3%	97.6%
Sample 1 in µg/mL	2.38E+02	6.68E+02	1.30E+05	3.72E+05	7.23E+03	2.23E+04	<1340.47	<1052.02
Duplicate 1 in µg/mL	2.38E+02	7.04E+02	1.33E+05	3.60E+05	7.63E+03	2.32E+04	<1340.47	<1052.02
Duplicate 1 RPD	0.2%	5.3%	2.3%	2.2%	4.1%	3.8%	N/A	N/A
Sample 2 in µg/mL	2.61E+02	6.80E+02	1.31E+05	3.37E+05	4.73E+03	2.12E+04	1.74E+03	<1052.02
Duplicate 2 in µg/mL	2.45E+02	6.02E+02	1.32E+05	3.38E+05	4.88E+03	2.12E+04	1.77E+03	<1052.02
Duplicate 2 RPD	6.0%	9.8%	0.6%	0.4%	3.2%	0.2%	1.6%	N/A
Spike % Recovery	66.5%	105.4%	103.2%	99.2%	108.0%	117.5%	79.6%	100.0%

Data Entry by:

Date: 09/13/95

Approved by:

Date: 9/13/95

Form DIONEX.WB1 Rev. 1.3

LAB LEADER INFO	
Method:	La-535-105 d-0
Matrix:	liquid
Test Code:	@lc-01
Work List #:	2108
Batch #:	
Result Units	
(ug/g or ug/mL):	ug/mL
Spike Book Number:	108N8A
Spike Sample #:	1
Prepared By:	Jann Frye
Prepared Date:	08/13/95
Chemist:	Jann Frye
Analyst:	Dave Dunham
Analysis Date:	08/05/95
Time Complete:	07:48 AM
Instrument Code:	lc01
Rerun:	0
Sample Prep:	direct
Sample Point:	
Sample Type	
STANDARD	108N8A
SAMPLE 1	S95T001542
DUPLICATE 1	S95T001542dup
SAMPLE 2	S95T001550
DUPLICATE 2	S95T001550dup
SAMPLE 3	
DUPLICATE 3	
SAMPLE 4	
DUPLICATE 4	
SPIKE	S95T001542epk
SPIKE DUPLICATE	

TECH INFO								
	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Blank Data (ug/mL)	<0.02	<0.03	<0.47	<0.99	<0.96	<0.78	<0.52	<0.48
Standard Data (ug/mL)	64.2	78.7	580.6	630.7	554.9	643	588.1	587.3
Sample 1 Data (ug/mL)	2.38E+02	6.68E+02	1.30E+03	3.72E+03	7.23E+03	2.23E+04	<632	<486
Sample 1 Dilution Factor	2121	2121	10201	10201	2121	2121	2121	2121
Sample 1 Prep DF	1	1	1	1	1	1	1	1
Duplicate 1 Data (ug/mL)	2.38E+02	7.04E+02	1.33E+03	3.80E+03	7.53E+03	2.32E+04	<632	<486
Duplicate 1 Dilution Factor	2121	2121	10201	10201	2121	2121	2121	2121
Duplicate 1 Prep DF	1	1	1	1	1	1	1	1
Sample 2 Data (ug/mL)								
Sample 2 Dilution Factor								
Sample 2 Prep DF								
Duplicate 2 Data (ug/mL)								
Duplicate 2 Dilution Factor								
Duplicate 2 Prep DF								
Sample 3 Data (ug/mL)								
Sample 3 Dilution Factor								
Sample 3 Prep DF								
Duplicate 3 Data (ug/mL)								
Duplicate 3 Dilution Factor								
Duplicate 3 Prep DF								
Sample 4 Data (ug/mL)								
Sample 4 Dilution Factor								
Sample 4 Prep DF								
Duplicate 4 Data (ug/mL)								
Duplicate 4 Dilution Factor								
Duplicate 4 Prep DF								
Spike + Sample 1 (ug/mL)	1.32E+03	2.35E+03	1.89E+03	4.35E+03	1.90E+04	3.68E+04	1.00E+04	1.19E+04
Spike + Dup 1 (ug/mL)								

Spike Volume (mL)	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
Total Volume (mL)	10.60	10.50	10.10	10.10	10.60	10.60	10.60	10.60
Std. Conc. (ug/mL)	69	79	619	614	646	631	675	581
Detection Limit	0.062	0.083	0.547	0.899	0.596	0.678	0.632	0.486
Matrix Detection Limit 1	1.32E+02	1.76E+02	5.58E+03	7.13E+03	1.28E+03	1.44E+03	1.34E+03	1.05E+03
Matrix Detection Limit 2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Matrix Detection Limit 3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Matrix Detection Limit 4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Spike Recovery = $\frac{((\text{Spike} + \text{Sample}) - (\text{Sample}) \times (\text{Total Volume}))}{(\text{Spike Vol.}) \times (\text{Spike Std.}) \times (\text{Sample DF})} \times 100\%$
 Note: (For spike recovery when the sample conc. is less than detection limit you do NOT subtract sample conc.)
 Duplicate Relative % Difference = $\frac{((\text{Sample} - \text{Duplicate}) / ((\text{Sample} + \text{Duplicate}) / 2)) \times 100\%}{\text{Less than Values are Calculated from the Detection Limit} \times \text{Dilution Factor}}$

v RESULTS v	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Standard % Recovery	108.8%	100.8%	108.0%	102.7%	101.5%	101.9%	102.3%	97.8%
Sample 1 in ug/mL	2.38E+02	6.68E+02	1.30E+03	3.72E+03	7.23E+03	2.23E+04	<1340.47	<1052.02
Duplicate 1 in ug/mL	2.38E+02	7.04E+02	1.33E+03	3.80E+03	7.53E+03	2.32E+04	<1340.47	<1052.02
Duplicate 1 RPD	0.2%	5.3%	2.3%	2.2%	4.1%	3.8%	N/A	N/A
Sample 2 in ug/mL	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 2 in ug/mL	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 2 RPD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Spike % Recovery	91.1%	105.2%	112.0%	102.6%	108.9%	114.1%	88.2%	101.1%

Date Entry by:	<i>Jann Frye</i>	Date:	09/13/95
Approved by:	<i>Jann Frye</i>	Date:	9/13/95
Form DIONEXWB1 Rev. 1.3			

=====

Sample Name: 106N9-A Date: 09/05/1995 03:32:43

Data File : C:\DX\DATA\95090501.D07

Method : C:\DX\METHOD\KIT.MET

CI Address: 1 System: 1 Inject#: 7 Detector: CDM-1

Analyst : *David Dunham* Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	66	318	2	
2	1.06	fluoride	64.288	1443	8097	2	0.00
3	1.62	chloride	79.710	1410	7592	1	-1.82
4	1.96	nitrite	560.585	5887	35858	1	-2.49
5	2.95	bromide	588.188	3535	25172	1	-0.67
6	3.39	nitrate	630.798	4283	34859	1	1.19
7	4.98	phosphate	554.988	1117	13872	1	-1.19
8	6.61	sulfate	643.070	3274	46018	1	-1.20
9	8.71	oxalate	567.397	1478	27640	1	-1.02
Totals			3689.023	22494	199426		

File: 95090501.D07 Sample: 106N9-A

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 84 TO 98.

WHC-SD-WM-DP-139, REV. 1

=====

Sample Name: BLANK	Date: 09/05/1995 02:26:44
Data File : C:\DX\DATA\95090501.D03	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 3	Detector: CDM-1
Analyst : <i>Deivid C. Dunham</i>	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	1	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta

Totals			0.000	0	0		

File: 95090501.D03 Sample: BLANK

WHC-SD-WM-DP- 139, REV. 1

=====

Sample Name: S95T001542 SAM	Date: 09/05/1995 03:02:40
Data File : C:\DX\DATA\95090501.D05	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 5	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	2121	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta

1	0.89		0.000	533	3009	2	
2	1.08	fluoride OK	238.399	251	1362	2	1.89
3	1.59	chloride OK	667.877	472	3218	1	-3.64
4	1.96	nitrite >THAN	112418.856	62969	419030	1	-2.49
5	2.92	bromide <THAN	1456.067	493	2357	1	-1.68
6	3.11	nitrate >THAN	165076.074	96028	1238870	1	-7.16
7	4.96	phosphate OK	7229.038	664	8366	1	-1.59
8	6.58	sulfate OK	22329.467	5546	77391	1	-1.64
9	8.74	oxalate <THAN	571.287	33	455	1	-0.68

Totals			309987.064	166990	1754056		

File: 95090501.D05 Sample: S95T001542 SAM

WHC-SD-WM-DP-139, REV. 1

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Sample Name: S95T001542 SAM	Date: 09/05/1995 04:05:57
Data File : C:\DX\DATA\95090501.D09	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 9	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	10201	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.89		0.000	118	665	1	
2	1.09	fluoride	288.641	52	301	1	2.83
3	1.61	chloride	352.548	125	672	1	-2.42
4	1.94	nitrite OK	130221.541	14145	84860	1	-3.48
5	2.94	bromide	3350.120	120	794	1	-1.01
6	3.28	nitrate OK	371537.137	23484	226993	1	-2.09
7	4.96	phosphate	8234.288	134	1623	1	-1.59
8	6.61	sulfate	22928.017	1124	15805	1	-1.20
Totals			536912.291	39302	331713		

File: 95090501.D09 Sample: S95T001542 SAM

WHC-SD-WM-DP-139, REV. 1

=====

Sample Name: S95T001542	DUP	Date: 09/05/1995 03:21:41
Data File : C:\DX\DATA\95090501.D06		
Method : C:\DX\METHOD\KIT.MET		
ACI Address: 1	System: 1	Inject#: 6
Analyst :	Column: AG4A/AS4A anion column/SRS	Detector: CDM-1

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	2121	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	533	2952	2	
2	1.08	fluoride	237.925	252	1359	2	1.89
3	1.59	chloride	704.117	499	3374	1	-3.64
4	1.96	nitrite	115102.763	63505	432199	1	-2.49
5	2.92	bromide	1482.381	508	2411	1	-1.68
6	3.11	nitrate	159730.027	98830	1280402	1	-7.16
7	4.96	phosphate	7534.736	686	8743	1	-1.59
8	6.58	sulfate	23187.525	5753	80490	1	-1.64
9	8.74	oxalate	627.197	38	586	1	-0.68
Totals			308606.672	170605	1812517		

File: 95090501.D06 Sample: S95T001542 DUP

WHC-SD-WM-DP-139, REV. 1

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Sample Name: S95T001542 DUP	Date: 09/05/1995 05:39:39
Data File : C:\DX\DATA\95090501.D10	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 10	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	10201	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta

1	0.90		0.000	142	879	2	
2	1.10	fluoride	680.368	68	785	2	3.77
3	1.62	chloride	345.657	133	666	1	-1.82
4	1.96	nitrite	133252.569	14962	86928	1	-2.49
5	2.93	bromide	3388.500	123	811	1	-1.35
6	3.27	nitrate	379686.819	24200	232784	1	-2.39
7	5.00	phosphate	8409.499	137	1667	1	-0.79
8	6.64	sulfate	23684.478	1169	16342	1	-0.75

Totals			549447.892	40935	340861		

File: 95090501.D10 Sample: S95T001542 DUP

WHC-SD-WM-DP-139, REV. 1

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Sample Name: S95T001542 SPIKE	Date: 09/05/1995 03:43:39
Data File : C:\DX\DATA\95090501.D08	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 8	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	2121	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	443	1978	2	
2	1.05	fluoride	91.14 %	1324.601	1353	2	-0.94
3	1.59	chloride	105.1 %	2346.482	1678	1	-3.64
4	1.96	nitrite		121466.885	67775	1	-2.49
5	2.91	bromide		10017.869	4065	1	-2.02
6	3.10	nitrate		156846.401	100712	1	-7.46
7	4.94	phosphate	106.8 %	19011.375	1857	1	-1.98
8	6.55	sulfate	114.2 %	36875.822	9376	1	-2.09
9	8.68	oxalate	96.2 %	11864.084	1471	1	-1.36
Totals			359753.519	188731	1987938		

File: 95090501.D08 Sample: S95T001542 SPIKE

WHC-SD-WM-DP-139, REV.1

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=====
Sample Name: S95T001542 SPIKE                      Date: 09/05/1995 05:53:10
Data File  : C:\DX\DATA\95090501.D11
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 11                Detector: CDM-1
Analyst    :                      Column: AG4A/AS4A anion column/SRS
=====

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-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1       10201    3000  5Hz   0.00 10.00       200
-----

```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	154	778	2	
2	1.06	fluoride	7025.047	1460	8780	2	0.00
3	1.62	chloride	8692.527	1525	8179	1	-1.82
4	1.95	nitrite	112 % 188933.573	20673	125693	1	-2.99
5	2.92	bromide	101 % 61994.089	3933	26319	1	-1.68
6	3.25	nitrate	102.5 % 435125.800	27781	273498	1	-2.99
7	4.99	phosphate	65214.372	1302	16270	1	-0.99
8	6.62	sulfate	89347.660	4590	63942	1	-1.05
9	8.72	oxalate	57525.405	1509	27750	1	-0.91
Totals			913858.473	62927	551209		

File: 95090501.D11 Sample: S95T001542 SPIKE

WHC-SD-WM-DP-139, REV.1

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Sample Name: S95T001550 SAM	Date: 09/05/1995 06:54:35
Data File : C:\DX\DATA\95090501.D15	
Method : C:\DX\METHOD\KIT.MET	
CI Address: 1 System: 1 Inject#: 15	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	2121	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	518	3053	2	
2	1.08	fluoride OK	260.680	268	1495	2	1.89
3	1.59	chloride OK	580.110	425	2840	1	-3.64
4	1.95	nitrite > THAN	111243.373	62612	413340	1	-2.99
5	2.88	bromide OK	1743.803	579	2950	1	-3.03
6	3.08	nitrate > THAN	176187.007	91100	1123992	1	-8.06
7	4.99	phosphate OK	4728.035	423	5293	1	-0.99
8	6.59	sulfate OK	21223.150	5241	73408	1	-1.49
Totals			315966.158	161165	1626371		

File: 95090501.D15 Sample: S95T001550 SAM

WHC-SD-WM-DP-139, REV. 1

Sample Name: S95T001550 SAM Date: 09/05/1995 06:11:50
 Data File : C:\DX\DATA\95090501.D12
 Method : C:\DX\METHOD\KIT.MET
 ACI Address: 1 System: 1 Inject#: 12 Detector: CDM-1
 Analyst : Column: AG4A/AS4A anion column/SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	10201	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	108	610	1	
2	1.11	fluoride	303.565	59	320	1	4.72
3	1.62	chloride	308.377	120	633	1	-1.82
4	1.95	nitrite OK	130941.967	14242	85351	1	-2.99
5	2.93	bromide	3519.081	133	866	1	-1.35
6	3.27	nitrate OK	337180.620	21922	203078	1	-2.39
7	5.01	phosphate	5644.866	84	972	1	-0.60
8	6.65	sulfate	22044.558	1082	15179	1	-0.60
Totals			499943.033	37750	307009		

File: 95090501.D12 Sample: S95T001550 SAM

WHC-SD-WM-DP-139, REV. 1

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=====
Sample Name: S95T001550 DUP                      Date: 09/05/1995 07:09:06
Data File  : C:\DX\DATA\95090501.D16
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 16              Detector: CDM-1
Analyst    :                                     Column: AG4A/AS4A anion column/SRS
=====

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-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1         2121   3000  5Hz   0.00 10.00      200
-----

```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	479	2639	2	
2	1.09	fluoride	245.399	262	1403	2	2.83
3	1.59	chloride	602.391	444	2936	1	-3.64
4	1.95	nitrite	111476.641	62416	414465	1	-2.99
5	2.88	bromide	1771.889	575	3008	1	-3.03
6	3.08	nitrate	176570.108	90942	1118681	1	-8.06
7	4.98	phosphate	4882.988	430	5482	1	-1.19
8	6.59	sulfate	21191.424	5241	73294	1	-1.49
Totals			316740.840	160789	1621909		

File: 95090501.D16 Sample: S95T001550 DUP

WHC-SD-WM-DP-139, REV. 1

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=====
Sample Name: S95T001550 DUP                      Date: 09/05/1995 06:23:21
Data File  : C:\DX\DATA\95090501.D13
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 13              Detector: CDM-1
Analyst    :                               Column: AG4A/AS4A anion column/SRS
=====

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```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          10201  3000  5Hz   0.00 10.00          200
-----

```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	104	582	1	
2	1.11	fluoride	332.840	63	356	1	4.72
3	1.62	chloride	410.940	138	723	1	-1.82
4	1.95	nitrite	131650.617	14046	85834	1	-2.99
5	2.92	bromide	3504.105	131	860	1	-1.68
6	3.27	nitrate	335863.195	21842	202177	1	-2.39
7	5.01	phosphate	5570.823	83	953	1	-0.60
8	6.65	sulfate	22007.043	1093	15152	1	-0.60
Totals			499339.562	37500	306637		

File: 95090501.D13 Sample: S95T001550 DUP

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

Data Reprocessed On 09/05/1995 07:50:05

=====

Sample Name:	S95T001550 SPIKE	Date:	09/05/1995 07:22:32
Data File :	C:\DX\DATA\95090501.D17		
Method :	C:\DX\METHOD\KIT.MET		
ACI Address:	1	System:	1
Inject#:	17	Detector:	CDM-1
Analyst :		Column:	AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	2121	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	405	1820	1	
2	1.06	fluoride	1033.991	1194	6159	1	0.00
3	1.61	chloride	2243.792	1639	10109	1	-2.42
4	1.97	nitrite	120642.684	66122	460224	1	-1.99
5	2.89	bromide	11086.209	4207	22483	1	-2.69
6	3.10	nitrate	172813.163	94035	1165303	1	-7.46
7	4.99	phosphate	16094.643	1566	19488	1	-0.99
8	6.60	sulfate	35050.208	8975	124289	1	-1.35
9	8.71	oxalate	11636.975	1466	26961	1	-1.02
Totals			370601.665	179610	1836836		

File: 95090501.D17 Sample: S95T001550 SPIKE

WHC-SD-WM-DP-139, REV. 1

=====

Sample Name: S95T001550 SPIKE	Date: 09/05/1995 07:46:32
Data File : C:\DX\DATA\95090501.D18	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 18	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	2121	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.90		0.000	404	1758	1	
2	1.06	fluoride	1053.618	1202	6279	1	0.00
3	1.60	chloride	2278.360	1632	10262	1	-3.03
4	1.97	nitrite	123588.246	68473	475627	1	-1.99
5	2.89	bromide	10984.021	4272	22266	1	-2.69
6	3.09	nitrate	167612.444	97785	1216955	1	-7.76
7	4.99	phosphate	16424.199	1590	19908	1	-0.99
8	6.59	sulfate	36210.743	9258	128674	1	-1.49
9	8.71	oxalate	11736.889	1474	27205	1	-1.02
Totals			369888.521	186092	1908935		

File: 95090501.D18 Sample: S95T001550 SPIKE

WHC-SD-WM-DP-139, REV. 1

=====

Sample Name: S95T001550 SPIKE	Date: 09/05/1995 06:34:05
Data File : C:\DX\DATA\95090501.D14	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 14	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	10201	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta

1	0.89		0.000	146	711	2	
2	1.05	fluoride	6754.335	1446	8432	2	-0.94
3	1.60	chloride	8404.297	1472	7915	1	-3.03
4	1.93	nitrite	185049.931	20651	122940	1	-3.98
5	2.89	bromide	61449.009	3846	26077	1	-2.69
6	3.23	nitrate	398719.736	25649	246494	1	-3.58
7	4.98	phosphate	61684.718	1228	15344	1	-1.19
8	6.60	sulfate	86698.270	4452	61981	1	-1.35
9	8.72	oxalate	56827.643	1483	27397	1	-0.91

Totals			865587.938	60373	517290		

File: 95090501.D14 Sample: S95T001550 SPIKE

WHC-SD-WM-DP-139, REV. 1

LABCORE Data Entry Template for Worklist#

2169

Analyst: DCD Instrument: IC01 AL10652 Book # 106N9-A STD & SPK

Method: LA-533-105 Rev/Mod D-0

Worklist Comment: B-101 IC. JMF

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP		01C-01	F-02	SOLID	<u>2.062</u>	<u>N/A</u>		ug/g
		1 BLNK-PREP		01C-01	CL-02	SOLID	<u>2.083</u>	<u>N/A</u>		ug/g
		1 BLNK-PREP		01C-01	NO2-02	SOLID	<u>2.547</u>	<u>N/A</u>		ug/g
		1 BLNK-PREP		01C-01	BR-02	SOLID	<u>2.632</u>	<u>N/A</u>		ug/g
		1 BLNK-PREP		01C-01	NO3-02	SOLID	<u>2.699</u>	<u>N/A</u>		ug/g
		1 BLNK-PREP		01C-01	PO4-02	SOLID	<u>2.596</u>	<u>N/A</u>		ug/g
		1 BLNK-PREP		01C-01	SO4-02	SOLID	<u>2.678</u>	<u>N/A</u>		ug/g
		1 BLNK-PREP		01C-01	OXALATE2	SOLID	<u>2.496</u>	<u>N/A</u>		ug/g
		2 STD		01C-01	F-02	SOLID	<u>64.3</u>	<u>N/A</u>		ug/g
		2 STD		01C-01	CL-02	SOLID	<u>80.5</u>	<u>N/A</u>		ug/g
		2 STD		01C-01	NO2-02	SOLID	<u>572</u>	<u>N/A</u>		ug/g
		2 STD		01C-01	BR-02	SOLID	<u>598</u>	<u>N/A</u>		ug/g
		2 STD		01C-01	NO3-02	SOLID	<u>631</u>	<u>N/A</u>		ug/g
		2 STD		01C-01	PO4-02	SOLID	<u>573</u>	<u>N/A</u>		ug/g
		2 STD		01C-01	SO4-02	SOLID	<u>658</u>	<u>N/A</u>		ug/g
		2 STD		01C-01	OXALATE2	SOLID	<u>566</u>	<u>N/A</u>		ug/g
95000091	B-101	3 SAMPLE	S95T001544	0 W	01C-01	F-02	SOLID	<u>N/A</u>	<u>1.41e2</u>	<u>1.25e2</u> ug/g
95000091	B-101	3 SAMPLE	S95T001544	0 W	01C-01	CL-02	SOLID	<u>N/A</u>	<u>3.23e2</u>	<u>1.68e2</u> ug/g

Data Entry Comments:	SAMPLE	DF	SAMPLE SIZE
	BINK - PREP	21	.500 - 10
	S95T001544 SAM & DUP	101	.100 - 10
	S95T001544 SAM & DUP	21	.500 - 10

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.

S95T001544 Sample 10.4030g/L Dup 10.3440g/L. 39
S95T001544 Sample 5.8270g/L Dup 5.8070g/L

LABCORE Data Entry Template for Worklist#

2169

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
95000091	B-101	3 SAMPLE	S95T001544	0 W	QIC-01 NO2-02	SOLID	N/A	6.81e4	5.31e3	ug/g
95000091	B-101	3 SAMPLE	S95T001544	0 W	QIC-01 BR-02	SOLID	N/A	1.50e3	1.28e3	ug/g
95000091	B-101	3 SAMPLE	S95T001544	0 W	QIC-01 NO3-02	SOLID	N/A	1.92e5	1.79e3	ug/g
95000091	B-101	3 SAMPLE	S95T001544	0 W	QIC-01 PO4-02	SOLID	N/A	3.59e3	1.26e3	ug/g
95000091	B-101	3 SAMPLE	S95T001544	0 W	QIC-01 SO4-02	SOLID	N/A	1.69e4	1.37e3	ug/g
95000091	B-101	3 SAMPLE	S95T001544	0 W	QIC-01 OXALATE2	SOLID	N/A	4.10e3	1.00e3	ug/g
95000091	B-101	4 DUP	S95T001544	0 W	QIC-01 F-02	SOLID	1.41e2	1.41e2	N/A	ug/g
95000091	B-101	4 DUP	S95T001544	0 W	QIC-01 CL-02	SOLID	3.23e2	3.76e2	N/A	ug/g
95000091	B-101	4 DUP	S95T001544	0 W	QIC-01 NO2-02	SOLID	6.81e4	6.98e4	N/A	ug/g
95000091	B-101	4 DUP	S95T001544	0 W	QIC-01 BR-02	SOLID	1.50e3	1.51e3	N/A	ug/g
95000091	B-101	4 DUP	S95T001544	0 W	QIC-01 NO3-02	SOLID	1.92e5	1.95e5	N/A	ug/g
95000091	B-101	4 DUP	S95T001544	0 W	QIC-01 PO4-02	SOLID	3.59e3	3.93e3	N/A	ug/g
95000091	B-101	4 DUP	S95T001544	0 W	QIC-01 SO4-02	SOLID	1.69e4	1.50e4	N/A	ug/g
95000091	B-101	4 DUP	S95T001544	0 W	QIC-01 OXALATE2	SOLID	4.10e3	4.10e3	N/A	ug/g
95000091	B-101	5 SPK	S95T001544	0 W	QIC-01 CL-02	SOLID		107.1	N/A	ug/g
95000091	B-101	5 SPK	S95T001544	0 W	QIC-01 F-02	SOLID		96.4	N/A	ug/g
95000091	B-101	5 SPK	S95T001544	0 W	QIC-01 NO2-02	SOLID		112.1	N/A	ug/g
95000091	B-101	5 SPK	S95T001544	0 W	QIC-01 BR-02	SOLID		93.9	N/A	ug/g
95000091	B-101	5 SPK	S95T001544	0 W	QIC-01 NO3-02	SOLID		102.1	N/A	ug/g
95000091	B-101	5 SPK	S95T001544	0 W	QIC-01 PO4-02	SOLID		107.3	N/A	ug/g
95000091	B-101	5 SPK	S95T001544	0 W	QIC-01 SO4-02	SOLID		90.3	N/A	ug/g

SAMPLE

DF

SAMPLE SIZE

Data Entry Comments:

S95T001544 SPIKE 101 .100 - 9.9 + .100 spike
S95T001544 SPIKE 21 .500 - 9.9 + .100 spike

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#

2169

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
95000091	B-101	5 SPK	S95T001544	0 W	QIC-01 OXALATE2	SOLID		103.2	N/A	ug/g
95000093	B-101	6 SAMPLE	S95T001546	0 W	QIC-01 F-02	SOLID	N/A	3.64e2	2.23e2	ug/g
95000093	B-101	6 SAMPLE	S95T001546	0 W	QIC-01 CL-02	SOLID	N/A	4.29e2	2.99e2	ug/g
95000093	B-101	6 SAMPLE	S95T001546	0 W	QIC-01 NO2-02	SOLID	N/A	7.62e4	1.97e3	ug/g
95000093	B-101	6 SAMPLE	S95T001546	0 W	QIC-01 BR-02	SOLID	N/A	2.28e3	2.28e3	ug/g
95000093	B-101	6 SAMPLE	S95T001546	0 W	QIC-01 NO3-02	SOLID	N/A	1.38e5	2.52e3	ug/g
95000093	B-101	6 SAMPLE	S95T001546	0 W	QIC-01 PO4-02	SOLID	N/A	6.72e3	2.15e3	ug/g
95000093	B-101	6 SAMPLE	S95T001546	0 W	QIC-01 SO4-02	SOLID	N/A	1.07e4	2.44e3	ug/g
95000093	B-101	6 SAMPLE	S95T001546	0 W	QIC-01 OXALATE2	SOLID	N/A	4.17e3	6.79e3	ug/g
95000093	B-101	7 DUP	S95T001546	0 W	QIC-01 F-02	SOLID	3.64e2	3.66e2	N/A	ug/g
95000093	B-101	7 DUP	S95T001546	0 W	QIC-01 CL-02	SOLID	4.29e2	4.29e2	N/A	ug/g
95000093	B-101	7 DUP	S95T001546	0 W	QIC-01 NO2-02	SOLID	7.62e4	7.50e4	N/A	ug/g
95000093	B-101	7 DUP	S95T001546	0 W	QIC-01 BR-02	SOLID	2.28e3	2.28e3	N/A	ug/g
95000093	B-101	7 DUP	S95T001546	0 W	QIC-01 NO3-02	SOLID	1.38e5	1.4e5	N/A	ug/g
95000093	B-101	7 DUP	S95T001546	0 W	QIC-01 PO4-02	SOLID	6.72e3	1.98e3	N/A	ug/g
95000093	B-101	7 DUP	S95T001546	0 W	QIC-01 SO4-02	SOLID	1.07e4	1.05e4	N/A	ug/g
95000093	B-101	7 DUP	S95T001546	0 W	QIC-01 OXALATE2	SOLID	4.17e3	4.17e3	N/A	ug/g
95000093	B-101	8 SPK	S95T001546	0 W	QIC-01 CL-02	SOLID		103.3	N/A	ug/g
95000093	B-101	8 SPK	S95T001546	0 W	QIC-01 F-02	SOLID		102.7	N/A	ug/g
95000093	B-101	8 SPK	S95T001546	0 W	QIC-01 NO2-02	SOLID		93.6	N/A	ug/g
95000093	B-101	8 SPK	S95T001546	0 W	QIC-01 BR-02	SOLID		102.8	N/A	ug/g
95000093	B-101	8 SPK	S95T001546	0 W	QIC-01 NO3-02	SOLID		99.6	N/A	ug/g

SAMPLE

DF

SAMPLE size

Data Entry Comments:

S95T001546 SAM & DUP

21

.500 -10

S95T001546 SPIKE

21

.500 -9.9 + .100 spike

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#

2169

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
95000093	B-101	B SPK	S95T001546	0 W	QIC-01 PO4-02	SOLID		103.7	N/A	ug/g
95000093	B-101	B SPK	S95T001546	0 W	QIC-01 SO4-02	SOLID		103.0	N/A	ug/g
95000093	B-101	B SPK	S95T001546	0 W	QIC-01 OXALATE2	SOLID		99.0	N/A	ug/g

Final page for worklist #

2169

Analyst Signature

Date

Analyst Signature

Date

Entered & Verified by James M. Luy
9/5/95

Data Entry Comments:

Standard recovery for NO₂ was high NO₂
has to be re-run. The re-run is on WKL 2249.

J.M. Luy

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.

**WESTINGHOUSE HANFORD COMPANY
222-S LABORATORY
INORGANIC ANALYTICAL BATCH AND SUMMARY SHEET
ANION ANALYSIS ON DIONEX**

SAMPLE #: S95T001544 & S95T001546 TEST CODE: @ic-01 INSTRUMENT: IC01 WORK LIST #: 2169 BATCH ID: na	ANALYST: David Dunham ANALYSIS DATE: 08/31/95 SAMPLE POINT: B-101 SAMPLE PREP: water digest
--	--

Result Units	µg/g	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
106N9A		109.0%	101.9%	110.2%	102.8%	104.9%	104.3%	104.0%	97.4%
S95T001544		1.41E+02	3.23E+02	6.81E+04	1.92E+05	3.59E+03	1.69E+04	1.50E+03	<1001.25
S95T001544dup		1.44E+02	3.76E+02	6.98E+04	1.95E+05	3.93E+03	1.50E+04	1.51E+03	<1006.96
Duplicate 1 RPD		1.9%	15.1%	2.4%	1.4%	8.9%	11.9%	1.1%	N/A
S95T001546		3.64E+02	2.03E+02	7.62E+04	1.38E+05	6.72E+03	1.07E+04	1.10E+03	<1787.54
S95T001546dup		3.66E+02	2.08E+02	7.50E+04	1.40E+05	6.98E+03	1.05E+04	1.12E+03	<1793.70
Duplicate 2 RPD		0.4%	2.1%	1.6%	0.8%	3.8%	1.9%	1.3%	N/A
S95T001544spk		96.4%	107.1%	112.1%	102.1%	107.3%	90.3%	93.9%	103.2%

NARRATIVE: Analyst Comments:

Chemist Comments:

Form Completed By: <i>David Dunham</i>	Date: 9/5/95
Chemist Approval: <i>David Dunham</i>	Date: 9/5/95

LAB LEADER INFO	
Method:	LA-533-105 d-0
Matrix:	solid
Test Code:	@ic-01
Work List #:	2169
Batch #:	na
Result Units	
($\mu\text{g/g}$ or $\mu\text{g/mL}$):	$\mu\text{g/g}$
Spike Book Number:	108N9A
Spike Sample #:	1
Prepared By: Jann Frys	
Prepared Date: 09/05/95	
Chemist: Jann Frys	
Analyst: David Dunham	
Analysis Date: 08/31/95	
Time Complete: 04:07 AM	
Instrument Code: IC01	
Run: 0	
Sample Prep: water digest	
Sample Point: B-101	
Sample Type	
STANDARD	108N9A
SAMPLE 1	S95T001544
DUPLICATE 1	S95T001544dup
SAMPLE 2	S95T001546
DUPLICATE 2	S95T001546dup
SAMPLE 3	
DUPLICATE 3	
SAMPLE 4	
DUPLICATE 4	
SPIKE	S95T001544spk
SPIKE DUPLICATE	

TECH INFO								
	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Blank Data ($\mu\text{g/mL}$)	<0.062	<0.063	<0.547	<0.599	<0.596	<0.678	<0.632	<0.496
Standard Data ($\mu\text{g/mL}$)	64.3	90.5	572	631	673	659	698	566
Sample 1 Data ($\mu\text{g/mL}$)	1.47E+00	3.36E+00	7.08E+02	2.00E+03	3.74E+01	1.76E+02	1.58E+01	<496
Sample 1 Dilution Factor	21	21	101	101	21	21	21	21
Sample 1 Prep DF	10.403	10.403	10.403	10.403	10.403	10.403	10.403	10.403
Duplicate 1 Data ($\mu\text{g/mL}$)	1.49E+00	3.99E+00	7.22E+02	2.02E+03	4.08E+01	1.55E+02	1.57E+01	<496
Duplicate 1 Dilution Factor	21	21	101	101	21	21	21	21
Duplicate 1 Prep DF	10.344	10.344	10.344	10.344	10.344	10.344	10.344	10.344
Sample 2 Data ($\mu\text{g/mL}$)	2.12E+00	1.19E+00	4.44E+02	8.07E+02	3.92E+01	8.28E+01	6.42E+00	<496
Sample 2 Dilution Factor	21	21	21	21	21	21	21	21
Sample 2 Prep DF	5.827	5.827	5.827	5.827	5.827	5.827	5.827	5.827
Duplicate 2 Data ($\mu\text{g/mL}$)	2.12E+00	1.21E+00	4.36E+02	8.11E+02	4.05E+01	6.13E+01	6.48E+00	<496
Duplicate 2 Dilution Factor	21	21	21	21	21	21	21	21
Duplicate 2 Prep DF	5.907	5.907	5.907	5.907	5.907	5.907	5.907	5.907
Sample 3 Data ($\mu\text{g/mL}$)								
Sample 3 Dilution Factor								
Sample 3 Prep DF								
Duplicate 3 Data ($\mu\text{g/mL}$)								
Duplicate 3 Dilution Factor								
Duplicate 3 Prep DF								
Sample 4 Data ($\mu\text{g/mL}$)								
Sample 4 Dilution Factor								
Sample 4 Prep DF								
Duplicate 4 Data ($\mu\text{g/mL}$)								
Duplicate 4 Dilution Factor								
Duplicate 4 Prep DF								
Spike + Sample 1 ($\mu\text{g/mL}$)	1.28E+01	2.03E+01	1.28E+03	2.63E+03	1.55E+02	2.90E+02	1.24E+02	1.20E+02
Spike + Dup 1 ($\mu\text{g/mL}$)								

Spike Volume (mL)	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
Total Volume (mL)	10.50	10.50	10.10	10.10	10.50	10.50	10.50	10.50
Std. Conc. ($\mu\text{g/mL}$)	59	79	519	614	649	631	575	561
Detection Limit	0.062	0.063	0.547	0.599	0.596	0.678	0.632	0.496
Matrix Detection Limit 1	1.25E+02	1.68E+02	5.31E+03	6.78E+03	1.20E+03	1.37E+03	1.28E+03	1.00E+03
Matrix Detection Limit 2	2.23E+02	2.99E+02	1.97E+03	2.62E+03	2.16E+03	2.44E+03	2.28E+03	1.79E+03
Matrix Detection Limit 3	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
Matrix Detection Limit 4	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR

Spike Recovery = $\frac{((\text{Spike} + \text{Sample}) - (\text{Sample}) \times (\text{Total Volume})) / ((\text{Spike Vol.}) \times (\text{Spike Std.}) \times (\text{Sample DF}))}{100\%}$
 Note: (For spike recovery when the sample conc. is less than detection limit you do NOT subtract sample conc.)
 Duplicate Relative % Difference = $\frac{((\text{Sample} - \text{Duplicate}) / ((\text{Sample} + \text{Duplicate}) / 2)) \times 100\%}{100\%}$
 Less than Values are Calculated from the Detection Limit/Dilution Factor

v RESULTS v	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Standard % Recovery	109.0%	101.9%	110.2%	102.8%	104.9%	104.3%	104.0%	97.4%
Sample 1 In $\mu\text{g/g}$	1.41E+02	3.23E+02	6.81E+04	1.92E+05	3.59E+03	1.69E+04	1.50E+03	<1001.25
Duplicate 1 In $\mu\text{g/g}$	1.44E+02	3.78E+02	6.98E+04	1.95E+05	3.93E+03	1.50E+04	1.51E+03	<1006.98
Duplicate 1 RPD	1.9%	15.1%	2.4%	1.4%	8.9%	11.9%	1.1%	N/A
Sample 2 In $\mu\text{g/g}$	3.64E+02	2.03E+02	7.62E+04	1.38E+05	6.72E+03	1.07E+04	1.10E+03	<1787.64
Duplicate 2 In $\mu\text{g/g}$	3.66E+02	2.08E+02	7.60E+04	1.40E+05	6.88E+03	1.05E+04	1.12E+03	<1793.70
Duplicate 2 RPD	0.4%	2.1%	1.6%	0.6%	3.6%	1.9%	1.3%	N/A
Spike % Recovery	98.4%	107.1%	112.1%	102.1%	107.3%	90.3%	93.9%	103.2%

Data Entry by:
 Approved by:
 Form DIONEX-WB1 Rev. 1.3

Date: 09/05/95

Date: 9/5/95

104

LAB LEADER INFO	
Method:	LA-533-105 d-0
Matrix:	solid
Test Code:	@c-01
Work List #:	2169
Batch #:	na
Result Units	
(µg/g or µg/mL):	µg/g
Spike Book Number:	106N8A
Spike Sample #:	2
Prepared By:	Jann Frye
Prepared Date:	09/05/95
Chemist:	Jann Frye
Analyst:	David Dunham
Analysis Date:	09/31/95
Time Complete:	04:07 AM
Instrument Code:	IC01
Run:	0
Sample Prep:	water digest
Sample Point:	B-101
Sample Type	
STANDARD	106N8A
SAMPLE 1	S95T001544
DUPLICATE 1	S95T001544dup
SAMPLE 2	S95T001545
DUPLICATE 2	S95T001545dup
SAMPLE 3	
DUPLICATE 3	
SAMPLE 4	
DUPLICATE 4	
SPIKE	S95T001548spk
SPIKE DUPLICATE	

TECH INFO								
	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Blank Data (µg/mL)	<0.062	<0.063	<0.547	<0.699	<0.596	<0.678	<0.632	<0.496
Standard Data (µg/mL)	64.3	80.6	572	631	673	659	598	566
Sample 1 Data (µg/mL)	1.47E+00	3.36E+00	7.09E+02	2.00E+03	3.74E+01	1.78E+02	1.66E+01	<496
Sample 1 Dilution Factor	21	21	101	101	21	21	21	21
Sample 1 Prep DF	10.403	10.403	10.403	10.403	10.403	10.403	10.403	10.403
Duplicate 1 Data (µg/mL)	1.49E+00	3.89E+00	7.22E+02	2.02E+03	4.08E+01	1.55E+02	1.57E+01	<496
Duplicate 1 Dilution Factor	21	21	101	101	21	21	21	21
Duplicate 1 Prep DF	10.344	10.344	10.344	10.344	10.344	10.344	10.344	10.344
Sample 2 Data (µg/mL)	2.12E+00	1.19E+00	4.44E+02	8.07E+02	3.92E+01	6.26E+01	8.42E+00	<496
Sample 2 Dilution Factor	21	21	21	21	21	21	21	21
Sample 2 Prep DF	5.827	5.827	5.827	5.827	5.827	5.827	5.827	5.827
Duplicate 2 Data (µg/mL)	2.12E+00	1.21E+00	4.36E+02	8.11E+02	4.05E+01	6.13E+01	8.48E+00	<496
Duplicate 2 Dilution Factor	21	21	21	21	21	21	21	21
Duplicate 2 Prep DF	5.807	5.807	5.807	5.807	5.807	5.807	5.807	5.807
Sample 3 Data (µg/mL)								
Sample 3 Dilution Factor								
Sample 3 Prep DF								
Duplicate 3 Data (µg/mL)								
Duplicate 3 Dilution Factor								
Duplicate 3 Prep DF								
Sample 4 Data (µg/mL)								
Sample 4 Dilution Factor								
Sample 4 Prep DF								
Duplicate 4 Data (µg/mL)								
Duplicate 4 Dilution Factor								
Duplicate 4 Prep DF								
Spike + Sample 2 (µg/mL)	1.42E+01	1.78E+01	6.42E+02	8.28E+02	1.52E+02	1.83E+02	1.22E+02	1.15E+02
Spike + Dup 2 (µg/mL)								

Spike Volume (mL)	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
Total Volume (mL)	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50
Std. Conc. (µg/mL)	59	79	519	614	548	631	575	581
Detection Limit	0.062	0.083	0.547	0.699	0.596	0.678	0.632	0.496
Matrix Detection Limit 1	1.25E+02	1.88E+02	6.31E+03	6.79E+03	1.20E+03	1.37E+03	1.28E+03	1.00E+03
Matrix Detection Limit 2	2.23E+02	2.99E+02	1.97E+03	2.52E+03	2.16E+03	2.44E+03	2.28E+03	1.78E+03
Matrix Detection Limit 3	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
Matrix Detection Limit 4	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR

Spike Recovery = $\frac{((\text{Spike} + \text{Sample}) - (\text{Sample})) \times (\text{Total Volume})}{((\text{Spike Vol}) \times (\text{Spike Std.}) \times (\text{Sample DF}))} \times 100\%$
 Note: (For spike recovery when the sample conc. is less than detection limit you do NOT subtract sample conc.)
 Duplicate Relative % Difference = $\frac{((\text{Sample} - \text{Duplicate}) / ((\text{Sample} + \text{Duplicate}) / 2)) \times 100\%}{\text{Less than Values are Calculated from the Detection Limit} \times \text{Dilution Factor}}$

v RESULTS v	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Standard % Recovery	109.0%	101.5%	110.2%	102.8%	104.8%	104.3%	104.0%	97.4%
Sample 1 In µg/g	1.41E+02	3.23E+02	6.81E+04	1.92E+05	3.69E+03	1.69E+04	1.50E+03	<1001.25
Duplicate 1 In µg/g	1.44E+02	3.76E+02	6.98E+04	1.95E+05	3.93E+03	1.50E+04	1.51E+03	<1008.96
Duplicate 1 RPD	1.9%	16.1%	2.4%	1.4%	8.9%	11.9%	1.1%	N/A
Sample 2 In µg/g	3.64E+02	2.03E+02	7.62E+04	1.38E+05	6.72E+03	1.07E+04	1.10E+03	<1787.54
Duplicate 2 In µg/g	3.88E+02	2.08E+02	7.60E+04	1.40E+05	6.98E+03	1.05E+04	1.12E+03	<1783.70
Duplicate 2 RPD	0.4%	2.1%	1.6%	0.6%	3.8%	1.9%	1.3%	N/A
Spike % Recovery	102.7%	103.3%	93.6%	99.6%	103.7%	103.0%	100.8%	99.0%

Date Entry by:

Approved by:

Form DIONEXWB1 Rev. 1.3

Date: 09/05/95

Date: 9/5/95

NO₂ was put out for re-run JMF

Sample Name: BLANK Date: 08/30/1995 22:08:23
 Data File : C:\DX\DATA\95083051.D01
 Method : C:\DX\METHOD\KIT.MET
 ACI Address: 1 System: 1 Inject#: 1 Detector: CDM-1
 Analyst : *David Dunham* Column: AG4A/AS4A anion column/SRS

Calibration Volume Dilution Points Rate Start Stop Area Reject
 External 1 1 3000 5Hz 0.00 10.00 200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
Totals			0.000	0	0		

File: 95083051.D01 Sample: BLANK

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 107 TO 120.

WHC-SD-WM-DP-139, REV. 1

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Sample Name: 106N9-A	Date: 08/30/1995 22:29:51
Data File : C:\DX\DATA\95083051.D02	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 2	Detector: CDM-1
Analyst : <i>David C. Dunham</i>	Column: AG4A/AS4A anion column/SRS

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Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	56	259	2	
2	1.06	fluoride	64.308	1447	8100	2	0.00
3	1.63	chloride	80.514	1483	7666	1	-1.21
4	1.96	nitrite	571.962	6060	36605	1	-2.49
5	2.96	bromide	597.712	3644	25598	1	-0.34
6	3.40	nitrate	630.748	4295	34857	1	1.49
7	4.98	phosphate	572.683	1137	14338	1	-1.19
8	6.57	sulfate	658.313	3378	47140	1	-1.79
9	8.66	oxalate	565.739	1496	27555	1	-1.59
Totals			3741.979	22996	202118		

File: 95083051.D02 Sample: 106N9-A

WHC-SD-WM-DP-139, REV. 1

Sample Name: PREP-BLANK Date: 08/31/1995 04:07:09
 Data File : C:\DX\DATA\95083101.D26
 Method : C:\DX\METHOD\KIT.MET
 CI Address: 1 System: 1 Inject#: 26 Detector: CDM-1
 Analyst : Column: AG4A/AS4A anion column/SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	21	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	3.37	nitrate	3.034	103	753	1	0.60
Totals			3.034	103	753		

File: 95083101.D26 Sample: PREP-BLANK

WHC-SD-WM-DP-139, REV. 1

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Sample Name: S95T001544 SAM	Date: 08/30/1995 23:05:15
Data File : C:\DX\DATA\95083051.D04	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 4	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

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Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	21	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.90		0.000	270	1525	2	
2	1.10	fluoride OK	1.470	159	826	2	3.77
3	1.62	chloride OK	3.363	297	1809	1	-1.82
4	1.97	nitrite OK	706.695	39759	242142	1	-1.99
5	2.96	bromide OK	15.574	438	2598	1	-0.34
6	3.21	nitrate >THAN	1642.337	57249	657968	1	-4.18
7	5.00	phosphate OK	37.377	333	4129	1	-0.79
8	6.57	sulfate OK	175.823	4386	61028	1	-1.79
Totals			2582.638	102891	972024		

File: 95083051.D04 Sample: S95T001544 SAM

WHC-SD-WM-DP-139, REV. 1

Sample Name: S95T001544 SAM Date: 08/30/1995 22:47:11
 Data File : C:\DX\DATA\95083051.D03
 Method : C:\DX\METHOD\KIT.MET
 ACI Address: 1 System: 1 Inject#: 3 Detector: CDM-1
 Analyst : Column: AG4A/AS4A anion column/SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	44	262	1	
3	1.63	chloride	< THAN x3	78	382	1	-1.21
4	1.96	nitrite	OK	7686	45635	1	-2.49
5	2.97	bromide	< THAN x5	87	566	1	0.00
6	3.35	nitrate	OK	12985	115762	1	0.00
7	5.00	phosphate	< THAN x2	63	721	1	-0.79
8	6.59	sulfate	OK	865	12008	1	-1.49
Totals			2958.563	21808	175336		

File: 95083051.D03 Sample: S95T001544 SAM

WHC-SD-WM-DP-139, REV. 1

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Sample Name: S95T001544 SAM                      Date: 08/31/1995 00:54:24
Data File  : C:\DX\DATA\95083051.D12
Method     : C:\DX\METHOD\KIT.MET
ACT Address: 1 System: 1 Inject#: 12              Detector: CDM-1
Analyst    :                               Column: AG4A/AS4A anion column/SRS
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Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          21    3000  5Hz   0.00 10.00         200
-----

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***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name		Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90			0.000	283	1623	2	
2	1.10	fluoride	OK	1.426	154	800	2	3.77
3	1.62	chloride	OK	3.566	307	1896	1	-1.82
4	1.97	nitrite	OK	710.246	40100	243532	1	-1.99
5	2.94	bromide	OK	15.974	435	2681	1	-1.01
6	3.20	nitrate	>THAN	1647.442	57794	662391	1	-4.48
7	5.00	phosphate	OK	38.374	343	4252	1	-0.79
8	6.56	sulfate	OK	175.951	4391	61074	1	-1.94
Totals				2592.978	103807	978249		

File: 95083051.D12 Sample: S95T001544 SAM

=====

Sample Name: S95T001544 DUP	Date: 08/31/1995 01:05:59
Data File : C:\DX\DATA\95083051.D13	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 13	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

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Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	21	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.90		0.000	285	1634	2	
2	1.10	fluoride	1.497	160	843	2	3.77
3	1.62	chloride	3.890	312	2037	1	-1.82
4	1.97	nitrite	719.453	40420	247145	1	-1.99
5	2.94	bromide	15.652	434	2614	1	-1.01
6	3.20	nitrate	1648.205	57811	663059	1	-4.48
7	5.00	phosphate	40.637	367	4531	1	-0.79
8	6.56	sulfate	155.264	3836	53675	1	-1.94
Totals			2584.599	103624	975537		

File: 95083051.D13 Sample: S95T001544 DUP

WHC-SD-WM-DP-1.39, REV. 1

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Sample Name: S95T001544 DUP	Date: 08/31/1995 00:06:43
Data File : C:\DX\DATA\95083051.D08	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 8	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	21	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	276	1550	2	
2	1.09	fluoride	1.438	157	807	2	2.83
3	1.60	chloride	4.173	348	2159	1	-3.03
4	1.95	nitrite	719.080	40599	246998	1	-2.99
5	2.93	bromide	15.964	444	2679	1	-1.35
6	3.18	nitrate	1653.746	58107	667951	1	-5.07
7	4.97	phosphate	40.653	363	4533	1	-1.39
8	6.55	sulfate	155.713	3861	53835	1	-2.09
9	8.67	oxalate	< THAN 4.744	18	238	1	-1.48
Totals			2595.511	104174	980751		

File: 95083051.D08 Sample: S95T001544 DUP

WHC-SD-WM-DP-139, REV. 1

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Sample Name: S95T001544 DUP	Date: 08/31/1995 00:42:33
Data File : C:\DX\DATA\95083051.D11	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 11	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	101	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.89		0.000	63	343	1	
3	1.60	chloride	0.640	81	417	1	-3.03
4	1.94	nitrite	721.958	7902	46514	1	-3.48
5	2.93	bromide	28.080	87	575	1	-1.35
6	3.31	nitrate	2018.353	13126	116786	1	-1.19
7	4.99	phosphate	48.900	70	795	1	-0.99
8	6.57	sulfate	154.552	765	10625	1	-1.79
Totals			2972.484	22093	176055		

File: 95083051.D11 Sample: S95T001544 DUP

WHC-SD-WM-DP-139, REV. 1

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Sample Name: S95T001544 SPIKE	Date: 08/31/1995 00:17:34
Data File : C:\DX\DATA\95083051.D09	
Method : C:\DX\METHOD\KIT.MET	
CI Address: 1 System: 1 Inject#: 9	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

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Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	21	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta

1	0.89		0.000	269	1210	2	
2	1.05	fluoride	12.849	1406	7775	2	-0.94
3	1.60	chloride	20.293	1624	9248	1	-3.03
4	1.95	nitrite	824.264	46284	289398	1	-2.99
5	2.91	bromide	123.659	4232	25465	1	-2.02
6	3.17	nitrate	1700.729	61437	713555	1	-5.37
7	4.96	phosphate	154.579	1529	18873	1	-1.59
8	6.52	sulfate	289.736	7444	102696	1	-2.54
9	8.63	oxalate	119.972	1517	28132	1	-1.93

Totals			3246.082	125743	1196353		

File: 95083051.D09 Sample: S95T001544 SPIKE

WHC-SD-WM-DP-139, REV. 1

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Sample Name: S95T001544 SPIKE	Date: 08/30/1995 23:54:11
Data File : C:\DX\DATA\95083051.D07	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 7	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

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Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	101	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.90		0.000	100	472	2	
2	1.06	fluoride	68.450	1496	8636	2	0.00
3	1.62	chloride	85.762	1494	8151	1	-1.82
4	1.96	nitrite	1290.677	14457	84953	1	-2.49
5	2.95	bromide	615.499	3864	26395	1	-0.67
6	3.32	nitrate	2628.991	17125	155530	1	-0.90
7	4.99	phosphate	614.614	1233	15446	1	-0.99
8	6.56	sulfate	833.352	4318	60112	1	-1.94
9	8.65	oxalate	576.163	1530	28089	1	-1.70
Totals			6713.509	45616	387785		

File: 95083051.D07 Sample: S95T001544 SPIKE

WHC-SD-WM-DP-139, REV. 1

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Sample Name: S95T001546 SAM                               Date: 08/31/1995 03:32:58
Data File  : C:\DX\DATA\95083101.D23
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 23                      Detector: CDM-1
Analyst    :                               Column: AG4A/AS4A anion column/SRS
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Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          21    3000  5Hz   0.00 10.00      200

```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	202	1143	2	
2	1.09	fluoride OK	2.122	141	1218	2	2.83
3	1.60	chloride OK	1.185	170	869	1	-3.03
4	1.94	nitrite OK	444.332	24298	144982	1	-3.48
5	2.91	bromide OK	6.417	109	695	1	-2.02
6	3.24	nitrate OK	806.957	25357	241615	1	-3.28
7	4.98	phosphate OK	39.178	352	4351	1	-1.19
8	6.56	sulfate OK	62.647	1501	21141	1	-1.94
Totals			1362.837	52129	416013		

File: 95083101.D23 Sample: S95T001546 SAM

WHC-SD-WM-DP-139, REV. 1

8-31-95

Sample Name: S95T001546 SAM-DUP Date: 08/31/1995 03:45:27
 Data File : C:\DX\DATA\95083101.D24
 Method : C:\DX\METHOD\KIT.MET
 ACI Address: 1 System: 1 Inject#: 24 Detector: CDM-1
 Analyst : Column: AG4A/AS4A anion column/SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	21	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	196	1165	2	
2	1.10	fluoride	2.124	141	1220	2	3.77
3	1.62	chloride	1.206	174	878	1	-1.82
4	1.95	nitrite	435.640	23639	141930	1	-2.99
5	2.93	bromide	6.478	110	707	1	-1.35
6	3.26	nitrate	810.544	25296	242875	1	-2.69
7	5.01	phosphate	40.539	359	4519	1	-0.60
8	6.59	sulfate	61.264	1493	20663	1	-1.49
Totals			1357.796	51407	413956		

File: 95083101.D24 Sample: S95T001546 SAM 8-31-95
 DUP

WHC-SD-WM-DP-139, REV. 1

=====

Sample Name: S95T001546 SPIKE	Date: 08/31/1995 03:56:21
Data File : C:\DX\DATA\95083101.D25	
Method : C:\DX\METHOD\KIT.MET	
CI Address: 1 System: 1 Inject#: 25	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

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Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	21	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.89		0.000	214	1019	2	
2	1.05	fluoride	14.242	1438	8642	2	-0.94
3	1.60	chloride	17.541	1513	8022	1	-3.03
4	1.94	nitrite	541.587	30506	179816	1	-3.48
5	2.89	bromide	122.307	3770	25175	1	-2.69
6	3.22	nitrate	929.250	29022	285923	1	-3.88
7	4.97	phosphate	152.452	1495	18600	1	-1.39
8	6.54	sulfate	192.615	4851	67070	1	-2.24
9	8.63	oxalate	115.098	1477	26932	1	-1.93
Totals			2085.092	74286	621199		

File: 95083101.D25 Sample: S95T001546 SPIKE

WHC-SD-WM-DP-139, REV. 1

LABCORE Data Entry Template for Worklist#

2171

Analyst: EE

Instrument: IC01 IC01

Book # 106N9-A

Method: LA-533-105 Rev/Mod D-0

Worklist Comment: B-101 IC.jmf

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			QIC-01 F-02	SOLID		2.062	N/A	ug/g
		1 BLNK-PREP			QIC-01 CL-02	SOLID		2.083	N/A	ug/g
		1 BLNK-PREP			QIC-01 NO2-02	SOLID		2.547	N/A	ug/g
		1 BLNK-PREP			QIC-01 BR-02	SOLID		2.632	N/A	ug/g
		1 BLNK-PREP			QIC-01 NO3-02	SOLID		2.699	N/A	ug/g
		1 BLNK-PREP			QIC-01 PO4-02	SOLID		2.596	N/A	ug/g
		1 BLNK-PREP			QIC-01 SO4-02	SOLID		2.678	N/A	ug/g
		1 BLNK-PREP			QIC-01 OXALATE2	SOLID		2.496	N/A	ug/g
		2 STD			QIC-01 F-02	SOLID		63.5	N/A	ug/g
		2 STD			QIC-01 CL-02	SOLID		79.4	N/A	ug/g
		2 STD			QIC-01 NO2-02	SOLID		553.7	N/A	ug/g
		2 STD			QIC-01 BR-02	SOLID		582.5	N/A	ug/g
		2 STD			QIC-01 NO3-02	SOLID		636.9	N/A	ug/g
		2 STD			QIC-01 PO4-02	SOLID		540.8	N/A	ug/g
		2 STD			QIC-01 SO4-02	SOLID		643.1	N/A	ug/g
		2 STD			QIC-01 OXALATE2	SOLID		553.1	N/A	ug/g
5000093	B-101	3 SAMPLE	S95T001549	0 W	QIC-01 F-02	SOLID	N/A	2.15e2		ug/g
9500093	B-101	3 SAMPLE	S95T001549	0 W	QIC-01 CL-02	SOLID	N/A	3.05e2	2.87e2	ug/g

Data Entry Comments:

1 MCS 106N9-A .100mL - (0mL)

SPTKE 106N9-A .100mL

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#

2171

DUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
95000093	B-101	3 SAMPLE	S95T001549	0 W	QIC-01 NO2-02	SOLID	N/A	7.76e4	1.89e3	ug/g
95000093	B-101	3 SAMPLE	S95T001549	0 W	QIC-01 BR-02	SOLID	N/A	<2.19e3	2.19e3	ug/g
95000093	B-101	3 SAMPLE	S95T001549	0 W	QIC-01 NO3-02	SOLID	N/A	1.76e5	2.42e3	ug/g
95000093	B-101	3 SAMPLE	S95T001549	0 W	QIC-01 PO4-02	SOLID	N/A	1.44e4	2.06e3	ug/g
95000093	B-101	3 SAMPLE	S95T001549	0 W	QIC-01 SO4-02	SOLID	N/A	1.20e4	2.35e3	ug/g
95000093	B-101	3 SAMPLE	S95T001549	0 W	QIC-01 OXALATE2	SOLID	N/A	<1.72e3	1.72e3	ug/g
95000093	B-101	4 DUP	S95T001549	0 W	QIC-01 F-02	SOLID	<2.15e2	<2.15e2	N/A	ug/g
95000093	B-101	4 DUP	S95T001549	0 W	QIC-01 CL-02	SOLID	3.05e2	2.99e2	N/A	ug/g
95000093	B-101	4 DUP	S95T001549	0 W	QIC-01 NO2-02	SOLID	2.76e4	7.63e4	N/A	ug/g
95000093	B-101	4 DUP	S95T001549	0 W	QIC-01 BR-02	SOLID	<2.19e3	<2.19e3	N/A	ug/g
95000093	B-101	4 DUP	S95T001549	0 W	QIC-01 NO3-02	SOLID	1.76e5	1.73e5	N/A	ug/g
95000093	B-101	4 DUP	S95T001549	0 W	QIC-01 PO4-02	SOLID	1.44e4	1.08e4	N/A	ug/g
95000093	B-101	4 DUP	S95T001549	0 W	QIC-01 SO4-02	SOLID	1.20e4	1.17e4	N/A	ug/g
95000093	B-101	4 DUP	S95T001549	0 W	QIC-01 OXALATE2	SOLID	<1.72e3	<1.72e3	N/A	ug/g
95000093	B-101	5 SPK	S95T001549	0 W	QIC-01 CL-02	SOLID		102.7	N/A	ug/g
95000093	B-101	5 SPK	S95T001549	0 W	QIC-01 F-02	SOLID		116.2	N/A	ug/g
95000093	B-101	5 SPK	S95T001549	0 W	QIC-01 NO2-02	SOLID		40.5	N/A	ug/g
95000093	B-101	5 SPK	S95T001549	0 W	QIC-01 BR-02	SOLID		104.69	N/A	ug/g
95000093	B-101	5 SPK	S95T001549	0 W	QIC-01 NO3-02	SOLID		-17.2	N/A	ug/g
95000093	B-101	5 SPK	S95T001549	0 W	QIC-01 PO4-02	SOLID		91.4	N/A	ug/g
95000093	B-101	5 SPK	S95T001549	0 W	QIC-01 SO4-02	SOLID		96.2	N/A	ug/g

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#

2171

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
95000093	B-101	5 SPK	S95T001549	0 W	QIC-01	OXALATE2	SOLID	98.5	N/A	ug/g
95000091	B-101	6 SAMPLE	S95T001553	0 W	QIC-01	F-02	SOLID	N/A	<1.77e2	1.77e2 ug/g
95000091	B-101	6 SAMPLE	S95T001553	0 W	QIC-01	CL-02	SOLID	N/A	<2.37e2	2.37e2 ug/g
95000091	B-101	6 SAMPLE	S95T001553	0 W	QIC-01	NO2-02	SOLID	N/A	2.66e4	1.56e3 ug/g
95000091	B-101	6 SAMPLE	S95T001553	0 W	QIC-01	BR-02	SOLID	N/A	<1.81e3	<1.81e3 ug/g
95000091	B-101	6 SAMPLE	S95T001553	0 W	QIC-01	NO3-02	SOLID	N/A	2.55e5	3.92e3 ug/g
95000091	B-101	6 SAMPLE	S95T001553	0 W	QIC-01	PO4-02	SOLID	N/A	1.76e3	1.70e3 ug/g
95000091	B-101	6 SAMPLE	S95T001553	0 W	QIC-01	SO4-02	SOLID	N/A	2.82e5	3.80e3 ug/g
95000091	B-101	6 SAMPLE	S95T001553	0 W	QIC-01	OXALATE2	SOLID	N/A	<1.42e3	1.42e3 ug/g
95000091	B-101	7 DUP	S95T001553	0 W	QIC-01	F-02	SOLID	<1.77e2	<1.77e2	N/A ug/g
95000091	B-101	7 DUP	S95T001553	0 W	QIC-01	CL-02	SOLID	<2.37e2	<2.37e2	N/A ug/g
95000091	B-101	7 DUP	S95T001553	0 W	QIC-01	NO2-02	SOLID	2.66e4	2.20e4	N/A ug/g
95000091	B-101	7 DUP	S95T001553	0 W	QIC-01	BR-02	SOLID	<1.81e3	<1.81e3	N/A ug/g
95000091	B-101	7 DUP	S95T001553	0 W	QIC-01	NO3-02	SOLID	2.55e5	1.92e5	N/A ug/g
95000091	B-101	7 DUP	S95T001553	0 W	QIC-01	PO4-02	SOLID	1.76e3	<1.70e3	N/A ug/g
95000091	B-101	7 DUP	S95T001553	0 W	QIC-01	SO4-02	SOLID	2.82e5	2.22e5	N/A ug/g
95000091	B-101	7 DUP	S95T001553	0 W	QIC-01	OXALATE2	SOLID	<1.42e3	<1.42e3	N/A ug/g
95000091	B-101	8 SPK	S95T001553	0 W	QIC-01	CL-02	SOLID	26.4	N/A	ug/g
95000091	B-101	8 SPK	S95T001553	0 W	QIC-01	F-02	SOLID	29.3	N/A	ug/g
95000091	B-101	8 SPK	S95T001553	0 W	QIC-01	NO2-02	SOLID	-14.8	N/A	ug/g
95000091	B-101	8 SPK	S95T001553	0 W	QIC-01	BR-02	SOLID	24.1	N/A	ug/g
95000091	B-101	8 SPK	S95T001553	0 W	QIC-01	NO3-02	SOLID	36.0	N/A	ug/g

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#

2171

DUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
95000091	B-101	8 SPK	S95T001553	0 W	01C-01	PO4-02	SOLID	18.3	N/A	ug/g
95000091	B-101	8 SPK	S95T001553	0 W	01C-01	SO4-02	SOLID	29.5	N/A	ug/g
95000091	B-101	8 SPK	S95T001553	0 W	01C-01	OXALATE2	SOLID	21.7	N/A	ug/g

Final page for worklist #

2171

8/31/95
Analyst Signature Date

Analyst Signature Date

Entered

Verified 8/12/95 J. M. Lye

Data Entry Comments:

We will need to re-run S95T0001549 for PO4 Br

NO2 and NO3 and re-run S95T001553 for everything

due to poor RPD & poor spike recovery
Br was present but not quantifiable - J. M. Lye

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.

WESTINGHOUSE HANFORD COMPANY
222-S LABORATORY
INORGANIC ANALYTICAL BATCH AND SUMMARY SHEET
ANION ANALYSIS ON DIONEX

SAMPLE #: S95T001549 & S95T001553 TEST CODE: @IC-01 INSTRUMENT: IC01 WORK LIST #: 2171 BATCH ID:	ANALYST: Ed Colvin ANALYSIS DATE: 08/31/95 SAMPLE POINT: B101 SAMPLE PREP: water digest
---	--

Result Units	µg/g	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
106N9A		107.6%	100.5%	106.7%	103.7%	99.0%	101.9%	101.3%	95.2%
S95T001549		1.98E+02	3.05E+02	7.76E+04	1.76E+05	1.44E+04	1.20E+04	<2187.72	<1716.95
S95T001549dup		1.88E+02	2.99E+02	7.63E+04	1.73E+05	1.08E+04	1.17E+04	<2189.47	<1718.32
Duplicate 1 RPD		5.2%	1.9%	1.7%	1.8%	29.1%	2.4%	N/A	N/A
S95T001553		<177.20	<237.22	2.66E+04	2.55E+05	1.76E+03	2.82E+05	<1806.31	<1417.61
S95T001553dup		<175.10	<234.41	2.20E+04	1.92E+05	<1683.25	2.22E+05	<1784.92	<1400.83
Duplicate 2 RPD		N/A	N/A	19.2%	28.0%	N/A	23.8%	N/A	N/A
S95T001553spk		29.3%	26.4%	-14.8%	36.0%	18.3%	29.5%	24.1%	21.7%

NARRATIVE: **Analyst Comments:**

Chemist Comments:

Form Completed By: <i>Jean M. Lyle</i>	Date: <i>9/12/95</i>
Chemist Approval: <i>Jean M. Lyle</i>	Date: <i>9/12/95</i>

LAB LEADER INFO	
Method:	LA-533-105 d-0
Matrix:	solid
Test Code:	@IC-01
Work List #:	2171
Batch #:	
Result Units	
(µg/g or µg/mL):	µg/g
Spike Book Number:	106N9A
Spike Sample #:	1
Prepared By:	Jann Frye
Prepared Date:	09/12/95
Chemist:	Jann Frye
Analyst:	Ed Colvin
Analysis Date:	09/31/95
Time Complete:	12:26 PM
Instrument Code:	IC01
Rerun:	0
Sample Prep:	water digest
Sample Point:	B101
Sample Type	
STANDARD	106N9A
SAMPLE 1	S95T001649
DUPLICATE 1	S95T001649dup
SAMPLE 2	S95T001553
DUPLICATE 2	S95T001553dup
SAMPLE 3	
DUPLICATE 3	
SAMPLE 4	
DUPLICATE 4	
SPIKE	S95T001549spk
SPIKE DUPLICATE	

TECH INFO								
	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Blank Data (µg/mL)	<0.02	<0.03	<0.547	<0.699	<0.596	<0.678	<0.632	<0.496
Standard Data (µg/mL)	63.5	79.4	553.7	636.9	540.9	643.1	592.5	553.1
Sample 1 Data (µg/mL)	1.49E+00	2.29E+00	5.83E+02	1.32E+03	1.08E+02	9.01E+01	<0.632	<0.496
Sample 1 Dilution Factor	26	26	26	26	26	26	26	26
Sample 1 Prep DF	7.511	7.511	7.511	7.511	7.511	7.511	7.511	7.511
Duplicate 1 Data (µg/mL)	1.41E+00	2.25E+00	5.72E+02	1.30E+03	9.07E+01	8.79E+01	<0.632	<0.496
Duplicate 1 Dilution Factor	26	26	26	26	26	26	26	26
Duplicate 1 Prep DF	7.505	7.505	7.505	7.505	7.505	7.505	7.505	7.505
Sample 2 Data (µg/mL)	<0.02	<0.03	2.42E+02	2.32E+03	1.60E+01	2.57E+03	<0.632	<0.496
Sample 2 Dilution Factor	26	26	26	51	26	51	26	26
Sample 2 Prep DF	9.097	9.097	9.097	9.097	9.097	9.097	9.097	9.097
Duplicate 2 Data (µg/mL)	<0.02	<0.03	2.02E+02	1.77E+03	<0.596	2.04E+03	<0.632	<0.496
Duplicate 2 Dilution Factor	26	26	26	51	26	51	26	26
Duplicate 2 Prep DF	9.206	9.206	9.206	9.206	9.206	9.206	9.206	9.206
Sample 3 Data (µg/mL)								
Sample 3 Dilution Factor								
Sample 3 Prep DF								
Duplicate 3 Data (µg/mL)								
Duplicate 3 Dilution Factor								
Duplicate 3 Prep DF								
Sample 4 Data (µg/mL)								
Sample 4 Dilution Factor								
Sample 4 Prep DF								
Duplicate 4 Data (µg/mL)								
Duplicate 4 Dilution Factor								
Duplicate 4 Prep DF								

Spike + Sample 1 (µg/mL)	1.88E+01	2.28E+01	0.35E+02	1.29E+03	2.33E+02	2.42E+02	1.50E+02	1.43E+02
Spike + Dup 1 (µg/mL)								

Spike Volume (mL)	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
Total Volume (mL)	10.40	10.40	10.40	10.40	10.40	10.40	10.40	10.40
Std. Conc. (µg/mL)	69	79	519	514	546	631	576	581
Detection Limit	0.062	0.083	0.547	0.699	0.596	0.678	0.632	0.496
Matrix Detection Limit 1	2.15E+02	2.87E+02	1.89E+03	2.42E+03	2.06E+03	2.35E+03	2.19E+03	1.72E+03
Matrix Detection Limit 2	1.77E+02	2.37E+02	1.56E+03	3.92E+03	1.70E+03	3.90E+03	1.81E+03	1.42E+03
Matrix Detection Limit 3	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
Matrix Detection Limit 4	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR

Spike Recovery = $\frac{((\text{Spike} + \text{Sample}) - (\text{Sample}) * (\text{Total Volume}))}{((\text{Spike Vol.}) * (\text{Spike Std.}) * (\text{Sample DF}))} * 100\%$
 Note: (For spike recovery when the sample conc. is less than detection limit you do NOT subtract sample conc.)
 Duplicate Relative % Difference = $\frac{((\text{Sample} - \text{Duplicate}) / ((\text{Sample} + \text{Duplicate}) / 2)) * 100\%}{}$
 Less than Values are Calculated from the Detection Limit * Dilution Factor

V RESULTS V	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Standard % Recovery	107.6%	100.6%	106.7%	103.7%	99.0%	101.8%	101.3%	95.2%
Sample 1 in µg/g	1.98E+02	3.05E+02	7.76E+04	1.76E+05	1.44E+04	1.20E+04	<2187.72	<1718.96
Duplicate 1 in µg/g	1.88E+02	2.89E+02	7.63E+04	1.73E+05	1.08E+04	1.17E+04	<2189.47	<1718.32
Duplicate 1 RPD	5.2%	1.8%	1.7%	1.8%	28.1%	2.4%	N/A	N/A
Sample 2 in µg/g	<177.20	<237.22	2.66E+04	2.55E+05	1.76E+03	2.82E+05	<1806.31	<1417.81
Duplicate 2 in µg/g	<175.10	<234.41	2.20E+04	1.92E+05	<1683.25	2.22E+05	<1784.92	<1400.83
Duplicate 2 RPD	N/A	N/A	19.2%	28.0%	N/A	28.8%	N/A	N/A
Spike % Recovery	118.2%	102.7%	40.6%	-17.2%	91.6%	96.2%	104.6%	98.6%

Data Entry by:	<i>Jann Frye</i>	Date:	09/12/95
Approved by:	<i>Jann Frye</i>	Date:	9/12/95

WHC-SD-WM-DP-139, REV. 1

LAB LEADER INFO	
Method:	LA-533-105 d-o
Matrix:	solid
Test Code:	@IC-01
Work List #:	2171
Batch #:	
Result Units	
(ug/g or ug/mL):	ug/g
Spike Book Number:	106N8A
Spike Sample #:	2
Prepared By:	Jann Foye
Prepared Date:	09/12/95
Chemist:	Jann Foye
Analyst:	Ed Colvin
Analysis Date:	08/31/95
Time Complete:	12:28 PM
Instrument Code:	IC01
Rerun:	0
Sample Prep:	water digest
Sample Point:	B101
Sample Type	
STANDARD	106N8A
SAMPLE 1	S95T001549
DUPLICATE 1	S95T001549dup
SAMPLE 2	S95T001553
DUPLICATE 2	S95T001553dup
SAMPLE 3	
DUPLICATE 3	
SAMPLE 4	
DUPLICATE 4	
SPIKE	S95T001553spk
SPIKE DUPLICATE

TECH INFO								
	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Blank Data (ug/mL)	<0.02	<0.03	<0.047	<0.099	<0.096	<0.078	<0.032	<0.496
Standard Data (ug/mL)	63.5	79.4	553.7	636.9	540.8	643.1	592.6	553.1
Sample 1 Data (ug/mL)	1.49E+00	2.29E+00	5.63E+02	1.32E+03	1.08E+02	9.01E+01	<0.032	<0.496
Sample 1 Dilution Factor	28	28	28	28	28	28	28	28
Sample 1 Prep DF	7.511	7.511	7.511	7.511	7.511	7.511	7.511	7.511
Duplicate 1 Data (ug/mL)	1.41E+00	2.25E+00	5.72E+02	1.30E+03	8.07E+01	8.78E+01	<0.032	<0.496
Duplicate 1 Dilution Factor	28	28	28	28	28	28	28	28
Duplicate 1 Prep DF	7.605	7.595	7.595	7.595	7.595	7.595	7.595	7.605
Sample 2 Data (ug/mL)	<0.02	<0.03	2.42E+02	2.32E+03	1.60E+01	2.57E+03	<0.032	<0.496
Sample 2 Dilution Factor	28	28	28	28	28	28	28	28
Sample 2 Prep DF	9.097	9.097	9.097	9.097	9.097	9.097	9.097	9.097
Duplicate 2 Data (ug/mL)	<0.02	<0.03	2.02E+02	1.77E+03	<0.096	2.04E+03	<0.032	<0.496
Duplicate 2 Dilution Factor	28	28	28	28	28	28	28	28
Duplicate 2 Prep DF	9.208	9.208	9.208	9.208	9.208	9.208	9.208	9.208
Sample 3 Data (ug/mL)								
Sample 3 Dilution Factor								
Sample 3 Prep DF								
Duplicate 3 Data (ug/mL)								
Duplicate 3 Dilution Factor								
Duplicate 3 Prep DF								
Sample 4 Data (ug/mL)								
Sample 4 Dilution Factor								
Sample 4 Prep DF								
Duplicate 4 Data (ug/mL)								
Duplicate 4 Dilution Factor								
Duplicate 4 Prep DF								
Spike + Sample 2 (ug/mL)	4.32E+00	5.21E+00	2.23E+02	2.43E+03	4.10E+01	2.68E+03	3.48E+01	3.15E+01
Spike + Dup 2 (ug/mL)								

Spike Volume (mL)	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
Total Volume (mL)	10.40	10.40	10.40	10.20	10.40	10.20	10.40	10.40
Std. Conc. (ug/mL)	69	79	519	614	649	631	575	581
Detection Limit	0.062	0.083	0.547	0.699	0.596	0.678	0.632	0.496
Matrix Detection Limit 1	2.16E+02	2.87E+02	1.89E+03	2.42E+03	2.08E+03	2.35E+03	2.19E+03	1.72E+03
Matrix Detection Limit 2	1.77E+02	2.37E+02	1.56E+03	3.92E+03	1.70E+03	3.80E+03	1.81E+03	1.42E+03
Matrix Detection Limit 3	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
Matrix Detection Limit 4	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR

Spike Recovery = (((Spike+Sample)-(Sample))*(Total Volume))/((Spike Vol.)*(Spike Std.)*(Sample DF)))*100%
 Note: (For spike recovery when the sample conc. is less than detection limit you do NOT subtract sample conc.)
 Duplicate Relative % Difference = ((Sample - Duplicate) / ((Sample + Duplicate) / 2)) * 100%
 Less than Values are Calculated from the Detection Limit/Dilution Factor

v RESULTS v	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Standard % Recovery	107.6%	100.6%	106.7%	103.7%	99.0%	101.9%	101.3%	96.2%
Sample 1 In ug/g	1.88E+02	3.05E+02	7.78E+04	1.78E+06	1.44E+04	1.20E+04	<2187.72	<1718.95
Duplicate 1 In ug/g	1.88E+02	2.89E+02	7.63E+04	1.73E+06	1.08E+04	1.17E+04	<2189.47	<1718.32
Duplicate 1 RPD	6.2%	1.9%	1.7%	1.5%	29.1%	2.4%	N/A	N/A
Sample 2 In ug/g	<177.20	<237.22	2.68E+04	2.65E+06	1.76E+03	2.82E+06	<1806.31	<1417.61
Duplicate 2 In ug/g	<176.10	<234.41	2.20E+04	1.92E+06	<1883.25	2.22E+06	<1784.82	<1400.83
Duplicate 2 RPD	N/A	N/A	19.2%	28.0%	N/A	23.6%	N/A	N/A
Spike % Recovery	29.3%	26.4%	-14.6%	36.0%	18.3%	29.6%	24.1%	21.7%

Date Entry by:	<i>Jann Foye</i>	Date:	09/12/95
Approved by:	<i>Jann Foye</i>	Date:	9/12/95

Form DIONEXWB1 Rev. 1.3

Sample Name: 106N9-A STD Date: 08/31/1995 09:28:38
 Data File : C:\DX\DATA\95083101.D03
 Method : C:\DX\METHOD\KIT.MET
 ACI Address: 1 System: 1 Inject#: 3 Detector: CDM-1
 Analyst : *EM- Cook* Column: AG4A/AS4A anion column/SRS

Calibration Volume Dilution Points Rate Start Stop Area Reject
 External 1 101 3000 5Hz 0.00 10.00 200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	61	298	2	
2	1.06	fluoride	63.544	1376	8001	2	0.00
3	1.61	chloride	79.360	1397	7560	1	-2.42
4	1.94	nitrite	553.772	5770	35410	1	-3.48
5	2.92	bromide	582.547	3641	24920	1	-1.68
6	3.35	nitrate	636.915	4313	35204	1	0.00
7	4.99	phosphate	540.850	1071	13500	1	-0.99
8	6.56	sulfate	643.081	3333	46019	1	-1.94
9	8.65	oxalate	553.100	1460	26908	1	-1.70
Totals			3653.169	22422	197819		

File: 95083101.D03 Sample: 106N9-A STD

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 129 TO 140.

WHC-SD-WM-DP-139, REV. 1

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=====
Sample Name: PREP BLANK                      Date: 08/31/1995 09:17:15
Data File  : C:\DX\DATA\95083101.D02
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 2          Detector: CDM-1
Analyst    :                               Column: AG4A/AS4A anion column/SRS
=====

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-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1           1 3000 5Hz 0.00 10.00          200
-----

```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
2	3.40	nitrate	0.151	109	790	1	1.49
Totals			0.151	109	790		

File: 95083101.D02 Sample: PREP BLANK

WHC-SD-WM-DP-139, REV. 1


```

=====
Sample Name: INSTR BLANK                      Date: 08/31/1995 09:04:14
Data File  : C:\DX\DATA\95083101.D01
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 1           Detector: CDM-1
Analyst    :                               Column: AG4A/AS4A anion column/SRS
=====

```

```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          1 3000 5Hz 0.00 10.00          200
-----

```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
Totals			0.000	0	0		

File: 95083101.D01 Sample: INSTR BLANK

WHC-SD-WM-DP- 139, REV. 1

=====

Sample Name: S95T001549	Date: 08/31/1995 10:38:11
Data File : C:\DX\DATA\95083101.D05	
Method : C:\DX\METHOD\KIT.MET	
CI Address: 1 System: 1 Inject#: 5	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	26	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.90		0.000	157	881	2	
2	1.10	fluoride	1.486	123	665	2	3.77
3	1.61	chloride	2.293	197	1157	1	-2.42
4	1.95	nitrite	582.834	25737	154319	1	-2.99
5	2.92	bromide	9.254	139	914	1	-1.68
6	3.23	nitrate	1320.860	33646	339642	1	-3.58
7	4.99	phosphate	108.376	825	10361	1	-0.99
8	6.57	sulfate	90.116	1776	24657	1	-1.79
Totals			2115.220	62599	532596		

File: 95083101.D05 Sample: S95T001549

WHC-SD-WM-DP-139, REV. 1

=====

Sample Name: S95T001549 DUP	Date: 08/31/1995 10:55:16
Data File : C:\DX\DATA\95083101.D06	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 6	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	26	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	149	832	2	
2	1.10	fluoride	1.409	114	627	2	3.77
3	1.61	chloride	2.246	195	1140	1	-2.42
4	1.95	nitrite	572.335	25162	151312	1	-2.99
5	2.92	bromide	9.204	137	906	1	-1.68
6	3.23	nitrate	1295.656	32862	331398	1	-3.58
7	4.99	phosphate	80.721	602	7572	1	-0.99
8	6.56	sulfate	87.978	1728	24058	1	-1.94
Totals			2049.548	60949	517844		

File: 95083101.D06 Sample: S95T001549 DUP

WHC-SD-WM-DP-139, REV. 1

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Sample Name: S95T001553	Date: 08/31/1995 11:22:09
Data File : C:\DX\DATA\95083101.D08	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 8	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	26	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.89		0.000	459	2738	1	
2	1.59	chloride	1.104	107	743	1	-3.64
3	1.92	nitrite	242.393	9849	61193	1	-4.48
4	2.90	bromide	6.560	77	463	1	-2.36
5	3.15	nitrate	1995.198	55899	632582	1	-5.97
6	4.96	phosphate	16.009	97	1132	1	-1.59
7	6.31	sulfate	2040.264	57996	948198	1	-5.68
Totals			4301.529	124484	1647048		

File: 95083101.D08 Sample: S95T001553

WHC-SD-WM-DP-139, REV. 1

=====

Sample Name: S95T001553	Date: 08/31/1995 11:36:10
Data File : C:\DX\DATA\95083101.D09	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 9	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	51	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.89		0.000	235	1400	1	
2	1.59	chloride	0.386	72	428	1	-3.64
3	1.92	nitrite	238.833	4764	30116	1	-4.48
4	2.91	bromide	10.001	36	218	1	-2.02
5	3.22	nitrate	2315.742	29943	295084	1	-3.88
6	4.96	phosphate	19.324	47	525	1	-1.59
7	6.41	sulfate	2565.245	30722	443776	1	-4.19
Totals			5149.530	65820	771547		

File: 95083101.D09 Sample: S95T001553

WHC-SD-WM-DP-139, REV. 1

Sample Name: S95T001553 DUP Date: 08/31/1995 12:04:52
 Data File : C:\DX\DATA\95083101.D11
 Method : C:\DX\METHOD\KIT.MET
 CI Address: 1 System: 1 Inject#: 11 Detector: CDM-1
 Analyst : Column: AG4A/AS4A anion column/SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	26	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	494	3974	1	
2	1.60	chloride	0.806	95	639	1	-3.03
3	1.94	nitrite	202.204	8097	50739	1	-3.48
4	2.91	bromide	6.128	62	390	1	-2.02
5	3.18	nitrate	1891.922	51544	572470	1	-5.07
6	4.99	phosphate	13.598	78	894	1	-0.99
7	6.34	sulfate	1996.373	55160	889715	1	-5.23
Totals			4111.031	115530	1518822		

File: 95083101.D11 Sample: S95T001553 DUP

WHC-SD-WM-DP-139, REV. 1

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=====
Sample Name: S95T001553  DUP                      Date: 08/31/1995 11:54:05
Data File   : C:\DX\DATA\95083101.D10
Method      : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 10             Detector: CDM-1
Analyst     :                      Column: AG4A/AS4A anion column/SRS
=====

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```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          51    3000  5Hz   0.00 10.00         200
-----

```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	171	1049	1	
2	1.61	chloride	0.326	72	417	1	-2.42
3	1.94	nitrite	158.904	3203	19819	1	-3.48
5	3.26	nitrate	1768.365	22547	214485	1	-2.69
6	5.00	phosphate	15.190	29	318	1	-0.79
7	6.46	sulfate	2043.982	23640	333906	1	-3.44
Totals			3986.767	49661	569994		

File: 95083101.D10 Sample: S95T001553 DUP

WHC-SD-WM-DP-139, REV. 1

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=====
Sample Name: S95T001549 + SPIKE          Date: 08/31/1995 11:06:16
Data File  : C:\DX\DATA\95083101.D07
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 7       Detector: CDM-1
Analyst    :                          Column: AG4A/AS4A anion column/SRS
=====

```

```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          26    3000  5Hz   0.00 10.00      200
-----

```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	171	858	2	
2	1.06	fluoride	18.636	1434	9148	2	0.00
3	1.61	chloride	22.577	1497	8330	1	-2.42
4	1.95	nitrite	635.403	27810	169519	1	-2.99
5	2.91	bromide	150.348	3777	24987	1	-2.02
6	3.23	nitrate	1294.459	32632	331009	1	-3.58
7	4.98	phosphate	233.461	1893	23272	1	-1.19
8	6.54	sulfate	241.905	4917	68070	1	-2.24
9	8.62	oxalate	143.106	1478	27052	1	-2.05
Totals			2739.894	75607	662246		

File: 95083101.D07 Sample: S95T001549 + SPIKE

WHC-SD-WM-DP-139, REV. 1

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=====
Sample Name: S95T001553 + SPIKE          Date: 08/31/1995 12:15:40
Data File  : C:\DX\DATA\95083101.D12
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 12      Detector: CDM-1
Analyst    :                            Column: AG4A/AS4A anion column/SRS
=====

```

```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          26    3000  5Hz   0.00 10.00        200
-----

```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	301	1562	2	
2	1.04	fluoride	4.318	278	2041	2	-1.89
3	1.59	chloride	5.209	371	2174	1	-3.64
4	1.92	nitrite	223.149	9185	56174	1	-4.48
5	2.89	bromide	34.611	796	5179	1	-2.69
6	3.17	nitrate	1762.869	46751	508846	1	-5.37
7	4.95	phosphate	41.074	301	3612	1	-1.79
8	6.35	sulfate	1867.150	48842	765262	1	-5.08
9	8.62	oxalate	31.542	287	5184	1	-2.05
Totals			3969.923	107114	1350034		

File: 95083101.D12 Sample: S95T001553 + SPIKE

WHC-SD-WM-DP-139, REV. 1

Sample Name: S95T001553 + SPIKE
 Data File : C:\DX\DATA\95083101.D13
 Method : C:\DX\METHOD\KIT.MET
 CI Address: 1 System: 1 Inject#: 13
 Analyst : *E.W. Cole* Column: AG4A/AS4A anion column/SRS

Date: 08/31/1995 12:26:36

Detector: CDM-1

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	51	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	234	1156	2	
2	1.04	fluoride	33.266	1392	8303	2	-1.89
3	1.59	chloride	42.481	1409	8000	1	-3.64
4	1.93	nitrite	516.830	10772	66721	1	-3.98
5	2.89	bromide	291.971	3733	24727	1	-2.69
6	3.22	nitrate	2426.127	31478	312581	1	-3.88
7	4.95	phosphate	298.732	1199	14838	1	-1.79
8	6.41	sulfate	2658.482	32078	465265	1	-4.19
9	8.59	oxalate	284.073	1492	27393	1	-2.39
Totals			6551.962	83786	928983		

File: 95083101.D13 Sample: S95T001553 + SPIKE
 BEST AVAILABLE COPY

WHC-SD-WM-DP-139, REV. 1

LABCORE Completed Worklist Report for Worklist# 2172

Analyst: dpb

Instrument: IC01

Book# 106194

Method: 4A-533-105 Rev/Mod D-0

Worklist Comment: B-101 IC. JMF

Seq	Type	Sample#	R A	Test	Matrix	Actual	Found	DL or Yield	Unit
1	BLNK-PREP	0		IC-01 F-02	SOLID	1	<.082		ug/g
1	BLNK-PREP	0		IC-01 CL-02	SOLID	1	<.083		ug/g
1	BLNK-PREP	0		IC-01 NO2-02	SOLID	1	<.547		ug/g
1	BLNK-PREP	0		IC-01 BR-02	SOLID	1	<.632		ug/g
1	BLNK-PREP	0		IC-01 NO3-02	SOLID	1	<.659		ug/g
1	BLNK-PREP	0		IC-01 PO4-02	SOLID	1	<.596		ug/g
1	BLNK-PREP	0		IC-01 SO4-02	SOLID	1	<.578		ug/g
1	BLNK-PREP	0		IC-01 OXALATE2	SOLID	1	<.496		ug/g
2	STD	0		IC-01 F-02	SOLID	59	64.35	109.070 % Recovery	
2	STD	0		IC-01 CL-02	SOLID	79	78.77	99.710 % Recovery	
2	STD	0		IC-01 NO2-02	SOLID	519	551.2	106.200 % Recovery	
2	STD	0		IC-01 BR-02	SOLID	575	580.4	100.940 % Recovery	
2	STD	0		IC-01 NO3-02	SOLID	614	616.2	100.350 % Recovery	
2	STD	0		IC-01 PO4-02	SOLID	546	558.4	102.270 % Recovery	
2	STD	0		IC-01 SO4-02	SOLID	631	636.6	100.890 % Recovery	
2	STD	0		IC-01 OXALATE2	SOLID	581	553.2	95.220 % Recovery	
3	SAMPLE	S95T001557	0 W	IC-01 F-02	SOLID	N/A	<.204e2	204.000 ug/g	
3	SAMPLE	S95T001557	0 W	IC-01 CL-02	SOLID	N/A	<.273e2	273.000 ug/g	
3	SAMPLE	S95T001557	0 W	IC-01 NO2-02	SOLID	N/A	<.335e4	1.800e+003 ug/g	
3	SAMPLE	S95T001557	0 W	IC-01 BR-02	SOLID	N/A	<.208e3	2.080e+003 ug/g	
3	SAMPLE	S95T001557	0 W	IC-01 NO3-02	SOLID	N/A	<.282e05	7.280e+003 ug/g	
3	SAMPLE	S95T001557	0 W	IC-01 PO4-02	SOLID	N/A	<.278e03	1.960e+003 ug/g	
3	SAMPLE	S95T001557	0 W	IC-01 SO4-02	SOLID	N/A	<.195e05	7.030e+003 ug/g	
3	SAMPLE	S95T001557	0 W	IC-01 OXALATE2	SOLID	N/A	<.163e3	1.630e+003 ug/g	
4	DUP	S95T001557	0 W	IC-01 F-02	SOLID	<.204e2	<.204e2		RPD
4	DUP	S95T001557	0 W	IC-01 CL-02	SOLID	<.273e2	<.273e2		RPD
4	DUP	S95T001557	0 W	IC-01 NO2-02	SOLID	<.335e4	<.335e4		RPD
4	DUP	S95T001557	0 W	IC-01 BR-02	SOLID	<.208e3	<.208e3		RPD
4	DUP	S95T001557	0 W	IC-01 NO3-02	SOLID	<.282e05	<.282e05		RPD
4	DUP	S95T001557	0 W	IC-01 PO4-02	SOLID	<.278e03	<.278e03		RPD
4	DUP	S95T001557	0 W	IC-01 SO4-02	SOLID	<.195e05	<.195e05		RPD
4	DUP	S95T001557	0 W	IC-01 OXALATE2	SOLID	<.163e3	<.163e3		RPD
5	SPK	S95T001557	0 W	IC-01 CL-02	SOLID	100	114.5	114.500 % Recovery	
5	SPK	S95T001557	0 W	IC-01 F-02	SOLID	100	116.5	116.500 % Recovery	
5	SPK	S95T001557	0 W	IC-01 NO2-02	SOLID	100	92.0	92.000 % Recovery	
5	SPK	S95T001557	0 W	IC-01 BR-02	SOLID	100	104.3	104.300 % Recovery	
5	SPK	S95T001557	0 W	IC-01 NO3-02	SOLID	100	96.1	96.100 % Recovery	
5	SPK	S95T001557	0 W	IC-01 PO4-02	SOLID	100	101.9	101.900 % Recovery	
5	SPK	S95T001557	0 W	IC-01 SO4-02	SOLID	100	104.3	104.300 % Recovery	
5	SPK	S95T001557	0 W	IC-01 OXALATE2	SOLID	100	97.7	97.700 % Recovery	

Units shown for QC (BLK/BKG) may not reflect the actual units.

LABCORE Data Entry Template for Worklist#

2172

Analyst: DPB Instrument: IC01 IC01 Book # 106N9-A

Method: LA-533-105 Rev/Mod D-8 D-O JMF 9/11/95

Worklist Comment: B-101 IC. JMF

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			01C-01 F-02	SOLID	<u>1</u>	<u>2.062</u>	<u>N/A</u>	ug/g
		1 BLNK-PREP			01C-01 CL-02	SOLID	<u>1</u>	<u>2.083</u>	<u>N/A</u>	ug/g
		1 BLNK-PREP			01C-01 NO2-02	SOLID	<u>1</u>	<u>2.547</u>	<u>N/A</u>	ug/g
		1 BLNK-PREP			01C-01 BR-02	SOLID	<u>1</u>	<u>2.632</u>	<u>N/A</u>	ug/g
		1 BLNK-PREP			01C-01 NO3-02	SOLID	<u>1</u>	<u>2.699</u>	<u>N/A</u>	ug/g
		1 BLNK-PREP			01C-01 PO4-02	SOLID	<u>1</u>	<u>2.699</u>	<u>N/A</u>	ug/g
		1 BLNK-PREP			01C-01 SO4-02	SOLID	<u>1</u>	<u>2.596</u>	<u>N/A</u>	ug/g
		1 BLNK-PREP			01C-01 OXALATE2	SOLID	<u>1</u>	<u>2.576</u>	<u>N/A</u>	ug/g
		2 STD			01C-01 F-02	SOLID	<u>59</u>	<u>2.678</u>	<u>N/A</u>	ug/g
		2 STD			01C-01 CL-02	SOLID	<u>79</u>	<u>2.496</u>	<u>N/A</u>	ug/g
		2 STD			01C-01 NO2-02	SOLID	<u>519</u>	<u>2.496</u>	<u>N/A</u>	ug/g
		2 STD			01C-01 BR-02	SOLID	<u>575</u>	<u>551.151</u>	<u>N/A</u>	ug/g
		2 STD			01C-01 NO3-02	SOLID	<u>614</u>	<u>580.433</u>	<u>N/A</u>	ug/g
		2 STD			01C-01 PO4-02	SOLID	<u>546</u>	<u>616.217</u>	<u>N/A</u>	ug/g
		2 STD			01C-01 SO4-02	SOLID	<u>631</u>	<u>558.363</u>	<u>N/A</u>	ug/g
		2 STD			01C-01 OXALATE2	SOLID	<u>581</u>	<u>636.638</u>	<u>N/A</u>	ug/g
95000093	B-101	3 SAMPLE	S95T001557	0 W	01C-01 F-02	SOLID	<u>230462</u>	<u>553.159</u>	<u>N/A</u>	ug/g
95000093	B-101	3 SAMPLE	S95T001557	0 W	01C-01 CL-02	SOLID	<u>230462</u>	<u>2.662</u>	<u>2.062</u>	ug/g

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#

2172

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
95000093	B-101	3 SAMPLE	S95T001557	0 W	QIC-01 NO2-02	SOLID	3.35e4	3.20e4	gmF 9/11/95	
95000093	B-101	3 SAMPLE	S95T001557	0 W	QIC-01 BR-02	SOLID	N/A	3.12e2	1.80e3	ug/g
95000093	B-101	3 SAMPLE	S95T001557	0 W	QIC-01 NO3-02	SOLID	2.08e3	2.65e4	gmF 9/11/95	
95000093	B-101	3 SAMPLE	S95T001557	0 W	QIC-01 PO4-02	SOLID	N/A	2.63e2	2.08e3	ug/g
95000093	B-101	3 SAMPLE	S95T001557	0 W	QIC-01 SO4-02	SOLID	2.82e3	2.75e3	2.25e3	ug/g
95000093	B-101	3 SAMPLE	S95T001557	0 W	QIC-01 OXALATE2	SOLID	2.78e3	2.71e3	1.94e3	ug/g
95000093	B-101	3 SAMPLE	S95T001557	0 W	QIC-01 F-02	SOLID	1.95e3	1.90e3	7.03e3	ug/g
95000093	B-101	4 DUP	S95T001557	0 W	QIC-01 CL-02	SOLID	2.04e2	2.04e2	1.63e3	ug/g
95000093	B-101	4 DUP	S95T001557	0 W	QIC-01 NO2-02	SOLID	2.04e2	2.04e2	1.63e3	ug/g
95000093	B-101	4 DUP	S95T001557	0 W	QIC-01 BR-02	SOLID	2.04e2	2.04e2	1.63e3	ug/g
95000093	B-101	4 DUP	S95T001557	0 W	QIC-01 NO3-02	SOLID	2.04e2	2.04e2	1.63e3	ug/g
95000093	B-101	4 DUP	S95T001557	0 W	QIC-01 PO4-02	SOLID	2.04e2	2.04e2	1.63e3	ug/g
95000093	B-101	4 DUP	S95T001557	0 W	QIC-01 SO4-02	SOLID	2.04e2	2.04e2	1.63e3	ug/g
95000093	B-101	4 DUP	S95T001557	0 W	QIC-01 OXALATE2	SOLID	2.04e2	2.04e2	1.63e3	ug/g
95000093	B-101	5 SPK	S95T001557	0 W	QIC-01 CL-02	SOLID	2.04e2	2.04e2	1.63e3	ug/g
95000093	B-101	5 SPK	S95T001557	0 W	QIC-01 F-02	SOLID	2.04e2	2.04e2	1.63e3	ug/g
95000093	B-101	5 SPK	S95T001557	0 W	QIC-01 NO2-02	SOLID	2.04e2	2.04e2	1.63e3	ug/g
95000093	B-101	5 SPK	S95T001557	0 W	QIC-01 BR-02	SOLID	2.04e2	2.04e2	1.63e3	ug/g
95000093	B-101	5 SPK	S95T001557	0 W	QIC-01 NO3-02	SOLID	2.04e2	2.04e2	1.63e3	ug/g
95000093	B-101	5 SPK	S95T001557	0 W	QIC-01 PO4-02	SOLID	2.04e2	2.04e2	1.63e3	ug/g
95000093	B-101	5 SPK	S95T001557	0 W	QIC-01 SO4-02	SOLID	2.04e2	2.04e2	1.63e3	ug/g

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#

2172

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
95000093	B-101	5 SPK	S95T001557	0 W	01C-01	OXALATE2	SOLID	100	30.3	N/A ug/g

Final page for worklist #

2172

JP Bromley 8/29/95
Analyst Signature Date

[Signature] 9-1-95
Analyst Signature Date

Corrected, reentered,
verified +
put NO₂ & PO₄ out
for review
JML
9/11/95

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.

LABCORE Completed Worklist Report for Worklist# 2172

Type	Sample#	RA	Test	Matrix	Actual	Found	DL or Yield	Unit
------	---------	----	------	--------	--------	-------	-------------	------

Final page for worklist# 2172

Analyst Signature

Date

Analyst Signature

Date

John Luge 9/11/95
Reviewer Signature Date

Need to re-run NO_2 + PO_4 due
to high RPD. J.M. Luge
9/11/95

WESTINGHOUSE HANFORD COMPANY

222-S LABORATORY

INORGANIC ANALYTICAL BATCH AND SUMMARY SHEET

ANION ANALYSIS ON DIONEX

SAMPLE #: 595T001587	ANALYST:	DP Bromely
TEST CODE:	ANALYSIS DATE:	08/29/95
INSTRUMENT: IC-01	SAMPLE POINT:	B-101
WORK LIST #: 2172	SAMPLE PREP:	water digest
BATCH ID:		

[illegible]

NARRATIVE:

Analyst Comments:

NARRATIVE:	Analyst Comments:

Chemist Comments:

To calculate Br that was below
the EQ L.

Form Completed By:	<i>James J. J. J.</i>	Date:	9/21/95
Chemist Approval:	<i>James J. J. J.</i>	Date:	9/21/95

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LAB LEADER INFO	
Method:	La-533-106
Matrix:	solid
Test Code:	
Work List #:	2172
Batch #:	
Result Units	
(µg/g or µg/mL):	µg/g
Spike Book Number:	106N9A
Spike Sample #:	1
Prepared By: Jann Frye	
Prepared Date: 09/21/95	
Chemist: Jann Frye	
Analyst: DP Bromely	
Analysis Date: 08/29/95	
Time Complete:	
Instrument Code: IC-01	
Rerun: 0	
Sample Prep: water digest	
Sample Point: B-101	
Sample Type	
STANDARD	
SAMPLE 1	S9576C/SS2
DUPLICATE 1	
SAMPLE 2	
DUPLICATE 2	
SAMPLE 3	
DUPLICATE 3	
SAMPLE 4	
DUPLICATE 4	
SPIKE	
SPIKE DUPLICATE	

PRINT

TECH INFO								
	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Blank Data (µg/mL)							<.632	
Standard Data (µg/mL)							580	
Sample 1 Data (µg/mL)							8.80E+00	
Sample 1 Dilution Factor							32	
Sample 1 Prep DF	9.738	9.738	9.738	9.738	9.738	9.738	9.738	9.738
Duplicate 1 Data (µg/mL)							7.94E+00	
Duplicate 1 Dilution Factor							32	
Duplicate 1 Prep DF	9.745	9.745	9.745	9.745	9.745	9.745	9.745	9.745
Sample 2 Data (µg/mL)								
Sample 2 Dilution Factor								
Sample 2 Prep DF								
Duplicate 2 Data (µg/mL)								
Duplicate 2 Dilution Factor								
Duplicate 2 Prep DF								
Sample 3 Data (µg/mL)								
Sample 3 Dilution Factor								
Sample 3 Prep DF								
Duplicate 3 Data (µg/mL)								
Duplicate 3 Dilution Factor								
Duplicate 3 Prep DF								
Sample 4 Data (µg/mL)								
Sample 4 Dilution Factor								
Sample 4 Prep DF								
Duplicate 4 Data (µg/mL)								
Duplicate 4 Dilution Factor								
Duplicate 4 Prep DF								
Spike + Sample 1 (µg/mL)							1.79E+02	
Spike + Dup 1 (µg/mL)								
Spike Volume (mL)							1.00E-01	
Total Volume (mL)							10.33	
Std. Conc. (µg/mL)							576	
Detection Limit							0.632	
Matrix Detection Limit 1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.08E+03	0.00E+00
Matrix Detection Limit 2	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
Matrix Detection Limit 3	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
Matrix Detection Limit 4	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR

Spike Recovery = $\frac{((\text{Spike} + \text{Sample}) - (\text{Sample})) \times (\text{Total Volume})}{((\text{Spike Vol.}) \times (\text{Spike Std.}) \times (\text{Sample DF}))} \times 100\%$

Note: (For spike recovery when the sample conc. is less than detection limit you do NOT subtract sample conc.)

Duplicate Relative % Difference = $\frac{((\text{Sample} - \text{Duplicate}))}{((\text{Sample} + \text{Duplicate}) / 2)} \times 100\%$

Less than Values are Calculated from the Detection Limit/Dilution Factor

v RESULTS v	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Standard % Recovery							100.3%	
Sample 1 in µg/g	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00	9.94E+02	<0.00
Duplicate 1 in µg/g	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00	8.15E+02	<0.00
Duplicate 1 RPD	N/A	N/A	N/A	N/A	N/A	N/A	10.3%	N/A
ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
Spike % Recovery							95.3%	

Data Entry by:

Date: 09/21/95

Approved by:

Date: 9/21/95

Form DIONEXWB1 Rev. 1.3

WESTINGHOUSE HANFORD COMPANY
222-S LABORATORY
INORGANIC ANALYTICAL BATCH AND SUMMARY SHEET
ANION ANALYSIS ON DIONEX

SAMPLE #: S95T001557	TEST CODE: @ic-01	INSTRUMENT: IC01	WORK LIST #: 2172	BATCH ID:
ANALYST: D. Bromley	ANALYSIS DATE: 08/29/95	SAMPLE POINT: B101	SAMPLE PREP: water digest	

Result Units	mg/g	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
106N9A	109.0%	99.7%	106.2%	100.3%	102.2%	101.0%	100.9%	95.2%	
S95T001557	<203.74	<272.75	3.35E+04	2.82E+05	2.78E+03	1.95E+05	<2076.81	<1629.90	
S95T001557dup	<203.59	<272.55	2.58E+04	3.19E+05	2.25E+03	1.95E+05	<2075.32	<1628.73	
Duplicate 1 RPD	N/A	N/A	26.1%	10.3%	21.3%	0.3%	N/A	N/A	
	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	
	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	
ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	
S95T001557spk	116.5%	114.6%	92.0%	96.1%	101.9%	104.3%	100.2%	97.7%	

NARRATIVE: Analyst Comments:

Chemist Comments:

Need for more NO₂ + PO₄ due to poor RPD.

Form Completed By: <i>[Signature]</i>	Date: 9/1/95
Chemist Approval: <i>[Signature]</i>	Date: 9/1/95

LAB LEADER INFO	
Method:	LA-533-105 d-0
Matrix:	solid
Test Code:	@lc-01
Work List #:	2172
Batch #:	
Result Units	
(µg/g or µg/mL):	µg/g
Spike Book Number:	106N9A
Spike Sample #:	1
Prepared By: Jann Frye	
Prepared Date: 09/11/95	
Chemist: Jann Frye	
Analyst: D. Bromley	
Analysis Date: 08/29/95	
Time Complete: 11:19 PM	
Instrument Code: IC01	
Run: 0	
Sample Prep: water digest	
Sample Point: B101	
Sample Type	
STANDARD	106N9A
SAMPLE 1	S95T001557
DUPLICATE 1	S95T001557dup
SAMPLE 2	
DUPLICATE 2	
SAMPLE 3	
DUPLICATE 3	
SAMPLE 4	
DUPLICATE 4	
SPIKE	S95T001557spk
SPIKE DUPLICATE	

TECH INFO								
	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Blank Data (µg/mL)	<0.02	<0.03	<0.47	<0.99	<0.96	<0.78	<0.32	<0.95
Standard Data (µg/mL)	64.3	78.8	551	618	550	637	580	553
Sample 1 Data (µg/mL)	<0.02	<0.03	3.28E+02	2.78E+03	2.71E+01	1.90E+03	<0.32	<0.95
Sample 1 Dilution Factor	32	32	32	101	32	101	32	32
Sample 1 Prep DF	9.738	9.738	9.738	9.738	9.738	9.738	9.738	9.738
Duplicate 1 Data (µg/mL)	<0.02	<0.03	2.51E+02	3.05E+03	2.18E+01	1.90E+03	<0.32	<0.95
Duplicate 1 Dilution Factor	32	32	32	101	32	101	32	32
Duplicate 1 Prep DF	9.745	9.745	9.745	9.745	9.745	9.745	9.745	9.745
Sample 2 Data (µg/mL)								
Sample 2 Dilution Factor								
Sample 2 Prep DF								
Duplicate 2 Data (µg/mL)								
Duplicate 2 Dilution Factor								
Duplicate 2 Prep DF								
Sample 3 Data (µg/mL)								
Sample 3 Dilution Factor								
Sample 3 Prep DF								
Duplicate 3 Data (µg/mL)								
Duplicate 3 Dilution Factor								
Duplicate 3 Prep DF								
Sample 4 Data (µg/mL)								
Sample 4 Dilution Factor								
Sample 4 Prep DF								
Duplicate 4 Data (µg/mL)								
Duplicate 4 Dilution Factor								
Duplicate 4 Prep DF								
Spike + Sample 1 (µg/mL)	2.13E+01	2.81E+01	4.74E+02	3.34E+03	2.00E+02	2.68E+03	1.79E+02	1.76E+02
Spike + Dup 1 (µg/mL)								

Spike Volume (mL)	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
Total Volume (mL)	10.33	10.33	10.33	10.10	10.33	10.10	10.33	10.33
Std. Conc. (µg/mL)	69	79	519	614	546	631	576	581
Detection Limit	0.062	0.063	0.647	0.699	0.696	0.678	0.632	0.495
Matrix Detection Limit 1	2.04E+02	2.73E+02	1.80E+03	7.25E+03	1.90E+03	7.03E+03	2.08E+03	1.83E+03
Matrix Detection Limit 2	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
Matrix Detection Limit 3	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
Matrix Detection Limit 4	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR

Spike Recovery = $\frac{((\text{Spike} + \text{Sample}) - (\text{Sample}) \times (\text{Total Volume}))}{((\text{Spike Vol.}) \times (\text{Spike Std.}) \times (\text{Sample DF}))} \times 100\%$
 Note: (For spike recovery when the sample conc. is less than detection limit you do NOT subtract sample conc.)
 Duplicate Relative % Difference = $\frac{((\text{Sample} - \text{Duplicate}) / ((\text{Sample} + \text{Duplicate}) / 2)) \times 100\%}{\text{Less than Values are Calculated from the Detection Limit} \times \text{Dilution Factor}}$

v RESULTS v	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Standard % Recovery	109.0%	99.7%	108.2%	100.3%	102.2%	101.0%	100.9%	95.2%
Sample 1 in µg/g	<203.74	<272.73	3.35E+04	2.92E+05	2.78E+03	1.95E+05	<2076.81	<1829.90
Duplicate 1 in µg/g	<203.59	<272.55	2.68E+04	3.13E+05	2.25E+03	1.95E+05	<2076.32	<1828.73
Duplicate 1 RPD	N/A	N/A	28.1%	10.3%	21.3%	0.3%	N/A	N/A
ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
Spike % Recovery	118.6%	114.6%	92.0%	96.1%	101.9%	104.3%	100.2%	97.7%

Data Entry by:
 Approved by:
 Form DIONEXWB1 Rev. 1.3

Date: 09/11/95

Date: 9/11/95

Data Reprocessed On 08/29/1995 23:19:03

Sample Name: STD 106N9-A Date: 08/29/1995 19:45:18
 Data File : C:\DX\DATA\95082921.D05
 Method : C:\DX\METHOD\KIT.MET
 ACI Address: 1 System: 1 Inject#: 5 Detector: CDM-1
 Analyst : *J. Bynley* Column: AG4A/AS4A anion column/SRS

Calibration Volume Dilution Points Rate Start Stop Area Reject
 External 1 101 3000 5Hz 0.00 10.00 200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	52	247	2	
2	1.06	fluoride	64.348	1457	8105	2	0.00
3	1.63	chloride	78.766	1417	7505	1	-1.21
4	1.97	nitrite	551.151	5788	35238	1	-1.99
5	2.99	bromide	580.433	3567	24826	1	0.67
6	3.43	nitrate	616.217	4131	34038	1	2.39
7	5.06	phosphate	558.363	1127	13961	1	0.40
8	6.69	sulfate	636.638	3224	45544	1	0.00
9	8.83	oxalate	553.159	1437	26911	1	0.34
Totals			3639.074	22200	196375		

File: 95082921.D05 Sample: STD 106N9-A

WHC-SD-WM-DP-139, REV. 1

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 150 TO 158.

```

=====
Sample Name: S95T001557 BLK H2O DIGEST      Date: 08/29/1995 23:08:44
Data File  : C:\DX\DATA\95082921.D14
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1   System: 1   Inject#: 14      Detector: CDM-1
Analyst    :                               Column: AG4A/AS4A anion column/SRS
=====

```

```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          32   3000  5Hz   0.00 10.00      200
-----

```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	3.44	nitrate	2.157	45	330	1	2.69
Totals			2.157	45	330		

File: 95082921.D14 Sample: S95T001557 BLK H2O DIGEST

WHC-SD-WM-DP- 139, REV. 1

```

=====
Sample Name: ELUANT BLANK      Date: 08/29/1995 18:38:00
Data File   : C:\DX\DATA\95082921.D01
Method      : C:\DX\METHOD\KIT.MET
CI Address: 1 System: 1 Inject#: 1 Detector: CDM-1
Analyst     : Column: AG4A/AS4A anion column/SRS
=====

```

```

=====
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1           1 3000 5Hz 0.00 10.00          200
=====

```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
Totals			0.000	0	0		

File: 95082921.D01 Sample: ELUANT BLANK

WHC-SD-WM-DP-139, REV. 1

Sample Name: S95T001557 H2O DIGEST Date: 08/29/1995 21:45:19
 Data File : C:\DX\DATA\95082921.D09
 Method : C:\DX\METHOD\KIT.MET
 ACI Address: 1 System: 1 Inject#: 9 Detector: CDM-1
 Analyst : Column: AG4A/AS4A anion column/SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
✓1	0.90		0.000	95	558	1	
✓2	1.63	chloride	-0.352	66	328	1	-1.21
✓3	1.97	nitrite	311.634	3229	19621	1	-1.99
✓5	3.36	nitrate	2747.476	17466	163270	1	0.30
6	5.07	phosphate	34.547	39	431	1	0.60
✓7	6.65	sulfate	1902.234	10159	142920	1	-0.60
Totals			4995.539	31053	327128		

File: 95082921.D09 Sample: S95T001557 H2O DIGEST

WHC-SD-WM-DP-139, REV. 1

Sample Name: S95T001557 H2O DIGEST
 Data File : C:\DX\DATA\95082921.D10
 Method : C:\DX\METHOD\KIT.MET
 ACI Address: 1 System: 1 Inject#: 10
 Analyst : Column: AG4A/AS4A anion column/SRS

Date: 08/29/1995 22:17:13

Detector: CDM-1

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	32	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	326	1861	1	
2	1.60	chloride <	1.418	105	760	1	-3.03
3	1.95	nitrite	326.038	10843	67095	1	-2.99
4	2.96	bromide <	8.803	91	562	1	-0.34
5	3.23	nitrate	2360.553	51561	586667	1	-3.58
6	5.04	phosphate OK	27.108	140	1725	1	0.00
7	6.53	sulfate	1800.926	34498	516737	1	-2.39
Totals			4524.847	97563	1175408		

File: 95082921.D10 Sample: S95T001557 H2O DIGEST

WHC-SD-WM-DP-139, REV. 1

=====

Sample Name: S95T001557 DUP H2O DIGEST	Date: 08/29/1995 22:44:17
Data File : C:\DX\DATA\95082921.D12	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 12	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	101	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.90		0.000	100	584	1	
2	1.63	chloride	-0.751	59	293	1	-1.21
3	1.97	nitrite	280.973	2961	17638	1	-1.99
5	3.35	nitrate	3047.540	19367	183223	1	0.00
6	5.07	phosphate	33.406	38	402	1	0.60
7	6.65	sulfate	1898.732	10162	142637	1	-0.60
Totals			5259.900	32687	344778		

File: 95082921.D12 Sample: S95T001557 DUP H2O DIGEST

WHC-SD-WM-DP-139, REV. 1


```

=====
Sample Name: S95T001557 DUP H2O DIGEST      Date: 08/29/1995 22:33:22
Data File  : C:\DX\DATA\95082921.D11
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 11         Detector: CDM-1
Analyst    :                               Column: AG4A/AS4A anion column/SRS
=====

```

```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          32    3000  5Hz   0.00 10.00         200

```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	298	1823	1	
2	1.63	chloride	1.488	120	779	1	-1.21
3	1.97	nitrite	251.026	8553	51193	1	-1.99
4	2.98	bromide	7.943	71	445	1	0.34
5	3.26	nitrate	2304.177	49643	562033	1	-2.69
6	5.06	phosphate	21.903	113	1308	1	0.40
7	6.56	sulfate	1596.465	29884	439052	1	-1.94
Totals			4183.002	88681	1056634		

File: 95082921.D11 Sample: S95T001557 DUP H2O DIGEST

WHC-SD-WM-DP-139, REV. 1

=====

Sample Name: S95T001557 SPK H2O DIGEST	Date: 08/29/1995 22:55:37
Data File : C:\DX\DATA\95082921.D13	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 13	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	101	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.90		0.000	144	736	2	
2	1.06	fluoride	67.650	1511	8532	2	0.00
3	1.63	chloride	82.344	1480	7835	1	-1.21
4	1.97	nitrite	894.503	9750	58028	1	-1.99
5	2.98	bromide	604.243	3788	25891	1	0.34
6	3.34	nitrate	3337.734	21385	203031	1	-0.30
7	5.05	phosphate	598.638	1219	15024	1	0.20
8	6.63	sulfate	2560.306	14046	197447	1	-0.90
9	8.81	oxalate	564.634	1478	27498	1	0.11
Totals			8710.052	54801	544022		

File: 95082921.D13 Sample: S95T001557 SPK H2O DIGEST

W40-80-WM-DP-139, REV. 1

```

=====
Sample Name: S95T001557 SPK H2O DIGEST      Date: 08/29/1995 23:20:55
Data File  : C:\DX\DATA\95082921.D15
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 15         Detector: CDM-1
Analyst    :                               Column: AG4A/AS4A anion column/SRS
=====

```

```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          32    3000  5Hz   0.00 10.00         200
-----

```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	309	1518✓	2	
2	1.05	fluoride	21.344	1453	8496✓	2	-0.94
3	1.61	chloride	28.060	1469	8410✓	1	-2.42
4	1.95	nitrite	474.287	16490	99257✓	1	-2.99
5	2.94	bromide	178.593	3813	24077✓	1	-1.01
6	3.22	nitrate	2344.615	51033	579534	1	-3.88
✓ 7	5.02	phosphate	199.531	1295	15848✓	1	-0.40
8	6.52	sulfate	1833.614	35316	530048	1	-2.54
9	8.79	oxalate	175.958	1439	27024✓	1	-0.11
Totals			5256.001	112617	1294212		

File: 95082921.D15 Sample: S95T001557 SPK H2O DIGEST

WHC-SD-WM-DP-139, REV. 1

LABCORE Data Entry Template for Worklist#

2249

Analyst: EAL Instrument: IC01 Book # 106N9C

Method: LA-533-105 Rev/Mod D-0 WHC-SD-WM-DP-139, REV. 1

Worklist Comment: Re run NO2, use 101 df for 1544, and 21 df for 1546. JMF

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP			@IC-01 F-02	SOLID	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	ug/g
		1 BLNK-PREP			@IC-01 CL-02	SOLID	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	ug/g
		1 BLNK-PREP			@IC-01 NO2-02	SOLID	<u>1</u>	<u>2.547</u>	<u>N/A</u>	ug/g
		1 BLNK-PREP			@IC-01 BR-02	SOLID	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	ug/g
		1 BLNK-PREP			@IC-01 NO3-02	SOLID	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	ug/g
		1 BLNK-PREP			@IC-01 PO4-02	SOLID	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	ug/g
		1 BLNK-PREP			@IC-01 SO4-02	SOLID	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	ug/g
		1 BLNK-PREP			@IC-01 OXALATE2	SOLID	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	ug/g
		2 STD			@IC-01 F-02	SOLID	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	ug/g
		2 STD			@IC-01 CL-02	SOLID	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	ug/g
		2 STD			@IC-01 NO2-02	SOLID	<u>532</u>	<u>564.103</u>	<u>N/A</u>	ug/g
		2 STD			@IC-01 BR-02	SOLID	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	ug/g
		2 STD			@IC-01 NO3-02	SOLID	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	ug/g
		2 STD			@IC-01 PO4-02	SOLID	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	ug/g
		2 STD			@IC-01 SO4-02	SOLID	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	ug/g
		2 STD			@IC-01 OXALATE2	SOLID	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	ug/g
95000091	B-101	3 SAMPLE	S95T001544	0 W	@IC-01 NO2-02	SOLID	<u>N/A</u>	<u>5.88⁺⁴</u>	<u>5.31⁺³</u>	ug/g
95000091	B-101	4 DUP	S95T001544	0 W	@IC-01 F-02	SOLID	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	ug/g

Data Entry Comments: 106N9C .100 ml → 10 ml Prep Dil: 1544 = 10.4080
Spike 106N9C .100 ml DUP = 10.3440
1546 = 5.8270
DUP = 5.8070

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#

2249

DUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
95000091	B-101	4 DUP	S95T001544	0 W	QIC-01 CL-02	SOLID	N/A 5.88 ⁺⁴	N/A 6.92 ⁺⁴	N/A	ug/g
95000091	B-101	4 DUP	S95T001544	0 W	QIC-01 NO2-02	SOLID	6.92 ⁺⁴	5.88 ⁺⁴	N/A	ug/g
95000091	B-101	4 DUP	S95T001544	0 W	QIC-01 BR-02	SOLID	N/A	N/A	N/A	ug/g
95000091	B-101	4 DUP	S95T001544	0 W	QIC-01 NO3-02	SOLID	N/A	N/A	N/A	ug/g
95000091	B-101	4 DUP	S95T001544	0 W	QIC-01 PO4-02	SOLID	N/A	N/A	N/A	ug/g
95000091	B-101	4 DUP	S95T001544	0 W	QIC-01 SO4-02	SOLID	N/A	N/A	N/A	ug/g
95000091	B-101	4 DUP	S95T001544	0 W	QIC-01 OXALATE2	SOLID	N/A	N/A	N/A	ug/g
95000091	B-101	5 SPK	S95T001544	0 W	QIC-01 CL-02	SOLID	N/A	N/A	N/A	ug/g
95000091	B-101	5 SPK	S95T001544	0 W	QIC-01 F-02	SOLID	N/A	N/A	N/A	ug/g
95000091	B-101	5 SPK	S95T001544	0 W	QIC-01 NO2-02	SOLID	100	130.4	N/A	ug/g
95000091	B-101	5 SPK	S95T001544	0 W	QIC-01 BR-02	SOLID	N/A	N/A	N/A	ug/g
95000091	B-101	5 SPK	S95T001544	0 W	QIC-01 NO3-02	SOLID	N/A	N/A	N/A	ug/g
95000091	B-101	5 SPK	S95T001544	0 W	QIC-01 PO4-02	SOLID	N/A	N/A	N/A	ug/g
95000091	B-101	5 SPK	S95T001544	0 W	QIC-01 SO4-02	SOLID	N/A	N/A	N/A	ug/g
95000091	B-101	5 SPK	S95T001544	0 W	QIC-01 OXALATE2	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	6 SAMPLE	S95T001546	0 W	QIC-01 NO2-02	SOLID	N/A	3.72 ⁺⁴	1.97 ⁺³	ug/g
95000093	B-101	7 DUP	S95T001546	0 W	QIC-01 F-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	7 DUP	S95T001546	0 W	QIC-01 CL-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	7 DUP	S95T001546	0 W	QIC-01 NO2-02	SOLID	3.72 ⁺⁴	5.25 ⁺⁴	N/A	ug/g
95000093	B-101	7 DUP	S95T001546	0 W	QIC-01 BR-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	7 DUP	S95T001546	0 W	QIC-01 NO3-02	SOLID	N/A	N/A	N/A	ug/g

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#

2249

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
95000093	B-101	7 DUP	S95T001546	0 W	QIC-01 PO4-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	7 DUP	S95T001546	0 W	QIC-01 SO4-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	7 DUP	S95T001546	0 W	QIC-01 OXALATE2	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	8 SPK	S95T001546	0 W	QIC-01 CL-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	8 SPK	S95T001546	0 W	QIC-01 F-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	8 SPK	S95T001546	0 W	QIC-01 NO2-02	SOLID	100	120%	N/A	ug/g
95000093	B-101	8 SPK	S95T001546	0 W	QIC-01 BR-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	8 SPK	S95T001546	0 W	QIC-01 NO3-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	8 SPK	S95T001546	0 W	QIC-01 PO4-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	8 SPK	S95T001546	0 W	QIC-01 SO4-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	8 SPK	S95T001546	0 W	QIC-01 OXALATE2	SOLID	N/A	N/A	N/A	ug/g

Final page for worklist #

2249

Analyst Signature

Date

Analyst Signature

Date

Data Entry Comments:

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

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Accession #: D295181117

Document #: SD-WM-DP-139

Title/Desc:

FINAL REPORT FOR TANK 241B101 PUSH MODE CORES 90 &
91 [SEC 3 OF 5]

Pages: 147

This document was too large to scan as a whole document, therefore it required breaking into smaller sections.

DOCUMENT NUMBER: SD-WM-DP-139

SECTION 3 OF 5

TITLE: FINAL REPORT FOR TANK 241-B-101 PISH MODE
CORES 90+91

DATE: 11/06/95

ORIGINATOR: SCHREIBER RD

CO: WAC

RECIPIENT: _____

CO: _____

REFERENCES: ECN-625769

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LAB LEADER INFO	
Method:	la-533-105
Matrix:	solid
Test Code:	@IC-01
Work List #:	2249
Batch #:	n/a
Result Units	
(µg/g or µg/mL):	µg/g
Spike Book Number:	106N9C
Spike Sample #:	1
Prepared By:	RT STEELE
Prepared Date:	09/15/95
Chemist:	J.FRYE
Analyst:	A. LAMBEL
Analysis Date:	09/08/95
Time Complete:	
Instrument Code:	IC01
Rerun:	0
Sample Prep:	H2O DIG
Sample Point:	B-101
Sample Type	
STANDARD	106N9C
SAMPLE 1	S95T001544
DUPLICATE 1	S95T001544-DUP
SAMPLE 2	S95T001545
DUPLICATE 2	S95T001545-DUP
SAMPLE 3	
DUPLICATE 3	
SAMPLE 4	
DUPLICATE 4	
SPIKE	S95T001544-SPK
SPIKE DUPLICATE	

PRINT

TECH INFO								
	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Blank Data (µg/mL)			<.647					
Standard Data (µg/mL)			564.103					
Sample 1 Data (µg/mL)			6.12E+02					
Sample 1 Dilution Factor			101					
Sample 1 Prep DF	10.403	10.403	10.403	10.403	10.403	10.403	10.403	10.403
Duplicate 1 Data (µg/mL)			7.18E+02					
Duplicate 1 Dilution Factor			101					
Duplicate 1 Prep DF	10.344	10.344	10.344	10.344	10.344	10.344	10.344	10.344
Sample 2 Data (µg/mL)			2.17E+02					
Sample 2 Dilution Factor			21					
Sample 2 Prep DF	5.827	5.827	5.827	5.827	5.827	5.827	5.827	5.827
Duplicate 2 Data (µg/mL)			3.05E+02					
Duplicate 2 Dilution Factor			21					
Duplicate 2 Prep DF	5.807	5.807	5.807	5.807	5.807	5.807	5.807	5.807
Sample 3 Data (µg/mL)								
Sample 3 Dilution Factor								
Sample 3 Prep DF								
Duplicate 3 Data (µg/mL)								
Duplicate 3 Dilution Factor								
Duplicate 3 Prep DF								
Sample 4 Data (µg/mL)								
Sample 4 Dilution Factor								
Sample 4 Prep DF								
Duplicate 4 Data (µg/mL)								
Duplicate 4 Dilution Factor								
Duplicate 4 Prep DF								
Spike + Sample 1 (µg/mL)			1.31E+03					
Spike + Dup 1 (µg/mL)								
Spike Volume (mL)			1.00E-01					
Total Volume (mL)			10.10					
Std. Conc. (µg/mL)			532					
Detection Limit			0.547					
Matrix Detection Limit 1	0.00E+00	0.00E+00	5.31E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Matrix Detection Limit 2	0.00E+00	0.00E+00	1.97E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Matrix Detection Limit 3	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
Matrix Detection Limit 4	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR

Spike Recovery = $\frac{((\text{Spike} + \text{Sample}) - (\text{Sample})) \times (\text{Total Volume})}{((\text{Spike Vol}) \times (\text{Spike Std.}) \times (\text{Sample DF}))} \times 100\%$
 Note: (For spike recovery when the sample conc. is less than detection limit you do NOT subtract sample conc.)
 Duplicate Relative % Difference = $\frac{((\text{Sample} - \text{Duplicate}) / ((\text{Sample} + \text{Duplicate}) / 2)) \times 100\%}{\text{Less than Values are Calculated from the Detection Limit} \times \text{Dilution Factor}}$

v RESULTS v	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Standard % Recovery			108.0%					
Sample 1 in µg/g	<0.00	<0.00	5.88E+04	<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 1 in µg/g	<0.00	<0.00	6.92E+04	<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 1 RPD	N/A	N/A	16.3%	N/A	N/A	N/A	N/A	N/A
Sample 2 in µg/g	<0.00	<0.00	3.72E+04	<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 2 in µg/g	<0.00	<0.00	6.25E+04	<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 2 RPD	ERR	ERR	34.3%	ERR	ERR	ERR	ERR	ERR
Spike % Recovery			130.4%					

Data Entry by:	RT Steele	Date:	09/15/95
Approved by:	<i>Jeffrey Fudge</i>	Date:	9/15

Form DIONEX.WB1 Rev. 1.3

WESTINGHOUSE HANFORD COMPANY
222-S LABORATORY
INORGANIC ANALYTICAL BATCH AND SUMMARY SHEET
ANION ANALYSIS ON DIONEX

SAMPLE #:	S95T001544 & S95T001546
TEST CODE:	@IC-01
INSTRUMENT:	IC01
WORK LIST #:	2249
BATCH ID:	n/a
ANALYST:	A. LAMBEL
ANALYSIS DATE:	09/08/95
SAMPLE POINT:	B-101
SAMPLE PREP:	H2O DIG

Result Units	ppb	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
S95T001544	<0.00	<0.00	<0.00	5.88E+04	<0.00	<0.00	<0.00	<0.00	<0.00
S95T001544-DUP	<0.00	<0.00	<0.00	6.92E+04	<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 1 RPD	N/A	N/A	N/A	16.3%	N/A	N/A	N/A	N/A	N/A
S95T001546	<0.00	<0.00	<0.00	3.72E+04	<0.00	<0.00	<0.00	<0.00	<0.00
S95T001546-DUP	<0.00	<0.00	<0.00	5.25E+04	<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 2 RPD	ERR	ERR	ERR	34.3%	ERR	ERR	ERR	ERR	ERR
S95T001546-SPK				120.2%					

NARRATIVE:

Analyst Comments:

Chemist Comments:

Form Completed BY:	RLK/LL
Chemist Approval:	<i>[Signature]</i>
Date:	9/15/95

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LAB LEADER INFO	
Method:	la-533-105
Matrix:	solid
Test Code:	(0)c-01
Work List #:	2249
Batch #:	n/a
Result Units	
(µg/g or µg/mL):	µg/g
Spike Book Number:	106N9C
Spike Sample #:	2
Prepared By: RT STEELE	
Prepared Date: 09/15/95	
Chemist: J. FRYE	
Analyst: A. LAMBEL	
Analysis Date: 09/08/95	
Time Complete:	
Instrument Code: IC01	
Rerun: 0	
Sample Prep: H2O DIG	
Sample Point: B-101	
Sample Type	
STANDARD	106N9C
SAMPLE 1	S95T001544
DUPLICATE 1	S95T001544-DUP
SAMPLE 2	S95T001546
DUPLICATE 2	S95T001546-DUP
SAMPLE 3	
DUPLICATE 3	
SAMPLE 4	
DUPLICATE 4	
SPIKE	S95T001546-SPK
SPIKE DUPLICATE	

PRINT

TECH INFO								
	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Blank Data (µg/mL)			<.547					
Standard Data (µg/mL)			564.103					
Sample 1 Data (µg/mL)			6.12E+02					
Sample 1 Dilution Factor			101					
Sample 1 Prep DF	10.403	10.403	10.403	10.403	10.403	10.403	10.403	10.403
Duplicate 1 Data (µg/mL)			7.16E+02					
Duplicate 1 Dilution Factor			101					
Duplicate 1 Prep DF	10.344	10.344	10.344	10.344	10.344	10.344	10.344	10.344
Sample 2 Data (µg/mL)			2.17E+02					
Sample 2 Dilution Factor			21					
Sample 2 Prep DF	5.827	5.827	5.827	5.827	5.827	5.827	5.827	5.827
Duplicate 2 Data (µg/mL)			3.05E+02					
Duplicate 2 Dilution Factor			21					
Duplicate 2 Prep DF	5.807	5.807	5.807	5.807	5.807	5.807	5.807	5.807
Sample 3 Data (µg/mL)								
Sample 3 Dilution Factor								
Sample 3 Prep DF								
Duplicate 3 Data (µg/mL)								
Duplicate 3 Dilution Factor								
Duplicate 3 Prep DF								
Sample 4 Data (µg/mL)								
Sample 4 Dilution Factor								
Sample 4 Prep DF								
Duplicate 4 Data (µg/mL)								
Duplicate 4 Dilution Factor								
Duplicate 4 Prep DF								
Spike + Sample 2 (µg/mL)			3.44E+02					
Spike + Dup 2 (µg/mL)								

Spike Volume (mL)			1.00E-01					
Total Volume (mL)			10.50					
Std. Conc. (µg/mL)			532					
Detection Limit			0.547					
Matrix Detection Limit 1	0.00E+00	0.00E+00	5.31E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Matrix Detection Limit 2	0.00E+00	0.00E+00	1.97E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Matrix Detection Limit 3	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
Matrix Detection Limit 4	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR

Spike Recovery = $\frac{((\text{Spike} + \text{Sample}) - (\text{Sample}) \times (\text{Total Volume})) \times (\text{Spike Vol.}) \times (\text{Spike Std.}) \times (\text{Sample DF})}{(\text{Spike} + \text{Sample})} \times 100\%$
 Note: (For spike recovery when the sample conc. is less than detection limit you do NOT subtract sample conc.)
 Duplicate Relative % Difference = $\frac{((\text{Sample} - \text{Duplicate}) / ((\text{Sample} + \text{Duplicate}) / 2)) \times 100\%}{\text{Less than Values are Calculated from the Detection Limit} \times \text{Dilution Factor}}$

v RESULTS v	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Standard % Recovery			106.0%					
Sample 1 in µg/g	<0.00	<0.00	5.88E+04	<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 1 in µg/g	<0.00	<0.00	6.92E+04	<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 1 RPD	N/A	N/A	16.3%	N/A	N/A	N/A	N/A	N/A
Sample 2 in µg/g	<0.00	<0.00	3.72E+04	<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 2 in µg/g	<0.00	<0.00	5.25E+04	<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 2 RPD	ERR	ERR	34.3%	ERR	ERR	ERR	ERR	ERR
Spike % Recovery			120.2%					

Data Entry by:

RT Steele

Date: 09/15/95

Approved by:

James J. Frye

Date: 9/18/95

Form DIONEX.WB1 Rev. 1.3

Sample Name: S95T001546 DUP.

Date: 09/08/1995 12:11:31

Data File : C:\DX\DATA\95090521.D07

Method : C:\DX\METHOD\KIT.MET

CI Address: 1 System: 1 Inject#: 7

Detector: CDM-1

Analyst : *[Signature]* Column: AG4A/AS4A anion column/SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	21	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	142	815	2	
2	1.09	fluoride	0.856	84	458	2	2.83
3	1.59	chloride	0.557	109	599	1	-3.64
4	1.93	nitrite	304.968	16311	97149	1	-3.98
5	2.89	bromide	5.436	75	491	1	-2.69
6	3.25	nitrate	565.907	17833	161583	1	-2.99
7	5.01	phosphate	27.859	239	2959	1	-0.60
8	6.62	sulfate	42.771	1017	14280	1	-1.05
Totals			948.354	35811	278333		

File: 95090521.D07 Sample: S95T001546 DUP.

WHC-SD-WM-DP-139, REV. 1

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 116 TO 173.1

=====

Sample Name: S95T001546 SPIKE	Date: 09/08/1995 12:22:38
Data File : C:\DX\DATA\95090521.D08	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 8	Detector: CDM-1
Analyst : <i>Helen Lambert</i>	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	21	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.90		0.000	168	814	2	
2	1.06	fluoride	13.504	1399	8183	2	0.00
3	1.62	chloride	16.842	1469	7711	1	-1.82
4	1.95	nitrite	344.371	18825	110441	1	-2.99
5	2.91	bromide	122.321	3698	25178	1	-2.02
6	3.27	nitrate	556.616	17718	158661	1	-2.39
7	5.02	phosphate	136.129	1312	16509	1	-0.40
8	6.62	sulfate	163.424	4071	56588	1	-1.05
9	8.71	oxalate	109.197	1401	25481	1	-1.02
Totals			1462.406	50062	409565		

File: 95090521.D08 Sample: S95T001546 SPIKE

WHC-SD-WM-DP-139, REV. 1

=====

Sample Name: 106N9-C	Date: 09/08/1995 09:48:26
Data File : C:\DX\DATA\95090521.D02	
Method : C:\DX\METHOD\KIT.MET	
CI Address: 1 System: 1 Inject#: 2	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	101	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.89		0.000	61	287	2	
2	1.05	fluoride	63.7611.0806949	1464	8029	2	-0.94
3	1.59	chloride	81.6401.0359493	1381	7770	1	-3.64
4	1.92	nitrite	564.1031.0603439	5915	36089	1	-4.48
5	2.88	bromide	601.6181.0462921	3739	25773	1	-3.03
6	3.30	nitrate	627.1121.021355	4323	34652	1	-1.49
7	5.01	phosphate	574.6051.0523901	1127	14389	1	-0.60
8	6.62	sulfate	654.9641.0379778	3366	46894	1	-1.05
9	8.73	oxalate	551.7481.0509485	1453	26839	1	-0.80
Totals			3719.550	22830	200720		

File: 95090521.D02 Sample: 106N9-C

```

=====
Sample Name: INSTR.BLK                      Date: '09/08/1995 09:17:07
Data File  : C:\DX\DATA\95090801.D01
Method     : C:\DX\METHOD\KIT.MET
ACT Address: 1 System: 1 Inject#: 1          Detector: CDM-1
Analyst    :                               Column: AG4A/AS4A anion column/SRS
=====

```

```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1           1 3000 5Hz 0.00 10.00          200
-----

```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
Totals			0.000	0	0		

File: 95090801.D01 Sample: INSTR.BLK

WHC-SD-WM-DP- 139, REV. 1

```

=====
Sample Name: PREP. BLK.                      Date: 09/08/1995 09:30:37
Data File  : C:\DX\DATA\95090521.D01
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 1          Detector: CDM-1
Analyst    :                               Column: AG4A/AS4A anion column/SRS
=====

```

```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1           1    3000   5Hz   0.00 10.00         200
-----

```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
Totals			0.000	0	0		

File: 95090521.D01 Sample: PREP. BLK.

WHC-SD-WM-DP- 139, REV. 1

=====

Sample Name: S95T001544	Date: 09/08/1995 10:02:41
Data File : C:\DX\DATA\95090521.D03	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 3	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	101	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.90		0.000	50	286	1	
2	1.61	chloride	-1.040	51	267	1	-2.42
3	1.94	nitrite	611.593	6369	39215	1	-3.48
4	2.91	bromide	25.913	73	481	1	-2.02
5	3.29	nitrate	1640.816	11049	93714	1	-1.79
6	5.05	phosphate	40.210	49	574	1	0.20
7	6.66	sulfate	147.827	722	10146	1	-0.45
Totals			2465.320	18365	144682		

File: 95090521.D03 Sample: S95T001544

WHC-SD-WM-DP-139, REV. 1

Sample Name: S95T001544 DUP. Date: 09/08/1995 10:15:52
 Data File : C:\DX\DATA\95090521.D04
 Method : C:\DX\METHOD\KIT.MET
 ACI Address: 1 System: 1 Inject#: 4 Detector: CDM-1
 Analyst : Column: AG4A/AS4A anion column/SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	58	321	2	
3	1.60	chloride	0.396	78	395	1	-3.03
4	1.92	nitrite	716.200	7637	46132	1	-4.48
5	2.89	bromide	27.598	86	554	1	-2.69
6	3.26	nitrate	1965.888	13164	113542	1	-2.69
7	5.03	phosphate	50.521	68	836	1	-0.20
8	6.64	sulfate	152.744	752	10496	1	-0.75
Totals			2913.347	21843	172276		

File: 95090521.D04 Sample: S95T001544 DUP.

WHC-SD-WM-DP-139, REV.1

=====

Sample Name: S95T001544 SPIKE	Date: 09/08/1995 11:32:19
Data File : C:\DX\DATA\95090521.D05	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 5	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	101	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.90		0.000	109	525	2	
2	1.06	fluoride	69.068	1493	8716	2	0.00
3	1.61	chloride	84.191	1480	8005	1	-2.42
4	1.94	nitrite	1305.159	14157	85951	1	-3.48
5	2.90	bromide	608.314	3888	26073	1	-2.36
6	3.26	nitrate	2603.175	17204	153854	1	-2.69
7	5.03	phosphate	607.458	1219	15257	1	-0.20
8	6.63	sulfate	827.797	4304	59698	1	-0.90
9	8.74	oxalate	553.561	1461	26931	1	-0.68
Totals			6658.724	45316	385011		

File: 95090521.D05 Sample: S95T001544 SPIKE

WHC-SD-WM-DP-132, REV. 1

Sample Name: S95T001546 Date: 09/08/1995 11:59:39
 Data File : C:\DX\DATA\95090521.D06
 Method : C:\DX\METHOD\KIT.MET
 ACI Address: 1 System: 1 Inject#: 6 Detector: CDM-1
 Analyst : Column: AG4A/AS4A anion column/SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	21	3000	5Hz	0.00	10.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	140	861	2	
2	1.10	fluoride	1.117	72	614	2	3.77
4	1.62	chloride	0.201	92	446	1	-1.82
5	1.95	nitrite	216.508	11782	67924	1	-2.99
6	2.91	bromide	4.756	54	350	1	-2.02
7	3.29	nitrate	407.571	12983	113192	1	-1.79
8	5.03	phosphate	21.052	178	2125	1	-0.20
9	6.65	sulfate	31.043	731	10251	1	-0.60
Totals			682.247	26032	195763		

File: 95090521.D06 Sample: S95T001546

WHC-SD-WM-DP-139, REV. 1

173.1

LABCORE Data Entry Template for Worklist#

2313

Analyst: EE Instrument: IC01 Book # 106N19-C

Method: LA-533-105 Rev/Mod 0-0 WHC-SD-WM-DP- 139, REV. 1

Worklist Comment: Re run for NO2 and PO4, try 21 or 32 DF. JMF

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 BLNK-PREP		01C-01	F-02	SOLID	N/A	N/A	N/A	ug/g
		1 BLNK-PREP		01C-01	CL-02	SOLID	N/A	N/A	N/A	ug/g
		1 BLNK-PREP		01C-01	NO2-02	SOLID	1	2547	N/A	ug/g
		1 BLNK-PREP		01C-01	BR-02	SOLID	N/A	N/A	N/A	ug/g
		1 BLNK-PREP		01C-01	NO3-02	SOLID	N/A	N/A	N/A	ug/g
		1 BLNK-PREP		01C-01	PO4-02	SOLID	1	2.596	N/A	ug/g
		1 BLNK-PREP		01C-01	SO4-02	SOLID	N/A	N/A	N/A	ug/g
		1 BLNK-PREP		01C-01	OXALATE2	SOLID	N/A	N/A	N/A	ug/g
		2 STD		01C-01	F-02	SOLID	N/A	N/A	N/A	ug/g
		2 STD		01C-01	CL-02	SOLID	N/A	N/A	N/A	ug/g
		2 STD		01C-01	NO2-02	SOLID	522	543.109	N/A	ug/g
		2 STD		01C-01	BR-02	SOLID	N/A	N/A	N/A	ug/g
		2 STD		01C-01	NO3-02	SOLID	N/A	N/A	N/A	ug/g
		2 STD		01C-01	PO4-02	SOLID	546	562.466	N/A	ug/g
		2 STD		01C-01	SO4-02	SOLID	N/A	N/A	N/A	ug/g
		2 STD		01C-01	OXALATE2	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	3 SAMPLE	S95T001557	01C-01	NO2-02	SOLID	N/A	2.31 ⁺⁴	2.86 ⁺³	ug/g
95000093	B-101	3 SAMPLE	S95T001557	01C-01	PO4-02	SOLID	N/A	2.06 ⁺³	3.12 ⁺³	ug/g

Data Entry Comments:

H2O Dig Prep Dil = 9.7380
DWP = 9.7450

LMCS 106N19-C .100ml - 10ml

SPIKE 106N19-C .100 ml

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#

2313

JP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
95000093	B-101	4 DUP	S95T001557	0 W	QIC-01 F-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	4 DUP	S95T001557	0 W	QIC-01 CL-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	4 DUP	S95T001557	0 W	QIC-01 NO2-02	SOLID	2.31 ⁺⁴	1.85 ⁺⁴	N/A	ug/g
95000093	B-101	4 DUP	S95T001557	0 W	QIC-01 BR-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	4 DUP	S95T001557	0 W	QIC-01 NO3-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	4 DUP	S95T001557	0 W	QIC-01 PO4-02	SOLID	2.31253 2.06 ⁺³	2.31253 1.39 ⁺³	N/A	ug/g
95000093	B-101	4 DUP	S95T001557	0 W	QIC-01 SO4-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	4 DUP	S95T001557	0 W	QIC-01 OXALATE2	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	5 SPK	S95T001557	0 W	QIC-01 CL-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	5 SPK	S95T001557	0 W	QIC-01 F-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	5 SPK	S95T001557	0 W	QIC-01 NO2-02	SOLID	100	108.8	N/A	ug/g
95000093	B-101	5 SPK	S95T001557	0 W	QIC-01 BR-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	5 SPK	S95T001557	0 W	QIC-01 NO3-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	5 SPK	S95T001557	0 W	QIC-01 PO4-02	SOLID	100	103.4	N/A	ug/g
95000093	B-101	5 SPK	S95T001557	0 W	QIC-01 SO4-02	SOLID	N/A	N/A	N/A	ug/g
95000093	B-101	5 SPK	S95T001557	0 W	QIC-01 OXALATE2	SOLID	N/A	N/A	N/A	ug/g

Final page for worklist #

2313

E.M. Cohen 9-15-95
Analyst Signature Date

R. Stark
Analyst Signature Date

Entered & Verified 9/18/95. John Luge

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.

**WESTINGHOUSE HANFORD COMPANY
222-S LABORATORY
INORGANIC ANALYTICAL BATCH AND SUMMARY SHEET
ANION ANALYSIS ON DIONEX**

SAMPLE #: S95T001557 TEST CODE: @lc-01 INSTRUMENT: IC01 WORK LIST #: 2313 BATCH ID: n/a	ANALYST: E.COLVIN ANALYSIS DATE: 09/15/95 SAMPLE POINT: B-101 SAMPLE PREP: H2O DIG
--	---

< 3.1223 ppt 9/15/95

Result Units	µg/g	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
106N9C				102.1%		103.0%			
S95T001557		<0.00	<0.00	2.31E+04	<0.00	2.06E+03	<0.00	<0.00	<0.00
S95T001557-DUP		<0.00	<0.00	1.85E+04	<0.00	1.39E+03	<0.00	<0.00	<0.00
Duplicate 1 RPD		N/A	N/A	22.3%	N/A	38.4%	N/A	N/A	N/A
		<0.00	<0.00		<0.00	<0.00	<0.00	<0.00	<0.00
		<0.00	<0.00		<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 2 RPD		ERR	ERR		ERR	N/A	ERR	ERR	ERR
S95T001577-SPK				108.8%		103.4%			

< 3.1223 ppt 9/15/95

NARRATIVE: **Analyst Comments:**

Chemist Comments:

Form Completed By: <i>pt-172</i>	Date: 9-15-95
Chemist Approval: <i>James M. Lutz</i>	Date: 9/18/95

LAB LEADER INFO	
Method:	la-533-105
Matrix:	solid
Test Code:	@Kc-01
Work List #:	2313
Batch #:	n/a
Result Units	
(µg/g or µg/mL):	µg/g
Spike Book Number:	106N9C
Spike Sample #:	1
Prepared By: RT STEELE	
Prepared Date:	09/15/95
Chemist:	J.FRYE
Analyst:	E.COLVIN
Analysis Date:	09/15/95
Time Complete:	
Instrument Code:	IC01
Rerun:	1
Sample Prep:	H2O DIG
Sample Point:	B-101
Sample Type	
STANDARD	106N9C
SAMPLE 1	S95T001557
DUPLICATE 1	S95T001557-DUP
SAMPLE 2	
DUPLICATE 2	
SAMPLE 3	
DUPLICATE 3	
SAMPLE 4	
DUPLICATE 4	
SPIKE	S95T001577-SPK
SPIKE DUPLICATE	

PRINT

TECH INFO								
	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Blank Data (µg/mL)			<.547		<.596			
Standard Data (µg/mL)			543.109		562.466			
Sample 1 Data (µg/mL)			2.25E+02		2.00E+01			
Sample 1 Dilution Factor			51		51			
Sample 1 Prep DF	9.738	9.738	9.738	9.738	9.738	9.738	9.738	9.738
Duplicate 1 Data (µg/mL)			1.80E+02		1.36E+01			
Duplicate 1 Dilution Factor			51		51			
Duplicate 1 Prep DF	9.745	9.745	9.745	9.745	9.745	9.745	9.745	9.745
Sample 2 Data (µg/mL)								
Sample 2 Dilution Factor								
Sample 2 Prep DF								
Duplicate 2 Data (µg/mL)								
Duplicate 2 Dilution Factor								
Duplicate 2 Prep DF								
Sample 3 Data (µg/mL)								
Sample 3 Dilution Factor								
Sample 3 Prep DF								
Duplicate 3 Data (µg/mL)								
Duplicate 3 Dilution Factor								
Duplicate 3 Prep DF								
Sample 4 Data (µg/mL)								
Sample 4 Dilution Factor								
Sample 4 Prep DF								
Duplicate 4 Data (µg/mL)								
Duplicate 4 Dilution Factor								
Duplicate 4 Prep DF								
Spike + Sample 1 (µg/mL)			5.17E+02		3.02E+02			
Spike + Dup 1 (µg/mL)								

Spike Volume (mL)			1.00E-01		1.00E-01			
Total Volume (mL)			10.10		10.20			
Std. Conc. (µg/mL)			532		546			
Detection Limit			0.547		0.596			
Matrix Detection Limit 1	0.00E+00	0.00E+00	2.88E+03	0.00E+00	3.12E+03	0.00E+00	0.00E+00	0.00E+00
Matrix Detection Limit 2	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
Matrix Detection Limit 3	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
Matrix Detection Limit 4	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR

Spike Recovery = $\frac{((\text{Spike} + \text{Sample}) - (\text{Sample})) \times (\text{Total Volume})}{((\text{Spike Vol.}) \times (\text{Spike Std.}) \times (\text{Sample DF}))} \times 100\%$

Note: (For spike recovery when the sample conc. is less than detection limit you do NOT subtract sample conc.)

Duplicate Relative % Difference = $\frac{((\text{Sample} - \text{Duplicate}) / ((\text{Sample} + \text{Duplicate}) / 2)) \times 100\%}{}$

Less than Values are Calculated from the Detection Limit/Dilution Factor

v RESULTS v	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Standard % Recovery			102.1%		103.0%			
Sample 1 in µg/g	<0.00	<0.00	2.31E+04	<0.00	2.88E+03	<0.00	<0.00	<0.00
Duplicate 1 in µg/g	<0.00	<0.00	1.85E+04	<0.00	1.36E+03	<0.00	<0.00	<0.00
Duplicate 1 RPD	N/A	N/A	22.3%		38.4%	N/A	N/A	N/A
Sample 2 in µg/g	<0.00	<0.00		<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 2 in µg/g	<0.00	<0.00		<0.00	<0.00	<0.00	<0.00	<0.00
Duplicate 2 RPD	ERR	ERR		ERR	N/A	ERR	ERR	ERR
Spike % Recovery			105.8%		103.4%			

Data Entry by:

RT Steele

Date: 09/15/95

Approved by:

James M. Lange

Date: 9/18/95

Form DIONEX.WB1 Rev. 1.3

177

Sample Name: 106N9-C STD Date: 09/15/1995 08:02:32
 Data File : C:\DX\DATA\95091551.D03
 Method : C:\DX\METHOD\KIT.MET
 ACI Address: 1 System: 1 Inject#: 3 Detector: CDM-1
 Analyst : *PA. C. L.* Column: AG4A/AS4A anion column/SRS

9-15-95

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	101	2700	5Hz	0.00	9.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
2	1.03	fluoride	60.235	1391	7573	2	-2.83
3	1.52	chloride	78.192	1438	7452	1	0.00
4	1.82	nitrite	543.109	5928	34710	1	0.00
5	2.68	bromide	595.816	3750	25514	1	-0.74
6	3.07	nitrate	615.748	4416	34011	1	-0.32
7	4.45	phosphate	562.446	1201	14069	1	-0.67
8	5.88	sulfate	640.638	3467	45839	1	-0.51
9	7.73	oxalate	531.148	1457	25785	1	-0.64
Totals			3627.332	23046	194953		

File: 95091551.D03 Sample: 106N9-C STD

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 178 TO 184.

WHC-SD-WM-DP-139, REV. 1

```

=====
Sample Name: PREP BLANK                      Date: 09/15/1995 07:52:40
Data File  : C:\DX\DATA\95091551.D02
Method     : C:\DX\METHOD\KIT.MET
CI Address: 1 System: 1 Inject#: 2           Detector: CDM-1
Analyst    :                               Column: AG4A/AS4A anion column/SRS
=====

```

```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1           1 2700 5Hz 0.00 9.00          200
-----

```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.25		0.000	81	654	1	
2	1.55	chloride	0.138	196	1608	1	1.97
3	3.15	nitrate	0.079	55	395	1	2.27
4	5.94	sulfate	0.114	39	467	1	0.51
Totals			0.331	372	3125		

File: 95091551.D02 Sample: PREP BLANK

WHC-SD-WM-DP-139, REV. 1

```

=====
Sample Name: INSTR BLANK                      Date: 09/15/1995 07:42:46
Data File  : C:\DX\DATA\95091551.D01
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 1          Detector: CDM-1
Analyst    :                               Column: AG4A/AS4A anion column/SRS
=====

```

```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          1  2700  5Hz   0.00  9.00        200
-----

```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
Totals			0.000	0	0		

File: 95091551.D01 Sample: INSTR BLANK

WHC-SD-WM-DP-139, REV. 1

=====

Sample Name: S95T001557	Date: 09/15/1995 08:45:58
Data File : C:\DX\DATA\95091551.D06	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 6	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	51	2700	5Hz	0.00	9.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.91		0.000	127	674	1	
2	1.54	chloride	-0.037	70	353	1	1.32
3	1.83	nitrite	225.252	4814	28360	1	0.55
4	2.70	bromide	10.143	40	230	1	0.00
5	2.99	nitrate	1954.052	26283	240792	1	-2.92
6	4.49	phosphate	20.013	53	560	1	0.22
7	5.85	sulfate	1373.384	15940	211139	1	-1.02
Totals			3582.806	47326	482107		

File: 95091551.D06 Sample: S95T001557

WHC-SD-WM-DP-139, REV. 1

=====

Sample Name: S95T001557 DUP	Date: 09/15/1995 09:01:37
Data File : C:\DX\DATA\95091551.D07	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 7	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	51	2700	5Hz	0.00	9.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.91		0.000	121	667	1	
2	1.53	chloride	-0.853	44	209	1	0.66
3	1.83	nitrite	180.279	3772	22563	1	0.55
5	2.99	nitrate	1877.445	25276	229821	1	-2.92
6	4.49	phosphate	13.577	24	237	1	0.22
7	5.86	sulfate	1183.743	13592	179212	1	-0.85
Totals			3254.190	42829	432709		

File: 95091551.D07 Sample: S95T001557 DUP

WHC-SD-WM-DP-139, REV.1

```

=====
Sample Name: S95T001557 + SPIKE      Date: 09/15/1995 09:12:43
Data File  : C:\DX\DATA\95091551.D08
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 8    Detector: CDM-1
Analyst    :                          Column: AG4A/AS4A anion column/SRS
=====

```

```

-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          51   2700  5Hz   0.00  9.00          200
-----

```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	125	506	2	
2	1.04	fluoride	31.599	1397	7876	2	-1.89
3	1.53	chloride	39.924	1386	7532	1	0.66
4	1.83	nitrite	517.425	11280	66800	1	0.55
5	2.69	bromide	291.606	3922	24694	1	-0.37
6	2.98	nitrate	2323.645	31696	296321	1	-3.25
7	4.47	phosphate	302.370	1303	15028	1	-0.22
8	5.83	sulfate	1765.850	20931	280899	1	-1.35
9	7.74	oxalate	276.479	1490	26623	1	-0.51
Totals			5548.899	73530	726280		

File: 95091551.D08 Sample: S95T001557 + SPIKE

BEST AVAILABLE COPY

(Handwritten signature/initials inside a circle)

WHC-SD-WM-DP-139, REV. 1

Sample Name: S95T001557 + SPIKE Date: 09/15/1995 09:22:23
 Data File : C:\DX\DATA\95091551.D09
 Method : C:\DX\METHOD\KIT.MET
 ACI Address: 1 System: 1 Inject#: 9 Detector: CDM-1
 Analyst : *P.H. Cohn* Column: AG4A/AS4A anion column/SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	51	2700	5Hz	0.00	9.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.90		0.000	110	449	2	
2	1.03	fluoride	31.266	1349	7791	2	-2.83
3	1.53	chloride	40.098	1422	7564	1	0.66
4	1.83	nitrite	512.847	11304	66187	1	0.55
5	2.69	bromide	288.600	3868	24428	1	-0.37
6	2.98	nitrate	2309.620	31262	294127	1	-3.25
7	4.47	phosphate	302.046	1299	15011	1	-0.22
8	5.83	sulfate	1750.927	20821	278145	1	-1.35
9	7.75	oxalate	272.498	1470	26220	1	-0.39
Totals			5507.902	72905	719923		

File: 95091551.D09 Sample: S95T001557 + SPIKE

*not entered
after*

WHC-SD-WM-DP-139, REV. 1

LABCORE Data Entry Template for Worklist#

2356

Analyst: EC Instrument: IC01 IC01 Book # 106N9-C

Method: LA-533-105 Rev/Mod D-0 WHC-SD-WM-DP- 139, REV. 1

Worklist Comment: Rerun of S95T001549 and S95T001553 IC.Try DF of 11,26,51.JMF

GROUP	PROJECT	S	TYPE	SAMPLE#	R	A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1	BLNK-PREP				QIC-01 F-02	SOLID		6.062	N/A	ug/g
		1	BLNK-PREP				QIC-01 CL-02	SOLID		6.083	N/A	ug/g
		1	BLNK-PREP				QIC-01 NO2-02	SOLID		6.547	N/A	ug/g
		1	BLNK-PREP				QIC-01 BR-02	SOLID		6.632	N/A	ug/g
		1	BLNK-PREP				QIC-01 NO3-02	SOLID		6.699	N/A	ug/g
		1	BLNK-PREP				QIC-01 PO4-02	SOLID		6.596	N/A	ug/g
		1	BLNK-PREP				QIC-01 SO4-02	SOLID		6.678	N/A	ug/g
		1	BLNK-PREP				QIC-01 OXALATE2	SOLID		6.496	N/A	ug/g
		2	STD				QIC-01 F-02	SOLID		63.31	N/A	ug/g
		2	STD				QIC-01 CL-02	SOLID		77.33	N/A	ug/g
		2	STD				QIC-01 NO2-02	SOLID		540.2	N/A	ug/g
		2	STD				QIC-01 BR-02	SOLID		583.3	N/A	ug/g
		2	STD				QIC-01 NO3-02	SOLID		625.1	N/A	ug/g
		2	STD				QIC-01 PO4-02	SOLID		579.7	N/A	ug/g
		2	STD				QIC-01 SO4-02	SOLID		649.1	N/A	ug/g
		2	STD				QIC-01 OXALATE2	SOLID		545.3	N/A	ug/g
95000093	B-101	3	SAMPLE	S95T001549	0	W	QIC-01 NO2-02	SOLID	7.75e4	2.15e2	1.89e3	ug/g
									N/A	1.86e2	2.15e2	ug/g
95000093	B-101	3	SAMPLE	S95T001549	0	W	QIC-01 BR-02	SOLID	N/A	2.19e3	2.19e3	ug/g

Data Entry Comments:

S95T001549 does contain Br, but could not be
LMCS 106N9-C .100ml - 10ml quantitated as it is too low.
SPIKE 106N9-C .100ml

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#

2356

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
95000093	B-101	3 SAMPLE	S95T001549	0 W	QIC-01 NO3-02	SOLID	N/A	1.74e5	2.42e3	ug/g
95000093	B-101	3 SAMPLE	S95T001549	0 W	QIC-01 PO4-02	SOLID	N/A	1.50e4	2.06e3	ug/g
95000093	B-101	4 DUP	S95T001549	0 W	QIC-01 F-02	SOLID	NA	NA	N/A	ug/g
95000093	B-101	4 DUP	S95T001549	0 W	QIC-01 CL-02	SOLID	NA	NA	N/A	ug/g
95000093	B-101	4 DUP	S95T001549	0 W	QIC-01 NO2-02	SOLID	2.75e4	1.73e4	N/A	ug/g
95000093	B-101	4 DUP	S95T001549	0 W	QIC-01 BR-02	SOLID	2.19e3	2.19e3	N/A	ug/g
95000093	B-101	4 DUP	S95T001549	0 W	QIC-01 NO3-02	SOLID	1.74e5	1.54e5	N/A	ug/g
95000093	B-101	4 DUP	S95T001549	0 W	QIC-01 PO4-02	SOLID	1.50e4	9.74e3	N/A	ug/g
95000093	B-101	4 DUP	S95T001549	0 W	QIC-01 SO4-02	SOLID	NA	NA	N/A	ug/g
95000093	B-101	4 DUP	S95T001549	0 W	QIC-01 OXALATE2	SOLID	NA	NA	N/A	ug/g
95000093	B-101	5 SPK	S95T001549	0 W	QIC-01 CL-02	SOLID	NA	NA	N/A	ug/g
95000093	B-101	5 SPK	S95T001549	0 W	QIC-01 F-02	SOLID	NA	NA	N/A	ug/g
95000093	B-101	5 SPK	S95T001549	0 W	QIC-01 NO2-02	SOLID	100	45.3	9mF 9/20/95	ug/g
95000093	B-101	5 SPK	S95T001549	0 W	QIC-01 BR-02	SOLID	100	102.0	9mF 9/20/95	ug/g
95000093	B-101	5 SPK	S95T001549	0 W	QIC-01 NO3-02	SOLID	100	99.6	9mF 9/20/95	ug/g
95000093	B-101	5 SPK	S95T001549	0 W	QIC-01 PO4-02	SOLID	100	13.3	9mF 9/20/95	ug/g
95000093	B-101	5 SPK	S95T001549	0 W	QIC-01 SO4-02	SOLID	100	247.7	9mF 9/20/95	ug/g
95000093	B-101	5 SPK	S95T001549	0 W	QIC-01 OXALATE2	SOLID	100	97.4	9mF 9/20/95	ug/g
95000093	B-101	5 SPK	S95T001549	0 W	QIC-01 F-02	SOLID	NA	NA	N/A	ug/g
95000093	B-101	5 SPK	S95T001549	0 W	QIC-01 CL-02	SOLID	NA	NA	N/A	ug/g
95000091	B-101	6 SAMPLE	S95T001553	0 W	QIC-01 F-02	SOLID	N/A	3.48e2	3.48e2	ug/g
95000091	B-101	6 SAMPLE	S95T001553	0 W	QIC-01 CL-02	SOLID	N/A	2.07e3	4.65e2	ug/g
95000091	B-101	6 SAMPLE	S95T001553	0 W	QIC-01 NO2-02	SOLID	N/A	1.63e4	3.07e3	ug/g

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#

2356

DUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
95000091	B-101	6 SAMPLE	S95T001553	0 W	QIC-01 BR-02	SOLID	N/A	43.54e3	3.54e3	ug/g
95000091	B-101	6 SAMPLE	S95T001553	0 W	QIC-01 NO3-02	SOLID	N/A	1.68e5	3.92e3	ug/g
95000091	B-101	6 SAMPLE	S95T001553	0 W	QIC-01 PO4-02	SOLID	N/A	43.34e3	3.34e3	ug/g
95000091	B-101	6 SAMPLE	S95T001553	0 W	QIC-01 SO4-02	SOLID	N/A	1.90e5	3.80e3	ug/g
95000091	B-101	6 SAMPLE	S95T001553	0 W	QIC-01 OXALATE2	SOLID	N/A	42.78e3	2.78e3	ug/g
95000091	B-101	7 DUP	S95T001553	0 W	QIC-01 F-02	SOLID	43.48e2	43.48e2	N/A	ug/g
95000091	B-101	7 DUP	S95T001553	0 W	QIC-01 CL-02	SOLID	2.07e3	44.65e2	N/A	ug/g
95000091	B-101	7 DUP	S95T001553	0 W	QIC-01 NO2-02	SOLID	1.63e4	2.32e4	N/A	ug/g
95000091	B-101	7 DUP	S95T001553	0 W	QIC-01 BR-02	SOLID	43.54e3	43.54e3	N/A	ug/g
95000091	B-101	7 DUP	S95T001553	0 W	QIC-01 NO3-02	SOLID	1.68e5	2.57e5	N/A	ug/g
95000091	B-101	7 DUP	S95T001553	0 W	QIC-01 PO4-02	SOLID	43.34e3	43.34e3	N/A	ug/g
95000091	B-101	7 DUP	S95T001553	0 W	QIC-01 SO4-02	SOLID	1.90e5	2.92e5	N/A	ug/g
95000091	B-101	7 DUP	S95T001553	0 W	QIC-01 OXALATE2	SOLID	42.78e3	42.78e3	N/A	ug/g
95000091	B-101	8 SPK	S95T001553	0 W	QIC-01 CL-02	SOLID	100	79.5	gmF 9/20/95	ug/g
95000091	B-101	8 SPK	S95T001553	0 W	QIC-01 F-02	SOLID	100	105.7	gmF 9/20/95	ug/g
95000091	B-101	8 SPK	S95T001553	0 W	QIC-01 NO2-02	SOLID	100	137.7	N/A	ug/g
95000091	B-101	8 SPK	S95T001553	0 W	QIC-01 BR-02	SOLID	100	99.1	N/A	ug/g
95000091	B-101	8 SPK	S95T001553	0 W	QIC-01 NO3-02	SOLID	100	347.7	N/A	ug/g
95000091	B-101	8 SPK	S95T001553	0 W	QIC-01 PO4-02	SOLID	100	111.1	N/A	ug/g
95000091	B-101	8 SPK	S95T001553	0 W	QIC-01 SO4-02	SOLID	100	355.9	N/A	ug/g
95000091	B-101	8 SPK	S95T001553	0 W	QIC-01 OXALATE2	SOLID	100	104.3	N/A	ug/g

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#

2356

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

Final page for worklist #

2356

P.H. Cohn 9-18-95
Analyst Signature Date

Analyst Signature Date

Entered & verified 9/20/95
Jm Fuge

Data Entry Comments:

Both S95T001549 & S95T001553 have severe problems.
S95T001549 has bad RPD in PO₄ and bad spike recovery
for NO₂ & NO₃-N. S95T001553 has bad RPD in all areas and
bad spike recovery on NO₂, NO₃ and SO₄. There is a
matrix problem and probably a sample homogeneity problem.

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.

WESTINGHOUSE HANFORD COMPANY
222-S LABORATORY
INORGANIC ANALYTICAL BATCH AND SUMMARY SHEET

ANION ANALYSIS ON DIONEX

SAMPLE #: S95T001549 & S95T001553

TEST CODE: @lc-01

INSTRUMENT: ic01

WORK LIST #: 2356

BATCH ID:

ANALYST:

Ed Colvin

ANALYSIS DATE:

09/18/95

SAMPLE POINT:

B101

SAMPLE PREP:

water digest

Result Units	ppb	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
106N9C								101.4%	
S95T001549		<0.00	<0.00	<0.00	<0.00	<0.00	<0.00	1.22E+03	<0.00
S95T001549dup		<0.00	<0.00	<0.00	<0.00	<0.00	<0.00	1.10E+03	<0.00
Duplicate 1 RPD		N/A	N/A	N/A	N/A	N/A	N/A	10.1%	N/A
S95T001553		<0.00	<0.00	<0.00	<0.00	<0.00	<0.00	<3543.15	<0.00
S95T001553dup		<0.00	<0.00	<0.00	<0.00	<0.00	<0.00	<3501.19	<0.00
Duplicate 2 RPD		ERR	ERR	ERR	ERR	ERR	ERR	N/A	ERR
S95T001549spk								95.6%	

NARRATIVE:

Analyst Comments:

Chemist Comments:

*These Br values are below 2QL
but are provided as information.
Sample S95T001553 had no detectable
Br peak.*

Form Completed By:

Date:

9/20/95

Chemist Approval:

Date:

9/20/95

LAB LEADER INFO	
Method:	
Matrix:	solid
Test Code:	@lc-01
Work List #:	2356
Batch #:	
Result Units	
(µg/g or µg/mL):	µg/g
Spike Book Number:	106N9C
Spike Sample #:	1
Prepared By:	Jann Frye
Prepared Date:	09/20/95
Chemist:	Jann Frye
Analyt:	Ed Colvin
Analysis Date:	09/18/95
Time Complete:	
Instrument Code:	lc01
Run:	1
Sample Prep:	water digest
Sample Point:	B101
Sample Type	
STANDARD	106N9C
SAMPLE 1	S95T001549
DUPLICATE 1	S95T001549dup
SAMPLE 2	S95T001553
DUPLICATE 2	S95T001553dup
SAMPLE 3	
DUPLICATE 3	
SAMPLE 4	
DUPLICATE 4	
SPIKE	S95T001549spk
SPIKE DUPLICATE	

PRINT

TECH INFO								
	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Blank Data (µg/mL)							<.632	
Standard Data (µg/mL)							683.3	
Sample 1 Data (µg/mL)							9.13E+00	
Sample 1 Dilution Factor							26	
Sample 1 Prep DF	7.511	7.511	7.511	7.511	7.511	7.511	7.511	7.511
Duplicate 1 Data (µg/mL)							8.24E+00	
Duplicate 1 Dilution Factor							26	
Duplicate 1 Prep DF	7.505	7.505	7.505	7.505	7.505	7.505	7.505	7.505
Sample 2 Data (µg/mL)							<.632	
Sample 2 Dilution Factor							51	
Sample 2 Prep DF	9.097	9.097	9.097	9.097	9.097	9.097	9.097	9.097
Duplicate 2 Data (µg/mL)							<.632	
Duplicate 2 Dilution Factor							51	
Duplicate 2 Prep DF	9.206	9.206	9.206	9.206	9.206	9.206	9.206	9.206
Sample 3 Data (µg/mL)								
Sample 3 Dilution Factor								
Sample 3 Prep DF								
Duplicate 3 Data (µg/mL)								
Duplicate 3 Dilution Factor								
Duplicate 3 Prep DF								
Sample 4 Data (µg/mL)								
Sample 4 Dilution Factor								
Sample 4 Prep DF								
Duplicate 4 Data (µg/mL)								
Duplicate 4 Dilution Factor								
Duplicate 4 Prep DF								
Spike + Sample 1 (µg/mL)							1.47E+02	
Spike + Dup 1 (µg/mL)								
Spike Volume (mL)							1.00E-01	
Total Volume (mL)							10.40	
Std. Conc. (µg/mL)							678	
Detection Limit							0.632	
Matrix Detection Limit 1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.19E+03	0.00E+00
Matrix Detection Limit 2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.64E+03	0.00E+00
Matrix Detection Limit 3	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
Matrix Detection Limit 4	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR

Spike Recovery = $\frac{((\text{Spike} + \text{Sample}) - (\text{Sample}) * (\text{Total Volume})) / ((\text{Spike Vol.}) * (\text{Spike Std.}) * (\text{Sample DF}))}{100\%}$
 Note: (For spike recovery when the sample conc. is less than detection limit you do NOT subtract sample conc.)
 Duplicate Relative % Difference = $\frac{((\text{Sample} - \text{Duplicate}) / ((\text{Sample} + \text{Duplicate}) / 2) * 100\%)}{100\%}$
 Less than Values are Calculated from the Detection Limit * Dilution Factor

v RESULTS v		Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Standard % Recovery								101.4%	
Sample 1 in µg/g	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00	1.22E+03	<0.00
Duplicate 1 in µg/g	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00	1.10E+03	<0.00
Duplicate 1 RPD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10.1%	N/A
Sample 2 in µg/g	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00	<3643.16	<0.00
Duplicate 2 in µg/g	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00	<0.00	<3601.19	<0.00
Duplicate 2 RPD	ERR	ERR	ERR	ERR	ERR	ERR	ERR	N/A	ERR
Spike % Recovery								96.6%	

Data Entry by:
 Approved by:
 Form DIONEX.WB1 Rev. 1.3

Jann Frye
Jann Frye

Date: 09/20/95
 Date: 9/20/95

WESTINGHOUSE HANFORD COMPANY
222-S LABORATORY
INORGANIC ANALYTICAL BATCH AND SUMMARY SHEET
ANION ANALYSIS ON DIONEX

SAMPLE #:	S95T001549 & S95T001553	ANALYST:	Ed Colvin
TEST CODE:	@lc-01	ANALYSIS DATE:	09/18/95
INSTRUMENT:	IC-01	SAMPLE POINT:	B-101
WORK LIST #:	2356	SAMPLE PREP:	water digest
BATCH ID:			

Result Units	µg/g	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
106N9C		107.3%	97.9%	101.5%	101.8%	106.2%	102.9%	101.4%	103.9%
S95T001549		1.86E+02	2.07E+02	7.75E+04	1.74E+05	1.50E+04	1.19E+04	<2187.72	<1716.95
S95T001549dup		1.59E+02	2.10E+02	6.73E+04	1.54E+05	9.74E+03	1.04E+04	<2189.47	<1718.32
Duplicate 1 RPD		16.0%	1.6%	14.0%	12.2%	42.4%	13.3%	N/A	N/A
S95T001553		<347.59	2.07E+03	1.63E+04	1.68E+05	<3341.32	1.90E+05	<3543.15	<2780.70
S95T001553dup		<343.47	<459.81	2.32E+04	2.57E+05	<3301.76	2.92E+05	<3501.19	<2747.77
Duplicate 2 RPD		N/A	N/A	35.0%	41.8%	N/A	42.4%	N/A	N/A
S95T001553spk		105.7%	79.5%	137.7%	347.7%	111.1%	355.9%	99.1%	104.3%

NARRATIVE: **Analyst Comments:**

Chemist Comments:

Form Completed By: <i>Gene Hays</i>	Date: <i>9/20/95</i>
Chemist Approval: <i>Gene Hays</i>	Date: <i>9/20/95</i>

LAB LEADER INFO	
Method:	LA-633-105 D-0
Matrix:	solid
Test Code:	@ic-01
Work List #:	2356
Batch #:	
Result Units	
(µg/g or µg/mL):	µg/g
Spike Book Number:	106N8C
Spike Sample #:	2
Prepared By: Jann Frye	
Prepared Date: 09/20/95	
Chemist: Jann Frye	
Analyst: Ed Colvin	
Analysis Date: 09/18/95	
Time Complete:	
Instrument Code: IC-01	
Rerun: 1	
Sample Prep: water digest	
Sample Point: B-101	
Sample Type	
STANDARD	106N8C
SAMPLE 1	S95T001549
DUPLICATE 1	S95T001549dup
SAMPLE 2	S95T001553
DUPLICATE 2	S95T001553dup
SAMPLE 3	
DUPLICATE 3	
SAMPLE 4	
DUPLICATE 4	
SPIKE	S95T001553spk
SPIKE DUPLICATE	

TECH INFO								
	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Blank Data (µg/mL)	<062	<063	<547	<699	<596	<678	<632	<496
Standard Data (µg/mL)	63.31	77.33	540.2	625.1	579.7	649.1	593.3	545.3
Sample 1 Data (µg/mL)	1.40E+00	1.55E+00	5.82E+02	1.31E+03	1.13E+02	8.91E+01	<632	<496
Sample 1 Dilution Factor	26	26	26	26	26	26	26	26
Sample 1 Prep DF	7.511	7.511	7.511	7.511	7.511	7.511	7.511	7.511
Duplicate 1 Data (µg/mL)	1.19E+00	1.58E+00	5.05E+02	1.16E+03	7.31E+01	7.79E+01	<632	<496
Duplicate 1 Dilution Factor	26	26	26	26	26	26	26	26
Duplicate 1 Prep DF	7.505	7.505	7.505	7.505	7.505	7.505	7.505	7.505
Sample 2 Data (µg/mL)	<062	1.68E+01	1.48E+02	1.53E+03	<596	1.73E+03	<632	<496
Sample 2 Dilution Factor	51	51	51	51	51	51	51	51
Sample 2 Prep DF	9.097	9.097	9.097	9.097	9.097	9.097	9.097	9.097
Duplicate 2 Data (µg/mL)	<062	<063	2.14E+02	2.37E+03	<596	2.69E+03	<632	<496
Duplicate 2 Dilution Factor	51	51	51	51	51	51	51	51
Duplicate 2 Prep DF	9.206	9.206	9.206	9.206	9.206	9.206	9.206	9.206
Sample 3 Data (µg/mL)								
Sample 3 Dilution Factor								
Sample 3 Prep DF								
Duplicate 3 Data (µg/mL)								
Duplicate 3 Dilution Factor								
Duplicate 3 Prep DF								
Sample 4 Data (µg/mL)								
Sample 4 Dilution Factor								
Sample 4 Prep DF								
Duplicate 4 Data (µg/mL)								
Duplicate 4 Dilution Factor								
Duplicate 4 Prep DF								
Spike + Sample 2 (µg/mL)	3.12E+01	5.02E+01	5.15E+02	2.60E+03	3.03E+02	2.85E+03	2.85E+02	2.74E+02
Spike + Dup 2 (µg/mL)								

Spike Volume (mL)	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01
Total Volume (mL)	10.20	10.20	10.20	10.20	10.20	10.20	10.20	10.20
Std. Conc. (µg/mL)	59	78	532	614	546	631	576	629
Detection Limit	0.062	0.063	0.547	0.699	0.596	0.678	0.632	0.496
Matrix Detection Limit 1	2.15E+02	2.07E+02	1.89E+03	2.42E+03	2.08E+03	2.35E+03	2.19E+03	1.72E+03
Matrix Detection Limit 2	3.48E+02	4.65E+02	3.07E+03	3.92E+03	3.34E+03	3.80E+03	3.54E+03	2.78E+03
Matrix Detection Limit 3	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
Matrix Detection Limit 4	ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR

Spike Recovery = $\frac{((\text{Spike} + \text{Sample}) - (\text{Sample})) \times (\text{Total Volume})}{((\text{Spike Vol}) \times (\text{Spike Std.}) \times (\text{Sample DF}))} \times 100\%$
 Note: (For spike recovery when the sample conc. is less than detection limit you do NOT subtract sample conc.)
 Duplicate Relative % Difference = $\frac{((\text{Sample} - \text{Duplicate}))}{((\text{Sample} + \text{Duplicate}) / 2)} \times 100\%$
 Less than Values are Calculated from the Detection Limit * Dilution Factor

v RESULTS v	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
Standard % Recovery	107.3%	97.9%	101.5%	101.5%	106.2%	102.9%	101.4%	103.8%
Sample 1 in µg/g	1.88E+02	2.07E+02	7.76E+04	1.74E+05	1.50E+04	1.19E+04	<2187.72	<1716.96
Duplicate 1 in µg/g	1.59E+02	2.10E+02	6.73E+04	1.54E+05	9.74E+03	1.04E+04	<2189.47	<1719.32
Duplicate 1 RPD	16.0%	1.6%	14.0%	12.2%	42.4%	13.3%	N/A	N/A
Sample 2 in µg/g	<347.59	2.07E+03	1.43E+04	1.68E+05	<3341.32	1.80E+05	<3543.19	<2780.70
Duplicate 2 in µg/g	<343.47	<489.81	2.32E+04	2.67E+05	<3301.78	2.92E+05	<3501.19	<2747.77
Duplicate 2 RPD	N/A	N/A	35.0%	41.6%	N/A	42.4%	N/A	N/A
Spike % Recovery	105.7%	79.5%	137.7%	347.7%	111.1%	355.9%	99.1%	104.3%

Date Entry by:
 Approved by:
 Form DIONEXWB1 Rev. 1.3

Jann Frye
Jann Frye

Date: 09/20/95
 Date: 9/20/95

**WESTINGHOUSE HANFORD COMPANY
222-S LABORATORY
INORGANIC ANALYTICAL BATCH AND SUMMARY SHEET**

ANION ANALYSIS ON DIONEX

SAMPLE #:	S95T001549 & S95T001553	ANALYST:	Ed Colvin
TEST CODE:	@lc-01	ANALYSIS DATE:	09/18/95
INSTRUMENT:	IC-01	SAMPLE POINT:	B-101
WORK LIST #:	2356	SAMPLE PREP:	water digest
BATCH ID:			

Result Units	µg/g	Fluoride	Chloride	Nitrite	Nitrate	Phosphate	Sulfate	Bromide	Oxalate
106N9C		107.3%	97.9%	101.5%	101.8%	106.2%	102.9%	101.4%	103.9%
S95T001549		1.86E+02	2.07E+02	7.75E+04	1.74E+05	1.50E+04	1.19E+04	<2187.72	<1716.95
S95T001549dup		1.59E+02	2.10E+02	6.73E+04	1.54E+05	9.74E+03	1.04E+04	<2189.47	<1718.32
Duplicate 1 RPD		16.0%	1.6%	14.0%	12.2%	42.4%	13.3%	N/A	N/A
S95T001553		ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
S95T001553dup		ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
ERR		ERR	ERR	ERR	ERR	ERR	ERR	ERR	ERR
S95T001549spk		89.6%	102.4%	45.3%	-13.3%	97.4%	95.4%	102.0%	105.0%

NARRATIVE: Analyst Comments:

Chemist Comments:

Form Completed By: <i>John F. Hays</i>	Date: 9/20/95
Chemist Approval: <i>John F. Hays</i>	Date: 9/20/95

Sample Name: 106N9-C STD Date: 09/18/1995 07:53:46
 Data File : C:\DX\DATA\95091871.D03
 Method : C:\DX\METHOD\KIT.MET
 ACI Address: 1 System: 1 Inject#: 3 Detector: CDM-1
 Analyst : *W. C. Ch* Column: AG4A/AS4A anion column/SRS

Calibration Volume Dilution Points Rate Start Stop Area Reject
 External 1 101 2700 5Hz 0.00 9.00 200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
2	1.04	fluoride	63.316	1459	7971	2	-1.89
3	1.54	chloride	77.331	1461	7373	1	1.32
4	1.83	nitrite	540.281	5900	34524	1	0.55
5	2.69	bromide	583.397	3777	24958	1	-0.37
6	3.08	nitrate	625.193	4542	34543	1	0.00
7	4.46	phosphate	579.721	1274	14524	1	-0.45
8	5.88	sulfate	649.110	3514	46462	1	-0.51
9	7.72	oxalate	545.347	1512	26511	1	-0.77
Totals			3663.696	23438	196868		

File: 95091871.D03 Sample: 106N9-C STD

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 195 TO 217.

WHC-SD-WM-DP-139, REV. 1

=====

Sample Name: PREP BLANK	Date: 09/18/1995 07:40:39
Data File : C:\DX\DATA\95091871.D02	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 2	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	1	2700	5Hz	0.00	9.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	1.23		0.000	51	363	1	
2	1.53	chloride	0.015	52	499	1	0.66
3	3.11	nitrate	0.063	46	305	1	0.97
Totals			0.078	148	1167		

File: 95091871.D02 Sample: PREP BLANK

WHC-SD-WM-DP- 132, REV. 1

```

=====
Sample Name: INSTR BLANK                      Date: 09/18/1995 07:30:01
Data File  : C:\DX\DATA\95091871.D01
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 1          Detector: CDM-1
Analyst    :                               Column: AG4A/AS4A anion column/SRS
=====

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-----
Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1          1    2700   5Hz   0.00   9.00          200
-----

```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	1.34		0.000	30	227	1	
2	3.10	nitrate	0.044	29	203	1	0.65
Totals			0.044	59	430		

File: 95091871.D01 Sample: INSTR BLANK

WHC-SD-WM-DP-132, REV. 1

=====

Sample Name: S95T001549	Date: 09/18/1995 08:24:31
Data File : C:\DX\DATA\95091871.D05	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 5	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	26	2700	5Hz	0.00	9.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.89		0.000	139	700	2	
2	1.06	fluoride	1.400	120	623	2	0.00
3	1.52	chloride	1.553	170	899	1	0.00
4	1.82	nitrite	581.919	26118	154056	1	0.00
5	2.68	bromide	9.127	146	893	1	-0.74
6	2.95	nitrate	1310.227	35515	336150	1	-4.22
7	4.44	phosphate	112.544	941	10783	1	-0.89
8	5.87	sulfate	89.128	1830	24380	1	-0.68
Totals			2105.897	64979	528485		

File: 95091871.D05 Sample: S95T001549

WHC-SD-WM-DP-139, REV. 1

Data Reprocessed On 09/18/1995 14:54:05

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=====
Sample Name: S95T001549  DUP                               Date: 09/18/1995 08:37:46
Data File  : C:\DX\DATA\95091871.D06
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1  System: 1  Inject#: 6                      Detector: CDM-1
Analyst    :                               Column: AG4A/AS4A anion column/SRS
=====
  
```

```

-----
Calibration Volume  Dilution Points Rate  Start  Stop Area Reject
-----
External           1           26   2700  5Hz   0.00   9.00       200
  
```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.91		0.000	116	558	2	
2	1.08	fluoride	1.192	100	522	2	1.89
3	1.54	chloride	1.577	175	907	1	1.32
4	1.84	nitrite	505.409	22605	132362	1	1.10
5	2.70	bromide	8.239	122	744	1	0.00
6	2.99	nitrate	1159.234	31251	288570	1	-2.92
7	4.46	phosphate	73.097	607	6807	1	-0.45
8	5.89	sulfate	77.910	1590	21238	1	-0.34
Totals			1826.657	56566	451709		

File: 95091871.D06 Sample: S95T001549 DUP

WHC-SD-WM-DP-139, REV. 1

=====

Sample Name: S95T001549 DUP	Date: 09/18/1995 08:37:46
Data File : C:\DX\DATA\95091871.D06	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 6	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	26	2700	5Hz	0.00	9.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.91		0.000	123	647	2	
2	1.08	fluoride	2.472	133	1143	2	1.89
3	1.54	chloride	1.577	175	907	1	1.32
4	1.84	nitrite	505.409	22605	132361	1	1.10
5	2.70	bromide	8.239	122	744	1	0.00
6	2.99	nitrate	1159.234	31251	288570	1	-2.92
7	4.46	phosphate	73.097	607	6807	1	-0.45
8	5.89	sulfate	77.910	1590	21238	1	-0.34
Totals			1827.937	56606	452418		

File: 95091871.D06 Sample: S95T001549 DUP

WHC-SD-WM-DP-139, REV. 1

Data Reprocessed On 09/18/1995 14:55:36

=====

Sample Name: S95T001549 + SPIKE	Date: 09/18/1995 08:52:58
Data File : C:\DX\DATA\95091871.D07	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 7	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	26	2700	5Hz	0.00	9.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	104	362	2	
2	1.03	fluoride	14.620	1390	7130	2	-2.83
3	1.52	chloride	21.775	1504	8042	1	0.00
4	1.82	nitrite	642.241	28784	171514	1	0.00
5	2.67	bromide	146.605	3927	24337	1	-1.11
6	2.95	nitrate	1289.872	34626	329521	1	-4.22
7	4.42	phosphate	245.491	2129	24541	1	-1.34
8	5.84	sulfate	239.614	5160	67402	1	-1.18
9	7.68	oxalate	137.882	1474	26014	1	-1.29
Totals			2738.100	79098	658864		

File: 95091871.D07 Sample: S95T001549 + SPIKE

WHC-SD-WM-DP-139, REV. 1

=====

Sample Name: S95T001549 + SPIKE	Date: 09/18/1995 08:52:58
Data File : C:\DX\DATA\95091871.D07	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 7	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	26	2700	5Hz	0.00	9.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	114	447	2	
2	1.03	fluoride	17.076	1447	8362	2	-2.83
3	1.52	chloride	21.775	1504	8042	1	0.00
4	1.82	nitrite	642.241	28784	171514	1	0.00
5	2.67	bromide	146.605	3927	24337	1	-1.11
6	2.95	nitrate	1289.872	34626	329521	1	-4.22
7	4.42	phosphate	245.491	2129	24541	1	-1.34
8	5.84	sulfate	239.614	5160	67402	1	-1.18
9	7.68	oxalate	137.882	1474	26014	1	-1.29
Totals			2740.557	79165	660181		

File: 95091871.D07 Sample: S95T001549 + SPIKE

WHC-SD-WM-DP-139, REV. 1

=====

Sample Name: S95T001549 + SPIKE	Date: 09/18/1995 09:02:42
Data File : C:\DX\DATA\95091871.D08	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 8	Detector: CDM-1
Analyst :	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
-----	-----	-----	-----	-----	-----	-----	-----	-----
External	1	26	2700	5Hz	0.00	9.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
-----	-----	-----	-----	-----	-----	-----	-----
1	0.90		0.000	130	566	2	
2	1.04	fluoride	17.496	1446	8573	2	-1.89
3	1.54	chloride	22.068	1518	8147	1	1.32
4	1.84	nitrite	638.175	28404	170327	1	1.10
5	2.70	bromide	146.016	3943	24235	1	0.00
6	2.98	nitrate	1279.223	34715	326082	1	-3.25
7	4.44	phosphate	240.634	2116	24028	1	-0.89
8	5.86	sulfate	240.465	5121	67650	1	-0.85
9	7.70	oxalate	136.878	1470	25814	1	-1.03
Totals			2720.955	78863	655424		

File: 95091871.D08 Sample: S95T001549 + SPIKE

WHC-SD-WM-DP-139, REV. 1

Sample Name: S95T001553 Date: 09/18/1995 09:28:30
 Data File : C:\DX\DATA\95091871.D10
 Method : C:\DX\METHOD\KIT.MET
 ACI Address: 1 System: 1 Inject#: 10 Detector: CDM-1
 Analyst : Column: AG4A/AS4A anion column/SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	51	2700	5Hz	0.00	9.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	130	662	1	
2	1.52	chloride	18.812	723	3711	1	0.00
3	1.81	nitrite	148.369	3082	18469	1	-0.55
4	3.00	nitrate	1531.820	20925	182285	1	-2.60
5	4.44	phosphate	15.361	31	326	1	-0.89
6	5.78	sulfate	1728.301	20644	273986	1	-2.20
Totals			3442.664	45534	479440		

File: 95091871.D10 Sample: S95T001553

WHC-SD-WM-DP-137, REV.1

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=====
Sample Name: S95T001553 DUP                      Date: 09/18/1995 10:23:00
Data File  : C:\DX\DATA\95091871.D11
Method     : C:\DX\METHOD\KIT.MET
ACI Address: 1 System: 1 Inject#: 11              Detector: CDM-1
Analyst    :                               Column: AG4A/AS4A anion column/SRS
=====

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Calibration Volume Dilution Points Rate Start Stop Area Reject
-----
External          1           51   2700   5Hz   0.00   9.00         200
-----

```

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	310	3034	1	
2	1.51	chloride	0.235	75	401	1	-0.66
3	1.81	nitrite	213.877	4524	26891	1	-0.55
5	2.97	nitrate	2370.451	32220	303696	1	-3.57
6	4.44	phosphate	18.001	42	459	1	-0.89
7	5.73	sulfate	2689.738	34217	472619	1	-3.05
Totals			5292.302	71388	807100		

File: 95091871.D11 Sample: S95T001553 DUP

WHC-SD-WM-DP-139, REV. 1

Sample Name: S95T001553 + SPIKE Date: 09/18/1995 10:36:03
 Data File : C:\DX\DATA\95091871.D12
 Method : C:\DX\METHOD\KIT.MET
 ACI Address: 1 System: 1 Inject#: 12 Detector: CDM-1
 Analyst : Column: AG4A/AS4A anion column/SRS

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	51	2700	5Hz	0.00	9.00		200

***** Peak Report; All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	168	664	2	
2	1.02	fluoride	31.182	1391	7769	2	-3.77
3	1.52	chloride	50.196	1800	9416	1	0.00
4	1.81	nitrite	514.763	11099	66444	1	-0.55
5	2.67	bromide	284.988	3881	24109	1	-1.11
6	2.96	nitrate	2599.171	35879	341029	1	-3.90
7	4.42	phosphate	303.379	1336	15081	1	-1.34
8	5.72	sulfate	2851.276	36703	511963	1	-3.21
9	7.66	oxalate	273.928	1485	26365	1	-1.54
Totals			6908.882	93743	1002839		

BEST AVAILABLE COPY

File: 95091871.D12 Sample: S95T001553 + SPIKE

WHC-SD-WM-DP-139, REV. 1

=====

Sample Name: S95T001553 + SPIKE	Date: 09/18/1995 10:45:51
Data File : C:\DX\DATA\95091871.D13	
Method : C:\DX\METHOD\KIT.MET	
ACI Address: 1 System: 1 Inject#: 13	Detector: CDM-1
Analyst : <i>PA. Cok</i>	Column: AG4A/AS4A anion column/SRS

=====

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	1	51	2700	5Hz	0.00	9.00		200

***** Peak Report: All Peaks *****

Pk. Num	Ret Time	Component Name	Concentration ug/ml	Height	Area	Bl. Code	%Delta
1	0.89		0.000	168	664	2	
2	1.03	fluoride	30.406	1394	7571	2	-2.83
3	1.52	chloride	58.319	2081	10917	1	0.00
4	1.81	nitrite	517.042	11160	66749	1	-0.55
5	2.67	bromide	283.658	3854	23991	1	-1.11
6	2.96	nitrate	2596.603	35869	340597	1	-3.90
7	4.42	phosphate	302.214	1332	15020	1	-1.34
8	5.72	sulfate	2841.411	36581	509492	1	-3.21
9	7.67	oxalate	270.559	1480	26024	1	-1.41
Totals			6900.211	93920	1001025		

File: 95091871.D13 Sample: S95T001553 + SPIKE

WHC-SD-WM-DP-139, REV. 1

LABCORE Data Entry Template for Worklist# 1886

Analyst: DK Sato Instrument: ICP01 Book# 43B48B
Method: LA-505-151 Rev/Mod A-1

Worklist Comment: ICP B-101 DIRECT (Li only)

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	SAMPLE	S95T001224	0	D	@ICP-D03	LIQUID	95000091	B-101
		Analytes Requested: LI-D-01						
6	DUP	S95T001224	0	D	@ICP-D03	LIQUID		
7	SPK	S95T001224	0	D	@ICP-D03	LIQUID		
8	ICSA				@ICP-QC	QC		
9	ICSAB				@ICP-QC	QC		
10	CCV				@ICP-QC	QC		
11	CCB				@ICP-QC	QC		

Final page for worklist # 1886

DK Sato 07-21-95
Analyst Signature Date

Samuel M. Parag 07/24/95
Analyst Signature Date

Data Entry Comments:

Sample = 147.1 ug/ml Dup = 144.7 ug/ml

% Spike Rec. = 93%

Sample Dup. (RPV) = 1.65

07/24/95

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

LABCORE Data Entry Template for Worklist# 1788

S Type	Sample#	R A	Test	Matrix	Group#	Project
18 ICSA			@ICP-QC	QC		
19 ICSAB			@ICP-QC	QC		
20 CCV			@ICP-QC	QC		
21 CCB			@ICP-QC	QC		

Final page for worklist # 1788

JK Loto 07-21-95
Analyst Signature Date

Analyst Signature Date

S95T00123¹-L, .025-10-2.8 mL, DF 1005
S95T00123¹ .025-10 401
S95T00123¹-D .025-10 401
S95T00123¹-Q .025-10 401 .025 mL sample + 2 mL SST5 + 8 mL 2% HNO₃

S95T00123²-L, 2.8 mL, DF 5
S95T00123² direct 1
S95T00123²-D direct 1
S95T00123²-Q 1.25 8 mL sample + 2 mL SST5

S95T00124¹-L, .025-10-2.8 mL, DF 1005
S95T00124¹ .025-10 401
S95T00124¹-D .025-10 401
S95T00124¹-Q .025-10 401 .025 mL sample + 2 mL SST5 + 8 mL 2% HNO₃

8/07/24/95

Data Entry Comments:

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

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICV	950721A	ICP2	07/21/95	08:35	DKS	Q	CONC
2	ICB	950721A	ICP2	07/21/95	08:38	DKS	Q	CONC
3	ICSA	950721A	ICP2	07/21/95	08:42	DKS	Q	CONC
4	ICSAB	950721A	ICP2	07/21/95	08:45	DKS	Q	CONC
5	S95T001223 L	950721A	ICP2	07/21/95	08:55	DKS	S	CONC
6	S95T001223	950721A	ICP2	07/21/95	09:00	DKS	S	CONC
7	S95T001223 D	950721A	ICP2	07/21/95	09:03	DKS	S	CONC
8	S95T001223 A	950721A	ICP2	07/21/95	09:08	DKS	S	CONC
9	CCV	950721A	ICP2	07/21/95	09:37	DKS	Q	CONC
10	CCB	950721A	ICP2	07/21/95	09:41	DKS	Q	CONC
11	S95T001232 L	950721A	ICP2	07/21/95	09:45	DKS	S	CONC
12	S95T001232	950721A	ICP2	07/21/95	09:49	DKS	S	CONC
13	S95T001232 D	950721A	ICP2	07/21/95	09:53	DKS	S	CONC
14	S95T001232 A	950721A	ICP2	07/21/95	10:00	DKS	S	CONC
15	CCV 1	950721A	ICP2	07/21/95	10:05	DKS	Q	CONC
16	CCB 1	950721A	ICP2	07/21/95	10:09	DKS	Q	CONC
17	S95T001247 L	950721A	ICP2	07/21/95	10:13	DKS	S	CONC
18	S95T001247	950721A	ICP2	07/21/95	10:17	DKS	S	CONC
19	S95T001247 D	950721A	ICP2	07/21/95	10:21	DKS	S	CONC
20	S95T001247 A	950721A	ICP2	07/21/95	10:25	DKS	S	CONC
21	ICSA	950721A	ICP2	07/21/95	10:33	DKS	Q	CONC
22	ICSAB	950721A	ICP2	07/21/95	10:36	DKS	Q	CONC
23	CCV 2	950721A	ICP2	07/21/95	10:43	DKS	Q	CONC
24	CCB 2	950721A	ICP2	07/21/95	10:47	DKS	Q	CONC

JK LdD

07-21-95

B-101 S95T001223

S95T001232

S95T001247

Worklist # 1788

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 210 TO 214.

WHC-SD-WM-DP-139, REV. 1

#	Sample Name	Ag	Al	As	B	Ba	Be
1	ICV	5.143	4.961	5.160	4.973	4.998	5.202
2	ICB	.0010	.0058	.0146	.0073	.0001	.0002
3	ICSA	.0005	244.7	.0295	.0007	.0017	.0004
4	ICSAB	.9868	243.9	-.0014	-.0005	.4679	.4833
5	S95T001223 L	345.3	-7.503	-9.868	8.783	.6867	.2353
6	S95T001223-	217.6	2.197	-7.833	8.568	1.044	.0424
7	S95T001223 D	235.7	-.6189	-3.165	7.984	1.020	.0422
8	S95T001223-A	560.7	387.5	420.4	397.4	379.0	411.1
9	CCV	4.999	4.928	4.964	4.907	4.931	5.046
10	CCB	.0003	-.0019	.0081	.0009	.0000	-.0000
11	S95T001232 L	-.0136	.0202	.0251	.5746	.0018	.0000
12	S95T001232-	-.0006	.0008	.0032	.5544	.0024	.0001
13	S95T001232 D	.0007	.0012	.0059	.5520	.0024	-.0000
14	S95T001232-A	.6400	1.338	1.301	1.820	1.269	1.316
15	CCV 1	5.054	5.008	5.117	4.992	4.997	5.182
16	CCB-1	-.0011	-.0079	-.0000	.0052	.0000	-.0001
17	S95T001247 L	326.7	56.78	-7.901	17.00	.6800	-.3736
18	S95T001247-	186.4	69.09	-5.942	11.35	.7075	-.0331
19	S95T001247 D	224.6	34.13	.3844	8.135	.5004	.0559
20	S95T001247-A	286.4	436.4	419.1	396.9	374.4	406.6
21	ICSA	.0033	243.1	-.0278	-.0048	.0017	.0001
22	ICSAB	.9847	243.8	-.0398	-.0043	.4591	.4826
23	CCV 2	5.073	4.903	5.100	4.914	4.863	5.156
24	CCB-2	-.0005	-.0086	.0093	.0005	.0000	.0001

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	ICV	4.958	5.345	5.172	5.068	5.192	5.219
2	ICB	-.0066	-.0008	.0006	-.0023	-.0003	-.0001
3	ICSA	-.0392	250.6	.0030	.0016	.0016	.0056
4	ICSAB	.0004	249.4	.9568	-.0037	.4696	.4858
5	S95T001223 L	-22.54	3.140	1.730	-30.12	-1.071	345.9
6	S95T001223-	4.084	5.182	.1615	-2.582	1.103	342.1
7	S95T001223 D	-.7794	2.034	.4827	-1.509	1.875	342.0
8	S95T001223-A	391.1	447.6	423.4	386.9	422.8	769.9
9	CCV	4.891	5.004	4.909	5.047	4.948	4.977
10	CCB	-.0104	.0031	.0008	.0031	.0023	-.0003
11	S95T001232 L	.0049	.4660	.0004	-.0154	.0051	-.0010
12	S95T001232-	.0008	.4720	.0009	.0001	.0000	.0038
13	S95T001232 D	-.0201	.4652	.0004	-.0007	-.0003	.0029
14	S95T001232-A	1.249	1.790	1.293	1.313	1.300	1.305
15	CCV 1	4.944	5.103	5.031	5.131	5.066	5.073
16	CCB-1	-.0039	.0034	.0005	.0034	.0013	-.0011
17	S95T001247 L	-18.26	23.28	3.135	5.223	7.175	413.4
18	S95T001247-	1.356	20.85	.3540	5.003	2.157	414.2
19	S95T001247 D	2.982	6.334	.2209	2.940	2.567	416.7
20	S95T001247-A	398.2	427.3	412.2	397.2	411.0	826.5
21	ICSA	-.0349	247.3	.0023	.0126	.0000	.0048
22	ICSAB	-.0186	247.0	.9578	.0048	.4743	.4875
23	CCV 2	4.938	5.288	5.104	5.014	5.124	5.150
24	CCB-2	-.0290	.0018	.0010	-.0045	.0016	.0004

WHC-SD-WM-DP-139, REV. 1

#	Sample Name	Cu	Eu	Fe	K	La	Li
1	ICV	4.881	.0058	5.146	4.887	5.010	4.883
2	ICB	.0002	.0010	-.0003	-.0060	-.0003	.0013
3	ICSA	-.0093	-.0386	93.05	-.0346	-.0052	.0031
4	ICSAB	.4722	-.0359	92.17	-.0966	-.0058	.9539
5	S95T001223 L	.1502	3.164	-2.646	188.1	-3.229	151.8
6	S95T001223	1.311	.5621	2.721	449.5	-.6241	147.1
7	S95T001223 D	1.222	.7884	-.0752	450.5	-.1408	144.7
8	S95T001223 A	377.7	1.543	412.9	822.9	385.1	504.3
9	CCV	4.915	.0051	4.956	4.910	4.994	5.101
10	CCB	-.0002	-.0003	.0004	-.1945	.0007	-.0001
11	S95T001232 L	.0011	-.0054	.0706	-1.798	.0017	.2518
12	S95T001232	.0015	-.0001	.0709	-.1267	.0017	.2477
13	S95T001232 D	.0017	-.0001	.0691	.0893	.0018	.2459
14	S95T001232 A	1.297	.0006	1.375	1.284	1.302	1.594
15	CCV 1	4.985	.0052	5.058	4.915	5.075	5.130
16	CCB-1	.0000	-.0006	.0002	-.2259	.0010	-.0005
17	S95T001247 L	18.16	-.1400	64.80	276.8	1.244	142.5
18	S95T001247	14.54	.7371	60.56	414.9	1.030	135.1
19	S95T001247 D	14.63	.5508	34.25	391.5	.4362	135.4
20	S95T001247 A	393.9	1.055	442.1	708.5	387.3	508.1
21	ICSA	-.0105	-.0219	92.39	-.1270	-.0033	.0032
22	ICSAB	.4703	-.0167	92.32	-.2877	-.0042	.9497
23	CCV 2	4.844	.0073	5.067	4.587	4.954	4.866
24	CCB-2	-.0000	.0014	.0000	-.2446	.0001	.0014

#	Sample Name	Mg	Mn	Mo	Na	Nd	Ni
1	ICV	4.952	5.076	5.131	4.931	5.147	5.169
2	ICB	-.0071	.0006	-.0003	-.0017	.0009	-.0042
3	ICSA	246.6	-.0049	-.0082	189.4	-.0001	-.0112
4	ICSAB	245.4	.4547	-.0132	190.1	-.0049	.9059
5	S95T001223 L	-18.22	1.682	3.475	195400.	-2.031	6.711
6	S95T001223	-3.199	.3585	3.789	187100.	-.6207	11.97
7	S95T001223 D	-1.865	.3826	4.164	184500.	.4493	12.85
8	S95T001223 A	381.7	402.3	423.8	181400.	393.7	430.1
9	CCV	4.930	4.857	4.923	5.057	5.167	4.904
10	CCB	.0072	-.0002	-.0011	-.0051	.0010	.0075
11	S95T001232 L	.0824	.0112	-.0106	6.481	.0026	.0235
12	S95T001232	.0826	.0131	-.0009	6.455	-.0003	.0082
13	S95T001232 D	.0825	.0124	-.0005	6.432	.0016	.0037
14	S95T001232 A	1.389	1.259	1.280	7.972	1.347	1.310
15	CCV 1	4.992	4.934	5.034	5.090	5.240	4.988
16	CCB-1	-.0016	-.0004	-.0019	-.0065	-.0003	.0051
17	S95T001247 L	40.59	33.63	3.833	201500.	11.57	24.24
18	S95T001247	5.369	34.13	3.881	187000.	2.258	16.09
19	S95T001247 D	10.53	19.96	4.016	187100.	2.831	14.92
20	S95T001247 A	390.1	413.0	413.9	186000.	397.9	424.0
21	ICSA	246.2	-.0055	-.0122	186.2	-.0016	-.0093
22	ICSAB	246.6	.4523	-.0097	188.9	.0007	.9105
23	CCV 2	4.911	4.980	5.064	4.888	5.085	5.083
24	CCB-2	.0038	.0004	-.0029	.0099	.0016	.0012

WHC-SD-WM-DP-139, REV. 1

#	Sample Name	P	Pb	S	Sb	Se	Si
1	ICV	5.024	5.161	5.063	4.778	5.068	5.038
2	ICB	.0187	.0099	.0083	-.0015	.0336	.0172
3	ICSA	-.0110	.0240	-.0081	-.0151	.0297	.0511
4	ICSAB	.0143	.9780	-.0205	-.0118	-.0085	.0515
5	S95T001223 L	2586.	5.608	7743.	-1.128	-724.6	56.41
6	S95T001223-	2694.	4.412	7818.	-1.416	-716.0	21.09
7	S95T001223 D	2697.	2.635	7810.	-2.645	-707.8	13.71
8	S95T001223-A	3108.	430.1	8218.	391.8	-273.5	419.5
9	CCV	5.040	4.911	4.967	4.679	4.899	4.873
10	CCB	-.0160	.0121	-.0113	.0042	-.0226	-.0010
11	S95T001232 L	.0688	-.0178	.8979	-.0042	-.0540	1.928
12	S95T001232-	.0846	.0001	.9721	.0035	-.0168	1.831
13	S95T001232 D	.1011	-.0008	.9798	.0005	-.0284	1.798
14	S95T001232-A	1.414	1.283	2.270	1.203	1.243	3.225
15	CCV 1	5.117	5.007	5.072	4.758	5.001	4.953
16	CCB-1	-.0070	-.0055	-.0068	.0012	-.0129	.0037
17	S95T001247 L	2080.	62.97	7808.	7.627	-790.2	40.46
18	S95T001247-	1983.	48.61	7840.	2.125	-726.3	36.92
19	S95T001247 D	1971.	35.60	7795.	.4193	-718.9	33.09
20	S95T001247-A	2424.	448.8	8241.	387.2	-297.4	430.0
21	ICSA	-.0340	.0372	-.0130	.0156	.0359	.0487
22	ICSAB	-.0130	1.005	-.0307	.0059	.0156	.0430
23	CCV 2	5.250	5.117	5.099	4.774	5.101	4.962
24	CCB-2	-.0319	.0027	-.0140	-.0100	.0068	.0079

#	Sample Name	Sm	Sr	Th	Ti	Tl	U
1	ICV	5.004	4.955	-.0277	4.900	5.011	9.954
2	ICB	.0111	.0006	-.0059	.0002	.0017	.0490
3	ICSA	-.0034	.0024	-.0199	.0015	.0894	-.1437
4	ICSAB	-.0051	.0024	-.0283	.0009	.0535	-.1253
5	S95T001223 L	33.54	2.208	-17.00	-.3897	5.090	232.8
6	S95T001223-	6.901	.5826	-2.567	-.0777	-2.791	130.9
7	S95T001223 D	9.894	.5818	-3.390	.2779	-.7027	141.2
8	S95T001223-A	394.1	382.1	-4.285	388.1	408.7	902.2
9	CCV	5.022	4.919	-.0023	4.795	4.875	10.01
10	CCB	-.0035	-.0001	.0017	.0000	.0246	-.0290
11	S95T001232 L	-.0458	.0001	-.0051	.0020	-.1958	2.612
12	S95T001232-	.0029	.0012	-.0063	.0015	-.0221	2.694
13	S95T001232 D	.0023	.0012	-.0069	.0017	.0030	2.667
14	S95T001232-A	1.289	1.281	-.0070	1.246	1.285	5.469
15	CCV 1	5.102	5.003	-.0045	4.891	4.909	10.15
16	CCB-1	-.0061	-.0001	.0008	-.0002	.0320	-.0314
17	S95T001247 L	-1.315	.3997	1.982	1.265	10.62	24.97
18	S95T001247-	8.275	.6367	-1.113	.4345	-5.402	78.91
19	S95T001247 D	6.477	.2995	.5177	.5163	5.478	72.46
20	S95T001247-A	390.1	381.3	-.0235	384.4	388.9	831.8
21	ICSA	.0008	.0016	-.0142	.0006	.0728	-.0984
22	ICSAB	-.0064	.0017	-.0186	.0010	.0439	-.1229
23	CCV 2	4.967	4.889	-.0027	4.839	4.945	9.856
24	CCB-2	.0172	.0002	-.0050	-.0004	.0090	.0490

WHC-SD-WM-DP-139, REV. 1

#	Sample Name	V	Y	Zn	Zr
1	ICV	5.059	.0131	5.142	5.003
2	ICB	.0035	.0005	.0003	.0022
3	ICSA	.0014	.0078	-.0041	.0001
4	ICSAB	.4683	.0077	.9692	.0007
5	S95T001223_L	9.736	2.043	10.75	15.81
6	S95T001223-	2.438	.4086	9.091	9.383
7	S95T001223_D	3.072	.5657	9.217	9.435
8	S95T001223_A	410.4	1.886	434.9	400.5
9	CCV	4.900	.0121	4.913	4.889
10	CCB	-.0022	-.0005	-.0009	-.0007
11	S95T001232_L	-.0150	-.0024	.0734	-.0049
12	S95T001232-	-.0004	.0011	.0644	.0009
13	S95T001232_D	-.0005	.0010	.0646	.0010
14	S95T001232_A	1.269	.0040	1.383	1.260
15	CCV_1	4.998	.0125	4.998	4.981
16	CCB_1	-.0022	-.0005	-.0017	-.0006
17	S95T001247_L	-1.791	.0000	15.87	14.51
18	S95T001247-	1.693	.5343	15.69	11.41
19	S95T001247_D	1.226	.3143	13.13	11.17
20	S95T001247_A	401.4	1.414	426.5	405.0
21	ICSA	.0004	.0079	-.0040	-.0003
22	ICSAB	.4698	.0076	.9724	-.0007
23	CCV_2	5.013	.0135	5.083	4.937
24	CCB_2	.0025	.0008	-.0008	.0024

JK LG
07-21-95

WHC-SD-WM-DP-139, REV. 1

ICP MACRO

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	1886	1			ICV	AG				5.1429		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
2	1886	1			ICV	AL				4.9005		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
3	1886	1			ICV	AS				5.1598		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
4	1886	1			ICV	BA				4.9733		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
5	1886	1			ICV	BE				4.9978		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
6	1886	1			ICV	BI				5.2022		1.0000	07/21/95	08:35	dcs	0.005	ICP-QC
7	1886	1			ICV	CA				4.9579		1.0000	07/21/95	08:35	dcs	0.1	ICP-QC
8	1886	1			ICV	CD				5.3453		1.0000	07/21/95	08:35	dcs	0.1	ICP-QC
9	1886	1			ICV	CE				5.1723		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
10	1886	1			ICV	CO				5.0837		1.0000	07/21/95	08:35	dcs	0.1	ICP-QC
11	1886	1			ICV	CU				5.1024		1.0000	07/21/95	08:35	dcs	0.02	ICP-QC
12	1886	1			ICV	CR				5.2194		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
13	1886	1			ICV	CU				4.8810		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
14	1886	1			ICV	EU				0.0058		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
15	1886	1			ICV	FE				5.1463		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
16	1886	1			ICV	K				4.8870		1.0000	07/21/95	08:35	dcs	0.3	ICP-QC
17	1886	1			ICV	LA				5.0095		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
18	1886	1			ICV	LI				4.8834		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
19	1886	1			ICV	MG				4.9518		1.0000	07/21/95	08:35	dcs	0.1	ICP-QC
20	1886	1			ICV	MN				5.0759		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
21	1886	1			ICV	MO				5.1308		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
22	1886	1			ICV	NA				4.9209		1.0000	07/21/95	08:35	dcs	0.1	ICP-QC
23	1886	1			ICV	ND				5.1473		1.0000	07/21/95	08:35	dcs	0.1	ICP-QC
24	1886	1			ICV	NI				5.1888		1.0000	07/21/95	08:35	dcs	0.02	ICP-QC
25	1886	1			ICV	P				5.0238		1.0000	07/21/95	08:35	dcs	0.2	ICP-QC
26	1886	1			ICV	PB				5.1813		1.0000	07/21/95	08:35	dcs	0.1	ICP-QC
27	1886	1			ICV	S				5.0620		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
28	1886	1			ICV	SB				4.7770		1.0000	07/21/95	08:35	dcs	0.2	ICP-QC
29	1886	1			ICV	SE				5.0684		1.0000	07/21/95	08:35	dcs	0.1	ICP-QC
30	1886	1			ICV	SI				5.0384		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
31	1886	1			ICV	SM				5.0039		1.0000	07/21/95	08:35	dcs	0.1	ICP-QC
32	1886	1			ICV	SR				4.9554		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
33	1886	1			ICV	TH				-0.0277		1.0000	07/21/95	08:35	dcs	0	ICP-QC
34	1886	1			ICV	TI				4.8988		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
35	1886	1			ICV	TL				5.0105		1.0000	07/21/95	08:35	dcs	0.2	ICP-QC
36	1886	1			ICV	U				9.9542		1.0000	07/21/95	08:35	dcs	0.4	ICP-QC
37	1886	1			ICV	V				5.0590		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
38	1886	1			ICV	Y				0.0131		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
39	1886	1			ICV	ZN				5.1418		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
40	1886	1			ICV	ZR				5.0026		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
41	1886	2			ICB	AG				0.0010		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
42	1886	2			ICB	AL				0.0058		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
43	1886	2			ICB	AS				0.0148		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
44	1886	2			ICB	B				0.0073		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
45	1886	2			ICB	BA				0.0001		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
46	1886	2			ICB	BE				0.0002		1.0000	07/21/95	08:35	dcs	0.005	ICP-QC
47	1886	2			ICB	BI				-0.0088		1.0000	07/21/95	08:35	dcs	0.1	ICP-QC
48	1886	2			ICB	CA				-0.0008		1.0000	07/21/95	08:35	dcs	0.1	ICP-QC
49	1886	2			ICB	CD				0.0006		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
50	1886	2			ICB	CE				-0.0028		1.0000	07/21/95	08:35	dcs	0.1	ICP-QC
51	1886	2			ICB	CO				-0.0003		1.0000	07/21/95	08:35	dcs	0.02	ICP-QC
52	1886	2			ICB	CR				-0.0001		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
53	1886	2			ICB	CU				0.0002		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
54	1886	2			ICB	EU				0.0010		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
55	1886	2			ICB	FE				-0.0003		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
56	1886	2			ICB	K				-0.0080		1.0000	07/21/95	08:35	dcs	0.3	ICP-QC
57	1886	2			ICB	LA				-0.0003		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
58	1886	2			ICB	LI				0.0013		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
59	1886	2			ICB	MG				-0.0071		1.0000	07/21/95	08:35	dcs	0.1	ICP-QC
60	1886	2			ICB	MN				0.0008		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
61	1886	2			ICB	MO				-0.0003		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
62	1886	2			ICB	NA				-0.0017		1.0000	07/21/95	08:35	dcs	0.1	ICP-QC
63	1886	2			ICB	ND				0.0009		1.0000	07/21/95	08:35	dcs	0.1	ICP-QC
64	1886	2			ICB	NI				-0.0042		1.0000	07/21/95	08:35	dcs	0.02	ICP-QC
65	1886	2			ICB	P				0.0187		1.0000	07/21/95	08:35	dcs	0.2	ICP-QC
66	1886	2			ICB	PB				0.0099		1.0000	07/21/95	08:35	dcs	0.1	ICP-QC
67	1886	2			ICB	S				0.0083		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
68	1886	2			ICB	SB				-0.0015		1.0000	07/21/95	08:35	dcs	0.2	ICP-QC
69	1886	2			ICB	SE				0.0336		1.0000	07/21/95	08:35	dcs	0.1	ICP-QC
70	1886	2			ICB	SI				0.0172		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
71	1886	2			ICB	SM				0.0111		1.0000	07/21/95	08:35	dcs	0.1	ICP-QC
72	1886	2			ICB	SR				0.0006		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
73	1886	2			ICB	TH				-0.0059		1.0000	07/21/95	08:35	dcs	0	ICP-QC
74	1886	2			ICB	TI				0.0002		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
75	1886	2			ICB	TL				0.0017		1.0000	07/21/95	08:35	dcs	0.2	ICP-QC
76	1886	2			ICB	U				0.0190		1.0000	07/21/95	08:35	dcs	0.4	ICP-QC
77	1886	2			ICB	V				0.0035		1.0000	07/21/95	08:35	dcs	0.05	ICP-QC
78	1886	2			ICB	Y				0.0005		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
79	1886	2			ICB	ZN				0.0003		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
80	1886	2			ICB	ZR				0.0022		1.0000	07/21/95	08:35	dcs	0.01	ICP-QC
81	1886	3			ICSA	AG				0.0005		1.0000	07/21/95	08:42	dcs	0.01	ICP-QC
82	1886	3			ICSA	AL				244.7388		1.0000	07/21/95	08:42	dcs	0.05	ICP-QC
83	1886	3			ICSA	AS				0.0295		1.0000	07/21/95	08:42	dcs	0.05	ICP-QC
84	1886	3			ICSA	B				0.0007		1.0000	07/21/95	08:42	dcs	0.05	ICP-QC
85	1886	3			ICSA	BA				0.0017		1.0000	07/21/95	08:42	dcs	0.05	ICP-QC
86	1886	3			ICSA	BE				0.0004		1.0000	07/21/95	08:42	dcs	0.005	ICP-QC
87	1886	3			ICSA	BI				-0.0392		1.0000	07/21/95	08:42	dcs	0.1	ICP-QC
88	1886	3			ICSA	CA				258.8092		1.0000	07/21/95	08:42	dcs	0.1	ICP-QC
89	1886	3			ICSA	CD				0.0030		1.0000	07/21/95	08:42	dcs	0.01	ICP-QC
90	1886	3			ICSA	CE				0.0018		1.0000	07/21/95	08:42	dcs	0.1	ICP-QC
91	1886	3			ICSA	CO				0.0018		1.0000	07/21/95	08:42	dcs	0.02	ICP-QC
92	1886	3			ICSA	CR				0.0057		1.0000	07/21/95	08:42	dcs	0.01	ICP-QC
93	1886	3			ICSA</												

ICP MACRO

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
123	1886	4			ICSA	AS				-0.0014		1.0000	07/21/95	08:45	dia	0.05	ICP-QC
124	1886	4			ICSA	B				-0.0005		1.0000	07/21/95	08:45	dia	0.05	ICP-QC
125	1886	4			ICSA	BA				0.4670		1.0000	07/21/95	08:45	dia	0.05	ICP-QC
126	1886	4			ICSA	BE				0.4833		1.0000	07/21/95	08:45	dia	0.005	ICP-QC
127	1886	4			ICSA	BI				0.0004		1.0000	07/21/95	08:45	dia	0.1	ICP-QC
128	1886	4			ICSA	CA				249.3521		1.0000	07/21/95	08:45	dia	0.1	ICP-QC
129	1886	4			ICSA	CD				0.8588		1.0000	07/21/95	08:45	dia	0.01	ICP-QC
130	1886	4			ICSA	CE				-0.0037		1.0000	07/21/95	08:45	dia	0.1	ICP-QC
131	1886	4			ICSA	CO				0.4696		1.0000	07/21/95	08:45	dia	0.02	ICP-QC
132	1886	4			ICSA	CU				0.4858		1.0000	07/21/95	08:45	dia	0.01	ICP-QC
133	1886	4			ICSA	EU				0.4722		1.0000	07/21/95	08:45	dia	0.01	ICP-QC
134	1886	4			ICSA	FE				-0.0350		1.0000	07/21/95	08:45	dia	0.55	ICP-QC
135	1886	4			ICSA	K				92.1717		1.0000	07/21/95	08:45	dia	0.05	ICP-QC
136	1886	4			ICSA	LA				-0.0986		1.0000	07/21/95	08:45	dia	0.3	ICP-QC
137	1886	4			ICSA	LI				-0.0058		1.0000	07/21/95	08:45	dia	0.05	ICP-QC
138	1886	4			ICSA	LI				0.9639		1.0000	07/21/95	08:45	dia	0.01	ICP-QC
139	1886	4			ICSA	MG				245.4030		1.0000	07/21/95	08:45	dia	0.1	ICP-QC
140	1886	4			ICSA	NN				0.4547		1.0000	07/21/95	08:45	dia	0.01	ICP-QC
141	1886	4			ICSA	MO				-0.0132		1.0000	07/21/95	08:45	dia	0.03	ICP-QC
142	1886	4			ICSA	NA				190.0575		1.0000	07/21/95	08:45	dia	0.1	ICP-QC
143	1886	4			ICSA	NO				-0.0049		1.0000	07/21/95	08:45	dia	0.1	ICP-QC
144	1886	4			ICSA	NI				0.9059		1.0000	07/21/95	08:45	dia	0.02	ICP-QC
145	1886	4			ICSA	P				0.0143		1.0000	07/21/95	08:45	dia	0.2	ICP-QC
146	1886	4			ICSA	PB				0.9780		1.0000	07/21/95	08:45	dia	0.1	ICP-QC
147	1886	4			ICSA	S				-0.0205		1.0000	07/21/95	08:45	dia	0.05	ICP-QC
148	1886	4			ICSA	SB				-0.0118		1.0000	07/21/95	08:45	dia	0.2	ICP-QC
149	1886	4			ICSA	SE				-0.0085		1.0000	07/21/95	08:45	dia	0.1	ICP-QC
150	1886	4			ICSA	SI				0.0515		1.0000	07/21/95	08:45	dia	0.05	ICP-QC
151	1886	4			ICSA	SM				-0.0051		1.0000	07/21/95	08:45	dia	0.1	ICP-QC
152	1886	4			ICSA	SR				0.0024		1.0000	07/21/95	08:45	dia	0.01	ICP-QC
153	1886	4			ICSA	TH				-0.0283		1.0000	07/21/95	08:45	dia	0	ICP-QC
154	1886	4			ICSA	TI				0.0009		1.0000	07/21/95	08:45	dia	0.01	ICP-QC
155	1886	4			ICSA	TL				0.0535		1.0000	07/21/95	08:45	dia	0.2	ICP-QC
156	1886	4			ICSA	U				-0.1253		1.0000	07/21/95	08:45	dia	0.4	ICP-QC
157	1886	4			ICSA	V				0.4883		1.0000	07/21/95	08:45	dia	0.05	ICP-QC
158	1886	4			ICSA	Y				0.0077		1.0000	07/21/95	08:45	dia	0.01	ICP-QC
159	1886	4			ICSA	ZN				0.9492		1.0000	07/21/95	08:45	dia	0.01	ICP-QC
160	1886	4			ICSA	ZR				0.0007		1.0000	07/21/95	08:45	dia	0.01	ICP-QC
161	1886	5	S95T001224		LI-F-01					147.1151		401.0000	07/21/95	09:00	dia	0.01	ICP-F0
162	1886	6	S95T001224		LI-F-01					144.7091		401.0000	07/21/95	09:03	dia	0.01	ICP-F0
163	1886	7	S95T001224_A		LI-F-01					357.17323		401.0000	07/21/95	09:08	dia	0.01	ICP-F0
164	1886	8			ICSA	AG				0.0033		1.0000	07/21/95	10:33	dia	0.05	ICP-QC
165	1886	8			ICSA	AL				243.1118		1.0000	07/21/95	10:33	dia	0.05	ICP-QC
166	1886	8			ICSA	AS				-0.0278		1.0000	07/21/95	10:33	dia	0.05	ICP-QC
167	1886	8			ICSA	B				-0.0048		1.0000	07/21/95	10:33	dia	0.05	ICP-QC
168	1886	8			ICSA	BA				0.0017		1.0000	07/21/95	10:33	dia	0.05	ICP-QC
169	1886	8			ICSA	BE				0.0002		1.0000	07/21/95	10:33	dia	0.005	ICP-QC
170	1886	8			ICSA	BI				-0.0349		1.0000	07/21/95	10:33	dia	0.1	ICP-QC
171	1886	8			ICSA	CA				247.3078		1.0000	07/21/95	10:33	dia	0.1	ICP-QC
172	1886	8			ICSA	CD				0.0023		1.0000	07/21/95	10:33	dia	0.01	ICP-QC
173	1886	8			ICSA	CE				0.0126		1.0000	07/21/95	10:33	dia	0.1	ICP-QC
174	1886	8			ICSA	CO				0.0000		1.0000	07/21/95	10:33	dia	0.02	ICP-QC
175	1886	8			ICSA	CR				0.0048		1.0000	07/21/95	10:33	dia	0.01	ICP-QC
176	1886	8			ICSA	CU				-0.0105		1.0000	07/21/95	10:33	dia	0.01	ICP-QC
177	1886	8			ICSA	EU				-0.0219		1.0000	07/21/95	10:33	dia	0.05	ICP-QC
178	1886	8			ICSA	FE				92.3871		1.0000	07/21/95	10:33	dia	0.05	ICP-QC
179	1886	8			ICSA	K				-0.1270		1.0000	07/21/95	10:33	dia	0.3	ICP-QC
180	1886	8			ICSA	LA				-0.0303		1.0000	07/21/95	10:33	dia	0.05	ICP-QC
181	1886	8			ICSA	LI				0.0032		1.0000	07/21/95	10:33	dia	0.01	ICP-QC
182	1886	8			ICSA	MG				245.2134		1.0000	07/21/95	10:33	dia	0.1	ICP-QC
183	1886	8			ICSA	NN				-0.0055		1.0000	07/21/95	10:33	dia	0.01	ICP-QC
184	1886	8			ICSA	MO				-0.0122		1.0000	07/21/95	10:33	dia	0.05	ICP-QC
185	1886	8			ICSA	NA				188.1940		1.0000	07/21/95	10:33	dia	0.1	ICP-QC
186	1886	8			ICSA	NO				-0.0016		1.0000	07/21/95	10:33	dia	0.1	ICP-QC
187	1886	8			ICSA	NI				-0.0083		1.0000	07/21/95	10:33	dia	0.02	ICP-QC
188	1886	8			ICSA	P				-0.0340		1.0000	07/21/95	10:33	dia	0.2	ICP-QC
189	1886	8			ICSA	PB				0.0372		1.0000	07/21/95	10:33	dia	0.1	ICP-QC
190	1886	8			ICSA	S				-0.0130		1.0000	07/21/95	10:33	dia	0.05	ICP-QC
191	1886	8			ICSA	SB				0.0156		1.0000	07/21/95	10:33	dia	0.2	ICP-QC
192	1886	8			ICSA	SE				0.0359		1.0000	07/21/95	10:33	dia	0.1	ICP-QC
193	1886	8			ICSA	SI				0.0487		1.0000	07/21/95	10:33	dia	0.05	ICP-QC
194	1886	8			ICSA	SM				0.0008		1.0000	07/21/95	10:33	dia	0.1	ICP-QC
195	1886	8			ICSA	SR				0.0018		1.0000	07/21/95	10:33	dia	0.01	ICP-QC
196	1886	8			ICSA	TH				-0.0142		1.0000	07/21/95	10:33	dia	0	ICP-QC
197	1886	8			ICSA	TI				0.0005		1.0000	07/21/95	10:33	dia	0.01	ICP-QC
198	1886	8			ICSA	TL				0.0728		1.0000	07/21/95	10:33	dia	0.2	ICP-QC
199	1886	8			ICSA	U				-0.0284		1.0000	07/21/95	10:33	dia	0.4	ICP-QC
200	1886	8			ICSA	V				0.0084		1.0000	07/21/95	10:33	dia	0.05	ICP-QC
201	1886	8			ICSA	Y				0.0079		1.0000	07/21/95	10:33	dia	0.01	ICP-QC
202	1886	8			ICSA	ZN				0.0040		1.0000	07/21/95	10:33	dia	0.01	ICP-QC
203	1886	8			ICSA	ZR				-0.0003		1.0000	07/21/95	10:33	dia	0.01	ICP-QC
204	1886	8			ICSA	AG				0.9847		1.0000	07/21/95	10:36	dia	0.01	ICP-QC
205	1886	8			ICSA	AL				243.7980		1.0000	07/21/95	10:36	dia	0.05	ICP-QC
206	1886	8			ICSA	AS				-0.0338		1.0000	07/21/95	10:36	dia	0.05	ICP-QC
207	1886	8			ICSA	B				-0.0043		1.0000	07/21/95	10:36	dia	0.05	ICP-QC
208	1886	8			ICSA	BA				0.4591		1.0000	07/21/95	10:36	dia	0.05	ICP-QC
209	1886	8			ICSA	BE				0.4826		1.0000	07/21/95	10:36	dia	0.005	ICP-QC
210	1886	8			ICSA	BI				-0.0186		1.0000	07/21/95	10:36	dia	0.1	ICP-QC
211	1886	8			ICSA	CA				246.3705		1.0000	07/21/95	10:36	dia	0.1	ICP-QC
212	1886	8			ICSA	CD				0.9578		1.0000	07/21/95	10:36	dia	0.01	ICP-QC
213	1886	8			ICSA	CE				0.0048		1.0000	07/21/95	10:36	dia	0.1	ICP-QC
214																	

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
245	1886	10			CCV	AL				4.9035		1.0000	07/21/95	10:43	dca	0.05	ICP-QC
246	1886	10			CCV	AS				5.0960		1.0000	07/21/95	10:43	dca	0.05	ICP-QC
247	1886	10			CCV	B				4.9138		1.0000	07/21/95	10:43	dca	0.05	ICP-QC
248	1886	10			CCV	BA				4.8834		1.0000	07/21/95	10:43	dca	0.05	ICP-QC
249	1886	10			CCV	BE				5.1558		1.0000	07/21/95	10:43	dca	0.005	ICP-QC
250	1886	10			CCV	BI				4.9379		1.0000	07/21/95	10:43	dca	0.1	ICP-QC
251	1886	10			CCV	CA				5.2860		1.0000	07/21/95	10:43	dca	0.1	ICP-QC
252	1886	10			CCV	CD				5.1040		1.0000	07/21/95	10:43	dca	0.01	ICP-QC
253	1886	10			CCV	CE				5.0140		1.0000	07/21/95	10:43	dca	0.1	ICP-QC
254	1886	10			CCV	CO				5.1239		1.0000	07/21/95	10:43	dca	0.02	ICP-QC
255	1886	10			CCV	CR				5.1407		1.0000	07/21/95	10:43	dca	0.01	ICP-QC
256	1886	10			CCV	CU				4.8438		1.0000	07/21/95	10:43	dca	0.01	ICP-QC
257	1886	10			CCV	BU				0.0073		1.0000	07/21/95	10:43	dca	0.05	ICP-QC
258	1886	10			CCV	FE				5.0873		1.0000	07/21/95	10:43	dca	0.05	ICP-QC
259	1886	10			CCV	K				4.5871		1.0000	07/21/95	10:43	dca	0.3	ICP-QC
260	1886	10			CCV	LA				4.9536		1.0000	07/21/95	10:43	dca	0.05	ICP-QC
261	1886	10			CCV	LI				4.8837		1.0000	07/21/95	10:43	dca	0.01	ICP-QC
262	1886	10			CCV	MG				4.9114		1.0000	07/21/95	10:43	dca	0.1	ICP-QC
263	1886	10			CCV	MN				4.9796		1.0000	07/21/95	10:43	dca	0.01	ICP-QC
264	1886	10			CCV	MO				5.0844		1.0000	07/21/95	10:43	dca	0.05	ICP-QC
265	1886	10			CCV	NA				4.8882		1.0000	07/21/95	10:43	dca	0.1	ICP-QC
266	1886	10			CCV	ND				5.0850		1.0000	07/21/95	10:43	dca	0.1	ICP-QC
267	1886	10			CCV	NI				5.0831		1.0000	07/21/95	10:43	dca	0.02	ICP-QC
268	1886	10			CCV	P				5.2497		1.0000	07/21/95	10:43	dca	0.2	ICP-QC
269	1886	10			CCV	PB				5.1173		1.0000	07/21/95	10:43	dca	0.1	ICP-QC
270	1886	10			CCV	S				5.0990		1.0000	07/21/95	10:43	dca	0.05	ICP-QC
271	1886	10			CCV	SB				4.7738		1.0000	07/21/95	10:43	dca	0.2	ICP-QC
272	1886	10			CCV	SE				5.1005		1.0000	07/21/95	10:43	dca	0.1	ICP-QC
273	1886	10			CCV	SI				4.9822		1.0000	07/21/95	10:43	dca	0.05	ICP-QC
274	1886	10			CCV	SM				4.9869		1.0000	07/21/95	10:43	dca	0.1	ICP-QC
275	1886	10			CCV	SR				4.8895		1.0000	07/21/95	10:43	dca	0.01	ICP-QC
276	1886	10			CCV	TH				-0.0027		1.0000	07/21/95	10:43	dca	0	ICP-QC
277	1886	10			CCV	TI				4.8391		1.0000	07/21/95	10:43	dca	0.01	ICP-QC
278	1886	10			CCV	TL				4.9453		1.0000	07/21/95	10:43	dca	0.2	ICP-QC
279	1886	10			CCV	U				9.8500		1.0000	07/21/95	10:43	dca	0.4	ICP-QC
280	1886	10			CCV	V				5.0134		1.0000	07/21/95	10:43	dca	0.05	ICP-QC
281	1886	10			CCV	Y				0.0135		1.0000	07/21/95	10:43	dca	0.01	ICP-QC
282	1886	10			CCV	ZN				5.0829		1.0000	07/21/95	10:43	dca	0.01	ICP-QC
283	1886	10			CCV	ZR				4.9371		1.0000	07/21/95	10:43	dca	0.01	ICP-QC
284	1886	11			CCB	AG				-0.0005		1.0000	07/21/95	10:47	dca	0.01	ICP-QC
285	1886	11			CCB	AL				-0.0088		1.0000	07/21/95	10:47	dca	0.05	ICP-QC
286	1886	11			CCB	AS				0.0093		1.0000	07/21/95	10:47	dca	0.05	ICP-QC
287	1886	11			CCB	B				0.0005		1.0000	07/21/95	10:47	dca	0.05	ICP-QC
288	1886	11			CCB	BA				0.0000		1.0000	07/21/95	10:47	dca	0.05	ICP-QC
289	1886	11			CCB	BE				0.0001		1.0000	07/21/95	10:47	dca	0.005	ICP-QC
290	1886	11			CCB	BI				-0.0290		1.0000	07/21/95	10:47	dca	0.1	ICP-QC
291	1886	11			CCB	CA				0.0018		1.0000	07/21/95	10:47	dca	0.1	ICP-QC
292	1886	11			CCB	CD				0.0010		1.0000	07/21/95	10:47	dca	0.01	ICP-QC
293	1886	11			CCB	CE				-0.0045		1.0000	07/21/95	10:47	dca	0.1	ICP-QC
294	1886	11			CCB	CO				0.0016		1.0000	07/21/95	10:47	dca	0.02	ICP-QC
295	1886	11			CCB	CR				0.0004		1.0000	07/21/95	10:47	dca	0.01	ICP-QC
296	1886	11			CCB	CU				-0.0000		1.0000	07/21/95	10:47	dca	0.01	ICP-QC
297	1886	11			CCB	EU				0.0014		1.0000	07/21/95	10:47	dca	0.05	ICP-QC
298	1886	11			CCB	FE				0.0000		1.0000	07/21/95	10:47	dca	0.05	ICP-QC
299	1886	11			CCB	K				-0.2448		1.0000	07/21/95	10:47	dca	0.3	ICP-QC
300	1886	11			CCB	LA				0.0001		1.0000	07/21/95	10:47	dca	0.05	ICP-QC
301	1886	11			CCB	LI				0.0015		1.0000	07/21/95	10:47	dca	0.01	ICP-QC
302	1886	11			CCB	MG				0.0038		1.0000	07/21/95	10:47	dca	0.1	ICP-QC
303	1886	11			CCB	MN				0.0004		1.0000	07/21/95	10:47	dca	0.01	ICP-QC
304	1886	11			CCB	MO				-0.0029		1.0000	07/21/95	10:47	dca	0.05	ICP-QC
305	1886	11			CCB	NA				0.0099		1.0000	07/21/95	10:47	dca	0.1	ICP-QC
306	1886	11			CCB	ND				0.0018		1.0000	07/21/95	10:47	dca	0.1	ICP-QC
307	1886	11			CCB	NI				0.0012		1.0000	07/21/95	10:47	dca	0.02	ICP-QC
308	1886	11			CCB	P				-0.0319		1.0000	07/21/95	10:47	dca	0.2	ICP-QC
309	1886	11			CCB	PB				0.0027		1.0000	07/21/95	10:47	dca	0.1	ICP-QC
310	1886	11			CCB	S				-0.0140		1.0000	07/21/95	10:47	dca	0.05	ICP-QC
311	1886	11			CCB	SB				-0.0100		1.0000	07/21/95	10:47	dca	0.2	ICP-QC
312	1886	11			CCB	SE				0.0086		1.0000	07/21/95	10:47	dca	0.1	ICP-QC
313	1886	11			CCB	SI				0.0079		1.0000	07/21/95	10:47	dca	0.05	ICP-QC
314	1886	11			CCB	SM				0.0172		1.0000	07/21/95	10:47	dca	0.1	ICP-QC
315	1886	11			CCB	SR				0.0002		1.0000	07/21/95	10:47	dca	0.01	ICP-QC
316	1886	11			CCB	TH				-0.0050		1.0000	07/21/95	10:47	dca	0	ICP-QC
317	1886	11			CCB	TI				-0.0004		1.0000	07/21/95	10:47	dca	0.01	ICP-QC
318	1886	11			CCB	TL				0.0090		1.0000	07/21/95	10:47	dca	0.2	ICP-QC
319	1886	11			CCB	U				0.0490		1.0000	07/21/95	10:47	dca	0.4	ICP-QC
320	1886	11			CCB	V				0.0025		1.0000	07/21/95	10:47	dca	0.05	ICP-QC
321	1886	11			CCB	Y				0.0008		1.0000	07/21/95	10:47	dca	0.01	ICP-QC
322	1886	11			CCB	ZN				-0.0008		1.0000	07/21/95	10:47	dca	0.01	ICP-QC
323	1886	11			CCB	ZR				0.0024		1.0000	07/21/95	10:47	dca	0.01	ICP-QC

WHC-SD-WM-DP-139, REV.1

LABCORE Data Entry Template for Worklist# 1887

Analyst: DK Sato Instrument: ICP01² Book# 43B48B
¹⁰⁻³¹⁻⁹⁵ Method: LA-505-151/41 Rev/Mod A-1 ^{8/24/95}

Worklist Comment: ICP B-101 DIRECT (Li only)

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	SAMPLE	S95T001233	0 D @ICP-D03	LIQUID	95000093	B-101
	Analytes Requested: LI-D-01					
6	DUP	S95T001233	0 D @ICP-D03	LIQUID		
7	SPK	S95T001233	0 D @ICP-D03	LIQUID		
8	SAMPLE	S95T001248	0 D @ICP-D03	LIQUID	95000093	B-101
	Analytes Requested: LI-D-01					
9	DUP	S95T001248	0 D @ICP-D03	LIQUID		
10	SPK	S95T001248	0 D @ICP-D03	LIQUID		
11	ICSA		@ICP-QC	QC		
12	ICSAB		@ICP-QC	QC		
13	CCV		@ICP-QC	QC		
14	CCB		@ICP-QC	QC		

Final page for worklist # 1887

James L. Sato 07-21-95
Analyst Signature Date

Reviewed + Validated by:
Sam M. Pang 07/24/95
Analyst Signature Date

Data Entry Comments:

	% spike Rec.	RPD	Sample (ug/ml)	Dup (ug/ml)
S95T001233	= 107.7	0.729	^{8/24/95} 147.1 0.2477	0.2459
S95T001248	= 93.0	0.2218	135.1	135.4

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

8/24/95

LABCORE Data Entry Template for Worklist# 1788

1887

8/27/95

Type	Sample#	R	A	Test	Matrix	Group#	Project
18 ICSA				@ICP-QC	QC		
19 ICSAB				@ICP-QC	QC		
20 CCV				@ICP-QC	QC		
21 CCB				@ICP-QC	QC		

1887

8/27/95

Final page for worklist # 1788

JK Loto

07-21-95

Analyst Signature

Date

Analyst Signature

Date

595T00123⁴-L, 0.25-10-2.8 mL, DF 1005

595T00123⁴-D, 0.25-10, 401

595T00123⁴-Q, 0.25-10, 401

595T00123⁴-A, 0.25-10, 401, 0.25 mL sample + 2 mL SST5 + 8 mL 2% HNO₃

595T00123³-L, 2.8 mL, DF 5

595T00123³-D, direct, 1

595T00123³-Q, direct, 1

595T00123³-A, 1.25, 8 mL sample + 2 mL SST5

595T00124⁸-L, 0.25-10-2.8 mL, DF 1005

595T00124⁸-D, 0.25-10, 401

595T00124⁸-Q, 0.25-10, 401

595T00124⁸-A, 0.25-10, 401, 0.25 mL sample + 2 mL SST5 + 8 mL 2% HNO₃

8/27/95

Data Entry Comments:

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

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICV	950721A	ICP2	07/21/95	08:35	DKS	Q	CONC
2	ICB	950721A	ICP2	07/21/95	08:38	DKS	Q	CONC
3	ICSA	950721A	ICP2	07/21/95	08:42	DKS	Q	CONC
4	ICSAB	950721A	ICP2	07/21/95	08:45	DKS	Q	CONC
5	S95T001223 L	950721A	ICP2	07/21/95	08:55	DKS	S	CONC
6	S95T001223	950721A	ICP2	07/21/95	09:00	DKS	S	CONC
7	S95T001223 D	950721A	ICP2	07/21/95	09:03	DKS	S	CONC
8	S95T001223 A	950721A	ICP2	07/21/95	09:08	DKS	S	CONC
9	CCV	950721A	ICP2	07/21/95	09:37	DKS	Q	CONC
10	CCB	950721A	ICP2	07/21/95	09:41	DKS	Q	CONC
11	S95T001232 L	950721A	ICP2	07/21/95	09:45	DKS	S	CONC
12	S95T001232	950721A	ICP2	07/21/95	09:49	DKS	S	CONC
13	S95T001232 D	950721A	ICP2	07/21/95	09:53	DKS	S	CONC
14	S95T001232 A	950721A	ICP2	07/21/95	10:00	DKS	S	CONC
15	CCV 1	950721A	ICP2	07/21/95	10:05	DKS	Q	CONC
16	CCB 1	950721A	ICP2	07/21/95	10:09	DKS	Q	CONC
17	S95T001247 L	950721A	ICP2	07/21/95	10:13	DKS	S	CONC
18	S95T001247	950721A	ICP2	07/21/95	10:17	DKS	S	CONC
19	S95T001247 D	950721A	ICP2	07/21/95	10:21	DKS	S	CONC
20	S95T001247 A	950721A	ICP2	07/21/95	10:25	DKS	S	CONC
21	ICSA	950721A	ICP2	07/21/95	10:33	DKS	Q	CONC
22	ICSAB	950721A	ICP2	07/21/95	10:36	DKS	Q	CONC
23	CCV 2	950721A	ICP2	07/21/95	10:43	DKS	Q	CONC
24	CCB 2	950721A	ICP2	07/21/95	10:47	DKS	Q	CONC

DK LAD
07-21-95

B-101 S95T001223
S95T001232
S95T001247

Worklist # 1788

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 220 TO 224.

WHC-SD-WM-DP-139, REV. 1

#	Sample Name	Ag	Al	As	B	Ba	Be
1	ICV	5.143	4.961	5.160	4.973	4.998	5.202
2	ICB	.0010	.0058	.0146	.0073	.0001	.0002
3	ICSA	.0005	244.7	.0295	.0007	.0017	.0004
4	ICSAB	.9868	243.9	-.0014	-.0005	.4679	.4833
5	S95T001223 L	345.3	-7.503	-9.868	8.783	.6867	.2353
6	S95T001223-	217.6	2.197	-7.833	8.568	1.044	.0424
7	S95T001223 D	235.7	-.6189	-3.165	7.984	1.020	.0422
8	S95T001223-A	560.7	387.5	420.4	397.4	379.0	411.1
9	CCV	4.999	4.928	4.964	4.907	4.931	5.046
10	CCB	.0003	-.0019	.0081	.0009	.0000	-.0000
11	S95T001232 L	-.0136	.0202	.0251	.5746	.0018	.0000
12	S95T001232-	-.0006	.0008	.0032	.5544	.0024	.0001
13	S95T001232 D	.0007	.0012	.0059	.5520	.0024	-.0000
14	S95T001232-A	.6400	1.338	1.301	1.820	1.269	1.316
15	CCV 1	5.054	5.008	5.117	4.992	4.997	5.182
16	CCB-1	-.0011	-.0079	-.0000	.0052	.0000	-.0001
17	S95T001247 L	326.7	56.78	-7.901	17.00	.6800	-.3736
18	S95T001247-	186.4	69.09	-5.942	11.35	.7075	-.0331
19	S95T001247 D	224.6	34.13	.3844	8.135	.5004	.0559
20	S95T001247-A	286.4	436.4	419.1	396.9	374.4	406.6
21	ICSA	.0033	243.1	-.0278	-.0048	.0017	.0001
22	ICSAB	.9847	243.8	-.0398	-.0043	.4591	.4826
23	CCV 2	5.073	4.903	5.100	4.914	4.863	5.156
24	CCB-2	-.0005	-.0086	.0093	.0005	.0000	.0001

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	ICV	4.958	5.345	5.172	5.068	5.192	5.219
2	ICB	-.0066	-.0008	.0006	-.0023	-.0003	-.0001
3	ICSA	-.0392	250.6	.0030	.0016	.0016	.0056
4	ICSAB	.0004	249.4	.9568	-.0037	.4696	.4858
5	S95T001223 L	-22.54	3.140	1.730	-30.12	-1.071	345.9
6	S95T001223-	4.084	5.182	.1615	-2.582	1.103	342.1
7	S95T001223 D	-.7794	2.034	.4827	-1.509	1.875	342.0
8	S95T001223-A	391.1	447.6	423.4	386.9	422.8	769.9
9	CCV	4.891	5.004	4.909	5.047	4.948	4.977
10	CCB	-.0104	.0031	.0008	.0031	.0023	-.0003
11	S95T001232 L	.0049	.4660	.0004	-.0154	.0051	-.0010
12	S95T001232-	.0008	.4720	.0009	.0001	.0000	.0038
13	S95T001232 D	-.0201	.4652	.0004	-.0007	-.0003	.0029
14	S95T001232-A	1.249	1.790	1.293	1.313	1.300	1.305
15	CCV 1	4.944	5.103	5.031	5.131	5.066	5.073
16	CCB-1	-.0039	.0034	.0005	.0034	.0013	-.0011
17	S95T001247 L	-18.26	23.28	3.135	5.223	7.175	413.4
18	S95T001247-	1.356	20.85	.3540	5.003	2.157	414.2
19	S95T001247 D	2.982	6.334	.2209	2.940	2.567	416.7
20	S95T001247-A	398.2	427.3	412.2	397.2	411.0	826.5
21	ICSA	-.0349	247.3	.0023	.0126	.0000	.0048
22	ICSAB	-.0186	247.0	.9578	.0048	.4743	.4875
23	CCV 2	4.938	5.288	5.104	5.014	5.124	5.150
24	CCB-2	-.0290	.0018	.0010	-.0045	.0016	.0004

WHC-SD-WM-DP-139, REV.1

#	Sample Name	Cu	Eu	Fe	K	La	Li
1	ICV	4.881	.0058	5.146	4.887	5.010	4.883
2	ICB	.0002	.0010	-.0003	-.0060	-.0003	.0013
3	ICSA	-.0093	-.0386	93.05	-.0346	-.0052	.0031
4	ICSAB	.4722	-.0359	92.17	-.0966	-.0058	.9539
5	S95T001223 ⁴ L	.1502	3.164	-2.646	188.1	-3.229	151.8
6	S95T001223 ⁴ +	1.311	.5621	2.721	449.5	-.6241	147.1
7	S95T001223 ⁴ D	1.222	.7884	-.0752	450.5	-.1408	144.7
8	S95T001223 ⁴ A	377.7	1.543	412.9	822.9	385.1	504.3
9	CCV	4.915	.0051	4.956	4.910	4.994	5.101
10	CCB	-.0002	-.0003	.0004	-.1945	.0007	-.0001
11	S95T001232 ³ L	.0011	-.0054	.0706	-1.798	.0017	.2518
12	S95T001232 ³ +	.0015	-.0001	.0709	-.1267	.0017	.2477 ✓
13	S95T001232 ³ D	.0017	-.0001	.0691	.0893	.0018	.2459 ✓
14	S95T001232 ³ A	1.297	.0006	1.375	1.284	1.302	1.594
15	CCV 1	4.985	.0052	5.058	4.915	5.075	5.130
16	CCB ³ 1	.0000	-.0006	.0002	-.2259	.0010	-.0005
17	S95T001247 ⁸ L	18.16	-.1400	64.80	276.8	1.244	142.5
18	S95T001247 ⁸ +	14.54	.7371	60.56	414.9	1.030	135.1 ✓
19	S95T001247 ⁸ D	14.63	.5508	34.25	391.5	.4362	135.4 ✓
20	S95T001247 ⁸ A	393.9	1.055	442.1	708.5	387.3	508.1
21	ICSA	-.0105	-.0219	92.39	-.1270	-.0033	.0032
22	ICSAB	.4703	-.0167	92.32	-.2877	-.0042	.9497
23	CCV 2	4.844	.0073	5.067	4.587	4.954	4.866
24	CCB ² 2	-.0000	.0014	.0000	-.2446	.0001	.0014

#	Sample Name	Mg	Mn	Mo	Na	Nd	Ni
1	ICV	4.952	5.076	5.131	4.931	5.147	5.169
2	ICB	-.0071	.0006	-.0003	-.0017	.0009	-.0042
3	ICSA	246.6	-.0049	-.0082	189.4	-.0001	-.0112
4	ICSAB	245.4	.4547	-.0132	190.1	-.0049	.9059
5	S95T001223 L	-18.22	1.682	3.475	195400.	-2.031	6.711
6	S95T001223 -	-3.199	.3585	3.789	187100.	-.6207	11.97
7	S95T001223 D	-1.865	.3826	4.164	184500.	.4493	12.85
8	S95T001223 -A	381.7	402.3	423.8	181400.	393.7	430.1
9	CCV	4.930	4.857	4.923	5.057	5.167	4.904
10	CCB	.0072	-.0002	-.0011	-.0051	.0010	.0075
11	S95T001232 L	.0824	.0112	-.0106	6.481	.0026	.0235
12	S95T001232 -	.0826	.0131	-.0009	6.455	-.0003	.0082
13	S95T001232 D	.0825	.0124	-.0005	6.432	.0016	.0037
14	S95T001232 -A	1.389	1.259	1.280	7.972	1.347	1.310
15	CCV 1	4.992	4.934	5.034	5.090	5.240	4.988
16	CCB ¹ 1	-.0016	-.0004	-.0019	-.0065	-.0003	.0051
17	S95T001247 L	40.59	33.63	3.833	201500.	11.57	24.24
18	S95T001247 -	5.369	34.13	3.881	187000.	2.258	16.09
19	S95T001247 D	10.53	19.96	4.016	187100.	2.831	14.92
20	S95T001247 -A	390.1	413.0	413.9	186000.	397.9	424.0
21	ICSA	246.2	-.0055	-.0122	186.2	-.0016	-.0093
22	ICSAB	246.6	.4523	-.0097	188.9	.0007	.9105
23	CCV 2	4.911	4.980	5.064	4.888	5.085	5.083
24	CCB ² 2	.0038	.0004	-.0029	.0099	.0016	.0012

WHC-SD-WM-DP-139, REV. 1

#	Sample Name	P	Pb	S	Sb	Se	Si
1	ICV	5.024	5.161	5.063	4.778	5.068	5.038
2	ICB	.0187	.0099	.0083	-.0015	.0336	.0172
3	ICSA	-.0110	.0240	-.0081	-.0151	.0297	.0511
4	ICSAB	.0143	.9780	-.0205	-.0118	-.0085	.0515
5	S95T001223 L	2586.	5.608	7743.	-1.128	-724.6	56.41
6	S95T001223	2694.	4.412	7818.	-1.416	-716.0	21.09
7	S95T001223 D	2697.	2.635	7810.	-2.645	-707.8	13.71
8	S95T001223 A	3108.	430.1	8218.	391.8	-273.5	419.5
9	CCV	5.040	4.911	4.967	4.679	4.899	4.873
10	CCB	-.0160	.0121	-.0113	.0042	-.0226	-.0010
11	S95T001232 L	.0688	-.0178	.8979	-.0042	-.0540	1.928
12	S95T001232	.0846	.0001	.9721	.0035	-.0168	1.831
13	S95T001232 D	.1011	-.0008	.9798	.0005	-.0284	1.798
14	S95T001232 A	1.414	1.283	2.270	1.203	1.243	3.225
15	CCV 1	5.117	5.007	5.072	4.758	5.001	4.953
16	CCB 1	-.0070	-.0055	-.0068	.0012	-.0129	.0037
17	S95T001247 L	2080.	62.97	7808.	7.627	-790.2	40.46
18	S95T001247	1983.	48.61	7840.	2.125	-726.3	36.92
19	S95T001247 D	1971.	35.60	7795.	.4193	-718.9	33.09
20	S95T001247 A	2424.	448.8	8241.	387.2	-297.4	430.0
21	ICSA	-.0340	.0372	-.0130	.0156	.0359	.0487
22	ICSAB	-.0130	1.005	-.0307	.0059	.0156	.0430
23	CCV 2	5.250	5.117	5.099	4.774	5.101	4.962
24	CCB 2	-.0319	.0027	-.0140	-.0100	.0068	.0079

#	Sample Name	Sm	Sr	Th	Ti	Tl	U
1	ICV	5.004	4.955	-.0277	4.900	5.011	9.954
2	ICB	.0111	.0006	-.0059	.0002	.0017	.0490
3	ICSA	-.0034	.0024	-.0199	.0015	.0894	-.1437
4	ICSAB	-.0051	.0024	-.0283	.0009	.0535	-.1253
5	S95T001223 L	33.54	2.208	-17.00	-.3897	5.090	232.8
6	S95T001223	6.901	.5826	-2.567	-.0777	-2.791	130.9
7	S95T001223 D	9.894	.5818	-3.390	.2779	-.7027	141.2
8	S95T001223 A	394.1	382.1	-4.285	388.1	408.7	902.2
9	CCV	5.022	4.919	-.0023	4.795	4.875	10.01
10	CCB	-.0035	-.0001	.0017	.0000	.0246	-.0290
11	S95T001232 L	-.0458	.0001	-.0051	.0020	-.1958	2.612
12	S95T001232	.0029	.0012	-.0063	.0015	-.0221	2.694
13	S95T001232 D	.0023	.0012	-.0069	.0017	.0030	2.667
14	S95T001232 A	1.289	1.281	-.0070	1.246	1.285	5.469
15	CCV 1	5.102	5.003	-.0045	4.891	4.909	10.15
16	CCB 1	-.0061	-.0001	.0008	-.0002	.0320	-.0314
17	S95T001247 L	-1.315	.3997	1.982	1.265	10.62	24.97
18	S95T001247	8.275	.6367	-1.113	.4345	-5.402	78.91
19	S95T001247 D	6.477	.2995	.5177	.5163	5.478	72.46
20	S95T001247 A	390.1	381.3	-.0235	384.4	388.9	831.8
21	ICSA	.0008	.0016	-.0142	.0006	.0728	-.0984
22	ICSAB	-.0064	.0017	-.0186	.0010	.0439	-.1229
23	CCV 2	4.967	4.889	-.0027	4.839	4.945	9.856
24	CCB 2	.0172	.0002	-.0050	-.0004	.0090	.0490

WHC-SD-WM-DP-139, REV. 1

#	Sample Name	V	Y	Zn	Zr
1	ICV	5.059	.0131	5.142	5.003
2	ICB	.0035	.0005	.0003	.0022
3	ICSA	.0014	.0078	-.0041	.0001
4	ICSAB	.4683	.0077	.9692	.0007
5	S95T001223 L	9.736	2.043	10.75	15.81
6	S95T001223	2.438	.4086	9.091	9.383
7	S95T001223 D	3.072	.5657	9.217	9.435
8	S95T001223 A	410.4	1.886	434.9	400.5
9	CCV	4.900	.0121	4.913	4.889
10	CCB	-.0022	-.0005	-.0009	-.0007
11	S95T001232 L	-.0150	-.0024	.0734	-.0049
12	S95T001232	-.0004	.0011	.0644	.0009
13	S95T001232 D	-.0005	.0010	.0646	.0010
14	S95T001232 A	1.269	.0040	1.383	1.260
15	CCV 1	4.998	.0125	4.998	4.981
16	CCB 1	-.0022	-.0005	-.0017	-.0006
17	S95T001247 L	-1.791	.0000	15.87	14.51
18	S95T001247	1.693	.5343	15.69	11.41
19	S95T001247 D	1.226	.3143	13.13	11.17
20	S95T001247 A	401.4	1.414	426.5	405.0
21	ICSA	.0004	.0079	-.0040	-.0003
22	ICSAB	.4698	.0076	.9724	-.0007
23	CCV 2	5.013	.0135	5.083	4.937
24	CCB 2	.0025	.0008	-.0008	.0024

DK Ldt
07-21-95

WHC-SD-WM-DP-139, REV. 1

ICP MACRO

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	1887	1			ICV	AG				5.1429		1.0000	07/21/95	08:35	das	0.01	ICP-QC
2	1887	1			ICV	AL				4.9008		1.0000	07/21/95	08:35	das	0.05	ICP-QC
3	1887	1			ICV	AS				5.1590		1.0000	07/21/95	08:35	das	0.05	ICP-QC
4	1887	1			ICV	B				4.9733		1.0000	07/21/95	08:35	das	0.05	ICP-QC
5	1887	1			ICV	BA				4.9070		1.0000	07/21/95	08:35	das	0.05	ICP-QC
6	1887	1			ICV	BE				5.2022		1.0000	07/21/95	08:35	das	0.005	ICP-QC
7	1887	1			ICV	BI				4.9570		1.0000	07/21/95	08:35	das	0.1	ICP-QC
8	1887	1			ICV	CA				5.3453		1.0000	07/21/95	08:35	das	0.1	ICP-QC
9	1887	1			ICV	CD				5.1723		1.0000	07/21/95	08:35	das	0.01	ICP-QC
10	1887	1			ICV	CE				5.0683		1.0000	07/21/95	08:35	das	0.1	ICP-QC
11	1887	1			ICV	CO				5.1924		1.0000	07/21/95	08:35	das	0.02	ICP-QC
12	1887	1			ICV	CR				5.2104		1.0000	07/21/95	08:35	das	0.01	ICP-QC
13	1887	1			ICV	CU				4.8810		1.0000	07/21/95	08:35	das	0.01	ICP-QC
14	1887	1			ICV	EU				0.0058		1.0000	07/21/95	08:35	das	0.05	ICP-QC
15	1887	1			ICV	FE				5.1483		1.0000	07/21/95	08:35	das	0.05	ICP-QC
16	1887	1			ICV	K				4.8670		1.0000	07/21/95	08:35	das	0.3	ICP-QC
17	1887	1			ICV	LA				5.0065		1.0000	07/21/95	08:35	das	0.05	ICP-QC
18	1887	1			ICV	LI				4.8834		1.0000	07/21/95	08:35	das	0.01	ICP-QC
19	1887	1			ICV	MG				4.9518		1.0000	07/21/95	08:35	das	0.1	ICP-QC
20	1887	1			ICV	MN				5.0750		1.0000	07/21/95	08:35	das	0.01	ICP-QC
21	1887	1			ICV	MO				5.1306		1.0000	07/21/95	08:35	das	0.05	ICP-QC
22	1887	1			ICV	NA				4.9309		1.0000	07/21/95	08:35	das	0.1	ICP-QC
23	1887	1			ICV	ND				5.1473		1.0000	07/21/95	08:35	das	0.1	ICP-QC
24	1887	1			ICV	N				5.1688		1.0000	07/21/95	08:35	das	0.02	ICP-QC
25	1887	1			ICV	P				5.0238		1.0000	07/21/95	08:35	das	0.2	ICP-QC
26	1887	1			ICV	PB				5.1613		1.0000	07/21/95	08:35	das	0.1	ICP-QC
27	1887	1			ICV	S				5.0626		1.0000	07/21/95	08:35	das	0.05	ICP-QC
28	1887	1			ICV	SB				4.7779		1.0000	07/21/95	08:35	das	0.2	ICP-QC
29	1887	1			ICV	SE				5.0684		1.0000	07/21/95	08:35	das	0.1	ICP-QC
30	1887	1			ICV	SI				5.0384		1.0000	07/21/95	08:35	das	0.05	ICP-QC
31	1887	1			ICV	SM				5.0039		1.0000	07/21/95	08:35	das	0.1	ICP-QC
32	1887	1			ICV	SR				4.9554		1.0000	07/21/95	08:35	das	0.01	ICP-QC
33	1887	1			ICV	TH				-0.0277		1.0000	07/21/95	08:35	das	0	ICP-QC
34	1887	1			ICV	TI				4.8998		1.0000	07/21/95	08:35	das	0.01	ICP-QC
35	1887	1			ICV	TL				5.0106		1.0000	07/21/95	08:35	das	0.2	ICP-QC
36	1887	1			ICV	U				0.9542		1.0000	07/21/95	08:35	das	0.4	ICP-QC
37	1887	1			ICV	V				5.0590		1.0000	07/21/95	08:35	das	0.05	ICP-QC
38	1887	1			ICV	Y				0.0131		1.0000	07/21/95	08:35	das	0.01	ICP-QC
39	1887	1			ICV	ZN				5.1418		1.0000	07/21/95	08:35	das	0.01	ICP-QC
40	1887	1			ICV	ZR				5.0028		1.0000	07/21/95	08:35	das	0.01	ICP-QC
41	1887	1			ICB	AG				0.0010		1.0000	07/21/95	08:38	das	0.01	ICP-QC
42	1887	1			ICB	AL				0.0058		1.0000	07/21/95	08:38	das	0.05	ICP-QC
43	1887	1			ICB	AS				0.0146		1.0000	07/21/95	08:38	das	0.05	ICP-QC
44	1887	1			ICB	B				0.0073		1.0000	07/21/95	08:38	das	0.05	ICP-QC
45	1887	1			ICB	BA				0.0001		1.0000	07/21/95	08:38	das	0.05	ICP-QC
46	1887	1			ICB	BE				0.0002		1.0000	07/21/95	08:38	das	0.005	ICP-QC
47	1887	1			ICB	BI				-0.0086		1.0000	07/21/95	08:38	das	0.1	ICP-QC
48	1887	2			ICB	CA				-0.0006		1.0000	07/21/95	08:38	das	0.1	ICP-QC
49	1887	2			ICB	CD				0.0006		1.0000	07/21/95	08:38	das	0.01	ICP-QC
50	1887	2			ICB	CE				-0.0023		1.0000	07/21/95	08:38	das	0.1	ICP-QC
51	1887	2			ICB	CO				-0.0003		1.0000	07/21/95	08:38	das	0.02	ICP-QC
52	1887	2			ICB	CR				-0.0001		1.0000	07/21/95	08:38	das	0.01	ICP-QC
53	1887	2			ICB	CU				0.0002		1.0000	07/21/95	08:38	das	0.01	ICP-QC
54	1887	2			ICB	EU				0.0010		1.0000	07/21/95	08:38	das	0.05	ICP-QC
55	1887	2			ICB	FE				-0.0003		1.0000	07/21/95	08:38	das	0.05	ICP-QC
56	1887	2			ICB	K				-0.0060		1.0000	07/21/95	08:38	das	0.3	ICP-QC
57	1887	2			ICB	LA				-0.0003		1.0000	07/21/95	08:38	das	0.05	ICP-QC
58	1887	2			ICB	LI				0.0013		1.0000	07/21/95	08:38	das	0.01	ICP-QC
59	1887	2			ICB	MG				-0.0071		1.0000	07/21/95	08:38	das	0.1	ICP-QC
60	1887	2			ICB	MN				0.0006		1.0000	07/21/95	08:38	das	0.01	ICP-QC
61	1887	2			ICB	MO				-0.0003		1.0000	07/21/95	08:38	das	0.05	ICP-QC
62	1887	2			ICB	NA				-0.0017		1.0000	07/21/95	08:38	das	0.1	ICP-QC
63	1887	2			ICB	ND				0.0009		1.0000	07/21/95	08:38	das	0.1	ICP-QC
64	1887	2			ICB	NI				-0.0042		1.0000	07/21/95	08:38	das	0.02	ICP-QC
65	1887	2			ICB	P				0.0187		1.0000	07/21/95	08:38	das	0.2	ICP-QC
66	1887	2			ICB	PB				0.0060		1.0000	07/21/95	08:38	das	0.1	ICP-QC
67	1887	2			ICB	S				0.0083		1.0000	07/21/95	08:38	das	0.05	ICP-QC
68	1887	2			ICB	SB				-0.0015		1.0000	07/21/95	08:38	das	0.2	ICP-QC
69	1887	2			ICB	SE				0.0336		1.0000	07/21/95	08:38	das	0.1	ICP-QC
70	1887	2			ICB	SI				0.0172		1.0000	07/21/95	08:38	das	0.05	ICP-QC
71	1887	2			ICB	SM				0.0111		1.0000	07/21/95	08:38	das	0.1	ICP-QC
72	1887	2			ICB	SR				0.0006		1.0000	07/21/95	08:38	das	0.01	ICP-QC
73	1887	2			ICB	TH				-0.0059		1.0000	07/21/95	08:38	das	0	ICP-QC
74	1887	2			ICB	TI				0.0002		1.0000	07/21/95	08:38	das	0.1	ICP-QC
75	1887	2			ICB	TL				0.0017		1.0000	07/21/95	08:38	das	0.2	ICP-QC
76	1887	2			ICB	U				0.0490		1.0000	07/21/95	08:38	das	0.4	ICP-QC
77	1887	2			ICB	V				0.0035		1.0000	07/21/95	08:38	das	0.05	ICP-QC
78	1887	2			ICB	Y				0.0005		1.0000	07/21/95	08:38	das	0.01	ICP-QC
79	1887	2			ICB	ZN				0.0003		1.0000	07/21/95	08:38	das	0.01	ICP-QC
80	1887	2			ICB	ZR				0.0022		1.0000	07/21/95	08:38	das	0.01	ICP-QC
81	1887	3			ICSA	AG				0.0006		1.0000	07/21/95	08:42	das	0.01	ICP-QC
82	1887	3			ICSA	AL				244.7566		1.0000	07/21/95	08:42	das	0.05	ICP-QC
83	1887	3			ICSA	AS				0.0286		1.0000	07/21/95	08:42	das	0.03	ICP-QC
84	1887	3			ICSA	B				0.0007		1.0000	07/21/95	08:42	das	0.05	ICP-QC
85	1887	3			ICSA	BA				0.0017		1.0000	07/21/95	08:42	das	0.05	ICP-QC
86	1887	3			ICSA	BE				0.0004		1.0000	07/21/95	08:42	das	0.005	ICP-QC
87	1887	3			ICSA	BI				-0.0392		1.0000	07/21/95	08:42	das	0.1	ICP-QC
88	1887	3			ICSA	CA				250.8392		1.0000	07/21/95	08:42	das	0.1	ICP-QC
89	1887	3			ICSA	CD				0.0030		1.0000	07/21/95	08:42	das	0.01	ICP-QC
90	1887	3			ICSA	CE				0.0016		1.0000	07/21/95	08:42	das	0.1	ICP-QC
91	1887	3			ICSA	CO				0.0016		1.0000	07/21/95	08:42	das	0.02	ICP-QC
92	1887	3			ICSA	CR				0.0057		1.0000	07/21/95	08:42	das	0.01	ICP-QC
93	1887	3			ICSA												

ICP MACRO

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
123	1887	4			ICSA8	AS				-0.0014		1.0000	07/21/95	08:45	dis	0.05	ICP-QC
124	1887	4			ICSA8	B				-0.0005		1.0000	07/21/95	08:45	dis	0.05	ICP-QC
125	1887	4			ICSA8	BA				0.4679		1.0000	07/21/95	08:45	dis	0.05	ICP-QC
126	1887	4			ICSA8	BE				0.4833		1.0000	07/21/95	08:45	dis	0.05	ICP-QC
127	1887	4			ICSA8	BI				0.0004		1.0000	07/21/95	08:45	dis	0.1	ICP-QC
128	1887	4			ICSA8	CA				248.3521		1.0000	07/21/95	08:45	dis	0.1	ICP-QC
129	1887	4			ICSA8	CD				0.9568		1.0000	07/21/95	08:45	dis	0.01	ICP-QC
130	1887	4			ICSA8	CE				-0.0037		1.0000	07/21/95	08:45	dis	0.1	ICP-QC
131	1887	4			ICSA8	CO				0.4806		1.0000	07/21/95	08:45	dis	0.02	ICP-QC
132	1887	4			ICSA8	CR				0.4858		1.0000	07/21/95	08:45	dis	0.01	ICP-QC
133	1887	4			ICSA8	CU				0.4722		1.0000	07/21/95	08:45	dis	0.01	ICP-QC
134	1887	4			ICSA8	EU				-0.0359		1.0000	07/21/95	08:45	dis	0.03	ICP-QC
135	1887	4			ICSA8	FE				82.1717		1.0000	07/21/95	08:45	dis	0.05	ICP-QC
136	1887	4			ICSA8	K				-0.0986		1.0000	07/21/95	08:45	dis	0.3	ICP-QC
137	1887	4			ICSA8	LA				-0.0058		1.0000	07/21/95	08:45	dis	0.05	ICP-QC
138	1887	4			ICSA8	LI				0.9539		1.0000	07/21/95	08:45	dis	0.01	ICP-QC
139	1887	4			ICSA8	MG				245.4030		1.0000	07/21/95	08:45	dis	0.1	ICP-QC
140	1887	4			ICSA8	MN				0.4547		1.0000	07/21/95	08:45	dis	0.01	ICP-QC
141	1887	4			ICSA8	MO				-0.0132		1.0000	07/21/95	08:45	dis	0.05	ICP-QC
142	1887	4			ICSA8	NA				190.0575		1.0000	07/21/95	08:45	dis	0.1	ICP-QC
143	1887	4			ICSA8	NO				-0.0049		1.0000	07/21/95	08:45	dis	0.1	ICP-QC
144	1887	4			ICSA8	NI				0.9059		1.0000	07/21/95	08:45	dis	0.02	ICP-QC
145	1887	4			ICSA8	P				0.0143		1.0000	07/21/95	08:45	dis	0.2	ICP-QC
146	1887	4			ICSA8	PB				0.9780		1.0000	07/21/95	08:45	dis	0.1	ICP-QC
147	1887	4			ICSA8	S				-0.0205		1.0000	07/21/95	08:45	dis	0.05	ICP-QC
148	1887	4			ICSA8	SB				-0.0118		1.0000	07/21/95	08:45	dis	0.2	ICP-QC
149	1887	4			ICSA8	SE				-0.0085		1.0000	07/21/95	08:45	dis	0.1	ICP-QC
150	1887	4			ICSA8	SI				0.0515		1.0000	07/21/95	08:45	dis	0.05	ICP-QC
151	1887	4			ICSA8	SM				-0.0051		1.0000	07/21/95	08:45	dis	0.1	ICP-QC
152	1887	4			ICSA8	SR				0.0024		1.0000	07/21/95	08:45	dis	0.01	ICP-QC
153	1887	4			ICSA8	TH				-0.0283		1.0000	07/21/95	08:45	dis	0	ICP-QC
154	1887	4			ICSA8	TI				0.0009		1.0000	07/21/95	08:45	dis	0.01	ICP-QC
155	1887	4			ICSA8	TL				0.0535		1.0000	07/21/95	08:45	dis	0.2	ICP-QC
156	1887	4			ICSA8	U				-0.1253		1.0000	07/21/95	08:45	dis	0.4	ICP-QC
157	1887	4			ICSA8	V				0.4683		1.0000	07/21/95	08:45	dis	0.05	ICP-QC
158	1887	4			ICSA8	Y				0.0077		1.0000	07/21/95	08:45	dis	0.01	ICP-QC
159	1887	4			ICSA8	ZN				0.9892		1.0000	07/21/95	08:45	dis	0.01	ICP-QC
160	1887	4			ICSA8	ZR				0.0007		1.0000	07/21/95	08:45	dis	0.01	ICP-QC
161	1887	5	S95T001233		LF-F-01					0.2477		0.2477					
162	1887	6	S95T001233		DUP	LF-F-01				0.2459		1.8463					
163	1887	7	S95T001233_A		SPK	LF-F-01				135.0728		135.0728					
164	1887	8	S95T001248		DUP	LF-F-01				135.0728		401.0000	07/21/95	10:17	dis	0.01	ICP-F0
165	1887	9	S95T001248		SPK	LF-F-01				135.2654		401.0000	07/21/95	10:21	dis	0.01	ICP-F0
166	1887	10	S95T001248_A		SPK	LF-F-01				373.0598		401.0000	07/21/95	10:24	dis	0.01	ICP-F0
167	1887	11			ICSA	AG				0.0033		1.0000	07/21/95	10:33	dis	0.01	ICP-QC
168	1887	11			ICSA	AL				243.1116		1.0000	07/21/95	10:33	dis	0.05	ICP-QC
169	1887	11			ICSA	AS				-0.0278		1.0000	07/21/95	10:33	dis	0.05	ICP-QC
170	1887	11			ICSA	B				-0.0048		1.0000	07/21/95	10:33	dis	0.05	ICP-QC
171	1887	11			ICSA	BA				0.0017		1.0000	07/21/95	10:33	dis	0.05	ICP-QC
172	1887	11			ICSA	BE				0.0002		1.0000	07/21/95	10:33	dis	0.005	ICP-QC
173	1887	11			ICSA	BI				-0.0349		1.0000	07/21/95	10:33	dis	0.1	ICP-QC
174	1887	11			ICSA	CA				247.3078		1.0000	07/21/95	10:33	dis	0.1	ICP-QC
175	1887	11			ICSA	CD				0.0023		1.0000	07/21/95	10:33	dis	0.01	ICP-QC
176	1887	11			ICSA	CE				0.0126		1.0000	07/21/95	10:33	dis	0.1	ICP-QC
177	1887	11			ICSA	CO				0.0000		1.0000	07/21/95	10:33	dis	0.02	ICP-QC
178	1887	11			ICSA	CR				0.0048		1.0000	07/21/95	10:33	dis	0.01	ICP-QC
179	1887	11			ICSA	CU				-0.0105		1.0000	07/21/95	10:33	dis	0.01	ICP-QC
180	1887	11			ICSA	EU				-0.0219		1.0000	07/21/95	10:33	dis	0.05	ICP-QC
181	1887	11			ICSA	FE				92.3871		1.0000	07/21/95	10:33	dis	0.05	ICP-QC
182	1887	11			ICSA	K				-0.1270		1.0000	07/21/95	10:33	dis	0.3	ICP-QC
183	1887	11			ICSA	LA				-0.0033		1.0000	07/21/95	10:33	dis	0.05	ICP-QC
184	1887	11			ICSA	LI				0.0032		1.0000	07/21/95	10:33	dis	0.01	ICP-QC
185	1887	11			ICSA	MG				248.2134		1.0000	07/21/95	10:33	dis	0.1	ICP-QC
186	1887	11			ICSA	MN				-0.0055		1.0000	07/21/95	10:33	dis	0.01	ICP-QC
187	1887	11			ICSA	MO				-0.0122		1.0000	07/21/95	10:33	dis	0.05	ICP-QC
188	1887	11			ICSA	NA				186.1940		1.0000	07/21/95	10:33	dis	0.1	ICP-QC
189	1887	11			ICSA	NO				-0.0016		1.0000	07/21/95	10:33	dis	0.1	ICP-QC
190	1887	11			ICSA	NI				-0.0083		1.0000	07/21/95	10:33	dis	0.02	ICP-QC
191	1887	11			ICSA	P				-0.0340		1.0000	07/21/95	10:33	dis	0.2	ICP-QC
192	1887	11			ICSA	PB				0.0372		1.0000	07/21/95	10:33	dis	0.1	ICP-QC
193	1887	11			ICSA	S				-0.0130		1.0000	07/21/95	10:33	dis	0.05	ICP-QC
194	1887	11			ICSA	SB				0.0158		1.0000	07/21/95	10:33	dis	0.2	ICP-QC
195	1887	11			ICSA	SE				0.0359		1.0000	07/21/95	10:33	dis	0.1	ICP-QC
196	1887	11			ICSA	SI				0.0487		1.0000	07/21/95	10:33	dis	0.05	ICP-QC
197	1887	11			ICSA	SM				0.0008		1.0000	07/21/95	10:33	dis	0.1	ICP-QC
198	1887	11			ICSA	SR				0.0016		1.0000	07/21/95	10:33	dis	0.01	ICP-QC
199	1887	11			ICSA	TH				-0.0142		1.0000	07/21/95	10:33	dis	0	ICP-QC
200	1887	11			ICSA	TI				0.0006		1.0000	07/21/95	10:33	dis	0.01	ICP-QC
201	1887	11			ICSA	TL				0.0728		1.0000	07/21/95	10:33	dis	0.2	ICP-QC
202	1887	11			ICSA	U				-0.0884		1.0000	07/21/95	10:33	dis	0.4	ICP-QC
203	1887	11			ICSA	V				0.0004		1.0000	07/21/95	10:33	dis	0.05	ICP-QC
204	1887	11			ICSA	Y				0.0079		1.0000	07/21/95	10:33	dis	0.01	ICP-QC
205	1887	11			ICSA	ZN				-0.0040		1.0000	07/21/95	10:33	dis	0.01	ICP-QC
206	1887	11			ICSA	ZR				-0.0003		1.0000	07/21/95	10:33	dis	0.01	ICP-QC
207	1887	12			ICSA8	AG				0.5847		1.0000	07/21/95	10:36	dis	0.01	ICP-QC
208	1887	12			ICSA8	AL				243.7960		1.0000	07/21/95	10:36	dis	0.05	ICP-QC
209	1887	12			ICSA8	AS				-0.0398		1.0000	07/21/95	10:36	dis	0.05	ICP-QC
210	1887	12			ICSA8	B				-0.0043		1.0000	07/21/95	10:36	dis	0.05	ICP-QC
211	1887	12			ICSA8	BA				0.4591		1.0000	07/21/95	10:36	dis	0.05	ICP-QC
212	1887	12			ICSA8	BE				0.4828		1.0000	07/21/95	10:36	dis	0.005	ICP-QC
213	1887	12			ICSA8	BI				-0.0188		1.000					

ICP MACRO

OUTPUT	A	G	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
243	1887	12			ICSB	ZN				0.9724		1.0000	07/21/95	10:38	das	0.01	ICP-QC
246	1887	12			ICSB	ZR				-0.0007		1.0000	07/21/95	10:38	das	0.01	ICP-QC
247	1887	13			CCV	AG				5.0732		1.0000	07/21/95	10:43	das	0.01	ICP-QC
248	1887	13			CCV	AL				4.9085		1.0000	07/21/95	10:43	das	0.05	ICP-QC
249	1887	13			CCV	AS				5.0990		1.0000	07/21/95	10:43	das	0.05	ICP-QC
250	1887	13			CCV	B				4.9138		1.0000	07/21/95	10:43	das	0.05	ICP-QC
251	1887	13			CCV	BA				4.8834		1.0000	07/21/95	10:43	das	0.05	ICP-QC
252	1887	13			CCV	BE				5.1558		1.0000	07/21/95	10:43	das	0.005	ICP-QC
253	1887	13			CCV	BI				4.9379		1.0000	07/21/95	10:43	das	0.1	ICP-QC
254	1887	13			CCV	CA				5.2880		1.0000	07/21/95	10:43	das	0.1	ICP-QC
255	1887	13			CCV	CD				5.1040		1.0000	07/21/95	10:43	das	0.1	ICP-QC
256	1887	13			CCV	CE				5.0140		1.0000	07/21/95	10:43	das	0.1	ICP-QC
257	1887	13			CCV	CO				5.1230		1.0000	07/21/95	10:43	das	0.02	ICP-QC
258	1887	13			CCV	CR				5.1497		1.0000	07/21/95	10:43	das	0.01	ICP-QC
259	1887	13			CCV	CU				4.8438		1.0000	07/21/95	10:43	das	0.01	ICP-QC
260	1887	13			CCV	EU				0.0073		1.0000	07/21/95	10:43	das	0.05	ICP-QC
261	1887	13			CCV	FE				5.0873		1.0000	07/21/95	10:43	das	0.05	ICP-QC
262	1887	13			CCV	K				4.5871		1.0000	07/21/95	10:43	das	0.3	ICP-QC
263	1887	13			CCV	LA				4.9538		1.0000	07/21/95	10:43	das	0.05	ICP-QC
264	1887	13			CCV	LI				4.8857		1.0000	07/21/95	10:43	das	0.01	ICP-QC
265	1887	13			CCV	MG				4.9114		1.0000	07/21/95	10:43	das	0.1	ICP-QC
266	1887	13			CCV	NN				4.9798		1.0000	07/21/95	10:43	das	0.01	ICP-QC
267	1887	13			CCV	MO				5.0644		1.0000	07/21/95	10:43	das	0.05	ICP-QC
268	1887	13			CCV	NA				4.8382		1.0000	07/21/95	10:43	das	0.1	ICP-QC
269	1887	13			CCV	ND				5.0850		1.0000	07/21/95	10:43	das	0.1	ICP-QC
270	1887	13			CCV	NI				5.0831		1.0000	07/21/95	10:43	das	0.02	ICP-QC
271	1887	13			CCV	P				5.2497		1.0000	07/21/95	10:43	das	0.2	ICP-QC
272	1887	13			CCV	PB				5.1173		1.0000	07/21/95	10:43	das	0.1	ICP-QC
273	1887	13			CCV	S				5.0990		1.0000	07/21/95	10:43	das	0.05	ICP-QC
274	1887	13			CCV	SB				4.7738		1.0000	07/21/95	10:43	das	0.2	ICP-QC
275	1887	13			CCV	SE				5.1005		1.0000	07/21/95	10:43	das	0.1	ICP-QC
276	1887	13			CCV	SI				4.9622		1.0000	07/21/95	10:43	das	0.05	ICP-QC
277	1887	13			CCV	SM				4.9809		1.0000	07/21/95	10:43	das	0.1	ICP-QC
278	1887	13			CCV	SR				4.8895		1.0000	07/21/95	10:43	das	0.01	ICP-QC
279	1887	13			CCV	TH				-0.0027		1.0000	07/21/95	10:43	das	0	ICP-QC
280	1887	13			CCV	TI				4.8391		1.0000	07/21/95	10:43	das	0.01	ICP-QC
281	1887	13			CCV	TL				4.9453		1.0000	07/21/95	10:43	das	0.2	ICP-QC
282	1887	13			CCV	U				9.8580		1.0000	07/21/95	10:43	das	0.4	ICP-QC
283	1887	13			CCV	V				5.0134		1.0000	07/21/95	10:43	das	0.05	ICP-QC
284	1887	13			CCV	Y				0.0135		1.0000	07/21/95	10:43	das	0.01	ICP-QC
285	1887	13			CCV	ZN				5.0829		1.0000	07/21/95	10:43	das	0.01	ICP-QC
286	1887	13			CCV	ZR				4.9371		1.0000	07/21/95	10:43	das	0.01	ICP-QC
287	1887	14			CCB	AG				-0.0005		1.0000	07/21/95	10:47	das	0.01	ICP-QC
288	1887	14			CCB	AL				-0.0088		1.0000	07/21/95	10:47	das	0.05	ICP-QC
289	1887	14			CCB	AS				0.0093		1.0000	07/21/95	10:47	das	0.05	ICP-QC
290	1887	14			CCB	B				0.0005		1.0000	07/21/95	10:47	das	0.05	ICP-QC
291	1887	14			CCB	BA				0.0000		1.0000	07/21/95	10:47	das	0.05	ICP-QC
292	1887	14			CCB	BE				0.0001		1.0000	07/21/95	10:47	das	0.005	ICP-QC
293	1887	14			CCB	BI				-0.0290		1.0000	07/21/95	10:47	das	0.1	ICP-QC
294	1887	14			CCB	CA				0.0018		1.0000	07/21/95	10:47	das	0.1	ICP-QC
295	1887	14			CCB	CD				0.0010		1.0000	07/21/95	10:47	das	0.01	ICP-QC
296	1887	14			CCB	CE				-0.0045		1.0000	07/21/95	10:47	das	0.1	ICP-QC
297	1887	14			CCB	CO				0.0018		1.0000	07/21/95	10:47	das	0.02	ICP-QC
298	1887	14			CCB	CR				0.0004		1.0000	07/21/95	10:47	das	0.01	ICP-QC
299	1887	14			CCB	CU				-0.0000		1.0000	07/21/95	10:47	das	0.01	ICP-QC
300	1887	14			CCB	EU				0.0014		1.0000	07/21/95	10:47	das	0.05	ICP-QC
301	1887	14			CCB	FE				0.0000		1.0000	07/21/95	10:47	das	0.05	ICP-QC
302	1887	14			CCB	K				-0.2448		1.0000	07/21/95	10:47	das	0.3	ICP-QC
303	1887	14			CCB	LA				0.0001		1.0000	07/21/95	10:47	das	0.05	ICP-QC
304	1887	14			CCB	LI				0.0015		1.0000	07/21/95	10:47	das	0.01	ICP-QC
305	1887	14			CCB	MG				0.0038		1.0000	07/21/95	10:47	das	0.1	ICP-QC
306	1887	14			CCB	NN				0.0004		1.0000	07/21/95	10:47	das	0.01	ICP-QC
307	1887	14			CCB	MO				-0.0029		1.0000	07/21/95	10:47	das	0.05	ICP-QC
308	1887	14			CCB	NA				0.0099		1.0000	07/21/95	10:47	das	0.1	ICP-QC
309	1887	14			CCB	ND				0.0016		1.0000	07/21/95	10:47	das	0.1	ICP-QC
310	1887	14			CCB	NI				0.0012		1.0000	07/21/95	10:47	das	0.02	ICP-QC
311	1887	14			CCB	P				-0.0310		1.0000	07/21/95	10:47	das	0.2	ICP-QC
312	1887	14			CCB	PB				0.0027		1.0000	07/21/95	10:47	das	0.1	ICP-QC
313	1887	14			CCB	S				-0.0140		1.0000	07/21/95	10:47	das	0.05	ICP-QC
314	1887	14			CCB	SB				-0.0100		1.0000	07/21/95	10:47	das	0.2	ICP-QC
315	1887	14			CCB	SE				0.0068		1.0000	07/21/95	10:47	das	0.1	ICP-QC
316	1887	14			CCB	SI				0.0079		1.0000	07/21/95	10:47	das	0.05	ICP-QC
317	1887	14			CCB	SM				0.0172		1.0000	07/21/95	10:47	das	0.1	ICP-QC
318	1887	14			CCB	SR				0.0002		1.0000	07/21/95	10:47	das	0.01	ICP-QC
319	1887	14			CCB	TH				-0.0050		1.0000	07/21/95	10:47	das	0	ICP-QC
320	1887	14			CCB	TI				-0.0004		1.0000	07/21/95	10:47	das	0.01	ICP-QC
321	1887	14			CCB	TL				0.0090		1.0000	07/21/95	10:47	das	0.2	ICP-QC
322	1887	14			CCB	U				0.0490		1.0000	07/21/95	10:47	das	0.4	ICP-QC
323	1887	14			CCB	V				0.0025		1.0000	07/21/95	10:47	das	0.05	ICP-QC
324	1887	14			CCB	Y				0.0008		1.0000	07/21/95	10:47	das	0.01	ICP-QC
325	1887	14			CCB	ZN				-0.0008		1.0000	07/21/95	10:47	das	0.01	ICP-QC
326	1887	14			CCB	ZR				0.0024		1.0000	07/21/95	10:47	das	0.01	ICP-QC

WHC-SD-WM-DP-139, REV. 1

07/18/95 16:08
A-0004-1

WHC-SD-WM-DP-139, REV. 1

Page: 1

LABCORE Data Entry Template for Worklist# 1848

Analyst: JK Seto Instrument: ICP011 Book# 43848B

Method: LA-505-451/41 Rev/Mod A-1

Worklist Comment: ICP B-101 FUSION (Li only)

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	S95T001215	0 F	@ICP-F03	SOLID	95000091	B-101
	Analytes Requested: LI-F-01					
7 DUP	S95T001215	0 F	@ICP-F03	SOLID		
8 SPK	S95T001215	0 F	@ICP-F03	SOLID		
9 CCV			@ICP-QC	QC		
10 CCB			@ICP-QC	QC		
11 SAMPLE	S95T001218	0 F	@ICP-F03	SOLID	95000091	B-101
	Analytes Requested: LI-F-01					
12 DUP	S95T001218	0 F	@ICP-F03	SOLID		
13 SPK	S95T001218	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:

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

LABCORE Data Entry Template for Worklist# 1848

S Type Sample# R A Test Matrix Group# Project

Final page for worklist # 1848

JK
Analyst Signature Date 07-24-95

Reviewed and Validated by:
Sam M. Perry 07/24/95
Analyst Signature Date

Prepbl/KJG 1-9 ml

595T001215-L, .5504 g → 250 ml, 1-9-2-8, $(250 \times 50) / .5504 = 22711$
 595T001215, .5504 g → 250 1-9 $(250 \times 10) / .5504 = 4542$
 595T001215-D, .5403 g → 250 1-9 $(250 \times 10) / .5403 = 4628$
 595T001215-Q, .5504 g → 250 1-9 $(250 \times 10) / .5504 = 4542$, 1 ml sample + 2 ml SSTJ + 7 ml HNO₃
 595T001218-L, .5321 g → 250, 1-9-2-8, $(250 \times 50) / .5321 = 23492$
 595T001218, .5321 g → 250 1-9 $(250 \times 10) / .5321 = 4698$
 595T001218-D, .5358 g → 250 1-9 $(250 \times 10) / .5358 = 4666$
 595T001218-Q, .5321 g → 250 1-9 $(250 \times 10) / .5321 = 4698$, 1 ml sample + 2 ml SSTJ + 7 ml HNO₃

Data Entry Comments:

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

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICV	950721B	ICP2	07/21/95	13:42	DKS	Q	CONC
2	ICB	950721B	ICP2	07/21/95	13:45	DKS	Q	CONC
3	ICSA	950721B	ICP2	07/21/95	13:51	DKS	Q	CONC
4	ICSAB	950721B	ICP2	07/21/95	13:54	DKS	Q	CONC
5	PREPBLKTJA	950721B	ICP2	07/21/95	14:00	DKS	S	CONC
6	S95T001215 L	950721B	ICP2	07/21/95	14:05	DKS	S	CONC
7	S95T001215-	950721B	ICP2	07/21/95	14:08	DKS	S	CONC
8	S95T001215 D	950721B	ICP2	07/21/95	14:12	DKS	S	CONC
9	S95T001215-A	950721B	ICP2	07/21/95	14:16	DKS	S	CONC
10	CCV	950721B	ICP2	07/21/95	14:35	DKS	Q	CONC
11	CCB	950721B	ICP2	07/21/95	14:38	DKS	Q	CONC
12	S95T001218 L	950721B	ICP2	07/21/95	14:42	DKS	S	CONC
13	S95T001218-	950721B	ICP2	07/21/95	14:45	DKS	S	CONC
14	S95T001218 D	950721B	ICP2	07/21/95	14:49	DKS	S	CONC
15	S95T001218-A	950721B	ICP2	07/21/95	14:53	DKS	S	CONC
16	ICSA	950721B	ICP2	07/21/95	15:02	DKS	Q	CONC
17	ICSAB	950721B	ICP2	07/21/95	15:05	DKS	Q	CONC
18	CCV 1	950721B	ICP2	07/21/95	15:10	DKS	Q	CONC
19	CCB 1	950721B	ICP2	07/21/95	15:13	DKS	Q	CONC

JK *[Signature]*

07-21-95

B-101 S95T001215

S95T001218

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 230 TO 233.

WHC-SD-WM-DP-139, REV. 1

#	Sample Name	Ag	Al	As	B	Ba	Be
1	ICV	4.984	4.946	5.051	4.932	4.952	5.073
2	ICB	.0022	.0042	.0029	.0028	.0003	.0002
3	ICSA	-.0002	243.4	-.0928	-.0035	.0016	.0001
4	ICSAB	.9660	245.0	-.0772	-.0008	.4680	.4714
5	PREPBLKTJA	.0238	.2307	-.1387	-.0007	.0208	-.0009
6	S95T001215 L	510.9	32360.	-682.5	-73.52	678.2	-1.767
7	S95T001215-	519.4	32480.	-200.1	40.55	666.4	1.051
8	S95T001215 D	630.6	32960.	-195.0	5.858	671.8	1.113
9	S95T001215-A	4861.	37540.	4940.	4539.	4961.	4891.
10	CCV	4.850	4.907	4.999	4.953	4.910	5.074
11	CCB	-.0020	-.0073	-.0107	.0050	-.0001	-.0001
12	S95T001218 L	344.9	21180.	-286.5	156.9	225.6	-2.335
13	S95T001218-	348.8	20840.	-194.7	16.74	220.1	-.1357
14	S95T001218 D	346.0	19790.	-318.3	26.60	209.2	-.7344
15	S95T001218-A	4087.	24590.	4324.	4289.	4365.	4456.
16	ICSA	-.0016	241.4	-.1447	-.0069	.0016	-.0000
17	ICSAB	.9308	237.8	-.1364	-.0034	.4493	.4672
18	CCV 1	4.802	4.793	4.920	4.826	4.759	4.990
19	CCB 1	-.0002	-.0040	.0022	.0005	.0001	-.0001

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	ICV	4.966	5.023	4.953	5.053	4.989	4.999
2	ICB	.0310	.0017	.0011	.0038	.0038	.0008
3	ICSA	.0127	231.6	.0016	.0036	.0021	.0052
4	ICSAB	.0161	234.3	.9168	-.0001	.4538	.4661
5	PREPBLKTJA	.3920	.2507	.0250	.1157	.0611	.0235
6	S95T001215 L	520.3	1130.	114.3	1208.	30.19	3047.
7	S95T001215-	184.7	1045.	103.0	1346.	43.59	3073.
8	S95T001215 D	227.8	934.2	97.41	1050.	42.11	3190.
9	S95T001215-A	4826.	6251.	5201.	5804.	5038.	8227.
10	CCV	4.908	5.020	4.982	5.023	5.038	5.018
11	CCB	-.0238	.0002	.0000	-.0074	-.0008	-.0000
12	S95T001218 L	76.88	2122.	118.3	543.2	13.98	893.7
13	S95T001218-	1.793	2078.	110.6	461.0	21.13	900.5
14	S95T001218 D	-18.67	2020.	94.73	305.5	26.80	853.0
15	S95T001218-A	4419.	6457.	4611.	4626.	4537.	5387.
16	ICSA	-.0219	233.7	-.0019	.0082	-.0009	.0058
17	ICSAB	-.0423	234.9	.9279	.0126	.4613	.4728
18	CCV 1	4.873	5.036	4.953	4.864	4.992	4.983
19	CCB 1	.0155	.0001	-.0004	-.0013	-.0010	-.0005

#	Sample Name	Cu	Eu	Fe	K	La	Li
1	ICV	4.923	.0038	4.983	5.070	5.000	5.044
2	ICB	.0000	-.0010	.0011	.1233	.0015	-.0004
3	ICSA	-.0110	.0040	89.04	.0125	-.0042	.0016
4	ICSAB	.4762	.0022	89.93	.0446	-.0042	1.002
5	PREPBLKTJA	-.0765	.0174	.3464	17230.	.0206	.0161
6	S95T001215 L	210.1	75.11	92170.	7376e3	732.2	84.52
7	S95T001215-	200.7	18.21	92180.	7273e3	756.2	21.47

D.F 10

WHC-SD-WM-DP-139, REV. 1

#	Sample Name	Cu	Eu	Fe	K	La	Li
8	S95T001215_D	195.2	19.93	93140.	6322e3	744.3	23.74
9	S95T001215_A	4539.	28.14	101000.	7374e3	5194.	4112.
10	CCV	4.940	.0071	5.019	4.678	4.996	5.012
11	CCB	-.0009	.0004	.0000	-.2100	-.0006	.0001
12	S95T001218_L	91.81	26.88	22560.	6653e3	187.5	17.75
13	S95T001218-	93.89	23.18	22660.	6460e3	186.9	16.22
14	S95T001218_D	93.33	16.73	21090.	6248e3	154.2	12.08
15	S95T001218_A	4368.	25.02	26320.	6318e3	4475.	4263.
16	ICSA	-.0124	.0239	90.95	-.0493	-.0049	.0032
17	ICSAB	.4574	.0226	90.52	-.0114	-.0045	.9458
18	CCV_1	4.809	.0084	4.950	4.630	4.860	4.813
19	CCB_1	-.0007	.0022	-.0001	.0629	-.0001	.0017

#	Sample Name	Mg	Mn	Mo	Na	Nd	Ni
1	ICV	4.912	4.885	4.961	4.997	5.183	4.926
2	ICB	-.0031	-.0002	.0013	-.0066	.0020	-.0008
3	ICSA	245.5	-.0073	-.0064	194.5	.0044	-.0153
4	ICSAB	247.1	.4359	-.0115	196.9	.0032	.8819
5	PREPBLKTJA	.3929	.0475	.0229	4.802	.0885	10.99
6	S95T001215_L	1049.	12960.	52.51	108500.	945.0	9741.
7	S95T001215-	935.3	13190.	31.43	107400.	895.0	9937.
8	S95T001215_D	999.6	13530.	25.21	107900.	880.1	15790.
9	S95T001215_A	5362.	18650.	4998.	112300.	5420.	15420.
10	CCV	4.883	4.894	5.021	4.963	5.141	4.968
11	CCB	.0063	-.0001	-.0005	.0015	.0007	-.0020
12	S95T001218_L	686.5	11170.	-19.35	126100.	539.1	10440.
13	S95T001218-	514.0	11410.	-2.145	122200.	456.6	10390.
14	S95T001218_D	540.2	10730.	-5.041	121400.	444.5	13460.
15	S95T001218_A	4791.	15380.	4539.	124400.	4860.	14430.
16	ICSA	246.4	-.0073	-.0062	189.4	.0038	-.0176
17	ICSAB	243.6	.4371	-.0081	186.5	.0050	.8986
18	CCV_1	4.784	4.822	4.960	4.786	4.998	4.928
19	CCB_1	.0032	.0005	.0010	.0176	.0015	.0095

#	Sample Name	P	Pb	S	Sb	Se	Si
1	ICV	4.947	4.929	4.927	4.661	4.905	4.933
2	ICB	-.0082	-.0055	.0147	-.0027	-.0157	.0053
3	ICSA	-.0191	.0029	-.0350	.0060	-.0720	.0322
4	ICSAB	-.0225	.9526	-.0004	-.0061	-.0885	.0307
5	PREPBLKTJA	.2403	.1364	.0702	.1098	.5498	.1673
6	S95T001215_L	6423.	7986.	3885.	-48.89	642.7	19750.
7	S95T001215-	6564.	8164.	3864.	14.35	115.4	19900.
8	S95T001215_D	6304.	8155.	3935.	-52.62	53.55	20220.
9	S95T001215_A	12220.	13590.	8907.	4659.	5328.	25460.
10	CCV	5.041	4.969	4.979	4.738	4.888	Q4.485
11	CCB	.0155	.0051	.0023	.0000	-.0081	.0071
12	S95T001218_L	7819.	11010.	4231.	172.8	-472.5	8761.
13	S95T001218-	7658.	10950.	4515.	58.63	-232.0	8875.
14	S95T001218_D	7530.	10490.	4515.	-5.176	-303.3	8410.
15	S95T001218_A	12210.	14970.	9130.	4312.	4450.	12610.

WHC-SD-WM-DP-139, REV. 1

#	Sample Name	P	Pb	S	Sb	Se	Si
6	ICSA	.0107	.0230	-.0114	.0037	-.0709	.0233
7	ICSAB	-.0098	.9766	-.0337	-.0063	-.0535	.0280
18	CCV 1	4.946	4.962	4.933	4.676	4.883	Q4.440
19	CCB-1	.0133	.0132	.0016	.0052	.0074	.0115

#	Sample Name	Sm	Sr	Th	Ti	Tl	U
1	ICV	5.033	4.926	-.0245	4.811	4.893	10.01
2	ICB	-.0112	-.0001	.0086	.0002	.0152	-.0471
3	ICSA	-.0208	.0018	-.0221	.0008	.0175	.0305
4	ICSAB	-.0251	.0018	-.0166	.0008	.0639	-.0077
5	PREPBLKTJA	.1574	.0090	.3257	.0193	-.0977	-3.792
6	S95T001215 L	916.0	74.19	149.0	232.2	111.8	1581.
7	S95T001215	341.6	79.85	317.7	232.3	95.58	-718.9
8	S95T001215 D	352.0	80.38	200.0	227.9	23.36	-468.6
9	S95T001215-A	4735.	4445.	244.6	4748.	4839.	8165.
10	CCV	5.012	4.892	-.0176	4.863	4.901	10.02
11	CCB	.0028	.0005	-.0043	-.0002	-.0101	-.0009
12	S95T001218 L	362.4	77.77	244.9	80.93	-384.1	-556.2
13	S95T001218	267.7	84.24	284.5	75.11	56.86	-795.3
14	S95T001218 D	202.3	81.80	191.6	77.32	-39.96	-956.9
15	S95T001218-A	4494.	4297.	210.4	4334.	4253.	7704.
16	ICSA	-.0006	.0024	-.0183	.0008	-.0014	.1458
17	ICSAB	.0109	.0023	-.0112	.0014	.0198	.1409
18	CCV 1	4.867	4.771	-.0200	4.755	4.804	9.745
19	CCB-1	.0224	.0007	-.0105	.0002	.0034	.0853

#	Sample Name	V	Y	Zn	Zr
1	ICV	4.917	.0118	4.915	4.906
2	ICB	-.0026	-.0008	-.0014	-.0024
3	ICSA	-.0055	.0063	-.0030	-.0050
4	ICSAB	.4519	.0062	.9332	-.0056
5	PREPBLKTJA	.0363	.0078	.0342	-.0052
6	S95T001215 L	190.7	126.4	158.8	1446.
7	S95T001215	69.66	91.87	180.3	1342.
8	S95T001215 D	78.12	94.70	167.9	695.1
9	S95T001215-A	4840.	111.1	5206.	6072.
10	CCV	4.970	.0132	4.989	4.944
11	CCB	.0002	.0000	-.0009	.0003
12	S95T001218 L	72.35	71.85	241.6	143.0
13	S95T001218	52.88	69.64	218.6	127.1
14	S95T001218 D	38.79	64.77	209.8	119.5
15	S95T001218-A	4472.	77.37	4792.	4510.
16	ICSA	-.0018	.0078	-.0040	-.0010
17	ICSAB	.4604	.0083	.9524	-.0011
18	CCV 1	4.907	.0138	4.978	4.851
19	CCB-1	.0042	.0012	-.0015	.0030

JK L&D
07-21-95

WHC-SD-WM-DP-139, REV. 1

ICP MACRO

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	
1	1848	1			ICV	AG				4.9838			1.0000	07/21/95	13:42	das	0.01	ICP-QC
2	1848	1			ICV	AL				4.9459			1.0000	07/21/95	13:42	das	0.05	ICP-QC
3	1848	1			ICV	AS				5.0506			1.0000	07/21/95	13:42	das	0.05	ICP-QC
4	1848	1			ICV	B				4.9325			1.0000	07/21/95	13:42	das	0.05	ICP-QC
5	1848	1			ICV	BA				4.9523			1.0000	07/21/95	13:42	das	0.05	ICP-QC
6	1848	1			ICV	BE				5.0728			1.0000	07/21/95	13:42	das	0.005	ICP-QC
7	1848	1			ICV	BI				4.9459			1.0000	07/21/95	13:42	das	0.1	ICP-QC
8	1848	1			ICV	CA				5.0227			1.0000	07/21/95	13:42	das	0.01	ICP-QC
9	1848	1			ICV	CD				4.9528			1.0000	07/21/95	13:42	das	0.1	ICP-QC
10	1848	1			ICV	CE				5.0528			1.0000	07/21/95	13:42	das	0.02	ICP-QC
11	1848	1			ICV	CO				4.9887			1.0000	07/21/95	13:42	das	0.01	ICP-QC
12	1848	1			ICV	CR				4.9987			1.0000	07/21/95	13:42	das	0.01	ICP-QC
13	1848	1			ICV	CU				4.9228			1.0000	07/21/95	13:42	das	0.05	ICP-QC
14	1848	1			ICV	EU				0.0038			1.0000	07/21/95	13:42	das	0.05	ICP-QC
15	1848	1			ICV	FE				4.9828			1.0000	07/21/95	13:42	das	0.3	ICP-QC
16	1848	1			ICV	K				6.0700			1.0000	07/21/95	13:42	das	0.05	ICP-QC
17	1848	1			ICV	LA				4.9997			1.0000	07/21/95	13:42	das	0.01	ICP-QC
18	1848	1			ICV	LI				5.0442			1.0000	07/21/95	13:42	das	0.01	ICP-QC
19	1848	1			ICV	MG				4.9121			1.0000	07/21/95	13:42	das	0.01	ICP-QC
20	1848	1			ICV	MN				4.8853			1.0000	07/21/95	13:42	das	0.05	ICP-QC
21	1848	1			ICV	MO				4.9807			1.0000	07/21/95	13:42	das	0.01	ICP-QC
22	1848	1			ICV	NA				4.9972			1.0000	07/21/95	13:42	das	0.01	ICP-QC
23	1848	1			ICV	ND				5.1827			1.0000	07/21/95	13:42	das	0.02	ICP-QC
24	1848	1			ICV	NI				4.9280			1.0000	07/21/95	13:42	das	0.2	ICP-QC
25	1848	1			ICV	P				4.9471			1.0000	07/21/95	13:42	das	0.1	ICP-QC
26	1848	1			ICV	PB				4.9287			1.0000	07/21/95	13:42	das	0.05	ICP-QC
27	1848	1			ICV	S				4.9270			1.0000	07/21/95	13:42	das	0.2	ICP-QC
28	1848	1			ICV	SB				4.9506			1.0000	07/21/95	13:42	das	0.01	ICP-QC
29	1848	1			ICV	SE				4.9047			1.0000	07/21/95	13:42	das	0.05	ICP-QC
30	1848	1			ICV	SI				4.9328			1.0000	07/21/95	13:42	das	0.01	ICP-QC
31	1848	1			ICV	SM				5.0331			1.0000	07/21/95	13:42	das	0.01	ICP-QC
32	1848	1			ICV	SR				4.9256			1.0000	07/21/95	13:42	das	0.01	ICP-QC
33	1848	1			ICV	TH				-0.0245			1.0000	07/21/95	13:42	das	0.01	ICP-QC
34	1848	1			ICV	TI				4.8115			1.0000	07/21/95	13:42	das	0.2	ICP-QC
35	1848	1			ICV	TL				4.8931			1.0000	07/21/95	13:42	das	0.4	ICP-QC
36	1848	1			ICV	U				10.0113			1.0000	07/21/95	13:42	das	0.05	ICP-QC
37	1848	1			ICV	V				4.9172			1.0000	07/21/95	13:42	das	0.01	ICP-QC
38	1848	1			ICV	Y				0.0118			1.0000	07/21/95	13:42	das	0.01	ICP-QC
39	1848	1			ICV	ZN				4.9145			1.0000	07/21/95	13:42	das	0.01	ICP-QC
40	1848	1			ICV	ZR				4.9059			1.0000	07/21/95	13:42	das	0.01	ICP-QC
41	1848	2			ICB	AG				0.0022			1.0000	07/21/95	13:45	das	0.05	ICP-QC
42	1848	2			ICB	AL				0.0042			1.0000	07/21/95	13:45	das	0.05	ICP-QC
43	1848	2			ICB	AS				0.0029			1.0000	07/21/95	13:45	das	0.05	ICP-QC
44	1848	2			ICB	B				0.0028			1.0000	07/21/95	13:45	das	0.05	ICP-QC
45	1848	2			ICB	BA				0.0003			1.0000	07/21/95	13:45	das	0.005	ICP-QC
46	1848	2			ICB	BE				0.0002			1.0000	07/21/95	13:45	das	0.1	ICP-QC
47	1848	2			ICB	BI				0.0310			1.0000	07/21/95	13:45	das	0.1	ICP-QC
48	1848	2			ICB	CA				0.0017			1.0000	07/21/95	13:45	das	0.01	ICP-QC
49	1848	2			ICB	CD				0.0011			1.0000	07/21/95	13:45	das	0.01	ICP-QC
50	1848	2			ICB	CE				0.0038			1.0000	07/21/95	13:45	das	0.02	ICP-QC
51	1848	2			ICB	CO				0.0038			1.0000	07/21/95	13:45	das	0.01	ICP-QC
52	1848	2			ICB	CR				0.0008			1.0000	07/21/95	13:45	das	0.01	ICP-QC
53	1848	2			ICB	CU				0.0000			1.0000	07/21/95	13:45	das	0.05	ICP-QC
54	1848	2			ICB	EU				-0.0010			1.0000	07/21/95	13:45	das	0.05	ICP-QC
55	1848	2			ICB	FE				0.0011			1.0000	07/21/95	13:45	das	0.05	ICP-QC
56	1848	2			ICB	K				0.1233			1.0000	07/21/95	13:45	das	0.05	ICP-QC
57	1848	2			ICB	LA				0.0015			1.0000	07/21/95	13:45	das	0.01	ICP-QC
58	1848	2			ICB	LI				-0.0004			1.0000	07/21/95	13:45	das	0.01	ICP-QC
59	1848	2			ICB	MG				-0.0031			1.0000	07/21/95	13:45	das	0.05	ICP-QC
60	1848	2			ICB	MN				-0.0002			1.0000	07/21/95	13:45	das	0.01	ICP-QC
61	1848	2			ICB	MO				0.0013			1.0000	07/21/95	13:45	das	0.05	ICP-QC
62	1848	2			ICB	NA				-0.0008			1.0000	07/21/95	13:45	das	0.1	ICP-QC
63	1848	2			ICB	ND				0.0020			1.0000	07/21/95	13:45	das	0.02	ICP-QC
64	1848	2			ICB	NI				-0.0008			1.0000	07/21/95	13:45	das	0.2	ICP-QC
65	1848	2			ICB	P				-0.0062			1.0000	07/21/95	13:45	das	0.1	ICP-QC
66	1848	2			ICB	PB				-0.0055			1.0000	07/21/95	13:45	das	0.05	ICP-QC
67	1848	2			ICB	S				0.0147			1.0000	07/21/95	13:45	das	0.2	ICP-QC
68	1848	2			ICB	SB				-0.0227			1.0000	07/21/95	13:45	das	0.01	ICP-QC
69	1848	2			ICB	SE				-0.0197			1.0000	07/21/95	13:45	das	0.05	ICP-QC
70	1848	2			ICB	SI				0.0053			1.0000	07/21/95	13:45	das	0.01	ICP-QC
71	1848	2			ICB	SM				-0.0112			1.0000	07/21/95	13:45	das	0.01	ICP-QC
72	1848	2			ICB	SR				-0.0001			1.0000	07/21/95	13:45	das	0.01	ICP-QC
73	1848	2			ICB	TH				0.0086			1.0000	07/21/95	13:45	das	0.01	ICP-QC
74	1848	2			ICB	TI				0.0002			1.0000	07/21/95	13:45	das	0.2	ICP-QC
75	1848	2			ICB	TL				0.0152			1.0000	07/21/95	13:45	das	0.4	ICP-QC
76	1848	2			ICB	U				-0.0471			1.0000	07/21/95	13:45	das	0.05	ICP-QC
77	1848	2			ICB	V				-0.0026			1.0000	07/21/95	13:45	das	0.01	ICP-QC
78	1848	2			ICB	Y				-0.0008			1.0000	07/21/95	13:45	das	0.01	ICP-QC
79	1848	2			ICB	ZN				-0.0014			1.0000	07/21/95	13:45	das	0.01	ICP-QC
80	1848	2			ICB	ZR				-0.0024			1.0000	07/21/95	13:45	das	0.05	ICP-QC
81	1848	3			ICSA	AG				-0.0002			1.0000	07/21/95	13:51	das	0.05	ICP-QC
82	1848	3			ICSA	AL				243.3904			1.0000	07/21/95	13:51	das	0.05	ICP-QC
83	1848	3			ICSA	AS				-0.0928			1.0000	07/21/95	13:51	das	0.05	ICP-QC
84	1848	3			ICSA	B				-0.0035			1.0000	07/21/95	13:51	das	0.05	ICP-QC
85	1848	3			ICSA	BA				0.0016			1.0000	07/21/95	13:51	das	0.005	ICP-QC
86	1848	3			ICSA	BE				0.0001			1.0000	07/21/95	13:51	das	0.01	ICP-QC
87	1848	3			ICSA	BI				0.0127			1.0000	07/21/95	13:51	das	0.1	ICP-QC
88	1848	3			ICSA	CA				231.8250			1.0000	07/21/95	13:51	das	0.01	ICP-QC
89	1848	3			ICSA	CD				0.0018			1.0000	07/21/95	13:51	das	0.01	ICP-QC
90	1848	3			ICSA	CE				0								

ICP MACRO

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
123	1848	4			ICISAB	AS				-0.0772		1.0000	07/21/95	13.54	die	0.03	ICCP-QC
124	1848	4			ICISAB	B				-0.0006		1.0000	07/21/95	13.54	die	0.03	ICCP-QC
125	1848	4			ICISAB	BA				0.4880		1.0000	07/21/95	13.54	die	0.03	ICCP-QC
126	1848	4			ICISAB	BE				0.4714		1.0000	07/21/95	13.54	die	0.003	ICCP-QC
127	1848	4			ICISAB	BI				0.0161		1.0000	07/21/95	13.54	die	0.1	ICCP-QC
128	1848	4			ICISAB	CA				234.3454		1.0000	07/21/95	13.54	die	0.1	ICCP-QC
129	1848	4			ICISAB	CD				0.9168		1.0000	07/21/95	13.54	die	0.01	ICCP-QC
130	1848	4			ICISAB	CE				-0.0001		1.0000	07/21/95	13.54	die	0.1	ICCP-QC
131	1848	4			ICISAB	CO				0.4338		1.0000	07/21/95	13.54	die	0.02	ICCP-QC
132	1848	4			ICISAB	CR				0.4961		1.0000	07/21/95	13.54	die	0.01	ICCP-QC
133	1848	4			ICISAB	CU				0.4762		1.0000	07/21/95	13.54	die	0.01	ICCP-QC
134	1848	4			ICISAB	EA				0.0022		1.0000	07/21/95	13.54	die	0.05	ICCP-QC
135	1848	4			ICISAB	FE				89.9316		1.0000	07/21/95	13.54	die	0.05	ICCP-QC
136	1848	4			ICISAB	K				0.0446		1.0000	07/21/95	13.54	die	0.3	ICCP-QC
137	1848	4			ICISAB	LA				-0.0042		1.0000	07/21/95	13.54	die	0.05	ICCP-QC
138	1848	4			ICISAB	LI				1.0018		1.0000	07/21/95	13.54	die	0.01	ICCP-QC
139	1848	4			ICISAB	MG				247.1184		1.0000	07/21/95	13.54	die	0.1	ICCP-QC
140	1848	4			ICISAB	MN				0.4359		1.0000	07/21/95	13.54	die	0.01	ICCP-QC
141	1848	4			ICISAB	MO				-0.0115		1.0000	07/21/95	13.54	die	0.05	ICCP-QC
142	1848	4			ICISAB	NA				195.8311		1.0000	07/21/95	13.54	die	0.1	ICCP-QC
143	1848	4			ICISAB	NO				0.0025		1.0000	07/21/95	13.54	die	0.1	ICCP-QC
144	1848	4			ICISAB	N				0.8810		1.0000	07/21/95	13.54	die	0.02	ICCP-QC
145	1848	4			ICISAB	P				-0.0225		1.0000	07/21/95	13.54	die	0.2	ICCP-QC
146	1848	4			ICISAB	PB				0.8636		1.0000	07/21/95	13.54	die	0.1	ICCP-QC
147	1848	4			ICISAB	S				-0.0004		1.0000	07/21/95	13.54	die	0.05	ICCP-QC
148	1848	4			ICISAB	SB				-0.0081		1.0000	07/21/95	13.54	die	0.2	ICCP-QC
149	1848	4			ICISAB	SE				-0.0885		1.0000	07/21/95	13.54	die	0.1	ICCP-QC
150	1848	4			ICISAB	SI				0.0307		1.0000	07/21/95	13.54	die	0.05	ICCP-QC
151	1848	4			ICISAB	SN				-0.0251		1.0000	07/21/95	13.54	die	0.1	ICCP-QC
152	1848	4			ICISAB	SR				0.0016		1.0000	07/21/95	13.54	die	0.04	ICCP-QC
153	1848	4			ICISAB	TH				-0.0186		1.0000	07/21/95	13.54	die	0	ICCP-QC
154	1848	4			ICISAB	TI				0.0008		1.0000	07/21/95	13.54	die	0.01	ICCP-QC
155	1848	4			ICISAB	TL				0.0639		1.0000	07/21/95	13.54	die	0.2	ICCP-QC
156	1848	4			ICISAB	U				-0.0077		1.0000	07/21/95	13.54	die	0.4	ICCP-QC
157	1848	4			ICISAB	V				0.4510		1.0000	07/21/95	13.54	die	0.05	ICCP-QC
158	1848	4			ICISAB	Y				0.0002		1.0000	07/21/95	13.54	die	0.01	ICCP-QC
159	1848	4			ICISAB	ZN				0.9332		1.0000	07/21/95	13.54	die	0.01	ICCP-QC
160	1848	4			ICISAB	ZR				-0.0056		1.0000	07/21/95	13.54	die	0.01	ICCP-QC
161	1848	5			PREPBLKTJA	AG-F-01				0.0236		10.0000	07/21/95	14.00	die	0.01	ICCP-F0
162	1848	5			PREPBLKTJA	AL-F-01				0.2307		10.0000	07/21/95	14.00	die	0.05	ICCP-F0
163	1848	5			PREPBLKTJA	AS-F-01				-0.1387		10.0000	07/21/95	14.00	die	0.05	ICCP-F0
164	1848	5			PREPBLKTJA	B-F-01				-0.0007		10.0000	07/21/95	14.00	die	0.05	ICCP-F0
165	1848	5			PREPBLKTJA	BA-F-01				0.0208		10.0000	07/21/95	14.00	die	0.05	ICCP-F0
166	1848	5			PREPBLKTJA	BE-F-01				-0.0009		10.0000	07/21/95	14.00	die	0.005	ICCP-F0
167	1848	5			PREPBLKTJA	BI-F-01				0.3920		10.0000	07/21/95	14.00	die	0.1	ICCP-F0
168	1848	5			PREPBLKTJA	CA-F-01				0.2507		10.0000	07/21/95	14.00	die	0.1	ICCP-F0
169	1848	5			PREPBLKTJA	CD-F-01				0.0250		10.0000	07/21/95	14.00	die	0.01	ICCP-F0
170	1848	5			PREPBLKTJA	CE-F-01				0.1157		10.0000	07/21/95	14.00	die	0.1	ICCP-F0
171	1848	5			PREPBLKTJA	CO-F-01				0.0611		10.0000	07/21/95	14.00	die	0.02	ICCP-F0
172	1848	5			PREPBLKTJA	CR-F-01				0.0235		10.0000	07/21/95	14.00	die	0.01	ICCP-F0
173	1848	5			PREPBLKTJA	CU-F-01				0.0765		10.0000	07/21/95	14.00	die	0.01	ICCP-F0
174	1848	5			PREPBLKTJA	EU-F-01				0.0174		10.0000	07/21/95	14.00	die	0.05	ICCP-F0
175	1848	5			PREPBLKTJA	FE-F-01				0.3464		10.0000	07/21/95	14.00	die	0.05	ICCP-F0
176	1848	5			PREPBLKTJA	K-F-01				17233.7594		10.0000	07/21/95	14.00	die	0.3	ICCP-F0
177	1848	5			PREPBLKTJA	LA-F-01				0.0205		10.0000	07/21/95	14.00	die	0.05	ICCP-F0
178	1848	5			PREPBLKTJA	LI-F-01				0.0161		10.0000	07/21/95	14.00	die	0.01	ICCP-F0
179	1848	5			PREPBLKTJA	MG-F-01				0.3929		10.0000	07/21/95	14.00	die	0.1	ICCP-F0
180	1848	5			PREPBLKTJA	MN-F-01				0.0475		10.0000	07/21/95	14.00	die	0.01	ICCP-F0
181	1848	5			PREPBLKTJA	MO-F-01				0.0229		10.0000	07/21/95	14.00	die	0.05	ICCP-F0
182	1848	5			PREPBLKTJA	NA-F-01				4.8022		10.0000	07/21/95	14.00	die	0.1	ICCP-F0
183	1848	5			PREPBLKTJA	NO-F-01				0.8885		10.0000	07/21/95	14.00	die	0.1	ICCP-F0
184	1848	5			PREPBLKTJA	N-F-01				10.9833		10.0000	07/21/95	14.00	die	0.02	ICCP-F0
185	1848	5			PREPBLKTJA	P-F-01				0.2403		10.0000	07/21/95	14.00	die	0.2	ICCP-F0
186	1848	5			PREPBLKTJA	PB-F-01				0.1364		10.0000	07/21/95	14.00	die	0.1	ICCP-F0
187	1848	5			PREPBLKTJA	S-F-01				0.0702		10.0000	07/21/95	14.00	die	0.05	ICCP-F0
188	1848	5			PREPBLKTJA	SB-F-01				0.1098		10.0000	07/21/95	14.00	die	0.2	ICCP-F0
189	1848	5			PREPBLKTJA	SE-F-01				0.5498		10.0000	07/21/95	14.00	die	0.1	ICCP-F0
190	1848	5			PREPBLKTJA	SI-F-01				0.1673		10.0000	07/21/95	14.00	die	0.05	ICCP-F0
191	1848	5			PREPBLKTJA	SN-F-01				0.1574		10.0000	07/21/95	14.00	die	0.1	ICCP-F0
192	1848	5			PREPBLKTJA	SR-F-01				0.0090		10.0000	07/21/95	14.00	die	0.01	ICCP-F0
193	1848	5			PREPBLKTJA	TH-F-01				0.3257		10.0000	07/21/95	14.00	die	0	ICCP-F0
194	1848	5			PREPBLKTJA	TI-F-01				0.0193		10.0000	07/21/95	14.00	die	0.01	ICCP-F0
195	1848	5			PREPBLKTJA	TL-F-01				-0.0977		10.0000	07/21/95	14.00	die	0.2	ICCP-F0
196	1848	5			PREPBLKTJA	U-F-01				-3.7917		10.0000	07/21/95	14.00	die	0.4	ICCP-F0
197	1848	5			PREPBLKTJA	V-F-01				0.0363		10.0000	07/21/95	14.00	die	0.05	ICCP-F0
198	1848	5			PREPBLKTJA	Y-F-01				0.0076		10.0000	07/21/95	14.00	die	0.01	ICCP-F0
199	1848	5			PREPBLKTJA	ZN-F-01				0.0342		10.0000	07/21/95	14.00	die	0.01	ICCP-F0
200	1848	5			PREPBLKTJA	ZR-F-01				-0.0052		10.0000	07/21/95	14.00	die	0.01	ICCP-F0
201	1848	6	S95T001215		LI-F-01					45.4200		4542.0000	07/21/95	14.08	die	0.01	ICCP-F0
202	1848	7	S95T001215		DUP	LI-F-01				<45.4200		448.2800	07/21/95	14.12	die	0.01	ICCP-F0
203	1848	8	S95T001215_A		SPK	LI-F-01				4542.0		4111.9390	07/21/95	14.16	die	0.01	ICCP-F0
204	1848	9			CCV	AG						1.0000	07/21/95	14.35	die	0.01	ICCP-QC
205	1848	9			CCV	AL				4.8496		1.0000	07/21/95	14.35	die	0.05	ICCP-QC
206	1848	9			CCV	AS				4.9073		1.0000	07/21/95	14.35	die	0.05	ICCP-QC
207	1848	9			CCV	B				4.9994		1.0000	07/21/95	14.35	die	0.05	ICCP-QC
208	1848	9			CCV	BA				4.9531		1.0000	07/21/95	14.35	die	0.05	ICCP-QC
209	1848	9			CCV	BE				4.9095		1.0000	07/21/95	14.35	die	0.05	ICCP-QC
210	1848	9			CCV	BI				5.0736		1.0000	07/21/95	14.35	die	0.005	ICCP-QC
211	1848	9			CCV	CA				4.							

ICP MACRO

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
243	1848	10			CCB	AL				-0.0073		1.0000	07/21/95	14:38	das	0.05	ICP-CC
244	1848	10			CCB	AS				-0.0107		1.0000	07/21/95	14:38	das	0.06	ICP-CC
247	1848	10			CCB	B				0.0050		1.0000	07/21/95	14:38	das	0.06	ICP-CC
248	1848	10			CCB	BA				-0.0001		1.0000	07/21/95	14:38	das	0.05	ICP-CC
249	1848	10			CCB	BE				-0.0001		1.0000	07/21/95	14:38	das	0.005	ICP-CC
250	1848	10			CCB	BI				-0.0238		1.0000	07/21/95	14:38	das	0.1	ICP-CC
251	1848	10			CCB	CA				0.0002		1.0000	07/21/95	14:38	das	0.1	ICP-CC
252	1848	-10			CCB	CD				0.0000		1.0000	07/21/95	14:38	das	0.01	ICP-CC
253	1848	10			CCB	CE				-0.0074		1.0000	07/21/95	14:38	das	0.1	ICP-CC
254	1848	10			CCB	CO				-0.0008		1.0000	07/21/95	14:38	das	0.02	ICP-CC
255	1848	10			CCB	CR				-0.0000		1.0000	07/21/95	14:38	das	0.01	ICP-CC
256	1848	10			CCB	CU				-0.0000		1.0000	07/21/95	14:38	das	0.01	ICP-CC
257	1848	10			CCB	EU				0.0004		1.0000	07/21/95	14:38	das	0.05	ICP-CC
258	1848	10			CCB	FE				0.0000		1.0000	07/21/95	14:38	das	0.05	ICP-CC
259	1848	10			CCB	K				-0.2100		1.0000	07/21/95	14:38	das	0.3	ICP-CC
260	1848	10			CCB	LA				-0.0006		1.0000	07/21/95	14:38	das	0.05	ICP-CC
261	1848	10			CCB	LI				0.0001		1.0000	07/21/95	14:38	das	0.01	ICP-CC
262	1848	10			CCB	MG				0.0083		1.0000	07/21/95	14:38	das	0.1	ICP-CC
263	1848	10			CCB	MN				-0.0001		1.0000	07/21/95	14:38	das	0.01	ICP-CC
264	1848	10			CCB	MO				-0.0005		1.0000	07/21/95	14:38	das	0.05	ICP-CC
265	1848	10			CCB	NA				0.0015		1.0000	07/21/95	14:38	das	0.1	ICP-CC
266	1848	10			CCB	NO				0.0007		1.0000	07/21/95	14:38	das	0.1	ICP-CC
267	1848	10			CCB	NI				-0.0020		1.0000	07/21/95	14:38	das	0.02	ICP-CC
268	1848	10			CCB	P				0.0155		1.0000	07/21/95	14:38	das	0.2	ICP-CC
269	1848	10			CCB	PB				0.0051		1.0000	07/21/95	14:38	das	0.1	ICP-CC
270	1848	10			CCB	S				0.0023		1.0000	07/21/95	14:38	das	0.05	ICP-CC
271	1848	10			CCB	SB				0.0000		1.0000	07/21/95	14:38	das	0.2	ICP-CC
272	1848	10			CCB	SE				-0.0081		1.0000	07/21/95	14:38	das	0.1	ICP-CC
273	1848	10			CCB	SI				0.0071		1.0000	07/21/95	14:38	das	0.05	ICP-CC
274	1848	10			CCB	SM				0.0028		1.0000	07/21/95	14:38	das	0.1	ICP-CC
275	1848	10			CCB	SR				0.0005		1.0000	07/21/95	14:38	das	0.01	ICP-CC
276	1848	10			CCB	TH				-0.0043		1.0000	07/21/95	14:38	das	0	ICP-CC
277	1848	10			CCB	TI				-0.0002		1.0000	07/21/95	14:38	das	0.01	ICP-CC
278	1848	10			CCB	TL				-0.0101		1.0000	07/21/95	14:38	das	0.2	ICP-CC
279	1848	10			CCB	U				-0.0009		1.0000	07/21/95	14:38	das	0.4	ICP-CC
280	1848	10			CCB	V				0.0002		1.0000	07/21/95	14:38	das	0.05	ICP-CC
281	1848	10			CCB	Y				0.0000		1.0000	07/21/95	14:38	das	0.01	ICP-CC
282	1848	10			CCB	ZN				-0.0009		1.0000	07/21/95	14:38	das	0.01	ICP-CC
283	1848	10			CCB	ZR				0.0003		1.0000	07/21/95	14:38	das	0.01	ICP-CC
284	1848	11	S95T001218			LF-F-01				46.9800		46.9800	07/21/95	14:45	das	0.01	ICP-F0
285	1848	12	S95T001218		DUP	LF-F-01				446.0000		446.0000	07/21/95	14:40	das	0.01	ICP-F0
286	1848	13	S95T001218_A		SPK	LF-F-01				4262.0592		4262.0592	07/21/95	14:53	das	0.01	ICP-F0
287	1848	14			ICSA	AG				-0.0016		1.0000	07/21/95	15:02	das	0.01	ICP-CC
288	1848	14			ICSA	AL				241.3517		1.0000	07/21/95	15:02	das	0.05	ICP-CC
289	1848	14			ICSA	AS				-0.1447		1.0000	07/21/95	15:02	das	0.05	ICP-CC
290	1848	14			ICSA	B				-0.0089		1.0000	07/21/95	15:02	das	0.05	ICP-CC
291	1848	14			ICSA	BA				0.0016		1.0000	07/21/95	15:02	das	0.05	ICP-CC
292	1848	14			ICSA	BE				-0.0000		1.0000	07/21/95	15:02	das	0.005	ICP-CC
293	1848	14			ICSA	BI				-0.0219		1.0000	07/21/95	15:02	das	0.1	ICP-CC
294	1848	14			ICSA	CA				233.7117		1.0000	07/21/95	15:02	das	0.1	ICP-CC
295	1848	14			ICSA	CD				-0.0010		1.0000	07/21/95	15:02	das	0.01	ICP-CC
296	1848	14			ICSA	CE				0.0032		1.0000	07/21/95	15:02	das	0.1	ICP-CC
297	1848	14			ICSA	CO				-0.0009		1.0000	07/21/95	15:02	das	0.02	ICP-CC
298	1848	14			ICSA	CR				0.0053		1.0000	07/21/95	15:02	das	0.01	ICP-CC
299	1848	14			ICSA	CU				-0.0124		1.0000	07/21/95	15:02	das	0.01	ICP-CC
300	1848	14			ICSA	EU				0.0230		1.0000	07/21/95	15:02	das	0.05	ICP-CC
301	1848	14			ICSA	FE				90.9338		1.0000	07/21/95	15:02	das	0.05	ICP-CC
302	1848	14			ICSA	K				-0.0493		1.0000	07/21/95	15:02	das	0.3	ICP-CC
303	1848	14			ICSA	LA				-0.0049		1.0000	07/21/95	15:02	das	0.05	ICP-CC
304	1848	14			ICSA	LI				0.0032		1.0000	07/21/95	15:02	das	0.01	ICP-CC
305	1848	14			ICSA	MG				248.4258		1.0000	07/21/95	15:02	das	0.1	ICP-CC
306	1848	14			ICSA	MN				-0.0073		1.0000	07/21/95	15:02	das	0.01	ICP-CC
307	1848	14			ICSA	MO				-0.0062		1.0000	07/21/95	15:02	das	0.05	ICP-CC
308	1848	14			ICSA	NA				169.4408		1.0000	07/21/95	15:02	das	0.1	ICP-CC
309	1848	14			ICSA	ND				0.0038		1.0000	07/21/95	15:02	das	0.1	ICP-CC
310	1848	14			ICSA	NI				-0.0176		1.0000	07/21/95	15:02	das	0.02	ICP-CC
311	1848	14			ICSA	P				0.0107		1.0000	07/21/95	15:02	das	0.2	ICP-CC
312	1848	14			ICSA	PB				0.0230		1.0000	07/21/95	15:02	das	0.1	ICP-CC
313	1848	14			ICSA	S				-0.0114		1.0000	07/21/95	15:02	das	0.05	ICP-CC
314	1848	14			ICSA	SB				0.0037		1.0000	07/21/95	15:02	das	0.2	ICP-CC
315	1848	14			ICSA	SE				-0.0709		1.0000	07/21/95	15:02	das	0.1	ICP-CC
316	1848	14			ICSA	SI				0.0233		1.0000	07/21/95	15:02	das	0.05	ICP-CC
317	1848	14			ICSA	SM				-0.0006		1.0000	07/21/95	15:02	das	0.1	ICP-CC
318	1848	14			ICSA	SR				0.0024		1.0000	07/21/95	15:02	das	0.01	ICP-CC
319	1848	14			ICSA	TH				-0.0183		1.0000	07/21/95	15:02	das	0	ICP-CC
320	1848	14			ICSA	TI				0.0008		1.0000	07/21/95	15:02	das	0.01	ICP-CC
321	1848	14			ICSA	TL				-0.0014		1.0000	07/21/95	15:02	das	0.2	ICP-CC
322	1848	14			ICSA	U				0.1458		1.0000	07/21/95	15:02	das	0.4	ICP-CC
323	1848	14			ICSA	V				-0.0018		1.0000	07/21/95	15:02	das	0.05	ICP-CC
324	1848	14			ICSA	Y				0.0078		1.0000	07/21/95	15:02	das	0.01	ICP-CC
325	1848	14			ICSA	ZN				-0.0040		1.0000	07/21/95	15:02	das	0.01	ICP-CC
326	1848	14			ICSA	ZR				-0.0010		1.0000	07/21/95	15:02	das	0.01	ICP-CC
327	1848	15			ICSA	AG				0.0008		1.0000	07/21/95	15:05	das	0.01	ICP-CC
328	1848	15			ICSA	AL				237.8322		1.0000	07/21/95	15:05	das	0.05	ICP-CC
329	1848	15			ICSA	AS				-0.1384		1.0000	07/21/95	15:05	das	0.05	ICP-CC
330	1848	15			ICSA	B				-0.0034		1.0000	07/21/95	15:05	das	0.05	ICP-CC
331	1848	15			ICSA	BA				0.4493		1.0000	07/21/95	15:05	das	0.05	ICP-CC
332	1848	15			ICSA	BE				0.4672		1.0000	07/21/95	15:05	das	0.005	ICP-CC
333	1848	15			ICSA	BI				-0.0423		1.0000	07/21/95	15:05	das	0.1	ICP-CC
334	1848	15			ICSA	CA				234.8561		1.0000	07/21/95	15:05	das	0.1	ICP-CC
335	1848	15			ICSA	CD											

ICP MACRO

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
367	1848	10			CCV	AG				4.8021		1.0000	07/21/95	15:10	dis	0.01	ICP-QC
368	1848	10			CCV	AL				4.7933		1.0000	07/21/95	15:10	dis	0.05	ICP-QC
369	1848	10			CCV	AS				4.9196		1.0000	07/21/95	15:10	dis	0.05	ICP-QC
370	1848	10			CCV	B				4.8257		1.0000	07/21/95	15:10	dis	0.05	ICP-QC
371	1848	10			CCV	BA				4.7555		1.0000	07/21/95	15:10	dis	0.05	ICP-QC
372	1848	10			CCV	BE				4.9904		1.0000	07/21/95	15:10	dis	0.005	ICP-QC
373	1848	10			CCV	BI				4.8734		1.0000	07/21/95	15:10	dis	0.1	ICP-QC
374	1848	10			CCV	CA				5.0383		1.0000	07/21/95	15:10	dis	0.1	ICP-QC
375	1848	10			CCV	CD				4.9529		1.0000	07/21/95	15:10	dis	0.01	ICP-QC
376	1848	10			CCV	CE				4.8539		1.0000	07/21/95	15:10	dis	0.1	ICP-QC
377	1848	10			CCV	CO				4.9918		1.0000	07/21/95	15:10	dis	0.02	ICP-QC
378	1848	10			CCV	CR				4.9631		1.0000	07/21/95	15:10	dis	0.01	ICP-QC
379	1848	10			CCV	CU				4.8091		1.0000	07/21/95	15:10	dis	0.01	ICP-QC
380	1848	10			CCV	P				0.0084		1.0000	07/21/95	15:10	dis	0.05	ICP-QC
381	1848	10			CCV	FE				4.9502		1.0000	07/21/95	15:10	dis	0.05	ICP-QC
382	1848	10			CCV	K				4.8296		1.0000	07/21/95	15:10	dis	0.3	ICP-QC
383	1848	10			CCV	LA				4.8800		1.0000	07/21/95	15:10	dis	0.05	ICP-QC
384	1848	10			CCV	LI				4.8133		1.0000	07/21/95	15:10	dis	0.01	ICP-QC
385	1848	10			CCV	MG				4.7842		1.0000	07/21/95	15:10	dis	0.1	ICP-QC
386	1848	10			CCV	MN				4.8220		1.0000	07/21/95	15:10	dis	0.01	ICP-QC
387	1848	10			CCV	MO				4.9600		1.0000	07/21/95	15:10	dis	0.05	ICP-QC
388	1848	10			CCV	NA				4.7355		1.0000	07/21/95	15:10	dis	0.1	ICP-QC
389	1848	10			CCV	ND				4.9883		1.0000	07/21/95	15:10	dis	0.1	ICP-QC
390	1848	10			CCV	NI				4.9280		1.0000	07/21/95	15:10	dis	0.02	ICP-QC
391	1848	10			CCV	P				4.9483		1.0000	07/21/95	15:10	dis	0.2	ICP-QC
392	1848	10			CCV	PB				4.9622		1.0000	07/21/95	15:10	dis	0.1	ICP-QC
393	1848	10			CCV	S				4.9331		1.0000	07/21/95	15:10	dis	0.05	ICP-QC
394	1848	10			CCV	SB				4.8757		1.0000	07/21/95	15:10	dis	0.2	ICP-QC
395	1848	10			CCV	SE				4.8430		1.0000	07/21/95	15:10	dis	0.1	ICP-QC
396	1848	10			CCV	SI				4.4405		1.0000	07/21/95	15:10	dis	0.05	ICP-QC
397	1848	10			CCV	SM				4.8888		1.0000	07/21/95	15:10	dis	0.1	ICP-QC
398	1848	10			CCV	SR				4.7714		1.0000	07/21/95	15:10	dis	0.01	ICP-QC
399	1848	10			CCV	TH				-0.0200		1.0000	07/21/95	15:10	dis	0	ICP-QC
400	1848	10			CCV	TI				4.7547		1.0000	07/21/95	15:10	dis	0.01	ICP-QC
401	1848	10			CCV	TL				4.8040		1.0000	07/21/95	15:10	dis	0.2	ICP-QC
402	1848	10			CCV	U				9.7449		1.0000	07/21/95	15:10	dis	0.4	ICP-QC
403	1848	10			CCV	V				4.9099		1.0000	07/21/95	15:10	dis	0.05	ICP-QC
404	1848	10			CCV	Y				0.0138		1.0000	07/21/95	15:10	dis	0.01	ICP-QC
405	1848	10			CCV	ZN				4.9778		1.0000	07/21/95	15:10	dis	0.01	ICP-QC
406	1848	10			CCV	ZR				4.8512		1.0000	07/21/95	15:10	dis	0.01	ICP-QC
407	1848	17			CCB	AG				-0.0002		1.0000	07/21/95	15:13	dis	0.01	ICP-QC
408	1848	17			CCB	AL				-0.0040		1.0000	07/21/95	15:13	dis	0.05	ICP-QC
409	1848	17			CCB	AS				0.0022		1.0000	07/21/95	15:13	dis	0.05	ICP-QC
410	1848	17			CCB	B				0.0005		1.0000	07/21/95	15:13	dis	0.05	ICP-QC
411	1848	17			CCB	BA				0.0001		1.0000	07/21/95	15:13	dis	0.05	ICP-QC
412	1848	17			CCB	BE				-0.0001		1.0000	07/21/95	15:13	dis	0.05	ICP-QC
413	1848	17			CCB	BI				0.0155		1.0000	07/21/95	15:13	dis	0.1	ICP-QC
414	1848	17			CCB	CA				0.0001		1.0000	07/21/95	15:13	dis	0.1	ICP-QC
415	1848	17			CCB	CD				-0.0004		1.0000	07/21/95	15:13	dis	0.01	ICP-QC
416	1848	17			CCB	CE				-0.0013		1.0000	07/21/95	15:13	dis	0.1	ICP-QC
417	1848	17			CCB	CO				-0.0010		1.0000	07/21/95	15:13	dis	0.02	ICP-QC
418	1848	17			CCB	CR				-0.0005		1.0000	07/21/95	15:13	dis	0.01	ICP-QC
419	1848	17			CCB	CU				-0.0007		1.0000	07/21/95	15:13	dis	0.01	ICP-QC
420	1848	17			CCB	EU				0.0022		1.0000	07/21/95	15:13	dis	0.05	ICP-QC
421	1848	17			CCB	FE				-0.0001		1.0000	07/21/95	15:13	dis	0.05	ICP-QC
422	1848	17			CCB	K				0.0829		1.0000	07/21/95	15:13	dis	0.3	ICP-QC
423	1848	17			CCB	LA				-0.0001		1.0000	07/21/95	15:13	dis	0.05	ICP-QC
424	1848	17			CCB	LI				0.0017		1.0000	07/21/95	15:13	dis	0.01	ICP-QC
425	1848	17			CCB	MG				0.0032		1.0000	07/21/95	15:13	dis	0.1	ICP-QC
426	1848	17			CCB	MN				0.0005		1.0000	07/21/95	15:13	dis	0.01	ICP-QC
427	1848	17			CCB	MO				0.0010		1.0000	07/21/95	15:13	dis	0.05	ICP-QC
428	1848	17			CCB	NA				0.0176		1.0000	07/21/95	15:13	dis	0.1	ICP-QC
429	1848	17			CCB	ND				0.0016		1.0000	07/21/95	15:13	dis	0.1	ICP-QC
430	1848	17			CCB	NI				0.0095		1.0000	07/21/95	15:13	dis	0.02	ICP-QC
431	1848	17			CCB	P				0.0133		1.0000	07/21/95	15:13	dis	0.2	ICP-QC
432	1848	17			CCB	PB				0.0132		1.0000	07/21/95	15:13	dis	0.1	ICP-QC
433	1848	17			CCB	S				0.0018		1.0000	07/21/95	15:13	dis	0.05	ICP-QC
434	1848	17			CCB	SB				0.0052		1.0000	07/21/95	15:13	dis	0.2	ICP-QC
435	1848	17			CCB	SE				0.0074		1.0000	07/21/95	15:13	dis	0.1	ICP-QC
436	1848	17			CCB	SI				0.0115		1.0000	07/21/95	15:13	dis	0.05	ICP-QC
437	1848	17			CCB	SM				0.0224		1.0000	07/21/95	15:13	dis	0.1	ICP-QC
438	1848	17			CCB	SR				0.0007		1.0000	07/21/95	15:13	dis	0.01	ICP-QC
439	1848	17			CCB	TH				-0.0105		1.0000	07/21/95	15:13	dis	0	ICP-QC
440	1848	17			CCB	TI				0.0002		1.0000	07/21/95	15:13	dis	0.01	ICP-QC
441	1848	17			CCB	TL				0.0034		1.0000	07/21/95	15:13	dis	0.2	ICP-QC
442	1848	17			CCB	U				0.0853		1.0000	07/21/95	15:13	dis	0.4	ICP-QC
443	1848	17			CCB	V				0.0042		1.0000	07/21/95	15:13	dis	0.05	ICP-QC
444	1848	17			CCB	Y				0.0012		1.0000	07/21/95	15:13	dis	0.01	ICP-QC
445	1848	17			CCB	ZN				-0.0015		1.0000	07/21/95	15:13	dis	0.01	ICP-QC
446	1848	17			CCB	ZR				0.0030		1.0000	07/21/95	15:13	dis	0.01	ICP-QC

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LABCORE Data Entry Template for Worklist# 1858

Analyst: JK Scto Instrument: ICP02 Book# 43B48B
Method: LA-505-151/4 Rev/Mod Q-1

Worklist Comment: ICP B-101 FUSION (Li only)

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	S95T001230	0	F	@ICP-F03	SOLID	95000091	B-101
		Analytes Requested: LI-F-01						
7	DUP	S95T001230	0	F	@ICP-F03	SOLID		
8	SPK	S95T001230	0	F	@ICP-F03	SOLID		
9	CCV				@ICP-QC	QC		
10	CCB				@ICP-QC	QC		
11	SAMPLE	S95T001236	0	F	@ICP-F03	SOLID	95000093	B-101
		Analytes Requested: LI-F-01						
12	DUP	S95T001236	0	F	@ICP-F03	SOLID		
13	SPK	S95T001236	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:

238

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

LABCORE Data Entry Template for Worklist# 1858

S Type Sample# R A Test Matrix Group# Project

Final page for worklist # 1858

JK
Analyst Signature
07-24-95
Date

Reviewed + Validated by:
Saul M. Parry
Analyst Signature
07/27/95
Date

Prepbl/KTJA 1-9 ml

595T001230-L, .5180g → 250 ml, 1-9-2-8, $(250 \times 50) / .5180 = 24131.3$
 595T001230 .5180g → 250 1-9 $(250 \times 10) / .5180 = 4826.3$
 595T001230-D .5285g → 250 1-9 $(250 \times 10) / .5285 = 4730.4$
 595T001230-Q .5180g → 250 1-9 $(250 \times 10) / .5180 = 4826.3$ 1ml sample + 2ml SST5 + 7ml 2% HNO₃
 595T001236-L, .4917g → 250 ml, 1-9-2-8, $(250 \times 50) / .4917 = 25422$
 595T001236 .4917g → 250 1-9 $(250 \times 10) / .4917 = 5084.4$
 595T001236-D, .4805g → 250 1-9 $(250 \times 10) / .4805 = 5202.9$
 595T001236-Q .4917g → 250 1-9 $(250 \times 10) / .4917 = 5084.4$ 1ml sample + 2ml SST5 + 7ml 2% HNO₃

Data Entry Comments:

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

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICV	950726B	ICP2	07/26/95	12:10	DKS	Q	CONC
2	ICB	950726B	ICP2	07/26/95	12:18	DKS	Q	CONC
3	ICSA	950726B	ICP2	07/26/95	12:21	DKS	Q	CONC
4	IGSAB	950726B	ICP2	07/26/95	12:25	DKS	Q	CONC
5	IGSAB	950726B	ICP2	07/26/95	12:27	DKS	Q	CONC
6	PREPBLKTJA	950726B	ICP2	07/26/95	12:34	DKS	S	CONC
7	S95T001230_L	950726B	ICP2	07/26/95	12:39	DKS	S	CONC
8	S95T001230_	950726B	ICP2	07/26/95	12:42	DKS	S	CONC
9	S95T001230_D	950726B	ICP2	07/26/95	12:46	DKS	S	CONC
10	S95T001230_A	950726B	ICP2	07/26/95	12:51	DKS	S	CONC
11	CCV	950726B	ICP2	07/26/95	13:02	DKS	Q	CONC
12	CCB	950726B	ICP2	07/26/95	13:08	DKS	Q	CONC
13	S95T001236_L	950726B	ICP2	07/26/95	13:12	DKS	S	CONC
14	S95T001236_	950726B	ICP2	07/26/95	13:15	DKS	S	CONC
15	S95T001236_D	950726B	ICP2	07/26/95	13:19	DKS	S	CONC
16	S95T001236_A	950726B	ICP2	07/26/95	13:23	DKS	S	CONC
17	ICSA	950726B	ICP2	07/26/95	13:37	DKS	Q	CONC
18	ICSAB	950726B	ICP2	07/26/95	13:41	DKS	Q	CONC
19	CCV_1	950726B	ICP2	07/26/95	13:54	DKS	Q	CONC
20	CCB_1	950726B	ICP2	07/26/95	13:57	DKS	Q	CONC

JK *[Signature]*

07-26-95

B-101 595T001230

595T001236

Worklist # 1858

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 240 TO 244.

WHC-SD-WM-DP-139, REV. 1

#	Sample Name	Ag	Al	As	B	Ba	Be
1	ICV	4.932	4.868	5.084	4.867	4.803	5.060
2	ICB	-.0002	-.0244	.0066	-.0060	-.0001	-.0004
3	ICSA	-.0012	245.6	-.1919	-.0072	.0019	-.0001
4	ICSAB	Q.0003	Q.0137	-.0070	-.0014	Q.0012	Q.0009
5	ICSAB	.9701	245.5	-.1728	-.0060	.4651	.4762
6	PREPBLKTJA	.0021	.0690	.1678	-.0006	.0216	-.0025
7	S95T001230 L	124.2	153500.	-199.5	1.651	26.19	-5.335
8	S95T001230	96.25	149100.	-41.23	-14.59	25.22	-1.611
9	S95T001230 D	83.04	152900.	-67.56	-17.37	25.41	-1.941
10	S95T001230 A	4287.	154900.	4954.	4615.	4473.	4852.
11	CCV	4.993	4.852	5.232	4.891	4.754	5.167
12	CCB	-.0010	-.0180	-.0070	-.0023	.0003	-.0003
13	S95T001236 L	388.7	9885.	-158.5	-50.85	107.2	-5.986
14	S95T001236	373.6	10190.	-221.4	-37.55	102.6	-.6283
15	S95T001236 D	323.7	9328.	-158.4	6.254	96.18	-1.516
16	S95T001236 A	4675.	15150.	5129.	4816.	4761.	5018.
17	ICSA	-.0017	248.3	-.1771	-.0064	.0018	-.0001
18	ICSAB	.9877	251.5	-.2077	-.0069	.4748	.4858
19	CCV 1	5.156	5.138	5.296	5.121	5.118	5.324
20	CCB 1	-.0005	-.0145	-.0057	-.0056	.0001	-.0003

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	ICV	4.982	5.049	5.038	4.983	5.047	5.032
2	ICB	-.0452	.0003	-.0005	.0064	.0003	-.0011
3	ICSA	-.0634	232.6	-.0034	.0267	.0004	.0065
4	ICSAB	-.0063	Q.0226	Q.0018	.0141	Q-.0007	Q.0005
5	ICSAB	.0097	236.5	.9404	.0212	.4678	.4783
6	PREPBLKTJA	.0666	.2734	.0129	.3222	.0279	.0018
7	S95T001230 L	-.226.9	596.8	30.09	344.0	36.95	131.2
8	S95T001230	15.69	583.1	14.66	109.9	7.425	119.1
9	S95T001230 D	26.12	471.7	10.36	49.69	-3.665	115.2
10	S95T001230 A	4762.	5490.	4892.	4665.	4855.	4973.
11	CCV	5.046	5.315	5.250	4.958	5.202	5.185
12	CCB	-.0206	.0051	.0004	.0180	-.0012	-.0003
13	S95T001236 L	-.591.4	1689.	28.81	587.1	4.469	872.5
14	S95T001236	-.145.3	1594.	49.16	256.8	32.40	897.1
15	S95T001236 D	-.128.5	1408.	43.11	338.3	20.03	813.1
16	S95T001236 A	5025.	6704.	5153.	5274.	5119.	5967.
17	ICSA	-.0467	240.7	-.0033	.0209	-.0003	.0063
18	ICSAB	-.0063	240.4	.9484	.0283	.4705	.4854
19	CCV 1	5.144	5.275	5.195	5.280	5.228	5.235
20	CCB 1	-.0215	.0023	.0005	.0159	.0006	-.0012

#	Sample Name	Cu	Eu	Fe	K	La	Li
1	ICV	4.856	.0064	5.004	4.834	4.915	4.823
2	ICB	-.0000	.0007	-.0004	.0074	-.0011	.0017
3	ICSA	-.0110	.0265	91.59	.2704	-.0032	.0026
4	ICSAB	Q.0012	.0000	Q.0106	.1354	.0022	Q.0012
5	ICSAB	.4704	.0236	92.29	.0582	-.0040	.9899

WHC-SD-WM-DP-137, REV. 1

#	Sample Name	Cu	Eu	Fe	K	La	Li
6	PREPBLKTJA	.0461	.0245	.2693	16350.	.0371	.0228
7	S95T001230 L	102.4	19.43	1754.	7658e3	42.70	118.6
8	S95T001230-	70.76	-6.732	1695.	7344e3	35.72	79.25
9	S95T001230 D	69.60	-8.812	1835.	7365e3	30.37	70.87
10	S95T001230-A	4654.	7.289	6496.	7386e3	4672.	4727.
11	CCV	4.809	.0099	5.135	4.728	4.877	4.675
12	CCB	-.0010	.0045	.0009	-.0272	.0017	.0055
13	S95T001236 L	113.5	115.0	19990.	7262e3	130.2	185.9
14	S95T001236-	116.9	25.56	19820.	7186e3	84.89	84.70
15	S95T001236 D	107.0	18.27	17460.	7381e3	95.16	74.83
16	S95T001236-A	4911.	23.16	24480.	7188e3	4948.	4910.
17	ICSA	-.0124	.0160	93.80	.3023	-.0040	.0036
18	ICSAB	.4813	.0219	93.81	.1421	-.0031	1.019
19	CCV 1	5.152	.0049	5.235	4.857	5.233	5.235
20	CCB-1	.0002	-.0006	.0003	.0704	.0013	.0002

#	Sample Name	Mg	Mn	Mo	Na	Nd	Ni
1	ICV	4.871	4.865	5.008	4.874	5.089	4.959
2	ICB	.0090	.0000	.0006	.0099	.0034	.0062
3	ICSA	249.8	-.0081	-.0046	195.3	.0126	-.0200
4	ICSAB	Q.0197	Q.0009	-.0006	Q.0152	.0017	Q.0045
5	ICSAB	250.3	.4428	-.0068	195.5	.0087	.8919
6	PREPBLKTJA	.2303	.0423	-.0053	4.893	.0606	10.63
7	S95T001230 L	416.2	167.2	9.818	92770.	192.1	4897.
8	S95T001230-	211.9	153.6	6.030	90180.	19.43	4549.
9	S95T001230 D	105.4	163.9	1.310	89500.	-3.206	5240.
10	S95T001230-A	4765.	4738.	4870.	95020.	4824.	9450.
11	CCV	4.927	4.998	5.153	4.822	5.027	5.153
12	CCB	-.0014	.0011	.0010	.0497	.0036	.0042
13	S95T001236 L	337.7	14130.	-44.96	129400.	323.6	11940.
14	S95T001236-	312.9	14200.	7.486	128700.	285.3	11710.
15	S95T001236 D	310.2	13000.	-13.79	148000.	266.0	11140.
16	S95T001236-A	5296.	18900.	5130.	134800.	5341.	16500.
17	ICSA	253.9	-.0080	-.0084	196.0	.0083	-.0132
18	ICSAB	255.7	.4492	-.0089	201.1	.0085	.9280
19	CCV 1	5.097	5.075	5.233	5.205	5.445	5.174
20	CCB-1	.0065	-.0003	.0006	-.0061	.0024	.0039

#	Sample Name	P	Pb	S	Sb	Se	Si
1	ICV	4.978	5.021	4.973	4.755	4.979	5.079
2	ICB	.0023	.0063	.0049	-.0068	.0080	-.0019
3	ICSA	-.0129	.0284	-.0137	-.0111	-.1077	.0309
4	ICSAB	.0056	Q.0074	-.0042	.0021	.0166	-.0024
5	ICSAB	-.0275	.9844	-.0247	.0056	-.0655	.0354
6	PREPBLKTJA	-.0130	.1730	.0749	.0448	.3108	.1608
7	S95T001230 L	5661.	289.8	5921.	-74.57	625.7	1247.
8	S95T001230-	5337.	278.3	5814.	26.66	221.8	1214.
9	S95T001230 D	4202.	226.0	6685.	-2.233	206.9	1276.
10	S95T001230-A	10680.	5084.	10960.	4539.	5388.	6243.
11	CCV	5.324	5.251	5.175	4.844	5.162	5.224

WHC-SD-WM-DP-139, REV. 1

#	Sample Name	P	Pb	S	Sb	Se	Si
2	CCB	.0032	-.0151	-.0013	-.0037	.0592	.0180
3	S95T001236 L	7190.	12120.	4689.	65.88	944.4	5184.
14	S95T001236	7079.	12300.	4412.	-20.33	-104.2	4920.
15	S95T001236 D	6492.	11800.	3838.	10.15	-364.2	4075.
16	S95T001236 A	12330.	17090.	9616.	4903.	4936.	9953.
17	ICSA	-.0173	.0327	-.0121	-.0100	-.0550	.0392
18	ICSAB	-.0062	.9884	-.0222	-.0075	-.0991	.0336
19	CCV 1	5.479	5.159	5.225	4.937	5.218	5.266
20	CCB-1	.0126	.0026	-.0029	-.0018	.0048	-.0039

#	Sample Name	Sm	Sr	Th	Ti	Tl	U
1	ICV	4.916	4.852	-.0200	4.799	4.908	9.868
2	ICB	.0079	.0001	-.0071	.0006	-.0039	.0377
3	ICSA	-.0084	.0020	-.0143	.0022	-.0032	.2089
4	ICSAB	-.0067	.0009	.0065	.0014	.0027	-.0245
5	ICSAB	-.0056	.0020	-.0070	.0020	.0322	.1868
6	PREPBLKTJA	.2244	.0098	.3036	.0147	.0922	-3.648
7	S95T001230 L	371.4	28.28	-113.3	55.11	345.7	66950.
8	S95T001230	73.45	25.26	-38.54	39.79	55.42	63560.
9	S95T001230 D	71.02	26.21	-77.52	39.00	7.104	68960.
10	S95T001230 A	4783.	4611.	-109.7	4628.	4768.	73080.
11	CCV	4.895	4.809	-.0275	4.822	5.055	9.843
12	CCB	.0491	.0007	-.0112	.0001	.0084	.2038
13	S95T001236 L	1342.	80.41	-37.43	43.77	720.7	3364.
14	S95T001236	311.5	67.23	140.6	32.85	-72.17	-570.4
15	S95T001236 D	188.3	63.04	236.5	31.29	42.94	-1099.
16	S95T001236 A	5021.	4836.	174.0	4823.	4927.	8761.
17	ICSA	.0002	.0020	-.0054	.0016	.0500	.1923
18	ICSAB	-.0127	.0020	-.0093	.0020	.0281	.1770
19	CCV 1	5.246	5.165	-.0206	5.063	5.033	10.47
20	CCB-1	-.0096	-.0002	.0025	.0006	.0125	-.0321

Sample Name	V	Y	Zn	Zr
1 ICV	4.938	.0135	5.002	4.896
2 ICB	.0018	.0005	.0004	.0005
3 ICSA	-.0041	.0071	.0007	-.0044
4 ICSAB	Q.0008	-.0001	Q.0021	-.0005
5 ICSAB	.4652	.0075	.9619	-.0043
6 PREPBLKTJA	.0528	.0133	.0270	.0102
7 S95T001230 L	91.58	49.22	115.9	90.76
8 S95T001230	32.49	32.56	93.99	37.35
9 S95T001230 D	34.05	34.51	94.80	32.22
10 S95T001230 A	4795.	50.74	5009.	4775.
11 CCV	5.028	.0159	5.182	4.935
12 CCB	.0102	.0028	-.0004	.0075
13 S95T001236 L	272.5	131.6	262.0	303.0
14 S95T001236	60.88	75.39	259.4	161.1
15 S95T001236 D	40.83	66.12	230.1	68.70
16 S95T001236 A	5014.	84.16	5365.	5030.
17 ICSA	-.0022	.0077	.0001	-.0036

WHC-SD-WM-DP-139, REV. 1

#	Sample Name	V	Y	Zn	Zr
18	ICSAB	.4715	.0073	.9752	-.0051
19	CCV 1	5.181	.0130	5.159	5.163
20	CCB-1	-.0015	-.0003	-.0006	-.0005

JK LCB

07-26-95

B-101 595T001230

595T001236

WHC-SD-WM-DP- 139, REV. 1

ICP MACRO

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	1858	1			ICV	AG				4.9322		1.0000	07/28/95	12:10	dks	0.01	ICP-QC
2	1858	1			ICV	AL				4.9880		1.0000	07/28/95	12:10	dks	0.05	ICP-QC
3	1858	1			ICV	AS				5.0837		1.0000	07/28/95	12:10	dks	0.05	ICP-QC
4	1858	1			ICV	BA				4.6871		1.0000	07/28/95	12:10	dks	0.05	ICP-QC
5	1858	1			ICV	BE				4.6054		1.0000	07/28/95	12:10	dks	0.05	ICP-QC
6	1858	1			ICV	BI				5.0590		1.0000	07/28/95	12:10	dks	0.005	ICP-QC
7	1858	1			ICV	CA				4.9818		1.0000	07/28/95	12:10	dks	0.1	ICP-QC
8	1858	1			ICV	CD				5.0488		1.0000	07/28/95	12:10	dks	0.1	ICP-QC
9	1858	1			ICV	CE				5.0381		1.0000	07/28/95	12:10	dks	0.01	ICP-QC
10	1858	1			ICV	CO				4.9835		1.0000	07/28/95	12:10	dks	0.1	ICP-QC
11	1858	1			ICV	CU				5.0471		1.0000	07/28/95	12:10	dks	0.02	ICP-QC
12	1858	1			ICV	CR				5.0324		1.0000	07/28/95	12:10	dks	0.01	ICP-QC
13	1858	1			ICV	EU				4.8581		1.0000	07/28/95	12:10	dks	0.01	ICP-QC
14	1858	1			ICV	FE				0.0084		1.0000	07/28/95	12:10	dks	0.05	ICP-QC
15	1858	1			ICV	K				5.0044		1.0000	07/28/95	12:10	dks	0.05	ICP-QC
16	1858	1			ICV	LA				4.8341		1.0000	07/28/95	12:10	dks	0.3	ICP-QC
17	1858	1			ICV	LI				4.9148		1.0000	07/28/95	12:10	dks	0.05	ICP-QC
18	1858	1			ICV	MG				4.8233		1.0000	07/28/95	12:10	dks	0.01	ICP-QC
19	1858	1			ICV	MN				4.8713		1.0000	07/28/95	12:10	dks	0.1	ICP-QC
20	1858	1			ICV	MO				4.8654		1.0000	07/28/95	12:10	dks	0.01	ICP-QC
21	1858	1			ICV	NA				5.0075		1.0000	07/28/95	12:10	dks	0.05	ICP-QC
22	1858	1			ICV	ND				4.8737		1.0000	07/28/95	12:10	dks	0.1	ICP-QC
23	1858	1			ICV	NI				5.0887		1.0000	07/28/95	12:10	dks	0.1	ICP-QC
24	1858	1			ICV	P				4.9595		1.0000	07/28/95	12:10	dks	0.02	ICP-QC
25	1858	1			ICV	PB				4.9784		1.0000	07/28/95	12:10	dks	0.2	ICP-QC
26	1858	1			ICV	S				5.0214		1.0000	07/28/95	12:10	dks	0.1	ICP-QC
27	1858	1			ICV	SB				4.9732		1.0000	07/28/95	12:10	dks	0.05	ICP-QC
28	1858	1			ICV	SE				4.7548		1.0000	07/28/95	12:10	dks	0.2	ICP-QC
29	1858	1			ICV	SI				4.9795		1.0000	07/28/95	12:10	dks	0.1	ICP-QC
30	1858	1			ICV	SM				5.0795		1.0000	07/28/95	12:10	dks	0.05	ICP-QC
31	1858	1			ICV	SR				4.9158		1.0000	07/28/95	12:10	dks	0.1	ICP-QC
32	1858	1			ICV	TH				4.8523		1.0000	07/28/95	12:10	dks	0.01	ICP-QC
33	1858	1			ICV	TI				-0.0200		1.0000	07/28/95	12:10	dks	0	ICP-QC
34	1858	1			ICV	TL				4.7961		1.0000	07/28/95	12:10	dks	0.01	ICP-QC
35	1858	1			ICV	U				4.9078		1.0000	07/28/95	12:10	dks	0.1	ICP-QC
36	1858	1			ICV	V				0.6883		1.0000	07/28/95	12:10	dks	0.4	ICP-QC
37	1858	1			ICV	Y				4.9282		1.0000	07/28/95	12:10	dks	0.05	ICP-QC
38	1858	1			ICV	ZN				0.0135		1.0000	07/28/95	12:10	dks	0.01	ICP-QC
39	1858	1			ICV	AG				5.0021		1.0000	07/28/95	12:10	dks	0.01	ICP-QC
40	1858	1			ICV	AL				4.8958		1.0000	07/28/95	12:10	dks	0.01	ICP-QC
41	1858	2			ICB	AS				-0.0002		1.0000	07/28/95	12:18	dks	0.01	ICP-QC
42	1858	2			ICB	B				-0.0244		1.0000	07/28/95	12:18	dks	0.04	ICP-QC
43	1858	2			ICB	BA				0.0068		1.0000	07/28/95	12:18	dks	0.05	ICP-QC
44	1858	2			ICB	BE				-0.0080		1.0000	07/28/95	12:18	dks	0.05	ICP-QC
45	1858	2			ICB	BI				-0.0001		1.0000	07/28/95	12:18	dks	0.05	ICP-QC
46	1858	2			ICB	CA				-0.0004		1.0000	07/28/95	12:18	dks	0.005	ICP-QC
47	1858	2			ICB	CD				-0.0452		1.0000	07/28/95	12:18	dks	0.1	ICP-QC
48	1858	2			ICB	CE				0.0003		1.0000	07/28/95	12:18	dks	0.1	ICP-QC
49	1858	2			ICB	CO				-0.0005		1.0000	07/28/95	12:18	dks	0.01	ICP-QC
50	1858	2			ICB	CU				0.0084		1.0000	07/28/95	12:18	dks	0.1	ICP-QC
51	1858	2			ICB	CR				0.0003		1.0000	07/28/95	12:18	dks	0.02	ICP-QC
52	1858	2			ICB	EU				-0.0011		1.0000	07/28/95	12:18	dks	0.01	ICP-QC
53	1858	2			ICB	FE				-0.0000		1.0000	07/28/95	12:18	dks	0.01	ICP-QC
54	1858	2			ICB	K				0.0007		1.0000	07/28/95	12:18	dks	0.05	ICP-QC
55	1858	2			ICB	LA				-0.0004		1.0000	07/28/95	12:18	dks	0.05	ICP-QC
56	1858	2			ICB	LI				0.0074		1.0000	07/28/95	12:18	dks	0.3	ICP-QC
57	1858	2			ICB	MG				-0.0011		1.0000	07/28/95	12:18	dks	0.05	ICP-QC
58	1858	2			ICB	MN				0.0017		1.0000	07/28/95	12:18	dks	0.01	ICP-QC
59	1858	2			ICB	MO				0.0060		1.0000	07/28/95	12:18	dks	0.1	ICP-QC
60	1858	2			ICB	NA				0.0000		1.0000	07/28/95	12:18	dks	0.01	ICP-QC
61	1858	2			ICB	ND				0.0006		1.0000	07/28/95	12:18	dks	0.05	ICP-QC
62	1858	2			ICB	NI				0.0099		1.0000	07/28/95	12:18	dks	0.1	ICP-QC
63	1858	2			ICB	P				0.0034		1.0000	07/28/95	12:18	dks	0.1	ICP-QC
64	1858	2			ICB	PB				0.0082		1.0000	07/28/95	12:18	dks	0.02	ICP-QC
65	1858	2			ICB	S				0.0023		1.0000	07/28/95	12:18	dks	0.2	ICP-QC
66	1858	2			ICB	SB				0.0063		1.0000	07/28/95	12:18	dks	0.1	ICP-QC
67	1858	2			ICB	SE				0.0049		1.0000	07/28/95	12:18	dks	0.05	ICP-QC
68	1858	2			ICB	SI				-0.0068		1.0000	07/28/95	12:18	dks	0.2	ICP-QC
69	1858	2			ICB	SM				0.0090		1.0000	07/28/95	12:18	dks	0.1	ICP-QC
70	1858	2			ICB	SR				-0.0019		1.0000	07/28/95	12:18	dks	0.05	ICP-QC
71	1858	2			ICB	TH				0.0079		1.0000	07/28/95	12:18	dks	0.1	ICP-QC
72	1858	2			ICB	TI				-0.0071		1.0000	07/28/95	12:18	dks	0.01	ICP-QC
73	1858	2			ICB	TL				0.0068		1.0000	07/28/95	12:18	dks	0.01	ICP-QC
74	1858	2			ICB	U				-0.0038		1.0000	07/28/95	12:18	dks	0.2	ICP-QC
75	1858	2			ICB	V				0.0377		1.0000	07/28/95	12:18	dks	0.4	ICP-QC
76	1858	2			ICB	Y				0.0018		1.0000	07/28/95	12:18	dks	0.03	ICP-QC
77	1858	2			ICB	ZN				0.0005		1.0000	07/28/95	12:18	dks	0.01	ICP-QC
78	1858	2			ICB	AG				0.0004		1.0000	07/28/95	12:18	dks	0.01	ICP-QC
79	1858	2			ICB	AL				0.0005		1.0000	07/28/95	12:18	dks	0.01	ICP-QC
80	1858	2			ICB	AS				-0.0012		1.0000	07/28/95	12:21	dks	0.01	ICP-QC
81	1858	3			ICSA	B				245.6288		1.0000	07/28/95	12:21	dks	0.05	ICP-QC
82	1858	3			ICSA	BA				-0.1919		1.0000	07/28/95	12:21	dks	0.05	ICP-QC
83	1858	3			ICSA	BE				-0.0072		1.0000	07/28/95	12:21	dks	0.05	ICP-QC
84	1858	3			ICSA	BI				0.0019		1.0000	07/28/95	12:21	dks	0.05	ICP-QC
85	1858	3			ICSA	CA				-0.0001		1.0000	07/28/95	12:21	dks	0.005	ICP-QC
86	1858	3			ICSA	CD				-0.0634		1.0000	07/28/95	12:21	dks	0.1	ICP-QC
87	1858	3			ICSA	CE				232.5801		1.0000	07/28/95	12:21	dks	0.1	ICP-QC
88	1858	3			ICSA	CO				-0.0034		1.0000	07/28/95	12:21	dks	0.01	ICP-QC
89	1858	3			ICSA	CU				0.0287		1.0000	07/28/95	12:21	dks	0.1	ICP-QC
90	1858	3			ICSA	CR				0.0004		1.0000	07/28/95	12:21	dks	0.02	ICP-QC
91	1858	3			ICSA	EU				0.0065		1.0000	07/28/95	12:21	dks	0.01	ICP-QC
92	1858	3			ICSA	FE				-0.0110		1.0000	07/28/95	12:21	dks	0.01	ICP-QC
93	1858	3															

ICP MACRO

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
123	1858	4			ICSAB	AS				-0.1728		1.0000	07/28/95	12:27	dis	0.05	ICP-CC
124	1858	4			ICSAB	B				-0.0080		1.0000	07/28/95	12:27	dis	0.05	ICP-CC
125	1858	4			ICSAB	BA				0.4851		1.0000	07/28/95	12:27	dis	0.05	ICP-CC
126	1858	4			ICSAB	BE				0.4782		1.0000	07/28/95	12:27	dis	0.005	ICP-CC
127	1858	4			ICSAB	BI				0.0087		1.0000	07/28/95	12:27	dis	0.1	ICP-CC
128	1858	4			ICSAB	CA				238.4787		1.0000	07/28/95	12:27	dis	0.1	ICP-CC
129	1858	4			ICSAB	CD				0.8404		1.0000	07/28/95	12:27	dis	0.01	ICP-CC
130	1858	4			ICSAB	CE				0.0212		1.0000	07/28/95	12:27	dis	0.1	ICP-CC
131	1858	4			ICSAB	CO				0.4878		1.0000	07/28/95	12:27	dis	0.02	ICP-CC
132	1858	4			ICSAB	CR				0.4783		1.0000	07/28/95	12:27	dis	0.01	ICP-CC
133	1858	4			ICSAB	CU				0.4704		1.0000	07/28/95	12:27	dis	0.01	ICP-CC
134	1858	4			ICSAB	EU				0.0238		1.0000	07/28/95	12:27	dis	0.05	ICP-CC
135	1858	4			ICSAB	FE				92.2898		1.0000	07/28/95	12:27	dis	0.05	ICP-CC
136	1858	4			ICSAB	K				0.0582		1.0000	07/28/95	12:27	dis	0.3	ICP-CC
137	1858	4			ICSAB	LA				-0.0040		1.0000	07/28/95	12:27	dis	0.05	ICP-CC
138	1858	4			ICSAB	LI				0.9899		1.0000	07/28/95	12:27	dis	0.01	ICP-CC
139	1858	4			ICSAB	MG				280.2954		1.0000	07/28/95	12:27	dis	0.1	ICP-CC
140	1858	4			ICSAB	MN				0.4428		1.0000	07/28/95	12:27	dis	0.01	ICP-CC
141	1858	4			ICSAB	MO				-0.0068		1.0000	07/28/95	12:27	dis	0.05	ICP-CC
142	1858	4			ICSAB	NA				195.5482		1.0000	07/28/95	12:27	dis	0.1	ICP-CC
143	1858	4			ICSAB	NO				0.0087		1.0000	07/28/95	12:27	dis	0.1	ICP-CC
144	1858	4			ICSAB	NI				0.8919		1.0000	07/28/95	12:27	dis	0.02	ICP-CC
145	1858	4			ICSAB	P				-0.0275		1.0000	07/28/95	12:27	dis	0.2	ICP-CC
146	1858	4			ICSAB	PB				0.9844		1.0000	07/28/95	12:27	dis	0.1	ICP-CC
147	1858	4			ICSAB	S				-0.0247		1.0000	07/28/95	12:27	dis	0.05	ICP-CC
148	1858	4			ICSAB	SB				0.0096		1.0000	07/28/95	12:27	dis	0.2	ICP-CC
149	1858	4			ICSAB	SE				-0.0655		1.0000	07/28/95	12:27	dis	0.1	ICP-CC
150	1858	4			ICSAB	SI				0.0354		1.0000	07/28/95	12:27	dis	0.05	ICP-CC
151	1858	4			ICSAB	SM				-0.0056		1.0000	07/28/95	12:27	dis	0.1	ICP-CC
152	1858	4			ICSAB	SR				0.0020		1.0000	07/28/95	12:27	dis	0.01	ICP-CC
153	1858	4			ICSAB	TH				-0.0070		1.0000	07/28/95	12:27	dis	0	ICP-CC
154	1858	4			ICSAB	TI				0.0020		1.0000	07/28/95	12:27	dis	0.01	ICP-CC
155	1858	4			ICSAB	TL				0.0322		1.0000	07/28/95	12:27	dis	0.2	ICP-CC
156	1858	4			ICSAB	U				0.1868		1.0000	07/28/95	12:27	dis	0.4	ICP-CC
157	1858	4			ICSAB	V				0.4652		1.0000	07/28/95	12:27	dis	0.05	ICP-CC
158	1858	4			ICSAB	Y				0.0075		1.0000	07/28/95	12:27	dis	0.01	ICP-CC
159	1858	4			ICSAB	ZN				0.9619		1.0000	07/28/95	12:27	dis	0.01	ICP-CC
160	1858	4			ICSAB	ZR				-0.0043		1.0000	07/28/95	12:27	dis	0.01	ICP-CC
161	1858	5			PREPBLKTJA	AG-F-01				0.0021		10.0000	07/28/95	12:34	dis	0.01	ICP-F0
162	1858	5			PREPBLKTJA	AL-F-01				0.0690		10.0000	07/28/95	12:34	dis	0.05	ICP-F0
163	1858	5			PREPBLKTJA	AS-F-01				0.1675		10.0000	07/28/95	12:34	dis	0.05	ICP-F0
164	1858	5			PREPBLKTJA	B-F-01				-0.0008		10.0000	07/28/95	12:34	dis	0.05	ICP-F0
165	1858	5			PREPBLKTJA	BA-F-01				0.0210		10.0000	07/28/95	12:34	dis	0.05	ICP-F0
166	1858	5			PREPBLKTJA	BE-F-01				-0.0025		10.0000	07/28/95	12:34	dis	0.05	ICP-F0
167	1858	5			PREPBLKTJA	BI-F-01				0.0566		10.0000	07/28/95	12:34	dis	0.005	ICP-F0
168	1858	5			PREPBLKTJA	CA-F-01				0.2734		10.0000	07/28/95	12:34	dis	0.1	ICP-F0
169	1858	5			PREPBLKTJA	CD-F-01				0.0120		10.0000	07/28/95	12:34	dis	0.01	ICP-F0
170	1858	5			PREPBLKTJA	CE-F-01				0.3222		10.0000	07/28/95	12:34	dis	0.1	ICP-F0
171	1858	5			PREPBLKTJA	CO-F-01				0.0270		10.0000	07/28/95	12:34	dis	0.02	ICP-F0
172	1858	5			PREPBLKTJA	CR-F-01				0.0018		10.0000	07/28/95	12:34	dis	0.01	ICP-F0
173	1858	5			PREPBLKTJA	CU-F-01				0.0481		10.0000	07/28/95	12:34	dis	0.01	ICP-F0
174	1858	5			PREPBLKTJA	EU-F-01				0.0245		10.0000	07/28/95	12:34	dis	0.05	ICP-F0
175	1858	5			PREPBLKTJA	FE-F-01				0.2693		10.0000	07/28/95	12:34	dis	0.05	ICP-F0
176	1858	5			PREPBLKTJA	K-F-01				16349.7754		10.0000	07/28/95	12:34	dis	0.3	ICP-F0
177	1858	5			PREPBLKTJA	LA-F-01				0.0371		10.0000	07/28/95	12:34	dis	0.05	ICP-F0
178	1858	5			PREPBLKTJA	LI-F-01				0.0228		10.0000	07/28/95	12:34	dis	0.01	ICP-F0
179	1858	5			PREPBLKTJA	MG-F-01				0.2303		10.0000	07/28/95	12:34	dis	0.1	ICP-F0
180	1858	5			PREPBLKTJA	MN-F-01				0.0423		10.0000	07/28/95	12:34	dis	0.01	ICP-F0
181	1858	5			PREPBLKTJA	MO-F-01				-0.0053		10.0000	07/28/95	12:34	dis	0.05	ICP-F0
182	1858	5			PREPBLKTJA	NA-F-01				4.8934		10.0000	07/28/95	12:34	dis	0.1	ICP-F0
183	1858	5			PREPBLKTJA	ND-F-01				0.0808		10.0000	07/28/95	12:34	dis	0.1	ICP-F0
184	1858	5			PREPBLKTJA	NI-F-01				10.8284		10.0000	07/28/95	12:34	dis	0.02	ICP-F0
185	1858	5			PREPBLKTJA	P-F-01				-0.0130		10.0000	07/28/95	12:34	dis	0.2	ICP-F0
186	1858	5			PREPBLKTJA	PB-F-01				0.1730		10.0000	07/28/95	12:34	dis	0.1	ICP-F0
187	1858	5			PREPBLKTJA	S-F-01				0.0748		10.0000	07/28/95	12:34	dis	0.05	ICP-F0
188	1858	5			PREPBLKTJA	SB-F-01				0.0448		10.0000	07/28/95	12:34	dis	0.2	ICP-F0
189	1858	5			PREPBLKTJA	SE-F-01				0.3108		10.0000	07/28/95	12:34	dis	0.1	ICP-F0
190	1858	5			PREPBLKTJA	SI-F-01				0.1808		10.0000	07/28/95	12:34	dis	0.05	ICP-F0
191	1858	5			PREPBLKTJA	SM-F-01				0.2244		10.0000	07/28/95	12:34	dis	0.1	ICP-F0
192	1858	5			PREPBLKTJA	SR-F-01				0.0098		10.0000	07/28/95	12:34	dis	0.01	ICP-F0
193	1858	5			PREPBLKTJA	TH-F-01				0.3036		10.0000	07/28/95	12:34	dis	0	ICP-F0
194	1858	5			PREPBLKTJA	TI-F-01				0.0147		10.0000	07/28/95	12:34	dis	0.01	ICP-F0
195	1858	5			PREPBLKTJA	TL-F-01				0.0922		10.0000	07/28/95	12:34	dis	0.2	ICP-F0
196	1858	5			PREPBLKTJA	U-F-01				-3.6482		10.0000	07/28/95	12:34	dis	0.4	ICP-F0
197	1858	5			PREPBLKTJA	V-F-01				0.0528		10.0000	07/28/95	12:34	dis	0.05	ICP-F0
198	1858	5			PREPBLKTJA	Y-F-01				0.0133		10.0000	07/28/95	12:34	dis	0.01	ICP-F0
199	1858	5			PREPBLKTJA	ZN-F-01				0.0270		10.0000	07/28/95	12:34	dis	0.01	ICP-F0
200	1858	5			PREPBLKTJA	ZR-F-01				0.0102		10.0000	07/28/95	12:34	dis	0.01	ICP-F0
201	1858	6	S95T001230			LI-F-01				79.2477		4826.3000	07/28/95	12:42	dis	0.01	ICP-F0
202	1858	7	S95T001230		DUP	LI-F-01		79.2477		70.8895		4720.4000	07/28/95	12:48	dis	0.01	ICP-F0
203	1858	8	S95T001230_A		SPK	LI-F-01		4826.30		4647.2684		4826.3000	07/28/95	12:51	dis	0.01	ICP-F0
204	1858	9			CCV	AG				4.9627		1.0000	07/28/95	13:02	dis	0.01	ICP-CC
205	1858	9			CCV	AL				4.8522		1.0000	07/28/95	13:02	dis	0.05	ICP-CC
206	1858	9			CCV	AS				5.2324		1.0000	07/28/95	13:02	dis	0.05	ICP-CC
207	1858	9			CCV	B				4.8903		1.0000	07/28/95	13:02	dis	0.05	ICP-CC
208	1858	9			CCV	BA				4.7535		1.0000	07/28/95	13:02	dis	0.05	ICP-CC
209	1858	9			CCV	BE				5.1870		1.0000	07/28/95	13:02	dis	0.005	ICP-CC
210	1858	9			CCV	BI				5.0485		1.0000	07/28/95	13:02	dis	0.1	ICP-CC
211	1858	9			CCV	CA				5.3151							

ICP MACRO

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
245	1858	10			CCB	AL				-0.0180		1.0000	07/28/95	13:08	dis	0.05	ICP-QC
246	1858	10			CCB	AS				-0.0070		1.0000	07/28/95	13:08	dis	0.05	ICP-QC
247	1858	10			CCB	B				-0.0023		1.0000	07/28/95	13:08	dis	0.05	ICP-QC
248	1858	10			CCB	BA				0.0003		1.0000	07/28/95	13:08	dis	0.05	ICP-QC
249	1858	10			CCB	BE				-0.0003		1.0000	07/28/95	13:08	dis	0.005	ICP-QC
250	1858	10			CCB	BI				-0.0206		1.0000	07/28/95	13:08	dis	0.1	ICP-QC
251	1858	10			CCB	CD				0.0051		1.0000	07/28/95	13:08	dis	0.1	ICP-QC
252	1858	10			CCB	CA				0.0004		1.0000	07/28/95	13:08	dis	0.01	ICP-QC
253	1858	10			CCB	CE				0.0180		1.0000	07/28/95	13:08	dis	0.1	ICP-QC
254	1858	10			CCB	CO				-0.0012		1.0000	07/28/95	13:08	dis	0.02	ICP-QC
255	1858	10			CCB	CR				-0.0003		1.0000	07/28/95	13:08	dis	0.01	ICP-QC
256	1858	10			CCB	CU				-0.0010		1.0000	07/28/95	13:08	dis	0.01	ICP-QC
257	1858	10			CCB	EU				0.0045		1.0000	07/28/95	13:08	dis	0.05	ICP-QC
258	1858	10			CCB	FE				0.0009		1.0000	07/28/95	13:08	dis	0.05	ICP-QC
259	1858	10			CCB	K				-0.0272		1.0000	07/28/95	13:08	dis	0.3	ICP-QC
260	1858	10			CCB	LA				0.0017		1.0000	07/28/95	13:08	dis	0.05	ICP-QC
261	1858	10			CCB	LI				0.0055		1.0000	07/28/95	13:08	dis	0.01	ICP-QC
262	1858	10			CCB	MG				-0.0014		1.0000	07/28/95	13:08	dis	0.1	ICP-QC
263	1858	10			CCB	MN				0.0011		1.0000	07/28/95	13:08	dis	0.01	ICP-QC
264	1858	10			CCB	MO				0.0010		1.0000	07/28/95	13:08	dis	0.05	ICP-QC
265	1858	10			CCB	NA				0.0497		1.0000	07/28/95	13:08	dis	0.1	ICP-QC
266	1858	10			CCB	ND				0.0036		1.0000	07/28/95	13:08	dis	0.1	ICP-QC
267	1858	10			CCB	NI				0.0042		1.0000	07/28/95	13:08	dis	0.02	ICP-QC
268	1858	10			CCB	P				0.0032		1.0000	07/28/95	13:08	dis	0.2	ICP-QC
269	1858	10			CCB	PB				-0.0151		1.0000	07/28/95	13:08	dis	0.1	ICP-QC
270	1858	10			CCB	S				-0.0013		1.0000	07/28/95	13:08	dis	0.05	ICP-QC
271	1858	10			CCB	SB				-0.0037		1.0000	07/28/95	13:08	dis	0.2	ICP-QC
272	1858	10			CCB	SE				0.0592		1.0000	07/28/95	13:08	dis	0.1	ICP-QC
273	1858	10			CCB	SI				0.0180		1.0000	07/28/95	13:08	dis	0.05	ICP-QC
274	1858	10			CCB	SM				0.0491		1.0000	07/28/95	13:08	dis	0.1	ICP-QC
275	1858	10			CCB	SR				0.0007		1.0000	07/28/95	13:08	dis	0.01	ICP-QC
276	1858	10			CCB	TH				-0.0112		1.0000	07/28/95	13:08	dis	0	ICP-QC
277	1858	10			CCB	TI				0.0001		1.0000	07/28/95	13:08	dis	0.01	ICP-QC
278	1858	10			CCB	TL				0.0084		1.0000	07/28/95	13:08	dis	0.2	ICP-QC
279	1858	10			CCB	U				0.2038		1.0000	07/28/95	13:08	dis	0.4	ICP-QC
280	1858	10			CCB	V				0.0102		1.0000	07/28/95	13:08	dis	0.05	ICP-QC
281	1858	10			CCB	Y				0.0028		1.0000	07/28/95	13:08	dis	0.01	ICP-QC
282	1858	10			CCB	ZN				-0.0004		1.0000	07/28/95	13:08	dis	0.01	ICP-QC
283	1858	10			CCB	ZR				0.0075		1.0000	07/28/95	13:08	dis	0.01	ICP-QC
284	1858	11	S95T001236			LFF-01				84.7045		5084.4000	07/28/95	13:15	dis	0.01	ICP-F0
285	1858	12	S95T001236		DUP	LFF-01				84.7045		5084.4000	07/28/95	13:10	dis	0.01	ICP-F0
286	1858	13	S95T001236_A		SPK	LFF-01				5084.40		5084.4000	07/28/95	13:23	dis	0.01	ICP-F0
287	1858	14			ICSA	AG				-0.0017		1.0000	07/28/95	13:37	dis	0.01	ICP-QC
288	1858	14			ICSA	AL				248.2870		1.0000	07/28/95	13:37	dis	0.05	ICP-QC
289	1858	14			ICSA	AS				-0.1774		1.0000	07/28/95	13:37	dis	0.05	ICP-QC
290	1858	14			ICSA	B				-0.0064		1.0000	07/28/95	13:37	dis	0.05	ICP-QC
291	1858	14			ICSA	BA				0.0018		1.0000	07/28/95	13:37	dis	0.05	ICP-QC
292	1858	14			ICSA	BE				-0.0001		1.0000	07/28/95	13:37	dis	0.005	ICP-QC
293	1858	14			ICSA	BI				-0.0487		1.0000	07/28/95	13:37	dis	0.1	ICP-QC
294	1858	14			ICSA	CA				240.6563		1.0000	07/28/95	13:37	dis	0.01	ICP-QC
295	1858	14			ICSA	CD				-0.0033		1.0000	07/28/95	13:37	dis	0.01	ICP-QC
296	1858	14			ICSA	CE				0.0209		1.0000	07/28/95	13:37	dis	0.1	ICP-QC
297	1858	14			ICSA	CO				-0.0003		1.0000	07/28/95	13:37	dis	0.02	ICP-QC
298	1858	14			ICSA	CR				0.0063		1.0000	07/28/95	13:37	dis	0.01	ICP-QC
299	1858	14			ICSA	CU				-0.0124		1.0000	07/28/95	13:37	dis	0.01	ICP-QC
300	1858	14			ICSA	EU				0.0161		1.0000	07/28/95	13:37	dis	0.05	ICP-QC
301	1858	14			ICSA	FE				93.8039		1.0000	07/28/95	13:37	dis	0.05	ICP-QC
302	1858	14			ICSA	K				8.3023		1.0000	07/28/95	13:37	dis	0.3	ICP-QC
303	1858	14			ICSA	LA				-0.0040		1.0000	07/28/95	13:37	dis	0.05	ICP-QC
304	1858	14			ICSA	LI				0.0038		1.0000	07/28/95	13:37	dis	0.01	ICP-QC
305	1858	14			ICSA	MG				263.8512		1.0000	07/28/95	13:37	dis	0.1	ICP-QC
306	1858	14			ICSA	MN				-0.0080		1.0000	07/28/95	13:37	dis	0.01	ICP-QC
307	1858	14			ICSA	MO72 1858				-0.0084		1.0000	07/28/95	13:37	dis	0.05	ICP-QC
308	1858	14			ICSA	NA				195.9451		1.0000	07/28/95	13:37	dis	0.1	ICP-QC
309	1858	14			ICSA	ND				0.0063		1.0000	07/28/95	13:37	dis	0.1	ICP-QC
310	1858	14			ICSA	NI				-0.0132		1.0000	07/28/95	13:37	dis	0.02	ICP-QC
311	1858	14			ICSA	P				-0.0173		1.0000	07/28/95	13:37	dis	0.2	ICP-QC
312	1858	14			ICSA	PB				0.0327		1.0000	07/28/95	13:37	dis	0.1	ICP-QC
313	1858	14			ICSA	S				-0.0121		1.0000	07/28/95	13:37	dis	0.05	ICP-QC
314	1858	14			ICSA	SB				-0.0100		1.0000	07/28/95	13:37	dis	0.2	ICP-QC
315	1858	14			ICSA	SE				-0.0350		1.0000	07/28/95	13:37	dis	0.1	ICP-QC
316	1858	14			ICSA	SI				0.0392		1.0000	07/28/95	13:37	dis	0.05	ICP-QC
317	1858	14			ICSA	SM				0.0002		1.0000	07/28/95	13:37	dis	0.1	ICP-QC
318	1858	14			ICSA	SR				0.0020		1.0000	07/28/95	13:37	dis	0.01	ICP-QC
319	1858	14			ICSA	TH				-0.0054		1.0000	07/28/95	13:37	dis	0	ICP-QC
320	1858	14			ICSA	TI				0.0016		1.0000	07/28/95	13:37	dis	0.01	ICP-QC
321	1858	14			ICSA	TL				0.0500		1.0000	07/28/95	13:37	dis	0.2	ICP-QC
322	1858	14			ICSA	U				0.1923		1.0000	07/28/95	13:37	dis	0.4	ICP-QC
323	1858	14			ICSA	V				-0.0022		1.0000	07/28/95	13:37	dis	0.05	ICP-QC
324	1858	14			ICSA	Y				0.0077		1.0000	07/28/95	13:37	dis	0.01	ICP-QC
325	1858	14			ICSA	ZN				0.0001		1.0000	07/28/95	13:37	dis	0.01	ICP-QC
326	1858	14			ICSA	ZR				-0.0036		1.0000	07/28/95	13:37	dis	0.01	ICP-QC
327	1858	15			ICSAB	AG				0.9877		1.0000	07/28/95	13:41	dis	0.05	ICP-QC
328	1858	15			ICSAB	AL				251.4893		1.0000	07/28/95	13:41	dis	0.05	ICP-QC
329	1858	15			ICSAB	AS				-0.2077		1.0000	07/28/95	13:41	dis	0.05	ICP-QC
330	1858	15			ICSAB	B				-0.0069		1.0000	07/28/95	13:41	dis	0.05	ICP-QC
331	1858	15			ICSAB	BA				0.4748		1.0000	07/28/95	13:41	dis	0.05	ICP-QC
332	1858	15			ICSAB	BE				0.4658		1.0000	07/28/95	13:41	dis	0.005	ICP-QC
333	1858	15			ICSAB	BI				-0.0063		1.0000	07/28/95	13:41	dis	0.1	ICP-QC
334	1858	15			ICSAB	CA				240.3092		1.0000	07/28/95	13:41	dis	0.01	ICP-QC
335	1858	15			ICSAB	CD											

ICP MACRO

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
367	1858	16			CCV	AG				5.1590		1.0000	07/28/95	13:54	die	0.01	ICP-QC
368	1858	16			CCV	AL				5.1378		1.0000	07/28/95	13:54	die	0.05	ICP-QC
369	1858	16			CCV	AS				5.2900		1.0000	07/28/95	13:54	die	0.05	ICP-QC
370	1858	16			CCV	B				5.1200		1.0000	07/28/95	13:54	die	0.05	ICP-QC
371	1858	16			CCV	BA				5.1161		1.0000	07/28/95	13:54	die	0.05	ICP-QC
372	1858	16			CCV	BE				5.3244		1.0000	07/28/95	13:54	die	0.05	ICP-QC
373	1858	16			CCV	BI				5.1443		1.0000	07/28/95	13:54	die	0.1	ICP-QC
374	1858	16			CCV	CA				5.2748		1.0000	07/28/95	13:54	die	0.1	ICP-QC
375	1858	16			CCV	CD				5.1948		1.0000	07/28/95	13:54	die	0.01	ICP-QC
376	1858	16			CCV	CE				5.2803		1.0000	07/28/95	13:54	die	0.1	ICP-QC
377	1858	16			CCV	CO				5.2270		1.0000	07/28/95	13:54	die	0.02	ICP-QC
378	1858	16			CCV	CR				5.2348		1.0000	07/28/95	13:54	die	0.01	ICP-QC
379	1858	16			CCV	CU				5.1620		1.0000	07/28/95	13:54	die	0.01	ICP-QC
380	1858	16			CCV	EU				0.0049		1.0000	07/28/95	13:54	die	0.05	ICP-QC
381	1858	16			CCV	FE				5.2340		1.0000	07/28/95	13:54	die	0.05	ICP-QC
382	1858	16			CCV	K				4.8587		1.0000	07/28/95	13:54	die	0.3	ICP-QC
383	1858	16			CCV	LA				5.2328		1.0000	07/28/95	13:54	die	0.05	ICP-QC
384	1858	16			CCV	LI				5.2340		1.0000	07/28/95	13:54	die	0.01	ICP-QC
385	1858	16			CCV	MG				5.0990		1.0000	07/28/95	13:54	die	0.1	ICP-QC
386	1858	16			CCV	MN				5.0754		1.0000	07/28/95	13:54	die	0.01	ICP-QC
387	1858	16			CCV	MO				5.2327		1.0000	07/28/95	13:54	die	0.05	ICP-QC
388	1858	16			CCV	NA				5.2048		1.0000	07/28/95	13:54	die	0.1	ICP-QC
389	1858	16			CCV	ND				5.4447		1.0000	07/28/95	13:54	die	0.1	ICP-QC
390	1858	16			CCV	NI				5.1743		1.0000	07/28/95	13:54	die	0.02	ICP-QC
391	1858	16			CCV	P				5.4786		1.0000	07/28/95	13:54	die	0.2	ICP-QC
392	1858	16			CCV	PS				5.1590		1.0000	07/28/95	13:54	die	0.1	ICP-QC
393	1858	16			CCV	S				5.2255		1.0000	07/28/95	13:54	die	0.05	ICP-QC
394	1858	16			CCV	SB				4.9385		1.0000	07/28/95	13:54	die	0.2	ICP-QC
395	1858	16			CCV	SE				5.2184		1.0000	07/28/95	13:54	die	0.1	ICP-QC
396	1858	16			CCV	SI				5.2658		1.0000	07/28/95	13:54	die	0.05	ICP-QC
397	1858	16			CCV	SM				5.2484		1.0000	07/28/95	13:54	die	0.1	ICP-QC
398	1858	16			CCV	SR				5.1652		1.0000	07/28/95	13:54	die	0.01	ICP-QC
399	1858	16			CCV	TH				-0.0206		1.0000	07/28/95	13:54	die	0	ICP-QC
400	1858	16			CCV	TI				5.0831		1.0000	07/28/95	13:54	die	0.01	ICP-QC
401	1858	16			CCV	TL				5.0330		1.0000	07/28/95	13:54	die	0.2	ICP-QC
402	1858	16			CCV	U				10.4740		1.0000	07/28/95	13:54	die	0.4	ICP-QC
403	1858	16			CCV	V				5.1810		1.0000	07/28/95	13:54	die	0.05	ICP-QC
404	1858	16			CCV	Y				0.0130		1.0000	07/28/95	13:54	die	0.01	ICP-QC
405	1858	16			CCV	ZN				5.1590		1.0000	07/28/95	13:54	die	0.01	ICP-QC
406	1858	16			CCV	ZR				5.1632		1.0000	07/28/95	13:54	die	0.01	ICP-QC
407	1858	17			CCB	AG				-0.0005		1.0000	07/28/95	13:57	die	0.01	ICP-QC
408	1858	17			CCB	AL				-0.0145		1.0000	07/28/95	13:57	die	0.05	ICP-QC
409	1858	17			CCB	AS				-0.0057		1.0000	07/28/95	13:57	die	0.05	ICP-QC
410	1858	17			CCB	B				-0.0056		1.0000	07/28/95	13:57	die	0.05	ICP-QC
411	1858	17			CCB	BA				0.0001		1.0000	07/28/95	13:57	die	0.05	ICP-QC
412	1858	17			CCB	BE				-0.0003		1.0000	07/28/95	13:57	die	0.05	ICP-QC
413	1858	17			CCB	BI				-0.0218		1.0000	07/28/95	13:57	die	0.005	ICP-QC
414	1858	17			CCB	CA				0.0023		1.0000	07/28/95	13:57	die	0.1	ICP-QC
415	1858	17			CCB	CD				0.0005		1.0000	07/28/95	13:57	die	0.01	ICP-QC
416	1858	17			CCB	CE				0.0159		1.0000	07/28/95	13:57	die	0.1	ICP-QC
417	1858	17			CCB	CO				0.0008		1.0000	07/28/95	13:57	die	0.02	ICP-QC
418	1858	17			CCB	CR				-0.0012		1.0000	07/28/95	13:57	die	0.01	ICP-QC
419	1858	17			CCB	CU				0.0002		1.0000	07/28/95	13:57	die	0.01	ICP-QC
420	1858	17			CCB	EU				-0.0008		1.0000	07/28/95	13:57	die	0.05	ICP-QC
421	1858	17			CCB	FE				0.0003		1.0000	07/28/95	13:57	die	0.05	ICP-QC
422	1858	17			CCB	K				0.0704		1.0000	07/28/95	13:57	die	0.3	ICP-QC
423	1858	17			CCB	LA				0.0013		1.0000	07/28/95	13:57	die	0.05	ICP-QC
424	1858	17			CCB	LI				0.0002		1.0000	07/28/95	13:57	die	0.01	ICP-QC
425	1858	17			CCB	MG				0.0045		1.0000	07/28/95	13:57	die	0.1	ICP-QC
426	1858	17			CCB	MN				-0.0003		1.0000	07/28/95	13:57	die	0.01	ICP-QC
427	1858	17			CCB	MO				0.0006		1.0000	07/28/95	13:57	die	0.05	ICP-QC
428	1858	17			CCB	NA				-0.0061		1.0000	07/28/95	13:57	die	0.1	ICP-QC
429	1858	17			CCB	ND				0.0024		1.0000	07/28/95	13:57	die	0.1	ICP-QC
430	1858	17			CCB	NI				0.0039		1.0000	07/28/95	13:57	die	0.02	ICP-QC
431	1858	17			CCB	P				0.0126		1.0000	07/28/95	13:57	die	0.2	ICP-QC
432	1858	17			CCB	PS				0.0026		1.0000	07/28/95	13:57	die	0.1	ICP-QC
433	1858	17			CCB	S				-0.0029		1.0000	07/28/95	13:57	die	0.05	ICP-QC
434	1858	17			CCB	SB				-0.0018		1.0000	07/28/95	13:57	die	0.2	ICP-QC
435	1858	17			CCB	SE				0.0048		1.0000	07/28/95	13:57	die	0.1	ICP-QC
436	1858	17			CCB	SI				-0.0039		1.0000	07/28/95	13:57	die	0.05	ICP-QC
437	1858	17			CCB	SM				-0.0066		1.0000	07/28/95	13:57	die	0.1	ICP-QC
438	1858	17			CCB	SR				-0.0002		1.0000	07/28/95	13:57	die	0.01	ICP-QC
439	1858	17			CCB	TH				0.0025		1.0000	07/28/95	13:57	die	0	ICP-QC
440	1858	17			CCB	TI				0.0006		1.0000	07/28/95	13:57	die	0.01	ICP-QC
441	1858	17			CCB	TL				0.0125		1.0000	07/28/95	13:57	die	0.2	ICP-QC
442	1858	17			CCB	U				-0.0321		1.0000	07/28/95	13:57	die	0.4	ICP-QC
443	1858	17			CCB	V				-0.0015		1.0000	07/28/95	13:57	die	0.05	ICP-QC
444	1858	17			CCB	Y				-0.0003		1.0000	07/28/95	13:57	die	0.01	ICP-QC
445	1858	17			CCB	ZN				-0.0008		1.0000	07/28/95	13:57	die	0.01	ICP-QC
446	1858	17			CCB	ZR				-0.0005		1.0000	07/28/95	13:57	die	0.01	ICP-QC

WHC-SD-WM-DP-139, REV. 1

LABCORE Data Entry Template for Worklist# 1859

Analyst: DK Sato Instrument: ICP01² Book# 43B48B
 Method: LA-505-151/41 Rev/Mod A-1 8/24/95

Worklist Comment: ICP B-101 FUSION (Li only)

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	S95T001245	0 F	@ICP-F03	SOLID	95000093	B-101
Analytes Requested: LI-F-01						
7 DUP	S95T001245	0 F	@ICP-F03	SOLID		
8 SPK	S95T001245	0 F	@ICP-F03	SOLID		
9 CCV			@ICP-QC	QC		
10 CCB			@ICP-QC	QC		
11 PREPBLKTJA			@ICP-F03	SOLID		
12 SAMPLE	S95T001221	0 F	@ICP-F03	SOLID	95000091	B-101
Analytes Requested: LI-F-01						
13 DUP	S95T001221	0 F	@ICP-F03	SOLID		
14 SPK	S95T001221	0 F	@ICP-F03	SOLID		
15 ICSA			@ICP-QC	QC		
16 ICSAB			@ICP-QC	QC		
17 CCV			@ICP-QC	QC		
18 CCB			@ICP-QC	QC		

Data Entry Comments:

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

LABCORE Data Entry Template for Worklist# 1859

S Type	Sample#	R A	Test	Matrix	Group#	Project
18 ICSA			@ICP-QC	QC		
19 ICSAB			@ICP-QC	QC		
20 CCV			@ICP-QC	QC		
21 CCB			@ICP-QC	QC		

Final page for worklist # 1859

JK
Analyst Signature
Date 07-14-95

Revised + Validated by:
Sam M. Pung
Analyst Signature Date 07/25/95

PrepblKTA 1.4 ml
 $595T001245-L, .5578g \rightarrow 250ml, 1.4-1.8, (250 \times 50) / .5578 = 22409.5$
 $595T001245, .5578g \rightarrow 250 1.9 (250 \times 10) / .5578 = 4481.5$
 $595T001245-D, .5489g \rightarrow 250 1.9 (250 \times 10) / .5489 = 4554.6$
 $595T001245-Q, .5578g \rightarrow 250 1.9 (250 \times 10) / .5578 = 4481.5$ 1ml sample + 2ml SST5 + 7ml HNO₃
~~595T~~
⁰⁷⁻¹⁴⁻⁹⁵
 PrepblKTA 1.9 ml
 $595T001221-L, .5578g \rightarrow 250ml, 1.4-1.8, (250 \times 50) / .5578 = 22409.5$
 $595T001221, .5578g \rightarrow 250 1.9 (250 \times 10) / .5578 = 4481.5$
 $595T001221-D, .5529g \rightarrow 250 1.9 (250 \times 10) / .5529 = 4521.6$
 $595T001221-Q, .5578g \rightarrow 250 1.9 (250 \times 10) / .5578 = 4481.5$ 1ml sample + 2ml SST5 + 7ml HNO₃

Data Entry Comments:

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	ICV	950724B	ICP2	07/24/95	12:32	DKS	Q	CONC
2	ICB	950724B	ICP2	07/24/95	12:36	DKS	Q	CONC
3	ICSA	950724B	ICP2	07/24/95	12:39	DKS	Q	CONC
4	ICSAB	950724B	ICP2	07/24/95	12:43	DKS	Q	CONC
5	PREPBLKTJA	950724B	ICP2	07/24/95	12:48	DKS	S	CONC
6	S95T001245 L	950724B	ICP2	07/24/95	12:52	DKS	S	CONC
7	S95T001245-	950724B	ICP2	07/24/95	12:56	DKS	S	CONC
8	S95T001245 D	950724B	ICP2	07/24/95	13:00	DKS	S	CONC
9	S95T001245-A	950724B	ICP2	07/24/95	13:05	DKS	S	CONC
10	CCV	950724B	ICP2	07/24/95	13:51	DKS	Q	CONC
11	CCB	950724B	ICP2	07/24/95	13:55	DKS	Q	CONC
12	PREPBLKTJA	950724B	ICP2	07/24/95	13:59	DKS	S	CONC
13	S95T001221 L	950724B	ICP2	07/24/95	14:07	DKS	S	CONC
14	S95T001221-	950724B	ICP2	07/24/95	14:10	DKS	S	CONC
15	S95T001221 D	950724B	ICP2	07/24/95	14:14	DKS	S	CONC
16	S95T001221-A	950724B	ICP2	07/24/95	14:39	DKS	S	CONC
17	ICSA	950724B	ICP2	07/24/95	14:47	DKS	Q	CONC
18	ICSAB	950724B	ICP2	07/24/95	14:51	DKS	Q	CONC
19	CCV 1	950724B	ICP2	07/24/95	14:56	DKS	Q	CONC
20	CCB 1	950724B	ICP2	07/24/95	15:00	DKS	Q	CONC

DK Ld

07-24-95

B-101 S95T001245

S95T001221

Worklist # 1859

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 251 TO 255.

WHC-SD-WM-DP-139, REV. 1

#	Sample Name	Ag	Al	As	B	Ba	Be
1	ICV	4.957	5.070	5.314	5.123	5.179	5.329
2	ICB	.0011	.0088	.0132	.0000	.0001	.0003
3	ICSA	-.0001	246.5	.0506	-.0010	.0018	.0003
4	ICSAB	.9430	244.6	-.0003	-.0074	.4757	.4835
5	PREPBLKTJA	.0053	.0869	.0862	-.0630	.0109	.0005
6	S95T001245_L	247.9	224.6	350.0	-53.85	8.439	4.303
7	S95T001245_-	229.1	29.75	43.53	2.067	6.336	.2378
8	S95T001245_D	250.5	41.24	6.763	19.67	7.192	.4005
9	S95T001245_-A	4285.	4267.	5067.	4351.	4162.	4679.
10	CCV	4.800	4.925	5.055	4.998	4.953	5.102
11	CCB	.0014	-.0112	-.0013	.0038	-.0002	-.0002
12	PREPBLKTJA	-.0021	.0068	.0492	.0562	.0135	-.0033
13	S95T001221_L	137.3	181400.	-57.82	68.81	21.33	-2.891
14	S95T001221_-	140.6	178800.	-22.45	32.71	25.78	-.8224
15	S95T001221_D	126.0	187300.	7.023	22.44	25.76	-.6851
16	S95T001221_-A	3982.	181100.	4768.	4441.	4163.	4525.
17	ICSA	-.0010	243.5	-.0407	.0021	.0017	-.0000
18	ICSAB	.9474	243.0	-.0261	-.0036	.4616	.4849
19	CCV_1	4.894	4.940	5.279	5.079	4.939	5.293
20	CCB_1	-.0001	-.0071	-.0071	.0047	-.0000	-.0001

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	ICV	5.179	5.380	5.206	5.260	5.221	5.261
2	ICB	.0090	-.0025	.0005	.0011	-.0007	-.0002
3	ICSA	.0257	248.1	.0012	.0030	-.0001	.0049
4	ICSAB	-.0140	249.2	.9473	.0057	.4674	.4830
5	PREPBLKTJA	-.0266	.0814	-.0090	.0194	.0172	.0177
6	S95T001245_L	254.5	154.1	-7.876	66.08	-47.08	250.7
7	S95T001245_-	-25.67	109.1	7.080	-1.112	1.799	252.6
8	S95T001245_D	187.9	99.05	1.072	64.36	12.08	249.1
9	S95T001245_-A	4627.	5406.	4981.	4327.	4887.	5187.
10	CCV	4.960	5.035	5.012	5.036	5.064	5.051
11	CCB	-.0249	-.0027	-.0004	-.0116	-.0025	-.0017
12	PREPBLKTJA	-.4045	.1704	-.0059	-.0819	.0166	-.0111
13	S95T001221_L	-914.7	645.7	29.97	-165.3	6.104	169.7
14	S95T001221_-	18.19	709.3	16.99	6.943	-7.660	179.8
15	S95T001221_D	-101.4	655.4	14.54	-21.04	-3.900	179.5
16	S95T001221_-A	4431.	5273.	4593.	4359.	4542.	4728.
17	ICSA	-.0502	242.2	-.0015	.0052	-.0002	.0057
18	ICSAB	-.0068	247.8	.9725	.0130	.4800	.4934
19	CCV_1	5.051	5.400	5.306	5.068	5.307	5.279
20	CCB_1	.0113	-.0013	-.0011	-.0023	-.0015	-.0017

#	Sample Name	Cu	Eu	Fe	K	La	Li
1	ICV	5.134	.0062	5.251	4.883	5.240	5.153
2	ICB	.0009	-.0003	.0002	.0509	-.0000	.0001
3	ICSA	-.0094	-.0207	93.37	.0412	-.0045	.0018
4	ICSAB	.4865	-.0236	92.69	.1017	-.0038	.9767
5	PREPBLKTJA	.0210	.0186	.0241	10250.	-.0034	.0147

WHC-SD-WM-DP-139, REV. 1

#	Sample Name	Cu	Eu	Fe	K	La	Li
6	S95T001245 L	14.53	31.76	45.75	4810e3	6.650	130.1
7	S95T001245-	17.69	17.55	45.76	4487e3	-1.099	104.5 ✓
8	S95T001245 D	13.96	22.76	62.98	4494e3	7.758	110.4
9	S95T001245-A	4197.	30.85	4816.	4441e3	4292.	3893. ✓
10	CCV	4.970	.0067	5.045	4.926	5.020	5.017
11	CCB	-.0013	-.0006	.0002	-.0892	-.0016	-.0009
12	PREPBLKTJA	.0457	.0326	.2913	14690.	-.0178	.0228 ✓
13	S95T001221 L	34.96	-.7547	2507.	6730e3	-19.26	4.638
14	S95T001221-	54.16	3.501	2458.	6491e3	12.92	13.45
15	S95T001221 D	52.18	9.798	2416.	7093e3	5.983	17.31
16	S95T001221-A	4311.	11.53	6913.	6673e3	4339.	4195.
17	ICSA	-.0106	.0048	92.83	-.0682	-.0048	.0035
18	ICSAB	.4729	-.0002	93.74	.1573	-.0051	.9544
19	CCV 1	4.967	.0088	5.216	5.004	5.044	4.862
20	CCB-1	-.0000	.0006	-.0001	-.1610	-.0010	.0003

#	Sample Name	Mg	Mn	Mo	Na	Nd	Ni
1	ICV	5.028	5.099	5.249	5.117	5.249	5.215
2	ICB	-.0078	.0000	-.0025	-.0004	-.0012	-.0048
3	ICSA	245.2	-.0057	-.0060	193.7	.0004	-.0184
4	ICSAB	243.4	.4505	-.0109	192.6	.0019	.9293
5	PREPBLKTJA	.1115	.0152	-.0141	2.971	.0160	.0501
6	S95T001245 L	-.55.28	31.42	12.07	141000.	-13.69	403.1
7	S95T001245-	73.01	27.30	-1.230	131300.	23.89	266.7
8	S95T001245 D	38.40	29.35	-6.869	128600.	8.186	276.7
9	S95T001245-A	4229.	4646.	4923.	132300.	4221.	5198.
10	CCV	4.924	4.921	5.043	4.957	5.154	5.026
11	CCB	-.0114	-.0003	-.0012	-.0037	-.0037	.0048
12	PREPBLKTJA	.0570	.0463	-.0065	4.311	-.0303	12.18
13	S95T001221 L	-131.8	290.9	-18.64	69640.	-98.09	4473.
14	S95T001221-	162.6	288.1	2.014	67880.	-.4601	4483.
15	S95T001221 D	183.0	308.1	2.997	63090.	14.75	4417.
16	S95T001221-A	4418.	4610.	4549.	70850.	4427.	8986.
17	ICSA	247.9	-.0063	-.0074	190.0	.0081	-.0165
18	ICSAB	248.2	.4568	-.0102	189.1	.0067	.9331
19	CCV 1	4.996	5.113	5.261	4.882	5.157	5.277
20	CCB-1	-.0019	.0002	-.0044	.0040	-.0011	-.0007

#	Sample Name	P	Pb	S	Sb	Se	Si
1	ICV	5.392	5.220	5.098	4.955	5.192	5.007
2	ICB	-.0198	.0123	-.0126	.0021	.0527	.0050
3	ICSA	-.0323	.0207	-.0380	.0121	.0272	.0398
4	ICSAB	-.0171	.9820	-.0246	-.0058	.0269	.0388
5	PREPBLKTJA	.1114	.0749	-.0681	-.0566	.7928	.2353
6	S95T001245 L	1496.	116.8	5383.	-235.8	1010.	382.2
7	S95T001245-	1947.	89.03	5650.	-17.77	-116.5	192.9
8	S95T001245 D	1977.	34.19	5501.	6.293	-16.32	177.2
9	S95T001245-A	7001.	4974.	10430.	4577.	4840.	4860.
10	CCV	5.090	5.009	5.009	4.756	4.987	5.086
11	CCB	.0125	-.0069	-.0157	-.0141	.0063	.0027

WHC-SD-WM-DP-139, REV. 1

#	Sample Name	P	Pb	S	Sb	Se	Si
12	PREPBLKTJA	-.1480	.0532	-.0991	-.0858	.6050	.3191
13	S95T001221_L	1792.	581.9	1981.	-192.7	502.6	3704.
14	S95T001221-	2162.	508.3	2151.	-31.47	333.6	3752.
15	S95T001221_D	2272.	607.4	2150.	-55.70	492.1	4089.
16	S95T001221-A	6861.	5031.	6803.	4384.	4896.	8191.
17	ICSA	-.0470	.0291	-.0332	.0008	-.0301	.0475
18	ICSAB	.0008	.9960	-.0292	.0043	.0042	.0486
19	CCV_1	5.318	5.256	5.193	4.914	5.175	5.146
20	CCB_1	.0091	.0010	-.0101	-.0005	.0205	.0078

#	Sample Name	Sm	Sr	Th	Ti	Tl	U
1	ICV	5.091	5.151	.0364	5.075	5.006	9.921
2	ICB	-.0071	-.0001	-.0002	-.0002	-.0054	-.0119
3	ICSA	-.0227	.0018	-.0140	.0015	.0768	-.2762
4	ICSAB	-.0205	.0018	-.0088	.0015	.0434	-.2568
5	PREPBLKTJA	.1235	.0064	.1312	.0045	.1067	-2.223
6	S95T001245_L	276.1	7.443	23.87	.4051	646.1	-161.2
7	S95T001245-	157.0	4.506	32.51	7.005	-72.56	-566.4
8	S95T001245_D	227.8	5.880	37.78	3.285	20.54	-327.0
9	S95T001245-A	4305.	4213.	34.61	4403.	4483.	7638.
10	CCV	5.034	4.925	-.0005	4.869	4.878	10.07
11	CCB	-.0046	-.0001	-.0077	-.0006	.0035	-.0205
12	PREPBLKTJA	.3305	.0097	.0432	-.0016	.0558	-2.645
13	S95T001221_L	18.19	19.08	55.69	4.666	9.946	24240.
14	S95T001221-	41.53	21.00	101.3	25.12	-10.54	23420.
15	S95T001221_D	89.90	22.33	68.32	22.60	-47.78	12740.
16	S95T001221-A	4359.	4228.	138.7	4304.	4413.	31570.
17	ICSA	.0019	.0025	-.0134	.0019	.0519	.0258
18	ICSAB	.0101	.0024	-.0016	.0023	.0715	.0151
19	CCV_1	5.042	4.942	.0040	4.988	5.153	10.09
20	CCB_1	.0054	.0000	-.0086	.0000	.0176	.0291

#	Sample Name	V	Y	Zn	Zr
1	ICV	5.165	.0129	5.152	5.118
2	ICB	-.0005	-.0003	.0000	-.0012
3	ICSA	-.0011	.0068	-.0006	-.0030
4	ICSAB	.4703	.0070	.9682	-.0030
5	PREPBLKTJA	.0407	.0071	.0056	.0065
6	S95T001245_L	79.21	19.32	18.39	31.69
7	S95T001245-	42.80	9.836	19.55	20.68
8	S95T001245_D	55.88	12.85	19.03	25.84
9	S95T001245-A	4720.	27.40	4970.	4480.
10	CCV	4.995	.0130	5.014	4.967
11	CCB	-.0009	-.0003	-.0011	.0004
12	PREPBLKTJA	.0721	.0180	.0238	.0335
13	S95T001221_L	22.35	15.81	105.2	37.89
14	S95T001221-	19.22	15.81	76.89	29.60
15	S95T001221_D	28.58	14.89	78.61	45.36
16	S95T001221-A	4470.	29.52	4675.	4427.
17	ICSA	.0005	.0081	.0007	-.0009

WHC-SD-WM-DP-139, REV. 1

#	Sample Name	V	Y	Zn	Zr
8	ICSAB	.4799	.0085	.9921	-.0021
CCV_1		5.163	.0145	5.240	5.069
20	CCB_1	.0016	.0004	.0006	.0007

JK LcD
7-24-95

WHC-SD-WM-DP-132, REV. 1

ICP MACRO

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	
1	1859	1		ICV	AG						4.8572		1.0000	07/24/95	12:32	dis	0.01	ICP-QC
2	1859	1		ICV	AL						5.0778		1.0000	07/24/95	12:32	dis	0.05	ICP-QC
3	1859	1		ICV	AS						5.3138		1.0000	07/24/95	12:32	dis	0.05	ICP-QC
4	1859	1		ICV	B						5.4728		1.0000	07/24/95	12:32	dis	0.05	ICP-QC
5	1859	1		ICV	BA						5.1787		1.0000	07/24/95	12:32	dis	0.05	ICP-QC
6	1859	1		ICV	BE						5.3282		1.0000	07/24/95	12:32	dis	0.005	ICP-QC
7	1859	1		ICV	BI						5.1786		1.0000	07/24/95	12:32	dis	0.1	ICP-QC
8	1859	1		ICV	CA						5.3800		1.0000	07/24/95	12:32	dis	0.1	ICP-QC
9	1859	1		ICV	CD						5.2080		1.0000	07/24/95	12:32	dis	0.01	ICP-QC
10	1859	1		ICV	CE						5.2803		1.0000	07/24/95	12:32	dis	0.1	ICP-QC
11	1859	1		ICV	CO						5.2215		1.0000	07/24/95	12:32	dis	0.02	ICP-QC
12	1859	1		ICV	CR						5.2609		1.0000	07/24/95	12:32	dis	0.01	ICP-QC
13	1859	1		ICV	CU						5.1342		1.0000	07/24/95	12:32	dis	0.01	ICP-QC
14	1859	1		ICV	EU						0.0082		1.0000	07/24/95	12:32	dis	0.05	ICP-QC
15	1859	1		ICV	FE						5.2505		1.0000	07/24/95	12:32	dis	0.05	ICP-QC
16	1859	1		ICV	K						4.8828		1.0000	07/24/95	12:32	dis	0.3	ICP-QC
17	1859	1		ICV	LA						5.2387		1.0000	07/24/95	12:32	dis	0.05	ICP-QC
18	1859	1		ICV	LI						5.1529		1.0000	07/24/95	12:32	dis	0.01	ICP-QC
19	1859	1		ICV	MG						5.0283		1.0000	07/24/95	12:32	dis	0.1	ICP-QC
20	1859	1		ICV	MN						5.0984		1.0000	07/24/95	12:32	dis	0.01	ICP-QC
21	1859	1		ICV	MO						5.2480		1.0000	07/24/95	12:32	dis	0.05	ICP-QC
22	1859	1		ICV	NA						5.1173		1.0000	07/24/95	12:32	dis	0.1	ICP-QC
23	1859	1		ICV	ND						5.2486		1.0000	07/24/95	12:32	dis	0.1	ICP-QC
24	1859	1		ICV	NI						5.2148		1.0000	07/24/95	12:32	dis	0.02	ICP-QC
25	1859	1		ICV	P						5.3918		1.0000	07/24/95	12:32	dis	0.2	ICP-QC
26	1859	1		ICV	PB						5.2202		1.0000	07/24/95	12:32	dis	0.1	ICP-QC
27	1859	1		ICV	S						5.0943		1.0000	07/24/95	12:32	dis	0.05	ICP-QC
28	1859	1		ICV	SB						4.9554		1.0000	07/24/95	12:32	dis	0.2	ICP-QC
29	1859	1		ICV	SE						5.1923		1.0000	07/24/95	12:32	dis	0.1	ICP-QC
30	1859	1		ICV	SI						5.0065		1.0000	07/24/95	12:32	dis	0.05	ICP-QC
31	1859	1		ICV	SM						5.0906		1.0000	07/24/95	12:32	dis	0.1	ICP-QC
32	1859	1		ICV	SR						5.1512		1.0000	07/24/95	12:32	dis	0.01	ICP-QC
33	1859	1		ICV	TH						0.0364		1.0000	07/24/95	12:32	dis	0	ICP-QC
34	1859	1		ICV	TI						5.0746		1.0000	07/24/95	12:32	dis	0.01	ICP-QC
35	1859	1		ICV	TL						5.0058		1.0000	07/24/95	12:32	dis	0.2	ICP-QC
36	1859	1		ICV	U						9.9214		1.0000	07/24/95	12:32	dis	0.4	ICP-QC
37	1859	1		ICV	V						5.1650		1.0000	07/24/95	12:32	dis	0.05	ICP-QC
38	1859	1		ICV	Y						0.0129		1.0000	07/24/95	12:32	dis	0.01	ICP-QC
39	1859	1		ICV	ZN						5.1524		1.0000	07/24/95	12:32	dis	0.01	ICP-QC
40	1859	1		ICV	ZR						5.1181		1.0000	07/24/95	12:32	dis	0.01	ICP-QC
41	1859	2		ICB	AG						0.0011		1.0000	07/24/95	12:36	dis	0.01	ICP-QC
42	1859	2		ICB	AL						0.0068		1.0000	07/24/95	12:36	dis	0.05	ICP-QC
43	1859	2		ICB	AS						0.0132		1.0000	07/24/95	12:36	dis	0.05	ICP-QC
44	1859	2		ICB	B						0.0000		1.0000	07/24/95	12:36	dis	0.05	ICP-QC
45	1859	2		ICB	BA						0.0001		1.0000	07/24/95	12:36	dis	0.05	ICP-QC
46	1859	2		ICB	BE						0.0003		1.0000	07/24/95	12:36	dis	0.005	ICP-QC
47	1859	2		ICB	BI						0.0080		1.0000	07/24/95	12:36	dis	0.1	ICP-QC
48	1859	2		ICB	CA						-0.0025		1.0000	07/24/95	12:36	dis	0.1	ICP-QC
49	1859	2		ICB	CD						0.0005		1.0000	07/24/95	12:36	dis	0.01	ICP-QC
50	1859	2		ICB	CE						0.0011		1.0000	07/24/95	12:36	dis	0.1	ICP-QC
51	1859	2		ICB	CO						-0.0007		1.0000	07/24/95	12:36	dis	0.02	ICP-QC
52	1859	2		ICB	CR						-0.0002		1.0000	07/24/95	12:36	dis	0.01	ICP-QC
53	1859	2		ICB	CU						0.0009		1.0000	07/24/95	12:36	dis	0.01	ICP-QC
54	1859	2		ICB	EU						-0.0003		1.0000	07/24/95	12:36	dis	0.05	ICP-QC
55	1859	2		ICB	FE						0.0002		1.0000	07/24/95	12:36	dis	0.05	ICP-QC
56	1859	2		ICB	K						0.0509		1.0000	07/24/95	12:36	dis	0.3	ICP-QC
57	1859	2		ICB	LA						-0.0000		1.0000	07/24/95	12:36	dis	0.05	ICP-QC
58	1859	2		ICB	LI						0.0001		1.0000	07/24/95	12:36	dis	0.01	ICP-QC
59	1859	2		ICB	MG						-0.0078		1.0000	07/24/95	12:36	dis	0.1	ICP-QC
60	1859	2		ICB	MN						0.0000		1.0000	07/24/95	12:36	dis	0.01	ICP-QC
61	1859	2		ICB	MO						-0.0025		1.0000	07/24/95	12:36	dis	0.05	ICP-QC
62	1859	2		ICB	NA						-0.0004		1.0000	07/24/95	12:36	dis	0.1	ICP-QC
63	1859	2		ICB	ND						-0.0012		1.0000	07/24/95	12:36	dis	0.1	ICP-QC
64	1859	2		ICB	NI						-0.0048		1.0000	07/24/95	12:36	dis	0.02	ICP-QC
65	1859	2		ICB	P						-0.0198		1.0000	07/24/95	12:36	dis	0.2	ICP-QC
66	1859	2		ICB	PB						0.0123		1.0000	07/24/95	12:36	dis	0.1	ICP-QC
67	1859	2		ICB	S						-0.0126		1.0000	07/24/95	12:36	dis	0.05	ICP-QC
68	1859	2		ICB	SB						0.0021		1.0000	07/24/95	12:36	dis	0.2	ICP-QC
69	1859	2		ICB	SE						0.0327		1.0000	07/24/95	12:36	dis	0.1	ICP-QC
70	1859	2		ICB	SI						0.0050		1.0000	07/24/95	12:36	dis	0.05	ICP-QC
71	1859	2		ICB	SM						-0.0071		1.0000	07/24/95	12:36	dis	0.1	ICP-QC
72	1859	2		ICB	SR						-0.0001		1.0000	07/24/95	12:36	dis	0.01	ICP-QC
73	1859	2		ICB	TH						-0.0002		1.0000	07/24/95	12:36	dis	0	ICP-QC
74	1859	2		ICB	TI						-0.0002		1.0000	07/24/95	12:36	dis	0.01	ICP-QC
75	1859	2		ICB	TL						-0.0054		1.0000	07/24/95	12:36	dis	0.2	ICP-QC
76	1859	2		ICB	U						-0.0119		1.0000	07/24/95	12:36	dis	0.4	ICP-QC
77	1859	2		ICB	V						-0.0005		1.0000	07/24/95	12:36	dis	0.05	ICP-QC
78	1859	2		ICB	Y						-0.0003		1.0000	07/24/95	12:36	dis	0.01	ICP-QC
79	1859	2		ICB	ZN						0.0000		1.0000	07/24/95	12:36	dis	0.01	ICP-QC
80	1859	2		ICB	ZR						-0.0012		1.0000	07/24/95	12:36	dis	0.01	ICP-QC
81	1859	3		ICSA	AG						-0.0001		1.0000	07/24/95	12:39	dis	0.01	ICP-QC
82	1859	3		ICSA	AL						248.5983		1.0000	07/24/95	12:39	dis	0.05	ICP-QC
83	1859	3		ICSA	AS						0.0508		1.0000	07/24/95	12:39	dis	0.05	ICP-QC
84	1859	3		ICSA	B						-0.0010		1.0000	07/24/95	12:39	dis	0.05	ICP-QC
85	1859	3		ICSA	BA						0.0018		1.0000	07/24/95	12:39	dis	0.05	ICP-QC
86	1859	3		ICSA	BE						0.0003		1.0000	07/24/95	12:39	dis	0.005	ICP-QC
87	1859	3		ICSA	BI						0.0257		1.0000	07/24/95	12:39	dis	0.1	ICP-QC
88	1859	3		ICSA	CA						248.0586		1.0000	07/24/95	12:39	dis	0.1	ICP-QC
89	1859	3		ICSA	CD						0.0012		1.0000	07/24/95	12:39	dis	0.01	ICP-QC
90	1859	3		ICSA	CE						0.0030		1.					

ICP MACRO

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
123	1859	4			ICSAB	AS				-0.0003		1.0000	07/24/95	12:43	dis	0.05	ICP-CC
124	1859	4			ICSAB	B				-0.0074		1.0000	07/24/95	12:43	dis	0.05	ICP-CC
125	1859	4			ICSAB	BA				0.4747		1.0000	07/24/95	12:43	dis	0.05	ICP-CC
126	1859	4			ICSAB	BE				0.4835		1.0000	07/24/95	12:43	dis	0.005	ICP-CC
127	1859	4			ICSAB	BI				-0.0140		1.0000	07/24/95	12:43	dis	0.1	ICP-CC
128	1859	4			ICSAB	CA				249.1851		1.0000	07/24/95	12:43	dis	0.1	ICP-CC
129	1859	4			ICSAB	CD				0.9473		1.0000	07/24/95	12:43	dis	0.01	ICP-CC
130	1859	4			ICSAB	CE				0.0057		1.0000	07/24/95	12:43	dis	0.1	ICP-CC
131	1859	4			ICSAB	CO				0.4874		1.0000	07/24/95	12:43	dis	0.02	ICP-CC
132	1859	4			ICSAB	CR				0.4830		1.0000	07/24/95	12:43	dis	0.01	ICP-CC
133	1859	4			ICSAB	CU				0.4885		1.0000	07/24/95	12:43	dis	0.01	ICP-CC
134	1859	4			ICSAB	EU				-0.0238		1.0000	07/24/95	12:43	dis	0.05	ICP-CC
135	1859	4			ICSAB	FE				92.8618		1.0000	07/24/95	12:43	dis	0.05	ICP-CC
136	1859	4			ICSAB	K				0.1017		1.0000	07/24/95	12:43	dis	0.3	ICP-CC
137	1859	4			ICSAB	LA				-0.0038		1.0000	07/24/95	12:43	dis	0.05	ICP-CC
138	1859	4			ICSAB	LI				0.9787		1.0000	07/24/95	12:43	dis	0.01	ICP-CC
139	1859	4			ICSAB	MG				243.3990		1.0000	07/24/95	12:43	dis	0.1	ICP-CC
140	1859	4			ICSAB	MN				0.4505		1.0000	07/24/95	12:43	dis	0.01	ICP-CC
141	1859	4			ICSAB	MO				-0.0109		1.0000	07/24/95	12:43	dis	0.05	ICP-CC
142	1859	4			ICSAB	NA				192.8380		1.0000	07/24/95	12:43	dis	0.1	ICP-CC
143	1859	4			ICSAB	NO				0.0019		1.0000	07/24/95	12:43	dis	0.1	ICP-CC
144	1859	4			ICSAB	NI				0.9293		1.0000	07/24/95	12:43	dis	0.02	ICP-CC
145	1859	4			ICSAB	P				-0.0171		1.0000	07/24/95	12:43	dis	0.2	ICP-CC
146	1859	4			ICSAB	PB				0.9820		1.0000	07/24/95	12:43	dis	0.1	ICP-CC
147	1859	4			ICSAB	S				-0.0248		1.0000	07/24/95	12:43	dis	0.05	ICP-CC
148	1859	4			ICSAB	SB				-0.0058		1.0000	07/24/95	12:43	dis	0.2	ICP-CC
149	1859	4			ICSAB	SE				0.0289		1.0000	07/24/95	12:43	dis	0.1	ICP-CC
150	1859	4			ICSAB	SI				0.0388		1.0000	07/24/95	12:43	dis	0.05	ICP-CC
151	1859	4			ICSAB	SM				-0.0205		1.0000	07/24/95	12:43	dis	0.1	ICP-CC
152	1859	4			ICSAB	SR				0.0018		1.0000	07/24/95	12:43	dis	0.01	ICP-CC
153	1859	4			ICSAB	TH				-0.0088		1.0000	07/24/95	12:43	dis	0	ICP-CC
154	1859	4			ICSAB	TI				0.0015		1.0000	07/24/95	12:43	dis	0.01	ICP-CC
155	1859	4			ICSAB	TL				0.0434		1.0000	07/24/95	12:43	dis	0.2	ICP-CC
156	1859	4			ICSAB	U				-0.2568		1.0000	07/24/95	12:43	dis	0.4	ICP-CC
157	1859	4			ICSAB	V				0.4703		1.0000	07/24/95	12:43	dis	0.05	ICP-CC
158	1859	4			ICSAB	Y				0.0070		1.0000	07/24/95	12:43	dis	0.01	ICP-CC
159	1859	4			ICSAB	ZN				0.9682		1.0000	07/24/95	12:43	dis	0.01	ICP-CC
160	1859	4			ICSAB	AG				-0.0030		1.0000	07/24/95	12:43	dis	0.01	ICP-CC
161	1859	5			PREPBLKTJA	AR-F-01				0.0053		10.0000	07/24/95	12:46	dis	0.01	ICP-F03
162	1859	5			PREPBLKTJA	AL-F-01				0.0689		10.0000	07/24/95	12:46	dis	0.05	ICP-F03
163	1859	5			PREPBLKTJA	AS-F-01				0.0862		10.0000	07/24/95	12:46	dis	0.05	ICP-F03
164	1859	5			PREPBLKTJA	B-F-01				-0.0630		10.0000	07/24/95	12:46	dis	0.05	ICP-F03
165	1859	5			PREPBLKTJA	BA-F-01				0.0109		10.0000	07/24/95	12:46	dis	0.05	ICP-F03
166	1859	5			PREPBLKTJA	BE-F-01				0.0005		10.0000	07/24/95	12:46	dis	0.005	ICP-F03
167	1859	5			PREPBLKTJA	BI-F-01				-0.6286		10.0000	07/24/95	12:46	dis	0.1	ICP-F03
168	1859	5			PREPBLKTJA	CA-F-01				0.0814		10.0000	07/24/95	12:46	dis	0.1	ICP-F03
169	1859	5			PREPBLKTJA	CD-F-01				-0.0090		10.0000	07/24/95	12:46	dis	0.01	ICP-F03
170	1859	5			PREPBLKTJA	CE-F-01				0.0194		10.0000	07/24/95	12:46	dis	0.1	ICP-F03
171	1859	5			PREPBLKTJA	CO-F-01				0.0172		10.0000	07/24/95	12:46	dis	0.02	ICP-F03
172	1859	5			PREPBLKTJA	CR-F-01				0.0177		10.0000	07/24/95	12:46	dis	0.01	ICP-F03
173	1859	5			PREPBLKTJA	CU-F-01				0.0210		10.0000	07/24/95	12:46	dis	0.05	ICP-F03
174	1859	5			PREPBLKTJA	EU-F-01				0.0188		10.0000	07/24/95	12:46	dis	0.05	ICP-F03
175	1859	5			PREPBLKTJA	FE-F-01				0.0241		10.0000	07/24/95	12:46	dis	0.05	ICP-F03
176	1859	5			PREPBLKTJA	K-F-01				10248.0830		10.0000	07/24/95	12:46	dis	0.3	ICP-F03
177	1859	5			PREPBLKTJA	LA-F-01				-0.0034		10.0000	07/24/95	12:46	dis	0.05	ICP-F03
178	1859	5			PREPBLKTJA	LI-F-01				0.0015		10.0000	07/24/95	12:46	dis	0.01	ICP-F03
179	1859	5			PREPBLKTJA	MG-F-01				0.1115		10.0000	07/24/95	12:46	dis	0.1	ICP-F03
180	1859	5			PREPBLKTJA	NI-F-01				0.0182		10.0000	07/24/95	12:46	dis	0.01	ICP-F03
181	1859	5			PREPBLKTJA	NO-F-01				-0.0141		10.0000	07/24/95	12:46	dis	0.05	ICP-F03
182	1859	5			PREPBLKTJA	NA-F-01				2.9710		10.0000	07/24/95	12:46	dis	0.1	ICP-F03
183	1859	5			PREPBLKTJA	ND-F-01				0.0180		10.0000	07/24/95	12:46	dis	0.1	ICP-F03
184	1859	5			PREPBLKTJA	NI-F-01				0.0501		10.0000	07/24/95	12:46	dis	0.02	ICP-F03
185	1859	5			PREPBLKTJA	P-F-01				0.1114		10.0000	07/24/95	12:46	dis	0.2	ICP-F03
186	1859	5			PREPBLKTJA	PB-F-01				0.0749		10.0000	07/24/95	12:46	dis	0.1	ICP-F03
187	1859	5			PREPBLKTJA	S-F-01				-0.0681		10.0000	07/24/95	12:46	dis	0.05	ICP-F03
188	1859	5			PREPBLKTJA	SB-F-01				-0.0586		10.0000	07/24/95	12:46	dis	0.2	ICP-F03
189	1859	5			PREPBLKTJA	SE-F-01				0.7928		10.0000	07/24/95	12:46	dis	0.1	ICP-F03
190	1859	5			PREPBLKTJA	SH-F-01				0.2353		10.0000	07/24/95	12:46	dis	0.05	ICP-F03
191	1859	5			PREPBLKTJA	SM-F-01				0.1235		10.0000	07/24/95	12:46	dis	0.1	ICP-F03
192	1859	5			PREPBLKTJA	SR-F-01				0.0084		10.0000	07/24/95	12:46	dis	0.01	ICP-F03
193	1859	5			PREPBLKTJA	TH-F-01				0.1312		10.0000	07/24/95	12:46	dis	0	ICP-F03
194	1859	5			PREPBLKTJA	TI-F-01				0.0045		10.0000	07/24/95	12:46	dis	0.01	ICP-F03
195	1859	5			PREPBLKTJA	TL-F-01				0.1067		10.0000	07/24/95	12:46	dis	0.2	ICP-F03
196	1859	5			PREPBLKTJA	U-F-01				-2.2228		10.0000	07/24/95	12:46	dis	0.4	ICP-F03
197	1859	5			PREPBLKTJA	V-F-01				0.0407		10.0000	07/24/95	12:46	dis	0.05	ICP-F03
198	1859	5			PREPBLKTJA	Y-F-01				0.0071		10.0000	07/24/95	12:46	dis	0.01	ICP-F03
199	1859	5			PREPBLKTJA	ZN-F-01				0.0056		10.0000	07/24/95	12:46	dis	0.01	ICP-F03
200	1859	5			PREPBLKTJA	ZF-F-01				0.0085		10.0000	07/24/95	12:46	dis	0.01	ICP-F03
201	1859	6			S95T001245	LH-F-01				104.4857		4841.8000	07/24/95	13:00	dis	0.01	ICP-F03
202	1859	7			S95T001245	LH-F-01				110.3774		4584.8000	07/24/95	13:05	dis	0.01	ICP-F03
203	1859	8			S95T001245_A	LI-F-01				3788.50		4481.8000	07/24/95	13:51	dis	0.01	ICP-CC
204	1859	9			SPK	AG				4.8005		1.0000	07/24/95	13:51	dis	0.01	ICP-CC
205	1859	9			CCV	AL				4.9248		1.0000	07/24/95	13:51	dis	0.05	ICP-CC
206	1859	9			CCV	AS				5.0549		1.0000	07/24/95	13:51	dis	0.05	ICP-CC
207	1859	9			CCV	B				4.9978		1.0000	07/24/95	13:51	dis	0.05	ICP-CC
208	1859	9			CCV	BA				4.9531		1.0000	07/24/95	13:51	dis	0.05	ICP-CC
209	1859	9			CCV	BE				5.1016		1.0000	07/24/95	13:51	dis	0.005	ICP-CC
210	1859	9			CCV	BI				4.9598		1.0000	07/24/95	13:51	dis	0.1	ICP-CC
211	1859	9			CCV	CA											

ICP MACRO

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
245	1859	10		CCB	AL	-0.0112				1.0000	07/24/95	13:55	dis	0.05	ICP-QC		
246	1859	10		CCB	AS	-0.0013				1.0000	07/24/95	13:55	dis	0.05	ICP-QC		
247	1859	10		CCB	B	0.0034				1.0000	07/24/95	13:55	dis	0.05	ICP-QC		
248	1859	10		CCB	BA	-0.0002				1.0000	07/24/95	13:55	dis	0.05	ICP-QC		
249	1859	10		CCB	BE	-0.0002				1.0000	07/24/95	13:55	dis	0.05	ICP-QC		
250	1859	10		CCB	BI	-0.0249				1.0000	07/24/95	13:55	dis	0.1	ICP-QC		
251	1859	10		CCB	CA	-0.0027				1.0000	07/24/95	13:55	dis	0.1	ICP-QC		
252	1859	10		CCB	CD	-0.0004				1.0000	07/24/95	13:55	dis	0.01	ICP-QC		
253	1859	10		CCB	CE	-0.0116				1.0000	07/24/95	13:55	dis	0.1	ICP-QC		
254	1859	10		CCB	CO	-0.0025				1.0000	07/24/95	13:55	dis	0.02	ICP-QC		
255	1859	10		CCB	CR	-0.0017				1.0000	07/24/95	13:55	dis	0.01	ICP-QC		
256	1859	10		CCB	CU	-0.0013				1.0000	07/24/95	13:55	dis	0.01	ICP-QC		
257	1859	10		CCB	EU	-0.0006				1.0000	07/24/95	13:55	dis	0.05	ICP-QC		
258	1859	10		CCB	FE	0.0002				1.0000	07/24/95	13:55	dis	0.05	ICP-QC		
259	1859	10		CCB	K	-0.0492				1.0000	07/24/95	13:55	dis	0.3	ICP-QC		
260	1859	10		CCB	LA	-0.0016				1.0000	07/24/95	13:55	dis	0.05	ICP-QC		
261	1859	10		CCB	LI	-0.0000				1.0000	07/24/95	13:55	dis	0.01	ICP-QC		
262	1859	10		CCB	MG	-0.0114				1.0000	07/24/95	13:55	dis	0.1	ICP-QC		
263	1859	10		CCB	MN	-0.0003				1.0000	07/24/95	13:55	dis	0.01	ICP-QC		
264	1859	10		CCB	MO	-0.0012				1.0000	07/24/95	13:55	dis	0.05	ICP-QC		
265	1859	10		CCB	NA	-0.0037				1.0000	07/24/95	13:55	dis	0.1	ICP-QC		
266	1859	10		CCB	NO	-0.0037				1.0000	07/24/95	13:55	dis	0.1	ICP-QC		
267	1859	10		CCB	NI	0.0048				1.0000	07/24/95	13:55	dis	0.02	ICP-QC		
268	1859	10		CCB	P	0.0125				1.0000	07/24/95	13:55	dis	0.2	ICP-QC		
269	1859	10		CCB	PB	-0.0089				1.0000	07/24/95	13:55	dis	0.1	ICP-QC		
270	1859	10		CCB	S	-0.0147				1.0000	07/24/95	13:55	dis	0.05	ICP-QC		
271	1859	10		CCB	SB	0.0083				1.0000	07/24/95	13:55	dis	0.2	ICP-QC		
272	1859	10		CCB	SE	0.0027				1.0000	07/24/95	13:55	dis	0.05	ICP-QC		
273	1859	10		CCB	SI	-0.0046				1.0000	07/24/95	13:55	dis	0.1	ICP-QC		
274	1859	10		CCB	SM	-0.0001				1.0000	07/24/95	13:55	dis	0.01	ICP-QC		
275	1859	10		CCB	SR	-0.0077				1.0000	07/24/95	13:55	dis	0.2	ICP-QC		
276	1859	10		CCB	TH	-0.0006				1.0000	07/24/95	13:55	dis	0.01	ICP-QC		
277	1859	10		CCB	TI	0.0035				1.0000	07/24/95	13:55	dis	0.2	ICP-QC		
278	1859	10		CCB	TL	-0.0205				1.0000	07/24/95	13:55	dis	0.4	ICP-QC		
279	1859	10		CCB	U	-0.0000				1.0000	07/24/95	13:55	dis	0.05	ICP-QC		
280	1859	10		CCB	Y	-0.0003				1.0000	07/24/95	13:55	dis	0.01	ICP-QC		
281	1859	10		CCB	ZN	-0.0011				1.0000	07/24/95	13:55	dis	0.01	ICP-QC		
282	1859	10		CCB	ZR	0.0004				1.0000	07/24/95	13:55	dis	0.01	ICP-QC		
283	1859	10		PREPBLKTJA	AG-F-01	-0.0021				10.0000	07/24/95	13:59	dis	0.01	ICP-F03		
284	1859	11		PREPBLKTJA	AL-F-01	0.0088				10.0000	07/24/95	13:59	dis	0.05	ICP-F03		
285	1859	11		PREPBLKTJA	AS-F-01	0.0492				10.0000	07/24/95	13:59	dis	0.05	ICP-F03		
286	1859	11		PREPBLKTJA	B-F-01	0.0562				10.0000	07/24/95	13:59	dis	0.05	ICP-F03		
287	1859	11		PREPBLKTJA	BA-F-01	0.0135				10.0000	07/24/95	13:59	dis	0.05	ICP-F03		
288	1859	11		PREPBLKTJA	BE-F-01	-0.0033				10.0000	07/24/95	13:59	dis	0.005	ICP-F03		
289	1859	11		PREPBLKTJA	BF-F-01	-0.4045				10.0000	07/24/95	13:59	dis	0.1	ICP-F03		
290	1859	11		PREPBLKTJA	CA-F-01	0.1704				10.0000	07/24/95	13:59	dis	0.1	ICP-F03		
291	1859	11		PREPBLKTJA	CD-F-01	-0.0059				10.0000	07/24/95	13:59	dis	0.01	ICP-F03		
292	1859	11		PREPBLKTJA	CE-F-01	-0.0519				10.0000	07/24/95	13:59	dis	0.1	ICP-F03		
293	1859	11		PREPBLKTJA	CO-F-01	0.0186				10.0000	07/24/95	13:59	dis	0.02	ICP-F03		
294	1859	11		PREPBLKTJA	CR-F-01	-0.0111				10.0000	07/24/95	13:59	dis	0.01	ICP-F03		
295	1859	11		PREPBLKTJA	CJ-F-01	0.0457				10.0000	07/24/95	13:59	dis	0.01	ICP-F03		
296	1859	11		PREPBLKTJA	EU-F-01	0.0326				10.0000	07/24/95	13:59	dis	0.05	ICP-F03		
297	1859	11		PREPBLKTJA	FE-F-01	0.2913				10.0000	07/24/95	13:59	dis	0.05	ICP-F03		
298	1859	11		PREPBLKTJA	K-F-01	14.065.8086				10.0000	07/24/95	13:59	dis	0.3	ICP-F03		
299	1859	11		PREPBLKTJA	LA-F-01	-0.0178				10.0000	07/24/95	13:59	dis	0.05	ICP-F03		
300	1859	11		PREPBLKTJA	LI-F-01	0.0023				10.0000	07/24/95	13:59	dis	0.01	ICP-F03		
301	1859	11		PREPBLKTJA	MG-F-01	0.0570				10.0000	07/24/95	13:59	dis	0.1	ICP-F03		
302	1859	11		PREPBLKTJA	MN-F-01	0.0483				10.0000	07/24/95	13:59	dis	0.01	ICP-F03		
303	1859	11		PREPBLKTJA	MO-F-01	-0.0065				10.0000	07/24/95	13:59	dis	0.05	ICP-F03		
304	1859	11		PREPBLKTJA	NA-F-01	4.3111				10.0000	07/24/95	13:59	dis	0.1	ICP-F03		
305	1859	11		PREPBLKTJA	ND-F-01	-0.0303				10.0000	07/24/95	13:59	dis	0.1	ICP-F03		
306	1859	11		PREPBLKTJA	NE-F-01	12.1775				10.0000	07/24/95	13:59	dis	0.02	ICP-F03		
307	1859	11		PREPBLKTJA	PF-F-01	-0.1480				10.0000	07/24/95	13:59	dis	0.2	ICP-F03		
308	1859	11		PREPBLKTJA	PB-F-01	0.0532				10.0000	07/24/95	13:59	dis	0.1	ICP-F03		
309	1859	11		PREPBLKTJA	SE-F-01	-0.0691				10.0000	07/24/95	13:59	dis	0.05	ICP-F03		
310	1859	11		PREPBLKTJA	SI-F-01	0.0050				10.0000	07/24/95	13:59	dis	0.2	ICP-F03		
311	1859	11		PREPBLKTJA	SM-F-01	0.3181				10.0000	07/24/95	13:59	dis	0.1	ICP-F03		
312	1859	11		PREPBLKTJA	SR-F-01	0.3305				10.0000	07/24/95	13:59	dis	0.05	ICP-F03		
313	1859	11		PREPBLKTJA	TH-F-01	0.0067				10.0000	07/24/95	13:59	dis	0.01	ICP-F03		
314	1859	11		PREPBLKTJA	TI-F-01	0.0432				10.0000	07/24/95	13:59	dis	0.2	ICP-F03		
315	1859	11		PREPBLKTJA	TL-F-01	-0.0016				10.0000	07/24/95	13:59	dis	0.01	ICP-F03		
316	1859	11		PREPBLKTJA	U-F-01	0.0558				10.0000	07/24/95	13:59	dis	0.2	ICP-F03		
317	1859	11		PREPBLKTJA	V-F-01	-2.6448				10.0000	07/24/95	13:59	dis	0.4	ICP-F03		
318	1859	11		PREPBLKTJA	W-F-01	0.0721				10.0000	07/24/95	13:59	dis	0.05	ICP-F03		
319	1859	11		PREPBLKTJA	X-F-01	0.0180				10.0000	07/24/95	13:59	dis	0.01	ICP-F03		
320	1859	11		PREPBLKTJA	Y-F-01	0.0238				10.0000	07/24/95	13:59	dis	0.01	ICP-F03		
321	1859	11		PREPBLKTJA	Z-F-01	0.0335				10.0000	07/24/95	13:59	dis	0.01	ICP-F03		
322	1859	11		PREPBLKTJA	ZR-F-01	44.8190				44.8190	07/24/95	14:10	dis	0.01	ICP-F03		
323	1859	12	S95T001221		LI-F-01	4521.6000				4521.6000	07/24/95	14:14	dis	0.01	ICP-F03		
324	1859	13	S95T001221	DUP	LI-F-01	4481.0				4481.0	07/24/95	14:39	dis	0.01	ICP-F03		
325	1859	14	S95T001221_A	SPK	LI-F-01	4195.3901				4195.3901	07/24/95	14:47	dis	0.01	ICP-F03		
326	1859	15		ICSA	AG	-0.0010				1.0000	07/24/95	14:47	dis	0.05	ICP-QC		
327	1859	15		ICSA	AL	243.4890				1.0000	07/24/95	14:47	dis	0.05	ICP-QC		
328	1859	15		ICSA	AS	-0.0407				1.0000	07/24/95	14:47	dis	0.05	ICP-QC		
329	1859	15		ICSA	B	0.0021				1.0000	07/24/95	14:47	dis	0.05	ICP-QC		
330	1859	15		ICSA	BA	0.0017				1.0000	07/24/95	14:47	dis	0.05	ICP-QC		
331	1859	15		ICSA	BE	-0.0000				1.0000	07/24/95	14:47	dis	0.005	ICP-QC		
332	1859	15		ICSA	BI	-0.0502				1.0000	07/24/95	14:47	dis	0.1	ICP-QC		
333	1859	15		ICSA	CA	242.2050				1.0000	07/24/95	14:47	dis	0.1	ICP-QC		
334	1859	15		ICSA	CD	-0.0015				1.0000	07/24/95	14:47	dis	0.01	ICP-QC		
335	1859	15		ICSA	CE	0.0052				1.0000	07/24/95	14:47	dis	0.1	ICP-QC		
336	1859	15		ICSA	CO	-0.0002				1.0000	07/24/95	14:47	dis	0.02	ICP-QC		
337	1859	15		ICSA	CR	0.0057				1.0000	07/24/95	14:47	dis	0.01	ICP-QC		
338	1859	15															

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	
367	1859	18		ICPAB		AG				0.9474			1.0000	07/24/95	14:51	das	0.01	ICP-CC
368	1859	18		ICPAB		AL				242.9811			1.0000	07/24/95	14:51	das	0.05	ICP-CC
369	1859	18		ICPAB		AS				-0.0281			1.0000	07/24/95	14:51	das	0.06	ICP-CC
370	1859	18		ICPAB		B				-0.0008			1.0000	07/24/95	14:51	das	0.05	ICP-CC
371	1859	18		ICPAB		BA				0.6816			1.0000	07/24/95	14:51	das	0.05	ICP-CC
372	1859	18		ICPAB		BE				0.4849			1.0000	07/24/95	14:51	das	0.005	ICP-CC
373	1859	18		ICPAB		BI				-0.0068			1.0000	07/24/95	14:51	das	0.1	ICP-CC
374	1859	18		ICPAB		CA				247.8290			1.0000	07/24/95	14:51	das	0.1	ICP-CC
375	1859	18		ICPAB		CD				0.9725			1.0000	07/24/95	14:51	das	0.01	ICP-CC
376	1859	18		ICPAB		CE				0.0130			1.0000	07/24/95	14:51	das	0.1	ICP-CC
377	1859	18		ICPAB		CO				0.4800			1.0000	07/24/95	14:51	das	0.02	ICP-CC
378	1859	18		ICPAB		CR				0.4934			1.0000	07/24/95	14:51	das	0.01	ICP-CC
379	1859	18		ICPAB		CU				0.4729			1.0000	07/24/95	14:51	das	0.01	ICP-CC
380	1859	18		ICPAB		EU				-0.0002			1.0000	07/24/95	14:51	das	0.05	ICP-CC
381	1859	18		ICPAB		FE				93.7444			1.0000	07/24/95	14:51	das	0.05	ICP-CC
382	1859	18		ICPAB		K				0.1573			1.0000	07/24/95	14:51	das	0.3	ICP-CC
383	1859	18		ICPAB		LA				-0.0051			1.0000	07/24/95	14:51	das	0.05	ICP-CC
384	1859	18		ICPAB		LI				0.9544			1.0000	07/24/95	14:51	das	0.01	ICP-CC
385	1859	18		ICPAB		MG				248.2024			1.0000	07/24/95	14:51	das	0.1	ICP-CC
386	1859	18		ICPAB		MN				0.4588			1.0000	07/24/95	14:51	das	0.01	ICP-CC
387	1859	18		ICPAB		MO				-0.0102			1.0000	07/24/95	14:51	das	0.05	ICP-CC
388	1859	18		ICPAB		NA				189.0988			1.0000	07/24/95	14:51	das	0.1	ICP-CC
389	1859	18		ICPAB		ND				0.0087			1.0000	07/24/95	14:51	das	0.1	ICP-CC
390	1859	18		ICPAB		NI				0.9331			1.0000	07/24/95	14:51	das	0.02	ICP-CC
391	1859	18		ICPAB		P				0.0008			1.0000	07/24/95	14:51	das	0.2	ICP-CC
392	1859	18		ICPAB		PB				0.9980			1.0000	07/24/95	14:51	das	0.1	ICP-CC
393	1859	18		ICPAB		S				-0.0292			1.0000	07/24/95	14:51	das	0.05	ICP-CC
394	1859	18		ICPAB		SB				0.0043			1.0000	07/24/95	14:51	das	0.2	ICP-CC
395	1859	18		ICPAB		SE				0.0042			1.0000	07/24/95	14:51	das	0.1	ICP-CC
396	1859	18		ICPAB		SI				0.0480			1.0000	07/24/95	14:51	das	0.05	ICP-CC
397	1859	18		ICPAB		SM				0.0101			1.0000	07/24/95	14:51	das	0.1	ICP-CC
398	1859	18		ICPAB		SR				0.0024			1.0000	07/24/95	14:51	das	0.01	ICP-CC
399	1859	18		ICPAB		TH				-0.0016			1.0000	07/24/95	14:51	das	0	ICP-CC
400	1859	18		ICPAB		TI				0.0023			1.0000	07/24/95	14:51	das	0.01	ICP-CC
401	1859	18		ICPAB		TL				0.0715			1.0000	07/24/95	14:51	das	0.2	ICP-CC
402	1859	18		ICPAB		U				0.0151			1.0000	07/24/95	14:51	das	0.4	ICP-CC
403	1859	18		ICPAB		V				0.4799			1.0000	07/24/95	14:51	das	0.05	ICP-CC
404	1859	18		ICPAB		Y				0.0085			1.0000	07/24/95	14:51	das	0.01	ICP-CC
405	1859	18		ICPAB		ZN				0.9921			1.0000	07/24/95	14:51	das	0.01	ICP-CC
406	1859	18		ICPAB		ZR				-0.0021			1.0000	07/24/95	14:51	das	0.01	ICP-CC
407	1859	17		CCV		AG				4.8937			1.0000	07/24/95	14:58	das	0.01	ICP-CC
408	1859	17		CCV		AL				4.9402			1.0000	07/24/95	14:58	das	0.05	ICP-CC
409	1859	17		CCV		AS				5.2787			1.0000	07/24/95	14:58	das	0.05	ICP-CC
410	1859	17		CCV		B				5.0790			1.0000	07/24/95	14:58	das	0.05	ICP-CC
411	1859	17		CCV		BA				4.9385			1.0000	07/24/95	14:58	das	0.05	ICP-CC
412	1859	17		CCV		BE				5.2928			1.0000	07/24/95	14:58	das	0.005	ICP-CC
413	1859	17		CCV		BI				5.0511			1.0000	07/24/95	14:58	das	0.1	ICP-CC
414	1859	17		CCV		CA				5.4004			1.0000	07/24/95	14:58	das	0.1	ICP-CC
415	1859	17		CCV		CD				5.3957			1.0000	07/24/95	14:58	das	0.01	ICP-CC
416	1859	17		CCV		CE				5.0877			1.0000	07/24/95	14:58	das	0.1	ICP-CC
417	1859	17		CCV		CO				5.3065			1.0000	07/24/95	14:58	das	0.02	ICP-CC
418	1859	17		CCV		CR				5.2785			1.0000	07/24/95	14:58	das	0.01	ICP-CC
419	1859	17		CCV		CU				4.9873			1.0000	07/24/95	14:58	das	0.01	ICP-CC
420	1859	17		CCV		EU				0.0088			1.0000	07/24/95	14:58	das	0.05	ICP-CC
421	1859	17		CCV		FE				5.2155			1.0000	07/24/95	14:58	das	0.05	ICP-CC
422	1859	17		CCV		K				5.0040			1.0000	07/24/95	14:58	das	0.3	ICP-CC
423	1859	17		CCV		LI				5.0049			1.0000	07/24/95	14:58	das	0.05	ICP-CC
424	1859	17		CCV		LI				4.8824			1.0000	07/24/95	14:58	das	0.01	ICP-CC
425	1859	17		CCV		MC				4.8987			1.0000	07/24/95	14:58	das	0.1	ICP-CC
426	1859	17		CCV		MN				5.1127			1.0000	07/24/95	14:58	das	0.01	ICP-CC
427	1859	17		CCV		MO				5.2810			1.0000	07/24/95	14:58	das	0.05	ICP-CC
428	1859	17		CCV		NA				4.8816			1.0000	07/24/95	14:58	das	0.1	ICP-CC
429	1859	17		CCV		ND				5.1587			1.0000	07/24/95	14:58	das	0.1	ICP-CC
430	1859	17		CCV		NI				5.2773			1.0000	07/24/95	14:58	das	0.02	ICP-CC
431	1859	17		CCV		P				5.3181			1.0000	07/24/95	14:58	das	0.2	ICP-CC
432	1859	17		CCV		PB				5.2583			1.0000	07/24/95	14:58	das	0.1	ICP-CC
433	1859	17		CCV		S				5.1929			1.0000	07/24/95	14:58	das	0.05	ICP-CC
434	1859	17		CCV		SB				4.9143			1.0000	07/24/95	14:58	das	0.2	ICP-CC
435	1859	17		CCV		SE				5.1754			1.0000	07/24/95	14:58	das	0.1	ICP-CC
436	1859	17		CCV		SI				5.1461			1.0000	07/24/95	14:58	das	0.05	ICP-CC
437	1859	17		CCV		SM				5.0419			1.0000	07/24/95	14:58	das	0.1	ICP-CC
438	1859	17		CCV		SR				4.9418			1.0000	07/24/95	14:58	das	0.01	ICP-CC
439	1859	17		CCV		TH				0.0040			1.0000	07/24/95	14:58	das	0	ICP-CC
440	1859	17		CCV		TI				4.9880			1.0000	07/24/95	14:58	das	0.01	ICP-CC
441	1859	17		CCV		TL				5.1527			1.0000	07/24/95	14:58	das	0.2	ICP-CC
442	1859	17		CCV		U				10.0913			1.0000	07/24/95	14:58	das	0.4	ICP-CC
443	1859	17		CCV		V				5.1631			1.0000	07/24/95	14:58	das	0.05	ICP-CC
444	1859	17		CCV		Y				0.0145			1.0000	07/24/95	14:58	das	0.01	ICP-CC
445	1859	17		CCV		ZN				5.2400			1.0000	07/24/95	14:58	das	0.01	ICP-CC
446	1859	17		CCV		ZR				5.0888			1.0000	07/24/95	14:58	das	0.05	ICP-CC
447	1859	18		CCB		AG				-0.0001			1.0000	07/24/95	15:00	das	0.01	ICP-CC
448	1859	18		CCB		AL				-0.0001			1.0000	07/24/95	15:00	das	0.05	ICP-CC
449	1859	18		CCB		AS				-0.0001			1.0000	07/24/95	15:00	das	0.05	ICP-CC
450	1859	18		CCB		B				-0.0001			1.0000	07/24/95	15:00	das	0.05	ICP-CC
451	1859	18		CCB		BA				0.0047			1.0000	07/24/95	15:00	das	0.05	ICP-CC
452	1859	18		CCB		BE				-0.0000			1.0000	07/24/95	15:00	das	0.05	ICP-CC
453	1859	18		CCB		BI				-0.0001			1.0000	07/24/95	15:00	das	0.005	ICP-CC
454	1859	18		CCB		CA				0.0113			1.0000	07/24/95	15:00	das	0.1	

07/31/95 07:18
A-0004-1

WMC-SD-WM-DP-139, REV. 1

Page: 1

LABCORE Data Entry Template for Worklist# 1935

Analyst: MS/0 Instrument: ICP01 Book# 438488

Method: LA-505-151 Rev/Mod 13

Worklist Comment: ICP B-101 FUSION (Li only)

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>8-1-95</u> <u>KTJA QRL</u>			@ICP-F03	SOLID		
6	SAMPLE	S95T001336	0	F	@ICP-F03	SOLID	95000093	B-101
		Analytes Requested: LI-F-01						
7	DUP	S95T001336	0	F	@ICP-F03	SOLID		
8	SPK	S95T001336	0	F	@ICP-F03	SOLID		
9	CCV				@ICP-QC	QC		
10	CCB				@ICP-QC	QC		
11	SAMPLE	S95T001337	0	F	@ICP-F03	SOLID	95000093	B-101
		Analytes Requested: LI-F-01						
12	DUP	S95T001337	0	F	@ICP-F03	SOLID		
13	SPK	S95T001337	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:

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

LABCORE Data Entry Template for Worklist# 1935

Type	Sample#	R	A	Test	Matrix	Group#	Project
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Final page for worklist # 1935

JK *[Signature]* 08-01-95
Analyst Signature Date

Reviewed & Validated by:
[Signature] 08/01/95
Analyst Signature Date

Prep b/KAL 1-9 ml

595T001336-L	.4510g → 250 ml	1-9	2-8 ml	(250x50)/.4510 = 27716.2	
595T001336	.4510g → 250	1-9		(250x10)/.4510 = 5543.2	
595T001336-D	.4510g → 250	1-9		(250x10)/.4510 = 5543.2	
595T001336-Q	.4510g → 250	1-9		(250x10)/.4510 = 5543.2	1 ml sample + 2 ml SST5 + 7 ml 2% HNO ₃
595T001337-L	.5808g → 250	1-9	2-8 ml	(250x50)/.5808 = 21522	
595T001337	.5808g → 250	1-9		(250x10)/.5808 = 4304.4	
595T001337-D	.5440g → 250	1-9		(250x10)/.5440 = 4595.6	
595T001337-Q	.5808g → 250	1-9		(250x10)/.5808 = 4304.4	1 ml sample + 2 ml SST5 + 7 ml 2% HNO ₃

Data Entry Comments:

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

File 850801a

Identity 1: ICV Identity 2: Quality Control 9:33 AM August 1, 1995
 Task name : TWC93
 Sample Weight : 1.0000 Solution Volume : 1.00
 On-Peak Integrations : 3 Off-Peak Integrations : 1

	ZR (ppm)	SR (ppm)	BI (ppm)	SI (ppm)	AL (ppm)	CO (ppm)	CU (ppm)	<u>L1</u> (ppm)
Mean	4.957	4.973	4.964	4.906	5.008	5.148	4.839	4.984
S.D.	0.004	0.008	0.018	0.013	0.008	0.008	0.009	0.004
% R.S.D.	0.074	0.162	0.359	0.262	0.152	0.150	0.181	0.083
	ZN (ppm)	NI (ppm)	LA (ppm)	FE (ppm)	CA (ppm)	CR (ppm)	NO (ppm)	U (ppm)
Mean	5.136	5.043	4.987	5.068	5.170	5.136	5.067	9.263
S.D.	0.010	0.008	0.011	0.024	0.008	0.017	0.011	0.033
% R.S.D.	0.200	0.166	0.230	0.464	0.163	0.338	0.218	0.352
	CE (ppm)	SM (ppm)	BA (ppm)	P (ppm)	S (ppm)	MG (ppm)	AS (ppm)	NA (ppm)
Mean	5.021	4.987	4.962	5.275	5.164	5.114	5.028	4.982
S.D.	0.007	0.014	0.009	0.086	0.018	0.007	0.005	0.004
% R.S.D.	0.137	0.273	0.190	1.639	0.353	0.136	0.096	0.079
	MO (ppm)	SE (ppm)	AG (ppm)	PB (ppm)	TI (ppm)	CD (ppm)	B (ppm)	K (ppm)
Mean	5.140	4.940	4.952	5.054	4.917	5.093	5.068	4.955
S.D.	0.007	0.007	0.010	0.023	0.005	0.002	0.014	0.024
% R.S.D.	0.146	0.145	0.207	0.452	0.097	0.037	0.275	0.491
	MN (ppm)	SB (ppm)	V (ppm)	BE (ppm)	TL (ppm)			
Mean	5.063	4.760	5.080	5.168	4.846			
S.D.	0.005	0.011	0.007	0.008	0.009			
% R.S.D.	0.107	0.240	0.144	0.146	0.176			

JK LAC

8-1-95

B-101 5957001336 Fusion 1-9 ml
5957001337

worklist #1935

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
 COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 262 TO 280.

WHC-SD-WM-DP-139, REV. 1

Identity 1: ICB Identity 2: Quality Control

9:36 AM August 1, 1995

Task name : TWC93

Sample Weight : 1.0000 Solution Volume : 1.00

Peak Integrations : 3 Off-Peak Integrations : 1

	ZR (ppm)	SR (ppm)	BI (ppm)	SI (ppm)	AL (ppm)	CO (ppm)	CU (ppm)	LI (ppm)
Mean	0.003	0.000	0.010	0.004	0.005	-0.003	-0.000	0.000
S.D.	0.000	0.000	0.004	0.003	0.000	0.002	0.000	0.000
% R.S.D.	13.597	87.445	39.361	66.522	9.694	57.531	150.733	51.975

	ZN (ppm)	NI (ppm)	LA (ppm)	FE (ppm)	CA (ppm)	CR (ppm)	ND (ppm)	U (ppm)
Mean	0.000	0.000	0.003	0.004	0.000	-0.000	-0.001	0.060
S.D.	0.001	0.000	0.001	0.002	0.000	0.000	0.005	0.013
% R.S.D.	120.917	256.876	48.975	52.885	21.651	132.331	429.851	21.027

	CE (ppm)	SH (ppm)	BA (ppm)	P (ppm)	S (ppm)	MG (ppm)	AS (ppm)	NA (ppm)
Mean	0.012	0.021	0.000	-0.015	-0.004	0.000	0.003	0.003
S.D.	0.002	0.006	0.000	0.005	0.003	0.000	0.005	0.002
% R.S.D.	14.146	27.980	27.085	35.902	79.271	114.352	131.067	75.004

	MO (ppm)	SE (ppm)	AG (ppm)	PB (ppm)	TI (ppm)	CD (ppm)	B (ppm)	K (ppm)
Mean	-0.001	-0.008	0.001	-0.002	0.001	0.002	0.004	0.025
S.D.	0.001	0.006	0.000	0.009	0.000	0.000	0.001	0.022
% R.S.D.	67.358	75.366	23.674	498.371	32.426	13.859	20.319	90.409

	MN (ppm)	SB (ppm)	V (ppm)	BE (ppm)	TL (ppm)
Mean	-0.001	-0.061	0.001	-0.000	0.034
S.D.	0.000	0.042	0.001	0.000	0.012
% R.S.D.	37.298	69.745	103.831	191.800	36.311

WHC-SD-WM-DP-139, REV. 1

Identity 1: ICSA Identity 2: Quality Control 9:39 AM August 1, 1995

Task name : TWC93

Sample Weight : 1.0000 Solution Volume : 1.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	ZR (ppm)	SR (ppm)	BI (ppm)	SI (ppm)	AL (ppm)	CO (ppm)	CU (ppm)	LI (ppm)
Mean	0.000	0.001	0.005	0.070	201.233	0.006	-0.014	0.000
S.D.	0.001	0.000	0.003	0.002	0.372	0.003	0.000	0.000
% R.S.D.	279.771	0.017	59.764	2.269	0.185	42.842	0.241	28.642

	ZN (ppm)	NI (ppm)	LA (ppm)	FE (ppm)	CA (ppm)	CR (ppm)	ND (ppm)	U (ppm)
Mean	0.000	-0.044	0.008	148.369	19.238	-0.011	0.030	0.029
S.D.	0.000	0.000	0.001	0.208	0.047	0.002	0.001	0.008
% R.S.D.	107.415	1.004	14.342	0.140	0.244	14.538	2.260	26.743

	CE (ppm)	SM (ppm)	BA (ppm)	P (ppm)	S (ppm)	MG (ppm)	AS (ppm)	NA (ppm)
Mean	0.016	0.007	0.003	0.008	0.152	19.282	0.002	187.651
S.D.	0.002	0.004	0.000	0.005	0.002	0.020	0.003	1.093
% R.S.D.	9.594	52.086	1.303	64.533	1.115	0.105	132.247	0.583

	MO (ppm)	SE (ppm)	AG (ppm)	PB (ppm)	TI (ppm)	CD (ppm)	B (ppm)	K (ppm)
Mean	-0.001	0.003	-0.003	0.039	0.001	0.012	-0.046	-0.013
S.D.	0.002	0.007	0.000	0.012	0.000	0.001	0.001	0.007
% R.S.D.	165.894	204.787	5.305	31.264	19.864	5.240	1.242	56.727

	MN (ppm)	SB (ppm)	V (ppm)	BE (ppm)	TL (ppm)
Mean	0.011	-0.028	-0.004	0.002	-0.007
S.D.	0.000	0.029	0.000	0.000	0.012
% R.S.D.	3.996	105.037	8.405	4.689	179.254

WHC-SD-WM-DP-139, REV. 1

Identity 1: ICSAB Identity 2: Quality Control

9:42 AM August 1, 1995

Task name : TWC93

Sample Weight : 1.0000 Solution Volume : 1.00

Peak Integrations : 3 Off-Peak Integrations : 1

	ZR (ppm)	SR (ppm)	BI (ppm)	SI (ppm)	AL (ppm)	CO (ppm)	CU (ppm)	LI (ppm)
Mean	-0.003	0.000	-0.018	0.064	201.993	0.516	0.486	0.940
S.D.	0.000	0.000	0.004	0.004	0.502	0.003	0.000	0.004
% R.S.D.	11.944	19.236	23.563	5.550	0.249	0.517	0.063	0.473

	ZN (ppm)	NI (ppm)	LA (ppm)	FE (ppm)	CA (ppm)	CR (ppm)	ND (ppm)	U (ppm)
Mean	1.016	0.945	0.004	150.138	18.865	0.505	0.027	-0.003
S.D.	0.003	0.006	0.001	0.565	0.037	0.002	0.008	0.004
% R.S.D.	0.258	0.606	34.429	0.376	0.195	0.465	30.250	142.402

	CE (ppm)	SM (ppm)	BA (ppm)	P (ppm)	S (ppm)	MG (ppm)	AS (ppm)	NA (ppm)
Mean	0.011	-0.007	0.508	0.023	0.147	19.050	0.005	188.227
S.D.	0.002	0.005	0.001	0.016	0.008	0.041	0.004	0.728
% R.S.D.	22.794	65.058	0.187	68.862	5.578	0.215	85.145	0.387

	MO (ppm)	SE (ppm)	AG (ppm)	PB (ppm)	TI (ppm)	CD (ppm)	B (ppm)	K (ppm)
Mean	-0.000	0.070	1.499	1.066	-0.000	1.039	-0.048	-0.011
S.D.	0.001	0.007	0.003	0.023	0.000	0.003	0.001	0.001
% R.S.D.	408.412	9.629	0.183	2.196	300.931	0.319	2.208	12.372

	MN (ppm)	SB (ppm)	V (ppm)	BE (ppm)	TL (ppm)
Mean	0.522	-0.036	0.509	0.510	-0.041
S.D.	0.002	0.012	0.002	0.001	0.004
% R.S.D.	0.323	33.051	0.297	0.262	8.531

WHC-SD-WM-DP-139, REV. 1

Identity 1: PREPBLK Identity 2: Quality Control

9:48 AM August 1, 1995

Task name : TWC93

Sample Weight : 1.0000 Solution Volume : 10.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	ZR (ppm)	SR (ppm)	BI (ppm)	SI (ppm)	AL (ppm)	CO (ppm)	CU (ppm)	LI (ppm)
Mean	0.034	0.009	-0.085	0.350	0.062	0.053	0.026	0.005
S.D.	0.001	0.001	0.052	0.013	0.033	0.015	0.001	0.002
% R.S.D.	3.178	10.702	60.934	3.677	53.136	29.064	4.926	47.907

	ZN (ppm)	NI (ppm)	LA (ppm)	FE (ppm)	CA (ppm)	CR (ppm)	NO (ppm)	U (ppm)
Mean	0.038	2.573	0.009	0.855	0.432	0.012	0.048	0.924
S.D.	0.004	0.010	0.021	0.020	0.001	0.007	0.050	0.181
% R.S.D.	10.499	0.382	243.629	2.379	0.152	54.808	103.368	19.596

	CE (ppm)	SM (ppm)	BA (ppm)	P (ppm)	S (ppm)	MG (ppm)	AS (ppm)	NA (ppm)
Mean	-0.003	0.180	0.017	0.135	0.125	0.042	0.041	3.430
S.D.	0.021	0.069	0.001	0.078	0.032	0.000	0.038	0.040
% R.S.D.	786.791	38.213	7.627	58.111	25.517	0.011	92.492	1.154

	MO (ppm)	SE (ppm)	AG (ppm)	PB (ppm)	TI (ppm)	CD (ppm)	B (ppm)	K (ppm)
Mean	0.007	0.107	0.012	0.034	0.023	0.013	0.025	10265.935
S.D.	0.008	0.087	0.006	0.037	0.001	0.004	0.000	19.955
% R.S.D.	109.865	81.512	45.512	108.791	6.558	28.944	1.988	0.194

	MN (ppm)	SB (ppm)	V (ppm)	BE (ppm)	TL (ppm)
Mean	0.084	-0.349	0.004	-0.001	0.425
S.D.	0.004	0.135	0.013	0.002	0.118
% R.S.D.	5.001	38.678	369.755	405.678	27.678

WHC-SD-WM-DP-139, REV. 1

Identity 1: S95T001336_L Identity 2: .451gin250,1-9-2-8ml

9:53 AM August 1, 1995

Task name : TWC93

Sample Weight : 0.4510 Solution Volume : 12500.00

Peak Integrations : 3 Off-Peak Integrations : 1

	ZR (ppm)	SR (ppm)	BI (ppm)	SI (ppm)	AL (ppm)	CO (ppm)	CU (ppm)	LI (ppm)
Mean	614.554	67.081	-423.537	16657.529	32396.473	-76.330	144.421	-6.317
S.D.	17.196	1.486	222.738	41.148	98.499	85.433	10.902	3.582
% R.S.D.	2.798	2.215	52.590	0.247	0.304	111.925	7.549	56.702

	ZN (ppm)	NI (ppm)	LA (ppm)	FE (ppm)	CA (ppm)	CR (ppm)	NO (ppm)	U (ppm)
Mean	127.634	22712.164	609.016	81559.720	1424.218	2676.304	609.538	1807.382
S.D.	2.863	102.580	19.902	206.003	2.107	34.439	209.725	479.010
% R.S.D.	2.243	0.452	3.268	0.253	0.148	1.287	34.407	26.503

	CE (ppm)	SM (ppm)	BA (ppm)	P (ppm)	S (ppm)	MG (ppm)	AS (ppm)	NA (ppm)
Mean	435.694	658.630	563.970	5834.077	4222.369	869.527	-34.382	127272.489
S.D.	129.704	127.053	2.971	363.753	63.839	5.302	177.475	285.015
% R.S.D.	29.769	19.290	0.527	6.235	1.512	0.610	516.189	0.224

	MO (ppm)	SE (ppm)	AG (ppm)	PB (ppm)	TI (ppm)	CD (ppm)	B (ppm)	K (ppm)
Mean	3.741	644.083	620.303	6233.947	215.397	62.367	-1.415	6563362.901
S.D.	28.077	415.492	7.327	200.108	8.487	29.985	37.801	8724.977
% R.S.D.	750.555	64.509	1.181	3.210	3.940	48.079	2672.196	0.133

	MN (ppm)	SB (ppm)	V (ppm)	BE (ppm)	TL (ppm)
Mean	11482.418	282.561	23.022	0.169	672.713
S.D.	26.334	722.862	16.879	5.081	329.135
% R.S.D.	0.229	255.825	73.316	3006.499	48.926

WHC-SD-WM-DP-139, REV. 1

Identity 1: S95T001336 Identity 2: .451gin250,1-9 ml

9:58 AM August 1, 1995

Task name : TWC93

Sample Weight : 0.4510 Solution Volume : 2500.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	ZR (ppm)	SR (ppm)	BI (ppm)	SI (ppm)	AL (ppm)	CO (ppm)	CU (ppm)	LI (ppm)
Mean	559.773	72.096	-68.206	16442.858	32534.067	42.433	187.396	3.902
S.D.	5.270	0.298	49.628	31.378	36.214	8.551	1.697	1.391
% R.S.D.	0.941	0.413	72.762	0.191	0.111	20.151	0.905	35.644

	ZN (ppm)	NI (ppm)	LA (ppm)	FE (ppm)	CA (ppm)	CR (ppm)	NO (ppm)	U (ppm)
Mean	102.141	22355.169	567.097	81085.325	1147.280	2696.469	662.852	-122.803
S.D.	3.755	56.281	6.946	221.738	3.371	6.899	26.787	166.716
% R.S.D.	3.677	0.252	1.225	0.273	0.294	0.256	4.041	135.758

	CE (ppm)	SM (ppm)	BA (ppm)	P (ppm)	S (ppm)	MG (ppm)	AS (ppm)	NA (ppm)
Mean	604.554	37.115	552.032	5337.698	3861.424	805.606	88.155	119421.494
S.D.	41.506	42.256	1.699	212.150	62.697	1.058	41.321	550.845
% R.S.D.	6.866	113.852	0.308	3.975	1.624	0.131	46.873	0.461

	MO (ppm)	SE (ppm)	AG (ppm)	PB (ppm)	TI (ppm)	CD (ppm)	B (ppm)	K (ppm)
Mean	35.414	402.311	619.980	6284.091	183.317	103.657	14.712	6067726.246
S.D.	2.405	61.811	4.081	65.200	1.340	5.766	1.703	22075.673
% R.S.D.	6.791	15.364	0.658	1.038	0.731	5.563	11.574	0.364

	MN (ppm)	SB (ppm)	V (ppm)	BE (ppm)	TL (ppm)
Mean	11462.786	-319.459	17.002	-0.011	-182.532
S.D.	26.429	73.860	5.419	1.029	97.178
% R.S.D.	0.231	23.120	31.874	8964.180	53.239

WHC-SD-WM-DP-139, REV. 1

Identity 1: S95T001336_D Identity 2: .454gin250,1-9 ml 10:01 AM August 1, 1995

Task name : TWC93

Sample Weight : 0.4540 Solution Volume : 2500.00

Peak Integrations : 3 Off-Peak Integrations : 1

	ZR	SR	BI	SI	AL	CO	CU	LI
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	936.772	74.011	-6.729	15768.804	33624.404	42.779	181.110	6.839
S.D.	5.527	0.513	79.027	96.939	153.393	17.000	1.089	0.523
% R.S.D.	0.590	0.693	1174.449	0.615	0.456	39.740	0.601	7.644
	ZN	NI	LA	FE	CA	CR	ND	U
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	119.859	14965.159	646.814	77929.484	971.759	2784.752	756.476	73.441
S.D.	3.645	21.492	3.929	316.655	4.036	15.082	42.532	165.500
% R.S.D.	3.041	0.144	0.607	0.406	0.415	0.542	5.622	225.352
	CE	SM	BA	P	S	MG	AS	NA
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	1071.853	108.055	565.309	6240.965	4063.362	822.146	21.337	119449.692
S.D.	28.863	36.023	2.454	270.456	44.066	1.388	23.629	643.457
% R.S.D.	2.693	33.338	0.434	4.334	1.084	0.169	110.740	0.539
	MO	SE	AG	PB	TI	CD	B	K
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	31.711	406.817	673.039	6501.364	186.236	99.870	48.009	6300390.257
S.D.	7.090	22.862	3.096	89.893	0.997	6.758	7.525	22922.243
% R.S.D.	22.358	5.620	0.460	1.383	0.535	6.767	15.674	0.364
	MN	SB	V	BE	TL			
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)			
Mean	11720.903	-137.871	18.513	1.023	-47.164			
S.D.	29.712	187.754	2.384	0.015	124.625			
% R.S.D.	0.253	136.181	12.876	1.513	264.238			

WHC-SD-WM-DP-139, REV. 1

Identity 1: S95T001336_A Identity 2: .451gin250,1-9 ml

10:05 AM August 1, 1995

Task name : TWC93

Sample Weight : 0.4510 Solution Volume : 2500.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

5542.24

	ZR (ppm)	SR (ppm)	BI (ppm)	SI (ppm)	AL (ppm)	CO (ppm)	CU (ppm)	LI (ppm)
Mean	6253.014	5692.431	5648.629	22543.867	38806.239	5855.679	5660.694	5107.538
S.D.	18.252	27.867	31.114	75.288	155.324	22.622	30.147	12.426
% R.S.D.	0.292	0.490	0.551	0.334	0.400	0.386	0.533	0.243

	ZN (ppm)	NI (ppm)	LA (ppm)	FE (ppm)	CA (ppm)	CR (ppm)	ND (ppm)	U (ppm)
Mean	5885.616	28589.916	6339.024	89123.254	6875.897	8632.321	6596.314	10755.391
S.D.	29.366	44.608	17.246	158.509	34.238	42.785	48.963	141.208
% R.S.D.	0.499	0.156	0.272	0.178	0.498	0.496	0.742	1.313

	CE (ppm)	SM (ppm)	BA (ppm)	P (ppm)	S (ppm)	MG (ppm)	AS (ppm)	NA (ppm)
Mean	6165.228	5735.948	6130.665	11737.338	9830.931	6600.389	5679.589	127257.841
S.D.	28.359	27.185	33.150	400.739	94.152	17.811	26.984	313.947
% R.S.D.	0.460	0.474	0.541	3.414	0.958	0.270	0.475	0.247

	MO (ppm)	SE (ppm)	AG (ppm)	PB (ppm)	TI (ppm)	CD (ppm)	B (ppm)	K (ppm)
Mean	5785.620	5894.912	4919.295	12228.578	5763.426	5835.707	5583.768	6253440.497
S.D.	28.157	79.070	25.533	87.070	18.930	15.508	25.835	17165.730
% R.S.D.	0.487	1.341	0.519	0.712	0.328	0.266	0.463	0.275

	MN (ppm)	SB (ppm)	V (ppm)	BE (ppm)	TL (ppm)
Mean	17553.359	5290.751	5853.830	5566.812	5559.134
S.D.	50.211	94.169	18.143	29.335	116.481
% R.S.D.	0.286	1.780	0.310	0.527	2.095

WHC-SD-WM-DP-139, REV. 1

Identity 1: CCV Identity 2: Quality Control

10:18 AM August 1, 1995

Task name : TWC93

Sample Weight : 1.0000 Solution Volume : 1.00

Peak Integrations : 3 Off-Peak Integrations : 1

	ZR	SR	BI	SI	AL	CO	CU	LI
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	4.983	4.997	5.017	4.922	5.030	5.167	4.865	5.009
S.D.	0.001	0.004	0.018	0.002	0.002	0.012	0.003	0.022
% R.S.D.	0.020	0.077	0.365	0.037	0.032	0.233	0.071	0.433
	ZN	NI	LA	FE	CA	CR	ND	U
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	5.150	5.066	5.045	5.146	5.208	5.146	5.215	9.386
S.D.	0.008	0.009	0.006	0.038	0.002	0.008	0.015	0.022
% R.S.D.	0.164	0.185	0.121	0.733	0.045	0.153	0.296	0.229
	CE	SM	BA	P	S	MG	AS	NA
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	5.059	5.034	4.987	5.268	5.191	5.123	5.039	5.025
S.D.	0.004	0.004	0.004	0.164	0.060	0.006	0.015	0.021
% R.S.D.	0.071	0.074	0.075	3.106	1.150	0.122	0.300	0.409
	MO	SE	AG	PB	TI	CD	B	K
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	5.140	4.973	4.975	5.093	4.932	5.115	5.111	5.126
S.D.	0.009	0.016	0.007	0.032	0.003	0.005	0.013	0.020
% R.S.D.	0.166	0.321	0.141	0.629	0.070	0.091	0.255	0.393
	MN	SB	V	BE	TL			
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)			
Mean	5.085	4.760	5.109	5.185	4.890			
S.D.	0.010	0.044	0.005	0.004	0.020			
% R.S.D.	0.203	0.925	0.096	0.077	0.415			

WHC-SD-WM-DP-139, REV. 1

Identity 1: CCB Identity 2: Quality Control 10:22 AM August 1, 1995

Task name : TWC93

Sample Weight : 1.0000 Solution Volume : 1.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	ZR	SR	BI	SI	AL	CO	CU	(LI)
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	0.002	0.000	-0.004	0.003	0.004	-0.004	-0.000	0.000
S.D.	0.001	0.000	0.009	0.002	0.005	0.000	0.000	0.000
% R.S.D.	65.645	69.040	252.308	58.766	138.045	0.118	51.356	93.658
	ZN	NI	LA	FE	CA	CR	ND	U
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	0.001	0.004	0.005	0.005	0.000	-0.000	0.011	0.014
S.D.	0.000	0.001	0.001	0.001	0.000	0.000	0.004	0.039
% R.S.D.	5.929	32.911	29.135	22.150	28.571	189.571	40.534	274.763
	CE	SM	BA	P	S	MG	AS	NA
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	0.011	0.008	0.000	-0.005	0.009	0.000	0.013	0.015
S.D.	0.008	0.007	0.000	0.012	0.005	0.000	0.003	0.002
% R.S.D.	73.833	83.742	942.762	238.631	52.712	75.292	19.793	13.636
	MO	SE	AG	PB	TI	CD	B	K
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	0.000	0.001	-0.000	0.006	0.001	0.002	0.003	0.100
S.D.	0.000	0.007	0.000	0.002	0.000	0.001	0.001	0.011
% R.S.D.	180.000	526.629	88.378	23.536	8.589	71.186	36.273	11.384
	MN	SB	V	BE	TL			
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)			
Mean	-0.000	-0.040	0.000	-0.000	0.016			
S.D.	0.000	0.015	0.000	0.000	0.014			
% R.S.D.	170.301	37.453	1907.621	183.072	87.079			

WHC-SD-WM-DP-139, REV. 1

Identity 1: S95T001337_L Identity 2: .5808gin250,1-9-2-8

10:26 AM August 1, 1995

Task name : TWC93

Sample Weight : 0.5808 Solution Volume : 12500.00

Peak Integrations : 3 Off-Peak Integrations : 1

	ZR	SR	BI	SI	AL	CO	CU	(LI)
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	36.446	30.534	-238.794	4847.456	94927.894	16.859	101.254	27.130
S.D.	29.858	1.995	85.307	28.190	229.422	0.102	3.518	6.725
% R.S.D.	81.925	6.534	35.724	0.582	0.242	0.605	3.475	24.788
	ZN	NI	LA	FE	CA	CR	NO	U
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	97.083	3646.730	77.570	4297.226	1243.814	171.402	104.220	15024.821
S.D.	6.277	42.910	26.343	16.209	11.596	28.727	150.240	749.683
% R.S.D.	6.465	1.177	33.960	0.377	0.932	16.760	144.156	4.990
	CE	SM	BA	P	S	MG	AS	NA
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	109.707	224.412	31.038	22038.180	5527.295	270.910	138.578	131270.342
S.D.	184.000	193.757	3.444	460.621	149.061	2.067	67.538	1172.910
% R.S.D.	167.719	86.340	11.094	2.090	2.697	0.763	48.737	0.894
	MO	SE	AG	PB	TI	CD	B	K
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	38.731	289.586	203.157	794.352	70.783	71.850	128.450	4830452.239
S.D.	21.802	96.856	13.718	76.256	9.005	7.882	17.771	56283.467
% R.S.D.	56.292	33.446	6.752	9.600	12.722	10.970	13.835	1.165
	MN	SB	V	BE	TL			
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)			
Mean	522.624	-731.796	20.021	-6.537	693.203			
S.D.	8.987	245.887	19.200	4.027	357.680			
% R.S.D.	1.720	33.600	95.902	61.597	51.598			

WHC-SD-WM-DP-139, REV. 1

Identity 1: S95T001337 Identity 2: .5808gin250,1-9 ml

10:31 AM August 1, 1995

Task name : TWC93

Sample Weight : 0.5808 Solution Volume : 2500.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	ZR (ppm)	SR (ppm)	BI (ppm)	SI (ppm)	AL (ppm)	CO (ppm)	CU (ppm)	<u>LI</u> (ppm)
Mean	14.415	30.270	-34.363	4880.498	96367.717	-2.252	113.053	28.286
S.D.	2.578	0.230	24.433	10.301	122.743	6.644	0.161	0.673
% R.S.D.	17.887	0.761	71.101	0.211	0.127	295.052	0.142	2.377

	ZN (ppm)	NI (ppm)	LA (ppm)	FE (ppm)	CA (ppm)	CR (ppm)	ND (ppm)	U (ppm)
Mean	99.586	3619.375	8.310	4300.623	982.301	216.537	113.012	14625.053
S.D.	2.182	28.247	3.056	26.795	1.022	11.105	41.400	78.182
% R.S.D.	2.192	0.780	36.775	0.623	0.104	5.128	36.633	0.535

	CE (ppm)	SM (ppm)	BA (ppm)	P (ppm)	S (ppm)	MG (ppm)	AS (ppm)	NA (ppm)
Mean	-13.263	29.706	28.125	21734.356	5435.156	230.557	6.729	125054.668
S.D.	19.688	21.355	0.357	679.810	90.321	0.714	13.796	66.532
% R.S.D.	148.449	71.889	1.270	3.128	1.662	0.310	205.023	0.053

	MO (ppm)	SE (ppm)	AG (ppm)	PB (ppm)	TI (ppm)	CD (ppm)	B (ppm)	K (ppm)
Mean	2.711	-9.718	207.223	628.976	42.200	36.030	30.873	4550781.822
S.D.	5.229	47.309	1.748	30.670	1.155	3.325	3.727	4640.565
% R.S.D.	192.857	486.814	0.844	4.876	2.737	9.228	12.073	0.102

	MN (ppm)	SB (ppm)	V (ppm)	BE (ppm)	TL (ppm)
Mean	549.029	-225.221	22.548	-0.486	-94.892
S.D.	1.809	25.705	2.080	0.455	43.787
% R.S.D.	0.330	11.413	9.223	93.698	46.144

WHC-SD-WM-DP-139, REV. 1

Identity 1: S95T001337_D Identity 2: .5460gin250,1-9 ml

10:34 AM August 1, 1995

Task name : TWC93

Sample Weight : 0.5460 Solution Volume : 2500.00

Peak Integrations : 3 Off-Peak Integrations : 1

	ZR	SR	BI	SI	AL	CO	CU	LI
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	46.962	29.810	-6.904	4555.210	98713.455	10.017	87.218	29.812
S.D.	5.180	0.425	10.281	4.242	137.204	7.049	1.443	1.183
% R.S.D.	11.030	1.425	148.900	0.093	0.139	70.379	1.654	3.969
	ZN	NI	LA	FE	CA	CR	NO	U
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	92.665	4755.660	19.258	3959.908	873.119	218.329	118.797	13577.339
S.D.	1.149	22.151	18.221	23.167	1.044	2.194	19.419	153.347
% R.S.D.	1.240	0.466	94.618	0.585	0.120	1.005	16.347	1.129
	CE	SM	BA	P	S	MG	AS	NA
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	75.427	15.694	27.351	20867.983	7534.838	205.064	24.905	125184.008
S.D.	40.277	37.408	0.883	720.435	113.365	0.004	9.908	1009.299
% R.S.D.	53.399	238.357	3.227	3.452	1.505	0.002	39.782	0.806
	MO	SE	AG	PB	TI	CD	B	K
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	6.798	-49.782	205.313	641.495	34.390	39.128	27.637	4691642.859
S.D.	5.146	37.098	4.796	45.951	0.747	1.683	2.399	26509.253
% R.S.D.	75.697	74.522	2.336	7.163	2.173	4.302	8.679	0.565
	MN	SB	V	BE	TL			
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)			
Mean	558.215	52.658	24.537	0.988	-112.835			
S.D.	1.445	92.820	2.009	1.300	73.824			
% R.S.D.	0.259	176.268	8.188	131.590	65.426			

WMC-SD-WM-DP-139, REV. 1

Identity 1: S95T001337_A Identity 2: .5808gin250,1-9 ml

10:38 AM August 1, 1995

Task name : TWC93

Sample Weight : 0.5808 Solution Volume : 2500.00

4204.01

On-Peak Integrations : 3 Off-Peak Integrations : 1

	ZR (ppm)	SR (ppm)	BI (ppm)	SI (ppm)	AL (ppm)	CO (ppm)	CU (ppm)	LI (ppm)
Mean	4424.827	4408.975	4370.183	9276.700	101521.458	4488.898	4365.355	4003.006
S.D.	11.349	7.988	25.963	19.966	151.426	23.923	12.639	34.978
% R.S.D.	0.256	0.181	0.594	0.215	0.149	0.533	0.290	0.874

	ZN (ppm)	NI (ppm)	LA (ppm)	FE (ppm)	CA (ppm)	CR (ppm)	ND (ppm)	U (ppm)
Mean	4570.309	8046.002	4523.554	8912.270	5530.579	4775.948	4703.216	22790.914
S.D.	9.565	28.628	35.414	49.160	11.603	25.412	24.436	119.310
% R.S.D.	0.209	0.356	0.783	0.552	0.210	0.532	0.520	0.523

	CE (ppm)	SM (ppm)	BA (ppm)	P (ppm)	S (ppm)	MG (ppm)	AS (ppm)	NA (ppm)
Mean	4487.713	4374.267	4375.733	26789.516	9976.615	4719.608	4402.479	128842.558
S.D.	48.492	38.452	8.822	229.299	20.354	12.876	8.566	1021.524
% R.S.D.	1.081	0.879	0.202	0.856	0.204	0.273	0.195	0.793

	MO (ppm)	SE (ppm)	AG (ppm)	PB (ppm)	TI (ppm)	CO (ppm)	B (ppm)	K (ppm)
Mean	4482.164	4274.310	3463.731	5090.641	4371.968	4487.654	4336.299	4525840.270
S.D.	29.189	95.012	18.724	36.313	6.734	14.690	3.457	26957.918
% R.S.D.	0.651	2.223	0.541	0.713	0.154	0.327	0.080	0.596

	MN (ppm)	SB (ppm)	V (ppm)	BE (ppm)	TL (ppm)
Mean	5061.610	3865.920	4562.933	4383.363	4285.935
S.D.	17.154	58.062	17.661	17.298	47.266
% R.S.D.	0.339	1.502	0.387	0.395	1.103

MHC-SD-WM-DP-139, REV.1

Identity 1: ICSA Identity 2: Quality Control 10:51 AM August 1, 1995
 Task name : TWC93
 Sample Weight : 1.0000 Solution Volume : 1.00
 Peak Integrations : 3 Off-Peak Integrations : 1

	ZR (ppm)	SR (ppm)	BI (ppm)	SI (ppm)	AL (ppm)	CO (ppm)	CU (ppm)	LI (ppm)
Mean	-0.001	0.001	0.010	0.069	202.597	0.007	-0.014	0.001
S.D.	0.000	0.000	0.004	0.007	0.579	0.002	0.000	0.000
% R.S.D.	37.695	15.776	40.301	9.544	0.286	21.658	2.072	37.353

	ZN (ppm)	NI (ppm)	LA (ppm)	FE (ppm)	CA (ppm)	CR (ppm)	NO (ppm)	U (ppm)
Mean	0.001	-0.046	0.007	150.757	19.245	-0.012	0.030	0.011
S.D.	0.000	0.001	0.001	0.632	0.070	0.001	0.008	0.032
% R.S.D.	64.352	1.581	9.277	0.419	0.364	6.292	25.867	282.849

	CE (ppm)	SM (ppm)	BA (ppm)	P (ppm)	S (ppm)	MG (ppm)	AS (ppm)	NA (ppm)
Mean	0.008	-0.008	0.003	0.019	0.165	19.525	-0.006	188.183
S.D.	0.003	0.006	0.000	0.005	0.010	0.056	0.005	0.663
% R.S.D.	37.420	74.482	5.751	24.278	6.240	0.287	76.904	0.352

	MO (ppm)	SE (ppm)	AG (ppm)	PB (ppm)	TI (ppm)	CD (ppm)	B (ppm)	K (ppm)
Mean	0.001	-0.018	-0.004	0.026	0.000	0.011	-0.048	0.124
S.D.	0.001	0.003	0.000	0.015	0.000	0.001	0.001	0.021
% R.S.D.	50.634	15.863	4.132	56.624	72.420	10.129	2.170	16.562

	MN (ppm)	SB (ppm)	V (ppm)	BE (ppm)	TL (ppm)
Mean	0.009	-0.010	-0.004	0.002	-0.058
S.D.	0.000	0.028	0.000	0.000	0.001
% R.S.D.	4.813	277.361	8.043	8.200	1.946

WM-SD-WM-DP-139, REV. 1

Identity 1: ICSAB Identity 2: Quality Control

10:55 AM August 1, 1995

Task name : TWC93

Sample Weight : 1.0000 Solution Volume : 1.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	ZR	SR	BI	SI	AL	CO	CU	LI
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	-0.001	0.000	-0.006	0.072	203.058	0.513	0.484	0.942
S.D.	0.001	0.000	0.010	0.004	0.364	0.004	0.002	0.001
% R.S.D.	50.777	57.861	151.236	5.260	0.179	0.796	0.313	0.115
	ZN	NI	LA	FE	CA	CR	ND	U
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	1.026	0.958	0.008	152.387	18.957	0.507	0.028	0.060
S.D.	0.001	0.006	0.003	0.338	0.055	0.002	0.007	0.027
% R.S.D.	0.072	0.590	36.955	0.222	0.290	0.473	24.959	45.626
	CE	SM	BA	P	S	MG	AS	NA
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	0.012	0.010	0.508	0.019	0.177	19.175	0.009	188.634
S.D.	0.005	0.005	0.001	0.010	0.007	0.014	0.004	0.099
% R.S.D.	38.633	52.843	0.218	51.302	4.160	0.075	45.226	0.052
	MO	SE	AG	PB	TI	CD	B	K
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	0.000	0.100	1.512	1.058	0.001	1.042	-0.048	0.119
S.D.	0.001	0.006	0.004	0.008	0.000	0.003	0.001	0.004
% R.S.D.	720.677	5.959	0.240	0.792	31.181	0.274	1.899	2.976
	MN	SB	V	BE	TL			
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)			
Mean	0.526	-0.018	0.515	0.510	-0.009			
S.D.	0.001	0.035	0.001	0.001	0.009			
% R.S.D.	0.261	192.566	0.273	0.199	99.945			

WHC-SD-WM-DP-139, REV. 1

Identity 1: CCV Identity 2: Quality Control 11:00 AM August 1, 1995

Task name : TWC93

Sample Weight : 1.0000 Solution Volume : 1.00

Peak Integrations : 3 Off-Peak Integrations : 1

	ZR (ppm)	SR (ppm)	BI (ppm)	SI (ppm)	AL (ppm)	CO (ppm)	CU (ppm)	LI (ppm)
Mean	4.942	4.954	4.940	4.838	4.950	5.053	4.849	4.986
S.D.	0.005	0.004	0.002	0.009	0.009	0.014	0.004	0.014
% R.S.D.	0.096	0.083	0.039	0.191	0.176	0.271	0.082	0.275

	ZN (ppm)	NI (ppm)	LA (ppm)	FE (ppm)	CA (ppm)	CR (ppm)	ND (ppm)	U (ppm)
Mean	5.053	4.994	5.091	5.155	5.201	5.070	5.389	9.399
S.D.	0.011	0.010	0.012	0.013	0.004	0.015	0.006	0.031
% R.S.D.	0.220	0.208	0.245	0.251	0.083	0.304	0.102	0.328

	CE (ppm)	SM (ppm)	BA (ppm)	P (ppm)	S (ppm)	MG (ppm)	AS (ppm)	NA (ppm)
Mean	4.942	5.003	4.958	5.111	4.989	5.024	4.951	5.004
S.D.	0.015	0.008	0.003	0.165	0.036	0.008	0.032	0.014
% R.S.D.	0.304	0.168	0.060	3.235	0.719	0.167	0.643	0.285

	MO (ppm)	SE (ppm)	AG (ppm)	PB (ppm)	TI (ppm)	CD (ppm)	B (ppm)	K (ppm)
Mean	5.028	4.881	4.900	5.055	4.869	5.052	5.137	5.277
S.D.	0.018	0.009	0.007	0.030	0.004	0.012	0.005	0.005
% R.S.D.	0.362	0.177	0.148	0.595	0.084	0.239	0.102	0.101

	MN (ppm)	SB (ppm)	V (ppm)	BE (ppm)	TL (ppm)
Mean	5.038	4.779	5.067	5.144	4.834
S.D.	0.011	0.019	0.004	0.004	0.016
% R.S.D.	0.223	0.407	0.083	0.075	0.338

WHC-SD-WM-DP-139, REV. 1

Identity 1: CCB Identity 2: Quality Control 11:05 AM August 1, 1995

Task name : TWC93

Sample Weight : 1.0000 Solution Volume : 1.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	ZR	SR	BI	SI	AL	CO	CU	LI
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	0.002	0.000	-0.007	0.003	-0.004	0.001	-0.001	0.000
S.D.	0.000	0.000	0.019	0.001	0.006	0.000	0.000	0.000
% R.S.D.	10.298	34.906	271.078	44.243	128.332	0.098	41.427	47.283
	ZN	NI	LA	FE	CA	CR	ND	U
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	0.000	0.002	-0.001	0.003	0.000	0.002	0.010	0.084
S.D.	0.000	0.001	0.002	0.002	0.000	0.001	0.006	0.006
% R.S.D.	77.438	63.018	239.078	63.207	22.913	35.027	59.986	7.152
	CE	SM	BA	P	S	MG	AS	NA
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	0.010	0.022	0.000	-0.005	0.004	0.000	0.008	0.028
S.D.	0.004	0.002	0.000	0.009	0.000	0.000	0.001	0.002
% R.S.D.	35.716	7.852	32.064	183.476	5.329	28.645	9.866	6.977
	MO	SE	AG	PB	TI	CD	B	K
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	0.002	0.001	0.001	0.007	0.001	0.002	0.000	0.170
S.D.	0.001	0.007	0.000	0.006	0.000	0.001	0.000	0.014
% R.S.D.	59.177	789.926	29.898	87.458	42.251	44.679	186.124	8.257
	MN	SB	V	BE	TL			
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)			
Mean	-0.000	-0.007	0.001	0.000	0.032			
S.D.	0.000	0.042	0.001	0.000	0.010			
% R.S.D.	59.404	571.577	108.869	7.152	29.912			

JK LGA
08-01-95

WHC-SD-WM-DP-139, REV. 1

ICP MACRO

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	1935	1			ICV	AG				4.9518		1.0000	08/01/95	09:34	dkc	0.01	ICP-QC
2	1935	1			ICV	AL				5.0078		1.0000	08/01/95	09:34	dkc	0.05	ICP-QC
3	1935	1			ICV	AS				5.0285		1.0000	08/01/95	09:34	dkc	0.05	ICP-QC
4	1935	1			ICV	BA				5.0683		1.0000	08/01/95	09:34	dkc	0.05	ICP-QC
5	1935	1			ICV	BE				4.9820		1.0000	08/01/95	09:34	dkc	0.05	ICP-QC
6	1935	1			ICV	BI				5.1075		1.0000	08/01/95	09:34	dkc	0.005	ICP-QC
7	1935	1			ICV	CA				4.9642		1.0000	08/01/95	09:34	dkc	0.1	ICP-QC
8	1935	1			ICV	CE				5.1697		1.0000	08/01/95	09:34	dkc	0.1	ICP-QC
9	1935	1			ICV	CD				5.0929		1.0000	08/01/95	09:34	dkc	0.01	ICP-QC
10	1935	1			ICV	CO				5.0200		1.0000	08/01/95	09:34	dkc	0.1	ICP-QC
11	1935	1			ICV	CU				5.1484		1.0000	08/01/95	09:34	dkc	0.02	ICP-QC
12	1935	1			ICV	CO				5.1364		1.0000	08/01/95	09:34	dkc	0.01	ICP-QC
13	1935	1			ICV	CU				4.8385		1.0000	08/01/95	09:34	dkc	0.01	ICP-QC
14	1935	1			ICV	FE				5.0676		1.0000	08/01/95	09:34	dkc	0.05	ICP-QC
15	1935	1			ICV	K				4.9553		1.0000	08/01/95	09:34	dkc	0.3	ICP-QC
16	1935	1			ICV	LA				4.9875		1.0000	08/01/95	09:34	dkc	0.05	ICP-QC
17	1935	1			ICV	LA				4.9840		1.0000	08/01/95	09:34	dkc	0.01	ICP-QC
18	1935	1			ICV	MG				5.1137		1.0000	08/01/95	09:34	dkc	0.1	ICP-QC
19	1935	1			ICV	MN				5.0632		1.0000	08/01/95	09:34	dkc	0.01	ICP-QC
20	1935	1			ICV	MO				5.1403		1.0000	08/01/95	09:34	dkc	0.05	ICP-QC
21	1935	1			ICV	NA				4.9818		1.0000	08/01/95	09:34	dkc	0.1	ICP-QC
22	1935	1			ICV	ND				5.0687		1.0000	08/01/95	09:34	dkc	0.1	ICP-QC
23	1935	1			ICV	NH				5.0432		1.0000	08/01/95	09:34	dkc	0.02	ICP-QC
24	1935	1			ICV	P				5.2749		1.0000	08/01/95	09:34	dkc	0.2	ICP-QC
25	1935	1			ICV	PB				5.0543		1.0000	08/01/95	09:34	dkc	0.1	ICP-QC
26	1935	1			ICV	S				5.1844		1.0000	08/01/95	09:34	dkc	0.05	ICP-QC
27	1935	1			ICV	SB				4.7904		1.0000	08/01/95	09:34	dkc	0.2	ICP-QC
28	1935	1			ICV	SE				4.9398		1.0000	08/01/95	09:34	dkc	0.1	ICP-QC
29	1935	1			ICV	SI				4.9058		1.0000	08/01/95	09:34	dkc	0.05	ICP-QC
30	1935	1			ICV	SM				4.9873		1.0000	08/01/95	09:34	dkc	0.1	ICP-QC
31	1935	1			ICV	SR				4.9731		1.0000	08/01/95	09:34	dkc	0.01	ICP-QC
32	1935	1			ICV	TI				4.9175		1.0000	08/01/95	09:34	dkc	0.01	ICP-QC
33	1935	1			ICV	TL				4.8457		1.0000	08/01/95	09:34	dkc	0.2	ICP-QC
34	1935	1			ICV	U				9.2829		1.0000	08/01/95	09:34	dkc	0.4	ICP-QC
35	1935	1			ICV	V				5.0801		1.0000	08/01/95	09:34	dkc	0.05	ICP-QC
36	1935	1			ICV	ZN				5.1359		1.0000	08/01/95	09:34	dkc	0.01	ICP-QC
37	1935	1			ICV	ZR				4.9573		1.0000	08/01/95	09:34	dkc	0.01	ICP-QC
38	1935	2			ICB	AG				0.0010		1.0000	08/01/95	09:37	dkc	0.05	ICP-QC
39	1935	2			ICB	AL				0.0045		1.0000	08/01/95	09:37	dkc	0.05	ICP-QC
40	1935	2			ICB	AS				0.0035		1.0000	08/01/95	09:37	dkc	0.05	ICP-QC
41	1935	2			ICB	B				0.0043		1.0000	08/01/95	09:37	dkc	0.05	ICP-QC
42	1935	2			ICB	BA				0.0003		1.0000	08/01/95	09:37	dkc	0.05	ICP-QC
43	1935	2			ICB	BE				-0.0001		1.0000	08/01/95	09:37	dkc	0.05	ICP-QC
44	1935	2			ICB	BI				0.0103		1.0000	08/01/95	09:37	dkc	0.1	ICP-QC
45	1935	2			ICB	CA				0.0002		1.0000	08/01/95	09:37	dkc	0.01	ICP-QC
46	1935	2			ICB	CD				0.0020		1.0000	08/01/95	09:37	dkc	0.1	ICP-QC
47	1935	2			ICB	CE				0.0121		1.0000	08/01/95	09:37	dkc	0.1	ICP-QC
48	1935	2			ICB	CO				-0.0027		1.0000	08/01/95	09:37	dkc	0.02	ICP-QC
49	1935	2			ICB	CU				-0.0002		1.0000	08/01/95	09:37	dkc	0.01	ICP-QC
50	1935	2			ICB	FE				-0.0001		1.0000	08/01/95	09:37	dkc	0.01	ICP-QC
51	1935	2			ICB	K				0.0035		1.0000	08/01/95	09:37	dkc	0.05	ICP-QC
52	1935	2			ICB	LA				0.0248		1.0000	08/01/95	09:37	dkc	0.3	ICP-QC
53	1935	2			ICB	LI				0.0020		1.0000	08/01/95	09:37	dkc	0.05	ICP-QC
54	1935	2			ICB	LI				0.0004		1.0000	08/01/95	09:37	dkc	0.01	ICP-QC
55	1935	2			ICB	MG				0.0002		1.0000	08/01/95	09:37	dkc	0.1	ICP-QC
56	1935	2			ICB	MN				-0.0007		1.0000	08/01/95	09:37	dkc	0.01	ICP-QC
57	1935	2			ICB	MO				-0.0008		1.0000	08/01/95	09:37	dkc	0.05	ICP-QC
58	1935	2			ICB	NA				0.0026		1.0000	08/01/95	09:37	dkc	0.1	ICP-QC
59	1935	2			ICB	ND				-0.0011		1.0000	08/01/95	09:37	dkc	0.1	ICP-QC
60	1935	2			ICB	NI				0.0002		1.0000	08/01/95	09:37	dkc	0.02	ICP-QC
61	1935	2			ICB	P				-0.0146		1.0000	08/01/95	09:37	dkc	0.2	ICP-QC
62	1935	2			ICB	PB				-0.0018		1.0000	08/01/95	09:37	dkc	0.1	ICP-QC
63	1935	2			ICB	S				-0.0037		1.0000	08/01/95	09:37	dkc	0.05	ICP-QC
64	1935	2			ICB	SB				-0.0807		1.0000	08/01/95	09:37	dkc	0.2	ICP-QC
65	1935	2			ICB	SE				-0.0083		1.0000	08/01/95	09:37	dkc	0.1	ICP-QC
66	1935	2			ICB	SI				0.0039		1.0000	08/01/95	09:37	dkc	0.05	ICP-QC
67	1935	2			ICB	SM				0.0205		1.0000	08/01/95	09:37	dkc	0.1	ICP-QC
68	1935	2			ICB	SR				0.0000		1.0000	08/01/95	09:37	dkc	0.01	ICP-QC
69	1935	2			ICB	TI				0.0008		1.0000	08/01/95	09:37	dkc	0.01	ICP-QC
70	1935	2			ICB	TL				0.0342		1.0000	08/01/95	09:37	dkc	0.2	ICP-QC
71	1935	2			ICB	U				0.0804		1.0000	08/01/95	09:37	dkc	0.4	ICP-QC
72	1935	2			ICB	V				0.0007		1.0000	08/01/95	09:37	dkc	0.05	ICP-QC
73	1935	2			ICB	ZN				0.0005		1.0000	08/01/95	09:37	dkc	0.01	ICP-QC
74	1935	2			ICB	ZR				-0.0035		1.0000	08/01/95	09:39	dkc	0.01	ICP-QC
75	1935	3			ICSA	AG				-0.0056		1.0000	08/01/95	09:39	dkc	0.05	ICP-QC
76	1935	3			ICSA	AL				201.2239		1.0000	08/01/95	09:39	dkc	0.05	ICP-QC
77	1935	3			ICSA	AS				0.0023		1.0000	08/01/95	09:39	dkc	0.05	ICP-QC
78	1935	3			ICSA	B				-0.0458		1.0000	08/01/95	09:39	dkc	0.05	ICP-QC
79	1935	3			ICSA	BA				0.0031		1.0000	08/01/95	09:39	dkc	0.05	ICP-QC
80	1935	3			ICSA	BE				0.0023		1.0000	08/01/95	09:39	dkc	0.005	ICP-QC
81	1935	3			ICSA	BI				0.0053		1.0000	08/01/95	09:39	dkc	0.1	ICP-QC
82	1935	3			ICSA	CA				19.2381		1.0000	08/01/95	09:39	dkc	0.1	ICP-QC
83	1935	3			ICSA	CD				0.0124		1.0000	08/01/95	09:39	dkc	0.01	ICP-QC
84	1935	3			ICSA	CE				0.0181		1.0000	08/01/95	09:39	dkc	0.1	ICP-QC
85	1935	3			ICSA	CO				0.0062		1.0000	08/01/95	09:39	dkc	0.02	ICP-QC
86	1935	3			ICSA	CR				-0.0105		1.0000	08/01/95	09:39	dkc	0.01	ICP-QC
87	1935	3			ICSA	CU				-0.0140		1.0000	08/01/95	09:39	dkc	0.01	ICP-QC
88	1935	3			ICSA	FE				148.3693		1.0000	08/01/95	09:39	dkc	0.05	ICP-QC
89	1935	3			ICSA	K				-0.0131		1.0000	08/01/95	09:39	dkc	0.3	ICP-QC
90	1935	3			ICSA	LA				0.0084		1.0000	08/01/95	09:39	dkc	0.05	ICP-QC
91	1935	3			ICSA	LI				0.0003		1.0000	08/01/95	09:39	dkc	0.01	ICP-QC
92	1935	3			ICSA	MG				19.2820							

ICP MACRO

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
123	1935	4			ICPSB	CR				0.5064		1.0000	08/01/95	08:42	dis	0.01	ICP-QC
124	1935	4			ICPSB	CU				0.4857		1.0000	08/01/95	08:42	dis	0.01	ICP-QC
125	1935	4			ICPSB	FE				150.1343		1.0000	08/01/95	08:42	dis	0.05	ICP-QC
126	1935	4			ICPSB	LA				-0.0108		1.0000	08/01/95	08:42	dis	0.3	ICP-QC
127	1935	4			ICPSB	LI				0.0038		1.0000	08/01/95	08:42	dis	0.05	ICP-QC
128	1935	4			ICPSB	LI				0.9402		1.0000	08/01/95	08:42	dis	0.01	ICP-QC
129	1935	4			ICPSB	MG				19.0501		1.0000	08/01/95	08:42	dis	0.1	ICP-QC
130	1935	4			ICPSB	MM				0.5220		1.0000	08/01/95	08:42	dis	0.01	ICP-QC
131	1935	4			ICPSB	MO				-0.0002		1.0000	08/01/95	08:42	dis	0.05	ICP-QC
132	1935	4			ICPSB	NA				183.2288		1.0000	08/01/95	08:42	dis	0.1	ICP-QC
133	1935	4			ICPSB	ND				0.0286		1.0000	08/01/95	08:42	dis	0.1	ICP-QC
134	1935	4			ICPSB	NI				0.9453		1.0000	08/01/95	08:42	dis	0.02	ICP-QC
135	1935	4			ICPSB	P				0.0229		1.0000	08/01/95	08:42	dis	0.2	ICP-QC
136	1935	4			ICPSB	PA				1.0853		1.0000	08/01/95	08:42	dis	0.1	ICP-QC
137	1935	4			ICPSB	S				0.1474		1.0000	08/01/95	08:42	dis	0.05	ICP-QC
138	1935	4			ICPSB	SB				-0.0382		1.0000	08/01/95	08:42	dis	0.2	ICP-QC
139	1935	4			ICPSB	SE				0.0701		1.0000	08/01/95	08:42	dis	0.1	ICP-QC
140	1935	4			ICPSB	SI				0.0839		1.0000	08/01/95	08:42	dis	0.05	ICP-QC
141	1935	4			ICPSB	SM				-0.0073		1.0000	08/01/95	08:42	dis	0.1	ICP-QC
142	1935	4			ICPSB	SR				0.0003		1.0000	08/01/95	08:42	dis	0.01	ICP-QC
143	1935	4			ICPSB	TI				-0.0001		1.0000	08/01/95	08:42	dis	0.01	ICP-QC
144	1935	4			ICPSB	TL				-0.0412		1.0000	08/01/95	08:42	dis	0.2	ICP-QC
145	1935	4			ICPSB	U				-0.0029		1.0000	08/01/95	08:42	dis	0.4	ICP-QC
146	1935	4			ICPSB	V				0.5094		1.0000	08/01/95	08:42	dis	0.05	ICP-QC
147	1935	4			ICPSB	ZN				1.0182		1.0000	08/01/95	08:42	dis	0.01	ICP-QC
148	1935	4			ICPSB	ZR				-0.0031		1.0000	08/01/95	08:42	dis	0.01	ICP-QC
149	1935	5			PREPBLKARL	AG-F-01				0.0123		10.0000	08/01/95	08:49	dis	0.01	ICP-QC
150	1935	5			PREPBLKARL	AL-F-01				0.0821		10.0000	08/01/95	08:49	dis	0.01	ICP-QC
151	1935	5			PREPBLKARL	AS-F-01				0.0409		10.0000	08/01/95	08:49	dis	0.05	ICP-QC
152	1935	5			PREPBLKARL	B-F-01				0.0250		10.0000	08/01/95	08:49	dis	0.05	ICP-QC
153	1935	5			PREPBLKARL	BA-F-01				0.0187		10.0000	08/01/95	08:49	dis	0.05	ICP-QC
154	1935	5			PREPBLKARL	BE-F-01				-0.0006		10.0000	08/01/95	08:49	dis	0.005	ICP-QC
155	1935	5			PREPBLKARL	BI-F-01				-0.0854		10.0000	08/01/95	08:49	dis	0.1	ICP-QC
156	1935	5			PREPBLKARL	CA-F-01				0.4318		10.0000	08/01/95	08:49	dis	0.1	ICP-QC
157	1935	5			PREPBLKARL	CD-F-01				0.0187		10.0000	08/01/95	08:49	dis	0.01	ICP-QC
158	1935	5			PREPBLKARL	CE-F-01				-0.0028		10.0000	08/01/95	08:49	dis	0.1	ICP-QC
159	1935	5			PREPBLKARL	CO-F-01				0.0831		10.0000	08/01/95	08:49	dis	0.02	ICP-QC
160	1935	5			PREPBLKARL	CU-F-01				0.0119		10.0000	08/01/95	08:49	dis	0.01	ICP-QC
161	1935	5			PREPBLKARL	CU-F-01				0.0281		10.0000	08/01/95	08:49	dis	0.01	ICP-QC
162	1935	5			PREPBLKARL	FE-F-01				0.8549		10.0000	08/01/95	08:49	dis	0.05	ICP-QC
163	1935	5			PREPBLKARL	FE-F-01				10265.9348		10.0000	08/01/95	08:49	dis	0.3	ICP-QC
164	1935	5			PREPBLKARL	LA-F-01				0.0088		10.0000	08/01/95	08:49	dis	0.05	ICP-QC
165	1935	5			PREPBLKARL	LI-F-01				0.0048		10.0000	08/01/95	08:49	dis	0.01	ICP-QC
166	1935	5			PREPBLKARL	MG-F-01				0.0419		10.0000	08/01/95	08:49	dis	0.1	ICP-QC
167	1935	5			PREPBLKARL	MM-F-01				0.0840		10.0000	08/01/95	08:49	dis	0.01	ICP-QC
168	1935	5			PREPBLKARL	MO-F-01				0.0072		10.0000	08/01/95	08:49	dis	0.05	ICP-QC
169	1935	5			PREPBLKARL	NA-F-01				3.4303		10.0000	08/01/95	08:49	dis	0.1	ICP-QC
170	1935	5			PREPBLKARL	ND-F-01				0.0482		10.0000	08/01/95	08:49	dis	0.1	ICP-QC
171	1935	5			PREPBLKARL	NI-F-01				2.5729		10.0000	08/01/95	08:49	dis	0.02	ICP-QC
172	1935	5			PREPBLKARL	P-F-01				0.1350		10.0000	08/01/95	08:49	dis	0.2	ICP-QC
173	1935	5			PREPBLKARL	PA-F-01				0.0338		10.0000	08/01/95	08:49	dis	0.1	ICP-QC
174	1935	5			PREPBLKARL	S-F-01				0.1250		10.0000	08/01/95	08:49	dis	0.05	ICP-QC
175	1935	5			PREPBLKARL	SB-F-01				-0.3404		10.0000	08/01/95	08:49	dis	0.2	ICP-QC
176	1935	5			PREPBLKARL	SE-F-01				0.1071		10.0000	08/01/95	08:49	dis	0.1	ICP-QC
177	1935	5			PREPBLKARL	SH-F-01				0.3500		10.0000	08/01/95	08:49	dis	0.05	ICP-QC
178	1935	5			PREPBLKARL	SM-F-01				0.1800		10.0000	08/01/95	08:49	dis	0.1	ICP-QC
179	1935	5			PREPBLKARL	SR-F-01				0.0087		10.0000	08/01/95	08:49	dis	0.01	ICP-QC
180	1935	5			PREPBLKARL	TI-F-01				0.0228		10.0000	08/01/95	08:49	dis	0.01	ICP-QC
181	1935	5			PREPBLKARL	TL-F-01				0.4254		10.0000	08/01/95	08:49	dis	0.2	ICP-QC
182	1935	5			PREPBLKARL	U-F-01				0.9239		10.0000	08/01/95	08:49	dis	0.4	ICP-QC
183	1935	5			PREPBLKARL	V-F-01				0.0038		10.0000	08/01/95	08:49	dis	0.05	ICP-QC
184	1935	5			PREPBLKARL	ZN-F-01				0.0382		10.0000	08/01/95	08:49	dis	0.01	ICP-QC
185	1935	5			PREPBLKARL	ZR-F-01				0.0338		10.0000	08/01/95	08:49	dis	0.01	ICP-QC
186	1935	5			SP5T001336	LI-F-01				55.4324		5543.2373	08/01/95	08:59	dis	0.01	ICP-QC
187	1935	7			SP5T001336	LI-F-01				<55.4324		<55.0861	08/01/95	10:02	dis	0.01	ICP-QC
188	1935	8			SP5T001336_A	LI-F-01				5543.2373		5543.2373	08/01/95	10:06	dis	0.01	ICP-QC
189	1935	9			CCV	AG				4.9754		1.0000	08/01/95	10:19	dis	0.01	ICP-QC
190	1935	9			CCV	AL				5.0298		1.0000	08/01/95	10:19	dis	0.05	ICP-QC
191	1935	9			CCV	AS				5.0389		1.0000	08/01/95	10:19	dis	0.05	ICP-QC
192	1935	9			CCV	B				5.1114		1.0000	08/01/95	10:19	dis	0.05	ICP-QC
193	1935	9			CCV	BA				4.9873		1.0000	08/01/95	10:19	dis	0.05	ICP-QC
194	1935	9			CCV	BE				5.1853		1.0000	08/01/95	10:19	dis	0.005	ICP-QC
195	1935	9			CCV	BI				5.0189		1.0000	08/01/95	10:19	dis	0.1	ICP-QC
196	1935	9			CCV	CA				5.2030		1.0000	08/01/95	10:19	dis	0.01	ICP-QC
197	1935	9			CCV	CD				5.1148		1.0000	08/01/95	10:19	dis	0.1	ICP-QC
198	1935	9			CCV	CE				5.0585		1.0000	08/01/95	10:19	dis	0.02	ICP-QC
199	1935	9			CCV	CO				5.1871		1.0000	08/01/95	10:19	dis	0.01	ICP-QC
200	1935	9			CCV	CR				5.1484		1.0000	08/01/95	10:19	dis	0.01	ICP-QC
201	1935	9			CCV	CU				4.8840		1.0000	08/01/95	10:19	dis	0.01	ICP-QC
202	1935	9			CCV	FE				5.1458		1.0000	08/01/95	10:19	dis	0.05	ICP-QC
203	1935	9			CCV	K				5.1284		1.0000	08/01/95	10:19	dis	0.3	ICP-QC
204	1935	9			CCV	LA				5.0448		1.0000	08/01/95	10:19	dis	0.05	ICP-QC
205	1935	9			CCV	LI				5.0092		1.0000	08/01/95	10:19	dis	0.01	ICP-QC
206	1935	9			CCV	MG				5.1231		1.0000	08/01/95	10:19	dis	0.1	ICP-QC
207	1935	9			CCV	MM				5.0849		1.0000	08/01/95	10:19	dis	0.01	ICP-QC
208	1935	9			CCV	MO				5.1398		1.0000	08/01/95	10:19	dis	0.05	ICP-QC
209	1935	9			CCV	NA				5.0254		1.0000	08/01/95	10:19	dis	0.1	ICP-QC
210	1935	9			CCV	ND				5.2147		1.0000	08/01/95				

ICP MACRO

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
245	1935	10			CCB	MO				0.0002		1.0000	08/01/95	10:23	dis	0.05	ICP-QC
246	1935	10			CCB	ND				0.0145		1.0000	08/01/95	10:23	dis	0.1	ICP-QC
247	1935	10			CCB	NI				0.0107		1.0000	08/01/95	10:23	dis	0.1	ICP-QC
248	1935	10			CCB	NI				0.0043		1.0000	08/01/95	10:23	dis	0.02	ICP-QC
249	1935	10			CCB	P				-0.0032		1.0000	08/01/95	10:23	dis	0.2	ICP-QC
250	1935	10			CCB	PA				0.0084		1.0000	08/01/95	10:23	dis	0.1	ICP-QC
251	1935	10			CCB	S				0.0092		1.0000	08/01/95	10:23	dis	0.05	ICP-QC
252	1935	10			CCB	SB				-0.0402		1.0000	08/01/95	10:23	dis	0.2	ICP-QC
253	1935	10			CCB	SE				0.0013		1.0000	08/01/95	10:23	dis	0.1	ICP-QC
254	1935	10			CCB	SI				0.0026		1.0000	08/01/95	10:23	dis	0.05	ICP-QC
255	1935	10			CCB	SM				0.0079		1.0000	08/01/95	10:23	dis	0.1	ICP-QC
256	1935	10			CCB	SR				0.0001		1.0000	08/01/95	10:23	dis	0.01	ICP-QC
257	1935	10			CCB	TI				0.0007		1.0000	08/01/95	10:23	dis	0.01	ICP-QC
258	1935	10			CCB	TL				0.0181		1.0000	08/01/95	10:23	dis	0.2	ICP-QC
259	1935	10			CCB	U				0.0143		1.0000	08/01/95	10:23	dis	0.4	ICP-QC
260	1935	10			CCB	V				0.0000		1.0000	08/01/95	10:23	dis	0.05	ICP-QC
261	1935	10			CCB	ZN				0.0009		1.0000	08/01/95	10:23	dis	0.01	ICP-QC
262	1935	10			CCB	ZR				0.0016		1.0000	08/01/95	10:23	dis	0.01	ICP-QC
263	1935	11	S95T001337			LI-F-01				43.0441		4304.4077	08/01/95	10:31	dis	0.01	ICP-F0
264	1935	12	S95T001337		DUP	LI-F-01		<43.0441		<45.7875		4578.7548	08/01/95	10:35	dis	0.01	ICP-F0
265	1935	13	S95T001337_A		SPK	LI-F-01		4304.4077		4003.0050		4304.4077	08/01/95	10:38	dis	0.01	ICP-F0
266	1935	14			ICSA	AG				-0.0042		1.0000	08/01/95	10:52	dis	0.01	ICP-QC
267	1935	14			ICSA	AL				202.5969		1.0000	08/01/95	10:52	dis	0.05	ICP-QC
268	1935	14			ICSA	AS				-0.0062		1.0000	08/01/95	10:52	dis	0.05	ICP-QC
269	1935	14			ICSA	B				-0.0430		1.0000	08/01/95	10:52	dis	0.05	ICP-QC
270	1935	14			ICSA	BA				0.0029		1.0000	08/01/95	10:52	dis	0.05	ICP-QC
271	1935	14			ICSA	BE				0.0022		1.0000	08/01/95	10:52	dis	0.05	ICP-QC
272	1935	14			ICSA	BI				0.0097		1.0000	08/01/95	10:52	dis	0.1	ICP-QC
273	1935	14			ICSA	CA				19.2448		1.0000	08/01/95	10:52	dis	0.1	ICP-QC
274	1935	14			ICSA	CD				0.0107		1.0000	08/01/95	10:52	dis	0.01	ICP-QC
275	1935	14			ICSA	CE				0.0078		1.0000	08/01/95	10:52	dis	0.1	ICP-QC
276	1935	14			ICSA	CO				0.0071		1.0000	08/01/95	10:52	dis	0.02	ICP-QC
277	1935	14			ICSA	CR				-0.0117		1.0000	08/01/95	10:52	dis	0.01	ICP-QC
278	1935	14			ICSA	CU				-0.0144		1.0000	08/01/95	10:52	dis	0.01	ICP-QC
279	1935	14			ICSA	FE				150.7570		1.0000	08/01/95	10:52	dis	0.05	ICP-QC
280	1935	14			ICSA	K				0.1241		1.0000	08/01/95	10:52	dis	0.3	ICP-QC
281	1935	14			ICSA	LA				0.0072		1.0000	08/01/95	10:52	dis	0.05	ICP-QC
282	1935	14			ICSA	LI				0.0007		1.0000	08/01/95	10:52	dis	0.01	ICP-QC
283	1935	14			ICSA	MG				19.5249		1.0000	08/01/95	10:52	dis	0.1	ICP-QC
284	1935	14			ICSA	MN				0.0093		1.0000	08/01/95	10:52	dis	0.01	ICP-QC
285	1935	14			ICSA	MO				0.0013		1.0000	08/01/95	10:52	dis	0.05	ICP-QC
286	1935	14			ICSA	NA				188.1826		1.0000	08/01/95	10:52	dis	0.1	ICP-QC
287	1935	14			ICSA	ND				0.0303		1.0000	08/01/95	10:52	dis	0.1	ICP-QC
288	1935	14			ICSA	NI				-0.0485		1.0000	08/01/95	10:52	dis	0.02	ICP-QC
289	1935	14			ICSA	P				0.0195		1.0000	08/01/95	10:52	dis	0.2	ICP-QC
290	1935	14			ICSA	PA				0.0284		1.0000	08/01/95	10:52	dis	0.1	ICP-QC
291	1935	14			ICSA	S				0.1647		1.0000	08/01/95	10:52	dis	0.05	ICP-QC
292	1935	14			ICSA	SB				-0.0101		1.0000	08/01/95	10:52	dis	0.2	ICP-QC
293	1935	14			ICSA	SE				-0.0185		1.0000	08/01/95	10:52	dis	0.1	ICP-QC
294	1935	14			ICSA	SI				0.0692		1.0000	08/01/95	10:52	dis	0.05	ICP-QC
295	1935	14			ICSA	SM				-0.0080		1.0000	08/01/95	10:52	dis	0.1	ICP-QC
296	1935	14			ICSA	SR				0.0006		1.0000	08/01/95	10:52	dis	0.01	ICP-QC
297	1935	14			ICSA	TI				0.0004		1.0000	08/01/95	10:52	dis	0.01	ICP-QC
298	1935	14			ICSA	TL				-0.0577		1.0000	08/01/95	10:52	dis	0.2	ICP-QC
299	1935	14			ICSA	U				0.0113		1.0000	08/01/95	10:52	dis	0.4	ICP-QC
300	1935	14			ICSA	V				-0.0037		1.0000	08/01/95	10:52	dis	0.05	ICP-QC
301	1935	14			ICSA	ZN				0.0006		1.0000	08/01/95	10:52	dis	0.01	ICP-QC
302	1935	14			ICSA	ZR				-0.0013		1.0000	08/01/95	10:52	dis	0.01	ICP-QC
303	1935	15			ICSA	AG				1.5123		1.0000	08/01/95	10:55	dis	0.01	ICP-QC
304	1935	15			ICSA	AL				203.0584		1.0000	08/01/95	10:55	dis	0.05	ICP-QC
305	1935	15			ICSA	AS				0.0002		1.0000	08/01/95	10:55	dis	0.05	ICP-QC
306	1935	15			ICSA	B				-0.0476		1.0000	08/01/95	10:55	dis	0.05	ICP-QC
307	1935	15			ICSA	BA				0.5084		1.0000	08/01/95	10:55	dis	0.05	ICP-QC
308	1935	15			ICSA	BE				0.5104		1.0000	08/01/95	10:55	dis	0.05	ICP-QC
309	1935	15			ICSA	BI				-0.0084		1.0000	08/01/95	10:55	dis	0.1	ICP-QC
310	1935	15			ICSA	CA				18.9996		1.0000	08/01/95	10:55	dis	0.1	ICP-QC
311	1935	15			ICSA	CD				1.6469		1.0000	08/01/95	10:55	dis	0.01	ICP-QC
312	1935	15			ICSA	CE				0.0118		1.0000	08/01/95	10:55	dis	0.1	ICP-QC
313	1935	15			ICSA	CO				0.5129		1.0000	08/01/95	10:55	dis	0.02	ICP-QC
314	1935	15			ICSA	CU				0.5072		1.0000	08/01/95	10:55	dis	0.01	ICP-QC
315	1935	15			ICSA	FE				0.4841		1.0000	08/01/95	10:55	dis	0.01	ICP-QC
316	1935	15			ICSA	MG				152.3668		1.0000	08/01/95	10:55	dis	0.05	ICP-QC
317	1935	15			ICSA	LI				0.1188		1.0000	08/01/95	10:55	dis	0.3	ICP-QC
318	1935	15			ICSA	LA				0.0083		1.0000	08/01/95	10:55	dis	0.05	ICP-QC
319	1935	15			ICSA	LI				0.9419		1.0000	08/01/95	10:55	dis	0.01	ICP-QC
320	1935	15			ICSA	MG				19.1754		1.0000	08/01/95	10:55	dis	0.1	ICP-QC
321	1935	15			ICSA	MN				0.5261		1.0000	08/01/95	10:55	dis	0.01	ICP-QC
322	1935	15			ICSA	MO				0.0002		1.0000	08/01/95	10:55	dis	0.05	ICP-QC
323	1935	15			ICSA	NA				188.8345		1.0000	08/01/95	10:55	dis	0.1	ICP-QC
324	1935	15			ICSA	ND				0.0278		1.0000	08/01/95	10:55	dis	0.1	ICP-QC
325	1935	15			ICSA	NI				0.9577		1.0000	08/01/95	10:55	dis	0.02	ICP-QC
326	1935	15			ICSA	P				0.0186		1.0000	08/01/95	10:55	dis	0.2	ICP-QC
327	1935	15			ICSA	PA				1.0561		1.0000	08/01/95	10:55	dis	0.1	ICP-QC
328	1935	15			ICSA	S				0.1768		1.0000	08/01/95	10:55	dis	0.05	ICP-QC
329	1935	15			ICSA	SB				-0.0180		1.0000	08/01/95	10:55	dis	0.2	ICP-QC
330	1935	15			ICSA	SE				0.0999		1.0000	08/01/95	10:55	dis	0.1	ICP-QC
331	1935	15			ICSA	SI				0.0722		1.0000	08/01/95	10:55	dis	0.05	ICP-QC
332	1935	15			ICSA	SM				0.0099		1.0000	08/01/95	10:55	dis	0.1	ICP-QC
333	1935	15			ICSA	SR				0.0001		1.0000	08/01/95	10:55	dis	0.01	ICP-QC
334	1935	15			ICSA	TI				0.0009		1.0000	08/01/95	10:55	dis	0.01	ICP-QC
335	1935	15															

ICP MACRO

OUTPUT	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
367	1935	16			CCV	SE				4.8807		1.0000	08/01/95	11:01	dis	0.1	ICP-QC
368	1935	16			CCV	SI				4.8385		1.0000	08/01/95	11:01	dis	0.05	ICP-QC
369	1935	16			CCV	SM				5.0027		1.0000	08/01/95	11:01	dis	0.1	ICP-QC
370	1935	16			CCV	SR				4.9540		1.0000	08/01/95	11:01	dis	0.01	ICP-QC
371	1935	16			CCV	TI				4.8895		1.0000	08/01/95	11:01	dis	0.01	ICP-QC
372	1935	16			CCV	TL				4.8343		1.0000	08/01/95	11:01	dis	0.2	ICP-QC
373	1935	16			CCV	U				2.3989		1.0000	08/01/95	11:01	dis	0.4	ICP-QC
374	1935	16			CCV	V				5.0688		1.0000	08/01/95	11:01	dis	0.05	ICP-QC
375	1935	16			CCV	ZN				5.0534		1.0000	08/01/95	11:01	dis	0.01	ICP-QC
376	1935	16			CCV	ZR				4.8424		1.0000	08/01/95	11:01	dis	0.01	ICP-QC
377	1935	17			CCB	AG				0.0000		1.0000	08/01/95	11:06	dis	0.01	ICP-QC
378	1935	17			CCB	AL				-0.0045		1.0000	08/01/95	11:06	dis	0.05	ICP-QC
379	1935	17			CCB	AS				0.0084		1.0000	08/01/95	11:06	dis	0.05	ICP-QC
380	1935	17			CCB	B				0.0002		1.0000	08/01/95	11:06	dis	0.05	ICP-QC
381	1935	17			CCB	BA				0.0002		1.0000	08/01/95	11:06	dis	0.05	ICP-QC
382	1935	17			CCB	BE				0.0000		1.0000	08/01/95	11:06	dis	0.005	ICP-QC
383	1935	17			CCB	BI				-0.0071		1.0000	08/01/95	11:06	dis	0.1	ICP-QC
384	1935	17			CCB	CA				0.0004		1.0000	08/01/95	11:06	dis	0.1	ICP-QC
385	1935	17			CCB	CD				0.0025		1.0000	08/01/95	11:06	dis	0.01	ICP-QC
386	1935	17			CCB	CE				0.0104		1.0000	08/01/95	11:06	dis	0.1	ICP-QC
387	1935	17			CCB	CO				0.0000		1.0000	08/01/95	11:06	dis	0.02	ICP-QC
388	1935	17			CCB	CR				0.0023		1.0000	08/01/95	11:06	dis	0.01	ICP-QC
389	1935	17			CCB	CU				-0.0000		1.0000	08/01/95	11:06	dis	0.01	ICP-QC
390	1935	17			CCB	FE				0.0032		1.0000	08/01/95	11:06	dis	0.05	ICP-QC
391	1935	17			CCB	K				0.1703		1.0000	08/01/95	11:06	dis	0.3	ICP-QC
392	1935	17			CCB	LA				-0.0008		1.0000	08/01/95	11:06	dis	0.05	ICP-QC
393	1935	17			CCB	LI				0.0003		1.0000	08/01/95	11:06	dis	0.01	ICP-QC
394	1935	17			CCB	MG				0.0003		1.0000	08/01/95	11:06	dis	0.1	ICP-QC
395	1935	17			CCB	MN				-0.0005		1.0000	08/01/95	11:06	dis	0.01	ICP-QC
396	1935	17			CCB	MO				0.0021		1.0000	08/01/95	11:06	dis	0.05	ICP-QC
397	1935	17			CCB	NA				0.0284		1.0000	08/01/95	11:06	dis	0.1	ICP-QC
398	1935	17			CCB	ND				0.0088		1.0000	08/01/95	11:06	dis	0.1	ICP-QC
399	1935	17			CCB	NI				0.0017		1.0000	08/01/95	11:06	dis	0.02	ICP-QC
400	1935	17			CCB	P				-0.0049		1.0000	08/01/95	11:06	dis	0.2	ICP-QC
401	1935	17			CCB	PB				0.0070		1.0000	08/01/95	11:06	dis	0.1	ICP-QC
402	1935	17			CCB	S				0.0045		1.0000	08/01/95	11:06	dis	0.05	ICP-QC
403	1935	17			CCB	SB				-0.0073		1.0000	08/01/95	11:06	dis	0.2	ICP-QC
404	1935	17			CCB	SE				0.0009		1.0000	08/01/95	11:06	dis	0.1	ICP-QC
405	1935	17			CCB	SI				0.0034		1.0000	08/01/95	11:06	dis	0.05	ICP-QC
406	1935	17			CCB	SM				0.0221		1.0000	08/01/95	11:06	dis	0.1	ICP-QC
407	1935	17			CCB	SR				0.0001		1.0000	08/01/95	11:06	dis	0.01	ICP-QC
408	1935	17			CCB	TI				0.0000		1.0000	08/01/95	11:06	dis	0.01	ICP-QC
409	1935	17			CCB	TL				0.0310		1.0000	08/01/95	11:06	dis	0.2	ICP-QC
410	1935	17			CCB	U				0.0830		1.0000	08/01/95	11:06	dis	0.4	ICP-QC
411	1935	17			CCB	V				0.0000		1.0000	08/01/95	11:06	dis	0.05	ICP-QC
412	1935	17			CCB	ZN				0.0004		1.0000	08/01/95	11:06	dis	0.01	ICP-QC
413	1935	17			CCB	ZR				0.0021		1.0000	08/01/95	11:06	dis	0.01	ICP-QC

WHC-SD-WM-DP-132, REV.1

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08/01/95

08/29/95 12:51
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WHC-SD-WM-DP-139, REV. 1

Page:

LABCORE Data Entry Template for Worklist# 2181

Analyst: B. Godek Instrument: ICP01 Book# 463485Method: LA-505-151 Rev/Mod D-3

Worklist Comment: ICP B-101 FUSION (Li only)

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	S95T001552	0	F	@ICP-F03	SOLID	95000091	B-101
		Analytes Requested: LI-F-01						
7	DUP	S95T001552	0	F	@ICP-F03	SOLID		
8	SPK	S95T001552	0	F	@ICP-F03	SOLID		
9	CCV				@ICP-QC	QC		
10	CCB				@ICP-QC	QC		
11	SAMPLE	S95T001556	0	F	@ICP-F03	SOLID	95000093	B-101
		Analytes Requested: LI-F-01						
12	DUP	S95T001556	0	F	@ICP-F03	SOLID		
13	SPK	S95T001556	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:

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

08/29/95 12:51
A-0004-1

WHC-SD-WM-DP-139, REV. 1

Page:

LABCORE Data Entry Template for Worklist# 2181

S Type Sample# R A Test Matrix Group# Project

Final page for worklist # 2181

[Signature]
Analyst Signature

8-31-95
Date

Reviewed + Validated by:
Samuel M. Parg → 09/01/95
Analyst Signature Date

		DF
PREPBLK AML	1ml - 2ml	1
595T001552-L	.5318g in 250ml - 1ml - 2ml - 1ml - 4ml	12500
595T001552	.5318g in 250ml - 1ml - 2ml	2500
595T001552-D	.5298g in 250ml - 1ml - 2ml	2500
595T001552-A	.5318g in 250ml - 1ml - 2ml - 2ml	2500
595T001556-L	.4765g in 250ml - 1ml - 2ml - 1ml - 4ml	12500
595T001556	.4765g in 250ml - 1ml - 2ml	2500
595T001556-D	.4774g in 250ml - 1ml - 2ml	2500
595T001556-A	.4765g in 250ml - 1ml - 2ml - 2ml	2500

Data Entry Comments:

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

Identity 1: ICV Identity 2: Quality Control 1:26 PM August 31, 1995

Task name : OPTIMA

Sample Weight : 1.0000 Solution Volume : 1.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	4.932	5.006	4.940	4.856	4.976	4.966	5.090	5.209
S.D.	0.003	0.004	0.022	0.003	0.008	0.000	0.012	0.034
% R.S.D.	0.071	0.080	0.447	0.066	0.169	0.000	0.239	0.649

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	5.013	4.886	4.996	4.967	4.929	4.933	5.247	9.538
S.D.	0.009	0.002	0.002	0.028	0.009	0.004	0.026	0.025
% R.S.D.	0.187	0.050	0.037	0.562	0.187	0.087	0.503	0.266

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	5.117	5.138	5.024	5.196	5.066	4.831	5.035	5.157
S.D.	0.007	0.008	0.007	0.189	0.112	0.007	0.023	0.036
% R.S.D.	0.131	0.158	0.135	3.638	2.219	0.154	0.448	0.702

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	5.024	5.067	4.831	4.908	4.887	4.932	5.097	5.071
S.D.	0.015	0.031	0.007	0.012	0.003	0.006	0.011	0.038
% R.S.D.	0.302	0.607	0.143	0.250	0.052	0.124	0.209	0.754

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	4.912	4.702	5.001	5.124	4.695
S.D.	0.009	0.047	0.006	0.004	0.017
% R.S.D.	0.174	1.004	0.120	0.076	0.368

Handwritten:
 8-31-95
 B-101
 S95T001552
 S95T001556
 Fusion
 FILE # 950831A

SIGNATURE ABOVE REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 287 TO 305.

WHC-SD-WM-DP-139, REV. 1

Identity 1: ICB Identity 2: Quality Control 1:30 PM August 31, 1995

Task name : OPTIMA

Sample Weight : 1.0000 Solution Volume : 1.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.001	-0.000	-0.012	0.004	0.007	-0.008	-0.001	-0.000
S.D.	0.001	0.000	0.008	0.001	0.001	0.002	0.000	0.000
% R.S.D.	61.244	60.000	63.410	31.886	8.640	19.245	14.368	63.974

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.000	-0.001	-0.004	-0.002	0.001	-0.001	-0.009	-0.042
S.D.	0.000	0.001	0.001	0.004	0.000	0.000	0.003	0.022
% R.S.D.	86.337	74.099	15.826	187.478	6.946	14.710	29.435	52.325

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-0.032	0.005	-0.000	-0.000	-0.008	0.000	-0.008	-0.015
S.D.	0.007	0.007	0.000	0.004	0.001	0.000	0.002	0.001
% R.S.D.	21.192	142.005	8.422	1325.767	17.960	34.641	25.087	7.531

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.002	-0.006	-0.002	0.010	-0.000	-0.000	0.001	-0.120
S.D.	0.001	0.009	0.000	0.009	0.000	0.001	0.001	0.012
% R.S.D.	63.788	156.045	22.000	87.821	397.868	150.304	140.337	10.185

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	-0.000	-0.037	-0.001	0.000	0.008
S.D.	0.000	0.026	0.000	0.000	0.015
% R.S.D.	33101.277	70.577	26.409	44.968	191.388

WHC-SD-WM-DP-139, REV.1

Identity 1: ICSA Identity 2: Quality Control 1:33 PM August 31, 1995

Task name : OPTIMA

Sample Weight : 1.0000 Solution Volume : 1.00

0 Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	0.008	0.002	-0.027	0.020	199.947	-0.005	0.004	0.000
S.D.	0.000	0.000	0.007	0.002	0.479	0.002	0.001	0.000
% R.S.D.	5.675	7.784	26.769	12.037	0.240	34.454	14.044	61.687
	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.002	0.007	-0.003	96.755	99.776	0.009	0.028	-0.001
S.D.	0.001	0.001	0.002	0.139	0.139	0.001	0.011	0.051
% R.S.D.	32.555	11.012	67.906	0.143	0.139	11.546	37.842	8782.050
	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.027	0.011	0.004	0.026	-0.005	99.174	-0.005	192.438
S.D.	0.012	0.009	0.000	0.006	0.022	0.344	0.004	1.627
% R.S.D.	43.322	78.062	4.950	23.131	404.440	0.347	85.110	0.846
	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.001	0.031	0.003	0.014	-0.000	0.001	0.013	-0.060
S.D.	0.001	0.010	0.001	0.010	0.001	0.001	0.000	0.005
% R.S.D.	109.398	33.119	20.762	67.926	312.025	53.609	3.135	8.449
	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)			
Mean	0.007	0.017	0.002	0.003	0.031			
S.D.	0.001	0.026	0.001	0.000	0.022			
% R.S.D.	8.728	155.146	33.384	11.140	71.434			

WHC-SD-WM-DP-139, REV. 1

Identity 1: ICSAB Identity 2: Quality Control 1:36 PM August 31, 1995

Task name : OPTIMA

Sample Weight : 1.0000 Solution Volume : 1.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr	Sr	Bi	Si	Al	Co	Cu	Li
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	0.005	0.001	-0.046	0.016	201.134	0.480	0.498	0.967
S.D.	0.001	0.000	0.007	0.001	0.205	0.002	0.000	0.002
% R.S.D.	12.558	2.341	14.939	6.626	0.102	0.330	0.095	0.202
<hr/>								
	Zn	Ni	La	Fe	Ca	Cr	Nd	U
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	1.001	0.959	-0.001	97.729	100.735	0.498	0.012	0.045
S.D.	0.002	0.001	0.003	0.276	0.059	0.002	0.010	0.007
% R.S.D.	0.201	0.061	223.060	0.282	0.059	0.370	81.215	14.576
<hr/>								
	Ce	Sm	Ba	P	S	Mg	As	Na
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	-0.001	0.028	0.500	0.029	0.024	101.592	-0.017	190.875
S.D.	0.004	0.001	0.001	0.004	0.012	0.099	0.007	0.362
% R.S.D.	279.831	4.838	0.135	13.900	51.404	0.098	44.241	0.189
<hr/>								
	Mo	Se	Ag	Pb	Ti	Cd	B	K
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	-0.002	-0.012	1.009	1.009	0.001	0.977	0.014	0.015
S.D.	0.001	0.031	0.001	0.010	0.000	0.003	0.001	0.005
% R.S.D.	64.284	255.957	0.087	0.944	75.159	0.329	5.877	30.321
<hr/>								
	Mn	Sb	V	Be	Tl			
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)			
Mean	0.498	0.051	0.494	0.490	0.036			
S.D.	0.003	0.016	0.002	0.001	0.010			
% R.S.D.	0.549	32.395	0.326	0.223	27.052			

WHC-SD-WM-DP-139, REV. 1

Task name : OPTIMA

Sample Weight : 1.0000 Solution Volume : 1.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr	Sr	Bi	Si	Al	Co	Cu	Li
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	0.001	0.000	-0.045	-0.028	0.008	-0.013	0.005	-0.001
S.D.	0.001	0.000	0.009	0.002	0.001	0.003	0.000	0.000
% R.S.D.	137.781	57.735	19.224	6.513	13.389	21.429	4.628	19.113
	Zn	Ni	La	Fe	Ca	Cr	Nd	U
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	0.027	0.117	0.000	0.025	-0.679	0.005	-0.001	0.028
S.D.	0.000	0.002	0.003	0.003	0.010	0.001	0.005	0.030
% R.S.D.	1.483	1.631	536.551	11.002	1.425	12.184	425.382	107.124
	Ce	Sm	Ba	P	S	Mg	As	Na
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	-0.030	0.007	0.001	0.022	0.028	0.003	-0.003	0.340
S.D.	0.009	0.007	0.000	0.008	0.002	0.000	0.003	0.005
% R.S.D.	28.749	94.516	12.189	33.536	7.790	3.464	113.776	1.550
	Mo	Se	Ag	Pb	Ti	Cd	B	K
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	-0.002	0.016	-0.002	-0.013	0.001	0.002	0.000	1050.353
S.D.	0.001	0.008	0.001	0.013	0.000	0.001	0.000	5.981
% R.S.D.	36.169	52.988	26.611	101.680	54.486	34.505	80.545	0.569
	Mn	Sb	V	Be	Tl			
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)			
Mean	0.006	-0.086	-0.001	-0.000	-0.017			
S.D.	0.000	0.029	0.001	0.000	0.023			
% R.S.D.	2.743	33.475	43.312	28.297	132.936			

WHC-SD-WM-DP-139, REV. 1

Identity 1: S95T001552_L Identity 2: .5318gin250-1-9-1-4

1:46 PM August 31, 1995

Task name : OPTIMA

Sample Weight : 0.5318 Solution Volume : 12500.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	29.221	1.331	-820.897	69.521	9604.395	-214.795	9.498	17.560
S.D.	34.148	3.348	141.665	73.899	126.684	37.204	17.332	10.169
% R.S.D.	116.859	251.661	17.257	106.298	1.319	17.321	182.489	57.912

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	591.317	372.900	11.225	362.148	1932.122	85.496	-281.799	3915.314
S.D.	3.916	38.625	82.344	78.348	3.396	34.378	142.387	1449.165
% R.S.D.	0.662	10.358	733.555	21.634	0.176	40.210	50.528	37.013

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-410.034	565.804	4.839	430.377	93802.555	42.115	110.590	238559.664
S.D.	393.682	293.409	8.172	197.499	664.688	5.676	33.628	1893.141
% R.S.D.	96.012	51.857	168.892	45.890	0.709	13.478	30.408	0.794

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	-52.298	863.780	42.231	257.744	4.634	-30.050	-67.887	5287520.666
S.D.	29.055	131.199	36.388	208.893	8.170	17.152	12.964	40964.431
% R.S.D.	55.557	15.189	86.163	81.047	176.301	57.079	19.096	0.775

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	51.461	-259.974	-27.950	-8.254	447.029
S.D.	7.357	605.393	18.070	2.664	818.250
% R.S.D.	14.297	232.867	64.649	32.279	183.042

WHC-SD-WM-DP-139, REV. 1

Identity 1: S95T001552 Identity 2: .5318gin250-1-9

1:50 PM August 31, 1995

Task name : OPTIMA

Sample Weight : 0.5318 Solution Volume : 2500.00

On Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-7.791	3.903	-210.672	-62.792	9605.512	-21.479	19.962	22.404
S.D.	3.736	0.406	56.453	8.869	9.177	12.888	0.567	0.338
% R.S.D.	47.953	10.415	26.797	14.124	0.096	60.002	2.839	1.507
	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	131.563	283.418	-26.826	344.355	-3167.842	77.357	-14.894	2583.003
S.D.	1.516	5.401	8.679	8.207	29.536	5.276	22.424	106.779
% R.S.D.	1.153	1.906	32.352	2.383	0.932	6.820	150.560	4.134
	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	15.843	-18.612	10.428	913.116	93266.497	14.617	-11.564	227936.220
S.D.	26.241	24.602	0.673	101.290	1626.361	0.429	14.733	1085.545
% R.S.D.	165.632	132.182	6.452	11.093	1.744	2.936	127.405	0.476
	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	6.323	195.964	69.622	58.229	0.636	5.166	2.625	4957590.143
S.D.	4.152	59.017	3.607	12.755	0.766	2.827	4.165	17535.015
% R.S.D.	65.665	30.116	5.180	21.905	120.430	54.723	158.660	0.354
	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)			
Mean	56.968	-49.068	-4.959	1.496	-61.456			
S.D.	1.449	169.555	3.046	0.500	35.333			
% R.S.D.	2.544	345.551	61.421	33.452	57.493			

WHC-SD-WM-DP-139, REV. 1

Identity 1: S95T001552_D Identity 2: .5298gin250-1-9

1:54 PM August 31, 1995

Task name : OPTIMA

Sample Weight : 0.5298 Solution Volume : 2500.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	2.491	5.075	-228.764	-31.841	11458.044	-12.936	29.065	25.413
S.D.	3.624	0.556	32.824	12.573	32.964	19.761	2.221	0.743
% R.S.D.	145.505	10.956	14.348	39.488	0.288	152.760	7.642	2.923

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	135.368	422.892	-5.377	646.145	-4221.198	90.049	-19.548	3766.733
S.D.	1.860	0.772	11.436	18.082	67.760	5.839	36.163	172.309
% R.S.D.	1.374	0.183	212.681	2.798	1.605	6.485	184.999	4.575

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	69.537	6.726	13.317	1195.765	92796.229	13.926	1.662	220891.375
S.D.	60.790	25.463	0.819	35.585	503.071	0.431	20.861	2034.592
% R.S.D.	87.422	378.594	6.149	2.976	0.542	3.093	1255.352	0.921

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	3.722	141.458	78.710	98.459	4.751	10.758	6.734	5537033.974
S.D.	2.652	39.888	3.400	11.982	3.110	3.450	3.773	38063.200
% R.S.D.	71.255	28.198	4.319	12.169	65.456	32.072	56.019	0.687

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	66.138	-27.492	6.201	-0.985	127.088
S.D.	2.162	147.242	3.756	0.529	113.350
% R.S.D.	3.269	535.577	60.577	53.696	89.190

WHC-SD-WM-DP-139, REV. 1

Identity 1: S95T001552_A Identity 2: .5318gin250-1-2-7

1:57 PM August 31, 1995

Task name : OPTIMA

Sample Weight : 0.5318 Solution Volume : 2500.00

On Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	4809.166	4788.423	4594.754	4762.584	14484.532	4759.868	4876.628	4448.811
S.D.	6.808	20.359	25.667	28.721	6.527	12.888	32.906	63.755
% R.S.D.	0.142	0.425	0.559	0.603	0.045	0.271	0.675	1.433

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	4979.378	5031.329	4861.364	5205.374	1313.727	4899.989	4957.750	12301.344
S.D.	6.670	9.809	8.575	25.021	64.790	12.745	58.904	226.538
% R.S.D.	0.134	0.195	0.176	0.481	4.932	0.260	1.188	1.842

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	4637.647	4872.618	4767.601	6314.591	102558.792	4619.722	4825.788	232847.280
S.D.	61.058	40.098	23.772	52.202	405.915	10.303	27.441	3178.269
% R.S.D.	1.317	0.823	0.499	0.827	0.396	0.223	0.569	1.365

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	4796.660	4868.535	3365.337	4848.751	4717.688	4762.205	4726.164	4952993.417
S.D.	25.542	54.812	29.632	98.858	5.945	10.078	23.463	51349.004
% R.S.D.	0.532	1.126	0.881	2.039	0.126	0.212	0.496	1.037

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	4870.099	4501.454	4888.605	4701.182	4405.636
S.D.	11.782	117.965	6.146	9.436	128.959
% R.S.D.	0.242	2.621	0.126	0.201	2.927

WHC-SD-WM-DP-139, REV. 1

Identity 1: CCV Identity 2: Quality Control 2:07 PM August 31, 1995
 Task name : OPTIMA
 Sample Weight : 1.0000 Solution Volume : 1.00
 On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	4.936	4.985	4.937	4.852	4.958	4.959	5.072	5.168
S.D.	0.010	0.014	0.016	0.004	0.004	0.017	0.015	0.027
% R.S.D.	0.198	0.284	0.323	0.076	0.081	0.338	0.303	0.516

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	5.030	4.904	5.015	5.004	4.924	4.942	5.306	9.575
S.D.	0.006	0.002	0.006	0.005	0.011	0.006	0.042	0.010
% R.S.D.	0.117	0.044	0.127	0.091	0.228	0.120	0.783	0.102

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	5.089	5.108	5.000	5.420	5.146	4.837	5.038	5.169
S.D.	0.006	0.011	0.016	0.083	0.035	0.004	0.019	0.028
% R.S.D.	0.116	0.209	0.312	1.532	0.675	0.079	0.369	0.543

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	5.007	5.026	4.854	4.954	4.874	4.937	5.110	5.273
S.D.	0.004	0.040	0.005	0.013	0.008	0.005	0.008	0.037
% R.S.D.	0.090	0.796	0.104	0.266	0.165	0.111	0.152	0.710

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	4.930	4.757	5.021	5.125	4.744
S.D.	0.001	0.019	0.006	0.009	0.016
% R.S.D.	0.030	0.396	0.113	0.184	0.333

WHC-SD-WM-DP-139, REV. 1

Identity 1: CCB Identity 2: Quality Control 2:10 PM August 31, 1995

Task name : OPTIMA

Sample Weight : 1.0000 Solution Volume : 1.00

On Integrations : 3 Off-Peak Integrations : 1

	Zr	Sr	Bi	Si	Al	Co	Cu	Li
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	-0.000	0.000	-0.007	0.003	0.008	-0.007	0.000	-0.000
S.D.	0.000	0.000	0.002	0.001	0.001	0.003	0.000	0.000
% R.S.D.	65.339	28.868	27.318	24.351	10.273	37.500	100.068	229.237
	Zn	Ni	La	Fe	Ca	Cr	Nd	U
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	0.008	0.003	-0.000	-0.001	0.040	0.003	-0.006	-0.009
S.D.	0.000	0.002	0.001	0.002	0.000	0.001	0.007	0.017
% R.S.D.	1.089	57.811	295.143	171.470	0.478	26.473	111.520	188.357
	Ce	Sm	Ba	P	S	Mg	As	Na
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	0.010	-0.009	0.000	-0.007	0.008	0.000	0.001	0.025
S.D.	0.006	0.005	0.000	0.008	0.002	0.000	0.002	0.002
% R.S.D.	60.180	52.580	55.857	116.660	25.762	2160072023.100	150.882	7.896
	Mo	Se	Ag	Pb	Ti	Cd	B	K
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	0.001	0.021	-0.000	0.003	0.000	-0.001	0.002	0.101
S.D.	0.000	0.007	0.000	0.008	0.000	0.001	0.001	0.020
% R.S.D.	35.244	34.417	103.612	226.899	60.077	53.989	39.756	19.870
	Mn	Sb	V	Be	Tl			
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)			
Mean	-0.000	-0.046	0.001	-0.000	-0.002			
S.D.	0.000	0.004	0.000	0.000	0.012			
% R.S.D.	826.345	9.464	41.289	3.494	750.023			

WHC-SD-WM-DP-139, REV. 1

Identity 1: S95T001556_L Identity 2: .4765gin250-1-9-1-4

2:14 PM August 31, 1995

Task name : OPTIMA

Sample Weight : 0.4765 Solution Volume : 12500.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr	Sr	Bi	Si	Al	Co	Cu	Li
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	7.549	41.579	-429.396	1097.143	17301.701	-215.750	2524.004	29.275
S.D.	17.580	1.715	94.219	28.145	53.091	41.521	5.639	4.335
% R.S.D.	232.864	4.124	21.942	2.565	0.307	19.245	0.223	14.809
	Zn	Ni	La	Fe	Ca	Cr	Nd	U
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	746.707	454.111	-47.059	2824.738	2720.690	201.287	97.541	11435.206
S.D.	5.536	48.710	36.651	40.457	12.234	23.280	271.015	553.392
% R.S.D.	0.741	10.727	77.883	1.432	0.450	11.565	277.848	4.839
	Ce	Sm	Ba	P	S	Mg	As	Na
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	-245.674	245.110	15.930	8820.727	61767.867	89.859	-140.999	213438.534
S.D.	180.982	104.523	2.915	60.662	459.964	2.394	78.981	731.017
% R.S.D.	73.667	42.643	18.296	0.688	0.745	2.665	56.015	0.342
	Mo	Se	Ag	Pb	Ti	Cd	B	K
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	-4.856	1243.646	265.114	217.259	12.229	-9.002	36.009	5743224.678
S.D.	22.290	346.096	18.988	224.640	6.273	19.168	4.596	22398.056
% R.S.D.	458.995	27.829	7.162	103.398	51.293	212.918	12.764	0.390
	Mn	Sb	V	Be	Tl			
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)			
Mean	300.946	-148.279	13.713	1.456	-517.632			
S.D.	4.114	760.425	5.038	2.858	247.248			
% R.S.D.	1.367	512.834	36.741	196.245	47.765			

WHC-SD-WM-DP-139, REV. 1

Identity 1: S95T001556 Identity 2: .4765gin250-1-9

2:17 PM August 31, 1995

Task name : OPTIMA

Sample Weight : 0.4765 Solution Volume : 2500.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr	Sr	Bi	Si	Al	Co	Cu	Li
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	6.197	43.955	-229.100	1136.035	17638.639	-23.972	2589.650	32.889
S.D.	6.502	0.454	66.545	26.851	35.316	14.383	9.168	0.866
% R.S.D.	104.927	1.032	29.046	2.364	0.200	60.002	0.354	2.633
	Zn	Ni	La	Fe	Ca	Cr	Nd	U
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	210.826	460.817	12.454	2878.256	-2963.407	149.753	32.525	11477.986
S.D.	0.639	9.029	16.034	12.280	54.901	9.422	5.616	235.667
% R.S.D.	0.303	1.959	128.747	0.427	1.853	6.292	17.266	2.053
	Ce	Sm	Ba	P	S	Mg	As	Na
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	-27.278	127.955	20.773	8677.574	62284.288	76.868	-22.527	205686.323
S.D.	63.579	43.341	0.915	244.613	654.639	0.958	16.978	1881.556
% R.S.D.	233.075	33.872	4.404	2.819	1.051	1.246	75.369	0.915
	Ho	Se	Ag	Pb	Ti	Cd	B	K
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	3.897	27.183	294.593	305.318	12.423	10.217	15.571	5360662.726
S.D.	4.458	75.325	4.786	60.940	3.102	1.915	4.860	36390.227
% R.S.D.	114.383	277.106	1.625	19.959	24.974	18.745	31.212	0.679
	Mn	Sb	V	Be	Tl			
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)			
Mean	309.927	-179.059	-0.500	-0.166	-173.817			
S.D.	2.132	73.279	4.048	0.588	77.110			
% R.S.D.	0.688	40.925	809.581	353.941	44.363			

WHC-SD-WM-DP-139, REV. 1

Identity 1: S95T001556_D Identity 2: .4774gin250-1-9

2:21 PM August 31, 1995

Task name : OPTIMA

Sample Weight : 0.4774 Solution Volume : 2500.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	16.417	44.860	-244.457	1127.667	18042.563	-38.283	243.544	33.830
S.D.	13.876	0.784	24.220	25.707	89.944	0.000	2.498	1.175
% R.S.D.	84.522	1.748	9.908	2.280	0.499	0.000	1.026	3.472
	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	182.536	746.661	-4.750	3010.442	-3288.500	156.043	56.588	10651.925
S.D.	2.056	4.795	9.788	44.312	57.003	12.951	55.985	343.645
% R.S.D.	1.126	0.642	206.052	1.472	1.733	8.300	98.934	3.226
	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	-16.583	179.132	21.588	8435.942	60566.555	79.759	-61.273	209245.540
S.D.	118.675	99.144	2.003	363.832	703.019	0.478	21.564	1676.804
% R.S.D.	715.661	55.347	9.276	4.313	1.161	0.599	35.194	0.801
	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	6.803	126.451	114.998	169.292	9.084	2.655	9.668	5451672.711
S.D.	5.116	17.679	6.767	16.694	3.362	5.911	2.083	38638.810
% R.S.D.	75.194	13.981	5.885	9.861	37.015	222.604	21.547	0.709
	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)			
Mean	303.938	-108.255	5.783	-0.593	-333.431			
S.D.	2.981	27.531	9.285	0.592	243.687			
% R.S.D.	0.981	25.432	160.538	99.767	73.085			

WHC-SD-WM-DP-139, REV. 1

Identity 1: CCB_1 Identity 2: CCB_1

2:44 PM August 31, 1995

Task name : OPTIMA

Sample Weight : 1.0000 Solution Volume : 1.00

On Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	-0.001	0.000	-0.004	-0.001	0.004	-0.009	0.000	0.000
S.D.	0.001	0.000	0.007	0.003	0.002	0.002	0.001	0.000
% R.S.D.	101.063	91.652	179.493	190.276	56.815	17.321	167.131	123.931

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	0.008	0.001	-0.002	-0.001	0.039	0.002	-0.004	-0.035
S.D.	0.000	0.002	0.001	0.003	0.000	0.000	0.006	0.040
% R.S.D.	4.178	280.925	28.384	251.694	0.467	14.567	139.227	115.181

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	0.014	-0.006	0.000	0.002	0.005	0.000	-0.005	0.035
S.D.	0.010	0.006	0.000	0.003	0.005	0.000	0.001	0.003
% R.S.D.	73.107	101.379	69.348	138.226	89.852	24.744	21.419	8.813

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	0.001	0.004	0.000	-0.007	-0.000	-0.002	0.001	0.174
S.D.	0.001	0.011	0.001	0.010	0.000	0.001	0.002	0.018
% R.S.D.	98.963	282.226	481.121	140.822	40.489	41.944	145.646	10.540

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	0.000	0.007	-0.000	0.000	0.006
S.D.	0.000	0.016	0.001	0.000	0.019
% R.S.D.	0.086	219.959	1775.037	61.894	336.606

WHC-SD-WM-DP-139, REV. 1

Identity 1: ICSA Identity 2: Quality Control 2:31 PM August 31, 1995

Task name : OPTIMA

Sample Weight : 1.0000 Solution Volume : 1.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr	Sr	Bi	Si	Al	Co	Cu	Li
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	0.008	0.001	-0.023	0.019	201.850	-0.006	0.002	-0.000
S.D.	0.001	0.000	0.006	0.001	0.531	0.003	0.001	0.000
% R.S.D.	13.315	5.499	24.000	4.781	0.263	42.326	38.958	91.927
	Zn	Ni	La	Fe	Ca	Cr	Nd	U
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	0.003	0.006	0.003	97.995	100.475	0.003	0.007	-0.001
S.D.	0.000	0.001	0.001	0.173	0.030	0.001	0.009	0.043
% R.S.D.	16.340	20.905	28.248	0.177	0.030	24.418	120.098	7800.559
	Ce	Sm	Ba	P	S	Mg	As	Na
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	-0.015	0.026	0.004	0.032	0.034	101.701	-0.027	192.019
S.D.	0.010	0.008	0.000	0.008	0.013	0.133	0.002	1.578
% R.S.D.	67.972	30.587	4.337	25.331	38.072	0.131	6.013	0.822
	Mo	Se	Ag	Pb	Ti	Cd	B	K
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Mean	0.000	-0.001	-0.002	0.005	0.000	-0.002	0.013	0.330
S.D.	0.001	0.022	0.001	0.006	0.001	0.001	0.001	0.001
% R.S.D.	3198.785	2100.890	46.264	120.687	442.620	59.148	8.543	0.386
	Mn	Sb	V	Be	Tl			
	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)			
Mean	0.006	0.005	-0.001	0.002	-0.019			
S.D.	0.001	0.011	0.001	0.000	0.015			
% R.S.D.	15.843	224.000	49.932	4.600	83.285			

WHC-SD-WM-DP-139, REV.1

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Identity 1: CCV_1 Identity 2: CCV_1 2:40 PM August 31, 1995

Task name : OPTIMA

Sample Weight : 1.0000 Solution Volume : 1.00

On-Peak Integrations : 3 Off-Peak Integrations : 1

	Zr (ppm)	Sr (ppm)	Bi (ppm)	Si (ppm)	Al (ppm)	Co (ppm)	Cu (ppm)	Li (ppm)
Mean	4.934	4.996	4.945	4.831	4.982	4.938	5.087	5.166
S.D.	0.009	0.019	0.012	0.003	0.018	0.010	0.030	0.058
% R.S.D.	0.184	0.380	0.237	0.058	0.363	0.200	0.590	1.124

	Zn (ppm)	Ni (ppm)	La (ppm)	Fe (ppm)	Ca (ppm)	Cr (ppm)	Nd (ppm)	U (ppm)
Mean	4.992	4.881	5.020	4.992	4.928	4.913	5.365	9.580
S.D.	0.006	0.004	0.014	0.022	0.016	0.019	0.033	0.022
% R.S.D.	0.115	0.076	0.277	0.445	0.317	0.384	0.611	0.233

	Ce (ppm)	Sm (ppm)	Ba (ppm)	P (ppm)	S (ppm)	Mg (ppm)	As (ppm)	Na (ppm)
Mean	5.087	5.166	5.018	5.174	5.014	4.809	5.004	5.167
S.D.	0.012	0.017	0.024	0.143	0.066	0.013	0.026	0.053
% R.S.D.	0.229	0.327	0.476	2.758	1.325	0.277	0.510	1.021

	Mo (ppm)	Se (ppm)	Ag (ppm)	Pb (ppm)	Ti (ppm)	Cd (ppm)	B (ppm)	K (ppm)
Mean	4.977	5.001	4.827	4.956	4.868	4.925	5.112	5.280
S.D.	0.011	0.021	0.006	0.010	0.011	0.018	0.010	0.027
% R.S.D.	0.217	0.417	0.125	0.205	0.220	0.369	0.195	0.506

	Mn (ppm)	Sb (ppm)	V (ppm)	Be (ppm)	Tl (ppm)
Mean	4.911	4.634	5.003	5.124	4.707
S.D.	0.016	0.058	0.013	0.012	0.029
% R.S.D.	0.333	1.246	0.256	0.239	0.611

WHC-SD-WM-DP-139, REV. 1

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Accession #: D295181266

Document #: SD-WM-DP-139

Title/Desc:

FINAL REPORT FOR TANK 241B101 PUSH MODE CORES 90 &
91 [SEC 4 OF 5]

Pages: 103

This document was too large to scan as a whole document, therefore it required breaking into smaller sections.

DOCUMENT NUMBER: SD-WM-DP-139

SECTION 4 OF 5

TITLE: FINAL REPORT FOR TANK 241-B-101 PUSH MODE
CORES 90+91

DATE: 11/06/95

ORIGINATOR: SCHREIBER RD

CO: WHC

RECIPIENT: _____

CO: _____

REFERENCES: ECN-625769

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WHC-SD-WM-DP-139, REV. 1

RADIOCHEMICAL ANALYSES

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LABCORE Data Entry Template for Worklist#

1834

Analyst: AKL Instrument: AB00 16 Book # 132652

Method: LA-508-101 Rev/Mod D-2

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>0.42</u>		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000093	B-101	4 SAMPLE	S95T001245	0 F	@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000093	B-101	4 SAMPLE	S95T001245	0 F	@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000093	B-101	5 DUP	S95T001245	0 F	@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000093	B-101	5 DUP	S95T001245	0 F	@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000093	B-101	6 SPK	S95T001245	0 F	@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist #

1834

A. Lewis
Analyst Signature
7/17/95
Date

Sharon L. Uddell
Analyst Signature
7-19-95
Date

Data Entry Comments:

High spike recovery, so sample was rerun (see worklist 1861).

This data set was not used. Ritchie 11/2/95

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.

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

LA-548-101 (A-3)

LIQUIDS

		STANDARD	REPLICATE
Type	DETECTOR NUMBER	15	16
STANDARD	DISH SIZE 1, 2, or 5 (MS)	2	2
Work List	TOTAL COUNTS (TC)	4943	3946
1834	COUNT TIME in MINUTES (CT)	30	30
AT or TB?	BACKGROUND in cpm (BKG)	0.6	0.6
AT	SAMPLE SIZE in mL (SS)	10.000	10.000
Test Code	DILUTION FACTOR (DF)	1	1
ALPHA001	DIGEST DILUTION FACTOR (DDF)	1	1
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
LIQUID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE.	134.167	130.933
Sample #	Sample Concentration in $\mu\text{Ci/L}$	2.87E-02	BOOK#
WORKLIST#1834	Replicate Concentration in $\mu\text{Ci/L}$	2.80E-02	132B52
Instrument Code			
WB27806	Average Concentration in $\mu\text{Ci/L}$	2.8378E-02	
Analyst			
AKL	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/L}$ = $Rs * 1000\text{mL/L} * DF * DDF / (EFF * SS * 2220000\text{dpm}/\mu\text{Ci})$		
07/17/95	ALPHA TOTAL $\mu\text{Ci/mL}$ = ALPHA TOTAL $\mu\text{Ci/L} / 1000\text{mL/L}$		
Time	Relative Counting Error = $[(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$		
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/mL}$	(Average)	=	2.84E-05	DETECTION LEVEL
					1.61E-07
RELATIVE COUNTING ERROR			=	3.1%	$\mu\text{Ci/mL}$

Data Entry by: *Sharon J. Hald*
 Approved by: *AT*
 Form 508101_C Rev. 1.3

Date: 07/18/95

Date: 7/18/95

Page 1 of 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)	11	4
1834	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.6	0.6
AT	SAMPLE SIZE in mL (SS)	1.000	1.000
Test Code	DILUTION FACTOR (DF)	34.33	34.33
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.2312	2.2312
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.330	0.330
Sample #	Sample Concentration in $\mu\text{Ci/g}$	< 1.09E-02	BOOK#
S95T1245	Replicate Concentration in $\mu\text{Ci/g}$	< 1.09E-02	
Instrument Code			
WB27806	Maximum Concentration in $\mu\text{Ci/g}$	< 1.0871E-02	
Analyst			
AKL	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = $Rs * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
07/17/95			
Time	Relative Counting Error = $[(\text{The Square Root of } TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$		
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Maximum) =	< 1.09E-02	DETECTION LEVEL
LESS Than Value was Determined from Lc.				2.47E-02
RELATIVE COUNTING ERROR		=	150.8%	$\mu\text{Ci/g}$

Data Entry by: *Sharon H. H. H.*
 Approved by: *St. J. H.*
 Form 508101_C Rev. 1.3

Date: 07/19/95

Date: 7/19/95

Page 1 of 1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-139, 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)	6	8
1834	COUNT TIME in MINUTES (CT)	30	30
AT or TB?	BACKGROUND in cpm (BKG)	0.6	0.6
AT	SAMPLE SIZE in mL (SS)	1.000	1.000
Test Code	DILUTION FACTOR (DF)	34.33	34.33
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.2312	2.2312
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.330	0.330
Sample #	Sample Concentration in $\mu\text{Ci/g}$	< 1.09E-02	BOOK#
S95T1245	Replicate Concentration in $\mu\text{Ci/g}$	< 1.09E-02	
Instrument Code			
WB27806	Maximum Concentration in $\mu\text{Ci/g}$	< 1.0871E-02	
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)		
07/17/95			
Time	Relative Counting Error = [(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100		
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Maximum) =	< 1.09E-02	DETECTION LEVEL
LESS Than Value was Determined from Lc.				2.47E-02
RELATIVE COUNTING ERROR		=	99.9%	$\mu\text{Ci/g}$

Data Entry by: <i>Sharon J. Walker</i>	Date: 07/19/95
Approved by: <i>W. J. Walker</i>	Date: 7/19/95

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)	6	6
1834	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.6	0.6
AT	SAMPLE SIZE in mL (SS)	1.000	1.000
Test Code	DILUTION FACTOR (DF)	34.33	34.33
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.1956	2.1956
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.330	0.330
Sample #	Sample Concentration in $\mu\text{Ci/g}$	< 1.10E-02	BOOK#
S95T1245	Replicate Concentration in $\mu\text{Ci/g}$	< 1.10E-02	
Instrument Code			
WB27806	Maximum Concentration in $\mu\text{Ci/g}$	< 1.1047E-02	
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)		
07/17/95			
Time	Relative Counting Error = [(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100		
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Maximum) =	< 1.10E-02	DETECTION LEVEL
LESS Than Value was Determined from Lc.				2.51E-02
RELATIVE COUNTING ERROR	=	80.0%		$\mu\text{Ci/g}$

Data Entry by: *Sharon F. Hatcher*

Date: 07/19/95

Approved by: *LT R. F. Hatcher*

Date: 7/17/95

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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)	87212	83687
1834	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.6	0.6
AT	SAMPLE VOLUME in mL (Spiked Vial) (SS)	1.000	1.000
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial) (DF)	34.33	34.33
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.2312	2.2312
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)	44.787	44.787
S95T1245	INSTRUMENT EFFICIENCY FACTOR (EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE $\mu\text{Ci/g}$ (S+S)	9.57E+01	9.19E+01
WB27805	AVERAGE or MAXIMUM $\mu\text{Ci/g}$ from FORM C	<1.0871E-2	
Analyst	BOOK#	112B43	
AKL	R_s (Sample Count Rate) = $(TC / CT) - BKG$		
Date	SAMPLE + SPIKE $\mu\text{Ci/g}$ = $R_s * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
07/17/95	PERCENT SPIKE RECOVERY = $((S+S \mu\text{Ci/g} - \text{SAMPLE } \mu\text{Ci/g}) * ((SDF/SVol)/(DF/SS/Dg/L)))/(SVal)*100$		
Time			
02:00 PM			

RESULT AVG. PERCENT SPIKE RECOVERY = 136.1%

Data Entry by: *Sharon J. Gable* Date: 19-Jul-95
 Approved by: *[Signature]* Date: 7-19-95
 Form 508101_X Rev. 1.3

LABCORE Data Entry Template for Worklist#

1861

Analyst: S.C.L. Instrument: AB00 16 Book # 132B52

WB 27806

Method: LA-508-101 Rev/Mod D-2

Worklist Comment: Use 1 mL of sample. Use 0.100 mL of A-Spk. sac

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	0.64		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000093	B-101	4 SAMPLE	S95T001245	0 F	@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000093	B-101	4 SAMPLE	S95T001245	0 F	@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000093	B-101	5 DUP	S95T001245	0 F	@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000093	B-101	5 DUP	S95T001245	0 F	@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000093	B-101	6 SPK	S95T001245	0 F	@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist #

1861

Sue C. Lai 7-24-95
Analyst Signature Date

Sharon L. Uhlir 7-25-95
Analyst Signature Date

Data Entry Comments:

low SPK recovery is due to high solids content
spike: 112B43 on the sample amount. No further recovery requested.
AT Tph 7/26/95

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.

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)	4382	4093
1861	COUNT TIME in MINUTES (CT)	30	30
AT or TS ?	BACKGROUND in cpm (BKG)	0.7	0.7
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	145.367	135.733
Sample #	Sample Concentration in $\mu\text{Ci/L}$	3.11E-02	BOOK#
WORKLIST#1861	Replicate Concentration in $\mu\text{Ci/L}$	2.91E-02	132E52
Instrument Code			
WB27806	Average Concentration in $\mu\text{Ci/L}$	3.0091E-02	
Analyst			
SCL	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/L}$ = $Rs * 1000\text{mL/L} * DF * DDF / (EFF * SS * 2220000\text{dpm}/\mu\text{Ci})$		
07/24/95	ALPHA TOTAL $\mu\text{Ci/mL}$ = ALPHA TOTAL $\mu\text{Ci/L} / 1000\text{mL/L}$		
Time	Relative Counting Error = $[(\text{The Square Root of } TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$		
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL in $\mu\text{Ci/mL}$ (Average)	=	3.01E-05	DETECTION LEVEL
			1.72E-07 $\mu\text{Ci/mL}$
RELATIVE COUNTING ERROR	=	3.1%	

Data Entry by: *Sharon L. Ugg*

Date: 07/25/95

Approved by: *[Signature]*

Date: 7/25/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC SD-WM-DP-139, REV. 1

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

LA-548-101 (A-3)

SOLIDS

Type	DETECTOR NUMBER	BLANK	REPLICATE
BLANK		16	16
Work List	DISH SIZE 1, 2, or 5 (MS)	2	2
1861	TOTAL COUNTS (TC)	24	3
AT or B?	COUNT TIME in MINUTES (CT)	30	30
AT	BACKGROUND in cpm (BKG)	0.7	0.7
Test Code	SAMPLE SIZE in mL (SS)	1.000	1.000
@ALPHA01	DILUTION FACTOR (DF)	1	1
Matrix	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.2312	2.2312
SOLID	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
Sample #	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.469	0.356
S95T1245	Sample Concentration in $\mu\text{Ci/g}$	< 4.50E-04	BOOK#
Instrument Code	Replicate Concentration in $\mu\text{Ci/g}$	< 3.42E-04	
WB27806	Maximum Concentration in $\mu\text{Ci/g}$	< 4.4998E-04	
Analyst			
SCL	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = $Rs * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
07/24/95			
Time	Relative Counting Error = $[(\text{The Square Root of } TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$		
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	In $\mu\text{Ci/g}$	(Maximum) =	< 4.50E-04	DETECTION LEVEL
LESS THAN Value was Determined from Rmax.				7.71E-04
RELATIVE COUNTING ERROR	=	500.0%		$\mu\text{Ci/g}$

Data Entry by: *[Signature]* Date: 07/25/95
 Approved by: *[Signature]* Date: 7/25/95
 Form 508101_C Rev. 1.3 Page 1 of 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)	31	33
1861	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.7	0.7
AT	SAMPLE SIZE in mL (SS)	1.000	1.000
Test Code	DILUTION FACTOR (DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.2312	2.2312
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.730	0.400
Sample #	Sample Concentration in $\mu\text{Ci/g}$	< 7.00E-04	BOOK#
S95T1245	Replicate Concentration in $\mu\text{Ci/g}$	3.84E-04	
Instrument Code			
WB27806	Maximum Concentration in $\mu\text{Ci/g}$	< 7.0041E-04	
Analyst			
SCL	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = $Rs * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
07/24/95			
Time	Relative Counting Error = $[(\text{The Square Root of } TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$		
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Maximum) =	< 7.00E-04	DETECTION LEVEL
LESS THAN Value was Determined from Rs.				7.71E-04
RELATIVE COUNTING ERROR	=	141.3%		$\mu\text{Ci/g}$

Data Entry by: *Sharon L. Galt*

Date: 07/25/95

Approved by: *[Signature]*

Date: 7/25/95

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)	28	29
1861	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.7	0.7
AT	SAMPLE SIZE in mL (SS)	1.000	1.000
Test Code	DILUTION FACTOR (DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.1956	2.1956
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.618	0.656
Sample #	Sample Concentration in $\mu\text{Ci/g}$	< 6.03E-04	BOOK#
S95T1245	Replicate Concentration in $\mu\text{Ci/g}$	< 6.39E-04	
Instrument Code			
WB27806	Maximum Concentration in $\mu\text{Ci/g}$	< 6.3925E-04	
Analyst			
SCL	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = $Rs \wedge 1000\text{mL/L} \cdot DF / (EFF \cdot SS \wedge Dg/L \wedge 2220000\text{dpm}/\mu\text{Ci})$		
07/24/95			
Time	Relative Counting Error = $[(\text{The Square Root of } TC + BKG \wedge CT) / (TC - BKG \cdot CT)] \cdot 1.96 \wedge 100$		
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Maximum) =	< 6.39E-04	DETECTION LEVEL
LESS THAN Value was Determined from Rmax.				7.84E-04
RELATIVE COUNTING ERROR		=	196.0%	$\mu\text{Ci/g}$

Data Entry by: *Sharon J. Walker* Date: 07/25/95
 Approved by: *ST* Date: 7/25/95
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PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-1.32, 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)		39862	37839
1861	COUNT TIME in MINUTES (CT)		30	30
AT or TB ?	BACKGROUND in cpm (BKG)		0.7	0.7
AT	SAMPLE VOLUME in mL (Spiked Vial) (SS)		1.000	1.000
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial) (DF)		1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)		2.2312	2.2312
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)		44.786	44.786
S95T1245	INSTRUMENT EFFICIENCY FACTOR (EFF)		0.2104	0.2104
Instrument Code	SAMPLE + SPIKE $\mu\text{Ci/g}$ (S+S)		1.27E+00	1.20E+00
WB27806	AVERAGE or MAXIMUM $\mu\text{Ci/g}$ from FORM C		<7.0041E-4	
Analyst	BOOK#		112B43	
SCL	$R_s \text{ (Sample Count Rate)} = (TC / CT) - BKG$			
Date	$\text{SAMPLE} + \text{SPIKE } \mu\text{Ci/g} = R_s * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$			
07/24/95	$\text{PERCENT SPIKE RECOVERY} = (((S+S \mu\text{Ci/g} - \text{SAMPLE } \mu\text{Ci/g}) * ((SDF/SVol)/(DF/SS/Dg/L)))/SVal)*100$			
Time				
03:00 PM				

RESULT **AVG. PERCENT SPIKE RECOVERY** = **61.6%**Data Entry by: *Sharon J. Hale*

Date: 25-Jul-95

Approved by: *Sharon J. Hale*

Date: 7/25/95

Form 508101_X Rev. 1.3

Page 1 of 1

LABCORE Data Entry Template for Worklist#

1885

Analyst: S.C.L. Instrument: AB00 16 Book # 132852

Method: LA-508-101 Rev/Mod D-2 WRS 27806

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	0.24			@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000091	B-101	4	SAMPLE	S95T001215	0	F	@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000091	B-101	4	SAMPLE	S95T001215	0	F	@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000091	B-101	5	DUP	S95T001215	0	F	@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000091	B-101	5	DUP	S95T001215	0	F	@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000091	B-101	6	SPK	S95T001215	0	F	@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000091	B-101	7	SAMPLE	S95T001218	0	F	@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000091	B-101	7	SAMPLE	S95T001218	0	F	@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000091	B-101	8	DUP	S95T001218	0	F	@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000091	B-101	8	DUP	S95T001218	0	F	@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000091	B-101	9	SPK	S95T001218	0	F	@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist #

1885

Sue C. Lai 7-25-95

Sharon L. Holdrege 7-26-95

Data Entry Comments:

spike ~ 112 B 43

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#

1885

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

Data Entry Comments:

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

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)	3798	4040
1885	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.9	0.9
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	125.700	133.767
Sample #	Sample Concentration in $\mu\text{Ci/L}$	2.69E-02	BOOK#
WORKLIST#1885	Replicate Concentration in $\mu\text{Ci/L}$	2.86E-02	132B52
Instrument Code			
WB27806	Average Concentration in $\mu\text{Ci/L}$	2.7775E-02	
Analyst			
SCL	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/L}$ = $Rs * 1000\text{mL/L} * DF * DDF / (EFF * SS * 2220000\text{dpm}/\mu\text{Ci})$		
07/25/95	ALPHA TOTAL $\mu\text{Ci/mL}$ = ALPHA TOTAL $\mu\text{Ci/L} / 1000\text{mL/L}$		
Time	Relative Counting Error = $[(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$		
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/mL}$	(Average)	=	2.78E-05	DETECTION LEVEL
					1.92E-07 $\mu\text{Ci/mL}$
RELATIVE COUNTING ERROR			=	3.2%	

Data Entry by: *Shawna A. Usher*

Date: 07/26/95

Approved by: *BT*

Date: 7/26/95

Form 508101_C Rev. 1.3

Page 1 of 1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-139, 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)	5	8
1885	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.9	0.9
AT	SAMPLE SIZE in mL (SS)	0.100	0.100
Test Code	DILUTION FACTOR (DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.2016	2.2016
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.404	0.404
Sample #	Sample Concentration in $\mu\text{Ci/g}$	< 3.97E-01	BOOK#
S95T1215	Replicate Concentration in $\mu\text{Ci/g}$	< 3.97E-01	
Instrument Code			
WB27806	Maximum Concentration in $\mu\text{Ci/g}$	< 3.9696E-01	
Analyst			
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/ μCi)		
07/25/95			
Time	Relative Counting Error = [(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100		
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Maximum) =	< 3.97E-01	DETECTION LEVEL
LESS Than Value was Determined from Lc.				8.83E-01
RELATIVE COUNTING ERROR	=	61.0%		$\mu\text{Ci/g}$

Data Entry by: *Sharon L. Hefel*

Date: 07/26/95

Approved by: *h. h. h.*

Date: 7/26/95

Form 508101_C Rev. 1.3

Page 1 of 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)	159	161
1885	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.8	0.9
AT	SAMPLE SIZE in mL (SS)	0.100	0.100
Test Code	DILUTION FACTOR (DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.2016	2.2016
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	4.400	4.467
Sample #	Sample Concentration in $\mu\text{Ci/g}$	4.32E+00	BOOK#
S95T1215	Replicate Concentration in $\mu\text{Ci/g}$	4.39E+00	
Instrument Code			
WB27806	Average Concentration in $\mu\text{Ci/g}$	4.3543E+00	
Analyst			
SCL	R_s (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = $R_s * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
07/25/95			
Time	Relative Counting Error = $[(The\ Square\ Root\ of\ TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$		
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$ (Average)	=	4.35E+00	DETECTION LEVEL
				8.83E-01
RELATIVE COUNTING ERROR		=	20.3%	$\mu\text{Ci/g}$

Data Entry by: *[Signature]*
 Approved by: *[Signature]*

Date: 07/26/95
 Date: 7/26/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-139, REV. 1

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

LA-548-101 (A-3)

SOLIDS

Type	DETECTOR NUMBER	SAMPLE	REPLICATE
DUPLICATE	DISH SIZE 1, 2, or 5 (MS)	16	16
Work List	TOTAL COUNTS (TC)	2	2
1885	COUNT TIME in MINUTES (CT)	173	168
AT or TB ?	BACKGROUND in cpm (BKG)	30	30
AT	SAMPLE SIZE in mL (SS)	0.9	0.9
Test Code	DILUTION FACTOR (DF)	0.100	0.100
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	101	101
Matrix	EFFICIENCY FACTOR (EFF)	2.1608	2.1608
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.2104	0.2104
Sample #	Sample Concentration in $\mu\text{Ci/g}$	4.867	4.700
S95T1215	Replicate Concentration in $\mu\text{Ci/g}$	4.87E+00	BOOK#
Instrument Code		4.70E+00	
WB27806	Average Concentration in $\mu\text{Ci/g}$	4.7867E+00	
Analyst			
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/ μCi)		
07/25/95			
Time	Relative Counting Error = $[(\text{The Square Root of TC} + \text{BKG} * \text{CT}) / (\text{TC} - \text{BKG} * \text{CT})] * 1.96 * 100$		
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL in $\mu\text{Ci/g}$ (Average)	=	4.79E+00	DETECTION LEVEL
RELATIVE COUNTING ERROR	=	19.4%	9.00E-01 $\mu\text{Ci/g}$

Data Entry by: *Sharon Lytle*
 Approved by: *St. J. L.*
 Form 508101_C Rev. 1.3

Date: 07/26/95
 Date: 7/26/95
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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)	70623	69542
1885	COUNT TIME in MINUTES (CT)	30	30
AT or TB 7	BACKGROUND in cpm (BKG)	0.9	0.9
AT	SAMPLE VOLUME in mL (Spiked Vial) (SS)	0.100	0.100
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial) (DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.2016	2.2016
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)	44.785	44.785
S95T1215	INSTRUMENT EFFICIENCY FACTOR (EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE $\mu\text{Ci/g}$ (S+S)	2.31E+03	2.28E+03
WB27806	AVERAGE or MAXIMUM $\mu\text{Ci/g}$ from FORM C	4.3543E+00	
Analyst	BOOK#	112B43	
SCL	R_s (Sample Count Rate) = $(TC / CT) - BKG$		
Date	SAMPLE + SPIKE $\mu\text{Ci/g}$ = $R_s * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
07/25/95	PERCENT SPIKE RECOVERY = $((S+S \mu\text{Ci/g} - \text{SAMPLE } \mu\text{Ci/g}) * ((SDF/SVol)/(DF/SS/Dg/L)))/(SVal) * 100$		
Time			
02:00 PM			

RESULT AVG. PERCENT SPIKE RECOVERY = 111.4%

Data Entry by: *Sharon L. Halden* Date: 26-Jul-95
 Approved by: *A. T. H.* Date: 7/26/95
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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)	91	78
1885	COUNT TIME in MINUTES (CT)	30	30
AT or IB ?	BACKGROUND in cpm (BKG)	0.9	0.9
AT	SAMPLE SIZE in mL (SS)	0.100	0.100
Test Code	DILUTION FACTOR (DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.1284	2.1284
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	2.133	1.700
Sample #	Sample Concentration in $\mu\text{Ci/g}$	2.17E+00	BOOK#
S95T1218	Replicate Concentration in $\mu\text{Ci/g}$	1.73E+00	
Instrument Code			
WB27806	Average Concentration in $\mu\text{Ci/g}$	1.9472E+00	
Analyst			
SCL	R_s (Sample Count Rate) = $(TC / CT) - BKG$		
Date	$\text{ALPHA TOTAL } \mu\text{Ci/g} = R_s \cdot 1000\text{mL/L} \cdot DF / (EFF \cdot SS \cdot Dg/L \cdot 2220000\text{dpm}/\mu\text{Ci})$		
07/25/95			
Time	Relative Counting Error = $[(\text{The Square Root of } TC + BKG \cdot CT) / (TC - BKG \cdot CT)] \cdot 1.96 \cdot 100$		
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Average)	=	1.95E+00	DETECTION LEVEL
					9.13E-01 $\mu\text{Ci/g}$
RELATIVE COUNTING ERROR			=	39.4%	

Data Entry by: *Sharon G. Balala* Date: 07/26/95
 Approved by: *[Signature]* Date: 7/26/95
 Form 508101_C Rev. 1.3 Page 1 of 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)	85	78
1885	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.9	0.9
AT	SAMPLE SIZE in mL (SS)	0.100	0.100
Test Code	DILUTION FACTOR (DF)	101	101
@ALPHA01	DIGEST GRAMS OF SOLIDS/L (Dg/L)	2.1432	2.1432
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	1.933	1.700
Sample #	Sample Concentration in $\mu\text{Ci/g}$	1.95E+00	BOOK#
S95T121B	Replicate Concentration in $\mu\text{Ci/g}$	1.72E+00	
Instrument Code	Average Concentration in $\mu\text{Ci/g}$	1.8329E+00	
WB27806			
Analyst			
SCL	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = $Rs * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
07/25/95			
Time	Relative Counting Error = $[(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$		
02:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Average)	=	1.83E+00	DETECTION LEVEL
					9.07E-01 $\mu\text{Ci/g}$
RELATIVE COUNTING ERROR			=	39.4%	

Data Entry by: *Sharon L. Halden*

Date: 07/26/95

Approved by: *H. Halden*

Date: 7/26/95

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)	69947	68005
1885	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.9	0.9
AT	SAMPLE VOLUME in mL (Spiked Vial) (SS)	0.100	0.100
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial) (DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.1284	2.1284
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)	44.785	44.785
S95T1218	INSTRUMENT EFFICIENCY FACTOR (EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE $\mu\text{Ci/g}$ (S+S)	2.37E+03	2.30E+03
WB27805	AVERAGE or MAXIMUM $\mu\text{Ci/g}$ from FORM C	1.9472E+00	
Analyst	BOOK#	112B43	
SCL	R_s (Sample Count Rate) = $(TC / CT) - BKG$		
Date	SAMPLE + SPIKE $\mu\text{Ci/g}$ = $R_s * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
07/25/95	PERCENT SPIKE RECOVERY = $((S+S \mu\text{Ci/g} - \text{SAMPLE } \mu\text{Ci/g}) * ((SDF/SVol)/(DF/SS/Dg/L))) / SVal * 100$		
Time			
02:00 PM			

RESULT AVG. PERCENT SPIKE RECOVERY = 109.8%

Data Entry by: *Sharon J. Galt* Date: 26-Jul-95
 Approved by: *ST* Date: 7/26/95
 Form 508101_X Rev. 1.3 Page. 1 of 1

LABCORE Data Entry Template for Worklist#

1903

Analyst: AKL Instrument: AB00 16 Book # 132652

Method: LA-508-101 Rev/Mod D-2

WB 2687 244
WB 27806

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	0.07		ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000091	B-101	4 SAMPLE	S95T001221	0 F	ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000091	B-101	4 SAMPLE	S95T001221	0 F	ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000091	B-101	5 DUP	S95T001221	0 F	ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000091	B-101	5 DUP	S95T001221	0 F	ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000091	B-101	6 SPK	S95T001221	0 F	ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist #

1903

Cy Lewis
Analyst Signature
7-25-95
Date

Sharon L. Uchida
Analyst Signature
7-26-95
Date

Data Entry Comments:

High RPD value is due to low alpha activity in the
sample. No rerun requested. AKL 7/26/95

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.

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)	4189	4077
1903	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.9	0.9
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	138.733	135.000
Sample #	Sample Concentration in $\mu\text{Ci/L}$	2.97E-02	BOOK#
WORKLIST#1903	Replicate Concentration in $\mu\text{Ci/L}$	2.89E-02	132B52
Instrument Code			
WB27806	Average Concentration in $\mu\text{Ci/L}$	2.9302E-02	
Analyst			
AKL	Rs (Sample Count Rate) = (TC / CT) - BKG		
Date	ALPHA TOTAL $\mu\text{Ci/L}$ = Rs * 1000mL/L * DF * DDF / (EFF * SS * 2220000dpm/ μCi)		
07/25/95	ALPHA TOTAL $\mu\text{Ci/mL}$ = ALPHA TOTAL $\mu\text{Ci/L}$ / 1000mL/L		
Time	Relative Counting Error = [(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100		
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/mL}$	(Average) =	2.93E-05	DETECTION LEVEL
				1.92E-07 $\mu\text{Ci/mL}$
RELATIVE COUNTING ERROR		=	3.1%	

Data Entry by:

Sharon H. Usher

Date:

07/26/95

Approved by:

LT

Date:

7/26/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-139, 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)	2	0
1903	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.9	0.9
AT	SAMPLE SIZE in mL (SS)	1.000	1.000
Test Code	DILUTION FACTOR (DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.2312	2.2312
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs.(SAMPLE RATE) as APPROPRIATE	0.404	0.404
Sample #	Sample Concentration in $\mu\text{Ci/g}$	< 3.92E-02	BOOK#
S95T1221	Replicate Concentration in $\mu\text{Ci/g}$	< 3.92E-02	
Instrument Code			
WB27806	Maximum Concentration in $\mu\text{Ci/g}$	< 3.9169E-02	
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)		
07/25/95			
Time	Relative Counting Error = [(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100		
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Maximum) =	< 3.92E-02	DETECTION LEVEL
LESS Than Value was Determined from Lc.				8.71E-02
RELATIVE COUNTING ERROR	=	42.2%		$\mu\text{Ci/g}$

Data Entry by: <i>Sharon J. Hallett</i>	Date: 07/26/95
Approved by: <i>AKL</i>	Date: 7/26/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-139, 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)	77	102
1903	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.9	0.9
AT	SAMPLE SIZE in mL (SS)	1.000	1.000
Test Code	DILUTION FACTOR (DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.2312	2.2312
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	1.667	2.500
Sample #	Sample Concentration in $\mu\text{Ci/g}$	1.62E-01	BOOK#
S95T1221	Replicate Concentration in $\mu\text{Ci/g}$	2.42E-01	
Instrument Code			
WB27806	Average Concentration in $\mu\text{Ci/g}$	2.0190E-01	
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)		
07/25/95			
Time	Relative Counting Error = [(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100		
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL in $\mu\text{Ci/g}$ (Average)	=	2.02E-01	DETECTION LEVEL
			8.71E-02 $\mu\text{Ci/g}$
RELATIVE COUNTING ERROR	=	40.0%	

Data Entry by: *Sharon L. Uggelstad* Date: 07/26/95
 Approved by: *AT* Date: 7/26/95

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)	56	74
1903	COUNT TIME in MINUTES (CT)	30	30
AT or TB?	BACKGROUND in cpm (BKG)	0.9	0.9
AT	SAMPLE SIZE in mL (SS)	1.000	1.000
Test Code	DILUTION FACTOR (DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.2116	2.2116
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.967	1.567
Sample #	Sample Concentration in $\mu\text{Ci/g}$	9.45E-02	BOOK#
S95T1221	Replicate Concentration in $\mu\text{Ci/g}$	1.53E-01	
Instrument Code			
WB27806	Average Concentration in $\mu\text{Ci/g}$	1.2384E-01	
Analyst			
AKL	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = $Rs * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
07/25/95			
Time	Relative Counting Error = $[(\text{The Square Root of } TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$		
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$ (Average)	=	1.24E-01	DETECTION LEVEL
				8.79E-02 $\mu\text{Ci/g}$
RELATIVE COUNTING ERROR		=	61.6%	

Data Entry by: *Sharon L. Halden*
 Approved by: *[Signature]*
 Form 508101_C Rev. 1.3

Date: 07/26/95
 Date: 7/26/95
 Page 1 of 1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-139, 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)		65561	59789
1903	COUNT TIME in MINUTES (CT)		30	30
AT or TB ?	BACKGROUND in cpm (BKG)		0.9	0.9
AT	SAMPLE VOLUME in mL (Spiked Vial) (SS)		1.000	1.000
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial) (DF)		101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)		2.2312	2.2312
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)		44.785	44.785
S95T1221	INSTRUMENT EFFICIENCY FACTOR (EFF)		0.2104	0.2104
Instrument Code	SAMPLE + SPIKE $\mu\text{Ci/g}$ (S+S)		2.12E+02	1.93E+02
WB27806	AVERAGE or MAXIMUM $\mu\text{Ci/g}$ from FORM C		2.0190E-01	
Analyst	BOOK#		112B43	
AKL	R_s (Sample Count Rate) = $(TC / CT) - BKG$			
Date	SAMPLE + SPIKE $\mu\text{Ci/g}$ = $R_s * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$			
07/25/95	PERCENT SPIKE RECOVERY = $((S+S \mu\text{Ci/g} - \text{SAMPLE } \mu\text{Ci/g}) * ((SDF/SVol)/(DF/SS/Dg/L)))/(SVal) * 100$			
Time				
03:00 PM				

RESULT **AVG. PERCENT SPIKE RECOVERY** = **99.7%**

Data Entry by: <i>Sharon L. Hefley</i>	Date: 26-Jul-95
Approved by: <i>St. J. Hefley</i>	Date: 7/26/95
Form 508101_X Rev. 1.3	Page 1 of 1

LABCORE Data Entry Template for Worklist#

1925

Analyst: S.C.L Instrument: AB00 16 Book # 132852

Method: LA-508-101 Rev/Mod D-2

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			QALPHA01 ALPHA01	SOLID	<u>2.79</u> ^{E-5}	<u>2.86</u> ^{E-5}	N/A	uci/g
		1 STD			QALPHA01 ALPHA01E	SOLID	<u>1</u>	<u>3.2</u>	N/A	% Ct. Error
		2 BLNK-PREP			QALPHA01 ALPHA01	SOLID	<u>1</u>	<u><6.26</u> ^{E-2}	N/A	uci/g
		2 BLNK-PREP			QALPHA01 ALPHA01E	SOLID		<u>84.3</u>	N/A	% Ct. Error
		3 BLNK/BKG			QALPHA01 ALPHA01	SOLID		<u>93</u> ^{SLF}	<u>8.1-95</u>	uci/g
95000091	B-101	4 SAMPLE	S95T001230	0 F	QALPHA01 ALPHA01	SOLID	N/A	<u>2.49</u> ^{E-1}	<u>8.39</u> ^{E-2}	uci/g
95000091	B-101	4 SAMPLE	S95T001230	0 F	QALPHA01 ALPHA01E	SOLID	N/A	<u>29.3</u> ^{E-1}		% Ct. Error
95000091	B-101	5 DUP	S95T001230	0 F	QALPHA01 ALPHA01	SOLID	<u>2.49</u>	<u>2.28</u>	N/A	uci/g
95000091	B-101	5 DUP	S95T001230	0 F	QALPHA01 ALPHA01E	SOLID		<u>32.2</u>	N/A	% Ct. Error
95000091	B-101	6 SPK	S95T001230	0 F	QALPHA01 ALPHA01	SOLID		<u>104.3</u>	N/A	uci/g
95000093	B-101	7 SAMPLE	S95T001236	0 F	QALPHA01 ALPHA01	SOLID	N/A	<u>1.38</u> ^{E+1}	<u>8.83</u> ^{E-1}	uci/g
95000093	B-101	7 SAMPLE	S95T001236	0 F	QALPHA01 ALPHA01E	SOLID	N/A	<u>10.7</u> ^{E+1}		% Ct. Error
95000093	B-101	8 DUP	S95T001236	0 F	QALPHA01 ALPHA01	SOLID	<u>1.38</u>	<u>1.42</u>	N/A	uci/g
95000093	B-101	8 DUP	S95T001236	0 F	QALPHA01 ALPHA01E	SOLID		<u>11.1</u>	N/A	% Ct. Error
95000093	B-101	9 SPK	S95T001236	0 F	QALPHA01 ALPHA01	SOLID		<u>103.8</u>	N/A	uci/g

Final page for worklist #

1925

S.C.L. 7-28-95

PhB

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#

1925

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

Data Entry Comments:

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

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

LA-548-101 (A-3)

LIQUIDS

Type	DETECTOR NUMBER	STANDARD	REPLICATE
STANDARD	DISH SIZE 1, 2, or 5 (MS)	16	16
Work List	TOTAL COUNTS (TC)	2	2
1925	COUNT TIME in MINUTES (CT)	3818	4231
AT or TS ?	BACKGROUND in cpm (BKG)	30	30
AT	SAMPLE SIZE in mL (SS)	0.7	0.7
Test Code	DILUTION FACTOR (DF)	10.000	10.000
	DIGEST DILUTION FACTOR (DDF)	1	1
Matrix	EFFICIENCY FACTOR (EFF)	1	1
LIQUID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.2104	0.2104
Sample #	Sample Concentration in $\mu\text{Ci/L}$	126.567	140.333
	Replicate Concentration in $\mu\text{Ci/L}$	2.71E-02	BOOK#
Instrument Code		3.00E-02	132B52
WS27806	Average Concentration in $\mu\text{Ci/L}$	2.8571E-02	
Analyst			
SUE LAI	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/L}$ = $Rs * 1000\text{mL/L} * DF * DDF / (EFF * SS * 2220000\text{dpm}/\mu\text{Ci})$		
07/28/95	ALPHA TOTAL $\mu\text{Ci/mL}$ = ALPHA TOTAL $\mu\text{Ci/L} / 1000\text{mL/L}$		
Time	Relative Counting Error = $[(\text{The Square Root of } TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$		
	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/mL}$	(Average)	=	2.86E-05	DETECTION LEVEL
RELATIVE COUNTING ERROR			=	3.2%	1.72E-07 $\mu\text{Ci/mL}$

Data Entry by: <i>Stan Pet...</i>	Date: 07/31/95
Approved by: <i>[Signature]</i>	Date: 8/1/95

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	39
1925	COUNT TIME in MINUTES (CT)	30	30
AT or IB ?	BACKGROUND in cpm (BKG)	0.7	0.7
AT	SAMPLE SIZE in mL (SS)	1.000	1.000
Test Code	DILUTION FACTOR (DF)	101	101
	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.072	2.072
Matrik	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.356	0.600
Sample #	Sample Concentration in $\mu\text{Ci/g}$	< 3.72E-02	BOOK#
	Replicate Concentration in $\mu\text{Ci/g}$	6.26E-02	132852
Instrument Code			
WB27806	Maximum Concentration in $\mu\text{Ci/g}$	< 6.2616E-02	
Analyst			
SUE LAI	Rs (Sample Count Rate) = $(\text{TC} / \text{CT}) - \text{BKG}$		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = $\text{Rs} * 1000\text{mL/L} * \text{DF} / (\text{EFF} * \text{SS} * \text{Dg/L} * 2220000\text{dpm}/\mu\text{Ci})$		
07/28/95			
Time	Relative Counting Error = $[(\text{The Square Root of } \text{TC} + \text{BKG} * \text{CT}) / (\text{TC} - \text{BKG} * \text{CT})] * 1.96 * 100$		
	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Maximum) =	< 6.26E-02	DETECTION LEVEL
LESS THAN Value was Determined from Rs.				8.39E-02
RELATIVE COUNTING ERROR	=	84.3%		$\mu\text{Ci/g}$

Data Entry by: <i>[Signature]</i>	Date: 07/31/95
Approved by: <i>[Signature]</i>	Date: 8/1/95
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PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-139, 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)	93	92
1925	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.7	0.7
AT	SAMPLE SIZE in mL (SS)	1.000	1.000
Test Code	DILUTION FACTOR (DF)	101	101
	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.072	2.072
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	2.400	2.367
Sample #	Sample Concentration in $\mu\text{Ci/g}$	2.50E-01	BOOK#
S95T1230	Replicate Concentration in $\mu\text{Ci/g}$	2.47E-01	132B52
Instrument Code			
WB27806	Average Concentration in $\mu\text{Ci/g}$	2.4872E-01	
Analyst			
SUE LAI	Rs (Sample Count Rate) = (TC / CT) - BKG		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/ μCi)		
07/28/95			
Time	Relative Counting Error = [(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100		
	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Average)	=	2.49E-01	DETECTION LEVEL
					8.39E-02
RELATIVE COUNTING ERROR			=	29.3%	$\mu\text{Ci/g}$

Data Entry by: <i>st-fch</i>	Date: 07/31/95
Approved by: <i>st-fch</i>	Date: 8/1/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-139, 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)	93	83
1925	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.7	0.7
AT	SAMPLE SIZE in mL (SS)	1.000	1.000
Test Code	DILUTION FACTOR (DF)	101	101
	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.114	2.114
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	2.400	2.067
Sample #	Sample Concentration in $\mu\text{Ci/g}$	2.45E-01	BOOK#
S95T1230	Replicate Concentration in $\mu\text{Ci/g}$	2.11E-01	132852
Instrument Code			
WB27806	Average Concentration in $\mu\text{Ci/g}$	2.2844E-01	
Analyst			
SUE LAI	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = $Rs * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
07/28/95			
Time	Relative Counting Error = $[(\text{The Square Root of } TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$		
	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Average)	=	2.28E-01	DETECTION LEVEL
					8.22E-02
RELATIVE COUNTING ERROR			=	32.2%	$\mu\text{Ci/g}$

Data Entry by: <i>Sue Lai</i>	Date: 07/31/95
Approved by: <i>[Signature]</i>	Date: 8/1/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-139, REV. 1

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

LA-548-101 (A-3)

LIQUID/SOLIDS

		SPIKE	REPLICATE
Detector Type	DETECTOR NUMBER	16	16
SPIKE	DISH SIZE 1, 2, or 5 (MS)	2	2
Work List	TOTAL COUNTS (TC)	65493	65628
1925	COUNT TIME in MINUTES (CT)	30	30
AT	BACKGROUND in cpm (BKG)	0.7	0.7
AT	SAMPLE VOLUME in mL (Spiked Vial) (SS)	1.000	1.000
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial) (DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.072	2.072
Matrix	SPIKE VOLUME in mL (SVol)	0.100	0.100
SOLIDS	SPIKE DILUTION FACTOR (SDF)	1	1
Sample #	SPIKE VALUE in $\mu\text{Ci/L}$ (SVal)	44.784	44.784
S95T001230SPK	INSTRUMENT EFFICIENCY FACTOR (EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE $\mu\text{Ci/g}$ (S+S)	2.28E+02	2.28E+02
AB0016	AVERAGE or MAXIMUM $\mu\text{Ci/g}$ from FORM C	2.4872E-01	
Analyst	BOOK#	112B43	
S LAI	R_s (Sample Count Rate) = $(TC / CT) - BKG$		
Date	$SAMPLE + SPIKE \mu\text{Ci/g} = R_s * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
07/28/95	$PERCENT SPIKE RECOVERY = (((S+S \mu\text{Ci/g} - SAMPLE \mu\text{Ci/g}) * ((SDF/SVol)/(DF/SS/Dg/L)))/(SVal))*100$		
Time			
03:45 PM			

RESULT AVG. PERCENT SPIKE RECOVERY = 104.3%

Data Entry by: <i>[Signature]</i>	Date: 31-Jul-95
Approved by: <i>[Signature]</i>	Date: 8/1/95

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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)	401	392
1925	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.7	0.7
AT	SAMPLE SIZE in mL (SS)	0.100	0.100
Test Code	DILUTION FACTOR (DF)	101	101
	DIGEST GRAMS of SOLIDS/L (Dg/L)	1.9668	1.9668
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	12.667	12.367
Sample #	Sample Concentration in $\mu\text{Ci/g}$	1.39E+01	BOOK#
S95T1236	Replicate Concentration in $\mu\text{Ci/g}$	1.36E+01	132B52
Instrument Code	Average Concentration in $\mu\text{Ci/g}$		1.3761E+01
WB27806			
Analyst			
SUE LAI	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = $Rs \cdot 1000\text{mL/L} \cdot DF / (EFF \cdot SS \cdot Dg/L \cdot 2220000\text{dpm}/\mu\text{Ci})$		
07/28/95			
Time	Relative Counting Error = $[(The\ Square\ Root\ of\ TC + BKG - CT) / (TC - BKG \cdot CT)] \cdot 1.96 \cdot 100$		
	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Average)	=	1.38E+01	DETECTION LEVEL
					8.83E-01 $\mu\text{Ci/g}$
RELATIVE COUNTING ERROR			=	10.7%	

Data Entry by: *[Signature]* Date: 07/31/95
 Approved by: *[Signature]* Date: 8/1/95

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

LA-548-101 (A-3)

SOLIDS

Type	DETECTOR NUMBER	SAMPLE	REPLICATE
DUPLICATE		16	16
Work List	DISH SIZE 1, 2, or 5 (MS)	2	2
1925	TOTAL COUNTS (TC)	371	430
AT or TB?	COUNT TIME in MINUTES (CT)	30	30
AT	BACKGROUND in cpm (BKG)	0.7	0.7
Test Code	SAMPLE SIZE in mL (SS)	0.100	0.100
	DILUTION FACTOR (DF)	101	101
Matrix	DIGEST GRAMS of SOLIDS/L (Dg/L)	1.922	1.922
SOLID	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	11.667	13.633
Sample #	Sample Concentration in $\mu\text{Ci/g}$	1.31E+01	BOOK#
S9511236	Replicate Concentration in $\mu\text{Ci/g}$	1.53E+01	132862
Instrument Code			
WB27806	Average Concentration in $\mu\text{Ci/g}$	1.4232E+01	
Analyst			
SUE LAI	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = $Rs * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
07/28/95			
Time	Relative Counting Error = $[(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$		
	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Average)	=	1.42E+01	DETECTION LEVEL
					9.04E-01 $\mu\text{Ci/g}$
RELATIVE COUNTING ERROR			=	11.1%	

Data Entry by:

Date:

07/31/95

Approved by:

Date:

8/1/95

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Page 1 of 1

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

LA-548-101 (A-3)

LIQUID/SOLIDS

			SPIKE	REPLICATE
DETECTOR NUMBER			16	16
SPIKE	DISH SIZE 1, 2, or 5 (MS)		2	2
Work List	TOTAL COUNTS (TC)		66284	64727
1925	COUNT TIME in MINUTES (CT)		30	30
AT	BACKGROUND in cpm (BKG)		0.7	0.7
AT	SAMPLE VOLUME in mL (Spiked Vial) (SS)		0.100	0.100
AT	SAMPLE DILUTION FACTOR (Spiked Vial) (DF)		101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)		1.9668	1.9668
Matrix	SPIKE VOLUME in mL (SVol)		0.100	0.100
SOLIDS	SPIKE DILUTION FACTOR (SDF)		1	1
Sample #	SPIKE VALUE in $\mu\text{Ci/L}$ (SVal)		44.784	44.784
S95T001236SPK	INSTRUMENT EFFICIENCY FACTOR (EFF)		0.2104	0.2104
Instrument Code	SAMPLE + SPIKE $\mu\text{Ci/g}$ (S+S)		2.43E+03	2.37E+03
AB0016	AVERAGE or MAXIMUM $\mu\text{Ci/g}$ from FORM C		1.3761E+01	
Analyst	BOOK#		112B43	
S LAI	R_s (Sample Count Rate) = $(TC / CT) - BKG$			
Date	$SAMPLE + SPIKE \mu\text{Ci/g} = R_s * 1000\text{mL/L} * DF / ((EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci}))$			
07/28/95	$PERCENT \text{ SPIKE RECOVERY} = (((S+S \mu\text{Ci/g}) - SAMPLE \mu\text{Ci/g}) * ((SDF/SVol)/(DF/SS/Dg/L)))/(SVal) * 100$			
Time				
03:45 PM				

RESULT AVG. PERCENT SPIKE RECOVERY = 103.8%

Data Entry by: *[Signature]* Date: 31-Jul-95
 Approved by: *[Signature]* Date: 8/1/95
 Form 508101_X Rev. 1.3 Page 1 of 1

LABCORE Data Entry Template for Worklist#

1933

Analyst: RAG Instrument: AB00 16 Book # 132852

Method: LA-508-101 Rev/Mod D-2

Worklist Comment: Recmd.samp. size .100ml-10ml mount .100ml; use .1ml A-SPK.

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			@ALPHA01 ALPHA01	SOLID	2.79	3.04	N/A	uci/g
		1 STD			@ALPHA01 ALPHA01E	SOLID	1	3.0	N/A	% Ct. Error
		2 BLNK-PREP			@ALPHA01 ALPHA01	SOLID	1	45.83	N/A	uci/g
		2 BLNK-PREP			@ALPHA01 ALPHA01E	SOLID	1	84.3	N/A	% Ct. Error
		3 BLNK/BKG			@ALPHA01 ALPHA01	SOLID	1	.208	N/A	uci/g
95000093	B-101	4 SAMPLE	S95T001336	0 F	@ALPHA01 ALPHA01	SOLID	N/A	3.66	7.55	uci/g
95000093	B-101	4 SAMPLE	S95T001336	0 F	@ALPHA01 ALPHA01E	SOLID	N/A	23.9		% Ct. Error
95000093	B-101	5 DUP	S95T001336	0 F	@ALPHA01 ALPHA01	SOLID	3.66	4.64	N/A	uci/g
95000093	B-101	5 DUP	S95T001336	0 F	@ALPHA01 ALPHA01E	SOLID		21.0	N/A	% Ct. Error
95000093	B-101	6 SPK	S95T001336	0 F	@ALPHA01 ALPHA01	SOLID	100	106.9	N/A	uci/g
95000093	B-101	7 SAMPLE	S95T001337	0 F	@ALPHA01 ALPHA01	SOLID	105.8	105.27	5.86	uci/g
95000093	B-101	7 SAMPLE	S95T001337	0 F	@ALPHA01 ALPHA01E	SOLID	N/A	500		% Ct. Error
95000093	B-101	8 DUP	S95T001337	0 F	@ALPHA01 ALPHA01	SOLID	45.86	61.43	N/A	uci/g
95000093	B-101	8 DUP	S95T001337	0 F	@ALPHA01 ALPHA01E	SOLID		105.4	N/A	% Ct. Error
95000093	B-101	9 SPK	S95T001337	0 F	@ALPHA01 ALPHA01	SOLID	100	108.1	N/A	uci/g

Final page for worklist #

1933

R. Green 7/30/95

RAG 8/1/95

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.

LABCORE Data Entry Template for Worklist#

1933

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

Data Entry Comments:

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

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

LA-548-101 (A-3) LIQUIDS

Type	DETECTOR NUMBER	STANDARD	REPLICATE
STANDARD	DISH SIZE 1, 2, or 5 (MS)	16	16
Work List	TOTAL COUNTS (TC)	2	2
1933	COUNT TIME in MINUTES (CT)	4337	4207
AT or TB?	BACKGROUND in cpm (BKG)	30	30
AT	SAMPLE SIZE in mL (SS)	0.4	0.4
Test Code	DILUTION FACTOR (DF)	10.000	10.000
@ Alpha 01	DIGEST DILUTION FACTOR (DDF)	1	1
Matrix	EFFICIENCY FACTOR (EFF)	1	1
LIQUID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.2104	0.2104
Sample #	Sample Concentration in $\mu\text{Ci/L}$	144.167	139.833
	Replicate Concentration in $\mu\text{Ci/L}$	3.09E-02	BOOK#
Instrument Code		2.99E-02	132B52
WB27806	Average Concentration in $\mu\text{Ci/L}$	3.0401E-02	
Analyst			
R.GREEN	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/L}$ = $Rs \cdot 1000\text{mL/L} \cdot DF \cdot DDF / (EFF \cdot SS \cdot 2220000\text{dpm}/\mu\text{Ci})$		
07/30/95	ALPHA TOTAL $\mu\text{Ci/mL}$ = ALPHA TOTAL $\mu\text{Ci/L} / 1000\text{mL/L}$		
Time	Relative Counting Error = $[(\text{The Square Root of } TC + BKG \cdot CT) / (TC - BKG \cdot CT)] \cdot 1.96 \cdot 100$		
03:45 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/mL}$	(Average) =	3.04E-05	DETECTION LEVEL
				1.35E-07
RELATIVE COUNTING ERROR =				3.0%
				$\mu\text{Ci/mL}$

Data Entry by: <i>Stefan</i>	Date: 07/31/95
Approved by: <i>Stefan</i>	Date: 8/2/95

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)	3	2
1933	COUNT TIME in MINUTES (CT)	30	30
AT or TB?	BACKGROUND in cpm (BKG)	0.4	0.4
AT	SAMPLE SIZE in mL (SS)	0.100	0.100
Test Code	DILUTION FACTOR (DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	1.804	1.804
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.269	0.269
Sample #	Sample Concentration in $\mu\text{Ci/g}$	< 3.23E-01	BOOK#
1	Replicate Concentration in $\mu\text{Ci/g}$	< 3.23E-01	
Instrument Code			
WB27806	Maximum Concentration in $\mu\text{Ci/g}$	< 3.2296E-01	
Analyst			
RAG	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = $Rs * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
07/30/95			
Time	Relative Counting Error = $[(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$		
03:35 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Maximum) =	< 3.23E-01	DETECTION LEVEL
LESS Than Value was Determined from Lc.				7.55E-01
RELATIVE COUNTING ERROR	=	84.3%		$\mu\text{Ci/g}$

Data Entry by:

Date: 08/02/95

Approved by:

Date: 8/2/95

Form 508101_C Rev. 1.3

Page 1 of 1

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-139, 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)	109	98
1933	COUNT TIME in MINUTES (CT)	30	30
AT or TB?	BACKGROUND in cpm (BKG)	0.4	0.4
AT	SAMPLE SIZE in mL (SS)	0.100	0.100
Test Code	DILUTION FACTOR (DF)	101	101
6 ALPHA	DIGEST GRAMS of SOLIDS/L (Dg/L)	1.804	1.804
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	3.233	2.867
Sample #	Sample Concentration in $\mu\text{Ci/g}$	3.88E+00	BOOK#
S95T1336	Replicate Concentration in $\mu\text{Ci/g}$	3.44E+00	132B52
Instrument Code			
WB27806	Average Concentration in $\mu\text{Ci/g}$	3.6558E+00	
Analyst			
R.GREEN	Rs (Sample Count Rate) = (TC / CT) - BKG		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/ μCi)		
07/30/95			
Time	Relative Counting Error = [(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100		
03:45 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Average)	=	3.66E+00	DETECTION LEVEL
					7.55E-01
RELATIVE COUNTING ERROR			=	23.9%	$\mu\text{Ci/g}$

Data Entry by: *[Signature]* Date: 07/31/95
 Approved by: *[Signature]* Date: 8/2/95

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

LA-548-101 (A-3)

SOLIDS

	SAMPLE	REPLICATE
Type	16	16
DUPLICATE	2	2
Work List	119	139
1933	30	30
AT or TB ?	0.4	0.4
AT	0.100	0.100
Test Code	101	101
ALPHA C	1.816	1.816
Matrix	0.2104	0.2104
SOLID	3.567	4.233
Sample #	4.25E+00	BOOK#
S95T1336	5.04E+00	132B52
Instrument Code		
WB27806	4.6438E+00	
Analyst		
R.GREEN	Rs (Sample Count Rate) = (TC / CT) - BKG	
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = $R_s * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$	
07/30/95	Relative Counting Error = $[(\text{The Square Root of } TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$	
Time	Detection Levels and Less Than Values are determined from Procedure LA-508-002.	
03:45 PM		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$ (Average)	=	4.64E+00	DETECTION LEVEL
				7.50E-01 $\mu\text{Ci/g}$
RELATIVE COUNTING ERROR		=	21.0%	

Data Entry by:	<i>[Signature]</i>	Date:	07/31/95
Approved by:	<i>[Signature]</i>	Date:	8/2/95

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

LA-548-101 (A-3)

LIQUID/SOLIDS

		SPIKE	REPLICATE
Type	DETECTOR NUMBER	16	16
SPIKE	DISH SIZE 1, 2, or 5 (MS)	2	2
Work List	TOTAL COUNTS (TC)	68051	66353
1933	COUNT TIME in MINUTES (CT)	30	30
AT or TB?	BACKGROUND in cpm (BKG)	0.4	0.4
AT	SAMPLE VOLUME in mL (Spiked Vial) (SS)	0.100	0.100
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial) (DF)	101	101
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	1.804	1.804
Matrix	SPIKE VOLUME in mL (SVol)	0.100	0.100
SOLIDS	SPIKE DILUTION FACTOR (SDF)	1	1
Sample #	SPIKE VALUE in $\mu\text{Ci/L}$ (SVal)	44.784	44.784
S95T001336SPK	INSTRUMENT EFFICIENCY FACTOR (EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE $\mu\text{Ci/g}$ (S+S)	2.72E+03	2.65E+03
AB0016	AVERAGE or MAXIMUM $\mu\text{Ci/g}$ from FORM C	3.6558E+00	
Analyst	BOOK#	112B43	
R GREEN	R_s (Sample Count Rate) = $(TC / CT) - BKG$		
Date	$SAMPLE + SPIKE \mu\text{Ci/g} = R_s * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
07/30/95	PERCENT SPIKE RECOVERY = $((S+S \mu\text{Ci/g} - SAMPLE \mu\text{Ci/g}) * ((SDF/SVol)/(DF/SS/Dg/L))) / (SVal) * 100$		
Time			
03:45 PM			

RESULT AVG. PERCENT SPIKE RECOVERY = 106.9%

Data Entry by:	Date: 31-Jul-95
Approved by:	Date: 8/2/95

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Page 1 of 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)	16	29
1933	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.4	0.4
AT	SAMPLE SIZE in mL (SS)	0.100	0.100
Test Code	DILUTION FACTOR (DF)	101	101
GAIPH A 01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.3232	2.3232
Mark	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.424	0.567
Sample 7	Sample Concentration in $\mu\text{Ci/g}$	< 3.95E-01	BOOK#
S9571337	Replicate Concentration in $\mu\text{Ci/g}$	5.27E-01	132B52
Instrument Code			
WB27806	Maximum Concentration in $\mu\text{Ci/g}$	< 5.2743E-01	
Analyst			
R.GREEN	Rs (Sample Count Rate) = (TC / CT) - BKG		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/ μCi)		
07/30/95			
Time	Relative Counting Error = [(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100		
03:45 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL in $\mu\text{Ci/g}$ (Maximum) =	< 5.27E-01	DETECTION LEVEL
LESS THAN Value was Determined from Rs.		5.86E-01 $\mu\text{Ci/g}$
RELATIVE COUNTING ERROR =	500.0%	

Data Entry by: <i>Stefan</i>	Date: 07/31/95
Approved by: <i>R. Green</i>	Date: 8/2/95

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)	23	23
1933	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.4	0.4
AT	SAMPLE SIZE in mL (SS)	0.100	0.100
Test Code	DILUTION FACTOR (DF)	101	101
6 ALPHA c/	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.184	2.184
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.367	0.367
Sample #	Sample Concentration in $\mu\text{Ci/g}$	3.63E-01	BOOK#
S9571337	Replicate Concentration in $\mu\text{Ci/g}$	3.63E-01	132B52
Instrument Code	Average Concentration in $\mu\text{Ci/g}$	3.6303E-01	
WB27806			
Analyst			
R.GREEN	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = $Rs * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
07/30/95			
Time	Relative Counting Error = $[(\text{The Square Root of } TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$		
03:45 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Average)	=	3.63E-01	DETECTION LEVEL
					6.23E-01
RELATIVE COUNTING ERROR					$\mu\text{Ci/g}$
				=	105.4%

Data Entry by: *st. sch* Date: 07/31/95
 Approved by: *st. sch* Date: 8/2/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-139, REV. 1

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

LA-548-101 (A-3)

LIQUID/SOLIDS

		SPIKE	REPLICATE
Type	DETECTOR NUMBER	16	16
SPIKE	DISH SIZE 1, 2, or 5 (MS)	2	2
Work List	TOTAL COUNTS (TC)	69348	66324
1933	COUNT TIME in MINUTES (CT)	30	30
AT	BACKGROUND in cpm (BKG)	0.4	0.4
Test Code	SAMPLE VOLUME in mL (Spiked Vial) (SS)	0.100	0.100
@ALPHA01	SAMPLE DILUTION FACTOR (Spiked Vial) (DF)	101	101
Matrix	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.3232	2.3232
SOLIDS	SPIKE VOLUME in mL (SVol)	0.100	0.100
Sample #	SPIKE DILUTION FACTOR (SDF)	1	1
S95T001337SPK	SPIKE VALUE in $\mu\text{Ci/L}$ (SVal)	44.784	44.784
Instrument Code	INSTRUMENT EFFICIENCY FACTOR (EFF)	0.2104	0.2104
AB0016	SAMPLE + SPIKE $\mu\text{Ci/g}$ (S+S)	2.15E+03	2.06E+03
Analyst	AVERAGE or MAXIMUM $\mu\text{Ci/g}$ from FORM C	<5.27E-1	
R GREEN	BOOK#	112B43	
Date	Rs (Sample Count Rate) = (TC / CT) - BKG		
07/30/95	SAMPLE + SPIKE $\mu\text{Ci/g}$ = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/ μCi)		
Time	PERCENT SPIKE RECOVERY = (((S+S $\mu\text{Ci/g}$ - SAMPLE $\mu\text{Ci/g}$) * ((SDF/SVol)/(DF/SS/Dg/L)))/(SVal)*100		
03:45 PM			

RESULT AVG. PERCENT SPIKE RECOVERY = 108.1%

Data Entry by:	Date:	31-Jul-95
Approved by:	Date:	8/2/95

Form 508101_X Rev. 1.3

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LABCORE Data Entry Template for Worklist#

2130

Analyst: S. C. L. Instrument: AB00 16 Book # 140 B5 2
WB27806

Method: LA-508-101 Rev/Mod D-2

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>0.14</u>		@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000091	B-101	4 SAMPLE	S95T001552	0 F	@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000091	B-101	4 SAMPLE	S95T001552	0 F	@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000091	B-101	5 DUP	S95T001552	0 F	@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000091	B-101	5 DUP	S95T001552	0 F	@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
00091	B-101	6 SPK	S95T001552	0 F	@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000093	B-101	7 SAMPLE	S95T001556	0 F	@ALPHA01 ALPHA01	SOLID	N/A			uCi/g
95000093	B-101	7 SAMPLE	S95T001556	0 F	@ALPHA01 ALPHA01E	SOLID	N/A			% Ct. Error
95000093	B-101	8 DUP	S95T001556	0 F	@ALPHA01 ALPHA01	SOLID			N/A	uCi/g
95000093	B-101	8 DUP	S95T001556	0 F	@ALPHA01 ALPHA01E	SOLID			N/A	% Ct. Error
95000093	B-101	9 SPK	S95T001556	0 F	@ALPHA01 ALPHA01	SOLID			N/A	uCi/g

Final page for worklist #

2130

Sue C. Lari 8-29-95

Jim Barclay 8-30-95
Sharon Holden 8-30-95

Data Entry Comments:

High RPD value for 1552 is acceptable due

A spike: 112 B 4 3 to low sample alpha activity. 9-5-95

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#

2130

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

Data Entry Comments:

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

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)	4356	4501
2130	COUNT TIME in MINUTES (CT)	30	30
AT or TB?	BACKGROUND in cpm (BKG)	0.37	0.37
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	144.830	149.663
Sample #	Sample Concentration in $\mu\text{Ci/L}$	3.10E-02	BOOK#
WORKLIST#2130	Replicate Concentration in $\mu\text{Ci/L}$	3.20E-02	140B52
Instrument Code			
WB27806	Average Concentration in $\mu\text{Ci/L}$	3.1524E-02	
Analyst			
SCL	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/L}$ = $Rs * 1000\text{mL/L} * DF * DDF / (EFF * SS * 2220000\text{dpm}/\mu\text{Ci})$		
08/29/95	ALPHA TOTAL $\mu\text{Ci/mL}$ = $ALPHA TOTAL \mu\text{Ci/L} / 1000\text{mL/L}$		
Time	Relative Counting Error = $[(\text{The Square Root of } TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$		
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/mL}$	(Average) =	3.15E-05	DETECTION LEVEL
				1.30E-07 $\mu\text{Ci/mL}$
RELATIVE COUNTING ERROR		=	3.0%	

Data Entry by: *Sharon L. Miller*
 Approved by: *[Signature]*
 Form 508101_C Rev. 1.3

Date: 08/30/95
 Date: 8/30/95
 Page 1 of 1

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

LA-548-101 (A-3)

SOLIDS

Type	DETECTOR NUMBER	BLANK	REPLICATE
BLANK	DISH SIZE 1, 2, or 5 (MS)	16	16
Work List	TOTAL COUNTS (TC)	2	2
2130	COUNT TIME in MINUTES (CT)	1	2
AT or IB ?	BACKGROUND in cpm (BKG)	30	30
AT	SAMPLE SIZE in mL (SS)	0.37	0.37
Test Code	DILUTION FACTOR (DF)	0.050	0.050
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	1	1
Matrix	EFFICIENCY FACTOR (EFF)	2.1272	2.1272
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	0.2104	0.2104
Sample #	Sample Concentration in $\mu\text{Ci/g}$	0.259	0.259
S95T1552	Replicate Concentration in $\mu\text{Ci/g}$	< 5.22E-03	BOOK#
Instrument Code		< 5.22E-03	
WB27806	Maximum Concentration in $\mu\text{Ci/g}$	< 5.2163E-03	
Analyst			
SCL	Rs (Sample Count Rate) = (TC / CT) - BKG		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = Rs * 1000mL/L * DF / (EFF * SS * Dg/L * 2220000dpm/ μCi)		
08/29/95			
Time	Relative Counting Error = [(The Square Root of TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100		
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Maximum) =	< 5.22E-03	DETECTION LEVEL
LESS Than Value was Determined from Lc.				1.23E-02
RELATIVE COUNTING ERROR	=	78.0%		$\mu\text{Ci/g}$

Data Entry by: <i>Sharon L. Yallen</i>	Date: 08/30/95
Approved by: <i>[Signature]</i>	Date: 8/30/95

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)	51	34
2130	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.37	0.37
AT	SAMPLE SIZE in mL (SS)	0.050	0.050
Test Code	DILUTION FACTOR (DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.1272	2.1272
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	1.330	0.763
Sample #	Sample Concentration in $\mu\text{Ci/g}$	2.68E-02	BOOK#
S9511552	Replicate Concentration in $\mu\text{Ci/g}$	1.54E-02	
Instrument Code			
WB27806	Average Concentration in $\mu\text{Ci/g}$	2.1068E-02	
Analyst			
SCL	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = $Rs * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
08/29/95			
Time	Relative Counting Error = $[(\text{The Square Root of } TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$		
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Average)	=	2.11E-02	DETECTION LEVEL
					1.23E-02
RELATIVE COUNTING ERROR			=	57.5%	$\mu\text{Ci/g}$

Data Entry by: <i>Sharon J. Phillips</i>	Date: 08/30/95
Approved by: <i>LA-548-101</i>	Date: 8/30/95

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)	50	61
2130	COUNT TIME in MINUTES (CT)	30	30
AT or TB?	BACKGROUND in cpm (BKG)	0.37	0.37
AT	SAMPLE SIZE in mL (SS)	0.050	0.050
Test Code	DILUTION FACTOR (DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.1192	2.1192
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	1.297	1.663
Sample #	Sample Concentration in $\mu\text{Ci/g}$	2.62E-02	BOOK#
S95T1552	Replicate Concentration in $\mu\text{Ci/g}$	3.36E-02	
Instrument Code			
WB27806	Average Concentration in $\mu\text{Ci/g}$	2.9903E-02	
Analyst			
SCL	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = $Rs * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
08/29/95			
Time	Relative Counting Error = $[(The\ Square\ Root\ of\ TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$		
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Average)	=	2.99E-02	DETECTION LEVEL
					1.23E-02
RELATIVE COUNTING ERROR			=	39.4%	$\mu\text{Ci/g}$

Data Entry by: <i>Sharon L. Hall</i>	Date: 08/30/95
Approved by: <i>[Signature]</i>	Date: 8/30/95

PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-139, 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)	59240	58367
2130	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.37	0.37
AT	SAMPLE VOLUME in mL (Spiked Vial) (SS)	0.050	0.050
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial) (DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	2.1272	2.1272
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)	44.778	44.778
S95T1552	INSTRUMENT EFFICIENCY FACTOR (EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE $\mu\text{Ci/g}$ (S+S)	3.97E+01	3.92E+01
WB27806	AVERAGE or MAXIMUM $\mu\text{Ci/g}$ from FORM C	2.1068E+02	
Analyst	BOOK#	112B43	
SCL	R_s (Sample Count Rate) = $(TC / CT) - BKG$		
Date	$SAMPLE + SPIKE \mu\text{Ci/g} = R_s * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
08/29/95	PERCENT SPIKE RECOVERY = $((S+S \mu\text{Ci/g} - SAMPLE \mu\text{Ci/g}) * ((SDF/SVol)/(DF/SS/Dg/L)))/(SVal) * 100$		
Time			
03:00 PM			

RESULT AVG. PERCENT SPIKE RECOVERY = 93.6%

Data Entry by: <i>Shyann Lytle</i>	Date: 30-Aug-95
Approved by: <i>[Signature]</i>	Date: 8/30/95

Form 508101_X Rev. 1.3

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PLACE ANALYTICAL CARD IN BOX BELOW OR ATTACH TRAVELER

WHC-SD-WM-DP-139, 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)	274	257
2130	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.37	0.37
AT	SAMPLE SIZE in mL (SS)	0.050	0.050
Test Code	DILUTION FACTOR (DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	1.906	1.906
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs (SAMPLE RATE) as APPROPRIATE	8.763	8.197
Sample #	Sample Concentration in $\mu\text{Ci/g}$	1.97E-01	BOOK#
S95T1556	Replicate Concentration in $\mu\text{Ci/g}$	1.84E-01	
Instrument Code			
WB27806	Average Concentration in $\mu\text{Ci/g}$	1.9050E-01	
Analyst			
SCL	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = $Rs * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
08/29/95			
Time	Relative Counting Error = $[(\text{The Square Root of } TC + BKG * CT) / (TC - BKG * CT)] * 1.96 * 100$		
03:01 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$	(Average)	=	1.91E-01	DETECTION LEVEL
					1.37E-02
RELATIVE COUNTING ERROR			=	13.1%	$\mu\text{Ci/g}$

Data Entry by: *Sharon J. Yeld*

Date: 08/30/95

Approved by: *St. J. Yeld*

Date: 8/30/95

Form 508101_C Rev. 1.3

Page 1 of 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)	229	264
2130	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.37	0.37
AT	SAMPLE SIZE in mL (SS)	0.050	0.050
Test Code	DILUTION FACTOR (DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	1.9096	1.9096
Matrix	EFFICIENCY FACTOR (EFF)	0.2104	0.2104
SOLID	Lc, Rmax, or Rs, (SAMPLE RATE) as APPROPRIATE	7.263	8.430
Sample #	Sample Concentration in $\mu\text{Ci/g}$	1.63E-01	BOOK#
S95T1556	Replicate Concentration in $\mu\text{Ci/g}$	1.89E-01	
Instrument Code			
WB27806	Average Concentration in $\mu\text{Ci/g}$	1.7594E-01	
Analyst			
SCL	Rs (Sample Count Rate) = $(TC / CT) - BKG$		
Date	ALPHA TOTAL $\mu\text{Ci/g}$ = $Rs \cdot 1000\text{mL/L} \cdot DF / (EFF \cdot SS \cdot Dg/L \cdot 2220000\text{dpm}/\mu\text{Ci})$		
08/29/95			
Time	Relative Counting Error = $[(The\ Square\ Root\ of\ TC + BKG \cdot CT) / (TC - BKG \cdot CT)] \cdot 1.96 \cdot 100$		
03:00 PM	Detection Levels and Less Than Values are determined from Procedure LA-508-002.		

v RESULTS v

ALPHA TOTAL	in $\mu\text{Ci/g}$ (Average)	=	1.76E-01	DETECTION LEVEL
				1.37E-02
RELATIVE COUNTING ERROR		=	13.9%	$\mu\text{Ci/g}$

Data Entry by: *Theresa L. Hald* Date: 08/30/95
 Approved by: *AT* Date: 8/30/95

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)	58850	59248
2130	COUNT TIME in MINUTES (CT)	30	30
AT or TB ?	BACKGROUND in cpm (BKG)	0.37	0.37
AT	SAMPLE VOLUME in mL (Spiked Vial) (SS)	0.050	0.050
Test Code	SAMPLE DILUTION FACTOR (Spiked Vial) (DF)	1	1
@ALPHA01	DIGEST GRAMS of SOLIDS/L (Dg/L)	1.906	1.906
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)	44.778	44.778
S95T1556	INSTRUMENT EFFICIENCY FACTOR (EFF)	0.2104	0.2104
Instrument Code	SAMPLE + SPIKE $\mu\text{Ci/g}$ (S+S)	4.39E+01	4.44E+01
WB27806	AVERAGE or MAXIMUM $\mu\text{Ci/g}$ from FORM C	1.9050E-01	
Analyst	BOOK#	112B43	
SCL	R_s (Sample Count Rate) = $(TC / CT) - BKG$		
Date	$SAMPLE + SPIKE \mu\text{Ci/g} = R_s * 1000\text{mL/L} * DF / (EFF * SS * Dg/L * 2220000\text{dpm}/\mu\text{Ci})$		
08/29/95	PERCENT SPIKE RECOVERY = $((S+S \mu\text{Ci/g} - SAMPLE \mu\text{Ci/g}) * ((SDF/SVol)/(DF/SS/Dg/L)))/(SVal) * 100$		
Time			
03:00 PM			

RESULT AVG. PERCENT SPIKE RECOVERY = 93.5%

Data Entry by: <i>Sharon J. Golden</i>	Date: 30-Aug-95
Approved by: <i>H. J. L.</i>	Date: 8/30/95

Westinghouse
Hanford Company

WHC-SD-WM-DP-139, REV. 1

P.O. Box 1970 Richland, WA 99352

PART II

WHC-SD-WM-DP-139, REV. 0A

ANALYTICAL SERVICES

**90-DAY SAFETY SCREENING RESULTS FOR TANK 241-B-101,
PUSH-MODE CORES 90 AND 91**

DATE PRINTED:

SEPTEMBER 25, 1995

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WHC-SD-WM-DP-139, REV. 1

WHC-SD-WM-DP-139, REV. 0-A

NARRATIVE

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**90-DAY SAFETY SCREEN REPORT
FOR TANK 241-B-101, PUSH MODE, CORES 90 AND 91**

Summary

This is the 90-day safety screen report for tank 241-B-101, cores 90 and 91. Samples from these cores were analyzed for safety screening purposes in accordance with the Tank 241-B-101 Tank Characterization Plan (TCP) (Reference 1). This report contains the safety screening results for two subsegments not previously analyzed due to concerns regarding homogeneity of the samples (core 90, segment 2, lower half segment; and core 91, segment 2, facie), as well as data from secondary bromide and gravimetric percent water analyses. Ion chromatography (IC) analysis for bromide was required on five subsegments whose lithium results exceeded their notification limit or were suspected to be contaminated with the hydrostatic head fluid (HHF) used during push mode core sampling. Bromide analysis was also performed on the two subsegments not previously analyzed for safety screening purposes. Gravimetric percent water analysis was performed on three samples whose 90 percent confidence calculation (Reference 2) indicated results less than or close to 17 weight percent water in the samples.

Bromide was observed in six of the seven samples, with three of the samples showing concentrations of bromide in excess of the 1200 $\mu\text{g/g}$ notification limit. These data indicate that the samples were most likely contaminated with HHF. Although not required by the TCP, results for chloride, fluoride, nitrate, nitrite, oxalate, phosphate, and sulfate are also reported for these seven samples as additional analytical data received from the IC analysis. These data are included in the summary tables but are not discussed in the narrative to this report.

For the two subsegments analyzed for safety screening purposes (core 90, segment 2, lower half segment; and core 91, segment 2, facie), no notification limits were violated. However, the lower bound of the 95% confidence interval (recently revised from a confidence interval requirement of 90%) for the thermogravimetric analysis (TGA) results for both subsegments were less than the TGA notification limit of 17 weight percent water (per Reference 1). The differential scanning calorimetry (DSC) analysis on both subsegments showed no exothermic energy, so this low percent moisture does not constitute unsafe conditions. To better quantify the moisture level of these subsegments, though, analyses for percent water by gravimetry shall be performed, and these data shall be discussed in the final report for this analysis project.

Sample Receipt and Extrusion

A description of the sample receipt and extrusion is contained in Reference 2.

Analytical ResultsTHERMOGRAVIMETRIC ANALYSIS (Percent Moisture)

Analyses for percent water by TGA were performed on samples S95T001551 and S95T001555 using procedure LA-514-114, Rev. C-0. Both samples were run under

a nitrogen atmosphere. Although results for neither sample were below the notification limit of 17 weight percent water, the statistical analysis for these two samples could not show with 95% confidence that the results were above the notification limit (see discussion below).

The maximum acceptable precision per the TCP (Reference 1) is a relative percent difference (RPD) of 10%. The TGA precision between the sample and duplicate for sample S95T001551 exceeded the acceptance criterion with an RPD value of 11.2%. However, the DSC result for this sample showed no exothermic energy, so no rerun was requested. The RPD value for sample S95T001555 was 5.11% and is within the acceptable precision.

Statistical analyses were performed on the TGA data per the requirements of the revised Data Quality Objective for Safety Screening (Reference 3). This document requires comparison of sample data to the applicable limit (e.g. greater than 17% water by TGA per Reference 1) with a confidence level of 95%. The 95% confidence calculations for samples S95T001551 and S95T001555 are presented in Table 1. The lower 95% confidence limit for these samples fall below the minimum criterion of 17% water stated in Reference 1. However, since no exotherms were observed for these samples (refer to DSC results below), the low moisture content of these samples does not constitute unsafe conditions.

Table 1. 95% Confidence Interval Lower Limits
for Percent Water (Units are in %).

Sample Number and Description	$\bar{\mu}$	$\hat{\sigma}_p^2$	LL
S95T001551 C90 S2 LH	19.86	1.23	12.85
S95T001555 C91 S2 facie	18.02	0.21	15.12

C = Core Number
S = Segment Number
LH = Lower Half

Because the 95% confidence interval lower limits for these two samples are below the 17 weight percent limit stated in Reference 1, analysis for percent water by gravimetry shall be performed to better estimate the moisture content in the samples. These data shall be included in the final report for this sampling event.

In addition to the 95% confidence limits for samples S95T001551 and S95T001555, lower limits for the 95% confidence intervals were calculated for the data reported in Reference 2 (previously reported with 90% confidence limits) and are given in Table 2.

Table 2. 95% Confidence Interval Lower Limits
for Percent Water Results Presented in Reference 2
(Units are in %).

Sample Number and Description	$\hat{\mu}$	$\hat{\sigma}^2_{\hat{\mu}}$	LL
S95T001214 C90 S1 UH	33.08	0.0001	33.02
S95T001217 C90 S1 LH	42.00	0.24	38.91
S95T001220 C90 S1 facie	18.74	0.00003	18.71
S95T001229 C90 S2 UH	15.55	0.75	10.09
S95T001223 C90 S2 Dr.Liq.	49.52	0.01	48.83
S95T001238 C91 S1 UH	34.10	0.38	30.19
S95T001235 C91 S1 LH	42.91	1.5	35.17
S95T001244 C91 S2 UH	45.17 ⁽¹⁾	10.91	24.32
S95T001241 C91 S2 LH	22.70	20.86	0.00 ⁽²⁾
S95T001247 C91 S2 Dr.Liq.	50.47	0.16	47.97

(1) Average includes triplicate result (Reference 2)

(2) Result was negative, so reported as zero.

C = Core Number

S = Segment Number

UH = Upper Half

LH = Lower Half

Dr.Liq. = Drainable Liquid

DIFFERENTIAL SCANNING CALORIMETRY

Differential thermal analyses were performed under a nitrogen purge on samples S95T001551 and S95T001555 using procedure LA-514-114, Rev. C-0. No exotherms were detected in either sample. Since no exotherms were detected for the samples and duplicates, no dry weight basis results were calculated or reported (exotherms are shown as valleys on the Perkin-Elmer scans). Furthermore, no statistical analysis for these two samples were performed.

Similarly to the TGA data presented above, 95% confidence interval upper limits were calculated for the DSC results presented in Reference 2. These data were previously reported with 90% confidence interval upper limits; Reference 3 modified the requirement necessitating a 95% limit rather than a 90% limit. The modified 95% confidence interval upper limits for the DSC data on tank 241-B-101 are presented in Table 3.

Table 3. 95% Confidence Interval Upper Limits
for DSC Dry Results Presented in Reference 2
(Units are in joules/gram).

Sample Number and Description	$\hat{\mu}$	$\hat{\sigma}^2_{\hat{\mu}}$	UL
S95T001214 C90 S1 UH	275.00	196.00	363.4
S95T001217 C90 S1 LH	317.50	370.92	439.1
S95T001220 C90 S1 facie	0.00	0.00	0.00
S95T001229 C90 S2 UH	0.00	0.00	0.00
S95T001223 C90 S2 Dr.Liq.	52.00	0.00	52.00
S95T001238 C91 S1 UH	249.50	2.25	258.97
S95T001235 C91 S1 LH	42.5	0.25	45.66
S95T001244 C91 S2 UH	5.00	0.00	5.00
S95T001241 C91 S2 LH	0.00	0.00	0.00
S95T001247 C91 S2 Dr.Liq.	6.00	0.00	6.00

C = Core Number
S = Segment Number
UH = Upper Half
LH = Lower Half
Dr.Liq. = Drainable Liquid

ALPHA TOTAL

The alpha total analyses for samples S95T001552 and S95T001556 were performed using procedure LA-508-101, Rev. D-2. Fusion dilutions were prepared using procedure LA-549-141, Rev. D-0. Both alpha total results were well below the

notification limit of 41 $\mu\text{Ci/g}$. The spike results for both samples were within the TCP criterion of 90-110%, with values of 93.60% and 93.50%, respectively.

Sample S95T001552 exceeded the acceptable precision criterion of less than 10% RPD. However, the average result for this sample was 0.0255 $\mu\text{Ci/g}$, which is more than 3 orders of magnitude less than the notification limit of 41 $\mu\text{Ci/g}$. The statistical analysis for these two samples (presented in Table 4) indicates that neither of the alpha total results exceeded the safety screening criterion of 41 $\mu\text{Ci/g}$ at an upper confidence level of 95%. Therefore, no additional analyses were necessary. The 95% confidence interval upper limits for the alpha total data presented in Reference 2 are provided in Table 5.

Table 4. 95% Confidence Interval Upper Limits
for Total Alpha (Units are in $\mu\text{Ci/g}$).

Sample No., Description	$\hat{\mu}$	$\hat{\sigma}^2_{\hat{\mu}}$	UL
S95T001552 C90 S2 LH	0.03	0.00002	0.05
S95T001556 C91 S2 facie	0.18	0.00006	0.23

C = Core Number
S = Segment Number
LH = Lower Half

Table 5. 95% Confidence Interval Upper Limits
for Total Alpha Results Presented in Reference 2
(Units are in $\mu\text{Ci/g}$).

Sample No., Description	$\hat{\mu}$	$\hat{\sigma}^2$	UL
S95T001215 C90 S1 UH	4.57	0.05	5.96
S95T001218 C90 S1 LH	1.89	0.004	2.27
S95T001221 C90 S1 facie	0.16	0.002	0.41
S95T001230 C90 S2 UH	0.24	0.0001	0.30
S95T001336 C91 S1 UH	4.15	0.24	7.24
S95T001236 C91 S1 LH	14.00	0.04	15.26
S95T001245 C91 S2 UH	0.00	0.00	0.00
S95T001337 C91 S2 LH	0.45	0.01	0.96

C = Core Number
UH = Upper Half

S = Segment Number
LH = Lower Half

ICP (Lithium)

Lithium was determined by ICP analysis per procedure LA-505-151, Rev. A-1. The solid subsegments were prepared by fusion per procedure LA-549-141, Rev. D-0. Results for both samples S95T001552 and S95T001556 were below the detection limit and below the notification limit of 100 $\mu\text{g/g}$. However, since lithium has a tendency to precipitate out of solution, these results do not exclude the possibility that an incursion of HHF during the sampling process may have contaminated these samples (refer below to the discussion on bromide results).

The lithium analysis spike results for both samples were within the TCP criterion of 90-110%, with values of 94.64% and 95.92%, respectively. Because both results were below the detection limit, no RPD values were calculated.

Gravimetric Percent Water

Calculation of the lower 90% confidence level (reference 2) and the 95% confidence level (above) for the TGA results from tank 241-B-101 indicated that results for two of the subsegments (S95T001229 and S95T001241) were below the notification limit of 17 weight percent water, while one sample (S95T001220) was just above the limit (reference 2). For all three of these samples, gravimetric analysis for percent water was performed to better

determine the moisture content. Procedure LA-564-101, Rev. F-1 was used for this analysis. For all three samples, results were above the limit of 17 weight percent water. These gravimetry results, coupled with the fact that no energetics were observed for these subsegments, indicate that tank 241-B-101 may be classified as "safe". Average results for samples S95T001541, S95T001543, and S95T001547 (sister samples to S95T001220, S95T001229, and S95T001241) were 23.35%, 41.02%, and 28.23%, respectively. RPD values for these three samples were all within the maximum acceptable precision criterion of 10% as specified in the TCP.

It should be noted that the gravimetry result obtained for sample S95T001543 is nearly three times the percent water result obtained by the TGA method for the same subsegment. This anomaly could indicate an inhomogeneity in the tank 241-B-101 sample material. Further analysis shall be performed on this subsegment to evaluate why the TGA and gravimetric analysis results varied so widely, and this information shall be documented in the final report.

IC (Bromide)

Samples S95T001224, S95T001230, S95T001236, S95T001245, and S95T001248 were contaminated with lithium, indicating a possible incursion of water from the HHF used during sampling. These sample numbers correspond to the drainable liquid from segment 2 of core 90, the upper half solids from segment 2 of core 90, the lower half solids from segment 1 of core 91, the upper half solids from segment 2 of core 91, and the drainable liquid from segment 2 of core 91. Because high lithium concentrations were found in these subsegments, secondary analysis for bromide was performed on sister samples S95T001542, S95T001544, S95T001546, S95T001549, and S95T001550 using procedure LA-533-105, Rev. D-1. Since the results from a number of samples from tank 241-B-101 showed a possible incursion of the HHF, bromide analysis was requested for samples S95T001553 and S95T001557 at the same time that the safety screening analyses were requested.

For six of the seven samples, concentrations of bromide were detected, indicating an incursion of HHF. For five of the samples (S95T001542, S95T001546, S95T001549, S95T001553, and S95T001557), the results reported in the attached summary tables are less than the detection limits. It should be noted, however, that the detection limits obtained are very high. The high detection limits for this analysis are due to very high concentrations of nitrate and nitrite in the tank 241-B-101 samples. These high concentrations forced the analysis to be run at high dilution factors, and as such, the bromide results were below the lower bound of the calibration curve for the instrument. Although these results must be reported as less than detection limit values, it is possible to quantify the bromide results. Table 6 gives estimates for the bromide concentrations. Since these values are being extrapolated and are below the lower bound of the calibration curve, the accuracy of these data cannot be guaranteed. However, these results do give an indication that the samples were contaminated with HHF. It should also be noted that the lithium results corresponding to the subsegments for samples S95T001553 and S95T001557 indicate no HHF contamination occurred during sampling operations; however, it is suggested that the lithium is precipitating out of solution due to the high nitrate and nitrite salt concentrations in the samples, giving a biased low result.

Table 6: Estimated Bromide Concentrations.

Sample Number	Concentration ($\mu\text{g/g Br}$)	
	Sample	Duplicate
S95T001542	1460	1480
S95T001546	1100	1120
S95T001549	1220	1100
S95T001553	nd	nd
S95T001557	904	815

nd = not detectable

Project Coordinator: Ruth Schreiber

References:

- [1] R. D. Schreiber, "Tank 241-B-101 Tank Characterization Plan," WHC-SD-WM-TP-350, Rev. 0, Westinghouse Hanford Company, Richland, Washington.
- [2] R. D. Schreiber, "45-Day Safety Screen Results for Tank 241-B-101, Push Mode, Cores 90 and 91", WHC-SD-WM-DP-139, Rev. 0, Westinghouse Hanford Company, Richland, Washington.
- [3] H. Babad, J. W. Hunt, and K. S. Redus, "Tank Safety Screening Data Quality Objective," WHC-SD-WM-SP-004, Rev. 2, Westinghouse Hanford Company, Richland, Washington.

WHC-SD-WM-DP-139, REV. 1

WHC-SD-WM-DP-139, REV. 0-A

SAMPLE DATA SUMMARY

INTERIM

90-DAY SAFETY SCREEN REPORT FOR TANK
B-101

CORE NUMBER: 90
SEGMENT #: 1

SEGMENT PORTION: Facie

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S95T001220			% Water by TGA using Mettler	%	17.00	100.0	96.35	n/a	18.75	18.74	18.74	0.05	n/a	n/a	n/a
S95T001220			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+03	481.0	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001220			DSC Exotherm using Mettler	Joules/g	-1.0e+03	481.0	102.6	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001221	F		Alpha of Digested Solid	uCi/g	-1.0e+03	41.00	105.0	<3.92e-02	2.02e-01	1.24e-01	1.63e-01	47.9	99.70	8.71e-02	40.0
S95T001221	F		Lithium -ICP-Fusion	ug/g	-1.0e+03	100.0	103.1	1.50e-03	< 44.8190	<45.2160	n/a	n/a	93.63	44.80	n/a
S95T001541			% Water by Gravimetric	%	17.00	100.0	100.9	n/a	23.45	23.25	23.35	0.86	n/a	1.00e-02	n/a

U Upper Half of Segment: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S95T001214			% Water by TGA using Mettler	%	17.00	100.0	101.6	n/a	33.07	33.09	33.08	0.06	n/a	n/a	n/a
S95T001214			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+03	481.0	n/a	n/a	289.0	261.0	275.0	10.2	n/a	n/a	n/a
S95T001214			DSC Exotherm using Mettler	Joules/g	-1.0e+03	481.0	107.9	n/a	193.1	174.5	183.8	10.1	n/a	n/a	n/a
S95T001215	F		Alpha of Digested Solid	uCi/g	-1.0e+03	41.00	99.64	<3.97e-01	4.350	4.790	4.570	9.63	111.4	8.83e-01	20.3
S95T001215	F		Lithium -ICP-Fusion	ug/g	-1.0e+03	100.0	100.9	1.61e-02	< 45.4200	<46.2800	n/a	n/a	90.53	45.40	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S95T001217			% Water by TGA using Mettler	%	17.00	100.0	101.6	n/a	41.51	42.49	42.00	2.33	n/a	n/a	n/a
S95T001217 1			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+03	481.0	n/a	n/a	322.0	314.0	318.0	2.52	n/a	n/a	n/a
S95T001217			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+03	481.0	n/a	n/a	364.0	270.0	317.0	29.7	n/a	n/a	n/a
S95T001217 1			DSC Exotherm using Mettler	Joules/g	-1.0e+03	481.0	109.0	n/a	186.7	182.3	184.5	2.38	n/a	n/a	n/a
S95T001217			DSC Exotherm using Mettler	Joules/g	-1.0e+03	481.0	107.9	n/a	211.0	156.6	183.8	29.6	n/a	n/a	n/a
S95T001218	F		Alpha of Digested Solid	uCi/g	-1.0e+03	41.00	99.64	<3.97e-01	1.950	1.830	1.890	6.35	109.8	9.13e-01	39.4
S95T001218	F		Lithium -ICP-Fusion	ug/g	-1.0e+03	100.0	100.9	1.61e-02	< 46.9800	<46.6600	n/a	n/a	90.73	47.00	n/a

=> Limit violated
=> Selected Limit

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WHC-SD-WM-DP-139, REV. L
WHC-SD-WM-DP-139, REV. DH

INTERIM

90-DAY SAFETY SCREEN REPORT FOR TANK
B-101CORE NUMBER: 90
SEGMENT #: 2

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S95T001229	*		% Water by TGA using Mettler	%	17.00	100.0	103.6	n/a	16.42	14.69	15.55	11.1	n/a	n/a	n/a
S95T001229			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+03	481.0	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001229			DSC Exotherm using Mettler	Joules/g	-1.0e+03	481.0	103.3	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001230	F		Alpha of Digested Solid	uCi/g	-1.0e+03	41.00	102.5	<6.26e-02	2.49e-01	2.28e-01	2.38e-01	8.81	104.3	8.39e-02	29.3
S95T001230	F		Lithium -ICP-Fusion	ug/g	-1.0e+03	100.0	96.47	2.28e-02	79.25	70.87	75.06	11.2	96.29	48.30	n/a
S95T001543			% Water by Gravimetric	%	17.00	100.0	100.9	n/a	40.78	41.26	41.02	1.17	n/a	1.00e-02	n/a
S95T001544	W		Bromide by Ion Chromatograph	ug/g	-1.0e+03	1.2e+03	104.0	<6.32e-01	1.50e+03	1.51e+03	1.50e+03	0.66	93.90	1.28e+03	n/a
S95T001544	W		Chloride by IC - Dionex 4000i	ug/g	None	None	101.9	<8.30e-02	323.0	376.0	349.5	15.2	107.1	168.0	n/a
S95T001544	W		Fluoride by IC - Dionex 4000i	ug/g	None	None	109.0	<6.20e-02	141.0	144.0	142.5	2.11	96.40	125.0	n/a
S95T001544	W		Nitrite by IC - Dionex 4000i	ug/g	None	None	106.0	<5.47e-01	5.88e+04	6.92e+04	6.40e+04	16.2	130.4	5.31e+03	n/a
S95T001544	W		Nitrate by IC - Dionex 4000i	ug/g	None	None	102.8	<6.99e-01	1.92e+05	1.95e+05	1.94e+05	1.55	102.1	6.79e+03	n/a
S95T001544	W		Oxalate by IC - Dionex 4000i	ug/g	None	None	97.42	<4.96e-01	<1.00e3	<1.00e3	n/a	n/a	103.2	1.00e+03	n/a
S95T001544	W		Phosphate by IC - Dionex 4000i	ug/g	None	None	104.9	<5.96e-01	3.59e+03	3.93e+03	3.76e+03	9.04	107.3	1.20e+03	n/a
S95T001544	W		Sulfate by IC - Dionex 4000i	ug/g	None	None	104.3	<6.78e-01	1.69e+04	1.50e+04	1.60e+04	11.9	90.30	1.37e+03	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S95T001551			% Water by TGA on Perkin Elmer	%	17.00	100.0	101.4	n/a	18.75	20.97	19.86	11.2	n/a	n/a	n/a
S95T001551			DSC Exotherm on Perkin Elmer	Joules/g	-1.0e+03	401.0	96.45	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S95T001551			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+03	481.0	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S95T001552	F		Alpha of Digested Solid	uCi/g	-1.0e+03	41.00	106.4	<5.22e-03	2.11e-02	2.99e-02	2.55e-02	34.5	93.60	1.23e-02	57.5
S95T001552	F		Lithium -ICP-Fusion	ug/g	-1.0e+03	100.0	104.2	-6.00e-04	<47.0102	<47.1876	n/a	n/a	94.64	47.00	n/a
S95T001553	W		Bromide by Ion Chromatograph	ug/g	-1.0e+03	1.2e+03	101.4	<6.32e-01	<3.54e3	<3.54e3	n/a	n/a	99.10	3.54e+03	n/a
S95T001553	W		Chloride by IC - Dionex 4000i	ug/g	None	None	97.89	<8.30e-02	2.07e+03	<4.65e2	n/a	n/a	79.50	465.0	n/a
S95T001553	W		Fluoride by IC - Dionex 4000i	ug/g	None	None	107.3	<6.20e-02	<3.48e2	<3.48e2	n/a	n/a	105.7	348.0	n/a
S95T001553	W		Nitrite by IC - Dionex 4000i	ug/g	None	None	101.5	<5.47e-01	1.63e+04	2.32e+04	1.98e+04	34.9	137.7	3.07e+03	n/a
S95T001553	W		Nitrate by IC - Dionex 4000i	ug/g	None	None	101.8	<6.99e-01	1.68e+05	2.57e+05	2.12e+05	41.9	347.7	3.92e+03	n/a
S95T001553	W		Oxalate by IC - Dionex 4000i	ug/g	None	None	103.9	<4.96e-01	<2.78e3	<2.78e3	n/a	n/a	104.3	2.78e+03	n/a
S95T001553	W		Phosphate by IC - Dionex 4000i	ug/g	None	None	106.2	<5.96e-01	<3.34e3	<3.34e3	n/a	n/a	111.1	3.34e+03	n/a
S95T001553	W		Sulfate by IC - Dionex 4000i	ug/g	None	None	102.9	<6.78e-01	1.90e+05	2.92e+05	2.41e+05	42.3	355.9	3.80e+03	n/a

=> Limit violated
=> Selected Limit

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WHC-SD-WM-DP-139, REV. 1
WHC-SD-WM-DP-139, REV. 01

INTERIM

90-DAY SAFETY SCREEN REPORT FOR TANK
B-101

CORE NUMBER: 90

SEGMENT #: 2

SEGMENT PORTION: Drainable Liquid

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S95T001223			% Water by TGA using Mettler	%	17.00	100.0	101.0	n/a	49.63	49.41	49.52	0.44	n/a	n/a	n/a
S95T001223			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+03	481.0	n/a	n/a	52.00	52.00	52.00	0.00	n/a	n/a	n/a
S95T001223			DSC Exotherm using Mettler	Joules/g	-1.0e+03	481.0	96.31	n/a	26.30	26.30	26.30	0.00	n/a	n/a	n/a
S95T001224	D		Lithium-ICP-Acid Dil.	ug/mL	-1.0e+03	100.0	97.67	1.30e-03	147.0	144.7	145.8	1.65	93.00	1.00e-02	n/a
S95T001542			Sulfate by IC - Dionex 4000i	ug/mL	None	None	101.9	<6.78e-01	2.23e+04	2.32e+04	2.28e+04	3.96	114.1	1.44e+03	n/a
S95T001542			Phosphate by IC - Dionex 4000i	ug/mL	None	None	101.6	<5.96e-01	7.23e+03	7.53e+03	7.38e+03	4.07	106.8	1.26e+03	n/a
S95T001542			Oxalate by IC - Dionex 4000i	ug/mL	None	None	97.64	<4.96e-01	1.05e3	<1.05e3	n/a	n/a	101.1	1.05e+03	n/a
S95T001542			Nitrate by IC - Dionex 4000i	ug/mL	None	None	102.7	<6.99e-01	3.72e+05	3.00e+05	3.76e+05	2.13	102.5	7.13e+03	n/a
S95T001542			Nitrite by IC - Dionex 4000i	ug/mL	None	None	108.0	<5.47e-01	1.30e+05	1.33e+05	1.32e+05	2.28	112.0	5.58e+03	n/a
S95T001542			Fluoride by IC - Dionex 4000i	ug/mL	None	None	108.8	<6.20e-02	238.0	238.0	238.0	0.00	91.10	132.0	n/a
S95T001542			Chloride by IC - Dionex 4000i	ug/mL	None	None	100.9	<8.30e-02	668.0	704.0	686.0	5.25	105.2	176.0	n/a
S95T001542			Bromide by Ion Chromatograph	ug/mL	-1.0e+03	1.2e+03	102.3	<6.32e-01	<1.34e3	<1.34e3	n/a	n/a	86.20	1.34e+03	n/a

=> Limit violated
=> Selected Limit

INTERIM

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WHC-SD-WM-DP-139, REV 1
WHC-SD-WM-DP-134, REV 1A

INTERIM

90-DAY SAFETY SCREEN REPORT FOR TANK
B-101CORE NUMBER: 91
SEGMENT #: 1

SEGMENT PORTION: U Upper Half of Segment

Sample#	R A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
				Lower	Upper									
S95T001238		% Water by IGA using Mettler	%	7.00	100.0	103.8	n/a	33.48	34.72	34.10	3.64	n/a	n/a	n/a
S95T001238		DSC Exotherm DRY Calculated	Joules/g DRY	-1.0e+03	48.00	n/a	n/a	248.0	251.0	249.5	1.20	n/a	n/a	n/a
S95T001238		DSC Exotherm using Mettler	Joules/g	-1.0e+03	48.00	102.3	n/a	163.6	165.4	164.5	1.09	n/a	n/a	n/a
S95T001336	F	Alpha of Digested Solid	uCi/g	-1.0e+03	71.00	109.0	<3.23e-01	3.660	4.640	4.150	23.6	106.9	7.55e-01	23.9
S95T001336	F	Lithium -ICP-Fusion	ug/g	-1.0e+03	100.00	99.68	4.60e-03	< 55.4324	<55.0661	n/a	n/a	92.14	55.40	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
				Lower	Upper									
S95T001235		% Water by IGA using Mettler	%	7.00	100.0	103.6	n/a	41.68	44.13	42.91	5.71	n/a	n/a	n/a
S95T001235		DSC Exotherm DRY Calculated	Joules/g DRY	-1.0e+03	48.00	n/a	n/a	42.00	43.00	42.50	2.35	n/a	n/a	n/a
S95T001235		DSC Exotherm using Mettler	Joules/g	-1.0e+03	48.00	103.3	n/a	24.00	24.80	24.40	3.28	n/a	n/a	n/a
S95T001236	F	Alpha of Digested Solid	uCi/g	-1.0e+03	48.00	102.5	<6.26e-02	33.80	14.20	14.00	2.86	103.8	8.83e-01	10.7
S95T001236	F	Lithium -ICP-Fusion	ug/g	-1.0e+03	100.00	96.47	2.28e-02	84.70	74.83	79.77	12.4	94.90	50.80	n/a
S95T001546	W	Bromide by Ion Chromatograph	ug/g	-1.0e+03	3.2e+03	104.0	<6.32e-01	< 2.28e3	<2.28e3	n/a	n/a	100.8	2.28e+03	n/a
S95T001546	W	Chloride by IC - Dionex 4000i	ug/g	None	None	101.9	<8.30e-02	< 2.99e2	<2.99e2	n/a	n/a	103.3	299.0	n/a
S95T001546	W	Fluoride by IC - Dionex 4000i	ug/g	None	None	109.0	<6.20e-02	364.0	366.0	365.0	0.55	102.7	223.0	n/a
S95T001546	W	Nitrite by IC - Dionex 4000i	ug/g	None	None	106.0	<5.47e-01	3.72e+04	5.25e+04	4.48e+04	34.1	120.2	1.97e+03	n/a
S95T001546	W	Nitrate by IC - Dionex 4000i	ug/g	None	None	102.8	<6.99e-01	1.38e+05	1.40e+05	1.39e+05	1.44	99.60	2.52e+03	n/a
S95T001546	W	Oxalate by IC - Dionex 4000i	ug/g	None	None	97.42	<6.96e-01	< 1.79e3	<1.79e3	n/a	n/a	99.00	1.79e+03	n/a
S95T001546	W	Phosphate by IC - Dionex 4000i	ug/g	None	None	104.9	<5.96e-01	6.72e+03	6.98e+03	6.85e+03	3.80	103.7	2.15e+03	n/a
S95T001546	W	Sulfate by IC - Dionex 4000i	ug/g	None	None	104.3	<6.70e-01	1.07e+04	1.05e+04	1.06e+04	1.89	103.0	2.44e+03	n/a

=> Limit violated
=> Selected Limit

WHC-SD-WM-DP-139, REV. 1

WHC-SD-WM-DP-139, REV. DA

90-DAY SAFETY SCREEN REPORT FOR TANK

B-101

INTERIM

CORE NUMBER: 91
SEGMENT #: 2

SEGMENT PORTION: Facie

Sample#	R#	Unit	Lower	Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S951001555		% Water by TGA on Perkin Elmer	7.00	100.0	101.0	n/a	18.48	17.56	18.02	5.11	n/a	n/a	n/a
S951001555		DSC Exotherm on Perkin Elmer	483.0	95.25	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S951001555		DSC Exotherm Dry Calculated	483.0	-1.0e+03	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S951001556		Alpha of Digested Solid	41.00	-1.0e+03	106.4	n/a	5.22e-03	1.91e-01	1.76e-01	8.17	n/a	n/a	13.1
S951001556		Lithium -ICP-Fusion	100.0	-1.0e+03	104.2	n/a	-6.00e-04	< 52.4659	< 52.3670	n/a	n/a	95.92	52.50
S951001557		Bromide by Ion Chromatograph	28.03	-1.0e+03	100.9	n/a	< 6.32e-01	< 2.08e3	< 2.08e3	n/a	n/a	104.3	2.08e+03
S951001557		Chloride by IC - Dionex 4000i	None	None	99.71	n/a	< 8.30e-02	< 2.73e2	< 2.73e2	n/a	n/a	114.6	273.0
S951001557		Fluoride by IC - Dionex 4000i	None	None	109.1	n/a	< 6.20e-02	< 2.04e2	< 2.04e2	n/a	n/a	116.5	204.0
S951001557		Nitrite by IC - Dionex 4000i	None	None	102.1	n/a	< 5.47e-01	< 2.31e+04	< 1.85e+04	22.1	n/a	108.8	2.86e+03
S951001557		Nitrate by IC - Dionex 4000i	None	None	100.4	n/a	< 6.99e-01	< 2.82e+05	< 3.13e+05	10.4	n/a	96.10	7.25e+03
S951001557		Oxalate by IC - Dionex 4000i	None	None	95.22	n/a	< 4.96e-01	< 1.63e3	< 1.63e3	n/a	n/a	97.70	1.63e+03
S951001557		Phosphate by IC - Dionex 4000i	None	None	103.0	n/a	< 5.96e-01	< 3.12e3	< 3.12e3	n/a	n/a	103.4	3.12e+03
S951001557		Sulfate by IC - Dionex 4000i	None	None	100.9	n/a	< 6.78e-01	< 1.95e+05	< 1.95e+05	0.30	n/a	104.3	7.03e+03

U Upper Half of Segment: U Upper Half of Segment

Sample#	R#	Unit	Lower	Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S951001244		% Water by TGA using Mettler	100.0	100.0	101.0	n/a	38.58	48.11	43.34	22.0	n/a	n/a	n/a
S951001244		DSC Exotherm Dry Calculated	481.0	-1.0e+03	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a
S951001244		DSC Exotherm using Mettler	481.0	-1.0e+03	112.1	n/a	2.900	2.700	2.800	7.14	n/a	n/a	n/a
S951001245		Alpha of Digested Solid	41.00	-1.0e+03	107.9	n/a	< 4.50e-04	< 7.00e-4	< 6.39e-4	n/a	n/a	61.60	7.71e-04
S951001245		Lithium -ICP-Fusion	100.0	-1.0e+03	103.1	n/a	1.50e-03	104.5	110.4	107.4	5.48	84.55	44.80
S951001245		Bromide by Ion Chromatograph	28.03	-1.0e+03	101.4	n/a	< 2.19e3	< 2.19e3	n/a	n/a	n/a	102.0	2.19e+03
S951001246		Chloride by IC - Dionex 4000i	None	None	100.5	n/a	< 8.30e-02	305.0	299.0	302.0	1.99	102.7	287.0
S951001246		Fluoride by IC - Dionex 4000i	None	None	107.6	n/a	< 6.20e-02	< 2.15e2	< 2.15e2	n/a	n/a	116.2	215.0
S951001246		Nitrite by IC - Dionex 4000i	None	None	101.5	n/a	< 5.47e-01	7.75e+04	6.73e+04	7.24e+04	14.1	45.30	1.89e+03
S951001246		Nitrate by IC - Dionex 4000i	None	None	101.8	n/a	< 6.99e-01	1.74e+05	1.54e+05	1.64e+05	12.2	-1.33e+01	2.42e+03
S951001246		Oxalate by IC - Dionex 4000i	None	None	95.20	n/a	< 4.96e-01	< 1.72e3	< 1.72e3	n/a	n/a	98.50	1.72e+03
S951001246		Phosphate by IC - Dionex 4000i	None	None	106.2	n/a	< 5.96e-01	1.50e+04	9.74e+03	1.24e+04	42.5	97.40	2.06e+03
S951001246		Sulfate by IC - Dionex 4000i	None	None	101.9	n/a	< 6.78e-01	1.20e+04	1.17e+04	1.18e+04	2.53	96.20	2.35e+03

L Lower Half of Segment: L Lower Half of Segment

Sample#	R#	Unit	Lower	Upper	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S951001241		% Water by TGA using Mettler	100.0	100.0	96.18	n/a	29.27	9.200	19.23	104	n/a	n/a	n/a
S951001241		% Water by TGA using Mettler	17.00	100.0	95.31	n/a	26.79	25.55	26.17	4.74	n/a	n/a	n/a
S951001241		DSC Exotherm Dry Calculated	481.0	-1.0e+03	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a
S951001241		DSC Exotherm using Mettler	481.0	-1.0e+03	103.3	n/a	0.00e+00	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a
S951001337		Alpha of Digested Solid	41.00	-1.0e+03	109.0	n/a	< 3.23e-01	< 5.27e-1	3.63e-01	n/a	n/a	108.1	5.86e-01
S951001337		Lithium -ICP-Fusion	100.0	-1.0e+03	99.68	n/a	< 4.60e-03	< 43.0441	< 45.7875	n/a	n/a	93.00	43.00
S951001547		% Water by Gravimetric	17.00	-1.0e+03	100.0	n/a	28.44	28.03	28.23	1.45	n/a	1.00e-02	n/a

> Limit Violated
> Selected Limit

WHC-SD-WM-DP-139, REV. 1

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INTERIM

90-DAY SAFETY SCREEN REPORT FOR TANK
B-101

CORE NUMBER: 91
SEGMENT #: 2

SEGMENT PORTION: Drainable Liquid

Sample#	R A#	Analyte	Unit	Action Limits	Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001247		% Water by IGA on Perkin Elmer	%	Lower: 100.0 Upper: 100.0	97.02	n/a	50.07	50.86	50.47	1.57	n/a	n/a	n/a
S95T001247		DSC Exotherm Dry Calculated	Joules/g	-1.0e+03	n/a	n/a	6.000	6.000	6.000	0.00	n/a	n/a	n/a
S95T001247		DSC Exotherm using Mettler	Joules/g	-1.0e+03	101.2	n/a	3.100	3.200	3.150	3.17	n/a	n/a	n/a
S95T001248		Lithium-ICP-Acid Dil.	ug/mL	-1.0e+03	97.67	1.30e-03	135.0	135.4	135.2	0.22	93.00	1.00e-02	n/a
S95T001550		Sulfate by IC - Dionex 4000i	ug/mL	None	101.9	<6.78e-01	2.12e+04	2.12e+04	2.12e+04	0.00	117.6	1.44e+03	n/a
S95T001550		Phosphate by IC - Dionex 4000i	ug/mL	None	101.6	<5.96e-01	4.73e+03	4.88e+03	4.80e+03	3.12	106.0	1.26e+03	n/a
S95T001550		Nitrate by IC - Dionex 4000i	ug/mL	None	97.64	<4.96e-01	1.05e3	<1.05e3	n/a	n/a	100.0	1.05e+03	n/a
S95T001550		Nitrite by IC - Dionex 4000i	ug/mL	None	102.7	<6.99e-01	3.37e+05	3.36e+05	3.36e+05	0.30	99.20	7.13e+03	n/a
S95T001550		Fluoride by IC - Dionex 4000i	ug/mL	None	108.0	<5.47e-01	1.34e+05	1.32e+05	1.32e+05	0.76	103.2	5.58e+03	n/a
S95T001550		Chloride by IC - Dionex 4000i	ug/mL	None	108.8	<6.20e-02	261.0	245.0	253.0	6.32	66.50	132.0	n/a
S95T001550		Bromide by Ion Chromatograph	ug/mL	None	100.9	<0.30e-02	580.0	602.0	591.0	3.72	106.4	176.0	n/a
S95T001550				-1.0e+03	102.3	<6.32e-01	1.74e+03	1.77e+03	1.76e+03	1.71	79.60	1.34e+03	n/a

=> Limit violated
=> Selected Limit

WHC-SD-WM-DP-139, REV. 1

WHC-SD-WM-DP-139, REV. CA

INTERIM

90-DAY SAFETY SCREEN REPORT FOR TANK
B-101

CORE NUMBER: 91
SEGMENT #: Field Blank

SEGMENT PORTION: n/a

Sample#	R/A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count	Err%
S95T001232		% Water by TGA using Mettler	%	Lower	Upper	101.0	n/a	99.76	99.89	99.83	0.13	n/a	n/a	n/a	n/a
S95T001232		DSC Exotherm DRY Calculated	Joules/g Dry	-1.0e+03	431.0	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a	n/a
S95T001232		DSC Exotherm using Mettler	Joules/g	-1.0e+03	431.0	96.31	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a	n/a
S95T001233		Lithium-ICP-Acid Dil.	ug/mL	-1.0e+03	1102.0	97.67	1.30e-03	2.48e-01	2.46e-01	2.47e-01	0.73	107.7	1.00e-02	n/a	n/a

=> Limit violated
=> Selected Limit

WHC-SD-WM-DP-139, REV. 1

WHC-SD-WM-DP-139, REV. 0A

WHC-SD-WM-DP-139; REV. 1

WHC-SD-WM-DP-139, REV. 0-A

INORGANIC ANALYSES

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LABCORE Data Entry Template for Worklist#

2117

Analyst: PJMP PJMPGM ⁷⁻¹²⁻⁹⁵ _{bdv} Instrument: DSC0 3 Book # 12N14A
Method: LA-514-114 Rev/Mod C-0

Worklist Comment: Please run B-101 DSCs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-03	SOLID	<u>28.45</u>	<u>27.44</u>	<u>N/A</u>	Joules/g
95000091	B-101	2 SAMPLE	S95T001551	0	DSC-03	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g
95000091	B-101	3 DUP	S95T001551	0	DSC-03	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g
		4 STD			DSC-03	SOLID	<u>28.45</u>	<u>27.10</u>	<u>N/A</u>	Joules/g
95000093	B-101	5 SAMPLE	S95T001555	0	DSC-03	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g
95000093	B-101	6 DUP	S95T001555	0	DSC-03	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g

Final page for worklist # 2117

See attached for signatures
Analyst Signature

Date

9-12-95

Analyst Signature

Date

9-13-95

Verified 9/13/95. J. M. Lye

S95T001551 produced two endothermic regions one at 140.0°C with a delta H of 462.1 J/g and second at 286.6°C with a delta H of 56.1 J/g.

Data Entry Comments:

S95T001555 produced three endothermic regions one at 140.5°C with a delta H of 266.9 J/g, second at 319.5°C with a delta H of 93.64 J/g, and third at 461.8°C with a delta H of 590.0 J/g. The duplicate did not exhibit the third endotherm.

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#

2117

Analyst: R. McCann

Instrument: DSC0 _____

Book # 12N14A

Method: LA-514-¹¹⁴~~113~~ Rev/Mod C-0

Rm 9/6/95

Worklist Comment: Please run B-101 DSCs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID			N/A	Joules/g
95000091	B-101	2 SAMPLE	S95T001551	0	DSC-01	SOLID	N/A			Joules/g
95000091	B-101	3 DUP	S95T001551	0	DSC-01	SOLID			N/A	Joules/g
95000093	B-101	4 SAMPLE	S95T001555	0	DSC-01	SOLID	N/A			Joules/g
95000093	B-101	5 DUP	S95T001555	0	DSC-01	SOLID			N/A	Joules/g

Final page for worklist #

2117

R. McCann 9/6/95
Analyst Signature Date

Analyst Signature Date

Data Entry Comments:

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

Curve 1: DSC
 File Info: IN0090401 Mon Sep 4 17:03:13 1995
 Sample Weight: 6.500 mg
 12N34A Indium at 10C/min

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
 COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 387 TO 392

N2, EXOTHERM DOWN
 TEMPS: 150.0 °C TRIM: 0.0 min RATE: 10.0 °C/min
 PJ MCCOWN
 PERKIN ELMER
 222-S Lab
 Mon Sep 4 17:05:42 1995

Curve 1: DSC

File info: SAM090401 Mon Sep 4 21:08:25 1995

Sample Weight: 43.720 mg

S95T001551

WHC-SD-WM-DP-139, REV. 1

exotherm down, N2 purge gas
TEMP1: 35.0 °C TIME1: 0.0 min RATE1: 10.0 °C/min
TEMP2: 500.0 °C

PJ MCCOWN
PERKIN ELMER
222-S Lab
Tue Sep 12 13:34:49 1995

Curve 1: DSC
 File info: qsav2 Mon Sep 4 22:12:28 1995
 Sample Weight: 27.870 mg
 S95T001553 DUP

Curve 1: DSC

File info: IND090602 Wed Sep 6 16:40:14 1995

Sample Weight: 6.500 mg

12N14A Indium at 10C/min

WHC-SD-WM-DP-139, REV. 1

N2, EXOTHERM DOWN
TEMP: 150.0 °C TIME: 0.0 min RATE: 10.0 °C/min
TEMP: 170.0 °C

PJ MCCOWN
PERKIN ELMER
222-S Lab
Wed Sep 6 16:43:15 1995

Curve 1: DSC
 File info: SAM090601 Wed Sep 6 18:29:25 1995
 Sample Weight: 51.930 mg
 S95T001555

exotherm down, N2 purge gas
 TEMPERATURE 50.0 °C
 RATE 10.0 °C/min
 PJ MCCOWN
 PERKIN ELMER
 222-S Lab
 Wed Sep 6 18:34:13 1995

Curve 1: DSC
 File info: SAM090603 Wed Sep 6 12:45:53 1995
 Sample Weight: 38.040 mg
 S95T001555 DUP

PJ MCCOWN
 PERKIN ELMER
 222-S Lab
 Wed Sep 6 21:29:01 1995

LABCORE Data Entry Template for Worklist#

2162

Analyst: ~~smf~~ PJM Instrument: TGA01/ 3 Book # 65N8A
9-12-95 ^{bdv}

Method: LA-514-114 Rev/Mod C-0

WHC-SD-WM-DP-139, REV 0A

Worklist Comment: Please run B-101 BY-108 TGAs under N2. bdv
aka 9/15/95

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-03	SOLID	<u>59.74</u>	<u>60.56</u>	<u>N/A</u>	%
95000091	B-101	2 SAMPLE	S95T001551	0	TGA-03	SOLID	<u>N/A</u>	<u>18.75</u>		%
95000091	B-101	3 DUP	S95T001551	0	TGA-03	SOLID	<u>18.75</u>	<u>20.97</u>	<u>N/A</u>	%
		4 STD			TGA-03	SOLID	<u>59.74</u>	<u>60.36</u>	<u>N/A</u>	%
95000093	B-101	5 SAMPLE	S95T001555	0	TGA-03	SOLID	<u>N/A</u>	<u>18.48</u>		%
95000093	B-101	6 DUP	S95T001555	0	TGA-03	SOLID	<u>18.48</u>	<u>17.56</u>	<u>N/A</u>	%

Final page for worklist #

2162

Analyst Signature

Date

9-12-95
^{bdv}

Analyst Signature

Date

9-13-95

See attached for signatures
Verified 9/13/95. J.M. Faye

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#

2162

Analyst: RJ McLean Instrument: TGA0 Book # 65N8A

Method: LA-560-112 Rev/Mod C-0 WHC-SD-WM-DP-139, REV 011
514-114
Rm 9/6/95 B-101

Worklist Comment: Please run BY-108 TGAs under N2. bdv
Rm 9/25/95

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID			N/A	%
95000091	B-101	2 SAMPLE	S95T001551	0	TGA-01	SOLID	N/A			%
95000091	B-101	3 DUP	S95T001551	0	TGA-01	SOLID			N/A	%
95000093	B-101	4 SAMPLE	S95T001555	0	TGA-01	SOLID	N/A			%
95000093	B-101	5 DUP	S95T001555	0	TGA-01	SOLID			N/A	%

Final page for worklist #

2162

RJ McLean 9/6/95
Analyst Signature Date

Analyst Signature Date

Data Entry Comments:

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

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Curve 1: T5A
File info: TERO90401 Mon Sep 4 19: 45: 14 1995
Sample Weight: 16.797 mg
65N8-A/Torliq

PJ MCCOY
PERKIN-ELMER
7 Series Thermal Analysis System
Mon Sep 4 19: 50: 03 1995

Temperature (°C)

10.0 C/min

0.0 min RATE

TIME

12.10C/min

35.0 C

TEMP

Curve 1: TGA

File info: SAM090401 Mon Sep 4 21:06:16 1995

Sample Weight: 28.014 mg

S957001551

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WHC-SD-WM-DP-139, REV. 1

WHC-SD-WM-DP-139, REV. 0A

Weight (%)

396

N2 10C/MIN

TEMP: 28.0 C
TIME: 000.0 S

0.0 min RATE: 10.0 C/min

Temperature (°C)

PJ MCCOWN
PERKIN-ELMER
7 Series Thermal Analysis System
Mon Sep 4 21:07:49 1995

BEST AVAILABLE COPY

Mon Sep 4 22:52:41 1995

BEST AVAILABLE COPY

Curve 1: TGA
 File info: TER090602 Wed Sep 6 17:02:43 1995
 Sample Weight: 14.276 mg
 65N8-A Ter11q

PJ MCCOWN
 PERKIN-ELMER
 7 Series Thermal Analysis System
 Wed Sep 6 17:04:23 1995

N2 10C/MIN
 TEMP: 30.0 °C
 TIME: 0.0 min
 RATE: 10.0 °C/min

Curve 1: TGA

File info: SAM090601 Wed Sep 6 18:29:02 1995

Sample Weight: 30.699 mg

S95T001555

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WHC-SD-WM-DP-139, REV. 1

WHC-SD-WM-DP-139, REV. 0A

PJ MCCOWN
PERKIN-ELMER
7 Series Thermal Analysis System
Wed Sep 6 18:40:14 1995

N2 10C/MIN
TIME: 0.0 min RATE: 10.0 C/min

TEMP: 30.0 C
TEMP: 500.0 C

Curve 1: TGA

File info: SAM090602 Wed Sep 6 19:44:56 1995

Sample Weight: 32.295 mg

S95T001555 DUP

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WHC-SD-WM-DP-139, REV. 1

WHC-SD-WM-DP-139, REV. 09

N2 10C/MIN

TEMP1: 30.0 °C
TEMP2: 500.0 °C

TIME1: 0.0 min RATE1: 10.0 °C/min

Temperature (°C)

PJ MCCOWN

PERKIN-ELMER

7 Series Thermal Analysis System

Wed Sep 6 21:37:08 1995

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Document #: SD-WM-DP-139

Title/Desc:

FINAL REPORT FOR TANK 241B101 PUSH MODE CORES 90 &
91 [SEC 5 OF 5]

Pages: 133

This document was too large to scan as a whole document, therefore it required breaking into smaller sections.

DOCUMENT NUMBER: SD-WM-DP-139

SECTION 5 OF 5

TITLE: FINAL REPORT FOR TANK 241-B-101 PUSH MODE
CORES 90 + 91

DATE: 11/06/95

ORIGINATOR: SCHREIBER RD

CO: WHC

RECIPIENT: _____

CO: _____

REFERENCES: ECN-625769

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Westinghouse
Hanford Company

WHC-SD-WM-DP- 139, REV. 1

P.O. Box 1970 Richland, WA 99352

PART III

WHC-SD-WM-DP-139, REV. 0

ANALYTICAL SERVICES

**45-DAY SAFETY SCREEN RESULTS FOR TANK 241-B-101,
PUSH-MODE CORES 90 AND 91**

DATE PRINTED:

AUGUST 1, 1995

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WHC-SD-WM-DP-139, REV. 1

NARRATIVE

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45-DAY SAFETY SCREEN RESULTS FOR TANK-B-101, PUSH MODE, CORES 90 AND 91

Summary

Based on the safety screening decision rules (Ref. 2), the data from this sampling event indicate that tank B-101 can be classified as a "safe" tank. The hydrostatic head fluid (HHF) used during the sampling event may have biased the percent water results. However, the energetics results for these samples are at least an order of magnitude below the criterion, and therefore, these results do not constitute unsafe conditions.

Push-mode core samples were taken from risers 2 and 7 of tank B-101 between June 19 and June 23, 1995. Each core sample consisted of two segments. They were received at the 222-S laboratory between June 21 and June 26, 1995. These samples underwent safety screening analyses (differential scanning calorimetry [DSC], thermogravimetric analysis [TGA], and alpha total) per the Tank Characterization Plan (TCP) (Ref. 1). The test results indicate, at a 90% confidence level, that two of the samples submitted for TGA analysis were below the minimum criterion of 17% water. However, notifications were not necessary as neither of these samples exceeded the energetics criterion of 481 J/g. None of the samples submitted for energetics nor alpha total analyses exceeded the respective limits.

In addition to the safety screening analyses, the tank B-101 samples were analyzed for lithium in Inductively Coupled Plasma spectroscopy (ICP) to determine the extent of hydrostatic head fluid (HHF) contamination during the sampling event. Lithium bromide is used as a tracer in the HHF. Lithium intrusion was noted in five of the ten tank samples. However, the DSC results for these samples were an order of magnitude below the safety screening criterion or 481 J/g, therefore the moisture results for these samples are not necessary to demonstrate that no safety issue exists. No HHF blank was received from the field for analysis.

The data summary tables include the analytical results associated with these core samples. In addition, the results of the statistical analyses (calculation of the 90% confidence limits) are given in Tables 1, 2, and 3.

Sample Receipt and Extrusion

Core 90, Segment 1, Sample 95-099 (Riser 2)

Sample 95-099 was collected with the use of HHF from riser 2 of tank B-101 on June 19, 1995, and received at the 222-S laboratory on June 21, 1995. Extrusion took place on June 23, 1995. The total amount of solid material recovered was 388.3 grams, with no drainable liquid. There was less than 5 ml of liquid in the liner; this liquid was not retained. Sixteen inches of sludge were extruded. The sample was smooth, damp and retained its shape. The top 12.5 inches of sample was dark brown and was subsampled into half-segments. The upper half-segment solids measured 150.4 g, and the lower half-segment solids measured 168.1 g. The bottom 3.5 inches (69.8 g) of the sample was of a lighter brown color and was subsampled as a separate facie. Subsamples from this portion of the sample are noted in the summary tables as "facie" rather than half-segments. All analyses and archiving requirements

were performed in accordance with the tank characterization plan (TCP) for these solid subsamples.

Core 90, Segment 2, Sample 95-100 (Riser 2)

Sample 95-100 was collected with the use of HHF from riser 2 of tank B-101 on June 19, 1995, and received at the 222-S laboratory on June 21, 1995. Extrusion took place on June 23, 1995. The total amount of solid material recovered was 195 grams (approximately 8 in). Approximately 50 mL (74.2 g) of opaque, brown drainable liquid was recovered. The solid was divided into half segments. The lower half-segment (105.6 g) consisted of white crystalline flakes, while the upper half-segment (89.2 g) was a smooth, damp, light-brown sludge. Subsamples from the upper half-segment and from the decanted drainable liquid were submitted to the laboratory for analysis. At the request of the safety program, no analyses have been performed on the lower half-segment crystals due to uncertainty in laboratory homogenization capabilities (refer to Attachment 1). Once a decision has been reached on how to proceed with homogenization of the crystalline material, safety screening analyses will be initiated. The results will be included in a revision to this report. Archive samples of the upper half-segment and unfiltered drainable liquid were retained in the hot cell.

Core 91, Field Blank, Sample Field Blank (Riser 7)

The sample field blank was filled on June 23, 1995, and received at the 222-S laboratory on June 26, 1995. Extrusion took place on June 28, 1995. A total of 270.6 grams of clear, colorless liquid was recovered. There was less than 5 mL of liquid in the liner, which was not retained. Per the TCP, a subsample was submitted to the laboratory for analysis, and an archive sample was retained in the hot cell.

Core 91, Segment 1, Sample 95-101 (Riser 7)

Sample 95-101 was collected from riser 7 of tank B-101 on June 23, 1995, and received at the 222-S laboratory on June 26, 1995. Extrusion took place on June 28, 1995. The total amount of solid material recovered was 393.7 grams. No drainable liquid was recovered. There was less than 5 mLs of liquid in the liner; this liquid was not retained. The solids (about 16 inches in length) were smooth and varied in color from medium to dark brown. There was a 3-in gap in the upper segment of the sample. The bottom 4 inches of the sample was dark brown in color. This portion of the segment (99.9 g) was designated as lower half solids. The remaining 12 inches of medium brown solids (291.3 g) was designated as upper half solids. A piece of flat, hard material, approximately one-half inch long, was found in the upper half segment. This item was segregated and archived as sample number S95T001209. In accordance with the TCP, analyses have been performed and archive samples for each half-segment have been retained in the hot cell.

Core 91, Segment 2, Sample 95-102 (Riser 7)

Sample 95-102 was collected from riser 7 of tank B-101 on June 23, 1995, and received at the 222-S laboratory on June 26, 1995. Extrusion took place on June 28, 1995. The total amount of solid material recovered was 318.2 grams. Approximately 30 mL (47.1 g) of opaque, dark-brown drainable liquid was

recovered. The liner liquid (less than 5 mL) was not retained. Twelve inches of sample was extruded. The bottom 4 inches of the sample (72.9 g) appeared light brown in color and were crystalline and brittle. This material was identified as a separate facie. As with the lower half solids from core 90, segment 2, analyses for this material are on hold pending resolution of homogenization issues (see Attachment 1). The next 2 inches of sample resembled a light-brown sludge. This material (46.0 g) was subsampled as lower half solids. The remaining 6 inches appeared to be a dark brown, soft sludge. This material (152.2 g) was subsampled as upper half solids. Archive samples were retained in the hot cell for the upper and lower half-segment solids, as well as for the unfiltered liquid.

Analytical Results

THERMOGRAVIMETRIC ANALYSIS (Percent Moisture)

Analyses for percent water by TGA were performed using procedures LA-560-112, Rev. A-2, and LA-514-114, Rev. B-0. All samples were run under a nitrogen atmosphere. Notifications are typically made to the Tank Farms Operations shift manager and TWRS Safety Program personnel if the TGA results are less than 17% water. Sample and/or duplicate results for samples S95T001229 (core 90, segment 2, upper half) and S95T001241 (core 91, segment 2, lower half) were below the notification limit, but no notifications were made, as the DSC results for these samples were at least an order of magnitude below the DSC notification limit (TGA results alone do not constitute unsafe conditions).

The maximum acceptable precision per the TCP (Ref. 1) is a relative percent difference (RPD) of 10%. The TGA precision between the sample and duplicate for samples S95T001229, S95T001241, and S95T001244 exceeded the acceptance criterion, with RPD values of 11.1%, 104% and 22.0%, respectively. The sample result for S95T001229 was 16.42% water, with a duplicate result of 14.69% water. This sample will be analyzed gravimetrically to better determine the moisture content. The sample result for S95T001241 was 29.27% water, with a duplicate result of 9.2%. Since one result was above the notification limit and one was below the limit, an additional sample/duplicate pair was analyzed, with results of 26.79% and 25.55% water, respectively. The sample result for S95T001244 was 38.58% water, the duplicate 48.11%. A triplicate analysis was performed, with a result of 48.83% water. This triplicate result does not appear in the summary tables, but is included in the raw data.

Statistical analyses were performed on the TGA data per the requirements of the revised Data Quality Objective for Safety Screening (Ref. 2). This document requires comparison of sample data to the applicable limit (e.g. greater than 17% water by TGA) with a confidence level of 90%. The results for each sample submitted for TGA are presented in Table 1. The lower 90% confidence limit for samples S95T001235 and S95T001241 fall below the minimum criterion of 17% water stated in Reference 1. However, as the DSC results (presented below) for these samples are at least an order of magnitude below the criterion for energetics, the low moisture content of these samples does not constitute unsafe conditions.

Samples S95T001224, S95T001230, S95T001236, S95T001245, and S95T001248 were contaminated with lithium, indicating an incursion of water from the HHF used during sampling. These sample numbers correspond to upper half solids from segment 2 of core 90, the drainable liquid from segment 2 of core 90, the

lower half solids from segment 1 of core 91, the upper half solids from segment 2 of core 91, and the drainable liquid from segment 2 of core 91. Background information on the statistical methods used for this analysis are presented in Attachment 2.

Table 1. 90% Confidence Interval Lower Limits
for Percent Water (Units are in %).

Sample Number and Description	$\hat{\mu}$	$\hat{\sigma}_{\hat{\mu}}^2$	LL
S95T001214 C90/S1 UH	33.08	0.0001	33.05
S95T001217 C90/S1 LH	42.00	0.24	40.49
S95T001220 C90/S1 facie	18.75	0.00003	18.73
S95T001229 C90/S2 UH	15.56	0.75	12.89
S95T001223 C90/S2 DL	49.52	0.01	49.18
S95T001238 C91/S1 UH	34.10	0.38	32.19
S95T001235 C91/S1 LH	42.91	1.5	32.13
S95T001244 C91/S2 UH	45.17	10.91	38.94
S95T001241 C91/S2 LH	22.70	20.86	15.22
S95T001247 C91/S2 Dr.Liq.	50.47	0.16	49.25

C = Core Number
 S = Segment Number
 UH = Upper Half
 LH = Lower Half
 Dr.Liq. = Drainable Liquid

DIFFERENTIAL SCANNING CALORIMETRY

Differential thermal analyses were performed using procedures LA-514-113, Rev. B-1, and LA-514-114, Rev B-0, under a nitrogen purge. All results were below the safety screen notification limit of 481 joules/g (dry); therefore, no notifications were made.

Samples S95T001214 and S95T001217 exceeded the precision criterion (RPD of less than 10%), with RPD values of 10.2% and 29.7% respectively. Sample S95T001214 was not rerun. A second sample and duplicate pair was run for sample S95T001217. The results are presented in the data summary tables.

Statistical analyses were performed on the DSC data per the requirements of the revised Data Quality Objective for Safety Screening (ref. 2). This document requires comparison of the data to the applicable limit (e.g. less than 481 J/g by DSC) with a confidence level of 90%. The results for each sample submitted for DSC are presented in Table 2. The upper 90% confidence limit for all samples was below the safety screening criterion (ref. 1). Background information on the statistical methods used for this analysis are presented in Attachment 2.

Table 2. 90% Confidence Interval Upper Limits
for DSC (Units are in joules/gram).

Sample Number and Description	$\hat{\mu}$	$\hat{\sigma}_{\mu}^2$	UL
S95T001214 C90/S1 UH	275.00	196.00	318.09
S95T001217 C90/S1 LH	317.50	370.92	349.05
S95T001220 C90/S1 facie	0.00	0.00	0.00
S95T001229 C90/S2 UH	0.00	0.00	0.00
S95T001223 C90/S2 Dr.Liq.	52.00	0.00	52.00
S95T001238 C91/S1 UH	249.50	2.25	254.12
S95T001235 C91/S1 LH	42.5	0.25	44.04
S95T001244 C91/S2 UH	5.00	0.00	5.00
S95T001241 C91/S2 LH	0.00	0.00	0.00
S95T001247 C91/S2 Dr.Liq.	6.00	0.00	6.00

C = Core Number
 S = Segment Number
 UH = Upper Half
 LH = Lower Half
 Dr.Liq. = Drainable Liquid

ALPHA TOTAL

The alpha total analyses were performed using procedure LA-508-101, Rev. D-2. Fusion dilutions were prepared using procedure LA-549-141, Rev. D-0. All alpha total results were below the notification limit. The spike results for two of the samples exceeded the TCP criterion of 90-110%. The spike recovery for sample S95T001215 was 111.4%. The sample and duplicate results for this sample averaged 4.57 $\mu\text{Ci/g}$, with a RPD of 9.63%. The spike recovery for sample S95T001245 was only 61.6%. However, the sample and duplicate results for sample S95T001245 were below the detection limit of 7.71 E-04 $\mu\text{Ci/g}$, which is almost 5 orders of magnitude below the limit of 41 $\mu\text{Ci/g}$. This sample was rerun, with the result of the rerun retained. The original results were rejected, but will be included in the final report.

Samples S95T001221 and S95T001336 exceeded the precision criterion of less than 10% RPD. The average result for S95T001221 is 0.163 $\mu\text{Ci/g}$. The results for S95T001336 averaged 4.15 $\mu\text{Ci/g}$. The statistical analysis (presented in Table 3) indicates that none of the alpha total results exceeded the safety screening criterion of 41 $\mu\text{Ci/g}$ at an upper confidence level of 90%. Therefore, no additional analyses were necessary. Background information on the statistical methods used for this analysis are presented in Attachment 2.

Table 3. 90% Confidence Interval Upper Limits
for Total Alpha (Units are in $\mu\text{Ci/g}$).

Sample No., Description	$\bar{\mu}$	$\hat{\sigma}_p^2$	UL
S95T001215 C90/S1 facie	4.57	0.05	5.25
S95T001218 C90/S1 UH	1.89	0.004	2.07
S95T001221 C90/S1 LH	0.16	0.002	0.28
S95T001230 C90/S2 UH	0.24	0.0001	0.27
S95T001336 C91/S1 UH	4.15	0.24	5.66
S95T001236 C91/S1 LH	14.00	0.04	14.62
S95T001245 C91/S2 UH	0.00	0.00	0.00
S95T001337 C91/S2 LH	0.45	0.01	0.70

C = Core Number
UH = Upper Half

S = Segment Number
LH = Lower Half

ICP (Lithium)

Lithium was determined by ICP analysis per procedure LA-505-151, Rev. A-1. Solid subsamples were prepared by fusion per procedure LA-549-141, Rev. D-0. Liquid subsamples were either analyzed directly or diluted with acid per procedure LA-505-158, Rev. A-4.

Samples S95T001224, S95T001230, S95T001236, S95T001245, and S95T001248 were contaminated with lithium, indicating an incursion of water from the HHF. These sample numbers correspond to upper half solids from segment 2 of core 90, the drainable liquid from segment 2 of core 90, the lower half solids from segment 1 of core 91, the upper half solids from segment 2 of core 91, and the drainable liquid from segment 2 of core 91.

Project Coordinator: Ruth Schreiber

References:

- [1] R. D. Schreiber, "Tank 241-B-101 Tank Characterization Plan," WHC-SD-WM-TP-350, Rev. 0, dated April 28, 1995, Westinghouse Hanford Company, Richland, Washington.
- [2] H. Babad, J. W. Hunt, and K. S. Redus, "Tank Safety Screening Data Quality Objective," WHC-SD-WM-SP-004, Rev. 1, dated April 27, 1995, Westinghouse Hanford Company, Richland, Washington.

Attachment 1

WHC-SD-WM-DP- 139, REV. 1

Author: Joseph E. Meacham at -WHC130
 Date: 7/17/95 8:24 AM
 Priority: Normal
 CC: John G Kristofzski at -WHC168
 CC: Andrew D Rice at -WHC168
 TO: Ruth D Schreiber at -WHC163
 TO: David A Turner at -WHC117
 TO: Robert J (Bob) Cash
 TO: Gary T Dukelow at -WHC128
 TO: Gerald D (Jerry) Johnson
 Subject: Re: B-101 Homogenization Issue

----- Message Contents -----

Ruth,

Correct!

Joe

Reply Separator

Subject: B-101 Homogenization Issue
 Author: Ruth D Schreiber at -WHC163
 Date: 7/14/95 4:05 PM

Joe --

Just to keep all my ducks in a row, I wanted to verify in writing that you DO NOT want me to homogenize or do any analyses on the crystalline material found in tank B-101 until a better homogenization process is in place (whenever that may be). Further, I wanted to make sure that you understood that by making this decision you are aware that this information will be missing from the 45 day report on this tank.

Please let me know if we are not in sync. OK?

Thanks,
 Ruth

Attachment 2

The 90% confidence interval lower limit (LL) on the mean for percent water (TGA) data is

$$\bar{\mu} - t_{(n-1)} * \sqrt{\hat{\sigma}^2_{\bar{\mu}}}$$

The 90% confidence interval upper limit (UL) on the mean for DSC and total alpha data is

$$\bar{\mu} + t_{(n-1)} * \sqrt{\hat{\sigma}^2_{\bar{\mu}}}$$

where $\bar{\mu}$ is the ordinary sample mean and $\hat{\sigma}^2_{\bar{\mu}}$ is the variance of the sample mean (sample variance) and $t_{(n-1)}$ is a quantity from Student's t distribution with n-1 degrees of freedom. In these equations, n is the number of replicate analyses (2, 3, or 4, depending on whether the sample was run in duplicate, triplicate, or two sample/duplicate pairs). For a one-sided 90% confidence interval, $t_{(1)}$ is equal to 3.078, $t_{(2)}$ is equal to 1.886, and $t_{(3)}$ is equal to 1.638.

Table 1 of this report gives the LL to the 90% confidence interval on the percent water thermogravimetric analysis (TGA) for B-101. If the LL is greater than 17%, then we reject the null hypothesis that the percent water is less than or equal to 17 percent. As stated in the text, the LL for two samples submitted for TGA analysis fell below 17% water.

Table 2 of this report gives the UL to the 90% confidence interval for differential scanning calorimetry (DSC). If the UL is less than 481 joules/g, then we reject the null hypothesis that DSC is greater than or equal to 481 joules/g. The ULs for all samples submitted for DSC analysis from tank B-101 are less than 481 J/g.

Table 3 gives of the report the UL to the 90% confidence interval on the total alpha for samples from tank B-101. If the UL is less than 41 $\mu\text{Ci/g}$, then we reject the null hypothesis that the total alpha is greater than or equal to 41 $\mu\text{Ci/g}$. The ULs for all samples submitted for alpha total analysis from tank B-101 are less than 41 $\mu\text{Ci/g}$.

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WHC-SD-WM-DP-139, REV. 1

SAMPLE DATA SUMMARY

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B-101 SAFETY SCREENING RESULTS
B-101

CORE NUMBER: 90
SEGMENT #: 1

SEGMENT PORTION: Facie

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S95T001220			% Water by TGA using Mettler	%	17.00	100.0	96.35	n/a	18.75	18.74	18.74	0.05	n/a	n/a	n/a
S95T001220			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+03	481.0	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001220			DSC Exotherm using Mettler	Joules/g	-1.0e+03	481.0	102.6	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001221	F		Alpha of Digested Solid	uCi/g	-1.0e+03	41.00	105.0	<3.92e-02	2.02e-01	1.24e-01	1.63e-01	47.9	99.70	8.71e-02	40.0
S95T001221	F		Lithium -ICP-Fusion	ug/g	-1.0e+03	100.0	103.1	1.50e-03	< 44.8190	<45.2160	n/a	n/a	93.63	44.80	n/a

U Upper Half of Segment: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S95T001214			% Water by TGA using Mettler	%	17.00	100.0	101.6	n/a	33.07	33.09	33.08	0.06	n/a	n/a	n/a
S95T001214			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+03	481.0	n/a	n/a	289.0	261.0	275.0	10.2	n/a	n/a	n/a
S95T001214			DSC Exotherm using Mettler	Joules/g	-1.0e+03	481.0	107.9	n/a	193.1	174.5	183.8	10.1	n/a	n/a	n/a
S95T001215	F		Alpha of Digested Solid	uCi/g	-1.0e+03	41.00	99.64	<3.97e-01	4.350	4.790	4.570	9.63	111.4	8.83e-01	20.3
S95T001215	F		Lithium -ICP-Fusion	ug/g	-1.0e+03	100.0	100.9	1.61e-02	< 45.4200	<46.2800	n/a	n/a	90.53	45.40	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S95T001217			% Water by TGA using Mettler	%	17.00	100.0	101.6	n/a	41.51	42.49	42.00	2.33	n/a	n/a	n/a
S95T001217 1			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+03	481.0	n/a	n/a	322.0	314.0	318.0	2.52	n/a	n/a	n/a
S95T001217			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+03	481.0	n/a	n/a	364.0	270.0	317.0	29.7	n/a	n/a	n/a
S95T001217 1			DSC Exotherm using Mettler	Joules/g	-1.0e+03	481.0	109.0	n/a	186.7	182.3	184.5	2.38	n/a	n/a	n/a
S95T001217			DSC Exotherm using Mettler	Joules/g	-1.0e+03	481.0	107.9	n/a	211.0	156.6	183.8	29.6	n/a	n/a	n/a
S95T001218	F		Alpha of Digested Solid	uCi/g	-1.0e+03	41.00	99.64	<3.97e-01	1.950	1.830	1.890	6.35	109.8	9.13e-01	39.4
S95T001218	F		Lithium -ICP-Fusion	ug/g	-1.0e+03	100.0	100.9	1.61e-02	< 46.9800	<46.6600	n/a	n/a	90.73	47.00	n/a

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WHC-SD-WM-DP-139, REV. 1

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INTERIM

D-101 SAFETY SCREENING RESULTS

D-101

CORE NUMBER: 90
SEGMENT #: 2

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S95T001229			% Water by TGA using Mettler	%	17.00	100.0	103.6	n/a	16.42	14.69	15.55	11.1	n/a	n/a	n/a
S95T001229			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+03	401.0	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001229			DSC Exotherm using Mettler	Joules/g	-1.0e+03	401.0	103.3	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a
S95T001230	F		Alpha of Digested Solid	uCi/g	-1.0e+03	71.00	102.5	<6.26e-02	2.49e-01	2.28e-01	2.30e-01	8.81	104.3	8.39e-02	29.3
S95T001230	F		Lithium -ICP-Fusion	ug/g	-1.0e+03	100.0	96.47	2.20e-02	79.25	70.87	75.06	11.2	96.29	48.30	n/a

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INTERIM

WHC-SD-WM-DP-139, REV. 1

INTERIM

B-101 SAFETY SCREENING RESULTS B-101

CORE NUMBER: 90
SEGMENT #: 2

SEGMENT PORTION: Drainable Liquid

Sample#	R A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
S95T001223		% Water by TGA using Mettler	%	17.00	100.0	101.0	n/a	49.63	49.41	49.52	0.44	n/a	n/a	n/a
S95T001223		DSC Exotherm DRY Calculated	Joules/g DRY	1.30e+03	100.0	n/a	n/a	52.00	52.00	52.00	0.00	n/a	n/a	n/a
S95T001223		DSC Exotherm using Mettler	Joules/g	1.30e+03	100.0	96.31	n/a	26.30	26.30	26.30	0.00	n/a	n/a	n/a
S95T001224	D	Lithium-ICP-Acid Dil.	ug/mL	1.30e+03	100.0	97.67	1.30e-03	167.0	144.7	165.8	1.65	93.00	1.00e-02	n/a

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WHC-SD-WM-DP-139, REV. 1

INTERIM

B-101 SAFETY SCREENING RESULTS
B-101

CORE NUMBER: 91
SEGMENT #: Field Blank

SEGMENT PORTION: n/a

Sample#	R/A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count	Err%
S95I001232		% Water by IGA using Mettler	%	Lower	Upper	101.0	n/a	99.76	99.89	99.83	0.13	n/a	n/a	n/a	n/a
S95I001232		DSC Exotherm Dry Calculated	Joules/g Dry	17.00	100.0	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a	n/a
S95I001232		DSC Exotherm using Mettler	Joules/g	1.0e+03	481.0	96.31	n/a	0.00e+00	0.00e+00	0.00e+00	0.00	n/a	n/a	n/a	n/a
S95I001233	D	Lithium-ICP-Acid Dil.	ug/mL	1.0e+03	100.0	97.67	1.30e-03	2.40e-01	2.46e-01	2.47e-01	0.73	107.7	1.00e-02	n/a	n/a

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WHC-SD-WM-DP-139, REV. 1

INTERIM

B-101 SAFETY SCREENING RESULTS
B-101

CORE NUMBER: 91
SEGMENT #: 1

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S951001230			% Water by TGA using Mettler	%	17.00	100.0	103.0	n/a	33.48	34.72	34.10	3.64	n/a	n/a	n/a
S951001238			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+03	481.0	n/a	n/a	248.0	251.0	249.5	1.20	n/a	n/a	n/a
S951001238			DSC Exotherm using Mettler	Joules/g	-1.0e+03	481.0	102.3	n/a	163.6	165.4	164.5	1.09	n/a	n/a	n/a
S951001336	F		Alpha of Digested Solid	uCi/g	-1.0e+03	41.00	109.0	<3.23e-01	3.660	4.640	4.150	23.6	106.9	7.55e-01	23.9
S951001336	F		Lithium -ICP-Fusion	ug/g	-1.0e+03	100.0	99.68	4.60e-03	<55.4324	<55.0661	n/a	n/a	92.14	55.40	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S951001235			% Water by TGA using Mettler	%	17.00	100.0	103.6	n/a	41.68	44.13	42.91	5.71	n/a	n/a	n/a
S951001235			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+03	481.0	n/a	n/a	42.00	43.00	42.50	2.35	n/a	n/a	n/a
S951001235			DSC Exotherm using Mettler	Joules/g	-1.0e+03	481.0	103.3	n/a	24.00	24.80	24.40	3.28	n/a	n/a	n/a
S951001236	F		Alpha of Digested Solid	uCi/g	-1.0e+03	41.00	102.5	<6.26e-02	13.80	14.20	14.00	2.86	103.8	8.83e-01	10.7
S951001236	F		Lithium -ICP-Fusion	ug/g	-1.0e+03	100.0	96.47	2.20e-02	84.70	74.83	79.77	12.4	94.90	50.80	n/a

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INTERIM

D-101 SAFETY SCREENING RESULTS
D-101

CORE NUMBER: 91
SEGMENT #: 2

SEGMENT PORTION: U Upper Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count	Err%
					Lower	Upper										
S95T001244			% Water by IGA using Mettler	%	17.00	100.0	101.0	n/a	38.58	48.11	43.34	22.0	n/a	n/a	n/a	n/a
S95T001244			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+03	481.0	n/a	n/a	5.000	5.000	5.000	0.00	n/a	n/a	n/a	n/a
S95T001244			DSC Exotherm using Mettler	Joules/g	-1.0e+03	481.0	112.1	n/a	2.900	2.700	2.800	7.14	n/a	n/a	n/a	n/a
S95T001245	F		Alpha of Digested Solid	uCi/g	-1.0e+03	41.00	107.9	<4.50e-04	<7.00e-4	<6.39e-4	n/a	n/a	61.60	7.71e-04	141.3	n/a
S95T001245	F		Lithium -ICP-Fusion	ug/g	-1.0e+03	100.0	103.1	1.50e-03	104.5	110.4	107.4	5.48	84.55	44.80	n/a	n/a

L Lower Half of Segment: L Lower Half of Segment

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count	Err%
					Lower	Upper										
S95T001241			% Water by IGA using Mettler	%	17.00	100.0	96.18	n/a	29.27	9.200	19.23	104	n/a	n/a	n/a	n/a
S95T001241	1		% Water by IGA using Mettler	%	17.00	100.0	95.31	n/a	26.79	25.55	26.17	4.74	n/a	n/a	n/a	n/a
S95T001241			DSC Exotherm Dry Calculated	Joules/g Dry	-1.0e+03	481.0	n/a	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a	n/a
S95T001241			DSC Exotherm using Mettler	Joules/g	-1.0e+03	481.0	103.3	n/a	0.00e+00	0.00e+00	0.00e+00	n/a	n/a	n/a	n/a	n/a
S95T001337	F		Alpha of Digested Solid	uCi/g	-1.0e+03	41.00	109.0	<3.23e-01	<5.27e-1	3.63e-01	n/a	n/a	108.1	5.86e-01	500	n/a
S95T001337	F		Lithium -ICP-Fusion	ug/g	-1.0e+03	100.0	99.68	<4.60e-03	<43.0441	<45.7875	n/a	n/a	93.80	43.00	n/a	n/a

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INTERIM

B-101 SAFETY SCREENING RESULTS
B-101

CORE NUMBER: 91
SEGMENT #: 2

SEGMENT PORTION: Drainable Liquid

Sample#	R	A#	Analyte	Unit	Action Limits		Standard %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Count Err%
					Lower	Upper									
S95T001247			% Water by TGA on Perkin Elmer	%	None	None	97.02	n/a	50.07	50.86	50.47	1.57	n/a	n/a	n/a
S95T001247			DSC Exotherm Dry Calculated	Joules/g Dry	1.0e+03	481.0	n/a	n/a	6.000	6.000	6.000	0.00	n/a	n/a	n/a
S95T001247			DSC Exotherm using Mettler	Joules/g	1.0e+03	481.0	101.2	n/a	3.100	3.200	3.150	3.17	n/a	n/a	n/a
S95T001248	D		Lithium-ICP-Acid Dil.	ug/mL	1.0e+03	100.0	97.67	1.30e-03	135.0	135.4	135.2	0.22	93.00	1.00e-02	n/a

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INTERIM

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INORGANIC ANALYSES

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LABCORE Data Entry Template for Worklist#

1796

Analyst: Jds Instrument: DSC0 1 Book # 12N1YA

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

Worklist Comment: Please run the B-101 DSCs 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>30.7</u>	<u>N/A</u>	Joules/g
95000091	B-101	2 SAMPLE	S95T001214	0	DSC-01	SOLID	<u>N/A</u>	<u>193.1</u>		Joules/g
95000091	B-101	3 DUP	S95T001214	0	DSC-01	SOLID	<u>193.1</u>	<u>174.5</u>	<u>N/A</u>	Joules/g
95000091	B-101	4 SAMPLE	S95T001217	0	DSC-01	SOLID	<u>N/A</u>	<u>211.0</u>		Joules/g
95000091	B-101	5 DUP	S95T001217	0	DSC-01	SOLID	<u>211.0</u>	<u>156.6</u>	<u>N/A</u>	Joules/g

Final page for worklist #

1796

Jds 7-26-95
Analyst Signature Date

PhB 7-27-95
Analyst Signature Date

Verified by Blandina D. Valenzuela
(7-28-95)

S95T001214 produced two endothermic regions one at 105.7°C with a delta H of 736.2 J/g and second at 13.7 J/g ^{7-23-95 BDV} 229.0°C with a delta H of 13.7 J/g.

Data Entry Comments:

S95T001217 produced two endothermic regions one at 121.9°C with a delta H of 1004.2 J/g and the second at 229.2°C with a delta H of 28.7 J/g. This sample is also being redone due to high RPD's.

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.

BEST AVAILABLE COPY

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 424 TO 428.

DSC STD 12N14A

6.740 mg

Rate: 10.0 °C/min

File: 00055.001

DSC METTLER

26-Jul-95

Ident: 0.0

222-S Laboratory

EXOV

10. mW

WHC-SD-WM-DP-134, REV. 1

Integration
Delta H 207 mJ
30.7 J/g
Peak 158.2°C
-15.5 mW

Jack Spillman 7-26-95

120. 140. 160. 180. °C

S95T001214 SAM N2

14.680 mg

Rate: 10.0 °C/min

File: 00057.001

DSC METTLER

26-Jul-95

Ident: 0.0

222-S Laboratory

425

WHC-SD-WM-DP-139, REV. 1

S95T001214 DUP N2
 11.000 mg
 Rate: 10.0 °C/min
 File: 00059.001 DSC METTLER 26-Jul-95
 Ident: 0.0 222-S Laboratory

S95T001217 SAM N2

8.350 mg

Rate: 10.0 °C/min

File: 00061.001

DSC METTLER

26-Jul-95

Ident: 0.0

222-S Laboratory

exo

427

20. mW

Integration

Delta H 240 mJ

28.7 J/g

Peak 229.2°C

-1.8 mW

Integration

Delta H 1762 mJ

211.0 J/g

Peak 315.5°C

2.2 mW

Integration

Delta H 8385 mJ

1004.2 J/g

Peak 121.9°C

-29.6 mW

100.

200.

300.

400.

°C

WHC-SD-WM-DP-139, REV. 1

S95T001217 DUP N2

25.500 mg

Rate: 10.0 °C/min

File: 00063.001 DSC METTLER 26-Jul-95

Ident: 0.0

222-S Laboratory

exo>

50. mW

Integration
Delta H 527 mJ
20.7 J/g
Peak 224.8°C
-4.1 mW

Integration
Delta H 3994 mJ
156.6 J/g
Peak 321.5°C
4.9 mW

Integration
Delta H 23243 mJ
911.5 J/g
Peak 131.7°C
-73.3 mW

100.

200.

300.

400.

°C

428

WHC-SD-WM-DP-139, REV. 1

LABCORE Data Entry Template for Worklist#

1797

Analyst: YAS

Instrument: DSC0 B1

Book # 12 N14A

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

Worklist Comment: Please run B-101 DSCs 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>29.2</u>	<u>N/A</u>	Joules/g
95000091	B-101	2 SAMPLE	S95T001220	0	DSC-01	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g
95000091	B-101	3 DUP	S95T001220	0	DSC-01	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g

Final page for worklist #

1797

[Signature] 7-25-95
Analyst Signature Date

[Signature] 7-26-95
Analyst Signature Date

Verified by Blandina Valenzuela
7-26-95

Data Entry Comments:

Sample produced two large endothermic regions, one
at 100.4°C with a delta H of 516.6 J/g and the second one at 289.7°C
with a delta H of 588.8 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 430 TO 432.

DSC STD 12N14A

6.740 mg

Rate: 10.0 °C/min

File: 00045.001

Ident: 0.0

DSC METTLER 25-Jul-95

222-S Laboratory

exo >

10. mW

Integration

Delta H 197 mJ

29.2 J/g

Peak

158.0 °C

-14.1 mW

Signature 7-25-95

120.

140.

160.

180. °C

S95T001220 SAM N2

11.800 mg

Rate: 10.0 °C/min

File: 00051.001

Ident: 0.0

DSC METTLER

25-Jul-95

222-S Laboratory

Integration
Delta H 6096 mJ
516.6 J/g
Peak 100.4°C
-18.6 mW

Integration
Delta H 6948 mJ
588.8 J/g
Peak 289.7°C
-24.1 mW

S95T001220 DUP N2
 34.500 mg
 Rate: 10.0 °C/min
 File: 00053.001 DSC METTLER 25-Jul-95
 Ident: 0.0 222-S Laboratory

LABCORE Data Entry Template for Worklist#

1798

Analyst: JDS

Instrument: DSC0 1

Book # 12N14-A 8-1-95 bdy
65N8-A 7-2 8-1-95 bdy

Method: LA-514-113 Rev/Mod A-2 B-1
8-1-95 bdy

Worklist Comment: Please run B-101 DSCs under N2. bdy

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID	28.45	29.4	N/A	Joules/g
95000091	B-101	2 SAMPLE	S95T001229	0	DSC-01	SOLID	N/A	Ø		Joules/g
95000091	B-101	3 DUP	S95T001229	0	DSC-01	SOLID	Ø	Ø	N/A	Joules/g
95000093	B-101	4 SAMPLE	S95T001235	0	DSC-01	SOLID	N/A	24.8	7-20-95 bdy	Joules/g
95000093	B-101	5 DUP	S95T001235	0	DSC-01	SOLID	24.0	24.8	N/A	Joules/g

Final page for worklist #

1798

Analyst Signature Date 7-19-95

Analyst Signature Date 7-20-95

Verified by Blandina Valenzuela 7-24-95

S95T001229 produced two endothermic regions one at 124.5°C with a delta H of 434.2 J/g and second at 295.4°C with a delta H of 472.5 J/g

Data Entry Comments: S95T001235 produced three endothermic one at 126.6°C with a delta H of 971.3 J/g the second at 231.0°C with a delta H of 21.5 J/g and third at 447.6°C with a delta H of 1.3 J/g

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

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 434 TO 438.

DSC STD 65N8A

6.580 mg

Rate: 10.0 °C/min

File: 00010.001

Ident: 0.0

DSC METTLER

18-JUL-85

222-S Laboratory

exo >

10. mW

Integration
Delta H 193 mJ
29.4 J/g
Peak 158.6 °C
-12.6 mW

Signature 7-19-85

180. °C

150.

140.

120.

S95T001229 SAM N2

32.800 mg

Rate: 10.0 °C/min

File: 00016.001

Ident: 0.0

DSC METTLER 19-Jul-95

222-S Laboratory

S95T001229 DUP N2

19.900 mg

Rate: 10.0 °C/min

File: 00018.001

DSC METTLER

19-Jul-95

Ident: 0.0

222-S Laboratory

exo

Integration
Delta H 7266 mJ
365.1 J/g
Peak 104.3°C
-20.1 mW

Integration
Delta H 9301 mJ
467.4 J/g
Peak 293.1°C
-31.1 mW

Integration
Delta H 604 mJ
30.3 J/g
Peak 436.9°C
-3.6 mW

100. 200. 300. 400. °C

S95T001235 SAM N2

20.700 mg

Rate: 10.0 °C/min

File: 00042.001

DSC METTLER

18-Jul-88

Ident: 0.0

222-S Laboratory

exo

S95T001235 DUP N2
 16.480 mg
 Rate: 10.0 °C/min
 File: 00014.001 DSC METTLER 19-Jul-96
 Ident: 0.0 222-S Laboratory

LABCORE Data Entry Template for Worklist#

1799

Analyst: JDS Instrument: DSC0 1 Book # 12N14A

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

Worklist Comment: Please run B-101 DSCs 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>29.1</u>	<u>N/A</u>	Joules/g
95000093	B-101	2	SAMPLE	S95T001238	0		DSC-01	SOLID	<u>N/A</u>	<u>163.6</u>		Joules/g
95000093	B-101	3	DUP	S95T001238	0		DSC-01	SOLID	<u>163.6</u>	<u>165.4</u>	<u>N/A</u>	Joules/g
		4	STD				DSC-01	SOLID	<u>28.45</u>	<u>29.4</u>	<u>N/A</u>	Joules/g
95000093	B-101	5	SAMPLE	S95T001241	0		DSC-01	SOLID	<u>N/A</u>	<u>Ø</u>		Joules/g
95000093	B-101	6	DUP	S95T001241	0		DSC-01	SOLID	<u>Ø</u>	<u>Ø</u>	<u>N/A</u>	Joules/g

Final page for worklist # 1799

See attached for signatures
Analyst Signature Date 7-26-95

Data entered + verified by
Blandina Valenzuela 7-31-95
Analyst Signature Date

S95T001238 produced two endothermic regions, one at 123.3°C with a delta H of 722.1 J/g and second at 224.8°C with a delta H of 29.4 J/g
Data Entry Comments:

S95T001241 produced ~~two~~ ^{three} endothermic regions, one at 123.8°C with a delta H of 644.2 J/g, second at 287.1°C with 279.6 J/g, and third at 395.0°C with a delta H of 42.4 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.

LABCORE Data Entry Template for Worklist#

1799

Analyst: Jds Instrument: DSC0 Book # 12N/44

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

Worklist Comment: Please run B-101 DSCs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	SOLID			N/A	Joules/g
95000093	B-101	2 SAMPLE	S95T001238	0	DSC-01	SOLID	N/A			Joules/g
95000093	B-101	3 DUP	S95T001238	0	DSC-01	SOLID			N/A	Joules/g
95000093	B-101	4 SAMPLE	S95T001241	0	DSC-01	SOLID	N/A			Joules/g
95000093	B-101	5 DUP	S95T001241	0	DSC-01	SOLID			N/A	Joules/g

Final page for worklist #

1799

Jds 7-25-95
Analyst Signature Date

Analyst Signature Date

Data Entry Comments:

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

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 441 TO 446.

DSC STD 12N14A File: 00038.001 DSC METTLER 24-Jul-95
6.740 mg Rate: 10.0 °C/min Ident: 0.0 222-S Laboratory

WHC-SD-WM-DP-139, REV. 1

File: 00040.001 DSC METTLER 24-JUL-95
 Ident: 0.0 222-S Laboratory

Rate: 10.0 °C/min

S95T001238 SAM N2
 30.150 mg

S95T001238 DUP N2

22.800 mg

Rate: 10.0 °C/min

File: 00042.001

DSC

METTLER

24-Jul-95

Ident: 0.0 222-S Laboratory

WHC-SD-WM-DP-139, REV. 1

DSC STD 12N14A

6.740 mg

Rate: 10.0 °C/min

File: 00045.001

DSC METTLER

25-Jul-95

Ident: 0.0

222-S Laboratory

exo

IA Spk 7-25-95

120. 140. 160. 180. °C

S95T001241 SAM N2
 35.100 mg
 Rate: 10.0 °C/min
 File: 00047.001 DSC METTLER 25-Jul-95
 Ident: 0.0 222-S Laboratory

WHC-SD-WM-DP- 139, REV. 1

S95T001241 DUP N2
21.450 mg
Rate: 10.0 °C/min
File: 00049.001 DSC METTLER 25-Jul-95
Ident: 0.0 222-S Laboratory

WHC-SD-WM-DP-139, REV. 1

LABCORE Data Entry Template for Worklist#

1800

Analyst: JDS Instrument: DSC0 1 Book # 12N14A

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

Worklist Comment: Please run B-101 DSCs 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>31.9</u>	<u>N/A</u>	Joules/g
95000093	B-101	2 SAMPLE	S95T001244 0	DSC-01	SOLID	<u>N/A</u>	<u>2.9</u>		Joules/g
95000093	B-101	3 DUP	S95T001244 0	DSC-01	SOLID	<u>2.9</u>	<u>2.7</u>	<u>N/A</u>	Joules/g

Final page for worklist #

1800

Blandina Valenzuela 7-17-95
Analyst Signature Date

for JD Spellman.

[Signature] 7-17-95
Analyst Signature Date

Verified by Blandina Valenzuela
7-19-95

Data Entry Comments: The sample produced two endothermic regions,
one at 122.7°C with a delta H of 1162.0 J/g and second at 229.0°C
with a delta H of 48.7 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 448 TO 450.

DSC STD 12N14A

6.630 mg

Rate: 10.0 °C/min

File: 00085.001

Ident: 0.0

DSC METTLER

14-Jul-95

exo

10. mW

SKS 7-14-95

120. 140. 160. 180. °C

S95T001244

14.600 mg

File: 00087.001 DSC METTLER 14-Jul-95

Rate: 10.0 °C/min Ident: 0.0 222-8 Laboratory

S95T001244
14.600 mg

Rate: 10.0 °C/min

File: 00087.001 DSC METTLER 14-Jul-95
Ident: 0.0 222-S Laboratory

LABCORE Data Entry Template for Worklist#

1801

Analyst: JDS Instrument: DSC0 1 Book # 12N14-A

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

Worklist Comment: Please run B-101 DSCs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	LIQUID	28.45	27.7 ⁴	7-26-95 ^{BDV} N/A	Joules/g
95000091	B-101	2 SAMPLE	S95T001223	0	DSC-01	LIQUID	N/A	26.3 ⁶	7-26-95 ^{BDV} 26.3	Joules/g
95000091	B-101	3 DUP	S95T001223	0	DSC-01	LIQUID	26.3 ⁶	26.3 ⁶	7-26-95 ^{BDV} N/A	Joules/g
		4 STD			DSC-01	LIQUID	28.45	27.4 ⁶	7-26-95 ^{BDV} N/A	Joules/g
95000093	B-101	5 SAMPLE	S95T001232	0	DSC-01	LIQUID	N/A	26.3 ⁶	7-26-95 ^{BDV} N/A	Joules/g
95000093	B-101	6 DUP	S95T001232	0	DSC-01	LIQUID	26.3 ⁶	26.3 ⁶	7-26-95 ^{BDV} N/A	Joules/g

Final page for worklist #

1801

See attached for signatures 7-24-95
Analyst Signature Date BDV

Analyst Signature Date 7-24-95

Verified by Blandina Valenzuela
7-26-95

S95T001232 produced one endothermic regions at 101.3°C with a
delta H of 1781.4 J/g.

Data Entry Comments: Sample S95T001223 produced two endothermic regions
one at 124.7°C with a delta H of 1091.3 J/g and second at 227.1°C with a
delta H of 49.7 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.

LABCORE Data Entry Template for Worklist#

1801

Analyst: SJS Instrument: DSC0 Book # 12 N 144

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

Worklist Comment: Please run B-101 DSCs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			DSC-01	LIQUID			N/A	Joules/g
95000091	B-101	2 SAMPLE	S95T001223	0	DSC-01	LIQUID	N/A			Joules/g
95000091	B-101	3 DUP	S95T001223	0	DSC-01	LIQUID			N/A	Joules/g
95000093	B-101	4 SAMPLE	S95T001232	0	DSC-01	LIQUID	N/A			Joules/g
95000093	B-101	5 DUP	S95T001232	0	DSC-01	LIQUID			N/A	Joules/g

Final page for worklist #

1801

SJS 7-21-95
Analyst Signature Date

Analyst Signature Date

Data Entry Comments:

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

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 453 TO 459.

DSC STD 12N14A File: 00026.001 DSC METTLER 21-Jul-95
6.580 mg Rate: 10.0 °C/min Ident: 0.0 222-S Laboratory

JMS 7-21-95

S95T001223 SAM N2
 14.500 mg
 File: 00028.001 DSC METTLER 21-Jul-95
 Ident: 0.0 222-S Laboratory
 Rate: 10.0 °C/min

S95T001223 DUP N2
13.580 mg
File: 00030.001 DSC METTLER 21-Jul-95
Ident: 0.0 222-S Laboratory
Rate: 10.0 °C/min

exo

Integration
Delta H 777 mJ
57.2 J/g
Peak 223.1°C
-3.4 mW

Integration
Delta H 358 mJ
26.3 J/g
Peak 397.7°C
1.2 mW

Integration
Delta H15725 mJ
1158.0 J/g
Peak 118.8°C
-53.4 mW

20 mW

455

100. 200. 300. 400. °C

DSC STD 12N14A
6.580 mg

Rate: 10.0 °C/min

File: 00020.001
Ident: 0.0

DSC METTLER
222-S Laboratory

20-Jul-95

exo

10. mW

Blandina Valenkyela for Dr. Sellman

7-24-95

120.

140.

150.

180.

°C

S95T001232 SAM N2
 9.550 mg
 Rate: 10.0 °C/min
 File: 00022.001 DSC METTLER 20-Jul-95
 Ident: 0.0 222-S Laboratory

File: 00024.001 DSC METTLER 20-Jul-95
Ident: 0.0 222-S Laboratory

S95T001232 DUP N2
12.790 mg

Rate: 10.0 °C/min

LABCORE Data Entry Template for Worklist#

1802

Analyst: Jds Instrument: DSC0 1 Book # 12N14A

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

Worklist Comment: Please run B-101 DSCs 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>28.8</u>	<u>N/A</u>	Joules/g
95000093	B-101	2 SAMPLE	S95T001247	0	DSC-01	LIQUID	<u>N/A</u>	<u>3.1</u>		Joules/g
95000093	B-101	3 DUP	S95T001247	0	DSC-01	LIQUID	<u>3.1</u>	<u>3.2</u>	<u>N/A</u>	Joules/g

Final page for worklist #

1802

Jak Spk 7-14-95
Analyst Signature Date

[Signature] 7-14-95
Analyst Signature Date

Verified by Blandina Valenzuela
7-19-95

Data Entry Comments:

The sample produced two ⁷⁻¹⁹⁻⁹⁵~~AK~~^{BDV} endothermic regions
one at 120.1°C with a delta H of 1231.6 J/g and second at 222.9°C
with a delta H of 48.9 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 460 TO 462.

DSC STD 12N14A
6.630 mg

File: 00077.001 DSC METTLER 13-JUL-88
Rate: 10.0 °C/min Ident: 0.0 222-S Laboratory

S95T001247 SAM N2
14.600 mg

File: 00078.001 DSC METTLER 13-Jul-95
Ident: 0.0 222-S Laboratory

Rate: 10.0 °C/min

S95T001247 DUP N2

16.500 mg

Rate: 10.0 °C/min

File: 00081.001

DSC METTLER

13-Jul-85

Ident: 0.0

222-8 Laboratory

LABCORE Data Entry Template for Worklist#

1918

Analyst: Sds Instrument: DSC0 1 Book # 12 N14A

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

Worklist Comment: Please run B-101 DSCs 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>31.0</u>	<u>N/A</u>	Joules/g
95000091	B-101	2 SAMPLE	S95T001217 1		DSC-01	SOLID	<u>N/A</u>	<u>186.7</u>		Joules/g
95000091	B-101	3 DUP	S95T001217 1		DSC-01	SOLID	<u>186.7</u>	<u>182.3</u>	<u>N/A</u>	Joules/g

Final page for worklist # 1918

IAH Spill 7-27-95
Analyst Signature Date

[Signature] 7-27-95
Analyst Signature Date

Verified by Blandina Valenzuela 7-28-95

Data Entry Comments: Sample produced two endothermic regions, one at
128.5°C with a delta H of 862.8 J/g and second at 232.8°C
with a delta H of 41.8 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 404 TO 406.

WHC-SD-WM-DP-139, REV. 1

DSC STD 12N14A File: 00069.001 DSC METTLER 27-Jul-95
6.740 mg Rate: 10.0 °C/min Ident: 0.0 222-S Laboratory

exo v

10. mW

Integration
Delta H 209 mJ
31.0 J/g
Peak 157.9°C
-15.2 mW

Signature 7-27-95

180. °C

160.

140.

120.

S95T001217 SAM N2
23.800 mg
Rate: 10.0 °C/min
File: 00071.001 DSC METTLER 27-Jul-95
Ident: 0.0 222-S Laboratory

S95T001217 DUP N2

21.200 mg

Rate: 10.0 °C/min

File: 00073.001

DSC METTLER

27-Jul-95

Ident: 0.0

222-S Laboratory

466

WHC-SD-WM-DP-139, REV. 1

LABCORE Data Entry Template for Worklist#

1955

Analyst: BDV Instrument: DSC01 Book # —

Method: LA-514-113 Rev/Mod —

Worklist Comment: Calculated dry DSC for B-101. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
95000091	B-101	1 SAMPLE	S95T001214	0	DSC-02	SOLID	N/A	289		Joules/g Dry
95000091	B-101	2 DUP	S95T001214	0	DSC-02	SOLID	289	261	N/A	Joules/g Dry
95000091	B-101	3 SAMPLE	S95T001217	0	DSC-02	SOLID	N/A	364	322	Joules/g Dry
95000091	B-101	4 DUP	S95T001217	0	DSC-02	SOLID	364	314	N/A	Joules/g Dry
95000091	B-101	5 SAMPLE	S95T001220	0	DSC-02	SOLID	N/A	Ø		Joules/g Dry
95000091	B-101	6 DUP	S95T001220	0	DSC-02	SOLID	Ø	Ø	N/A	Joules/g Dry
95000091	B-101	7 SAMPLE	S95T001229	0	DSC-02	SOLID	N/A	Ø		Joules/g Dry
95000091	B-101	8 DUP	S95T001229	0	DSC-02	SOLID	Ø	Ø	N/A	Joules/g Dry
95000093	B-101	9 SAMPLE	S95T001235	0	DSC-02	SOLID	N/A	28		Joules/g Dry
95000093	B-101	10 DUP	S95T001235	0	DSC-02	SOLID	28	29	N/A	Joules/g Dry
95000093	B-101	11 SAMPLE	S95T001238	0	DSC-02	SOLID	N/A	248		Joules/g Dry
95000093	B-101	12 DUP	S95T001238	0	DSC-02	SOLID	248	251	N/A	Joules/g Dry
95000093	B-101	13 SAMPLE	S95T001241	0	DSC-02	SOLID	N/A	Ø		Joules/g Dry
95000093	B-101	14 DUP	S95T001241	0	DSC-02	SOLID	Ø	Ø	N/A	Joules/g Dry
95000093	B-101	15 SAMPLE	S95T001244	0	DSC-02	SOLID	N/A	5		Joules/g Dry
95000093	B-101	16 DUP	S95T001244	0	DSC-02	SOLID	5	5	N/A	Joules/g Dry

Data Entry Comments:

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

worklistrpt Version 2.1 05/15/95
08/02/95 07:44

WHC-SD-WM-DP-139, REV. 1

Page: 2

LABCORE Data Entry Template for Worklist#

1955

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

Final page for worklist #

1955

Data entered + verified by
Blandina Valenzuela 8-2-95
Analyst Signature Date

Analyst Signature

Date

Data Entry Comments:

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

LABCORE Data Entry Template for Worklist#

1956

Analyst: BDV Instrument: DSC01 Book # —

Method: LA-514-113 Rev/Mod

Worklist Comment: Calculated dry DSC for B-101. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
95000091	B-101	1 SAMPLE	S95T001223	0	DSC-02	LIQUID	N/A	52		Joules/g Dry
95000091	B-101	2 DUP	S95T001223	0	DSC-02	LIQUID	52	52	N/A	Joules/g Dry
95000093	B-101	3 SAMPLE	S95T001232	0	DSC-02	LIQUID	N/A	0		Joules/g Dry
95000093	B-101	4 DUP	S95T001232	0	DSC-02	LIQUID	0	0	N/A	Joules/g Dry
95000093	B-101	5 SAMPLE	S95T001247	0	DSC-02	LIQUID	N/A	6		Joules/g Dry
95000093	B-101	6 DUP	S95T001247	0	DSC-02	LIQUID	6	6	N/A	Joules/g Dry

Final page for worklist #

1956

Data entered + verified by
Blandina Valenzuela 8-2-95
Analyst Signature Date

Analyst Signature Date

Data Entry Comments:

LABCORE Data Entry Template for Worklist#

1975

Analyst: BDV Instrument: DSC01 Book #

Method: LA-514-113 Rev/Mod

Worklist Comment: Calculated dry DSC for B-101. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
95000091	B-101	1 SAMPLE	S95T001217	1	DSC-02	SOLID	N/A	364	322	Joules/g Dry
95000091	B-101	2 DUP	S95T001217	1	DSC-02	SOLID	32.2	314	322	Joules/g Dry

Data entered + verified by Blandina Valenzuela Final page for worklist # 1975

Analyst Signature Blandina Valenzuela Date 8-8-94

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.

B-101

WHC-SD-WM-DP-139, REV. 1

CALCULATED DRY DSC			
SAMPLE NO.	DSC RESULT (J/g)	TGA RESULT (% water)	DRY DSC RESULT
S95T001214	193.1	33.08	289
1214D	174.5	33.08	261
1217	211.0	42.00	364
1217D	156.6	42.00	270
1217	186.7	^{8-2-95 BDV} 42.75 42.00	322
1217D	182.3	42.00	314
1220	Ø	18.75	Ø
1220D	Ø	18.75	Ø
1223	26.3	49.52	52
1223D	26.3	49.52	52
1229	Ø	^{15.56} 48.31 8-8-95 BDV	Ø
1229D	Ø	^{15.56} 48.31 8-8-95 BDV	Ø
1232	Ø	99.83	Ø
1232D	Ø	99.83	Ø
1235	^{8-2-95 BDV} 24.7 24.0	^{BDV} 15.56 42.91	^{8-2-95 BDV} 28.Ø
1235D	⁸⁻²⁻⁹⁵ 24.8 24.8	^{BDV} 15.56 42.91	^{8-2-95 BDV} 29.Ø
1238	163.6	34.10	248
1238D	165.4	34.10	251
1241	Ø	22.70 *	Ø
1241D	Ø	22.70 *	Ø
1244	2.9	45.17 *	5
1244D	2.7	45.17 *	5
1247	3.1	50.47	6
1247D	3.2	50.47	6

* Takes into account 4 results

° Takes into account 3 results

LABCORE Data Entry Template for Worklist#

1803

Analyst: ADP Instrument: TGA0 Book # 65N8-A

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

Worklist Comment: Please run B-101 TGAs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	<u>59.74</u>	<u>60.69</u>	<u>N/A</u>	%
95000091	B-101	2 SAMPLE	S95T001214	0	TGA-01	SOLID	<u>N/A</u>	<u>33.07</u>		%
95000091	B-101	3 DUP	S95T001214	0	TGA-01	SOLID	<u>33.07</u>	<u>33.09</u>	<u>N/A</u>	%
95000091	B-101	4 SAMPLE	S95T001217	0	TGA-01	SOLID	<u>N/A</u>	<u>41.51</u>		%
95000091	B-101	5 DUP	S95T001217	0	TGA-01	SOLID	<u>41.51</u>	<u>42.49</u>	<u>N/A</u>	%

Final page for worklist #

1803

Anthony P. Pimentel 7-16-95
Analyst Signature Date

R. J. Jones 7-17-95
Analyst Signature Date

Verified by Blandina Valenzuela
(7-19-95)

Data Entry Comments:

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 473 TO 477

BEST AVAILABLE COPY

TGA STD 65N8-A N2

17.243 mg

Rate: 10.0 °C/min

File: 00096.001

Ident: 0.0

TG METTLER 16-Jul-95

222-S Laboratory

473

WHCSD-WM-DP-139, REV. 1

(Signature) 7-16-95

File: 0097.001 TG METTLER 16-Jul-98
Tident: 0.0 222-8 Laboratory

Rate: 10.0 °C/min

S95T001214 SAM N2
20.003 mg

Step Analysis	
Height	-6.61 mg
	-33.07 %
Resid.	13.39 mg
	66.93 %
Dpeak	97.0 °C

S95T001214 DUP N2

28.966 mg

Rate: 10.0 °C/min

File: 00098.001

TG

METTLER

16-Jul-95

Ident: 0.0

222-S Laboratory

WHC-BD-WM-DP-139, REV. 1

S95T001217 SAM N2

28.004 mg

Rate: 10.0 °C/min

File: 00089.001

TG

METTLER

16-Jul-95

Ident: 0.0

222-S Laboratory

476

5. mg

Step Analysis

Height-11.62 mg

-41.51 %

ResiC. 16.38 mg

58.49 %

Dpeak 119.0 °C

100.

200.

300.

400.

°C

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

S95T001217 DUP N2
22.077 mg

Rate: 10.0 °C/min

File: 00100.001 TG METTLER 18-Jul-95
Ident: 0.0 222-S Laboratory

Step Analysis
Height -9.38 mg
-42.49 %
ResiC. 12.70 mg
57.51 %
Dpeak 67.0 °C

LABCORE Data Entry Template for Worklist#

1804

Analyst: Jds Instrument: TGA0 1 Book # 65N84

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

Worklist Comment: Please run B-101 TGAs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	<u>59.74</u>	<u>57.56</u>	<u>N/A</u>	%
95000091	B-101	2 SAMPLE	S95T001220	0	TGA-01	SOLID	<u>N/A</u>	<u>18.75</u>		%
95000091	B-101	3 DUP	S95T001220	0	TGA-01	SOLID	<u>18.75</u>	<u>18.74</u>	<u>N/A</u>	%

Final page for worklist #

1804

Jds 7-25-95
Analyst Signature Date

[Signature] 7-27-95
Analyst Signature Date

Verified by Blandina D. Valenzuela 7-28-95

Data Entry Comments:

Sample produced ⁷⁻²⁶⁻⁹⁵ ~~two~~ another weight loss step at approximately 290°C with a weight loss of 23.60%

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 479 TO 481.

TGA STD 65N8A

17.854 mg

Rate: 10.0 °C/min

File: 00046.001

TG

METTLER

25-Jul-95

Ident: 0.0

222-S Laboratory

Step Analysis

Height-10.28 mg

-57.56 %

ResiC. 7.58 mg

42.44 %

Dpeak 83.3°C

479

5. mg

J. H. Spk 7-25-95

WHCSD-WM-DP-134, REV. 1

S95T001220 SAM N2
 24.740 mg
 Rate: 10.0 °C/min
 File: 00052.001 TG METTLER 25-Jul-95
 Ident: 0.0 222-S Laboratory

Step Analysis
 Height -4.64 mg
 -18.75 %
 Resid. 20.07 mg
 81.14 %
 Dpeak 49.0°C

Step Analysis
 Height -5.84 mg
 -23.60 %
 Resid. 14.10 mg
 57.00 %
 Dpeak 295.0°C

BEST AVAILABLE COPY

S95T001220 DUP N2
24.576 mg

Rate: 10.0 °C/min

File: 00054.001 TG METTLER 25-Jul-95
Ident: 0.0 222-S Laboratory

Step Analysis
Height -4.61 mg
-18.74 %
Resid. 19.94 mg
81.15 %
Dpeak 113.0 °C

Step Analysis
Height -5.80 mg
-23.59 %
Resid. 14.04 mg
57.11 %
Dpeak 295.0 °C

LABCORE Data Entry Template for Worklist#

1805

Analyst: JDS Instrument: TGA0 1 Book # 12N14A 65N8A
8-1-95 bdy

Method: LA-560-112 Rev/Mod B + A-2
8-1-95 bdy

Worklist Comment: Please run B-101 TGAs under N2. bdy

WHC-SD-WM-DP-139, REV. 1

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	59.74	61.88	N/A	%
								16.42		
95000091	B-101	2 SAMPLE	S95T001229	0	TGA-01	SOLID	N/A	47.80	8-8-95 bdy	%
							16.42	41.69		
95000091	B-101	3 DUP	S95T001229	0	TGA-01	SOLID	47.80	48.62	8-8-95 bdy	%
								41.68		
95000093	B-101	4 SAMPLE	S95T001235	0	TGA-01	SOLID	N/A	46.42	8-8-95 bdy	%
							41.68	44.13		
95000093	B-101	5 DUP	S95T001235	0	TGA-01	SOLID	46.42	44.19	8-8-95 bdy	%

Final page for worklist #

1805

JDS 7-19-95
Analyst Signature Date

LS Jones 7-20-95
Analyst Signature Date

Verified by Blandina Valenzuela
7-24-95

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.

BEST AVAILABLE COPY

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 483 TO 487.

TGA STD 12N14A

22.515 mg

Rate: 10.0 °C/min

File: 00011.001

Ident: 0.0

TG METTLER

18-Jul-95

222-8 Laboratory

Step Analysis
Height-13.93 mg
-61.88 %
Resid. 8.57 mg
38.05 %
Dpeak 87.5°C

WHC-SD-WM-DP-139, REV. 1

5. mg

50. 100. 150. 200. °C

JA Sp 7-19-95

BEST AVAILABLE COPY

S95T001229 SAM N2

21.443 mg

Rate: 10.0 °C/min

File: 00017.001

TG

METTLER

19-Jul-95

Ident: 0.0

222-S Laboratory

Step Analysis

Height -3.52 mg

-16.42 %

Resid. 17.92 mg

83.58 %

Dpeak 109.0 °C

Step Analysis

Height -4.65 mg

-21.71 %

Resid. 13.13 mg

61.24 %

Dpeak 293.0 °C

WHCSD-WM-DP-139, REV. 1

5. mg

100.

200.

300.

400.

°C

BEST AVAILABLE COPY

S95T001229 DUP N2

29.421 mg

Rate: 10.0 °C/min

File: 00019.001

TG

METTLER

19-Jul-95

Ident: 0.0

222-S Laboratory

Step Analysis

Height -4.32 mg

-14.69 %

ResiC. 25.07 mg

85.21 %

Dpeak 65.0 °C

Step Analysis

Height -6.52 mg

-22.16 %

ResiC. 18.39 mg

62.52 %

Dpeak 295.0 °C

WHCSD-WM-DP-139, REV. 1

485

5. mg

100. 200. 300. 400. °C

55T001235 SAM N2

29.922 mg

File: 00013.001

Ident: 0.0

TG METTLER
222-S Laboratory

19-Jul-95

Rate: 10.0 °C/min

WHC-SD-WM-DP-139, REV. 1

File: 00015.001 TG METTLER 19-Jul-95
Ident: 0.0 222-S Laboratory

S#5T001235 DUP N2
10.361 mg Rate: 10.0 °C/min

Step Analysis
Height -4.57 mg
-44.13 %
Resic. 5.75 mg
55.54 %
Dpeak 55.0 °C

Step Analysis
Height -0.52 mg
-5.01 %
Resic. 5.22 mg
50.40 %

WHC-SD-WM-DP-139, REV. 1

LABCORE Data Entry Template for Worklist#

1806

Analyst: JDS

Instrument: TGA0 1

Book # 65N8-A

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

Worklist Comment: Please run B-101 TGAs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	59.74	61.99	N/A	%
95000093	B-101	2 SAMPLE	S95T001238	0	TGA-01	SOLID	N/A	33.48		%
95000093	B-101	3 DUP	S95T001238	0	TGA-01	SOLID	33.48	34.72	N/A	%
		4 STD			TGA-01	SOLID	59.74	57.46	N/A	%
95000093	B-101	5 SAMPLE	S95T001241	0	TGA-01	SOLID	N/A	29.27		%
95000093	B-101	6 DUP	S95T001241	0	TGA-01	SOLID	29.27	9.20	N/A	%

Final page for worklist #

1806

See attached for signatures
Analyst Signature

Date

7-26-95

BDV

Verified by Blandina Valenzuela 8-1-95

Analyst Signature

7-29-95
Date

S95T001238 ~~was~~ produced an artifact which the chemist cannot explain.
7-26-95

Data Entry Comments:

S95T001241 produced a second weight loss step at approximately 292°C with a loss of 14.53%. The RPD is greater than 10% therefore a rerun will be performed.

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#

1806

Analyst: Jds Instrument: TGA0 Book # 65N84

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

Worklist Comment: Please run B-101 TGAs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID			N/A	%
95000093	B-101	2 SAMPLE	S95T001238	0	TGA-01	SOLID	N/A			%
95000093	B-101	3 DUP	S95T001238	0	TGA-01	SOLID			N/A	%
95000093	B-101	4 SAMPLE	S95T001241	0	TGA-01	SOLID	N/A			%
95000093	B-101	5 DUP	S95T001241	0	TGA-01	SOLID			N/A	%

Final page for worklist #

1806

Jds 7-25-95
Analyst Signature Date

Analyst Signature Date

Data Entry Comments:

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 490 TO 495.

TGA STD 65NBA
15.111 mg
Rate: 10.0 °C/min
File: 00039.001 TG METTLER 24-Jul-95
Ident: 0.0 222-S Laboratory

Step Analysis
Height -9.37 mg
-61.99 %
Resid. 5.71 mg
37.79 %
Dpeak 164.2 °C

File: 00043.001 TG METTLER 24-Jul-95
 Ident: 0.0 222-S Laboratory

S95T001238 SAM N2
 13.878 mg Rate: 10.0 °C/min

File: 00044.001 TG METTLER 24-Jul-95
 Ident: 0.0 222-S Laboratory

S95T001238 DUP N2
 9.988 mg Rate: 10.0 °C/min

Step Analysis
 Height -3.47 mg
 -34.72 %
 Resid. 6.52 mg
 65.28 %
 Dpeak 47.0 °C

Step Analysis
 Height -0.65 mg
 -6.52 %
 Resid. 5.87 mg
 58.72 %

TGA STD 65N8A

17.854 mg

Rate: 10.0 °C/min

File: 00046.001

TG

METTLER

25-Jul-95

Ident: 0.0

222-S Laboratory

Step Analysis

Height-10.26 mg

-57.46 %

Resid. 7.60 mg

42.54 %

Dpeak 83.3 °C

493

5. mg

Int 5th per

7-25-95

WHC-SD-WM-DP-139, REV.1

File: 00048.001 TG METTLER 25-Jul-95
 Ident: 0.0 222-S Laboratory

S95T001241 SAM N2
 12.055 mg Rate: 10.0 °C/min

File: 00050.001 TG METTLER 25-JUL-95
 Ident: 0.0 222-S Laboratory

S95T001241 DUP N2
 31.541 mg Rate: 10.0 °C/min

LABCORE Data Entry Template for Worklist#

1807

Analyst: JDS Instrument: TGA0 1 Book # 65N8-A

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

Worklist Comment: Please run B-101 TGAs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	<u>59.74</u>	<u>60.52</u>	<u>N/A</u>	%
95000093	B-101	2 SAMPLE	S95T001244	0	TGA-01	SOLID	<u>N/A</u>	<u>38.58</u>		%
		3 STD			TGA-01	SOLID	<u>59.74</u>	<u>60.32</u>	<u>N/A</u>	%
95000093	B-101	4 DUP	S95T001244	0	TGA-01	SOLID	<u>38.58</u>	<u>48.11</u>	<u>N/A</u>	%
		5 STD			TGA-01	SOLID	<u>59.74</u>	<u>60.60</u>	<u>N/A</u>	%
95000093	B-101	6 TRIPL	S95T001244	0	TGA-01	SOLID	<u>38.58</u>	<u>48.83</u>	<u>N/A</u>	%

Final page for worklist #

1807

See attached for signatures
Analyst Signature 7-24-95
Date BDV

[Signature]
Analyst Signature 7-24-95
Date

Verified by Blandina Valenzuela
7-26-95

Data Entry Comments:

The sample was run three times. The first time the sample was analyzed the analysis was stopped at 250°C. The sample was run two more times out to 500°C, however the RPD was > than ±10% therefore the original run was used as a triplicate. The sample was
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.
a 30 Rad sample.

LABCORE Data Entry Template for Worklist#

1807

Analyst: JS

Instrument: TGA0

Book # 12A44 7-19-95
BDY

Method: LA-560-112 Rev/Mod A2

Worklist Comment: Please run B-101 TGAs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID			N/A	%
95000093	B-101	2 SAMPLE	S95T001244	0	TGA-01	SOLID	N/A			%
95000093	B-101	3 DUP	S95T001244	0	TGA-01	SOLID			N/A	%

Final page for worklist #

1807

JS Sp 7-18-95
Analyst Signature Date

Analyst Signature Date

Data Entry Comments:

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 498 TO 503.

TGA STD 65N8A
22.608 mg
Rate: 10.0 °C/min
File: 00102.001 TG METTLER 17-Jul-95
Ident: 0.0 222-S Laboratory

Step Analysis
Height-13.68 mg
-60.52 %
Resid. 8.93 mg
39.48 %
Dpeak 89.2 °C

S95T001244 DUF N2

11.985 mg

Rate: 10.0 °C/min

File: 00005.001

TG

METTLER

17-Jul-95

Ident: 0.0

222-8 Laboratory

Step Analysis

Height -4.62 mg

-38.58 %

ResiC. 7.36 mg

61.42 %

Dpeak 119.0 °C

WHC-SD-WM-DP-139, REV. 1

File: 00007.001 TG METTLER 18-Jul-95
 Ident: 0.0 222-S Laboratory

TGA STD 12N14A
 22.270 mg

Rate: 10.0 °C/min

Step Analysis
 Height-13.43 mg
 -60.32 %
 Resid. 8.84 mg
 39.68 %
 Dpeak 90.0 °C

File: 00008.004 TG METTLER 18-Jul-88
Ident: 0.0 222-8 Laboratory

Rate: 10.0 °C/min

Step Analysis	
Height	-7.03 mg
	-48.11 %
Resic.	7.58 mg
	51.89 %
Dpeak	117.0°C

TGA STD 65N8A
13.242 mg

Rate: 10.0 °C/min

File: 00088.001 TG METTLER 14-Jul-95
Ident: 0.0 222-S Laboratory

S95T001244 ~~DUP~~ N2

25.776 mg

Rate: 10.0 °C/min

File: 00090.001

Ident: 0.0

TG METTLER 14-Jul-95
222-S Laboratory

Step Analysis

Height -7.13 mg

-27.66 %

ResidC. 18.65 mg

72.34 %

Step Analysis

Height -5.46 mg

-21.17 %

ResidC. 13.11 mg

50.87 %

Dpeak 123.3°C

5. mg

5. mg

50.

100.

150.

200.

°C

WHCSD-WM-DP-132, REV. 1

LABCORE Data Entry Template for Worklist#

1808

Analyst: JDS Instrument: TGA0 1 Book # 65N8-A

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

Worklist Comment: Please run B-101 TGA under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	-----TEST-----	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	LIQUID	59.74	60.33	7.26 ⁴⁵ 80V	%
95000091	B-101	2 SAMPLE	S95T001223	0	TGA-01	LIQUID	N/A	99.76	49.63	7.26 ⁴⁵ 80V
95000091	B-101	3 DUP	S95T001223	0	TGA-01	LIQUID	99.76	99.89	7.26 ⁴⁵ 80V	N/A %
		4 STD			TGA-01	LIQUID	59.74	60.71	7.26 ⁴⁵ 80V	%
95000093	B-101	5 SAMPLE	S95T001232	0	TGA-01	LIQUID	N/A	49.63	7.26 ⁴⁵ 80V	%
95000093	B-101	6 DUP	S95T001232	0	TGA-01	LIQUID	49.63	49.41	7.26 ⁴⁵ 80V	N/A %

Final page for worklist #

1808

See attached for signatures 7-24-95
Analyst Signature Date BDV

Analyst Signature Date 7-24-95

Verified by Blandina Valenzuela
7-26-95

Data Entry Comments:

LABCORE Data Entry Template for Worklist#

1808

Analyst: Jds Instrument: TGA0 Book # 65N8A

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

Worklist Comment: Please run B-101 TGA under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	LIQUID			N/A	%
95000091	B-101	2 SAMPLE	S95T001223	0	TGA-01	LIQUID	N/A			%
95000091	B-101	3 DUP	S95T001223	0	TGA-01	LIQUID			N/A	%
95000093	B-101	4 SAMPLE	S95T001232	0	TGA-01	LIQUID	N/A			%
95000093	B-101	5 DUP	S95T001232	0	TGA-01	LIQUID			N/A	%

Final page for worklist #

1808

Jds 7-21-95
Analyst Signature Date

Analyst Signature Date

Data Entry Comments:

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 506 TO 511.

TGA STD 65N8A

22.434 mg

File: 00027.001

21-Jul-88

TG

METTLER

Ident: 0.0

222-S Laboratory

Rate: 10.0 °C/min

Step Analysis
Height-13.44 mg
-60.71 %
Resid. 8.70 mg
39.29 %
Dpeak 93.3°C

S95T001223 SAM N2

14.080 mg

Rate: 10.0 °C/min

File: 00029.001 TG

METTLER

222-S

Ident: 0.0 Laboratory

S95T001223 DUP N2
 14.808 mg

Rate: 10.0 °C/min

File: 00034.001 TG

Ident: 0.0 222-S Laboratory

21-Jul-88

Step Analysis
 Height -7.17 mg
 -49.41 %
 Resid. 7.34 mg
 50.59 %
 Dpeak 119.0 °C

TGA STD 65N8A
15.878 mg

Rate: 10.0 °C/min

File: 00021.004 TG METTLER 20-Jul-95
Ident: 0.0 222-S Laboratory

Step Analysis
Height -9.58 mg
-60.33 %
Resid. 6.30 mg
39.67 %
Dpeak 75.8°C

7-20-95

S95T001232 SAM N2
9.846 mg

Rate: 10.0 °C/min

File: 00023.001 TG

METTLER 20-JUL-96
222-S Laboratory

Ident: 0.0

Step Analysis
Height -9.82 mg
-99.76 %
Resid. 0.02 mg
0.24 %
Dpeak 81.0 °C

S95T001232 DUP N2

10.124 mg

Rate: 10.0 °C/min

File: 00025.001 TG METTLER 20-JUL-95

Ident: 0.0 222-S Laboratory

Step Analysis
 Height-10.11 mg
 -99.89 %
 ResidC. 0.01 mg
 0.11 %

LABCORE Data Entry Template for Worklist#

1809

Analyst: SMF Instrument: TGA0 3 Book # 65N8A

Method: LA-514-114 Rev/Mod B-0

Worklist Comment: Please run B-101 TGAs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-03	LIQUID	<u>59.74</u>	<u>57.96</u>	<u>N/A</u>	%
95000093	B-101	2 SAMPLE	S95T001247	0	TGA-03	LIQUID	<u>N/A</u>	<u>50.07</u>		%
95000093	B-101	3 DUP	S95T001247	0	TGA-03	LIQUID	<u>50.07</u>	<u>50.86</u>	<u>N/A</u>	%

Final page for worklist #

1809

See attached for signatures

Analyst Signature Date 7-26-95

[Signature] 7-26-95
Analyst Signature Date

Verified by *Blandina Valenzuela*
7-26-95 ^{BDV}

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#

1809

Analyst:

SNF

Instrument: TGA0

Book # 16518-17

Method: LA-560-112 Rev/Mod

LA-514-114/B-0

Worklist Comment: Please run B-101 TGAs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	LIQUID			N/A	%
95000093	B-101	2 SAMPLE	S95T001247	0	TGA-01	LIQUID	N/A			%
95000093	B-101	3 DUP	S95T001247	0	TGA-01	LIQUID			N/A	%

Final page for worklist #

1809

Analyst Signature

Date

Analyst Signature

Date

Other instrument was
used.

7-28-95
BDV

Data Entry Comments:

Curve 1: TGA
 File Info: TER072401 Mon Jul 24 10:20:52 1995
 Sample Weight: 13.507 mg
 65N8-A Terliq

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
 COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 514 TO 516.

SM Fulton
 PERKIN-ELMER
 7 Series Thermal Analysis System
 Mon Jul 24 10:44:24 1995

N2
 25.0 g
 0.0 min RATE: 10.0 C/min

Curve 1: TGA

File info: SAM072401 Mon Jul 24 13:57:10 1995

Sample Weight: 11.994 mg

S95T001247, 10C/min

WHC-SD-WM-DP-134, REV. 1

N2
TIME: 20.0 min RATE: 10.0 C/min
TIME: 500.0 min

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Mon Jul 24 14:25:24 1995

Curve 1: TGA

File info: SAM072402 Mon Jul 24 15:15:43 1995

Sample Weight: 10.802 mg

S95T001247DUP, 10C/min

N2
TEMP: 300.0 °C
TIME: 0.0 min RATE: 10.0 °/min

SM FULTON
PERKIN-ELMER
7 Series Thermal Analysis System
Tue Jul 25 07:39:50 1995

WHC-SD-WM-DP-139, REV. 1

LABCORE Data Entry Template for Worklist#

1916

Analyst: Jds Instrument: TGA0 1 Book # 65N8A

Method: LA-560-112 Rev/Mod A- B-8 A2
7-26-95

Worklist Comment: Please run B-101 TGAs under N2. bdv

GROUP	PROJECT	S TYPE	SAMPLE#	R A	TEST	MATRIX	ACTUAL	FOUND	DL	UNIT
		1 STD			TGA-01	SOLID	<u>59.74</u>	<u>56.94</u>	<u>N/A</u>	%
95000093	B-101	2 SAMPLE	S95T001241	1	TGA-01	SOLID	<u>N/A</u>	<u>26.79</u>		%
95000093	B-101	3 DUP	S95T001241	1	TGA-01	SOLID	<u>26.79</u>	<u>25.55</u>	<u>N/A</u>	%

Final page for worklist #

1916

Jds
Analyst Signature

7-26-95
Date

[Signature]
Analyst Signature

7-27-95
Date

Verified by Blandina Valenzuela
7-28-95

Data Entry Comments:

The sample produced a second weight loss step of
12.63% at approximately 325°C.

Curve 1: TGA

File info: TER072601 Wed Jul 26 13:31:24 1995

Sample Weight: 27.827 mg

65N8-A Terlinq

SIGNATURE BELOW REPRESENTS CHEMICAL TECHNOLOGIST/CHEMIST THAT
COMPLETED/VERIFIED THE CALIBRATION/ANALYSIS ON PAGES 518 TO 520.

John Spell 7-26-95

518
Weight (Wt. %)

WHC-SD-WM-DP-137, REV. 1

N2
TEMP: 25.0 °C
TIME: 0.0 min RATE: 10.0 °C/min

Temperature (°C)

JD SPELLMAN
PERKIN-ELMER
7 Series Thermal Analysis System
Wed Jul 26 13:31:58 1995

Curve 1: TGA

File Info: SAM072601 Wed Jul 26 14: 42: 25 1995

Sample Weight: 27.026 mg

S95T001241SAM, 10C/MIN

WHC-SD-WM-DP-139, REV. 1

N2

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

Temperature (°C)

JD SPELLMAN
PERKIN-ELMER
7 Series Thermal Analysis System
Wed Jul 26 14: 47: 00 1995

Curve 1: TGA
 File Info: SAM072602 Wed Jul 26 15:53:38 1995
 Sample Weight: 36.413 mg
 S95T001241DUP

N2
 TEMP: 35.0 C
 TIME: 00.0 C
 RATE: 0.0 min RATE: 10.0 C/min
 JD SPELLMAN
 PERKIN-ELMER
 7 Series Thermal Analysis System
 Thu Jul 27 06:05:02 1995

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Project Title/Work Order WHC-SD-WM-DP-139, Rev. 1, "Final Report for Tank 241-B-101, Push Mode Cores 90 and 91"		Date: 10/31/95	
		EDT NO.: N/A	
		ECN NO.: ECN-625769	
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	T6-03	X	
D. C. Hetzer	S6-31		X
L. Jensen	T6-07	X	
G. D. Johnson	S7-15	X	
N. W. Kirch	R2-11	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	
K. L. Powell	T6-06		X
R. D. Schreiber	R2-12	X	
B. C. Simpson	R2-12		X
D. A. Turner	S7-15	X	
J. A. Voogd	H5-03		X
Central Files	A3-88	2	
EDMC	H6-08	X	
LTIC	T6-03		X
TCRC	R2-12	X	
TFIC (Tank Farm Information Center)	R1-20		X

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		ECN NO.: ECN-625769	
Name	MSIN	Text With all Attach	EDT/ECN ONLY

Washington State Department of Ecology
 Single-Shell Tank Unit Manager
 A. B. Stone

B5-18

X

Environmental Protection Agency
 Single-Shell Tank Unit Manager
 D. R. Einan

B5-01

X

U. S. Department of Energy
 Jim Poppiti
 12800 Middlebrook Rd.
 Trevion II, EM-36
 Germantown, MD 20874

X

Los Alamos Technical Associates
 A. T. DiCenso
 309 Bradley Blvd.
 Richland, WA 99352

X

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