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FINAL REPORT FOR TANK 241-BX-104 PUSH MODE CORES 126 & 127 [SEC 1 OF 9]

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SECTION 1 OF 9

TITLE: Final Report for Tank 241-BX-104 Push Mode Cores 126 and 127

DATE: 4/25/96

ORIGINATOR: Hu, Da

CO: WHC

RECIPIENT:

CO:

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COMPLETE

ENGINEERING CHANGE NOTICE

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Proj. ECN

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12. Description of Change

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Functional Design Criteria	[]	Stress/Design Report	[]	Health Physics Procedure	[]
Operating Specification	[]	Interface Control Drawing	[]	Spares Multiple Unit Listing	[]
Criticality Specification	[]	Calibration Procedure	[]	Test Procedures/Specification	[]
Conceptual Design Report	[]	Installation Procedure	[]	Component Index	[]
Equipment Spec.	[]	Maintenance Procedure	[]	ASME Coded Item	[]
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Procurement Spec.	[]	Operating Instruction	[]	Computer Software	[]
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ON Manual	[]	Operational Safety Requirement	[]	ICRS Procedure	[]
FSAR/SAR	[]	IEFD Drawing	[]	Process Control Manual/Plan	[]
Safety Equipment List	[]	Cell Arrangement Drawing	[]	Process Flow Chart	[]
Radiation Work Permit	[]	Essential Material Specification	[]	Purchase Requisition	[]
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NA		

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Cog. Mgr. J. Kristofzski	4-24-96	QA	
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"FINAL REPORT FOR TANK 241-BX-104, PUSH MODE CORES 126 AND 127."

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Westinghouse Hanford Company, Richland, WA 99352
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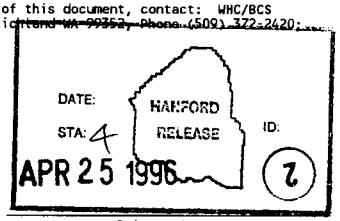

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WHC-SD-WM-DP-171, REV. 1

ANALYTICAL SERVICES

FINAL REPORT FOR TANK 241-BX-104 PUSH MODE CORES 126 AND 127

Project Coordinator: T. A. (ALBERT) HU

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

by

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TABLE OF CONTENTS

Narrative 1

Attachment 1 1-1

45-Day Safety Screening Results for Tank 241-BX-104, Push Mode, Cores 126 and 127 1-2

Narrative 1-3.1A
Appendix A 1-16

Attachment 2 2-1

Final Report for Tank 241-BX-104 Push Mode Cores 126 and 127 . . . 2-2

Narrative 2-7

Section 1 - Physical Data 2-11
Section 2 - Inorganic Chemistry 2-25
Section 3 - Radiochemistry 2-48

Appendices 2-54
Appendix A - Supporting Documentation 2-56
A-1 Signature List 2-58
A-2 Chain of Custody 2-61
A-3 PNNL Chains of Custody 2-69
HLRF to SAL Chains of Custody 2-70
SAL to Lab Chains of Custody 2-72
A-4 Test Instructions 2-84
A-5 Sample Prep Data Sheets 2-102
Water Leach 2-103
Acidification 2-108
KOH Fusion 2-117
Appendix B - Physical Properties 2-129
B-1 Introduction 2-131
B-2 DSC/TGA Analysis 2-137
B-3 Bulk Density Analysis 2-186
Appendix C - Inorganic 2-191
C-1 Introduction 2-193
C-2 ICP Analysis 2-196
C-3 IC Analysis 2-1062
C-4 TOC/TIC/TC Analysis 2-1384
Appendix D - Radiochemistry 2-1397
D-1 Introduction 2-1399
D-2 Total Alpha Analysis 2-1401
D-3 GEA 2-1488
D-4 Radiochemistry Calibration and Control Chart Documentation 2-1541

This document consists of pages 1 through 6, and page 2 was intentionally left blank plus Attachments 1 and 2. Attachment 1 consists of pages 1-1 through pages 1-16 and page 1-3.1A, plus pages 1A-1 through 1A-40 and pages 1-1.1, 1-2.1, 1-3.1, 1-3.2 and 1-16.1 were intentionally left blank. Attachment 2 consists of pages 2-1 through 2-1614, plus pages 240.1, 2-1516.1, and pages 2-1.1, 2-2.1, 2-5.1, 2-6.1, 2-8, 2-12, 2-26, 2-47.1, 2-48.1, 2-53.1, 2-54.1, 2-55.1, 2-57, 2-58.1, 2-61.1, 2-68.1, 2-69.1, 2-70.1, 2-71.1, 2-72.1, 2-83.1, 2-84.1, 2-101.1, 2-102.1, 2-103.1, 2-108.1, 2-118, 2-130, 2-132, 2-138, 2-185.1, 2-187, 2-190.1, 2-192, 2-194, 2-195.1, 2-197, 2-923.1, 2-924.1, 2-925.1, 2-1062.1, 2-1383.1, 2-1384.1, 2-1398, 2-1399.1, 2-1400.1, 2-1401.1, 2-1486.1, 2-1487.1, 2-1488.1, 2-1540.1, 2-1541.1, 2-1542.1, 2-1551.1, 2-1554.1, 2-1555.1, 2-1558.1, 2-1559.1, 2-1562.1, 2-1563.1, 2-1566.1, 2-1567.1, 2-1570.1, 2-1571.1, 2-1576.1, 2-1577.1, 2-1584.1, 2-1589.1, 2-1590.1, 2-1595.1, 2-1596.1, 2-1598, 2-1603.1, 2-1604.1, 2-1609.1, and 2-1610.1 were intentionally left blank.

NARRATIVE

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FINAL REPORT FOR TANK 241-BX-104, PUSH MODE CORES 126 AND 127

SUMMARY

This is the final sample analysis report for tank 241-BX-104 (BX-104), cores 126 and 127. Two segments from each core yielded a total of 11 samples which were analyzed. The data quality objectives (DQOs) applicable to this sampling event were the Safety Screening DQO (Dukelow et al. 1995) and the Organic Safety DQO (Turner et al. 1995). The samples were received, extruded and analyzed at PNNL 325 Analytical Chemistry Laboratory (ACL). The analyses were performed in accordance with the Sample Analysis Plan (Gretsinger 1996) and indicated that the tank is "safe" with respect to the criteria in the Safety Screening and Organic DQO. Detailed analytical results were described in the analytical laboratory 45-day Report (Attachment I, WHC-SD-WM-DP-171, REV. 0) and final report (Attachment II, PNL-BX-104 REV.1) prepared by PNNL, 325 laboratory. Corrections and/or exceptions to the PNNL final report are provided below. PNNL 325 laboratory is responsible for all Quality Control aspects of the laboratory analytical work and results for this projects.

Hydrostatic Head Fluid (HHF) with a lithium bromide tracer was used during the sampling event. The analytical results show that Core 127, segment 2A sludge (PNNL ACL-# 96-02985) and drainable liquid (PNNL ACL-# 96-02992) have relatively large detectable amounts of Li and Br. HHF intrusion calculations (Winkleman, 1996) indicate that the water from both samples was more than 50% HHF and therefore the samples are unusable (Kristofzski, 1995). The analytical results for these two samples listed in the laboratory report are for information only.

CORRECTIONS AND/OR EXCEPTIONS TO THE PNNL FINAL REPORT

In section 1.1.1 and 1.1.4, the recovery percentage of the top segment on both cores needs to be adjusted based on the waste level and the sampling stroke correction factor in the field. According to surveillance data, where the waste level is 31 inches, the expected waste in the top segment is 12.4 inches. Using the expected waste volume along with the stroke adjustment in the field, the extrusion recoveries are 75% (9% liquid and 66% solid) for sample WHC-96-021, and 90% (5% liquid and 85% solid) for sample WHC-96-023.

TANK VAPOR SPACE FLAMMABILITY RESULTS

Prior to core sampling, the flammability of the tank headspace was measured to address the vapor flammability issue of the safety screening data quality objective. The tank vapor space was sampled on January 5, 1996 in accordance with work package ES-95-00644 to determine the flammability of the vapor space gasses. The sampling was done through risers 1 and 7 at approximately 3 feet below the risers. The combustible gas meter reading was 0 percent of the LFL, indicating no flammability concerns with this tank. Other measurements made were oxygen: 20.6% and 20.9%, total organic vapors: 5 ppm and 8 ppm, and

ammonia: 50 ppm and 200 ppm for risers 1 and 7, respectively. Ammonia level are above the threshold by the National Institute of Safety and Health (NIOSH) to hazardous to breath.

CORE 127, SEGMENT 2 SAMPLE WAS INTRUDED BY HYDROSTATIC HEAD FLUID

As pointed out by the PNNL report (ATTACHMENT II) the Li and Br concentration level of the of Core 127, segment 2, drainable liquid (Li: 840 μg/g from IC and Br: 14,000 μg/g from ICP) was significantly higher than the concentration of HHF blank (Li: 713 μg/g and Br: 8300 μg/g). One can conclude that the HHF blank sample analyzed in the laboratory could not have been used in the BX-104 sampling event. On the other hand, the drainable liquid could not possible be mislabeled as the pure HHF because it contains significant amounts of Al, Cr and Na. This data anomaly was further investigated with the field sampling operations crew. It was found that the wrong HHF blank sample bottle was delivered to the laboratory.

In the following HHF intrusion analysis, it assumed that the normal HHF with 0.3M LiBr tracer was used in the sampling process, and the average LiBr concentration of HHF blank data from eight other tanks, which are 1876 μg/g for Li and 24684 μg/g for Br, was used. Listed in table 1 are the laboratory analytical results which show that both the liquid and solid samples have an appreciable amounts of Li and Br. These data were used in the HHF intrusion calculation. The analysis indicated 52% and 63% of the water present was from HHF in the solid and liquid portion of sample Core 127, segment 2 (WHC-96-024) respectively. Since the HHF intrusion is greater than 50%, the sample results are considered unusable.

Table 1 The analytical results for the HHF intrusion sample (WHC-96-024)

	Core 127, Segment 2A Sludge (PNL-ACL-96-2992)		Core 127, Segment 2, Liquid (PNL-ACL-96-2985)	
	Sample	Duplicate	Sample	Duplicate
Br(μg/ml)	3,000	3,100	14,000	14,000
Li(μg/ml)	329	360	838.4	841.9
Density(g/ml)	1.84	1.84	1.15	1.15
Sample Wt.(g)	153.5	n/a	74.5	n/a
Wt% Water	24.1	22.9	78.3	77.1

NO ANALYTICAL RESULTS EXCEED DQOs' ACTION LIMIT

The safety screening DQO notification limit for the exothermic condition in DSC analysis is 480 J/g. The laboratory report shows that no exotherm was observed in the DSC first transition, which is mainly in the temperature range below 200 °C for all samples. The wt% water lost in the DSC first transition is mainly the free water in the sample. Exotherms were observed in the DSC third transition, where the temperatures extend past 200 °C. The exothermic values, at a 95% confidence upper limit, ranged from 17 J/g to 174 J/g which is well below 480 J/g.

The organic DQO requires a comparison of the TOC 95% confidence limit to the 30,000 μg/g (on a dry weight basis) TOC action limit. The TOC values on a dry weight basis are given in table 2. The 95% confidence upper limit values ranged from 1060 to 20270 μg/g and are below the action limit.

Table 2 The TOC values in dry weight basis[1]

PNNL ACL-#	Sample (μg/g)	Duplicate (μg/g)	RPD (%)	Average (μg/g)	95% C.L. (μg/g)
96-2979	8020	7060	13	7540	10550
96-2981	1250	1170	6	1210	1450
96-2982	780	860	9	820	1060
96-2983	14700	16220	10	15460	20270
96-2984	9620	8400	14	9010	12870
96-2985[3]	3030	3370	11	3200	4280
96-2987	<16	<16	n/a	n/a	n/a
96-2988	n/a	n/a	n/a	n/a	n/a
96-2989[2]	12620	13040	3	12830	14150
96-2990[2]	6850	7130	4	6990	7980
96-2992[2,3]	7680	6530	11	7110	10760

Note: 1. The wt% water data in the DSC first transition was used to get the dry-weight basis TOC values.
2. The TOC data of liquid samples was converted to μg/g by multiplying the TOC value in μg/ml by the liquid density.
3. The HHF intrusion samples for information only.

The safety screening DQO also provides a notification limit for Total Alpha concentration. The notification limit can be calculated as 61.5 (μCi/ml)/sample density. The notification limit for the most dense sample (96-2982, density of 2.02 g/ml) is 30.4 μCi/g. No reported laboratory total alpha values based on the 95% confidence upper level exceed the notification limit.

Since no safety screening nor organic DQO action limits were exceeded in the primary analysis, no secondary analyses are required. The data indicate that the tank is in the "SAFE" condition with respect to the Safety Screening and Organic DQO action limits.

Project Coordinator: T Albert Hu

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Winkleman, W.D., April 18, 1996, *Internal Memo "Hydrostatic Head Fluid Intrusion calculation for Tank BX-104"*, Westinghouse Hanford Company, Richland, Washington.

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ATTACHMENT 1

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P.O. Box 1970 Richland, WA 99352

WHC-SD-WM-DP-171, REV. 0

ANALYTICAL SERVICES

45-DAY SAFETY SCREENING RESULTS FOR TANK 241-BX-104, PUSH MODE CORES 126 AND 127

Project Coordinator: T. A. (ALBERT) HU

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

by

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Box 1970
Richland, Washington

1-2

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TABLE OF CONTENTS

Narrative . . . . . .

Appendix A . . . . . .

This document consists of pages 1-1 through 1-16, and 1A-1 through 1A-40, plus pages 1-1.1, 1-3.2 were intentionally left blank.

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NARRATIVE

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45-DAY SAFETY SCREENING RESULTS FOR TANK 241-BX-104, PUSH MODE CORES 126 AND 127

ANALYTICAL SUMMARY

Two push mode cores 126 and 127, were taken from tank 241-BX-104 (BX-104). The samples were received at the 325 Laboratory and underwent safety screening analyses consisting of bulk density, differential scanning calorimetry (DSC), thermogravimetric analysis (TGA), and determination of total alpha activity. The results were compared to the safety screening limits at a confidence level of 95%. None of the adjusted results exceeded the notification limits stated in the Sampling and Analysis Plan (SAP) [1].

SCOPE

This document serves as the 45-day report deliverable for the tank BX-104 push mode core samples collected on January 5, 6, and 11, 1996 (WHC sample ID 96-021 through 96-024). The 325 Laboratory received, extruded, and analyzed each sample in accordance with the SAP [1]. Included in this report are the results obtained from the primary safety screening analyses.

No safety screening notification limits were exceeded; therefore, no additional testing to support safety screening analyses is required. Additional analyses conducted by the 325 Laboratory on these push mode core samples will be included in a revision to this report. The BX-104 samples are being further analyzed for certain chemical constituents in accordance with the SAP.

A sample identification matrix is provided in Table 1. This table provides the sample identification, description, and corresponding PNNL sample numbers.

TANK DOME SPACE FLAMMABILITY SCREENING

Prior to Core sampling, the flammability of the tank headspace was measured to address the vapor flammability issue of the safety screening data quality objective [2]. The tank vapor space was sampled on January 5, 1996 in accordance with work package ES-95-00644 to determine the flammability of the vapor space gasses. The Sampling was done through riser 1 and 7 at approximately 3 feet below the risers. The combustible gas meter reading was 0 percent of the LFL, indicating no flammability concerns with this tank. Other measurements made were oxygen 20.6% and 20.9%, total organic vapors 5 ppm and 8 ppm, and ammonia 50 ppm and 200 ppm for riser 1 and 7 respectively.

Table 1. Tank BX-104 PNNL ACL Number Assignment

Sample Identification	Sample Description	WHC Sample ID	PNNL ACL-Number
Core 126 Subsegment 1A	Segment 1 (no 1/2 seg)	96-021	96-02979
Core 126 Subsegment 2A	Upper Half of Segment 2	96-022	96-02981
Core 126 Subsegment 2B	Lower Half of Segment 2	96-022	96-02982
Core 127 Subsegment 1A	Upper Half of Segment 1	96-023	96-02983
Core 127 Subsegment 1B	Lower Half of Segment 1	96-023	96-02984
Core 127 Subsegment 2A	Segment 2 (no 1/2 seg)	96-024	96-02985
Field Blank	--	--	96-02987
Hydrostatic Head Fluid	--	--	96-02988
Core 126 Segment 1 Drainable Liquid	--	96-021	96-02989
Core 126 Segment 2 Drainable Liquid	--	96-022	96-02990
Core 127 Segment 2 Drainable Liquid	--	96-024	96-02992

SAMPLE RECEIPT, EXTRUSION, AND SUBSAMPLING

Sample extrusions described below were performed following procedure 325-A-33P.

Core 126 Segment 1, WHC Sample ID 96-021

Push mode sample WHC 96-021 was collected from riser 7 of tank BX-104 on January 5, 1996 and extruded on January 25, 1996. No crust was observed. A total of 28 g of liner liquid was collected. The first 1.5 strokes (approximately 7 inches per stroke) extruded no solids. The bulk of the solids were extruded during the final stroke. The material was dark brown with a patch of white-gray. 246.8 g of solid material was extruded into the pan, and 18.9 mL of drainable liquid was collected. 206.2 g of sludge was transferred into a sample jar. The estimated recovery was 52%, with 6% liquid based on volume and 42% solid based on mass (using an average measured density of 1.88 g/mL for the segment). Due to the relatively low recovery, the sample was not divided into half-segments. The segment material was homogenized and subsampled for further laboratory analyses and archiving.

Core 126 Segment 2, WHC Sample ID 96-022

Push mode sample WHC 96-022 was collected from riser 7 of tank BX-104 on January 5, 1996 and extruded on January 26, 1996. The first stroke extruded no solids. The first 9 inches of extruded solids were light gray-brown and held its shape in the pan. The final solids were smeared layers of gray and brown. These solids were wet and crumbly. 443.3 g of solid material was extruded into the pan, and 20.0 mL of drainable liquid was collected. A total of 205.7 g of solid material from the first 9.5 inches were transferred into a sample jar, and 201.7 g of solid material from inches 9.5 to 19 were transferred to a second sample jar. The estimated recovery was 79%, with 6% liquid based on volume and 73% solid based on mass (using an average measured density of 1.96 g/mL for the upper and lower half-segments). The segment material was divided into half-segments, homogenized and subsampled for further laboratory analyses and archiving.

Core 126 Field Blank

In accordance with the SAP, a field blank was provided along with Core 126. The field blank was generated on January 5, 1996 and extruded on January 27, 1995. A total of 236.4 g of liquid was collected. The field blank was a clear, colorless liquid. Subsamples were taken for analysis and archiving.

Core 127 Segment 1, WHC Sample ID 96-023

Push mode sample WHC 96-023 was collected from riser 1 of tank BX-104 on January 6, 1996 and extruded on January 27, 1996. No crust was observed. A total of 19 g of liner liquid was collected. The first 9 inches were a steel gray thick sludge that flowed slightly upon extrusion. The remaining material was black and flowed but could not be poured. 258.2 g of solid material was extruded into the sample pan, and 9 mL of black-gray drainable liquid was collected. A total of 98.9 g of solid material from the first 9.5 inches were

transferred into a sample jar, and 125.9 g of solid material from inches 9.5 to 19 were transferred into a second sample jar. The estimated recovery was 57%, with 3% liquid based on volume and 54% solid based on mass (using an average measured density of 1.6 g/mL for the upper and lower half-segments). The segment material was divided into half-segments, homogenized and subsampled for further laboratory analyses and archiving.

Core 127 Segment 2, WHC Sample ID 96-024

Push mode sample WHC 96-024 was collected from riser 1 of tank BX-104 on January 6, 1996 and extruded on January 29, 1996. A total of 65.8 mL of light yellow-brown liner liquid was collected. The first stroke extruded no solids. The bulk of the material was extruded during the last stroke. The material was wet, crumbly, and black-brown. 169.1 g of solid material were extruded into the sample pan, and 65 mL of milky yellow drainable liquid was collected. A total of 153.5 g of sludge was transferred into one sample jar. The estimated recovery was 51%, with 21% liquid based on volume and 30% solid based on mass (using an average measured density of 1.84 g/mL for the segment). Due to the relatively low recovery, the sample was not divided into half-segments. The segment material was homogenized and subsampled for further laboratory analyses and archiving.

ANALYTICAL RESULTS

DENSITY

The densities of the half-segments, drainable liquids, and field blank from tank 241-BX-104 Cores 126 and 127 were measured in duplicate. The densities were measured according to technical procedure PNL-ALO-501 Rev. 0. The volumes of the drainable liquids and field blank were measured in a graduated cylinder. The volumes of the half segments were measured in graduated centrifuge cones after the samples were centrifuged for 30 minutes at approximately 1500 x g forces. All sample masses were measured with a calibrated electronic balance. The densities of these samples were calculated by dividing the mass of each sample by its volume.

The density data for the samples and duplicates are reported in Table 2. The average density for each sample and the relative percent difference (RPD) are also reported. None of the measurements exceeded the required precision (20% as measured by RPD).

The density of the field blank (1.01 g/mL) is consistent with the density of water. The drainable liquid densities are significantly higher than water indicating that the drainable liquids contain a significant quantity of dissolved salts. This is consistent with the wt% water data presented in the thermal analysis section. The drainable liquid from Core 127 Segment 2 was a clear bright yellow solution. The other drainable liquids were clear with a yellow tint. The densities of the half-segments range from 1.61 to 2.02 g/mL.

Table 2. Density

Sample #	Core	Segment	Density (g/mL)	Average *	RPD (%) *
96-02989	126	1 Drainable Liquid 1 Drainable Liquid Dup	1.28 1.27	1.28	0.74
96-02979	126	1A (Whole Segment) 1A Dup	1.90 1.85	1.88	2.66
96-02990	126	2 Drainable Liquid 2 Drainable Liquid Dup	1.27 1.30	1.29	2.14
96-02981	126	2A (Upper Half) 2A Dup	1.90 1.91	1.91	0.31
96-02982	126	2B (Lower Half) 2B Dup	2.02 2.00	2.01	1.19
96-02983	127	1A (Upper Half) 1A Dup	1.43 1.43	1.43	0.01
96-02984	127	1B (Lower Half) 1B Dup	1.62 1.61	1.62	0.93
96-02992	127	2 Drainable Liquid 2 Drainable Liquid Dup	1.15 1.15	1.15	0.19
96-02985	127	2A (Whole Segment) 2A Dup	1.86 1.81	1.84	2.49
96-02987		Field Blank Field Blank Dup	1.02 1.01	1.01	1.53

* Results calculated using more significant figures than portrayed in this table.

THERMOGRAVIMETRIC ANALYSIS (TGA)

Percent water determinations by TGA were made on homogenized subsamples from Core 126 Segments 1 and 2 and Core 127 Segments 1 and 2. TGA determinations were also made on the drainable liquids from Core 126 Segments 1 and 2, and Core 127 Segment 2. The TGA determinations were measured according to technical procedure PNL-ALO-508 Rev. 0. TGA determinations provide data associated with all sample mass losses over a particular temperature range. In this report the initial endothermic transition and its associated mass loss are used to calculate the percent water in the sample. This accounts for the free water associated with the sample and does not include waters of hydration or loosely bound water.

Samples were run on a SEIKO 5200 instrument[1]. Balance calibration of the instrument was checked against a known 20 mg standard laboratory weight. The instrument temperature was calibrated using indium and lead standards, and

[1]Seiko Instrument USA, Inc. 20525 Mahattan Pl., Torrance, CA 90501

was checked periodically using the indium standard. Temperature readings for the instrument were within 2 °C of the reported literature value. Balance calibration of the TGA was within 0.01 mg of its expected value. The temperature range for the TGA runs was from ambient (~20 °C) to 550 °C, using a scan rate of 10 °C per minute to permit good thermal conductivity in the sample. Analyses were conducted using platinum sample pans under a nitrogen cover gas. Data for percent water are tabulated in Table 3 and scans are attached in Appendix A.

As shown by the data in Table 3, one sample (96-02979, Core 126 Segment 1) exceeded the established 20% RPD precision limit for TGA. The higher RPD in this case is a consequence of the lack of resolution between the initial and second transitions. If the mass losses for first two transitions are combined to a more definitive endpoint, the RPD is 1.6%. Because weight loss associated with transition 2 is low compared to the first transition, no impact to safety concerns is observed choosing either the mass loss for either or a combination of both transitions while doing calculations. Confidence intervals listed in Table 3 correspond to the 95% lower limit values for percent water in the samples.

DIFFERENTIAL SCANNING CALORIMETRY (DSC)

Energetics of samples from Cores 126 and 127 were determined by DSC. DSC analyses were conducted using a SEIKO 5200 instrument according to technical procedure PNL-ALO-508 Rev. 0. Temperature and enthalpy calibrations of the DSC instrument were made using indium and lead standards. Calibration was checked periodically using an indium standard. A melting temperature of 156.5 °C was measured for the indium standard. This melting temperature was within ± 1 °C of reported literature value (156.6 °C).

The temperature range for the DSC runs was from ambient (~20 °C) to 550 °C, using a scan rate of 10 °C per minute to permit good thermal conductivity in the sample. Analyses were conducted using platinum sample pans under a nitrogen cover gas.

Enthalpy data are tabulated in Table 4 and scans are attached in Appendix A. Listed values for transitions exhibiting exothermic behavior have been corrected for percent moisture (e.g., dry-weight basis values). Data listed at the 95% confidence limits in Table 4 thus represent the maximum potential values for samples exhibiting exothermic behavior (e.g., upper confidence limit), and minimum values for sample exhibiting endothermic behavior (lower confidence limit). The notification limit for DSC samples (95% confidence interval) is -480 J/g. Sample enthalpies must exceed this value to represent a safety screening concern.

Samples 96-02983 (Core 127 Subsegment 1A), 96-02984 (Core 127 Subsegment 1B), 96-02989 (Core 126 Segment 1 drainable liquid), 96-02990 (Core 126 Segment 2 drainable liquid), and 96-02992 (Core 127 Segment 2 drainable liquid) exhibited exothermic activity. As shown in Table 4, the 95% confidence limit of the exotherm values range from -13 to -174 J/g; none of these samples exceeded the notification limit at the 95% confidence limit -480 J/g (dry-weight basis).

Two samples, 96-02979 and 96-02992, had mean enthalpies (between the sample and duplicate analyses) which exceeded a 20% RPD precision criterion. For sample 96-02979 (Core 126, Segment 1A), a relatively large difference in starting temperature between the sample and duplicate was noted. In this case, the higher RPD was due to this temperature difference. While the enthalpy for transition 1 may be understated, the transition is endothermic and does not impact tank safety concerns. Therefore, no further action was taken.

Enthalpies for transition 1 of two samples, 96-02981 (Core 126 Subsegment 2A) and 96-02985 (Core 127 Segment 2) could not be calculated because the transition began at temperatures lower than the starting temperature of the scans. Again, while enthalpies for transition 1 in these samples may be understated, the transitions are endothermic and do not impact tank safety concerns. Therefore, no further action was taken.

For sample, 96-02992 (Core 127 Segment 2 drainable liquid) small enthalpy differences in the exotherm for transition 3 were noted, contributing to the larger calculated RPD values. Higher RPD values are expected for transitions exhibiting low overall enthalpies, where choice and placement of endpoints for particular transitions are less definitive. Because the enthalpies were low for this sample and duplicate, no impact to safety concerns was observed from the calculated results.

TABLE 3. TGA Results for Homogenized Samples from Tank 241-BX-104

Description	Sample#	(1) Delta Wt% H2O	(1) Avg Wt% H2O	(2) Delta Wt%	(2) Avg Mass Loss	(3) Delta Wt%	(3) Avg Mass Loss	(1) 95% C.L.	(2) 95% C.L.	(3) 95% C.L.	(1) RPD%	(2) RPD%	(3) RPD%
C126,S1A,UH	96-02979	11.8	10.0	12.6	14.7	16.4	16.8	-2	2	15	37	28	4
Duplicate	96-02979D	8.1		16.7		17.1							
C126,S2A,UH	96-02981	11.8	11.6	24.9	24.3	4.8	4.7	10	21	4	4	5	6
Duplicate	96-02981D	11.2		23.7		4.5							
C126,S2A,LH	96-02982	23.5	22.2	15.6	15.8	3.6	3.7	14	15	3	12	3	5
Duplicate	96-02982D	20.8		15.9		3.9							
C126,S1,DL	96-02989	58.4	58.4	7.0	6.9	0.9	0.8	58	6	1	0	4	12
Duplicate	96-02989D	58.4		6.7		0.9							
C126,S2,DL	96-02990	60.4	59.8	4.3	4.4	0.3	0.2	55	4	0	3	2	0
Duplicate	96-02990D	59.0		4.4		0.2							
C126,FB	96-02987[1]	96.8	97.9					92			2		
Duplicate	96-02987D[1]	98.8											
C127,S1A,UH	96-02983*	49.5	48.0	7.0	7.1	2.5	2.6	39	7	2	6	0	13
Duplicate	96-02983D*	46.5		7.1		2.8							
C127,S1B,LH	96-02984	44.1	43.0	5.1	5.3	4.4	4.4	36	4	4	5	6	1
Duplicate	96-02984D	41.8		5.4		4.4							
C127,S2A	96-02985**	24.0	23.5	18.5	18.6	4.5	4.5	20	18	5	5	1	0
Duplicate	96-02985D**	22.9		18.7		4.5							
C127,S2,DL	96-02992	78.3	77.7	2.0	2.1			74	1		2	10	
Duplicate	96-02992D	77.1		2.2									

(1) Represents data and/or calculations for the first region of mass loss.
(2) Represents data and/or calculations for the second region of mass loss.
(3) Represents data and/or calculations for the third region of mass loss.

[1] Wt% values of sample 96-02987 and 96-02987D refers to raw data of 96-02987-3 and -4 respectively in aapendix A
* Wt% Values of sample 96-02983 and 96-02983D refers to raw data 96-02983-3 and -4 respectivly in appendix A.
** Wt% Values of sample 96-02985 and 96-02985D refers to raw data 96-02985-3 and -4 respectively in appendix A.
\# Wt% Values of sample 96-02989, 96-02989D and 96-02984D are sum of last two tail transitions.

TABLE 4. DSC Results for Homogenized Samples from Tank 241-BX-104[$].

Description	Sample#	(1) DeltaH1 J/g	(1) AvgH1 J/g	(2) DeltaH2 J/g	(2) AvgH2 J/g	(3) DeltaH3** J/g	(3) AvgH3 J/g **	(1) 95% C.L.	(2) 95% C.L.	(3) 95% C.L.	(1) RPD %	(2) RPD %	(3) RPD %
C126,S1A,UH	96-02979	132.2	111.9	225.2	226.95	407.9	428.5	-17	216	299	36	2	10
Duplicate	96-02979D	91.5		228.7		449.0							
C126,S2A,UH	96-02981	*	231.5	588.0	638.25			n/a	321		n/a	16	
Duplicate	96-02981D	231.5		688.5									
C126,S2A,LH	96-02982	412.1	379.8	458.0	453.8			175	427		17	2	
Duplicate	96-02982D	347.4		449.6									
C126,S1,DL	96-02989	884.2	952.9	61.9	60.9	-74.0	-68.1	519	55	-105	14	3	17
Duplicate	96-02989D	1021.6		59.9		-62.3							
C126,S2,DL	96-02990	1029.1	1070.0	29.6	31.05	-53.7	-54.0	812	22	-56	8	9	1
Duplicate	96-02990D	1110.8		32.5		-54.4							
C126,FB	96-02987	1589.7	1619.0					1434			4		
Duplicate	96-02987D	1648.3											
C127,S1A,UH	96-02983	935.3	849.9	37.4	39.9	-33.6	-35.2	310	24	-45	20	13	9
Duplicate	96-02983D	764.4		42.4		-36.7							
C127,S1B,LH	96-02984	589.5	617.6	129.9	122.55	-9.8	-9.3	440	76	-13	9	12	11
Duplicate	96-02984D	645.7		115.2		-8.8							
C127,S2A	96-02985	*	418.2	553.4	532.5			n/a	401		n/a	8	n/a
Duplicate	96-02985D	418.2		511.6									
C127,S2,DL	96-02992	1405.4	1339.7	34.2	31.6	-34.5	-53.6	925	15	-174	10	16	71
Duplicate	96-02992D	1274		29.0		-72.6							

$ Exothermic values are proceeded by a negative sign "-".

* Enthalpy for this transition was not calculable.

** Adjustment factor divisors for exothermic dry weight-basis corrections:

#96-02983:	1-0.4795	=	0.5205
#96-02984:	1-0.4295	=	0.5705
#96-02989:	1-0.5840	=	0.4160
#96-02990:	1-0.5975	=	0.4025
#96-02992:	1-0.7770	=	0.2230

All exothermic results are reported on a dry weight basis and corrected by above factors. Endothermic results are reported on a wet weight basis

(1) Represents data and/or calculations for the first DSC transition.

(2) Represents data and/or calculations for the second DSC transition.

(3) Represents data and/or calculations for the third DSC transition.

TOTAL ALPHA ANALYSES

Radiochemical analyses were performed on fusion preparations of samples from Core 126 Subsegments 1A and 2B; Core 127 Subsegments 1B and 2A; acid digestions of the drainable liquids from Core 126 Segments 1 and 2, and Core 127 Segment 2; and for a field blank. In all cases a sample and a duplicate were analyzed. For each batch of sample preparations (fusion or acid digestion), a process blank was also analyzed. All of the fusion samples were obtained from the potassium hydroxide fusion preparation. When the drainable liquids from Core 126 were acidified in the hot cell, a chemical reaction was noted resulting in considerable bubbling with a white froth at the top of the vial and the formation of a precipitate. As agreed upon with the acting Project Coordinator (LM Sasaki, WHC), a representative aliquot of this material was acid digested in the laboratory according to procedure PNL-ALO-106 prior to further analysis. All of the precipitate was quickly dissolved with the addition of nitric acid as called for in the procedure.

Total alpha analyses were performed according to procedures PNL-ALO-420 Rev. 1 and PNL-ALO-421 Rev. 1. In this method, small aliquots of highly diluted samples are dried on counting disks and counted using Ludlum ZnS scintillation counters. The plates prepared by this method appeared to have no significant residue. Due to concern over the possibility of alpha absorption, all of the samples were analyzed with a spike added to a replicate aliquot of each sample. The results showed that the mass absorption effects were small with an average spike recovery of 83%. The drainable liquids from Core 126 Segments 1 and 2 had the lowest spike recoveries (70% and 66%, respectively), probably due to the digested precipitate noted above which resulted in higher mass loading. No corrections were made for spike recoveries.

Total alpha results for Segment 1 were a factor of 4-6 higher than results from Segment 2 for both cores. The drainable liquid from Core 126 Segment 1 showed a value that was five orders of magnitude lower alpha activity than the notification limit; no alpha activity was detected in the other drainable liquid samples.

The RPD values for sample duplicates show excellent agreement, and range from 4.4% to 13% which are within the control limit (20%). The highest RPD 13% was noted on the sample and duplicate exhibiting the lowest alpha activity and highest individual uncertainties.

All of the lab blanks indicate no detectable alpha activity. The process blank for the drainable liquids showed no detectable alpha activity. The process blank for the fusion preparation in the hot cells showed weak alpha activity at about 1/4 of the level of the weakest sample analyzed with this batch (Core 126 Subsegment 2B, fusion). Since the process blank indicates a potential high bias but all sample results were well below the notification limit, no further actions were taken. This approach was discussed and agreed upon with the Project Coordinator.

The largest 95% confidence level values are 16 times less than the notification limits, so no further analysis and action need.

Table 5 Total Alpha Analysis Results from Tank BX-104

ALO #	Description	Prep	ANALYSIS BATCH	Total Alpha uCi/g	+/-% Error	Matrix Spike Recovery,%	95% Confidence Notification Limit, uCi/g
96-2979BLK	PROCESS BLANK		1	4.33E-02	5%	91%	
96-2979	C126 Seg 1A	Fusion	1	5.47E-01	14%	88%	7.85E-01
96-2979DUP	C126 Seg 1A Dup	Fusion	1	6.12E-01	12%	87%	
	RPD			11.2%			
96-2982	C126 Seg 2B	Fusion	1	1.53E-01	21%	85%	1.93E-01
96-2982DUP	C126 Seg 2B Dup	Fusion	1	1.64E-01	25%	87%	
	RPD			6.9%			
96-2984	C127 Seg 1B	Fusion	1	2.13E+00	7%	87%	2.53E+00
96-2984DUP	C127 Seg 1B Dup	Fusion	1	2.24E+00	7%	81%	
	RPD			5.0%			
96-2985	C127 Seg 2A	Fusion	1	3.74E-01	16%	85%	4.17E-01
96-2985DUP	C127 Seg 2A Dup	Fusion	1	3.58E-01	15%	86%	
	RPD			4.4%			
96-2989	C126 Seg 1 DL	Direct	3	3.89E-04	25%	70%	5.86E-04
96-2989DUP	C126 Seg 1 DL Dup	Direct	3	4.43E-04	23%		
	RPD			13.0%			
96-2990	C126 Seg 2 DL	Direct	3	<1.2E-4		66%	
96-2990DUP	C126 Seg 2 DL Dup	Direct	3	<1.0E-4			
96-2992	C127 Seg 2 DL	Direct	2	<2.2E-4		86%	
96-2992DUP	C127 Seg 2 DL Dup	Direct	2	<2.7E-4			
96-2987	Field Blank	Direct	2	<1.1E-3		92%	
96-2987DUP	Field Blank Dup	Direct	2	<1.2E-3			
96-2989BLK	Process Blank		2	<4.8E-6		88%	
96-2989BLKDUP	Process Blank		2	<4.8E-6			
	LAB STANDARD		1	90%			
	LAB STANDARD		2	92%			
	LAB STANDARD		3	91%			
	LAB BLANK		1	<6.E-4			
	LAB BLANK		2	<7.E-4			
	LAB BLANK		3	<5.E-6			

REFERENCES

[1] M. M. Gretsinger, *Tank 241-BX-104 Push Mode Core Sampling and Analysis Plan*, WHC-SD-WM-TSAP-067, Rev. 1, Westinghouse Hanford Company, Richland, Washington, January 8, 1996.

[2] G. T. Dukelow, et al., *Tank Safety Screening Data Quality Objective*, WHC-SD-WM-SP-004, Rev. 2, Westinghouse Hanford Company, Richland, Washington, August 31, 1995.

Appendix A

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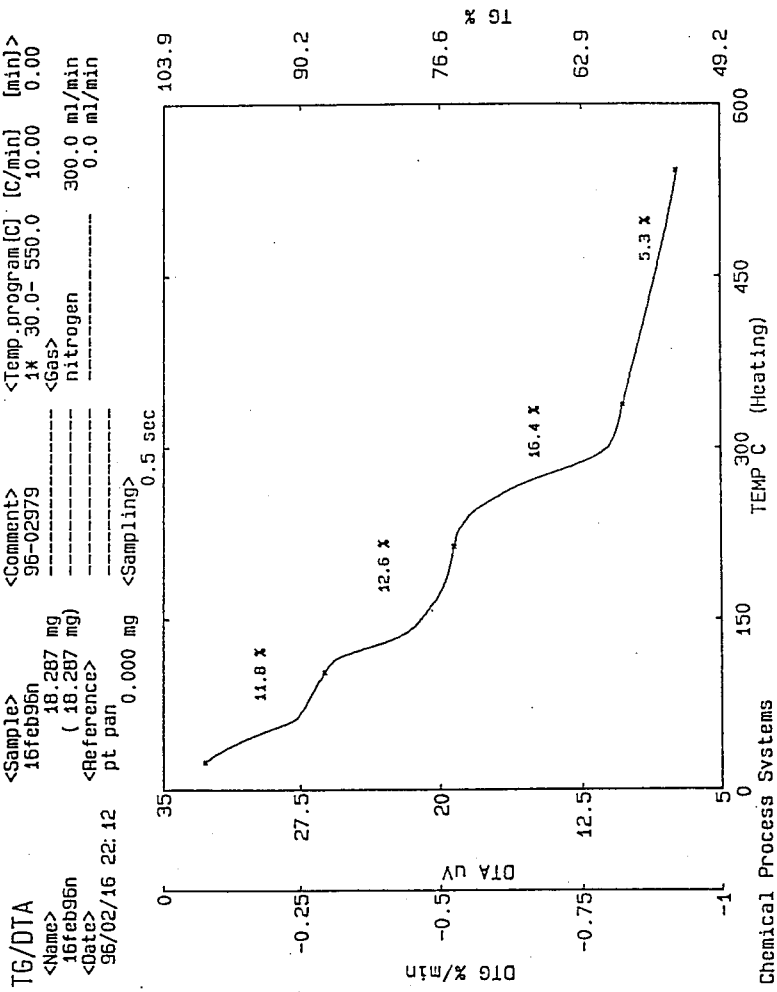
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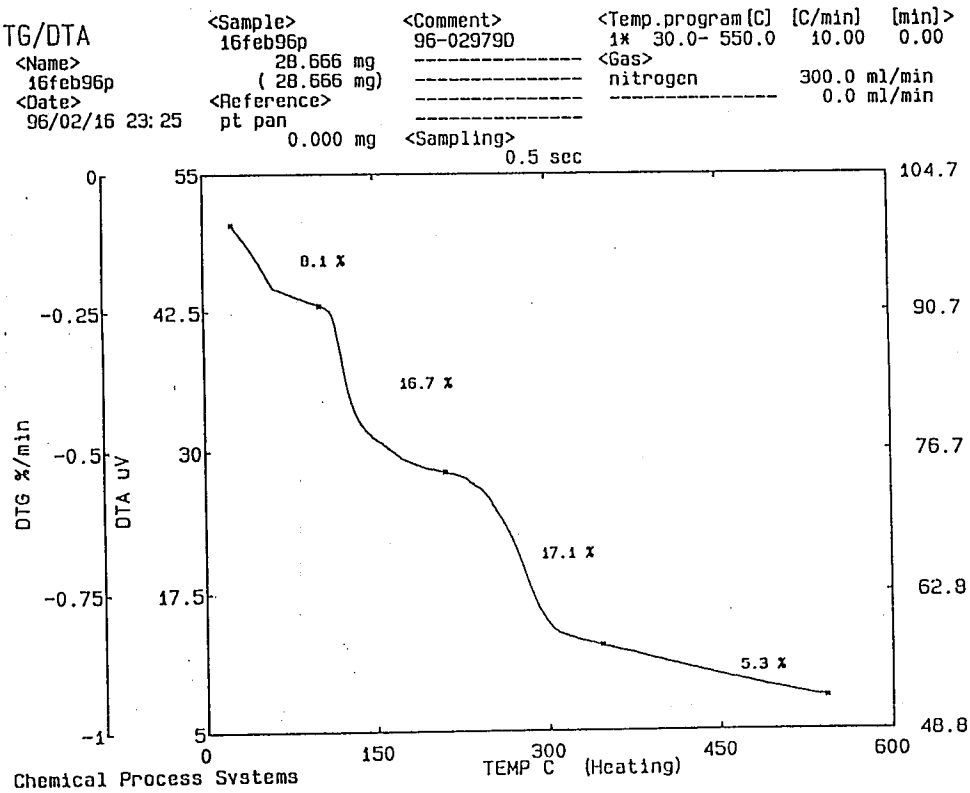
5.3 %
Chemical Process Systems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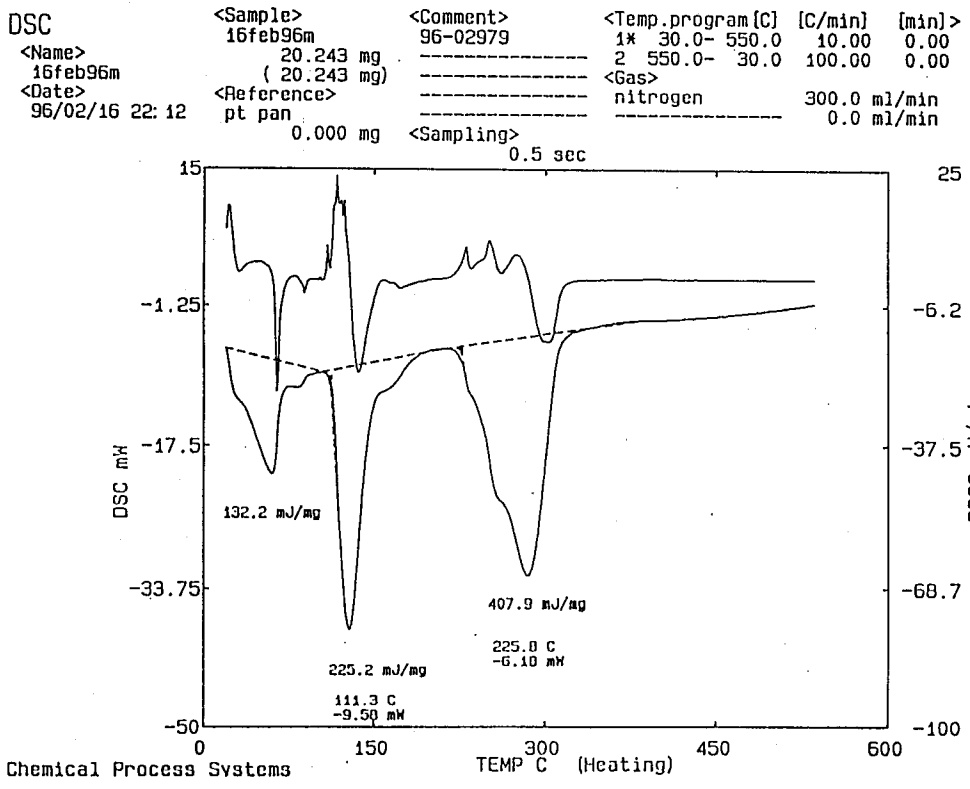
Chemical Process Systems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450
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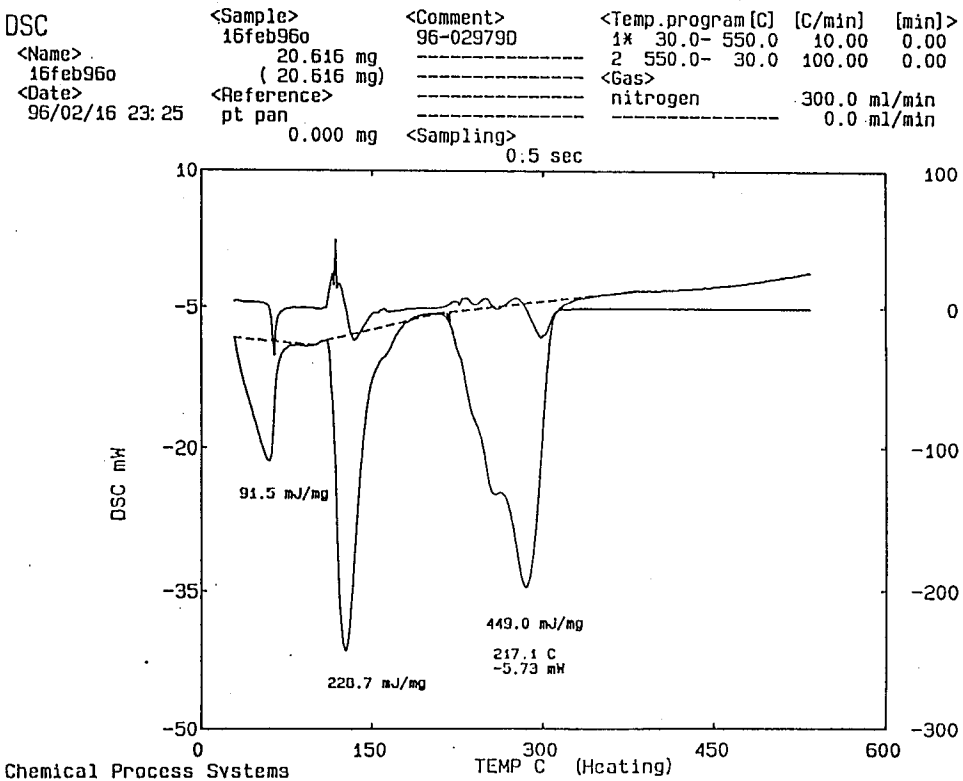
TEMP C (Heating)
Chemical Process Systems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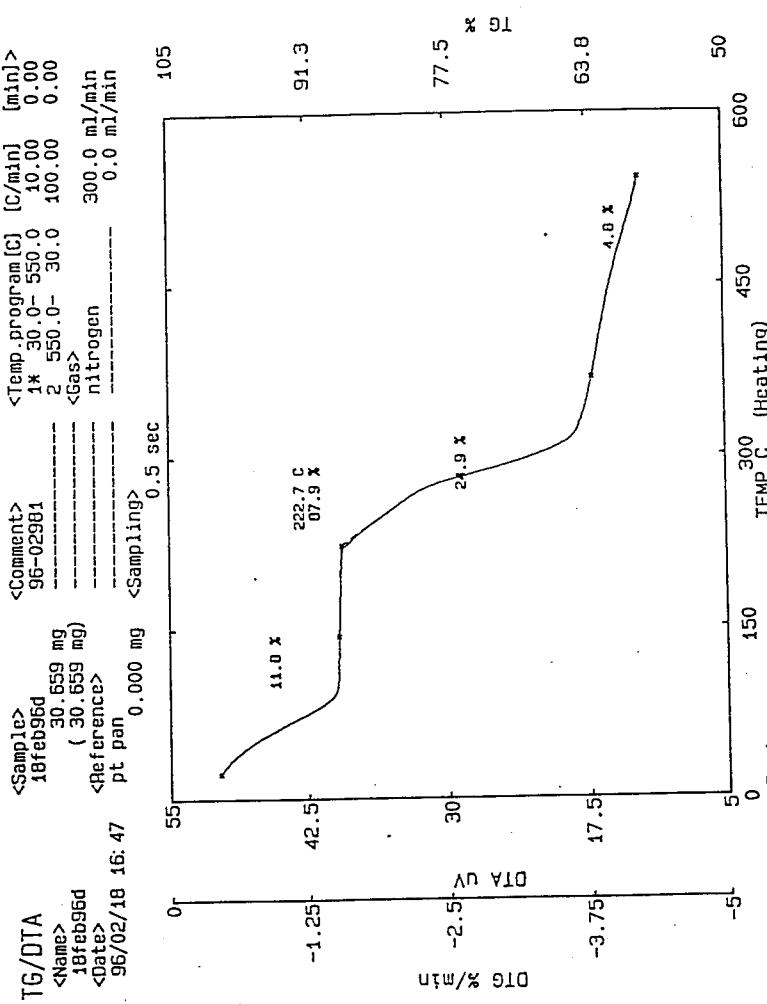
Chemical Process Systems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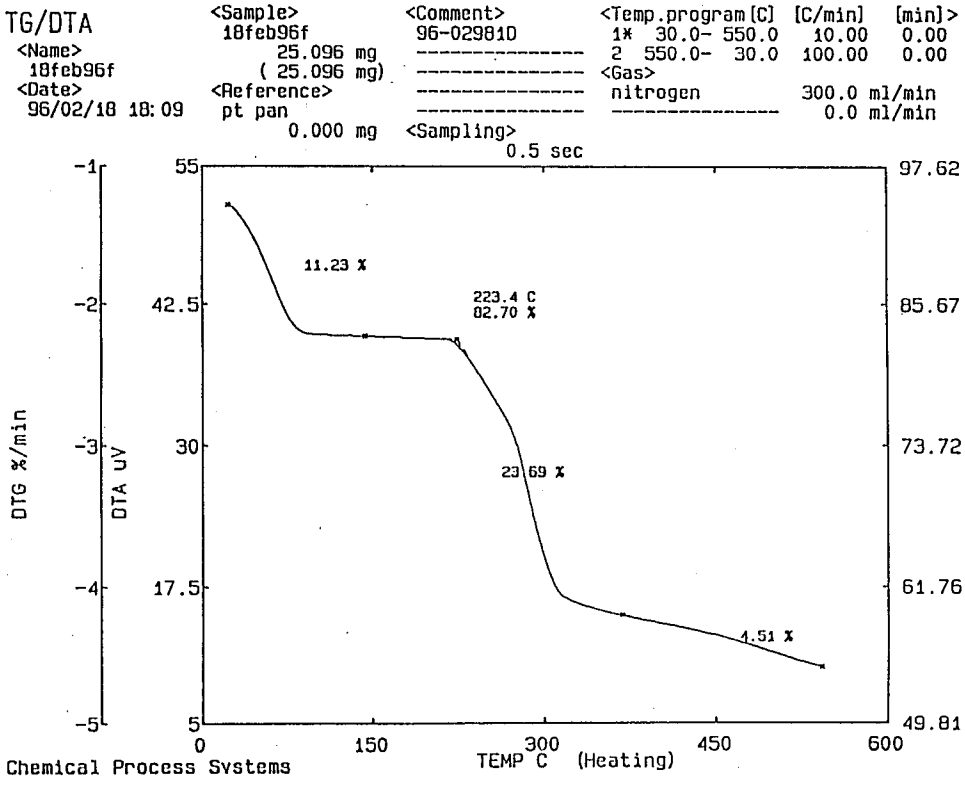
DTG %/min
DTA uV
TG %
TEMP C (Heating)
Chemical Process Systems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TG %
TEMP C (Heating)
Chemical Process Systems

DSC

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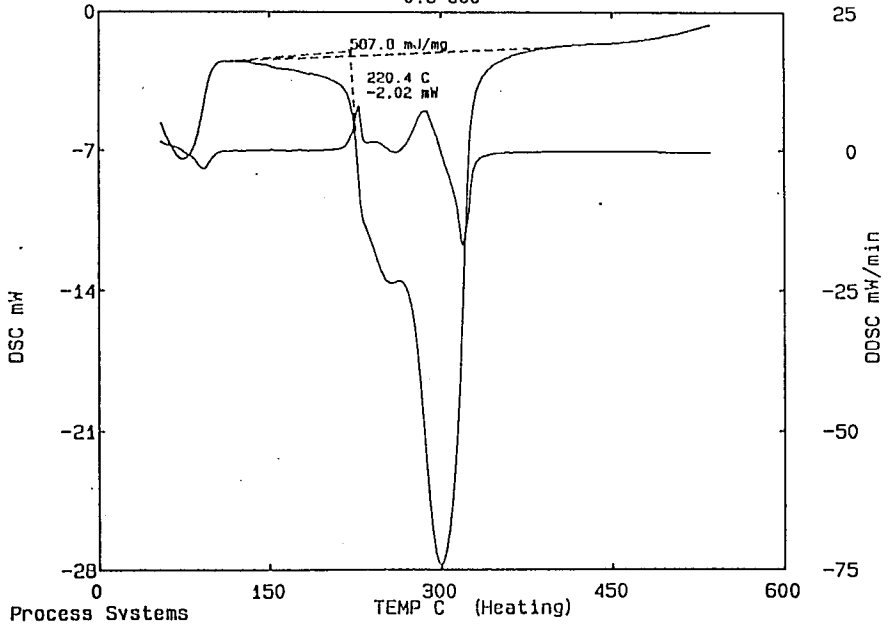
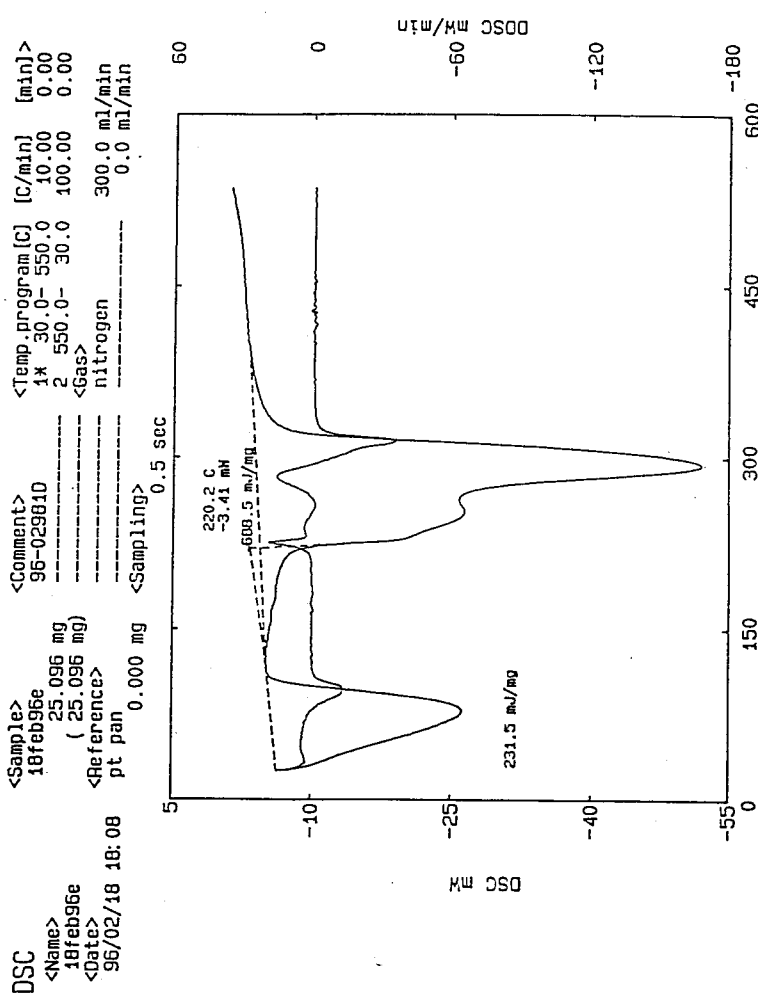


Chemical Process Systems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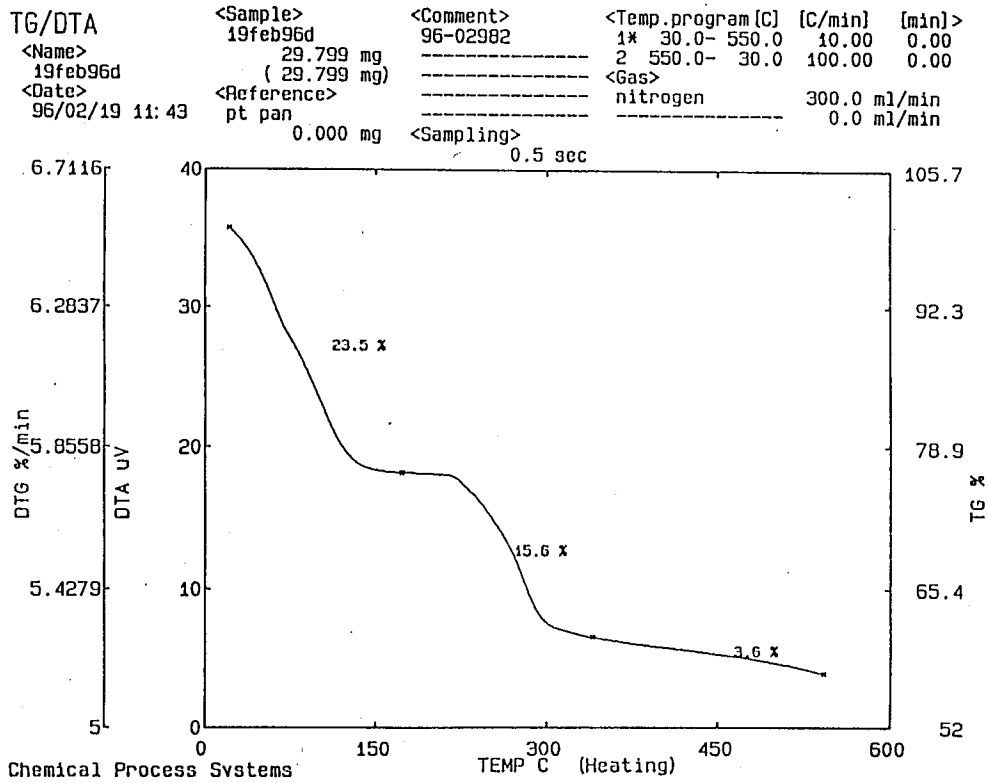
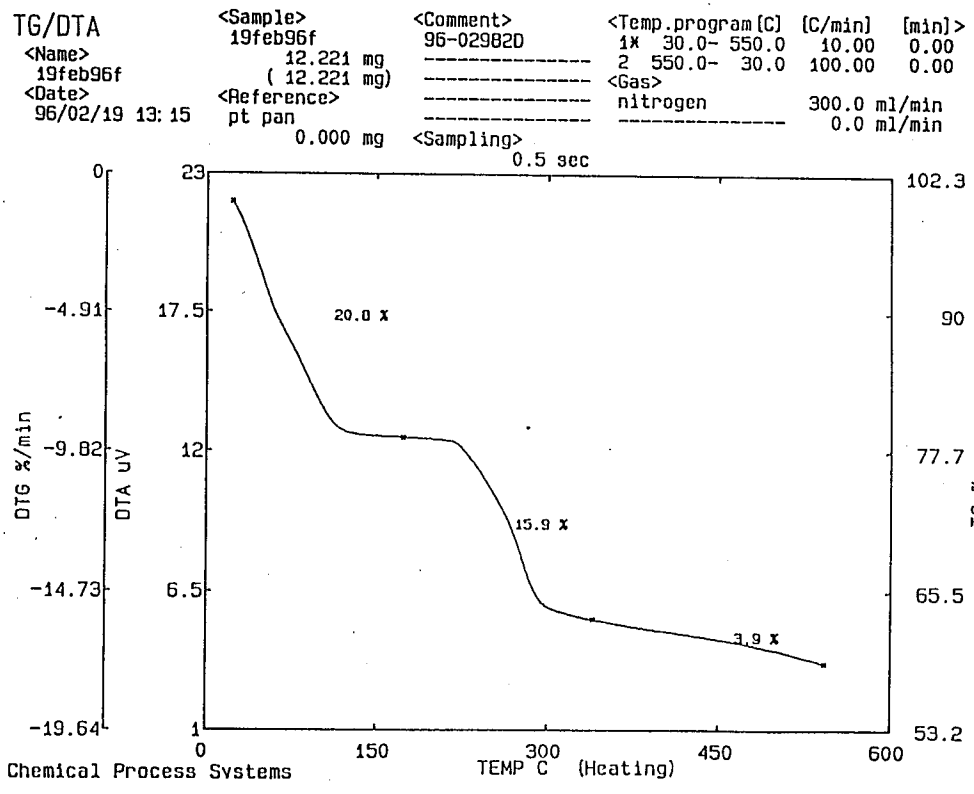
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
220.2 C
-3.41 mW
-608.5 mJ/mg
231.5 mJ/mg
DSC mW
DDSC mW/min
TEMP C (Heating)
Chemical Process Systems


TG/DTA
<Name>
19feb96d
<Date>
96/02/19 11:43
<Sample>
19feb96d
29.799 mg
(29.799 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02982
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
6.7116
6.2837
5.8558
5.4279
5
DTG %/min
DTA uV
40
30
20
10
0
105.7
92.3
78.9
65.4
52
TG %
23.5 %
15.6 %
3.6 %
0
150
300
450
600
TEMP C (Heating)
Chemical Process Systems


TG/DTA
<Name>
19feb96f
<Date>
96/02/19 13:15
<Sample>
19feb96f
12.221 mg
(12.221 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02982D
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
0
-4.91
-9.82
-14.73
-19.64
DTG %/min
DTA uV
23
17.5
12
6.5
1
20.0 %
15.9 %
3.9 %
102.3
90
77.7
65.5
53.2
% TG
0
150
300
450
600
TEMP C (Heating)
Chemical Process Systems

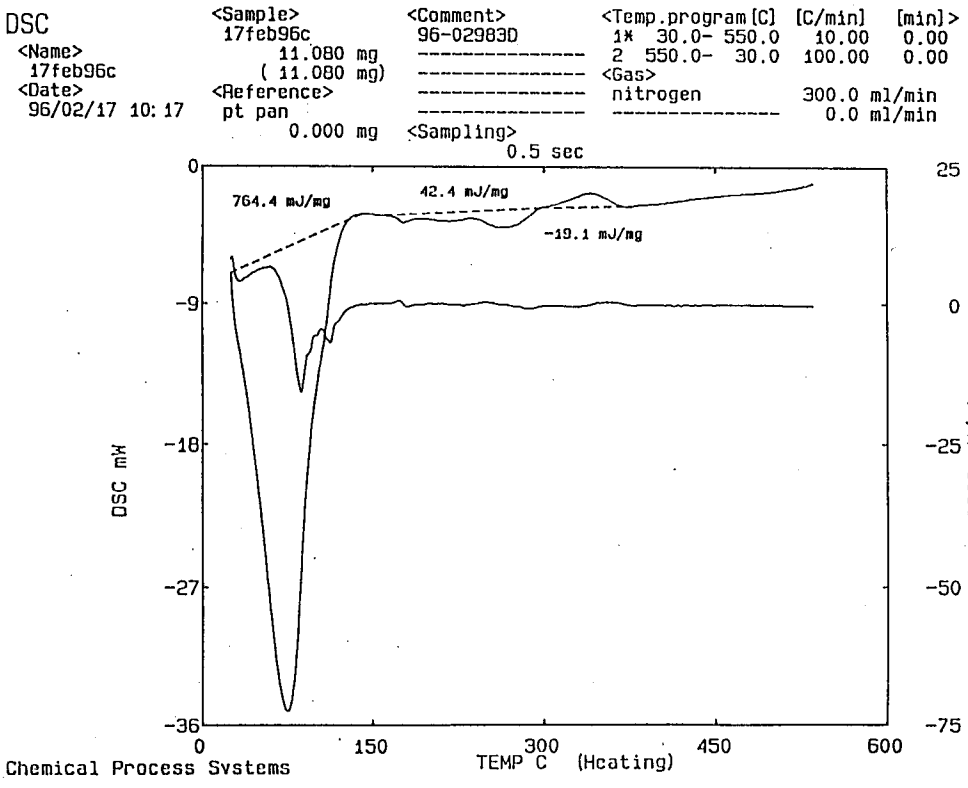
DSC
<Name>
19feb96c
<Date>
96/02/19 11:41
<Sample>
19feb96c
18.344 mg
(18.344 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02982
<Sampling>
0.5 sec
<Temp program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
210.5 C
-5.13 mW
450.0 mJ/mg
412.1 mJ/mg
DSC mW
DDSC mW/min
TEMP C (Heating)
Chemical Process Systems

DSC
<Name>
19feb96e
<Date>
96/02/19 13:13
<Sample>
19feb96e
23.387 mg
(23.387 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02982D
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
<Sampling>
0.5 sec
217.0 C
-4.55 mW
449.6 mJ/mg
347.4 mJ/mg
DSC mW
DDSC mW/min
TEMP C (Heating)
Chemical Process Systems

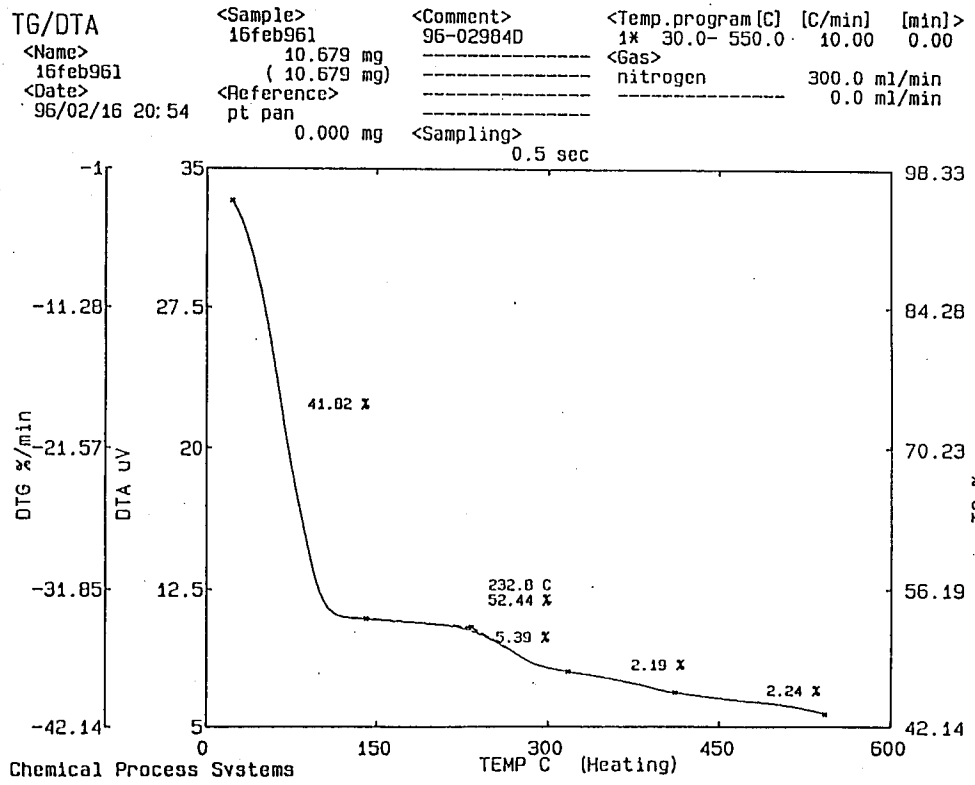
TG/DTA
<Name>
19feb96a
<Date>
96/02/19 08:15
<Sample>
19feb96a
10.807 mg
(10.807 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02983-3
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
49.5 %
7.0 %
2.5 %
DTG %/min
DTA uV
TG %
TEMP C (Heating)
Chemical Process Systems

TG/DTA
<Name>
19feb96b
<Date>
96/02/19 09:49
<Sample>
19feb96b
7.598 mg
(7.598 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02983-4
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
46.5 %
7.1 %
2.8 %
DTG %/min
DTA uV
TG %
TEMP C (Heating)
-20
-29.81
-39.61
-49.42
-59.23
-21.25
-26.56
-31.88
-37.19
-42.5
111.9
92.1
72.4
52.6
32.9
0
150
300
450
600
Chemical Process Systems

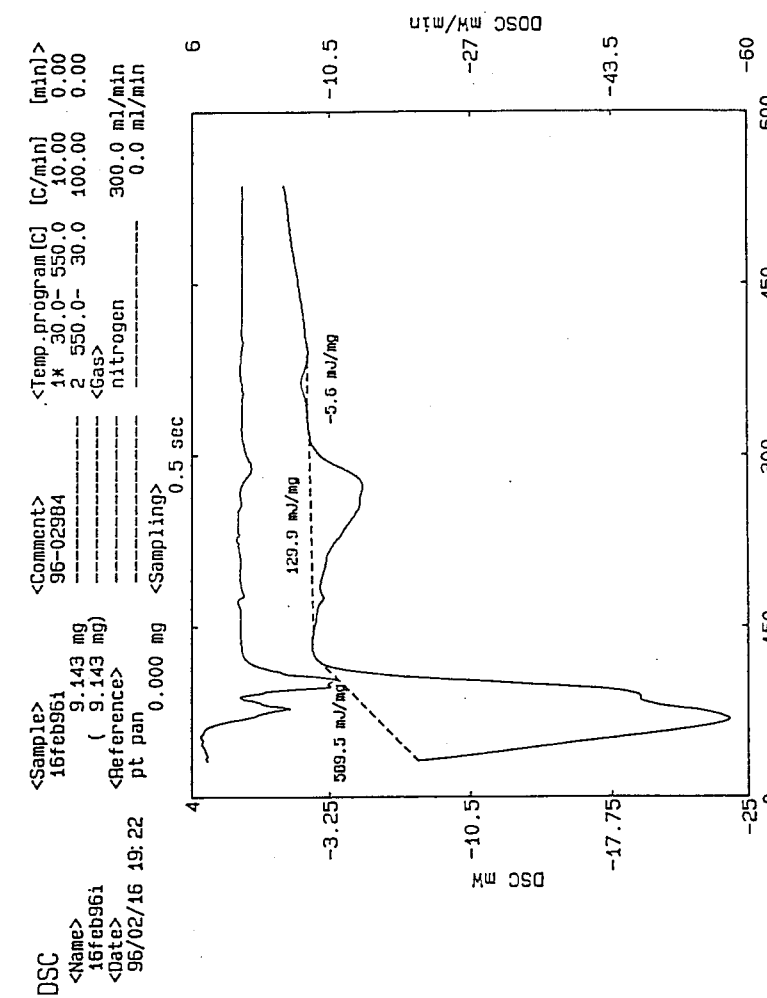
DSC
<Name>
17feb96a
<Date>
96/02/17 08:37
<Sample>
17feb96a
11.229 mg
(11.229 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02983
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
935.3 mJ/mg
37.4 mJ/mg
-17.5 mJ/mg
DSC mW
DSC mW/min
TEMP C (Heating)
Chemical Process Systems

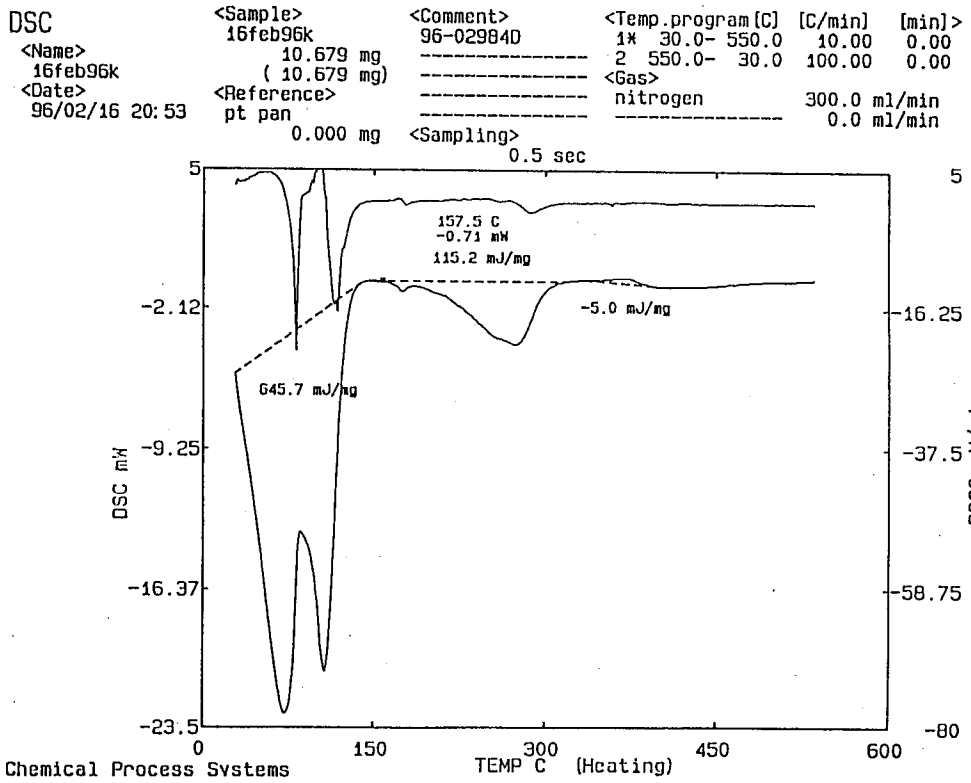

DSC
<Name>
17feb96c
<Date>
96/02/17 10:17
<Sample>
17feb96c
11.080 mg
(11.080 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02983D
<Sampling>
0.5 sec
<Temp.program [C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
764.4 mJ/mg
42.4 mJ/mg
-19.1 mJ/mg
DSC mW
DDSC mW/min
TEMP C (Heating)
Chemical Process Systems

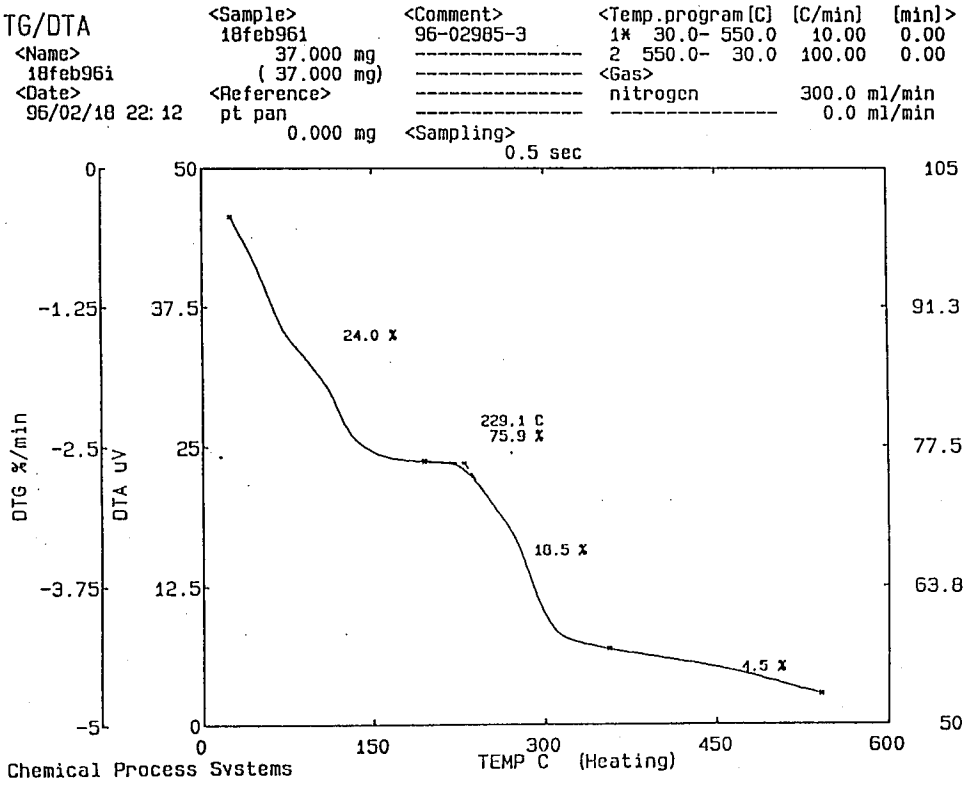
TG/DTA
<Name>
16feb96jra
<Date>
96/02/16 19:25
<Sample>
16feb96j
14.921 mg
(14.921 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02984
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
44.1 %
234.3 C
55.2 %
5.1 %
4.4 %
DTG %/min
-1
-17.16
-33.31
-49.47
-65.62
DTA uV
10
8.75
7.5
6.25
5
TG %
105
88.8
72.5
56.3
40
0
150
300
450
600
TEMP C (Heating)
Chemical Process Systems

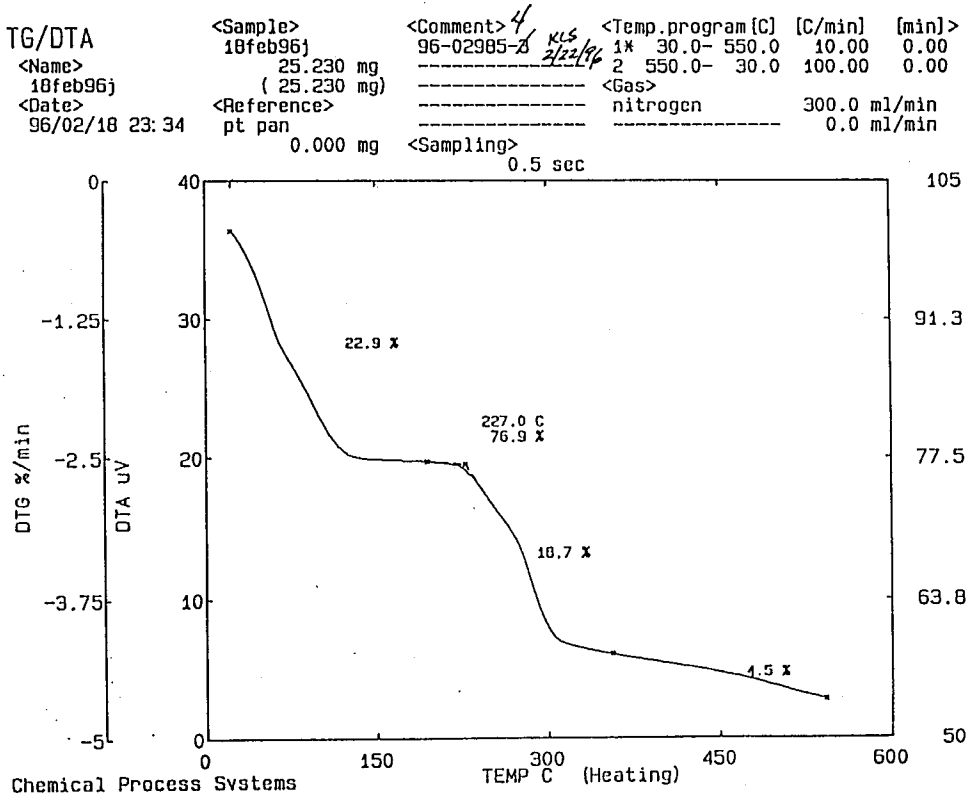

TG/DTA
<Name>
16feb961
<Date>
96/02/16 20:54
<Sample>
16feb961
10.679 mg
(10.679 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02984D
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
-1
-11.28
-21.57
-31.85
-42.14
DTG %/min
DTA uV
35
27.5
20
12.5
5
98.33
84.28
70.23
56.19
42.14
% TG
41.82 %
232.8 C
52.44 %
5.39 %
2.19 %
2.24 %
0
150
300
450
600
TEMP C (Heating)
Chemical Process Systems

/-A-18


DSC
<Name>
16feb961
<Date>
96/02/16 19:22
<Sample>
16feb961
9.143 mg
(9.143 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02984
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
129.9 mJ/mg
-5.6 mJ/mg
509.5 mJ/mg
DSC mW
DDSC mW/min
TEMP C (Heating)
Chemical Process Systems


DSC
<Name>
16feb96k
<Date>
96/02/16 20:53
<Sample>
16feb96k
10.679 mg
(10.679 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02984D
<Sampling>
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
0.5 sec
157.5 C
-0.71 mW
115.2 mJ/mg
-5.0 mJ/mg
645.7 mJ/mg
DSC mW
DDSC mW/min
5
-2.12
-9.25
-16.37
-23.5
-16.25
-37.5
-58.75
-80
0
150
300
450
600
TEMP C (Heating)
Chemical Process Systems


TG/DTA
<Name>
18feb96i
<Date>
96/02/18 22:12
<Sample>
18feb96i
37.000 mg
(37.000 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02985-3
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
24.0 %
229.1 C
75.9 %
10.5 %
4.5 %
DTG %/min
DTA uV
TG %
TEMP C (Heating)
Chemical Process Systems


TG/DTA
<Name>
18feb96j
<Date>
96/02/18 23:34
<Sample>
18feb96j
25.230 mg
(25.230 mg)
<Reference>
pt pan
0.000 mg
<Comment> 4
96-02985-A
KLS 2/22/96
<Sampling>
0.5 sec
<Temp.program [C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
22.9 %
227.0 C
76.9 %
18.7 %
1.5 %
DTG %/min
DTA uV
TG %
TEMP C (Heating)
Chemical Process Systems

A-22

DSC
<Name>
17feb96i
<Date>
96/02/17 14:50
<Sample>
17feb96i
15.534 mg
(15.534 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02985
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
553.4 mJ/mg
214.9 C
-3.69 mW
DSC mW
DSC mW/min
TEMP C (Heating)
Chemical Process Systems

DSC

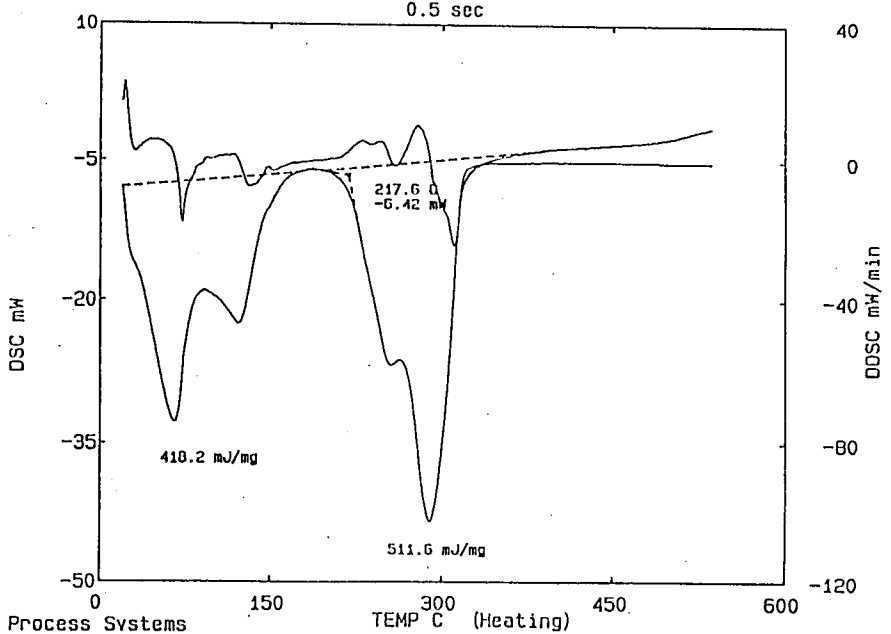
<Name>
18feb96a
<Date>
96/02/18 14:57

<Sample>
18feb96a
25.155 mg
(25.155 mg)
<Reference>
pt pan
0.000 mg

<Comment>
96-02985D

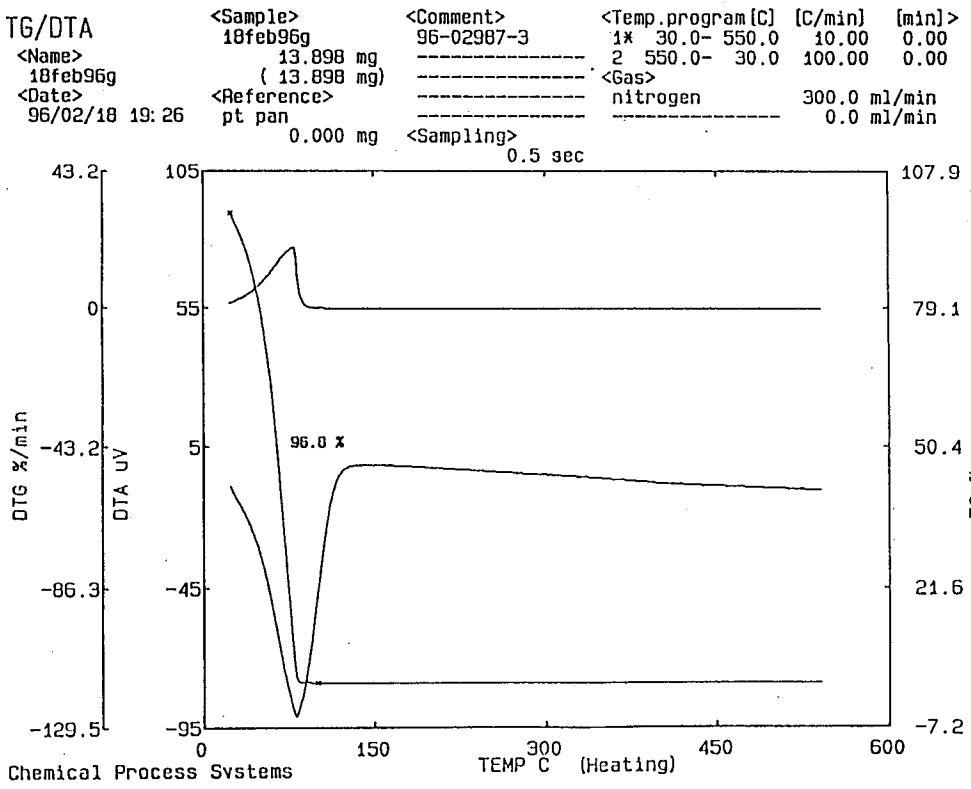
<Sampling>
0.5 sec

<Temp.program[C]	[C/min]	[min]>
1* 30.0- 550.0	10.00	0.00
2 550.0- 30.0	100.00	0.00
<Gas>		
nitrogen	300.0 ml/min	
---	0.0 ml/min	

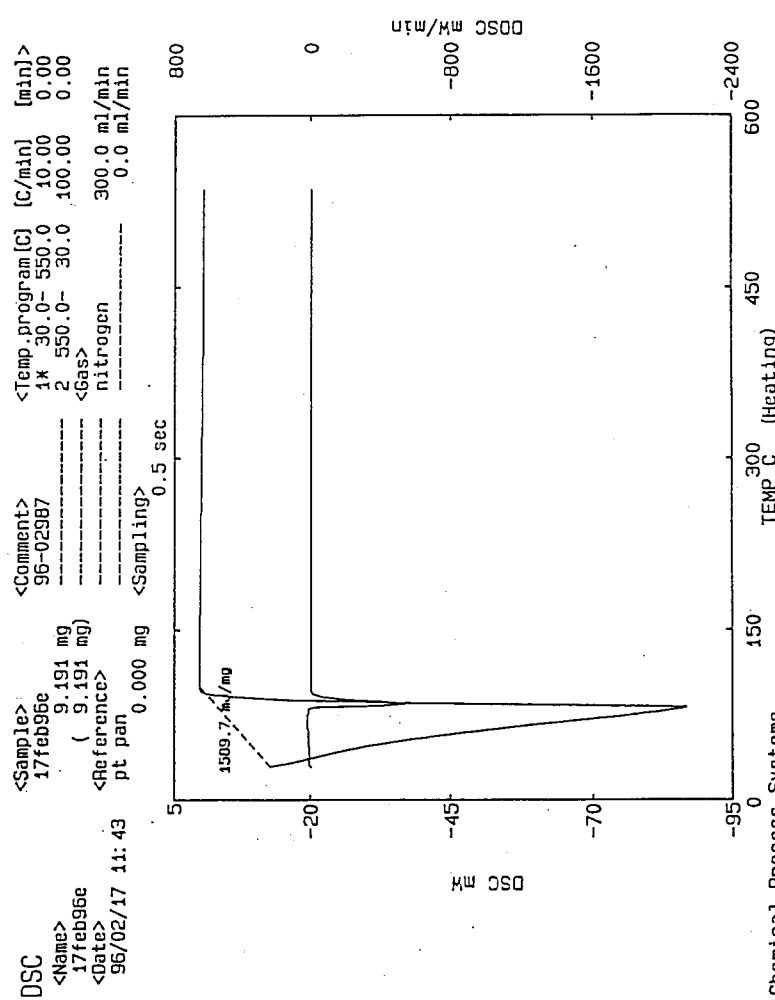


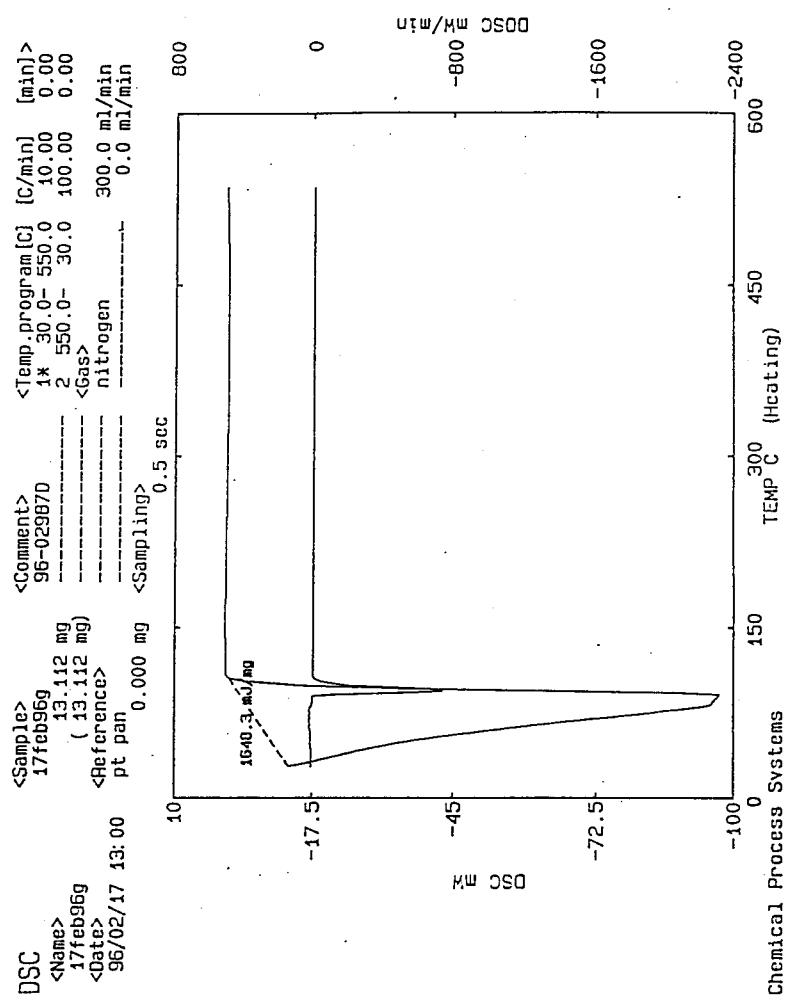
Chemical Process Systems

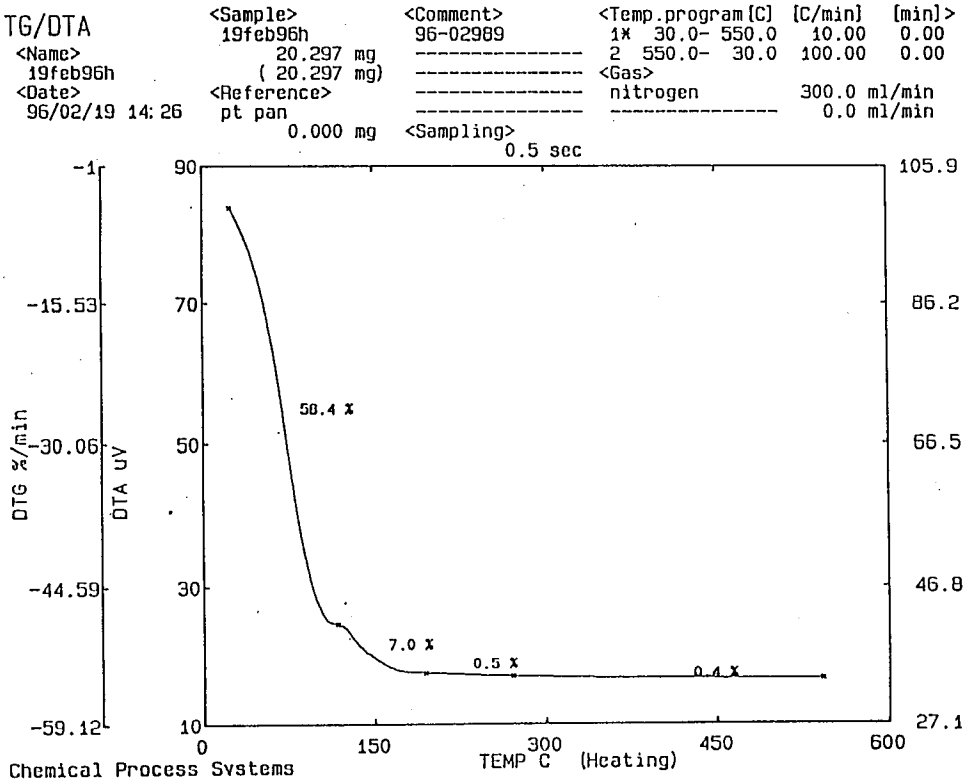
/-A-24


TG/DTA
<Name>
18feb96g
<Date>
96/02/18 19:26
<Sample>
18feb96g
13.898 mg
(13.898 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02987-3
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
43.2
0
-43.2
-86.3
-129.5
DTG %/min
DTA uV
105
55
5
-45
-95
96.0 %
107.9
79.1
50.4
21.6
-7.2
TG %
0
150
300
450
600
TEMP C (Heating)
Chemical Process Systems

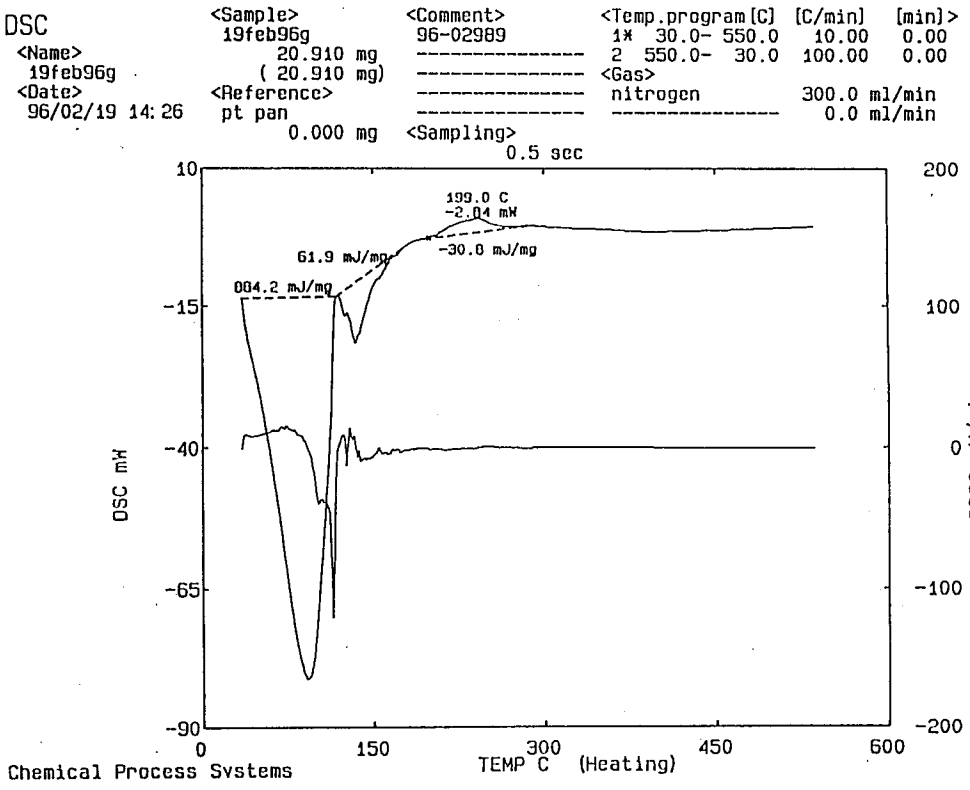
TG/DTA
<Name>
18feb96h
<Date>
96/02/18 21:01
<Sample>
18feb96h
18.844 mg
(18.844 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02987-4
<Sampling>
0.5 sec
<Temp program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
DTG %/min
37.1
0
-37.1
-74.3
-111.4
DTA uV
120
60
0
-60
-120
98.8 %
TG %
103.5
76.9
50.4
23.9
-2.7
150
300
450
600
TEMP C (Heating)
Chemical Process Systems


DSC
<Name>
17feb96e
<Date>
96/02/17 11:43
<Sample>
17feb96e
9.191 mg
(9.191 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02987
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
1509.7 J/mg
DSC mW
DDSC mW/min
TEMP C (Heating)
Chemical Process Systems


DSC
<Name>
17feb96g
<Date>
96/02/17 13:00
<Sample>
17feb96g
13.112 mg
(13.112 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-029870
<Sampling>
0.5 sec
<Temp program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
1640.3 mJ/mg
DSC mW
DDSC mW/min
TEMP C (Heating)
Chemical Process Systems

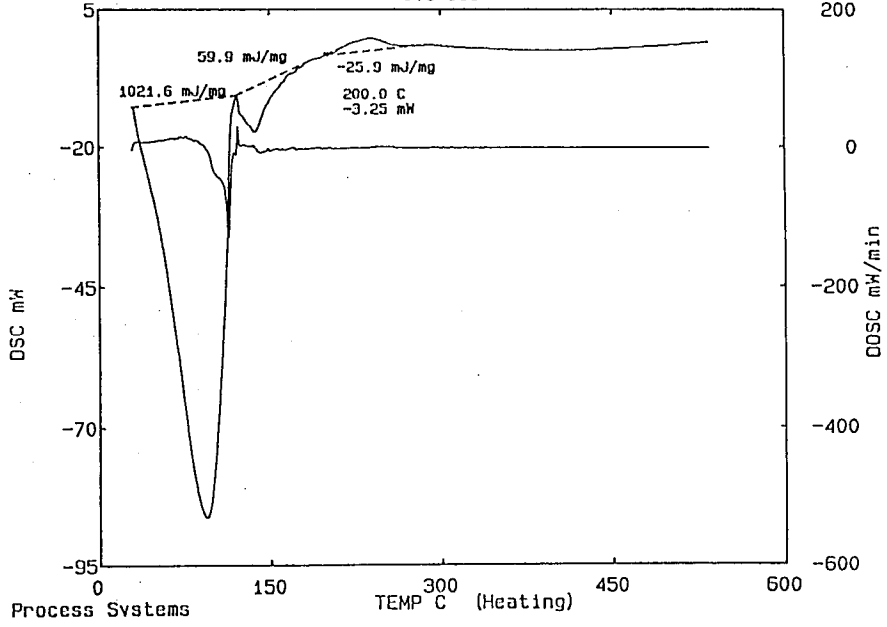

TG/DTA
<Name>
19feb96h
<Date>
96/02/19 14:26
<Sample>
19feb96h
20.297 mg
(20.297 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02989
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
-1
-15.53
-30.06
-44.59
-59.12
DTG %/min
DTA uV
90
70
50
30
10
105.9
86.2
66.5
46.8
27.1
% TG
58.4 %
7.0 %
0.5 %
0.4 %
0
150
300
450
600
TEMP C (Heating)
Chemical Process Systems

TG/DTA
<Name>
19feb96j
<Date>
96/02/19 15:41
<Sample>
19feb96j
22.392 mg
(22.392 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-029890
<Sampling>
0.5 scc
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
DTG %/min
-5
-17.15
-29.29
-41.44
-53.59
DTA uV
90
70
50
30
10
TG %
102.7
84.9
67
49.1
31.3
50.4 %
6.7 %
0.5 %
0.4 %
0
150
300
450
600
TEMP C (Heating)
Chemical Process Systems

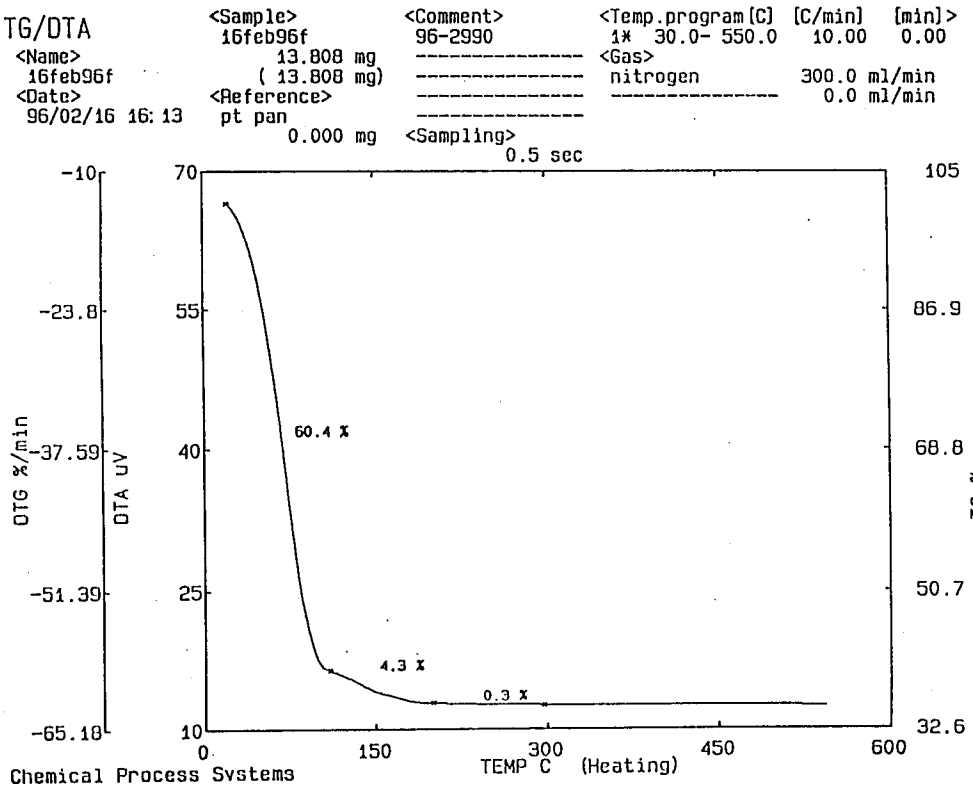

DSC
<Name>
19feb96g
<Date>
96/02/19 14:26
<Sample>
19feb96g
20.910 mg
(20.910 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02989
<Sampling>
0.5 sec
<Temp.program [C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
199.0 C
-2.04 mW
61.9 mJ/mg
-30.0 mJ/mg
884.2 mJ/mg
10
-15
-40
-65
-90
DSC mW
200
100
0
-100
-200
DDSC mW/min
0
150
300
450
600
TEMP C (Heating)
Chemical Process Systems

DSC

<Name>	<Sample>	<Comment>	<Temp.program [C]	[C/min]	[min]>
19feb96i	19feb96i	96-02989D	1* 30.0- 550.0	10.00	0.00
<Date>	20.545 mg	----------	2 550.0- 30.0	100.00	0.00
96/02/19 15:39	(20.545 mg)	----------	<Gas>		
	<Reference>	----------	nitrogen	300.0	ml/min
	pt pan	----------	----------	0.0	ml/min
	0.000 mg	<Sampling>			
		0.5 sec			



Chemical Process Systems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55
40
25
10
105
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68.8
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0
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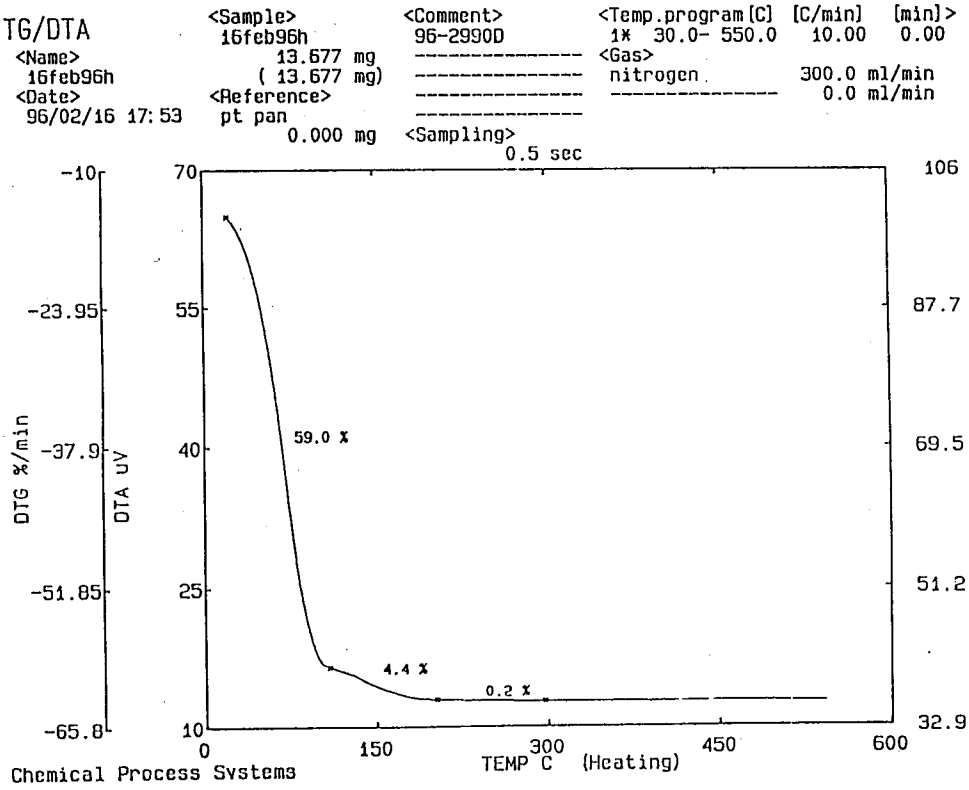
300
450
600
TEMP C (Heating)
Chemical Process Systems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55
40
25
10
106
87.7
69.5
51.2
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300
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600
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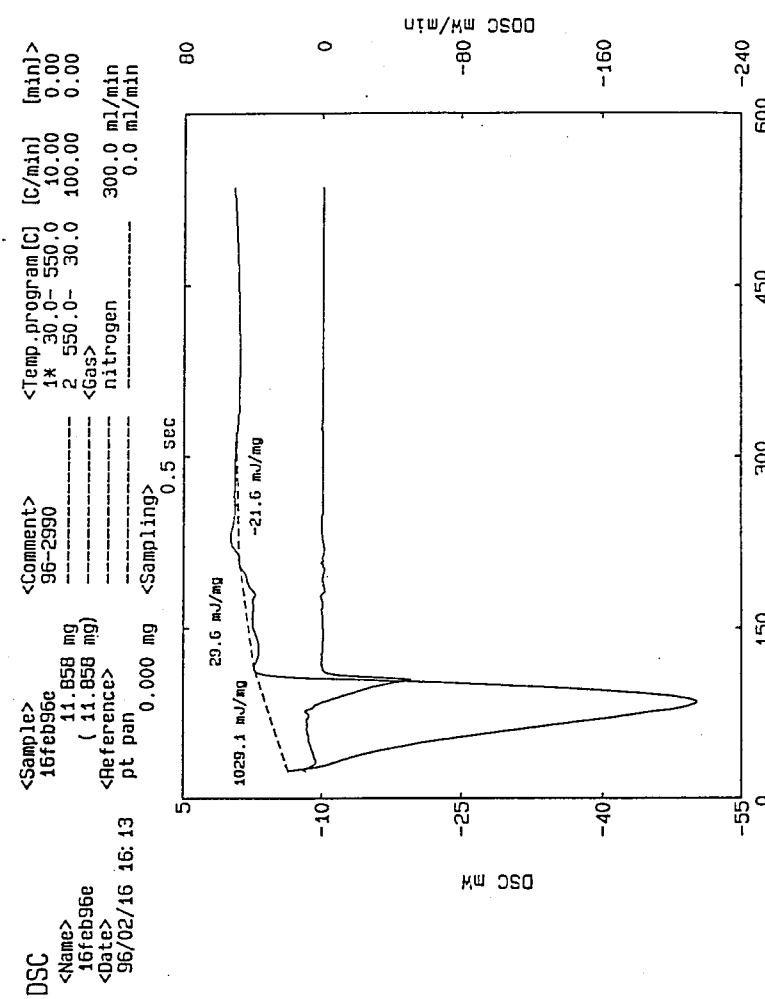
Chemical Process Systems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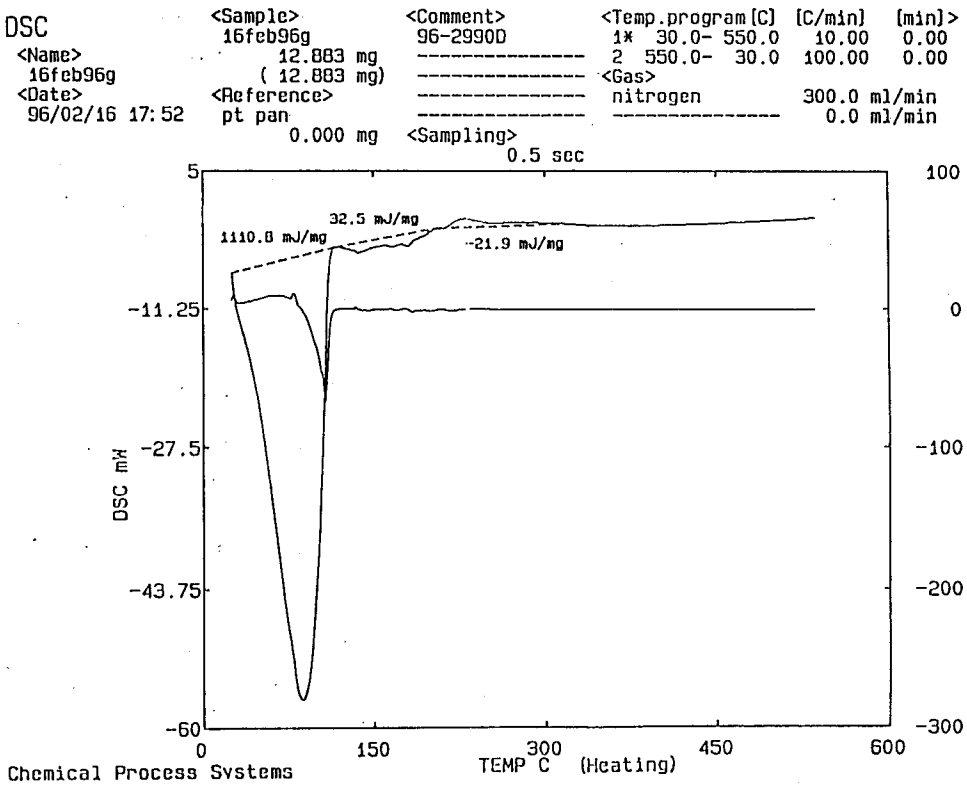
DSC mW
DSC mW/min
TEMP C (Heating)
Chemical Process Systems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-60
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-200
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DDSC mW/min
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300
450
600
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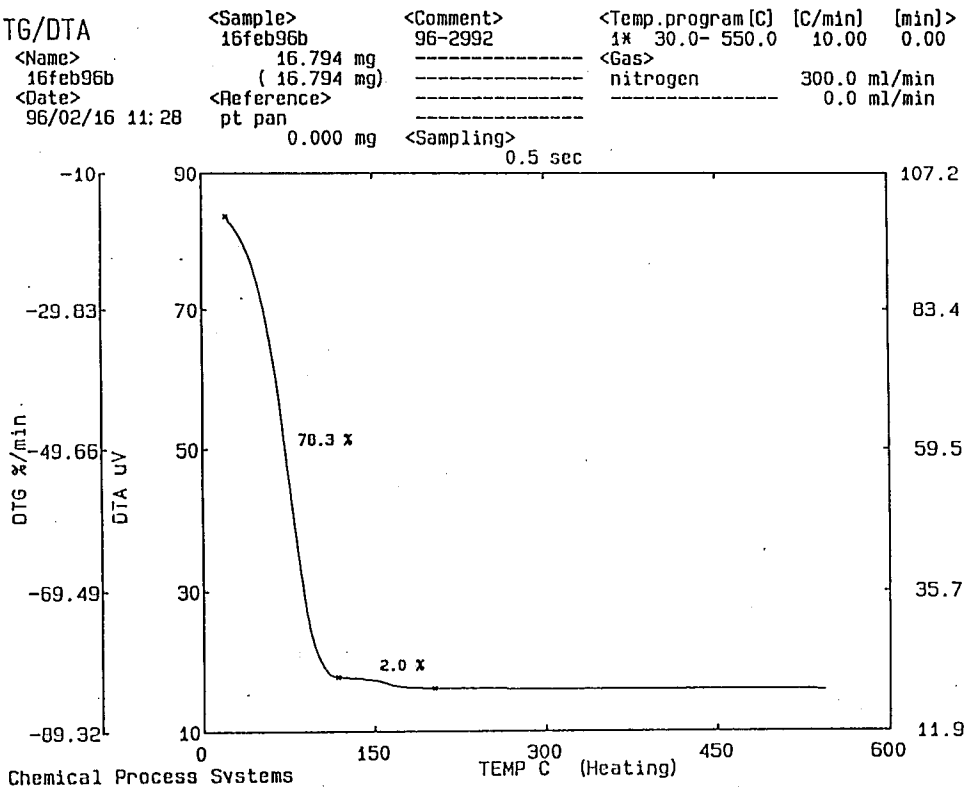
Chemical Process Systems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DTA uV
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70
50
30
10
107.2
83.4
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TG %
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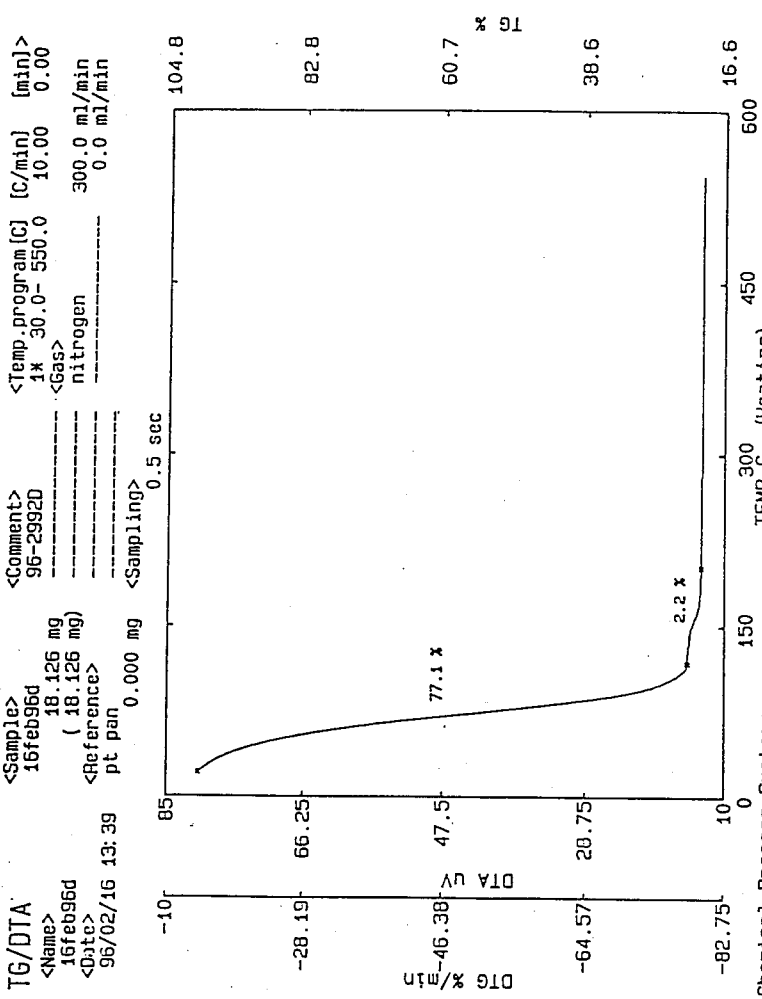
0
150
300
450
600
TEMP C (Heating)
Chemical Process Systems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DTG %/min
DTA uV
TG %
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96/02/16 11:28

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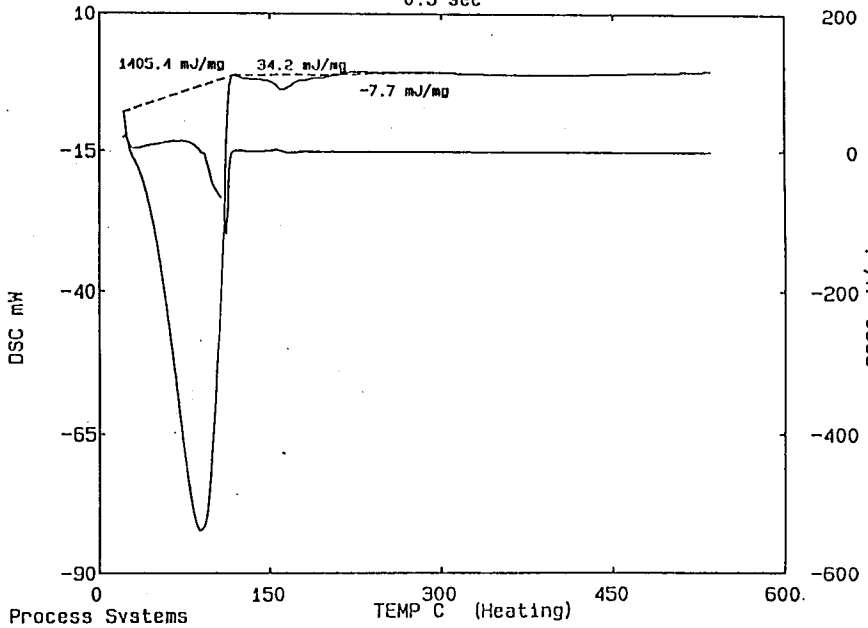

Chemical Process Systems

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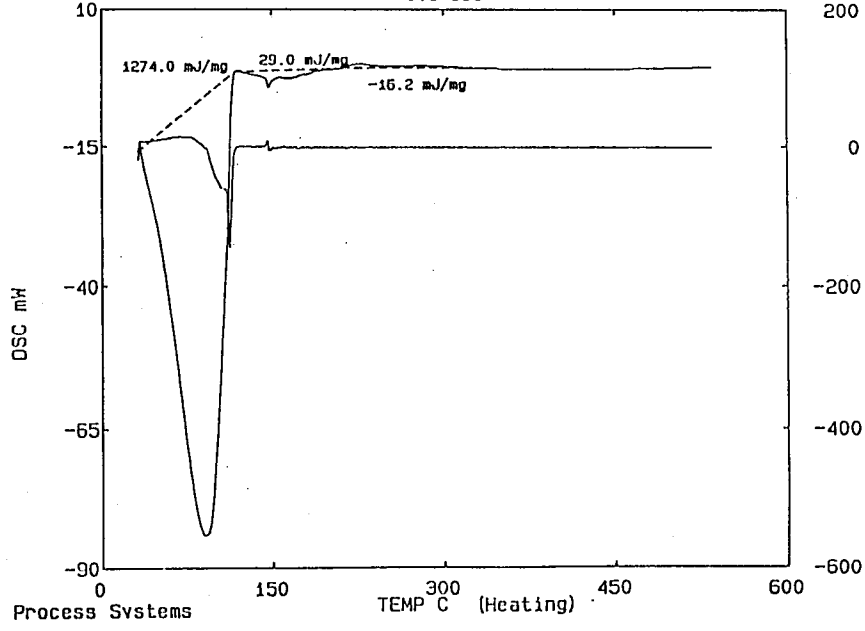

Chemical Process Systems

ATTACHMENT 2

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FINAL REPORT FOR TANK 241-BX-104, PUSH MODE CORES 126 AND 127

Revision 1

March 29, 1996

Prepared by: MW Urie

Pacific Northwest National Laboratory

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TABLE OF CONTENTS

CONTRIBUTORS LIST v

ANALYTICAL SUMMARY 1

SCOPE 1

1.0 PHYSICAL MEASUREMENTS 4
1.1 SAMPLE RECEIPT, EXTRUSION, AND SUBSAMPLING 4
1.1.1 Core 126 Segment 1, WHC Sample ID 96-021 4
1.1.2 Core 126 Segment 2, WHC Sample ID 96-022 4
1.1.3 Core 126 Field Blank 5
1.1.4 Core 127 Segment 1, WHC Sample ID 96-023 5
1.1.5 Core 127 Segment 2, WHC Sample ID 96-024 6
1.2 DENSITY MEASUREMENTS 6
1.3 THERMOGRAVIMETRIC ANALYSIS (TGA) 8
1.4 DIFFERENTIAL SCANNING CALORIMETRY (DSC) 10
1.5 ANALYTICAL SAMPLE PREPARATION 13

2.0 INORGANIC ANALYSIS 17
2.1 INDUCTIVELY COUPLED PLASMA (ICP) SPECTROMETRY ANALYSIS 17
2.1.1 ICP Sample Preparation and Analysis 17
2.1.2 ICP Analytical Results 17
2.1.3 ICP Quality Control, Precision, and Accuracy 25
2.1.4 Homogenization Test ICP Analyses 27
2.2 ION CHROMATOGRAPHIC ANALYSIS 27
2.2.1 IC Sample Preparation and Analysis 27
2.2.2 IC Analytical Results 28
2.2.3 Quality Control, Precision, and Accuracy 28
2.3 TOTAL ORGANIC CARBON (TOC) AND TOTAL INORGANIC CARBON (TIC) ANALYSIS 30
2.3.1 TOC/TIC Sample Preparation and Analysis 30
2.3.2 TOC/TIC Analytical Results 30
2.3.3 TOC/TIC Quality Control, Precision, and Accuracy 30

3.0 RADIOCHEMICAL ANALYSES 39
3.1 TOTAL ALPHA ACTIVITY 39
3.2 HOMOGENIZATION TEST GAMMA ENERGY ANALYSIS 40

LIST OF TABLES

I	Tank BX-104 PNNL ACL Number Assignment	2
1.1	Density Results for Segments from Tank BX-104	7
1.2	TGA Results for Homogenized Samples from Tank BX-104	9
1.3	DSC Results for Homogenized Samples from Tank BX-104	11
1.4	Tank BX-104 Core 126/127 Procedure List	13
1.5	Tank BX-104 Core 126/127 Sample Preparation Procedural Deviations	15
2.1	ICP Results from Core 126, Seg 1A & 2B, Tank BX-104	18
2.2	ICP Results from Core 126, Seg 2BH & 2A, Tank BX-104	19
2.3	ICP Results from Core 127, Seg 1A & 2AH, Tank BX-104	20
2.4	ICP Results from Core 127, Seg 1B & 2A, Tank BX-104	21
2.5	ICP Results from Core 126 Drainable Liquid, Seg 1 & 2, Tank BX-104	22
2.6	ICP Results from Core 127 Drainable Liquid, Segment 2, Tank BX-104	23
2.7	ICP Results from Core 126/127 Field Blank & HHF, Tank BX-104	24
2.8	IC & TOC/TIC/TC Core 126 Drainable Liquid Seg 1 & 2, Tank BX-104	32
2.9	IC & TOC/TIC/TC Core 126 Seg 1A & 2A, Tank BX-104	33
2.10	IC & TOC/TIC/TC Core 126 Seg 2B & Field Blank, Tank BX-104	34
2.11	IC & TOC/TIC/TC HHF & Core 127 DL Seg 2, Tank BX-104	35
2.12	IC & TOC/TIC/TC Core 127 Seg 1A & 2B, Tank BX-104	36
2.13	IC & TOC/TIC/TC Core 127 Seg 2A, Tank BX-104	37
3.1	Total Alpha Analysis Results from Tank BX-104	41
3.2	Summary of Homogenization of Test Results	42

FINAL REPORT FOR TANK 241-BX-104, PUSH MODE CORES 126 AND 127

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NARRATIVE

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45-DAY SAFETY SCREENING AND FINAL REPORT FOR TANK 241-BX-104, PUSH MODE CORES 126 AND 127

ANALYTICAL SUMMARY

Two push mode core samples, 126 and 127, were taken from tank 241-BX-104 (BX-104). The samples were received at the 325 building and underwent Safety Screening Program analyses consisting of bulk density, differential scanning calorimetry (DSC), thermogravimetric analysis (TGA), and determination of total alpha activity. The samples also underwent total organic carbon (TOC) and inductively coupled plasma spectrometry (ICP) analyses to satisfy the Organic Program requirements, and ion chromatography (IC) and ICP for monitoring hydrostatic head fluid (HHF) contamination. Where notification limits were identified in the Sampling and Analysis Plan (SAP) [1], the analytical results were compared to the limits at a confidence level of 95%. None of the adjusted results exceeded the notification limits stated in the SAP [1]. However, there is evidence of some HHF contamination.

SCOPE

This document serves as the final report deliverable for the tank BX-104 push mode core samples collected on January 5, 6, and 11, 1996 (Westinghouse Hanford Company [WHC] sample ID 96-021 through 96-024). The samples were received, extruded and analyzed at the 325 building in accordance with the SAP [1]. Included in this report are the results obtained from the Safety Screening Program [2] and Organic Program [3] analyses.

A sample identification matrix is provided in Table I. This table provides the sample identification, description, and corresponding Pacific Northwest National Laboratory (PNNL) sample numbers.

Table I. Tank BX-104 PNNL ACL Number Assignment

Sample Identification	Sample Description	WHC Sample ID	PNNL ACL-Number
Core 126 Subsegment 1A	Segment 1 (no 1/2 seg)	96-021	96-02979
Core 126 Subsegment 2A	Upper Half of Segment 2	96-022	96-02981
Core 126 Subsegment 2B	Lower Half of Segment 2	96-022	96-02982
Core 127 Subsegment 1A	Upper Half of Segment 1	96-023	96-02983
Core 127 Subsegment 1B	Lower Half of Segment 1	96-023	96-02984
Core 127 Subsegment 2A	Segment 2 (no 1/2 seg)	96-024	96-02985
Field Blank	--	--	96-02987
Hydrostatic Head Fluid	--	--	96-02988
Core 126 Segment 1 Drainable Liquid	--	96-021	96-02989
Core 126 Segment 2 Drainable Liquid	--	96-022	96-02990
Core 127 Segment 2 Drainable Liquid	--	96-024	96-02992

SECTION 1

PHYSICAL DATA

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1.0 PHYSICAL MEASUREMENTS

1.1 SAMPLE RECEIPT, EXTRUSION, AND SUBSAMPLING

Sample extrusions described below were performed following procedure 325-A-33P. The recovery of all segments is based upon expected recoveries stated on the chains-of-custody.

1.1.1 Core 126 Segment 1, WHC Sample ID 96-021

Push mode sample WHC 96-021 was collected from riser 7 of tank BX-104 on January 5, 1996 and extruded on January 25, 1996. A total of 28 g of liner liquid was collected. The first 1.5 strokes (approximately 7 inches per stroke) extruded no solids. The bulk of the solids were extruded during the final stroke. No crust was observed. The material was dark brown with a patch of white-gray. 246.8 g of solid material were extruded into the pan, and 18.9 mL of drainable liquid was collected. 206.2 g of sludge material were transferred into a sample jar. The recovery was 48%, with 6% liquid based on volume and 42% solid based on mass (using an average measured density of 1.88 g/mL for the segment). Due to the relatively low recovery, the sample was not divided into half-segments. The segment material was homogenized and subsampled for further laboratory analyses and archiving.

1.1.2 Core 126 Segment 2, WHC Sample ID 96-022

Push mode sample WHC 96-022 was collected from riser 7 of tank BX-104 on January 5, 1996 and extruded on January 26, 1996. The first 9 inches of extruded solids were light gray-brown and held shape in the pan. The final solids were smeared layers of gray and brown. These solids were wet and crumbly. 443.3 g of solid material were extruded into the pan, and 20.0 mL of drainable liquid were collected. A total of 205.7 g of solid material from the first 9.5 inches was transferred into a sample jar, and 201.7 g of

solid material from inches 9.5 to 19 were transferred to a second sample jar. The estimated recovery was 79%, with 6% liquid based on volume and 73% solid based on mass (using a weighted average measured density of 1.96 g/mL for the upper and lower half-segments). The densities of the half-segments were weighted according to the fraction of the total mass associated with each half-segment when calculating the average segment density. The segment material was divided into half-segments, and the half-segments were homogenized and subsampled for further laboratory analyses and archiving.

1.1.3 Core 126 Field Blank

In accordance with the SAP, a field blank was provided along with Core 126. The field blank was generated on January 5, 1996 and extruded on January 27, 1996. A total of 236.4 g of liquid was collected. The field blank was a clear, colorless liquid. Subsamples were taken for analyses and archiving.

1.1.4 Core 127 Segment 1, WHC Sample ID 96-023

Push mode sample WHC 96-023 was collected from riser 1 of tank BX-104 on January 6, 1996 and extruded on January 27, 1996. A total of 19 g of liner liquid was collected. The first 9 inches of sample were a steel gray thick sludge that flowed slightly upon extrusion. No crust was observed. The remaining material was black and flowed but could not be poured. 258.2 g of solid material were extruded into the sample pan, and 9 mL of black-gray drainable liquid were collected. A total of 98.9 g of solid material from the first 9.5 inches was transferred into a sample jar, and 125.9 g of solid material from inches 9.5 to 19 were transferred into a second sample jar. The estimated recovery was 57%, with 3% liquid based on volume and 54% solid based on mass (using a weighted average measured density of 1.54 g/mL for the upper and lower half-segments). The segment material was divided into half-segments, and the half-segments were homogenized and subsampled for further laboratory analyses and archiving.

1.1.5 Core 127 Segment 2, WHC Sample ID 96-024

Push mode sample WHC 96-024 was collected from riser 1 of tank BX-104 on January 6, 1996 and extruded on January 29, 1996. A total of 65.8 mL of light yellow-brown liner liquid was collected. The first stroke extruded no solids. The bulk of the material was extruded during the last stroke. The material was wet, crumbly, and black-brown. 169.1 g of solid material were extruded into the sample pan, and 65 mL of milky yellow drainable liquid were collected. A total of 153.5 g of sludge was transferred into one sample jar. The estimated recovery was 51%, with 21% liquid based on volume and 30% solid based on mass (using an average measured density of 1.84 g/mL for the segment). Due to the relatively low recovery, the sample was not divided into half-segments. The segment material was homogenized and subsampled for further laboratory analyses and archiving.

1.2 DENSITY MEASUREMENTS

The densities of the segments, half-segments, drainable liquids, and field blank from tank BX-104 Cores 126 and 127 were measured in duplicate. The densities were measured according to technical procedure PNL-ALO-501 Rev. 0. The volumes of the drainable liquids and field blank were measured in a graduated cylinder. The volumes of the half segments were measured in graduated centrifuge cones after the samples were centrifuged for 30 minutes at approximately 1500 x g forces. All sample masses were measured with a calibrated electronic balance. The densities of these samples were calculated by dividing the mass of each sample by its volume.

The density data for the samples and duplicates are reported in Table 1.1. The average density for each sample and the relative percent difference (RPD) are also reported. All of the measurements meet the required precision (20% as measured by RPD).

Table 1.1. Density Results for Segments from Tank BX-104

Sample #	Core	Segment	Density (g/mL)	Average*	RPD (%)*
96-02989	126	1 Drainable Liquid 1 Drainable Liquid Dup	1.28 1.27	1.28	0.7
96-02979	126	1A (Whole Segment) 1A Dup	1.90 1.85	1.88	2.7
96-02990	126	2 Drainable Liquid 2 Drainable Liquid Dup	1.27 1.30	1.29	2.1
96-02981	126	2A (Upper Half) 2A Dup	1.90 1.91	1.91	0.3
96-02982	126	2B (Lower Half) 2B Dup	2.02 2.00	2.01	1.2
96-02983	127	1A (Upper Half) 1A Dup	1.43 1.43	1.43	0.0
96-02984	127	1B (Lower Half) 1B Dup	1.62 1.61	1.62	0.9
96-02992	127	2 Drainable Liquid 2 Drainable Liquid Dup	1.15 1.15	1.15	0.2
96-02985	127	2A (Whole Segment) 2A Dup	1.86 1.81	1.84	2.5
96-02987		Field Blank Field Blank Dup	1.02 1.01	1.01	1.5

* Results calculated using more significant figures than portrayed in this table.

The density of the field blank (1.01 g/mL) is consistent with the density of water. The drainable liquid densities are significantly higher than water indicating that the drainable liquids contain a significant quantity of dissolved salts. This is consistent with the wt% water data presented in the thermal analysis section. The drainable liquid from Core 127 Segment 2 was a clear bright yellow solution. The other drainable liquids were clear with a yellow tint.

The density of the half-segments is dependent upon the core and depth in the tank. The density of the half-segments increased with increasing depth in the tank, and the densities measured in Core 126 were higher than was observed in Core 127. The densities of the half-segments range from 1.43 to 2.02 g/mL.

1.3 THERMOGRAVIMETRIC ANALYSIS (TGA)

TGA measurements were made on homogenized segments and half-segments from Core 126 Segments 1 and 2 and Core 127 Segments 1 and 2, and also on the drainable liquids from Core 126 Segments 1 and 2, and Core 127 Segment 2. The TGA measurements were performed according to technical procedure PNL-ALO-508 Rev. 0. TGA measurements provide data associated with all sample mass losses over a particular temperature range. In this report the initial endothermic transition and its associated mass loss are used to calculate the percent water in the sample. This accounts for the free water associated with the sample and loosely bound waters of hydration, but does not include tightly bound waters of hydration or loosely bound water.

Samples were run on a SEIKO 5200 instrument. Balance calibration of the instrument was checked against a known 20 mg standard laboratory weight. The instrument temperature was calibrated using indium and lead standards, and was checked periodically using the indium standard. Temperature readings for the instrument were within 2 °C of the reported literature value. Balance calibration of the TGA was within 0.01 mg of its expected value. The temperature range for the TGA runs was from ambient (~20 °C) to 550 °C, using a scan rate of 10 °C per minute to permit good thermal conductivity in the sample. Analyses were conducted using platinum sample pans under a nitrogen cover gas. Data for percent water are tabulated in Table 1.2 and scans are included in Appendix B.

Table 1.2. TGA Results for Homogenized Samples from Tank BX-104

DESCRIPTION	SAMPLE #	TRANSITION 1				TRANSITION 2				TRANSITION 3			
		Delta Wt% H2O	Avg Wt% H2O	95% C.L.	RPD%	Delta Wt% (1-2)	Avg Mass Loss	95% C.L.	RPD%	Delta Wt% (1-2)	Avg Mass Loss	95% C.L.	RPD%
C120,S1A,UH	90-02979	11.8	10.0	0 (-2)	37	12.0	14.7	2	28	18.4	16.8	15	4
Duplicate	90-02979D	8.1				10.7				17.1			
C120,S2A,UH	90-02981	11.8	11.0	10	4	24.9	24.3	2.1	5	4.8	4.7	4	0
Duplicate	90-02981D	11.3				23.7				4.5			
C120,S2A,LH	90-02982	23.5	22.2	14	12	15.0	15.8	15	3	3.6	3.7	3	5
Duplicate	90-02982D	20.8				16.0				3.8			
C120,S1,DL	90-02989	58.4	58.4	58	0	7.0	6.9	0	4	0.9	0.8	1	12
Duplicate	90-02989D	58.4				6.7				0.8			
C120,S2,DL	90-02990	60.5	59.8	55	3	4.3	4.4	4	2	0.2	0.2	0	0
Duplicate	90-02990D	59.0				4.4				0.2			
C120,FD	90-02987	90.9	97.9	92	2	ta	ta	ta	ta	ta	ta	ta	ta
Duplicate	90-02987D	99.9				ta				ta			
C127,S1A,UH	90-02983	49.4	46.0	30	0	7.1	7.1	7	0	2.5	2.6	2	13
Duplicate	90-02983D	46.5				7.1				2.8			
C127,S1B,LH	90-02984	44.1	43.0	30	5	5.1	5.3	4	0	4.4	4.4	4	1
Duplicate	90-02984D	41.8				5.4				4.4			
C127,S2A	90-02985	24.1	23.5	20	5	18.5	18.6	18	1	4.5	4.5	5	0
Duplicate	90-02985D	22.9				18.7				4.5			
C127,S2,DL	90-02992	78.3	77.7	74	2	2.0	2.1	1	10	ta	ta	ta	ta
Duplicate	90-02992D	77.1				2.2				ta			

Notes:

ta = transition absent; no data presented.

As shown by the data in Table 1.2, one sample (96-02979, Core 126 Segment 1) exceeded the established 20% RPD precision limit for TGA. The higher RPD in this case is a consequence of the lack of resolution between the initial and second transitions. If the mass losses for first two transitions are combined to a more definitive endpoint, the RPD is 1.6%. Because weight loss associated with transition 2 is low compared to the first transition, no impact to safety concerns is observed choosing either the mass loss for either, or a combination, of both transitions while doing calculations. Confidence intervals listed in Table 1.2 correspond to the 95% **lower limit** values for percent water in the samples.

1.4 DIFFERENTIAL SCANNING CALORIMETRY (DSC)

Energetics of samples from Cores 126 and 127 were determined by DSC. DSC analyses were conducted using a SEIKO 5200 instrument according to technical procedure PNL-ALO-508 Rev. 0. Temperature and enthalpy calibrations of the DSC instrument were made using indium and lead standards. Calibration was checked periodically using an indium standard. A melting temperature of 156.5 °C was measured for the indium standard. This melting temperature was within 1 °C of reported literature value (156.6 °C).

The temperature range for the DSC runs was from ambient (~20 °C) to 550 °C, using a scan rate of 10 °C per minute to permit good thermal conductivity in the sample. Analyses were conducted using platinum sample pans under nitrogen cover gas.

Enthalpy data are tabulated in Table 1.3 and the DSC scans are included in Appendix B. Listed values for transitions exhibiting exothermic behavior have been corrected for percent moisture (e.g., dry-weight basis values). Data listed in Table 1.3 is at the 95% confidence limit; thus representing the maximum potential values for samples exhibiting exothermic behavior (e.g., upper confidence limit), and minimum values for sample exhibiting endothermic behavior (lower confidence limit).

Table 1.3. DSC Results for Homogenized Samples from Tank BX-104

DESCRIPTION	SAMPLE #	TRANSITION 1				TRANSITION 2				TRANSITION 3			
		DeltaH1 J/g	AvgH1 J/g	95% C.L.	RPD %	DeltaH2 J/g	AvgH2 J/g	95% C.L.	RPD %	DeltaH3 J/g	AvgH3 J/g	95% C.L.	RPD %
C126,S1A,UH	96-02979	132.2	111.9	-17	36	225.2	227.0	216	2	407.9	428.5	299	10
Duplicate	96-02979D	91.5				228.7				449.0			
C126,S2A,UH	96-02981	(2)	231.5	n/a	n/a	599.0	630.3	321	16	(2)	(2)	(2)	(2)
Duplicate	96-02981D	231.5				661.5				(2)			
C126,S2A,LH	96-02982	412.1	378.8	175	17	456.0	453.8	427	2	(2)	(2)	(2)	(2)
Duplicate	96-02982D	347.4				449.6				(2)			
C126,S1,DL	96-02989	984.2	952.9	519	14	61.9	60.9	65	3	-74.0	-68.1	-105	17
Duplicate	96-02989D	1021.6				59.9				-62.3			
C126,S2,DL	96-02990	1029.1	1070.0	812	8	29.6	31.1	22	9	-53.7	-54.0	-56	1
Duplicate	96-02990D	1110.8				32.5				-54.4			
C126,FB	96-02987	1509.7	1619.0	1434	4	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Duplicate	96-02987D	1648.3				(2)				(2)			
C127,S1A,UH	96-02983	935.3	849.9	310	20	37.4	39.9	24	13	-33.6	-35.2	-45	9
Duplicate	96-02983D	764.4				42.4				-36.7			
C127,S1B,LH	96-02984	589.5	617.6	440	9	129.9	122.6	76	12	-9.8	-9.3	-13	11
Duplicate	96-02984D	645.7				115.2				-8.8			
C127,S2A	96-02985	(2)	418.2	n/a	n/a	553.4	532.5	401	8	(2)	(2)	(2)	(2)
Duplicate	96-02985D	418.2				511.6				(2)			
C127,S2,DL	96-02992	1405.4	1339.7	925	10	34.2	31.6	15	16	-34.5	-53.6	-174	71
Duplicate	96-02992D	1274				29.0				-72.6			

Notes:

(1) Exothermic values are preceded by a "-".

(2) Enthalpy for this transition could not be calculated.

(3) Adjustment factor divisors for exothermic dry weight-basis corrections. Table data for listed samples represent corrected exothermic values:

#96-02983:	1-0.4795	= 0.5205
#96-02984:	1-0.4295	= 0.5705
#96-02989:	1-0.5840	= 0.4160
#96-02990:	1-0.5975	= 0.4025
#96-02992:	1-0.7770	= 0.2230

na = transition absent; no data presented.

na = not available.

Samples 96-02983 (Core 127 Subsegment 1A), 96-02984 (Core 127 Subsegment 1B), 96-02989 (Core 126 Segment 1 drainable liquid), 96-02990 (Core 126 Segment 2 drainable liquid), and 96-02992 (Core 127 Segment 2 drainable liquid) exhibited exothermic activity. As shown in Table 1.3, none of these samples exceeded the notification limit of -480 J/g at the 95% confidence limit (dry-weight basis).

Two samples, 96-02979 and 96-02992, had mean enthalpies (between the sample and duplicate analyses) which exceeded a 20% RPD precision criterion. For sample 96-02979 (Core 126, Segment 1A), a relatively large difference in starting temperature between the sample and duplicate was noted. In this case, the higher RPD was due to this temperature difference. While the enthalpy for transition 1 may be understated, the transition is endothermic and does not impact tank safety concerns. Therefore, no further action was taken.

Enthalpies for transition 1 of two samples, 96-02981 (Core 126 Subsegment 2A) and 96-02985 (Core 127 Segment 2) could not be calculated because the transition began at temperatures lower than the starting temperature of the scans. Again, while enthalpies for transition 1 in these samples may be understated, the transitions are endothermic and do not impact tank safety concerns. Therefore, no further action was taken.

For sample, 96-02992 (Core 127 Segment 2 drainable liquid) small enthalpy differences in the exotherm for transition 3 were noted, contributing to the larger calculated RPD values. Higher RPD values are expected for transitions exhibiting low overall enthalpies, where choice and placement of endpoints for particular transitions are less definitive. Because the enthalpies were low for this sample and duplicate, no impact to safety concerns was observed from the calculated results.

1.5 ANALYTICAL SAMPLE PREPARATION

Analytical samples were prepared from Core 126 and 127 Subsegment material from tank BX-104. Subsegment, Drainable Liquid, field blank and HHF samples comprised the entire work scope for these cores. All samples were transferred and processed through the Shielded Analytical Laboratory Hot Cell Facility (SAL) due to the high radiation readings associated with the core materials.

Table 1.4 lists the procedures used to prepare the analytical samples for the requested suite of analyses. Also included in the table is the carbon procedure for total organic carbon (TOC) determination, since the TOC analysis was performed in the SAL.

Table 1.4. Tank BX-104 Core 126/127 Procedure List

PNNL Procedure Number	Procedure Title
PNL-ALO-103, Rev. 1	Water Leach of Sludges, Soils and Other Solid Samples
PNL-ALO-115, Rev. 1	Solubilization of Metals From Solids Using a KOH-KNO_3 Fusion
PNL-ALO-381, Rev. 1	Direct Determination of TC, TOC, and TIC in Radioactive Sludges and Liquids by Hot Persulfate Method

Subsegments 2B for Core 126 and 2A for Core 127 were selected for evaluating the effectiveness of the homogenization operation. For these half-segments, material was subsampled from the top and bottom of the homogenized sample. Each subsample was prepared in duplicate by KOH-KNO_3 fusion and distributed for ICP and GEA analysis.

KOH-KNO_3 fusions and water leaches were completed on all subsegment samples, and the resulting fusion and water leach solutions were distributed for ICP and IC, respectively. Aliquots from the bottom half-segment fusions (which included those prepared for homogenization testing) were distributed for total alpha activity analysis to support the

Safety Screening 45-day report. Also, material from Cores 126 and 127 subsegments was analyzed for TOC in the SAL.

The liquid samples associated with tank BX-104 were the field blank, HHF, and three Drainable Liquids (two from Core 126 and one from Core 127). Aliquots from the field blank and each Drainable Liquid were acidified with nitric acid for ICP and total alpha activity. A vigorous reaction with effervescence and the formation of a precipitate was observed when nitric acid was added to both Core 126 Drainable Liquids. Further acid addition put the precipitate back into solution. No reaction was observed when Core 127 Drainable Liquid was acidified. A portion of the HHF sample was acidified for ICP metals analysis and a second unacidified portion was provided for IC anions analysis. All three Drainable Liquid samples and the field blank were analyzed for TOC.

During some sample preparations, the SAL made deliberate minor deviations to sample preparatory procedures for one or more of the following reasons:

1) Insufficient sample was available to conduct the analyses per procedure while maintaining the level of quality control requested.
2) Sample weights and/or final volumes were reduced to facilitate waste minimization.
3) Sample weights and/or final volumes were altered to increase the concentration of certain analytes of interest. This was done to meet the procedural concentration ranges needed to perform the analyses.

Sample sizes and final volumes for all sample preparations are documented on the Sample Preparation Sheets included in Appendix A. Table 1.5 lists the sample preparatory procedure deviations performed during the processing of tank BX-104.

Table 1.5. Tank BX-104 Core 126/127 Sample Preparation Procedural Deviations

ALO Number	Prep Method	Sample Size Deviation	Sample Volume Deviation	Reagent Deviation	Observed Effect
96-02979	ALO-103/Water	Yes	Yes	No	None
96-02981	ALO-103/Water	Yes	Yes	No	None
96-02982	ALO-103/Water	Yes	Yes	No	None
96-02983	ALO-103/Water	Yes	Yes	No	None
96-02984	ALO-103/Water	Yes	Yes	No	None
96-02985	ALO-103/Water	Yes	Yes	No	None

SECTION 2

INORGANIC CHEMISTRY

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2.0 INORGANIC ANALYSIS

2.1 INDUCTIVELY COUPLED PLASMA (ICP) SPECTROMETRY ANALYSIS

2.1.1 ICP Sample Preparation and Analysis

ICP analyses were performed on fusions prepared from homogenized material from Core 126 Subsegments 1A, 2A, and 2B and Core 127 Subsegments 1A, 1B and 2A. Also, ICP analyses were performed on acidified samples from Core 126 Segments 1 and 2 drainable liquids, Core 127 Segment 2 drainable liquid, field blank, and HHF. The core material fusions and drainable liquid acidifications were performed in the SAL with sample solution aliquots being transferred to the Inorganic Analysis Group for ICP analysis. All ICP metals analyses were performed on a Jarrell-Ash ICP 800A system following procedure PNL-ALO-211, Rev. 0.

2.1.2 ICP Analytical Results

The KOH-KNO_3 fusion analytical results are presented in Tables 2.1 through 2.4, and the acidified drainable liquids, field blank, and HHF results in Tables 2.5 and 2.7. An estimate of the sample detection limit can be obtained from the tables by multiplying the estimated instrument detection limit (IDL) for each analyte by the appropriate sample processing/dilution factor (Dil Fctr). It should be noted that the processing blank has not been subtracted from any of the reported sample results. Based on the fusion reagents and crucible material used for the fusion, nickel and potassium results can not be reported; to obtain these analytes an alternate dissolution procedure is required (e.g., Na_2O_2 fusion or acid digestion).

Table 2.1. ICP Results from Core 126, Seg 1A & 2B, Tank BX-104

Project: TWRS
Procedure: PNL-ALO-211

File: m022096d
Analyzed: 02/20/96

EX-104 Core 126

		126 1/2 Seg 1A			126 1/2 Seg 2B				
Sam Log#:		96-02979	96-02979		96-02982	96-02982		96-02979	
Split#:		126.1A.F	126.1A.F		126.2B.F	126.2B.F		Blank	
ICP Dil:		1.00	1.00		1.00	1.00		1.00	
Dil Fctr:		3651.9	2711.0		2123.1	2982.6		2760.6	
Est. IDL ug/mL	Analyte	Sample ug/g	Duplicate ug/g	RPD	Sample ug/g	Duplicate ug/g	RPD	Batch Blk ug/g	Post Spike Recoveries Spk "A"	Spk "B"
0.015	Ag	ND	(44)		ND	ND		ND	99.8%	
0.060	Al	162,552	171,523	5	150,340	148,074	2	(321)	n/a	
0.275	As	ND	ND		ND	ND		ND	112.8%	
0.050	B	ND	ND		ND	ND		ND	97.3%	
0.010	Ba	ND	(29)		ND	ND		ND	100.0%	
0.005	Be	ND	ND		ND	ND		ND	97.4%	
0.100	Bi	(843)	(907)		(492)	(465)		ND	96.6%	
0.250	Ca	(3,450)	(2,214)		(1,729)	(1,786)		(1,423)	99.8%	
0.075	Cd	ND	ND		ND	ND		ND	128.0%	
0.125	Ce	ND	ND		ND	ND		ND		99.4%
0.050	Co	ND	ND		ND	ND		ND	104.2%	
0.020	Cr	3,699	4,015	8	1,368	1,430	4	ND	102.0%	
0.050	Cu	ND	ND		ND	ND		ND	97.3%	
0.050	Dy	ND	ND		ND	ND		ND		96.2%
0.100	Eu	ND	ND		ND	ND		ND		95.4%
0.050	Fe	3,689	4,048	9	1,249	2,003	46 *	(149)	101.8%	
2.000	K	n/a	n/a		n/a	n/a		n/a		
0.050	La	ND	ND		ND	ND		ND		97.8%
0.030	Li	ND	ND		ND	ND		ND	96.2%	
0.100	Mg	ND	ND		ND	ND		ND	102.8%	
0.050	Mn	(772)	(763)		(112)	(223)		ND	102.5%	
0.030	Mo	ND	ND		(66)	ND		ND	104.0%	
0.250	Na	50,864	53,958	6	57,607	60,272	5	(1,680)	100.1%	
0.100	Nd	ND	ND		ND	ND		ND		98.3%
0.030	Ni	n/a	n/a		n/a	n/a		n/a		
0.250	P	(2,456)	(2,706)		(1,666)	(1,725)		ND	99.1%	
0.350	Pb	ND	ND		ND	ND		ND	111.3%	
0.300	Pd	ND	ND		ND	ND		ND		108.3%
0.300	Rh	ND	ND		ND	ND		ND		102.0%
0.100	Ru	ND	ND		ND	ND		ND		105.2%
0.500	Se	ND	ND		ND	ND		ND	114.2%	
0.500	Si	ND	(1,840)		(2,842)	(2,362)		ND	98.0%	
1.000	Sn	ND	ND		ND	ND		ND		122.2%
0.015	Sr	ND	(44)		(88)	(85)		ND	103.7%	
0.500	Te	ND	ND		ND	ND		ND		109.4%
0.025	Ti	ND	ND		ND	ND		ND	100.9%	
0.500	Tl	ND	ND		ND	ND		ND	105.2%	
2.000	U	(19,190)	(19,249)		100,671	98,619	2	ND		93.5%
0.015	V	ND	ND		(46)	(53)		ND	100.5%	
0.500	W	ND	ND		ND	ND		ND		99.6%
0.010	Y	ND	ND		ND	ND		ND		91.3%
0.020	Zn	(320)	(179)		(110)	(313)		(190)	102.5%	
0.025	Zr	(464)	(367)		ND	ND		ND	100.5%	

Note:
1) Estimated Quantitation Limit (EQL) = 10x IDL; "( )" results <EQL but =>IDL.
2) Above 5 times EQL, results reportable to 2 1/2 significant digits.
3) Blank is reported in ug/g "equivalence" to indicate blank effect on sample results.
4) The process "blank" has not been subtracted from the "Sample & Duplicate" results.
5) Above 5 times the EQL, precision is estimated at better than +/-20% and accuracy +/-25%.
6) "ND" = Not Detected; Estimated Sample Detection Limit (ug/g) = (IDL in ug/mL) * (Dil Fctr).
7) If RPD flagged with "*", then RPD >20% and sample & duplicate results >EQL.
8) Spike recovery "n/a/" = spike concentration <25% of sample concentration.
Data, including calibration/QC, archived File ICP-325-405-1/96A0075

Table 2.2. ICP Results from Core 126, Seg 2BH & 2A, Tank BX-104

Project: TWRS
Procedure: PNL-ALO-211

File: m022296a
Analyzed: 02/20/96

BX-104 Core 126

Est. IDL ug/mL	Analyte	126 1/2 Seg 2BH Sample ug/g	126 1/2 Seg 2BH Duplicate ug/g	RPD	126 1/2 Seg 2A Sample ug/g	126 1/2 Seg 2A Duplicate ug/g	RPD	Batch Blk ug/g	Post Spike Recoveries Spk "A"	Post Spike Recoveries Spk "B"
	Sam Log#:	96-02980	96-02980		96-02981	96-02981		96-02980 Blank		
	Split#:	126.2BH.F	126.2BH.F		126.2A.F	126.2A.F				
	ICP Dil:	1.00	1.00		1.00	1.00		1.00		
	Dil Fctr:	2424.5	2242.8		1434.0	3394.3		2161.8		
0.025	Ag	ND	ND		ND	ND		ND	93.4%	
0.060	Al	148,625	163,188	9	235,239	232,753	1	ND	n/a	
0.080	As	(203)	(244)		(266)	(319)		ND	104.2%	
0.050	B	(309)	(264)		(171)	(505)		(187)	99.1%	
0.010	Ba	ND	ND		(17)	ND		ND	97.3%	
0.005	Be	ND	ND		ND	ND		ND	94.8%	
0.100	Bi	(486)	(519)		ND	ND		ND	96.8%	
0.250	Ca	(905)	(1,520)		(1,568)	(1,746)		(580)	100.5%	
0.015	Cd	ND	ND		ND	ND		ND	98.9%	
0.100	Ce	ND	ND		ND	ND		ND		99.1%
0.050	Co	ND	ND		ND	ND		ND	102.7%	
0.020	Cr	1,245	1,378	10	1,665	1,714	3	ND	98.9%	
0.050	Cu	(138)	ND		ND	ND		ND	96.3%	
0.050	Dy	ND	ND		ND	ND		ND		100.5%
0.100	Eu	ND	ND		ND	ND		ND		101.3%
0.050	Fe	3,373	2,148	44 *	1,702	3,061	57 *	(262)	99.6%	
2.000	K	n/a	n/a		n/a	n/a		n/a		
0.050	La	ND	ND		ND	ND		ND		101.7%
0.030	Li	ND	ND		ND	ND		ND	97.4%	
0.100	Mg	ND	ND		ND	ND		ND	100.5%	
0.050	Mn	(632)	(535)		(97)	(753)		(311)	101.8%	
0.030	Mo	ND	ND		ND	ND		ND	102.4%	
0.250	Na	53,636	59,876	11	39,719	41,627	5	(2,041)	99.5%	
0.100	Nd	ND	ND		ND	ND		ND		100.2%
0.030	Ni	n/a	n/a		n/a	n/a		n/a		
0.250	P	(1,547)	(2,016)		(794)	(871)		ND	101.5%	
0.100	Pb	(649)	(690)		(715)	(781)		ND	99.0%	
0.300	Pd	ND	ND		ND	ND		ND		92.4%
0.300	Rh	ND	ND		ND	ND		ND		99.2%
0.100	Ru	ND	ND		ND	ND		ND		102.4%
0.100	Se	(781)	(832)		(802)	(871)		ND	102.7%	
0.500	Si	ND	(2,999)		(2,492)	(2,945)		ND	95.4%	
1.000	Sn	ND	ND		ND	ND		ND		119.9%
0.015	Sr	(73)	(86)		ND	ND		ND	98.3%	
0.500	Te	ND	ND		ND	ND		ND		104.1%
0.025	Ti	ND	(66)		ND	ND		ND	99.0%	
0.500	Tl	ND	ND		ND	ND		ND	99.7%	
2.000	U	98,321	105,110	7	ND	ND		ND		94.1%
0.015	V	(39)	(43)		ND	ND		ND	97.6%	
0.500	W	ND	ND		ND	ND		ND		100.4%
0.010	Y	ND	ND		ND	ND		ND		98.6%
0.020	Zn	(113)	(114)		(105)	(209)		(47)	100.3%	
0.025	Zr	ND	ND		ND	ND		ND	98.1%	

Note:
1) Estimated Quantitation Limit (EQL) = 10x IDL; "( )" results <EQL but =>IDL.
2) Above 5 times EQL, results reportable to 2 1/2 significant digits.
3) Blank is reported in ug/g "equivalence" to indicate blank effect on sample results.
4) The process "blank" has not been subtracted from the "Sample & Duplicate" results.
5) Above 5 times the EQL, precision is estimated at better than +/-20% and accuracy +/-25%.
6) "ND" = Not Detected; Estimated Sample Detection Limit (ug/g) = (IDL in ug/mL) * (Dil Fctr).
7) If RPD flagged with "*", then RPD >20% and sample & duplicate results >EQL.
8) Spike recovery "n/a" = spike concentration <25% of sample concentration.
Data, including calibration/QC, archived File ICP-325-405-1/96A0076

Table 2.3. ICP Results from Core 127, Seg 1A & 2AH, Tank BX-104

Project: TWRS
Procedure: PNL-ALO-211

File: m022296b
Analyzed: 02/20/96

BX-104 Core 127
Samples batched with 126.2BH.F and 126.2A.F

		127 1/2 Seg 1A			127 1/2 Seg 2AH			
	Sam Log#:	96-02983	96-02983		96-02986	96-02986		96-2980-2
	Split#:	127.1A.F	127.1A.F		127.2AH.F	127.2AH.F		Blank
	ICP Dil:	1.00	1.00		1.00	1.00		1.00
	Dil Fctr:	2675.3	2162.3		2658.1	2481.7		2476.1
Est. IDL ug/mL	Analyte	Sample ug/g	Duplicate ug/g	RPD	Sample ug/g	Duplicate ug/g	RPD	Batch Blk ug/g
0.025	Ag	ND	ND		ND	ND		ND
0.060	Al	39,789	38,585	3	172,789	168,896	9	ND
0.080	As	ND	ND		(316)	(332)		ND
0.050	B	(293)	(325)		(235)	(236)		(182)
0.010	Ba	(49)	(45)		(30)	(34)		ND
0.005	Be	ND	ND		ND	ND		ND
0.100	Bi	(334)	(318)		ND	(251)		ND
0.250	Ca	(1,235)	(1,059)		(1,124)	(1,146)		ND
0.015	Cd	ND	(35)		ND	ND		ND
0.100	Ce	(272)	(269)		ND	ND		ND
0.050	Co	ND	ND		ND	ND		ND
0.020	Cr	13,550	13,553	0	2,155	2,334	8	ND
0.050	Cu	(330)	(170)		ND	ND		ND
0.050	Dy	ND	ND		ND	ND		ND
0.100	Eu	ND	ND		ND	ND		ND
0.050	Fe	16,053	14,179	12	3,342	3,883	15	7,660
2.000	K	n/a	n/a		n/a	n/a		n/a
0.050	La	(140)	(127)		ND	ND		ND
0.030	Li	ND	ND		(337)	(379)		ND
0.100	Mg	ND	(231)		ND	ND		ND
0.050	Mn	3,823	3,967	4	(791)	(829)		(370)
0.030	Mo	ND	ND		ND	ND		ND
0.250	Na	93,934	98,387	5	35,634	38,240	7	(2,196)
0.100	Nd	(360)	(353)		ND	ND		ND
0.030	Ni	n/a	n/a		n/a	n/a		n/a
0.250	P	(890)	(552)		(1,506)	(1,652)		ND
0.100	Pb	(840)	(1,096)		(678)	(713)		ND
0.300	Pd	ND	ND		ND	ND		ND
0.300	Rh	ND	ND		ND	ND		ND
0.100	Ru	ND	ND		ND	ND		ND
0.100	Se	(284)	(248)		(727)	(718)		ND
0.500	Si	(1,717)	(1,581)		(1,695)	(1,835)		ND
1.000	Sn	ND	ND		ND	ND		ND
0.015	Sr	ND	ND		(44)	(48)		ND
0.500	Te	ND	ND		ND	ND		ND
0.025	Ti	ND	ND		ND	ND		ND
0.500	Tl	ND	ND		ND	ND		ND
2.000	U	(20,786)	(20,517)		(30,231)	(31,895)		ND
0.015	V	ND	ND		ND	ND		ND
0.500	W	ND	ND		ND	ND		ND
0.010	Y	(55)	(46)		ND	ND		ND
0.020	Zn	(289)	(201)		(80)	(78)		(81)
0.025	Zr	1,733	930	60 *	(214)	(190)		ND

Note:
1) Estimated Quantitation Limit (EQL) = 10x IDL; "( )" results <EQL but =>IDL.
2) Above 5 times EQL, results reportable to 2 1/2 significant digits.
3) Blank is reported in ug/g "equivalence" to indicate blank effect on sample results.
4) The process "blank" has not been subtracted from the "Sample & Duplicate" results.
5) Above 5 times the EQL, precision is estimated at better than +/-20% and accuracy +/-25%.
6) "ND" = Not Detected; Estimated Sample Detection Limit (ug/g) = (IDL in ug/mL) * (Dil Fctr).
7) If RPD flagged with "*", then RPD >20% and sample & duplicate results >EQL.

Data, including calibration/QC, archived File ICP-325-405-1/96A0076

Table 2.4. ICP Results from Core 127, Seg 1B & 2A, Tank BX-104

Project: TWRS
Procedure: PNL-ALO-211

File: m022096e
Analyzed: 02/20/96

BX-104 Core 127
Samples batched with 126.1A.F and 126.2B.F

		127 1/2 Seg 1B			127 1/2 Seg 2A		
Sam Log#:		96-02984	96-02984		96-02985	96-02985	
Split#:		127.1B.F	127.1B.F		127.2A.F	127.2A.F	
ICP Dil:		1.00	1.00		1.00	1.00	
Dil Fctr:		2632.6	2737.3		3051.8	2632.6	
Est. IDL ug/mL	Analyte	Sample ug/g	Duplicate ug/g	RPD	Sample ug/g	Duplicate ug/g	RPD
0.015	Ag	(62)	(61)		(58)	(47)	
0.060	Al	60,693	59,972	1	172,829	189,103	9
0.275	As	ND	ND		ND	ND	
0.050	B	ND	ND		ND	ND	
0.010	Ba	(51)	(51)		(37)	(36)	
0.005	Be	ND	ND		ND	ND	
0.100	Bi	(617)	(654)		(319)	(350)	
0.250	Ca	(2,027)	(2,067)		(4,495)	(1,621)	
0.075	Cd	(211)	(288)		ND	ND	
0.125	Ce	(354)	(365)		ND	ND	
0.050	Co	ND	ND		ND	ND	
0.020	Cr	6,371	6,362	0	2,085	2,279	9
0.050	Cu	ND	ND		ND	ND	
0.050	Dy	ND	ND		ND	ND	
0.100	Eu	ND	ND		ND	ND	
0.050	Fe	4,148	4,486	8	4,251	4,031	5
2.000	K	n/a	n/a		n/a	n/a	
0.050	La	ND	ND		ND	ND	
0.030	Li	ND	ND		(329)	(360)	
0.100	Mg	ND	ND		ND	ND	
0.050	Mn	(1,033)	(1,076)		(803)	(799)	
0.030	Mo	ND	ND		ND	ND	
0.250	Na	92,952	93,335	0	33,431	36,603	9
0.100	Nd	(269)	ND		ND	ND	
0.030	Ni	n/a	n/a		n/a	n/a	
0.250	P	(4,818)	(4,745)		(1,613)	(1,584)	
0.350	Pb	ND	ND		ND	ND	
0.300	Pd	ND	ND		ND	ND	
0.300	Rh	ND	ND		ND	ND	
0.100	Ru	ND	ND		ND	ND	
0.500	Se	ND	ND		ND	ND	
0.500	Si	(1,578)	(1,457)		(1,745)	(1,588)	
1.000	Sn	ND	ND		ND	ND	
0.015	Sr	(58)	(56)		(52)	(49)	
0.500	Te	ND	ND		ND	ND	
0.025	Ti	ND	ND		ND	ND	
0.500	Tl	ND	ND		ND	ND	
2.000	U	60,480	61,157	1	(32,637)	(33,786)	
0.015	V	(55)	(56)		ND	ND	
0.500	W	ND	ND		ND	ND	
0.010	Y	(39)	(39)		ND	ND	
0.020	Zn	(302)	(149)		(214)	(127)	
0.025	Zr	842	695	19	(202)	(194)	

Note: 1) Estimated Quantitation Limit (EQL) = 10x IDL; "( )" results <EQL but =>IDL.
2) Above 5 times EQL, results reportable to 2 1/2 significant digits.
3) Blank is reported in ug/g "equivalence" to indicate blank effect on sample results.
4) The process "blank" has not been subtracted from the "Sample & Duplicate" results.
5) Above 5 times the EQL, precision is estimated at better than +/-20% and accuracy +/-25%.
6) "ND" = Not Detected; Estimated Sample Detection Limit (ug/g) = (IDL in ug/mL) * (Dil Fctr).
7) If RPD flagged with "*", then RPD >20% and sample & duplicate results >EQL.

Data, including calibration/QC, archived File ICP-325-405-1/96A0075

Table 2.5. ICP Results from Core 126 Drainable Liquid, Seg 1 & 2, Tank BX-104

Project: TWRS
Procedure: PNL-ALO-211

File: m030696a
Analyzed: 03/06/96
03/14/96

BX-104 Core 126

	126 Seg 1			126 Seg 2					
Sam Log#:	96-02989	96-02989		96-02990	96-02990		96-02989		
Split#:	126.1DL.D	126.1DL.D		126.2DL.D	126.2DL.D		Blank		
ICP Dil:	5.00	5.00		10.00	5.00		1.00		
Dil Fctr:	26.0	26.0		52.0	26.0		5.2	Post Spike Recoveries	
Est. IDL ug/mL	Analyte	Sample ug/ml	Duplicate ug/ml	RPD	Sample ug/ml	Duplicate ug/ml	RPD	Batch Blk ug/ml	Spk "A"	Spk "B"
0.015	Ag	ND	ND		ND	ND		ND	81.3%	
0.060	Al	2,805.7	2,809.6	0	2,825.6	2,914.7	3	(0.3)	n/a	
0.080	As	(7.7)	(7.8)		(9.7)	(9.3)		ND	90.1%	
0.050	B	25.1	25.4	1	30.9	32.1	4	(0.4)	71.9%	
0.010	Ba	(0.7)	(0.7)		(0.6)	(0.5)		(0.5)	80.7%	
0.015	Be	ND	ND		ND	ND		ND	111.6%	
0.100	Bi	(7.3)	(7.2)		(6.7)	(6.2)		ND	87.7%	
0.100	Ca	(25.9)	(25.2)		(12.9)	(12.3)		(1.1)	86.8%	
0.025	Cd	(2.2)	(1.8)		(2.0)	(0.7)		ND	81.3%	
0.100	Ce	ND	ND		ND	ND		ND		98.4%
0.050	Co	ND	ND		ND	ND		ND	96.7%	
0.020	Cr	2,629.0	2,597.4	1	3,375.5	3,292.0	3	ND	n/a	
0.075	Cu	(2.1)	(2.0)		ND	ND		ND	86.1%	
0.050	Dy	ND	ND		ND	ND		ND		90.5%
0.100	Eu	ND	ND		ND	ND		ND		92.5%
0.050	Fe	(2.0)	(2.2)		ND	(1.4)		(0.4)	85.7%	
2.000	K	1,923.3	1,937.1	1	2,051.7	2,112.2	3	ND		
0.050	La	ND	ND		ND	ND		ND		94.8%
0.025	Li	(0.8)	(1.1)		36.7	37.2	2	ND	89.3%	
0.100	Mg	ND	ND		ND	ND		ND	87.0%	
0.050	Mn	ND	ND		ND	ND		ND	95.7%	
0.030	Mo	31.8	31.2	2	34.3	34.3	0	ND	42.3%	
0.250	Na	139,419.7	138,550.9	1	140,601.4	141,864.9	1	(8.5)	n/a	
0.100	Nd	ND	ND		ND	ND		ND		94.4%
0.030	Ni	14.0	13.5	4	(4.2)	(3.8)		ND		
0.250	P	1,960.4	1,984.6	1	1,543.6	1,630.9	6	ND	n/a	
0.500	Pb	ND	ND		ND	ND		ND	165.1%	
0.500	Pd	ND	ND		ND	ND		ND		
0.150	Rh	(6.5)	(5.8)		(8.6)	(6.4)		ND		79.8%
0.100	Ru	(8.1)	(8.1)		(7.5)	(7.1)		ND		76.5%
0.500	Se	ND	ND		ND	ND		ND	172.1%	
0.500	Si	(53.2)	(52.9)		(114.9)	(108.4)		ND	103.6%	
1.000	Sn	ND	ND		ND	ND		ND		203.2%
0.015	Sr	ND	ND		ND	ND		ND	90.0%	
0.500	Te	ND	ND		ND	ND		ND		151.9%
0.025	Ti	ND	ND		ND	ND		ND	88.5%	
0.500	Tl	ND	ND		ND	ND		ND	104.2%	
2.000	U	ND	ND		ND	ND		ND		81.4%
0.075	V	ND	ND		ND	(2.1)		ND	109.8%	
1.000	W	(40.3)	(37.2)		ND	(32.0)		ND		45.1%
0.010	Y	ND	ND		ND	ND		ND		90.0%
0.020	Zn	(1.0)	(1.3)		(1.5)	(1.6)		(0.3)	92.6%	
0.050	Zr	ND	ND		ND	ND		ND	75.0%	

Note:
1) Estimated Quantitation Limit (EQL) = 10x IDL; "( )" results <EQL but =>IDL.
2) Above 5 times EQL, results reportable to 2 1/2 significant digits.
3) The process "blank" has not been subtracted from the "Sample & Duplicate" results.
4) Above 5 times EQL, precision is estimated at better than +/-20% and accuracy +/-25%.
5) "ND" = Not Detected; Estimated Sample Detection Limit (ug/mL) = (IDL in ug/mL) * (Dil Fctr)
6) If RPD flagged with "*", then RPD >20% and sample & duplicate results >EQL.
7) Spike recovery "n/a/" = spike concentration <25% of sample concentration.

Data, including calibration/QC, archived File ICP-325-405-1/96A0084

Table 2.6. ICP Results from Core 127 Drainable Liquid, Segment 2, Tank BX-104

Project: TWRS
Procedure: PNL-ALO-211
File: m030696b
Analyzed: 03/06/96
03/14/96

EX-104 Core 127
Batched with 126.1DL.D and 126.2DL.D

127 Seg 2

Sam Log#:	96-02992	96-02992
Split#:	127.2DL.D	127.2DL.D
ICP Dil:	10.00	5.00
Dil Fctr:	54.5	27.2

Est. IDL ug/mL	Analyte	Sample ug/ml	Duplicate ug/ml	RPD
0.015	Ag	ND	ND	
0.060	Al	532.9	541.1	2
0.080	As	(4.5)	(4.2)	
0.050	B	37.0	37.7	2
0.010	Ba	(0.7)	(0.7)	
0.015	Be	ND	ND	
0.100	Bi	ND	(3.2)	
0.100	Ca	(7.0)	(6.8)	
0.025	Cd	ND	ND	
0.100	Ce	ND	ND	
0.050	Co	ND	ND	
0.020	Cr	1,769.1	1,767.6	1
0.075	Cu	ND	ND	
0.050	Dy	ND	ND	
0.100	Eu	ND	ND	
0.050	Fe	ND	ND	
2.000	K	(969.6)	991.9	
0.050	La	ND	ND	
0.025	Li	838.4	841.9	0
0.100	Mg	ND	ND	
0.050	Mn	ND	ND	
0.030	Mo	(16.2)	16.1	
0.250	Na	75,092.3	76,269.3	2
0.100	Nd	ND	ND	
0.030	Ni	(2.6)	(2.3)	
0.250	P	1,221.0	1,267.5	4
0.500	Pb	ND	ND	
0.500	Pd	ND	ND	
0.150	Rh	ND	ND	
0.100	Ru	ND	(3.8)	
0.500	Se	ND	ND	
0.500	Si	(81.9)	(80.2)	
1.000	Sn	ND	ND	
0.015	Sr	ND	ND	
0.500	Te	ND	ND	
0.025	Ti	ND	ND	
0.500	Tl	ND	ND	
2.000	U	ND	ND	
0.075	V	ND	ND	
1.000	W	ND	ND	
0.010	Y	ND	ND	
0.020	Zn	ND	ND	
0.050	Zr	ND	ND	

Note:
1) Estimated Quantitation Limit (EQL) = 10x IDL; "( )" results <EQL but =>IDL.
2) Above 5 times EQL, results reportable to 2 1/2 significant digits.
3) The process "blank" has not been subtracted from the "Sample & Duplicate" results.
4) Above 5 times EQL, precision is estimated at better than +/-20% and accuracy +/-25%.
5) "ND" = Not Detected; Estimated Sample Detection Limit (ug/mL) = (IDL in ug/mL) * (Dil Fctr)
6) If RPD flagged with "*", then RPD >20% and sample & duplicate results >EQL.

Data, including calibration/QC, archived File ICP-325-405-1/96A0084

Table 2.7. ICP Results from Core 126/127 Field Blank & HHF, Tank BX-104

Project: TWRS
Procedure: PNL-ALO-211

File: m030896c
Analyzed: 03/08/96
03/14/96

BX-104 Core 126/127

	126/127 Field Blk		126/127 Hyd. Head Fluid	
Sam Log#:	96-02987	96-02987	96-02988	96-02988
Split#:	Fld-Blk.F	Fld-Blk.F	Hyd-Fld.D	Hyd-Fld.D
ICP Dil:	1.00	1.00	5.00	5.00
Dil Fctr:	1.02	1.02	5.10	5.10

Est. IDL ug/mL	Analyte	Sample ug/ml	Duplicate ug/ml	RPD	Sample ug/ml	Duplicate ug/ml	RPD
0.015	Ag	ND	ND		ND	ND	
0.060	Al	(0.1)	(0.2)		ND	ND	
0.080	As	ND	ND		ND	ND	
0.050	B	1.9	2.6	31 *	(1.6)	2.9	
0.010	Ba	ND	ND		ND	ND	
0.015	Be	ND	ND		ND	ND	
0.100	Bi	ND	ND		ND	ND	
0.100	Ca	(0.7)	(0.7)		(1.5)	(1.7)	
0.025	Cd	ND	ND		ND	ND	
0.100	Ce	ND	ND		ND	ND	
0.050	Co	ND	ND		ND	ND	
0.020	Cr	ND	ND		ND	ND	
0.075	Cu	ND	ND		ND	ND	
0.050	Dy	ND	ND		ND	ND	
0.100	Eu	ND	ND		ND	ND	
0.050	Fe	ND	ND		ND	ND	
2.000	K	ND	ND		ND	ND	
0.050	La	ND	ND		ND	ND	
0.025	Li	(0.2)	(0.2)		701.9	724.2	3
0.100	Mg	(0.2)	(0.2)		ND	ND	
0.050	Mn	ND	ND		ND	ND	
0.030	Mo	ND	ND		ND	ND	
0.250	Na	10.0	11.0	10	(4.6)	(6.5)	
0.100	Nd	ND	ND		ND	ND	
0.030	Ni	(0.1)	ND		ND	ND	
0.250	P	(0.6)	(0.6)		ND	ND	
0.500	Pb	ND	ND		ND	ND	
0.500	Pd	ND	ND		ND	ND	
0.150	Rh	ND	ND		ND	ND	
0.100	Ru	ND	ND		ND	ND	
0.500	Se	ND	ND		ND	ND	
0.500	Si	(2.0)	(2.8)		(5.2)	(5.5)	
1.000	Sn	ND	ND		ND	ND	
0.015	Sr	ND	ND		ND	ND	
0.500	Te	ND	ND		ND	ND	
0.025	Ti	ND	ND		ND	ND	
0.500	Tl	ND	ND		ND	ND	
2.000	U	ND	ND		ND	ND	
0.075	V	ND	ND		ND	ND	
1.000	W	ND	ND		ND	ND	
0.010	Y	ND	ND		ND	ND	
0.020	Zn	(0.1)	(0.1)		ND	ND	
0.050	Zr	ND	ND		ND	ND	

Note: 1) Estimated Quantitation Limit (EQL) = 10x IDL; "( )" results <EQL but =>IDL.
2) Above 5 times EQL, results reportable to 2 1/2 significant digits.
3) The process "blank" has not been subtracted from the "Sample & Duplicate" results.
4) Above 5 times EQL, precision is estimated at better than +/-20% and accuracy +/-25%.
5) "ND" = Not Detected; Estimated Sample Detection Limit (ug/mL) = (IDL in ug/mL) * (Dil Fctr)
6) If RPD flagged with "*", then RPD >20% and sample & duplicate results >EQL.

Data, including calibration/QC, archived File ICP-325-405-1/96A0085

The Li analysis of the HHF appears to be in conflict with the drainable liquid analytical results (see Tables 2.6, 2.7, and 2.11). The HHF has been reanalyzed, with both the ICP and IC results confirming the initial results. The bromide in the drainable liquid is significantly higher (14,000 μg/mL verses 8,000 μg/mL) than the bromide in the HHF provided with tank BX-104 cores. The conclusion is that the HHF sample provided to PNNL with the tank BX-104 cores could not have been used in the sampling process.

2.1.3 ICP Quality Control, Precision, and Accuracy

Duplicate sample results, along with the associated batch processing blanks, are reported for acidified liquids (i.e., drainable liquids, field blank, and HHF) and for all subsegments prepared by KOH-KNO_3 fusion. Also, post matrix spike recovery results are included with both the KOH-KNO_3 fusion and acidified drainable liquid results.

To evaluate the precision of the analytical laboratory sampling, preparation, and analysis, the relative percent different (RPD) between duplicates is used. The RPD is shown for all samples analyzed in duplicate, and the RPD is flagged with a "*" whenever the RPD has exceeded the 20% criteria required by the governing QA plan and the sample and duplicate results exceed 10 times the instrument detection limit (IDL). As can be seen in the tables, the RPDs are reasonably good, except for iron which exceeds 20% on 3 of the 8 duplicate analyses. The inconsistency seen in the RPDs for iron is attributed primarily to the difficulties in obtaining fully homogenized samples (e.g., the consistency/texture of the iron-based component), the complexity and diversity of each of the segments, and the very small sample sizes prepared for analysis.

The accuracy of the ICP results for the analytes of interest is estimated by the post spike recovery. For post spikes, the governing QA plan requirement of 75 to 125% post spike recovery on the fusions was met for all but a very few analytes of interest. Unexpectedly poor spike recoveries were exhibited for several of the analytes on the drainable liquid. This effect has been attributed to spiking a highly concentrated, complex

sample (i.e., excessive dissolved solids bias the analysis results). Serial dilution performed on high concentration analytes (i.e., those exceeding 0.1%) demonstrated good linearity (i.e. percent differences less than 10%).

The processing blank provides information on contamination potentially introduced during the fusion processing. No contamination from the $KOH-KNO_3$ fusion reagents was above 10 times the IDL (i.e., above the EQL) for any analyte. However, low concentrations of Al, Ca, Fe, Mn, Na, and Zn were measured in the fusion blanks. In the case of Ca and Zn, and to a lesser degree Mn, the concentration measured in the samples is attributed primarily to low-level contamination from the fusion reagents and processing. Low-level contamination noted for Al and Na do not significantly affect the reported sample concentrations for these analytes.

The majority of analytes reported are supported by the required verification QC (e.g., verification standards and blanks analyzed every ten samples). However, some reported analytes (specifically, Ce, Dy, Eu, La, Nd, Pd, Rh, Ru, Sn, Te, U, W and Y) have only beginning and closing QC verification, and are presented for information only. In general the analytical results for these analytes are expected to be at the same precision and accuracy levels stated in the tables.

Boron and Silicon periodically exhibited high blank levels. High blank levels were typically observed following analysis of standards containing high concentration of B and/or Si. The bias appears to be from carryover and memory effects in the spray chamber of the ICP. Since the B and Si concentrations were typically low in tank BX-104 samples, the carryover/memory effect may bias some B and/or Si results high. However, at the concentrations measured (typically $<0.2\%$), the slight high bias should not warrant concern.

Standard Reference Material SRM 2709 was used as a fusion laboratory control standard. Although control limits have yet to be established (i.e., not enough data points), the sodium recovery on this standard exceeded 100% This failure is attributed to the Na in

the fusion reagents, since the blank fusion results are not subtracted from the reported results. Once the blank is subtracted, all Na recoveries are within acceptable limits. The verification standard, control standards, and other QC sample data are included in Appendix C2.

2.1.4 Homogenization Test ICP Analyses

Besides the analyses required by the SAP, homogenization tests of Core 126 Subsegment 2B (samples 126.2B & 126.2BH) and Core 127 Subsegment 2A (samples 127.2A & 127.2AH) were performed. The analytical results are presented in Tables 2.1 through 2.4. To test the effectiveness of the homogenization technique, a sample and duplicate were analyzed from the top and bottom of each homogenized half-segment material (i.e., 4 samples total). Except for iron in half-segment samples 126.2B/126.2BH, the homogenization processing appears to be very good for all major analytes in both cores. The ICP and GEA homogenization test results are summarized in Section 3.2.

2.2 ION CHROMATOGRAPHIC ANALYSIS

2.2.1 IC Sample Preparation and Analysis

The IC analyses were performed on the water leaches prepared from homogenized material from Core 126 Subsegments 1A, 2A, and 2B and Core 127 Subsegments 1A, 1B, and 2A and on dilutions of the drainable liquids from Core 126 Segments 1 and 2 and Core 127 Segment 2. The water leaches and dilutions were performed in the SAL with sample and QC solution aliquots being transferred to the Inorganic Analysis Group for IC analysis. All IC analyses for fluoride, chloride, nitrite, bromide, nitrate, phosphate, and sulfate were performed on a Dionex 4500i Ion Chromatograph system following procedure PNL-ALO-212, Rev. 1.

2.2.2 IC Analytical Results

The IC analytical results are presented in Tables 2.8 through 2.13. The IC analyses were performed on 2/16/96, 3/6/96, 3/7/96, and 3/14/96. After applying the dilution and water leach processing factors, the typical detection limits are 30 μg/ml (or 30 μg/g) halides and 50 μg/ml (or 50 μg/g) oxy-anions. However, due to the necessity to dilute the samples to assure that all reported results fall within the calibration range, some reported detection limits are adjusted for additional analytical dilutions.

2.2.3 Quality Control, Precision, and Accuracy

Sample and duplicate results are reported for both drainable liquids and water leaches of the sludge subsegments. Matrix spikes, blank spikes, and leach processing blanks are reported for the sludge subsegments, as well as a dilution blank for drainable liquids. Significant difficulties were experienced with fluoride and bromide analyses. The fluoride is impacted by significant interferences (typically from organic anions which elute near the same retention time as fluoride), and the bromide is difficult to fully resolve from nitrate at the high nitrate concentration found in the drainable liquids and leachates.

The RPD between duplicates is used to evaluate the precision of the sample processing, analytical sampling, and IC analysis. The majority of RPD values meet the governing QA Plan's 20% RPD criteria. Only nitrate for the field blank and phosphate for Core 126 subsegment 2B exceeded the 20% criteria. The nitrate concentration in the field blank was near the EQL, and reanalysis of the samples from Core 126 subsegment 2B were performed; the reanalyses confirmed the original results.

The accuracy of the IC results is estimated by the matrix spike recovery. Low recoveries on matrix spikes provide indications of matrix interferences which may adversely affect the reported analytical results. The matrix spiking solution was prepared based on the best available information [4] on the anion concentrations suspected within tank BX-104.

Unfortunately, many of the matrix spikes are unusable due to the fact that the tank concentrations are significantly higher than anticipated. The water leach matrix spikes for Cl, NO_2, NO_3 and SO_4 could not be recovered due to the high concentration of these anions in the samples. The only matrix spike meeting the governing QA Plan's 75-125% criteria was PO_4 at 79%. Fluoride failed at 138% recovery; this failure is attributed to the presence of coeluting organic anions. In general, recoveries on blank spikes were poor (ranging from 70-104%). Due to the poor blank spike and matrix spike recoveries and the absence of Br in the spiking solution, post spikes were performed to evaluate matrix effects. The post spiking was performed twice; the initial spike results are included in Table 2.13. The duplicate post spikes demonstrated recoveries between 79 and 108%, which are considered acceptable.

The leach and dilution processing blanks provide information on the contamination potentially introduced during the dilution process. The reported processing and dilution blank results have been adjusted for the typical 100 fold dilution factor applied to the samples. A very slight chloride concentration was observed in the drainable liquid processing blank, whereas the sludge leaching blank exhibited low chloride, nitrate, and sulfate contamination. However, these blanks typically have no impact on the reported results, since the concentration in the samples is high compared to the blank concentration. The exception to this is the Cl and SO_4 processing blank contamination contribution to the sludge samples. Per the governing QA plan, the processing blank must be below 5% of the sample concentration for the sample results to be reportable. Therefore, Cl results below 800 μg/g and SO_4 below 1800 μg/g are presented for information only.

2.3 TOTAL ORGANIC CARBON (TOC) AND TOTAL INORGANIC CARBON (TIC) ANALYSIS

2.3.1 TOC/TIC Sample Preparation and Analysis

The total organic carbon, total inorganic carbon, and total carbon (TOC/TIC/TC) analyses were performed "directly" on homogenized material from Core 126 Subsegments 1A, 2A, and 2B and Core 127 Subsegments 1A, 1B and 2A and on dilutions of the drainable liquids from Core 126 Segments 1 and 2 and Core 127 Segment 2. The TOC/TIC/TC analyses of the sludge subsegments and drainable liquids were performed by the SAL using a hot persulfate digestion procedure PNL-ALO-381, Rev. 1 and a UIC Coulometrics system.

2.3.2 TOC/TIC Analytical Results

The TOC/TIC/TC analytical results are presented in Tables 2.8 through 2.13. For all samples, except the field blank, the carbon results exceed the estimated method detection limit; that is, 30 μg/g TIC and 50 μg/g TOC. By the hot persulfate method, the TIC and TOC are analyzed on the sample and the TC is obtained by summation. No processing blanks are reported for the samples analyzed by the direct hot persulfate method. This method requires results to be corrected for the average blank carbon levels, as well as the average check standard recoveries. Therefore, all subsegment and drainable liquid sample results have been corrected for the blank contribution and the check standard recovery. All sample results were well below the notification limit (at the 95% confidence level), no further actions were taken.

2.3.3 TOC/TIC Quality Control, Precision, and Accuracy

The hot persulfate method does not undergo user calibration for the carbon measurements; the calibration of the coulometric instrumentation is established by the

manufacturer. The method verifies instrument response by the use of check standards and then uses the check standards to adjust the reported result for the average standard recovery. The check standard recoveries ranged from 90.5% to 98.3% for TIC and 93.9% to 95.3% for TOC over three different analysis days.

Sample and duplicate results are reported for each subsegment and drainable liquid for each core. The RPD between sample and duplicate is used to evaluate the precision of analytical laboratory sample processing and analysis. All RPD values calculated for the sludge subsegments and drainable liquids meet the 20% criteria established by the governing QA Plan.

The accuracy of TOC/TIC/TC results is estimated by the matrix spike recovery. Low recoveries on matrix spikes provide indications of matrix interferences which may adversely affect the reported analytical results. The matrix spike recoveries were within the ±25% criteria established by the governing QA Plan; TIC recoveries ranged from 81% to 100% and TOC ranged from 85% to 101%. The lowest matrix spike recoveries were obtained on the Core 126 drainable liquid.

Table 2.8. IC & TOC/TIC/TC Core 126 Drainable Liquid Seg 1 & 2, Tank BX-104

Segment 1 Drainable Liquid (126.1DL) -- 96-2989

Analyte	Sample (μg/ml)	Duplicate (μg/ml)	RPD (%)	Blank (μg/ml)	Smp Spk (%Rec)	Blk Spk (%Rec)
TOC	4,100	4,270	4	--	85	--
95% CL	4,720					
TIC	9,930	10,300	4	--	81	--
TC	14,000	14,600	4	--	--	--
Fluoride	300	300	0	<25	--	--
Chloride	2,700	2,700	0	30	--	--
Nitrite	60,000	60,000	0	<50	--	--
Bromide	<250	<250	n/a	<25	--	--
Nitrate	118,000	118,000	0	<50	--	--
Phosphate	4,900	5,000	2.0	<50	--	--
Sulfate	3,700	3,800	2.7	<50	--	--

Segment 2 Drainable Liquid (126.2DL) -- 96-2990

Analyte	Sample (μg/ml)	Duplicate (μg/ml)	RPD (%)	Blank (μg/ml)	Smp Spk (%Rec)	Blk Spk (%Rec)
TOC	2,130	2,250	6	--	--	--
95% CL	2,570					
TIC	7,740	7,860	2	--	--	--
TC	9,870	10,100	2	--	--	--
Fluoride	300	300	0	--	--	--
Chloride	2,900	2,900	0	--	--	--
Nitrite	67,000	68,000	1.5	--	--	--
Bromide	<250	<250	n/a	--	--	--
Nitrate	150,000	152,000	1.3	--	--	--
Phosphate	4,600	4,600	0	--	--	--
Sulfate	4,100	4,100	0	--	--	--

Notes:

(a) 95% CL = TOC 95% Confidence Limit. [TOC Notification Limit is 30,000 μg C/ml]
(b) "<" indicates not detected above reported value.
(c) RPD = "n/a" when either sample or duplicate are <EQL.
(d) Smp Spk = "n/a" when Sample result >4X spiking level.
(e) "--" indicates analysis not performed on sample; e.g., only one Blank, Sample Spike, and Blank Spike analyzed per batch or Blank and Blank Spike not required on TOC/TIC/TC.

Table 2.9. IC & TOC/TIC/TC Core 126 Seg 1A & 2A, Tank BX-104

Segment 1A Sludge (126.1A) -- 96-2979

Analyte	Sample (μg/g)	Duplicate (μg/g)	RPD (%)	Blank (μg/ml)	Smp Spk (%Rec)	Blk Spk (%Rec)
TOC	7,070	6,490	9	--	--	--
95% CL	8,610					
TIC	3,580	3,770	5	--	--	--
TC	10,700	10,300	4	--	--	--
Fluoride	600	600	0	<25	138	104
Chloride	890	870	2.3	40	n/a	82
Nitrite	18,000	18,000	0	<50	n/a	70
Bromide	<500	<500	n/a	<25	--	--
Nitrate	34,000	35,000	2.9	90	n/a	86
Phosphate	5,800	6,200	6.7	<50	79	78
Sulfate	1,400 *	1,400 *	0	90	n/a	92

Segment 2A Sludge (126.2A) -- 96-2981

Analyte	Sample (μg/g)	Duplicate (μg/g)	RPD (%)	Blank (μg/ml)	Smp Spk (%Rec)	Blk Spk (%Rec)
TOC	1,100	1,040	6	--	101	--
95% CL	1,260					
TIC	2,720	2,700	1	--	100	--
TC	3,820	3,740	2	--	--	--
Fluoride	<500	<500	n/a	--	--	--
Chloride	790 *	740 *	6.5	--	--	--
Nitrite	16,300	15,000	8.3	--	--	--
Bromide	<500	<500	n/a	--	--	--
Nitrate	35,900	33,200	7.8	--	--	--
Phosphate	1370	1,160	16.6	--	--	--
Sulfate	1250 *	1,160 *	7.5	--	--	--

Notes:

(a) 95% CL = TOC 95% Confidence Limit. [TOC Notification Limit is 30,000 μg C/g]

(b) "<" indicates not detected above reported value.

(c) RPD = "n/a" when either sample or duplicate are <EQL.

(d) Smp Spk = "n/a" when Sample result >4X spiking level.

(e) "--" indicates analysis not performed on sample; e.g., only one Blank, Sample Spike, and Blank Spike analyzed per batch or Blank and Blank Spike not required on TOC/TIC/TC.

(f) "*" = Processing blank contribution >5%; results are for information only.

Table 2.10. IC & TOC/TIC/TC Core 126 Seg 2B & Field Blank, Tank BX-104

Segment 2B Sludge (126.2B) -- 96-2982

Analyte	Sample (μg/g)	Duplicate (μg/g)	RPD (%)	Blank (μg/ml)	Smp Spk (%Rec)	Blk Spk (%Rec)
TOC	600	680	12	--	94	--
95% CL	893					
TIC	3,080	2,680	14	--	93	--
TC	3,680	3,360	9	--	--	--
Fluoride	<500	600	n/a	--	--	--
Chloride	910	890	2.2	--	--	--
Nitrite	18,000	18,000	0	--	--	--
Bromide	<500	<500	n/a	--	--	--
Nitrate	43,000	43,000	0	--	--	--
Phosphate	2,100	7,000	108	--	--	--
Sulfate	1,500 *	1,500 *	0	--	--	--

Field Blank (FLD-BLK) -- 96-2987

Analyte	Sample (μg/ml)	Duplicate (μg/ml)	RPD (%)	Blank (μg/ml)	Smp Spk (%Rec)	Blk Spk (%Rec)
TOC	<16	<16	n/a	--	--	--
TIC	<9	<9	n/a	--	--	--
TC	<16	<16	n/a	--	--	--
Fluoride	0.8	0.8	0	--	--	--
Chloride	1.2	1.1	8.7	--	--	--
Nitrite	0.9	1.1	20	--	--	--
Bromide	0.4	0.4	0	--	--	--
Nitrate	2.7	3.4	23	--	--	--
Phosphate	1.3	1.4	7.4	--	--	--
Sulfate	2.7	2.8	3.6	--	--	--

Notes:
(a) 95% CL = TOC 95% Confidence Limit. [TOC Notification Limit is 30,000 μg C/g]
(b) "<" indicates not detected above reported value.
(c) RPD = "n/a" when either sample or duplicate are <EQL.
(d) Smp Spk = "n/a" when Sample result >4X spiking level.
(e) "--" indicates analysis not performed on sample; e.g., only one Blank, Sample Spike, and Blank Spike analyzed per batch or Blank and Blank Spike not required on TOC/TIC/TC.
(f) "*" = Processing blank contribution >5%; results are for information only.

Table 2.11. IC & TOC/TIC/TC HHF & Core 127 DL Seg 2, Tank BX-104

Hydrostatic Head Fluid (HYD-FLUID) -- 96-2988

Analyte	Sample (μg/ml)	Duplicate (μg/ml)	RPD (%)	Blank (μg/ml)	Smp Spk (%Rec)	Blk Spk (%Rec)
TOC	--	--	--	--	--	--
TIC	--	--	--	--	--	--
TC	--	--	--	--	--	--
Fluoride	<25	<25	n/a	--	--	--
Chloride	60	<50	n/a	--	--	--
Nitrite	<50	<50	n/a	--	--	--
Bromide	8500	8000	6.1	--	--	--
Nitrate	<50	<50	n/a	--	--	--
Phosphate	<50	<50	n/a	--	--	--
Sulfate	<50	<50	n/a	--	--	--

Segment 2 Drainable Liquid (127.2DL) -- 96-2992

Analyte	Sample (μg/ml)	Duplicate (μg/ml)	RPD (%)	Blank (μg/ml)	Smp Spk (%Rec)	Blk Spk (%Rec)
TOC	1,450	1,300	11	--	--	--
95% CL	1,850					
TIC	3,530	3,650	3	--	--	--
TC	4,980	4,950	1	--	--	--
Fluoride	300	300	0	--	--	--
Chloride	1,400	1,400	0	--	--	--
Nitrite	29,700	29,700	0	--	--	--
Bromide	14,000	14,000	0	--	--	--
Nitrate	66,000	67,000	1.5	--	--	--
Phosphate	3,300	3,300	0	--	--	--
Sulfate	1,800	1,800	0	--	--	--

Notes:

(a) 95% CL = TOC 95% Confidence Limit. [TOC Notification Limit is 30,000 μg C/ml]

(b) "<" indicates not detected above reported value.

(c) RPD = "n/a" when either sample or duplicate are <EQL.

(d) Smp Spk = "n/a" when Sample result >4X spiking level.

(e) "--" indicates analysis not performed on sample; e.g., only one Blank, Sample Spike, and Blank Spike analyzed per batch or Blank and Blank Spike not required on TOC/TIC/TC.

Table 2.12. IC & TOC/TIC/TC Core 127 Seg 1A & 1B, Tank BX-104

Segment 1A Sludge (127.1A) -- 96-2983

Analyte	Sample (μg/g)	Duplicate (μg/g)	RPD (%)	Blank (μg/ml)	Smp Spk (%Rec)	Blk Spk (%Rec)
TOC	7,440	8,680	15	--	--	--
95% CL	1,200					
TIC	7,760	8,350	7	--	--	--
TC	15,200	17,000	11	--	--	--
Fluoride	<500	<500	n/a	--	--	--
Chloride	1,320	1,260	4.7	--	--	--
Nitrite	35,200	35,000	0.6	--	--	--
Bromide	<500	<500	n/a	--	--	--
Nitrate	66,000	66,000	0	--	--	--
Phosphate	4,300	4,400	2.3	--	--	--
Sulfate	2,360	2,350	0.4	--	--	--

Segment 1B Sludge (127.1B) -- 96-2984

Analyte	Sample (μg/g)	Duplicate (μg/g)	RPD (%)	Blank (μg/ml)	Smp Spk (%Rec)	Blk Spk (%Rec)
TOC	5,380	4,890	10	--	--	--
95% CL	6,680					
TIC	4,510	5,040	11	--	--	--
TC	9,890	9,930	0	--	--	--
Fluoride	2,000	1,800	10.5	--	--	--
Chloride	1,130	1,140	0.9	--	--	--
Nitrite	27,000	26,300	2.6	--	--	--
Bromide	<500	<500	n/a	--	--	--
Nitrate	52,000	51,400	1.2	--	--	--
Phosphate	21,000	20,300	3.4	--	--	--
Sulfate	2,000	1,700 *	16.2	--	--	--

Notes:
(a) 95% CL = TOC 95% Confidence Limit. [TOC Notification Limit is 30,000 μg C/g]
(b) "<" indicates not detected above reported value.
(c) RPD = "n/a" when either sample or duplicate are <EQL.
(d) Smp Spk = "n/a" when Sample result >4X spiking level.
(e) "--" indicates analysis not performed on sample; e.g., only one Blank, Sample Spike, and Blank Spike analyzed per batch or Blank and Blank Spike not required on TOC/TIC/TC.
(f) "*" = Processing blank contribution >5%; results are for information only.

Table 2.13. IC & TOC/TIC/TC Core 127 Seg 2A, Tank BX-104

Segment 2A Sludge (127.2A) -- 96-2985

Analyte	Sample (μg/g)	Duplicate (μg/g)	RPD (%)	Blank (μg/ml)	Smp Spk (%Rec)	Blk Spk (%Rec)
TOC	2,300	2,600	12	--	--	--
95% CL	3,400					
TIC	2,020	2,160	7	--	--	--
TC	4,320	4,760	10	--	--	--
Fluoride	<500	<500	n/a	--	PS 98	--
Chloride	580 *	610 *	5.0	--	PS 93	--
Nitrite	11,400	11,400	0	--	PS 94	--
Bromide	3,000	3,100	3.3	--	PS 96	--
Nitrate	26,300	26,300	0	--	PS 101	--
Phosphate	2,630	3,000	13.1	--	PS 89	--
Sulfate	930 *	930 *	0	--	PS 89	--

Notes:

(a) 95% CL = TOC 95% Confidence Limit. [TOC Notification Limit is 30,000 μg C/g]

(b) "<" indicates not detected above reported value.

(c) RPD = "n/a" when either sample or duplicate are <EQL.

(d) Smp Spk = "n/a" when Sample result >4X spiking level.
PS = Post Spike.

(e) "--" indicates analysis not performed on sample; e.g., only one Blank, Sample Spike, and Blank Spike analyzed per batch or Blank and Blank Spike not required on TOC/TIC/TC.

(f) "*" = Processing blank contribution >5%; results are for information only.

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SECTION 3

RADIOCHEMISTRY

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3.0 RADIOCHEMICAL ANALYSES

3.1 TOTAL ALPHA ACTIVITY

Radiochemical analyses were performed on fusion preparations of samples from Core 126 Subsegments 1A and 2B; Core 127 Subsegments 1B and 2A; acid digestions of the drainable liquids from Core 126 Segments 1 and 2, and Core 127 Segment 2; and for a field blank. In all cases a sample and a duplicate were analyzed. For each batch of sample preparations (fusion, acidification, or acid digestion), a process blank was also analyzed. All of the fusion samples were obtained from the $KOH\text{-}KNO_3$ fusion preparation. When the drainable liquids from Core 126 were acidified in the hot cell, a chemical reaction was noted resulting in considerable bubbling with a white froth at the top of the vial and the formation of a precipitate. As agreed upon with the acting Project Coordinator (LM Sasaki, WHC), a representative aliquot of this material was acid digested in the laboratory according to procedure PNL-ALO-106, Rev. 1 prior to further analysis. All of the precipitate was quickly dissolved with the addition of nitric acid as called for in the procedure.

Total alpha analyses were performed according to procedures PNL-ALO-420, Rev. 1, and PNL-ALO-421 Rev. 1, and the results are presented in Table 3.1. In this method, small aliquots of highly diluted samples are dried on counting disks and counted using Ludlum ZnS scintillation counters. The plates prepared by this method appeared to have no significant residue. Due to concern over the possibility of alpha absorption, all of the samples were analyzed with a spike added to a replicate aliquot of each sample. The results showed that the mass absorption effects were small with an average spike recovery of 83%. The drainable liquids from Core 126 Segments 1 and 2 had the lowest spike recoveries (70% and 66%, respectively), probably due to the digested precipitate noted above which resulted in higher mass loading. No corrections were made for spike recoveries.

Total alpha results for Segment 1 were a factor of 4-6 higher than results from Segment 2 for both cores. Core 127 appears to have 3-4 times more alpha activity than Core

126. The drainable liquid from Core 126 Segment 1 showed weak alpha activity; no alpha activity was detected in the other drainable liquid samples.

The RPD values for sample duplicates show excellent agreement, the largest value being only 13%. The highest RPD was noted on the sample and duplicate exhibiting the lowest alpha activity and highest individual uncertainties.

All of the lab blanks indicate no detectable alpha activity. The process blank for the drainable liquids showed no detectable alpha activity. The process blank for the fusion preparation in the hot cells showed weak alpha activity at about 25% of the level of the weakest sample analyzed with this batch (Core 126 Subsegment 2B, fusion). The process blank indicates a potential high bias. However, since all sample results were well below the notification limit (at the 95% confidence level), no further actions were taken. This approach was discussed and agreed upon with the Project Coordinator.

3.2 HOMOGENIZATION TEST GAMMA ENERGY ANALYSIS

Besides the analyses required by the SAP, homogenization tests of Core 126 Subsegment 2B (samples 126.2B & 126.2BH) and Core 127 Subsegment 2A (samples 127.2A & 127.2AH) were performed. To test the effectiveness of the homogenization technique, a sample and duplicate were analyzed from the top and bottom of each homogenized subsegment material. The homogenized samples were analyzed by GEA, according to procedure PNL-ALO-450, Rev. 1 and the data is included in Appendix D2. Based on the ICP and GEA, the homogenization processing appears to be effective, except for Fe. The ICP and GEA homogenization test results are summarized in table 3.2.

Table 3.1. Total Alpha Analysis Results from Tank BX-104

ALO #	Description	Prep	ANALYSIS BATCH	Total Alpha uCi/g	+/-% Error	Matrix Spike Recovery,%	95% Confidence Value, uCi/g (1)
96-2979BLK	PROCESS BLANK		1	4.33E-02	5%	91%	
96-2979	C126 Seg 1A	Fusion	1	5.47E-01	14%	88%	7.65E-01
96-2979DUP	C126 Seg 1A Dup	Fusion	1	6.12E-01	12%	87%	
	RPD			11.2%			
96-2982	C126 Seg 2B	Fusion	1	1.53E-01	21%	85%	1.93E-01
96-2982DUP	C126 Seg 2B Dup	Fusion	1	1.64E-01	25%	87%	
	RPD			6.9%			
96-2984	C127 Seg 1B	Fusion	1	2.13E+00	7%	87%	2.53E+00
96-2984DUP	C127 Seg 1B Dup	Fusion	1	2.24E+00	7%	81%	
	RPD			5.0%			
96-2985	C127 Seg 2A	Fusion	1	3.74E-01	16%	85%	4.17E-01
96-2985DUP	C127 Seg 2A Dup	Fusion	1	3.58E-01	15%	86%	
	RPD			4.4%			
96-2989	C126 Seg 1 DL	Direct	3	3.89E-04	25%	70%	5.86E-04
96-2989DUP	C126 Seg 1 DL Dup	Direct	3	4.43E-04	23%		
	RPD			13.0%			
96-2990	C126 Seg 2 DL	Direct	3	<1.2E-4		66%	
96-2990DUP	C126 Seg 2 DL Dup	Direct	3	<1.0E-4			
96-2992	C127 Seg 2 DL	Direct	2	<2.2E-4		86%	
96-2992DUP	C127 Seg 2 DL Dup	Direct	2	<2.7E-4			
96-2987	Field Blank	Direct	2	<1.1E-3		92%	
96-2987DUP	Field Blank Dup	Direct	2	<1.2E-3			
96-2989BLK	Process Blank		2	<4.8E-6		88%	
96-2989BLKDUP	Process Blank		2	<4.8E-6			
	LAB STANDARD		1	90%			
	LAB STANDARD		2	92%			
	LAB STANDARD		3	91%			
	LAB BLANK		1	<6.E-4			
	LAB BLANK		2	<7.E-4			
	LAB BLANK		3	<5.E-6			

Note (1): Notification Limit = 41 uCi/g

Table 3.2 Summary of Homogenization of Test Results

Analyte		126.2B Bottom	126.2B Dup Bottom	126.2BH Top	126.2BH Dup Top	RSD (%)
^{137}Cs	μCi/g	7.35E1	7.79E1	6.47E1	7.60E1	8
Al	μg/g	1.50E4	1.48E4	1.48E4	1.63E4	5
Cr	μg/g	1.37E3	1.43E3	1.25E3	1.38E3	6
Fe	μg/g	1.25e3	2.00E3	3.37E3	2.15E3	40
Na	μg/g	5.76E4	6.03E3	5.36E4	5.99E4	5
U	μg/g	1.01E5	9.86E4	9.83E4	1.05E5	3
Analyte		127.2A Bottom	127.2A Dup Bottom	127.2AH Top	127.2AH Dup Top	RSD (%)
^{137}Cs	μCi/g	4.49E1	4.71E1	4.68E1	5.15E1	6
Al	μg/g	1.73E5	1.89E5	1.73E5	1.89E5	5
Cr	μg/g	2.09E3	2.28E3	2.16E3	2.33E3	5
Fe	μg/g	4.25E3	4.03E3	3.34E3	3.88E3	10
Na	μg/g	3.34E4	3.66E4	3.56E4	3.82E4	6

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[2] G. T. Dukelow, et al., *Tank Safety Screening Data Quality Objective*, WHC-SD-WM-SP-004, Rev. 2, Westinghouse Hanford Company, Richland, Washington, August 31, 1995.

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[4] C.H. Brevick, *Historical Tank Content Estimates for Northeast Quadrant of the Hanford 200 East Area,* WHC-SD-WM-ER-349, Rev. 0A, Westinghouse Hanford Company, Richland, Washington, March 9, 1995.

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WASTE CHARACTERIZATION PROJECT

APPENDICES

PRIMARY ANALYTICAL DATA

TANK BX-104 CORES 126 & 126
Revision 0

March 1996

Pacific Northwest National Laboratory

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TABLE OF CONTENTS

APPENDICIES: Primary Analytical Data

Appendix A: Supporting Documentation

- A1 - Signature List
- A2 - WHC Chains of Custody
- A3 - PNNL Chains of Custody
  - HLRF To SAL Chains of Custody
  - SAL To LAB Chains of Custody
- A4 - Test Instructions
- A5 - Sample Prep Data Sheets
  - Water Leach
  - Acidification
  - KOH Fusion

Appendix B: Physical Properties

- B1 - Introduction
- B2 - DSC/TGA Analysis
- B3 - Bulk Density Analysis

Appendix C: Inorganic

- C1 - Introduction
- C2 - ICP Analysis
- C3 - IC Analysis
- C4 - TOC/TIC/TC Analysis

Appendix D: Radiochemistry

- D1 - Introduction
- D2 - Total Alpha Analysis
- D3 - GEA
- D4 - Radiochemistry Calibration and Control Chart Documentation

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SINGLE SHELL TANK

WASTE CHARACTERIZATION PROJECT

APPENDIX A

SUPPORTING DOCUMENTATION

TANK BX-104 CORES 126 & 127

March 1996

Pacific Northwest National Laboratory

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A1 - SIGNATURE LIST

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325 BUILDING STAFF
SIGNATURE LIST

ANALYST NAME	INITIALS	WRITTEN NAME	WRITTEN INITIALS
QA/QC			
KJ KUHL-KLINGER	KJK		
OP BREDT	OPB		
JD MATHESON	JDM		
RG SWOBODA	RGS		
PROJ MGMT & SUPPORT			
KL SILVERS	KLS		
BM THORNTON	BMT		
DL BELLOFATTO	DLB		
TL BURRUSS	TLB		
EA NELSON	EAN		
LE TOOKER	LET		
SHIELDED ANALYTICAL LABORATORY			
RT STEELE	RTS		
KJ SMITH	KJS		
FV HOOPES	FVH		
CE CHAMBERLIN	CEC		
LP DARNELL	LPD		
IC HENRY	ICH		
JK RAU	JKR		
INORGANIC			
MW URIE	MWU		
DL BALDWIN	DLB		
BJ COOK	BJC		
PK MELETHIL	PKM		
MM O'NEILL	MMO		
JJ WAGNER	JJW		
D ORTIZ	DO		
DR SANDERS	DRS		

325 BUILDING STAFF
SIGNATURE LIST

ANALYST NAME	INITIALS	WRITTEN NAME	WRITTEN INITIALS
ORGANIC			
EW HOPPE	EWH		
GS KLINGER	GSK		
GA ROSS	GAR		
MJ STEELE	MJS		
RADIOCHEMISTRY			
LR GREENWOOD	LRG		
SK FADEFF	SDF		
RT RATNER	RTR		
TL TRANG -LE	TLT		
KA POEPPEL	KAP		
KK THOMAS	KKT		
PROCESS CHEMISTRY			
JM TINGEY	JMT		
SM HEINISCH	SMH		
PR BREDT	PRB		
DL ALEXANDER	DLA		
GM RICHARDSON	GMR		
D RINEHART	DR		
SM TINGEY	SMT		
DL BLANCHARD	DLB		

A2 - WHC CHAINS OF CUSTODY

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CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

(1) Shipment Number 35158 (2) Sample Number 96-021 (3) Supervisor M.C. Jones

(4) Tank BX-104 (5) Riser 7 (6) Segment 1 (7) Core 126 (8) Cask Serial Number C-1035

Radiation Survey Data:	(9) FIELD	(33) LABORATORY
Over Top Dose Rate	< .5 mR/hr	
Side Dose Rate	< .5 mR/hr	
Bottom Dose Rate	20 mR/hr	
Smearable Contamination	< 20 dpm (Alpha)	(Alpha)
	< 1000 dpm (Beta-Gamma)	(Beta-Gamma)
	RCT* (HPT) (Signature)	RCT* (HPT) (Signature)

(10) Shipment Description

A. Work Package Number	ES-95-00644
B. Cask Seal Number	10489
C. Sampler Serial Number	95-050
D. Date and Time Sampler Unseated	1-5-96 / 10:09
E. Expected Liquid Content	50%
F. Expected Solid Content	50%
G. Dose Rate Through Drill String	1.3 R/HR
H. Expected Sample Length	19"

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

(12) Field Comments

NO · X-RAY

(34) Laboratory Comments

(13) Point of Origin: BX-104	(14) Destination: 325 LAB 222-S 1-10-96	(15) Sender Name (Sign and PRINT): FOR M. JONES James Sickels	(16) Date/Time: 1-10-96 1930	(17) Sender Comments
(18) Relinquished By (Sign and PRINT): James Sickels James Sickels		(20) Received By (Sign and PRINT): James R. Fruhauf James R Fruhauf	(21) Date/Time: 1-10-96 1945	(22) Receiver Comments
(23) Relinquished By (Sign and PRINT): James R. Fruhauf James R Fruhauf		(24) Received By (Sign and PRINT): O.M. Richardson O.M. RICHARDSON	(25) Date/Time: 1-10-96 2040	(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?	(31) Seal Intact Upon Receipt?	(32) Seal Data Consistent with this Record?		
		Shipment No.	Cask Seal No.	Sample No.
☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ 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 (02/94)

2-62

WHC-SD-WM-DP-171, REV. 1

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

(1) Shipment Number 35158 (2) Sample Number 96-022 (3) Supervisor M. C. Jones

(4) Tank BX-104 (5) Riser 7 (6) Segment 2 (7) Core 126 (8) Cask Serial Number SN-3-G

Radiation Survey Data:	(9) FIELD	(33) LABORATORY
Over Top Dose Rate	< .5 mR/hr	
Side Dose Rate	1 mR/hr	
Bottom Dose Rate	17 mR/hr	
Smearable Contamination	< 20 dpm/100 cm² (Alpha)	(Alpha)
	< 1000 dpm (Beta-Gamma)	(Beta-Gamma)
RCT* (HPT)	(Signature)	RCT* (HPT) (Signature)

(10) Shipment Description

A. Work Package Number	ES-95-00644
B. Cask Seal Number	10490
C. Sampler Serial Number	95-042
D. Date and Time Sampler Unseated	1-5-96 / 11:20
E. Expected Liquid Content	50%
F. Expected Solid Content	50%
G. Dose Rate Through Drill String	600 MR/HR
H. Expected Sample Length	19"

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

(12) Field Comments

NO X-RAY

(34) Laboratory Comments

(13) Point of Origin	(14) Destination	(15) Sender Name (Sign and PRINT)	(16) Date/Time	(17) Sender Comments
BX-104	325 222-S LAB 1-10-96	For M. Jones James Sickels	1-10-96 1930	
(18) Relinquished By (Sign and PRINT)		(20) Received By (Sign and PRINT)	(21) Date/Time	(22) Receiver Comments
James Sickels		James R Richardson	1-10-96 1945	
(23) Relinquished By (Sign and PRINT)		(24) Received By (Sign and PRINT)	(25) Date/Time	(26) Receiver Comments
James R Richardson		GM Richardson GM RICHARDSON	1-10-96 2040	
(27) Relinquished By (Sign and PRINT)		(28) Received By (Sign and PRINT)	(29) Date/Time	(30) Receiver Comments

(18) Seal Intact Upon Release?	(31) Seal Intact Upon Receipt?	(32) Seal Data Consistent with this Record?		
		Shipment No.	Cask Seal No.	Sample No.
☑ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ 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 (02/94)

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

(1) Shipment Number 35158 (2) Sample Number Field Blank (3) Supervisor M.C Jones

(4) Tank BX-104 (5) Riser 7 (6) Segment Blank (7) Core 126 (8) Cask Serial Number C1047

Radiation Survey Data:	(9) FIELD	(33) LABORATORY
Over Top Dose Rate	<.5 mR/hr	
Side Dose Rate	<.5 mR/hr	
Bottom Dose Rate	<.5 mR/hr	
Smearable Contamination	<20 dpm (Alpha)	(Alpha)
	<1000 dpm (Beta-Gamma)	(Beta-Gamma)
RCT* (HPT)	[signature] (Signature)	RCT* (HPT) (Signature)

(10) Shipment Description	
A. Work Package Number	ES-95-00644
B. Cask Seal Number	10488
C. Sampler Serial Number	95-016
D. Date and Time Sampler Unseated	1-5-96 / 10:30
E. Expected Liquid Content	100%
F. Expected Solid Content	0%
G. Dose Rate Through Drill String	<.5 MR/HR
H. Expected Sample Length	19"

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

(12) Field Comments

Field Blank with H_2O in sampler

(34) Laboratory Comments

(13) Point of Origin	(14) Destination	(15) Sender Name (Sign and PRINT)	(16) Date/Time	(17) Sender Comments
BX-104	~~222-S~~ 325 Lab 1-10-96	For M. Jones James Sickels	1-10-96 1930	
(19) Relinquished By (Sign and PRINT)		(20) Received By (Sign and PRINT)	(21) Date/Time	(22) Receiver Comments
James Sickels	James Sickels	James R. Fuchsky	1-10-96	
(23) Relinquished By (Sign and PRINT)		(24) Received By (Sign and PRINT)	(25) Date/Time	(26) Receiver Comments
James R. Fuchsky	James R. Fuchsky	G M Richardson G M Richardson	1-10-96 2040	
(27) Relinquished By (Sign and PRINT)		(28) Received By (Sign and PRINT)	(29) Date/Time	(30) Receiver Comments

(18) Seal Intact Upon Release?	(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

DISTRIBUTION: White - Office of Sample Management Yellow - Recipient of Sample Pink - Core Sampling, S6-85 Goldenrod - Tank Farm Operations, S4-43 BC-6000-309 (02/94)

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

(1) Shipment Number 35157 (2) Sample Number 96-023 (3) Supervisor M. C. Jones

(4) Tank BX-104 (5) Riser 1 (6) Segment 1 (7) Core 127 (8) Cask Serial Number C-1022

Radiation Survey Data:	(9) FIELD	(33) LABORATORY
Over Top Dose Rate	< .5 mR/hr	
Side Dose Rate	2 mR/hr	
Bottom Dose Rate	7 mR/hr	
Smearable Contamination	< 20 dpm (Alpha)	(Alpha)
	< 1000 dpm (Beta-Gamma)	(Beta-Gamma)
RCT* (HPT)	(Signature)	RCT* (HPT) (Signature)

(10) Shipment Description

A. Work Package Number	ES-95-0044
B. Cask Seal Number	10491
C. Sampler Serial Number	95-051
D. Date and Time Sampler Unseated	1-6-96 11:05
E. Expected Liquid Content	50 %
F. Expected Solid Content	50 %
G. Dose Rate Through Drill String	800 MR/HR
H. Expected Sample Length	19"

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

(12) Field Comments

NO X-RAY

(34) Laboratory Comments

(13) Point of Origin	(14) Destination	(15) Sender Name (Sign and PRINT)	(16) Date/Time	(17) Sender Comments
BX 104	222-S LAB 1-10-96	for M. Jones James Sickels	1-10-96 1930	
(18) Relinquished By (Sign and PRINT)	(20) Received By (Sign and PRINT)		(21) Date/Time	(22) Receiver Comments
James Sickels James Sickels	C Ed Byrd		1-10-96	
(23) Relinquished By (Sign and PRINT)	(24) Received By (Sign and PRINT)		(25) Date/Time	(26) Receiver Comments
C Ed Byrd C Ed Byrd	M Richardson C M Richardson		2035 1-10-96	
(27) Relinquished By (Sign and PRINT)	(28) Received By (Sign and PRINT)		(29) Date/Time	(30) Receiver Comments

(18) Seal Intact Upon Release?	(31) Seal Intact Upon Receipt?	(32) Seal Data Consistent with this Record?		
		Shipment No.	Cask Seal No.	Sample No.
☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ 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 (02/94)

2-65

WHC-SD-WM-DP-171, REV. 1

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

(1) Shipment Number 35157 (2) Sample Number 96-024 (3) Supervisor Mic. Jones

(4) Tank BX-104 (5) Riser 1 (6) Segment 2 (7) Core 127 (8) Cask Serial Number 1007C

Radiation Survey Data:	(9) FIELD	(33) LABORATORY
Over Top Dose Rate	<.5 mR/hr	
Side Dose Rate	.5 mR/hr	
Bottom Dose Rate	5 mR/hr	
Smearable Contamination	<20 dpm (Alpha)	(Alpha)
	<1000 dpm (Beta-Gamma)	(Beta-Gamma)
RCT* (HPT)	Ron Olin (Signature)	RCT* (HPT) (Signature)

(10) Shipment Description	
A. Work Package Number	ES-95-00644
B. Cask Seal Number	10492
C. Sampler Serial Number	95-046
D. Date and Time Sampler Unseated	1-6-96 / 12:08
E. Expected Liquid Content	50%
F. Expected Solid Content	50%
G. Dose Rate Through Drill String	450 MR/HR
H. Expected Sample Length	19"

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

(12) Field Comments

HDB went off at 18¼" into stroke.

(34) Laboratory Comments

(13) Point of Origin	(14) Destination	(15) Sender Name (Sign and PRINT)	(16) Date/Time	(17) Sender Comments
BX-104	~~222-S~~ 325 LAB 1-10-96	James Sickels JAMES Sickels	1-10-96 1930	
(19) Relinquished By (Sign and PRINT)		(20) Received By (Sign and PRINT)	(21) Date/Time	(22) Receiver Comments
James Sickels JAMES Sickels		[signature]	1-10-96 9:56	
(23) Relinquished By (Sign and PRINT)		(24) Received By (Sign and PRINT)	(25) Date/Time	(26) Receiver Comments
[signature]		[signature] G M RICHARDSON	20:05 1-10-96	
(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 (02/94)

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

(1) Shipment Number _____ (2) Sample Number Field Blank LiBr (3) Supervisor M. C. Jones

(4) Tank BX-104 (5) Riser 7 (6) Segment Blank (7) Core 126 (8) Cask Serial Number N/A

Radiation Survey Data:	(9) FIELD	(33) LABORATORY
Over Top Dose Rate		
Side Dose Rate		
Bottom Dose Rate		
Smearable Contamination	(Alpha)	(Alpha)
	(Beta-Gamma)	(Beta-Gamma)
RCT* (HPT)	(Signature)	RCT* (HPT) (Signature)

(10) Shipment Description	
A. Work Package Number	ES-95-00644
B. Cask Seal Number	10401
C. Sampler Serial Number	N/A
D. Date and Time Sampler Unseated	1-11-96 14:30
E. Expected Liquid Content	100%
F. Expected Solid Content	0%
G. Dose Rate Through Drill String	2.5
H. Expected Sample Length	~~TF~~ 100 ml.

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

(12) Field Comments

0.3 M LiBr Field Blank.

(34) Laboratory Comments

(13) Point of Origin	(14) Destination	(15) Sender Name (Sign and PRINT)	(16) Date/Time	(17) Sender Comments
BX-104	325	Mic Jones M.C. Jones	1-11-96 1500	
(19) Relinquished By (Sign and PRINT)		(20) Received By (Sign and PRINT)	(21) Date/Time	(22) Receiver Comments
[illegible]		J.L. Hensley / J.L. Hensley	1-12-96 [illegible]	
(23) Relinquished By (Sign and PRINT)		(24) Received By (Sign and PRINT)	(25) Date/Time	(26) Receiver Comments
J.L. Hensley / J.L. Hensley		[illegible]	1-12-96 [illegible]	
(27) Relinquished By (Sign and PRINT)		(28) Received By (Sign and PRINT)	(29) Date/Time	(30) Receiver Comments

(18) Seal Intact Upon Release?	(31) Seal Intact Upon Receipt?	(32) Seal Data Consistent with this Record?		
		Shipment No. 13	Cask Seal No.	Sample No. 14
☒ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☒ Yes ☐ 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 (02/94)

CHAIN-OF-CUSTODY RECORD FOR CORE SAMPLING

(1) Shipment Number _____ (2) Sample Number Field Blank LiBr (3) Supervisor M. C. Jones

(4) Tank BX-104 (5) Riser 7 (6) Segment Blank (7) Core 126 (8) Cask Serial Number N/A

Radiation Survey Data:	(9) FIELD	(33) LABORATORY
Over Top Dose Rate		
Side Dose Rate		
Bottom Dose Rate		
Smearable Contamination	(Alpha)	(Alpha)
	(Beta-Gamma)	(Beta-Gamma)
	RCT* (HPT) (Signature)	RCT* (HPT) (Signature)

(10) Shipment Description

A. Work Package Number	ES-95-006414
B. Cask Seal Number	10401
C. Sampler Serial Number	N/A
D. Date and Time Sampler Unseated	1-11-96 14:30
E. Expected Liquid Content	100%
F. Expected Solid Content	0%
G. Dose Rate Through Drill String	2.5
H. Expected Sample Length	~~TT~~ 100 mL.

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

(12) Field Comments

0.5 M LiBr Field Blank.

(34) Laboratory Comments

(13) Point of Origin	(14) Destination	(15) Sender Name (Sign and PRINT)	(16) Date/Time	(17) Sender Comments
BX-104	325	M.C. Jones M.C. Jones	1-11-96 1500	
(19) Relinquished By (Sign and PRINT)		(20) Received By (Sign and PRINT)	(21) Date/Time	(22) Receiver Comments
J.S. Lee JSL		J L Hensley / JL HENSLEY	1-12-96 0800	
(23) Relinquished By (Sign and PRINT)		(24) Received By (Sign and PRINT)	(25) Date/Time	(26) Receiver Comments
J L Hensley / JL HENSLEY		SM Tingey	1-12-96 0916	
(27) Relinquished By (Sign and PRINT)		(28) Received By (Sign and PRINT)	(29) Date/Time	(30) Receiver Comments

(18) Seal Intact Upon Release?	(31) Seal Intact Upon Receipt?	(32) Seal Data Consistent with this Record?		
		Shipment No. NA	Cask Seal No.	Sample No. NA
☒ Yes ☐ No	☒ Yes ☐ No	☐ Yes ☐ No	☒ Yes ☐ 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 (02/94)

2-63

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A3 - PNNL CHAINS OF CUSTODY

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HLRF TO SAL CHAINS OF CUSTODY

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Page 1 of 1 Chain of Custody Number: PM-08

BATTELLE, PACIFIC NORTHWEST LABORATORIES
ANALYTICAL CHEMISTRY LABORATORY (ACL)

ACL CHAIN OF CUSTODY

Project No.: 22762 - Push Mode Project Originating Technical Group: HLRF

General Sample Description: Samples from BX-104, Core's 126 and 127

Test Instruction or ASR No. (as applicable): TI96-PM-07

Analysis Requested and/or Technical Group: SAL - Sample Prep

Prep Method Description: None

ACL SAMPLE NUMBER	SAMPLE DESCRIPTION	COMMENTS
96-02979	BX104 C126 1/2 Seg 1A	
96-02981	BX104 C126 1/2 Seg 2A	
96-02982	BX104 C126 1/2 Seg 2B	
96-02983	BX104 C127 1/2 Seg 1A	
96-02984	BX104 C127 1/2 Seg 1B	
96-02985	BX104 C127 1/2 Seg 2A	
96-02987	Field Blank	
96-02989	BX104 C126 Seg 1 Drain Liq	
96-02990	BX104 C126 Seg 2 Drain Liq	
~~96-02991~~	~~BX104 C127 Seg 1 Drain Liq~~	2-5-96
96-02992	BX104 C127 Seg 2 Drain Liq	
96-02980	BX104 C126 Seg 2B Homo Chk	
96-02986	BX104 C126 Seg 2A Homo Chk	

Sender: [signature] 2-5-96 (signature/date) Receiver: [signature] 2/5/96 (signature/date)

Original - Project File

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SAL TO LAB CHAINS OF CUSTODY

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Page 1 of 1 Chain of Custody Number: PM-24

BATTELLE, PACIFIC NORTHWEST LABORATORIES
ANALYTICAL CHEMISTRY LABORATORY (ACL)

ACL CHAIN OF CUSTODY

Project No.: 22762 - Push Mode Project Originating Technical Group: SAL

General Sample Description: Samples from BX-104, Core's 126 and 127

Test Instruction or ASR No. (as applicable): TI96-PM-08 / ASR #2822

Analysis Requested and/or Technical Group: Radiochemistry Group - Total Alpha, GEA

Prep Method Description: Ni/KOH Fusion

ACL SAMPLE NUMBER	SAMPLE DESCRIPTION	COMMENTS
96-02979-BLK	Process Blank	
96-02979	126.1A.F	
96-02979-BUP	126.1A.F-DUP	
96-02982	126.2B.F	
96-02982-DUP	126.2B.F-DUP	
96-02984	127.1B.F	
96-02984-DUP	127.1B.F-DUP	
96-02985	127.2A.F	
96-02985-DUP	127.2A.F-DUP	

Sender: [signature] 2/15/96 (signature/date) Receiver: [signature] 2/15/96 (signature/date)

Original - Project File

Page 1 of 1 Chain of Custody Number: PM-25

BATTELLE, PACIFIC NORTHWEST LABORATORIES
ANALYTICAL CHEMISTRY LABORATORY (ACL)

ACL CHAIN OF CUSTODY

Project No.: 22762 - Push Mode Project Originating Technical Group: SAL

General Sample Description: Samples from BX-104, Core's 126 and 127

Test Instruction or ASR No. (as applicable): TI96-PM-08 / ASR #2822

Analysis Requested and/or Technical Group: Inorganic Group - ICP

Prep Method Description: Ni/KOH Fusion

ACL SAMPLE NUMBER	SAMPLE DESCRIPTION	COMMENTS
96-02979-BLK	Process Blank	
96-02979	126.1A.F	
96-02979-BUP	126.1A.F-DUP	
96-02982	126.2B.F	
96-02982-DUP	126.2B.F-DUP	
96-02984	127.1B.F	
96-02984-DUP	127.1B.F-DUP	
96-02985	127.2A.F	
96-02985-DUP	127.2A.F-DUP	
SRM 2709	LCS BX104/45 DAY	

Sender: [signature] 2/15/96 (signature/date) Receiver: [signature] 2/15/96 (signature/date)

Original - Project File

Page 1 of 1 Chain of Custody Number: PM-32

BATTELLE, PACIFIC NORTHWEST LABORATORIES
ANALYTICAL CHEMISTRY LABORATORY (ACL)

ACL CHAIN OF CUSTODY

Project No.: 22762 - Push Mode Project Originating Technical Group: SAL

General Sample Description: Samples from BX-104, Core's 126 and 127

Test Instruction or ASR No. (as applicable): TI96-PM-08 / ASR #2822

Analysis Requested and/or Technical Group: Radiochemistry Group - Total Alpha

Prep Method Description: Acidification

ACL SAMPLE NUMBER	SAMPLE DESCRIPTION	COMMENTS
96-02989-BLK	Process Blank	
96-02989	126.1DL.D	
96-02990	126.2DL.D	
96-02992	127.2DL.D	

Sender: [signature] 2/14/96 Receiver: [signature] 2/14/96
(signature/date) (signature/date)

Original - Project File

Page 1 of 1 Chain of Custody Number: PM-34

BATTELLE, PACIFIC NORTHWEST LABORATORIES
ANALYTICAL CHEMISTRY LABORATORY (ACL)

ACL CHAIN OF CUSTODY

Project No.: 22762 - Push Mode Project Originating Technical Group: SAL

General Sample Description: Samples from BX-104, Core's 126 and 127

Test Instruction or ASR No. (as applicable): TI96-PM-08 / ASR #2822

Analysis Requested and/or Technical Group: Inorganic Group - IC Anions

Prep Method Description: None

ACL SAMPLE NUMBER	SAMPLE DESCRIPTION	COMMENTS
96-02989-BLK	Process Blank	
96-02989	126.1DL.D	
96-02990	126.2DL.D	
96-02992	127.2DL.D	

Sender: [signature] 2/16/96 (signature/date) Receiver: M. O'Neill 2-20-96 (signature/date)

Original - Project File

Page 1 of 1 Chain of Custody Number: PM-37

BATTELLE, PACIFIC NORTHWEST LABORATORIES
ANALYTICAL CHEMISTRY LABORATORY (ACL)

ACL CHAIN OF CUSTODY

Project No.: 22762 - Push Mode Project Originating Technical Group: SAL

General Sample Description: Samples from BX-104, Core's 126 and 127

Test Instruction or ASR No. (as applicable): TI96-PM-08 / ASR #2822

Analysis Requested and/or Technical Group: Radiochemistry Group - Total Alpha

Prep Method Description: Acidification

ACL SAMPLE NUMBER	SAMPLE DESCRIPTION	COMMENTS
96-02987	FLD-BLANK.D	

Sender: [signature] 2/15/96 Receiver: [signature] 3/15/96
(signature/date) (signature/date)

Original - Project File

Page 1 of 1 Chain of Custody Number: PM-15

BATTELLE, PACIFIC NORTHWEST LABORATORIES
ANALYTICAL CHEMISTRY LABORATORY (ACL)

ACL CHAIN OF CUSTODY

Project No.: 22762 - Push Mode Project Originating Technical Group: SAL

General Sample Description: Tank BX-112 Field Blank/Hydrostatic Fluid

Test Instruction or ASR No. (as applicable): TI96-PM-06 / ASR #2785

Analysis Requested and/or Technical Group: ICP

Prep Method Description: None

ACL SAMPLE NUMBER	SAMPLE DESCRIPTION	COMMENTS
96-02619	FLD-BLANK.F	
96-02620	HYD-FLUID.D	

Sender: [signature] 2/15/96 (signature/date) Receiver: Danny Sanders 2/15/96 (signature/date)

Original - Project File

Page 1 of 1 Chain of Custody Number: PM-19

BATTELLE, PACIFIC NORTHWEST LABORATORIES
ANALYTICAL CHEMISTRY LABORATORY (ACL)

ACL CHAIN OF CUSTODY

Project No.: 22762 - Push Mode Project Originating Technical Group: SAL

General Sample Description: Samples from BX-112, Core's 118 and 119 (Homogenization Checks)

Test Instruction or ASR No. (as applicable): TI96-PM-06 / ASR #2785

Analysis Requested and/or Technical Group: Inorganic Group - ICP

Prep Method Description: Ni/KOH Fusion

ACL SAMPLE NUMBER	SAMPLE DESCRIPTION	COMMENTS
96-02849-BLK	Process Blank	
96-02849	118.2AH.F	
96-02849-DUP	118.2AH.F-DUP	
96-02851	119.3AH.F	
96-02851-DUP	119.3AH.F-DUP	
SRM 2709	LCS BX112/HOMO	

Sender: Lori P. Darnell (signature/date) 2-15-96 Receiver: Danny Sanders 2/15/96 (signature/date)

Original - Project File

Page 1 of 1 Chain of Custody Number: PM-20

BATTELLE, PACIFIC NORTHWEST LABORATORIES
ANALYTICAL CHEMISTRY LABORATORY (ACL)

ACL CHAIN OF CUSTODY

Project No.: 22762 - Push Mode Project Originating Technical Group: SAL

General Sample Description: Samples from BX-112, Core's 118 and 119 (Homogenization Checks)

Test Instruction or ASR No. (as applicable): TI96-PM-06 / ASR #2785

Analysis Requested and/or Technical Group: Radiochemistry Group - GEA

Prep Method Description: Ni/KOH Fusion

ACL SAMPLE NUMBER	SAMPLE DESCRIPTION	COMMENTS
96-02849-BLK	Process Blank	
96-02849	118.2AH.F	
96-02849-DUP	118.2AH.F-DUP	
96-02851	119.3AH.F	
96-02851-DUP	119.3AH.F-DUP	

Sender: Lori P. Darnell 2-14-96 Receiver: K A Pepper 2/14/96
(signature/date) (signature/date)

Original - Project File

Page 1 of 1 Chain of Custody Number: PM-21

BATTELLE, PACIFIC NORTHWEST LABORATORIES
ANALYTICAL CHEMISTRY LABORATORY (ACL)

ACL CHAIN OF CUSTODY

Project No.: 22762 - Push Mode Project Originating Technical Group: SAL

General Sample Description: Samples from BX-112, Core 119

Test Instruction or ASR No. (as applicable): TI96-PM-06 / ASR #2785

Analysis Requested and/or Technical Group: Inorganic Group - ICP

Prep Method Description: Ni/KOH Fusion

ACL SAMPLE NUMBER	SAMPLE DESCRIPTION	COMMENTS
96-02612-BLK	Process Blank	
96-02612	119.1B.F	
96-02612-DUP	119.1B.F-DUP	
96-02614	119.2B.F	
96-02614-DUP	119.2B.F-DUP	
96-02616	119.3B.F	
96-02616-DUP	119.3B.F-DUP	
SRM 2709	LCS BX112/C119-2	

Sender: Lori P. Darnell 2-16-96 2-16-96 Receiver: Danny Sanders 2/16/96
(signature/date) (signature/date)

Original - Project File

Page 1 of 1 Chain of Custody Number: PM-22

BATTELLE, PACIFIC NORTHWEST LABORATORIES
ANALYTICAL CHEMISTRY LABORATORY (ACL)

ACL CHAIN OF CUSTODY

Project No.: 22762 - Push Mode Project Originating Technical Group: SAL

General Sample Description: Samples from BX-112, Core 118

Test Instruction or ASR No. (as applicable): TI96-PM-06 / ASR #2785

Analysis Requested and/or Technical Group: Inorganic Group - ICP

Prep Method Description: Ni/KOH Fusion

ACL SAMPLE NUMBER	SAMPLE DESCRIPTION	COMMENTS
96-02606-BLK	Process Blank	
96-02606	118.1AB.F	
96-02606-DUP	118.1AB.F-DUP	
96-02608	118.2B.F	
96-02608-DUP	118.2B.F-DUP	
SRM 2709	LCS BX112/C118-2	

Sender: Lori P. Darnell 2-16-96 Receiver: Danny L. Sanders 2/16/96
(signature/date) (signature/date)

Original - Project File

Page 1 of 1 Chain of Custody Number: PM-23

BATTELLE, PACIFIC NORTHWEST LABORATORIES
ANALYTICAL CHEMISTRY LABORATORY (ACL)

ACL CHAIN OF CUSTODY

Project No.: 22762 - Push Mode Project Originating Technical Group: SAL

General Sample Description: Samples from BX-112, Core 118 (Drainable Liquid)

Test Instruction or ASR No. (as applicable): TI96-PM-06 / ASR #2785

Analysis Requested and/or Technical Group: Inorganic Group - IC

Prep Method Description: None

ACL SAMPLE NUMBER	SAMPLE DESCRIPTION	COMMENTS
96-02848-BLK	Process Blank	
96-02848	118.1ADL.D	
96-02850	118.3DL.D	

Sender: [signature] 2/13/96 (signature/date) Receiver: M. O'Neill 2/13/96 (signature/date)

Original - Project File

NOTE: Delivered 2/09/96 MMO. 2/13/96

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CONTROLLED DOCUMENT
COPY NO. 01

PUSH MODE PROJECT
TEST INSTRUCTIONS FOR HLRF RECEIPT OF SAMPLES
FROM TANK 241-BX-104

DATE PREPARED: January 10, 1996 PREPARED BY: KL Silvers

SAMPLE NUMBERS: TBD

APPROVED BY: K L Silvers DATE: 1/10/96

CONTROLLING DOCUMENTS: Project No: 22762

WHC TSAP: Tank 241-BX-104 Push Mode Core Sampling and Analysis Plan
WHC-SD-WM-TSAP-067) Revision 0
PNL QAP: MCS-033, Revision 3 (September, 1995)
Controlling Procedure: PNL-ALO-010

INTRODUCTION

This Test Instruction (TI) provides direction to the HLRF for the receipt of Push Mode core samples from Tank 241-BX-104. All chains of custody shall be verified immediately upon receipt of samples. Any descrepancies identified shall be reported to the project manager or delegate immediately. All chain of custody forms shall be provided to the Laboratory Support Office within 2 working days of receipt of the last segment from Tank BX-104.

All sample receipt activities identified in this Test Instruction shall be charged against Work Package K36437.

All activities are to be conducted in accordance with Impact Level II requirements.

A Test Instruction describing the subsampling and analytical requirements will follow.

CONTROLLED DOCUMENT
COPY NO. 21

PUSH MODE PROJECT
TEST INSTRUCTIONS FOR HLRF EXTRUSION
OF SST 241-BX-104, CORE 126 SEGMENTS 1 & 2 AND
CORE 127 SEGMENTS 1 & 2

DATE PREPARED: January 25, 1996 PREPARED BY: KL Silvers

SAMPLE NUMBERS: 96-02979 thru 96-02992

APPROVED BY: DATE: 1/25/96

CONTROLLING DOCUMENTS:

Project No: 22762
WHC TSAP: Tank 241-BX-104 Push Mode Sampling and Analysis Plan (WHC-SD-WM-TSAP-067) Rev. 1
PNL QAP: MCS-033, Revision 3 (September, 1995)
Controlling Procedure: PNL-ALO-010

INTRODUCTION

This Test Instruction (TI) defines the extrusion and subsampling of Single-Shell Tank (SST) 241-BX-104, Core 126 Segments 1 & 2, and Core 127 Segments 1 & 2. The samples from this tank will be analyzed according to TSAP (WHC-SD-WM-TSAP-067 Rev. 1). If the amount of material recovered from each semi-segment from this tank is less than 20 g, the lab shall notify the Project Manager (PM) immediately. The PM must notify the Tank Cognizant Engineer (Albert Hu/Jaiduk Jo, WHC) within one working day. The samples will be extruded, subsampled, and preliminary physical observations and tests made. Subsequent TIs will define the preparation and analyses of the solid and liquid samples taken under this TI.

Homogenized sample material will be transferred to the SAL for preparation and distribution to appropriate analytical laboratories for homogenization check analyses.

Homogenized sample material will be transferred to the SAL for preparation and distribution to the analytical laboratories to complete the scope of work.

Sample extrusion activities should be charged against work package K36437. Subsampling and homogenization activities should be charged against work package K36438.

All activities identified in this Test Instruction shall be charged against Project 22762. All analyses are to be completed at Impact Level 2. All analyses are to be completed following the identified procedures. Any deviations to the procedures must be documented and this documentation must accompany the analytical data. All analytical data are to be returned to the Laboratory Support Office.

EXTRUSION INSTRUCTIONS

- The samples should be extruded per laboratory procedure 325-A-33P. The extrusion will be videotaped and photographs of the extruded material will be taken.

- Any drainable liquid present shall be collected for each segment.
- Filter drainable liquids prior to subsampling.
- Divide segment material into semi-segments.
- Archive at least 10 mL of each semi-segment and drainable liquid from each segment.

Tank BX-104 ACL Number Assignment

Sample Identification	PNL-ALO-Number
Core 126 1/2 Seg 1A	96-02979
Core 126 1/2 Seg 1B	96-02980
Core 126 1/2 Seg 2A	96-02981
Core 126 1/2 Seg 2B	96-02982
Core 127 1/2 Seg 1A	96-02983
Core 127 1/2 Seg 1B	96-02984
Core 127 1/2 Seg 2A	96-02985
Core 127 1/2 Seg 2B	96-02986
Field Blank	96-02987
Hydrostatic Fluid	96-02988
CORE 126 Segment 1 Drainable Liquid	96-02989
Core 126 Segment 2 Drainable Liquid	96-02990
Core 127 Segment 1 Drainable Liquid	96-02991
Core 127 Segment 2 Drainable Liquid	96-02992

CONTROLLED DOCUMENT
COPY NO. 01

PUSH MODE PROJECT
TEST INSTRUCTIONS FOR HLRF HOMOGENIZATION, SUBSAMPLING & TRANSFER OF SST 241-BX-104, CORE 126 SEGMENTS 1 & 2 AND CORE 127 SEGMENTS 1 & 2

DATE PREPARED: February 7, 1996 PREPARED BY: KL Silvers

SAMPLE NUMBERS: 96-02979 thru 96-02990, 96-02992

APPROVED BY: Kyndl L Silvers DATE: 2/8/96

CONTROLLING DOCUMENTS:

Project No: 22762
WHC TSAP: Tank 241-BX-104 Push Mode Sampling and Analysis Plan (WHC-SD-WM-TSAP-067) Rev. 1
PNL QAP: MCS-033, Revision 3 (September, 1995)
Controlling Procedure: PNL-ALO-010

INTRODUCTION

This Test Instruction (TI) defines the homogenization and subsampling of Single-Shell Tank (SST) 241-BX-104, Core 126 Segments 1 & 2 and Core 127 Segments 1 & 2. The samples from this tank will be analyzed according to TSAP (WHC-SD-WM-TSAP-067 Rev. 1). The samples will be homogenized and subsampled according to according to instructions listed below.

Homogenized sample material will be transferred to the SAL for preparation and distribution to appropriate analytical laboratories for homogenization check analyses.

Homogenized sample material will be transferred to the SAL for preparation and distribution to the analytical laboratories to complete the scope of work.

Archive samples will be obtained from the homogenized semi-segments and drainable liquids.

Sample homogenization and subsampling activities should be charged against work package K36438.

All activities identified in this Test Instruction shall be charged against Project 22762. All analyses are to be completed at Impact Level 2. All analyses are to be completed following the identified procedures. Any deviations to the procedures must be documented and this documentation must accompany the analytical data. All analytical data are to be returned to the Laboratory Support Office.

HOMOGENIZATION AND SUBSAMPLING INSTRUCTIONS:

- Homogenize each semi-segment or other specified sample aliquot as described below following procedure PNL-ALO-135.

- Perform homogenization of the lower semi-segments first (see Table 1 below). Aliquot 10 g of material for transfer to the SAL. Aliquot enough sample to perform DSC/TGA and bulk density analyses.

Table 1: High Priority Homogenizations

Core 126 Semi-segment 1A	96-02979
Core 126 Semi-segment 2B (Top of sample, for homogenization check)	96-02982
Core 127 Semi-segment 1B	96-02984
Core 127 Semi-segment 2A (Top of sample, for homogenization check)	96-02985

- Aliquot an additional 10 g of sample from Core 126 semi-segment 2B (new sample number 96-02980) and Core 127 semi-segment 2A (new sample number 96-02986) for homogenization check analyses.

Table 2: Homogenization Check Sample Numbers

Core 126 Semi-segment 2B	96-02980 (Bottom of sample)
Core 127 Semi-segment 2A	96-02986 (Bottom of sample)

- Perform visual observation for organic layers of drainable liquids prior to subsampling. Filter drainable liquids prior to subsampling. Subsample 10 ml of drainable liquid from each drainable liquid sample. Aliquot enough sample to perform DSC/TGA and density analyses.
- Transfer high priority homogenization samples, homogenization check samples, and drainable liquid samples to SAL.
- Perform homogenization of the remaining semi-segments. Aliquot 10 g of material for transfer to the SAL. Aliquot enough sample to perform DSC/TGA and bulk density analyses.
- Recover a 10 g aliquot from each of the homogenized semi-segments and drainable liquid samples for archive. Identification should be consistent with the ACL number assigned to each semi-segment and drainable liquid (see table below).
- Aliquot 50 ml of the field blank sample (96-02987) for transfer to the SAL. Aliquot enough of the field blank sample for DSC/TGA and density analyses.
- Transfer all hydrostatic head fluid solution (96-02988) to SAL.
- Transfer top semi-segment subsamples to SAL.

Tank BX-104 ACL Number Assignment

Sample Identification	ACL Numbers
Core 126 1/2 Seg 1A	96-02979
Core 126 1/2 Seg 2A	96-02981
Core 126 1/2 Seg 2B	96-02982
Core 127 1/2 Seg 1A	96-02983
Core 127 1/2 Seg 1B	96-02984
Core 127 1/2 Seg 2A	96-02985
Field Blank	96-02987
Hydrostatic Fluid	96-02988
CORE 126 Segment 1 Drainable Liquid	96-02989
Core 126 Segment 2 Drainable Liquid	96-02990
Core 127 Segment 2 Drainable Liquid	96-02992
Homogenization Check Samples	
Core 126 Segment 2B	96-02980
Core 127 Segment 2A	96-02986

CONTROLLED DOCUMENT
COPY NO. 01

PUSH MODE PROJECT
TEST INSTRUCTIONS FOR SAMPLE PREPARATION & ANALYSIS
OF SST 241-BX-104 CORES 126 & 127

DATE PREPARED: February 28, 1996 PREPARED BY: KL Silvers

SAMPLE NUMBERS: 96-02979 thru 96-02990 96-02992

APPROVED BY: [signature] DATE: 2/28/96

CONTROLLING DOCUMENTS:

Project No: 22762
WHC TSAP: Tank 241-BX-104 Push Mode Sampling and Analysis Plan (WHC-SD-WM-TSAP-067) Rev. 1
PNL QAP: MCS-033, Revision 3 (September, 1995)
Controlling Procedure: PNL-ALO-010

INTRODUCTION

This Test Instruction (TI) defines the sample preparation and analysis of Single-Shell Tank (SST) 241-BX-104, Core 126 Segments 1 & 2 and Core 127 Segments 1 & 2. The samples from this tank will be analyzed according to TSAP (WHC-SD-WM-TSAP-067 Rev. 1). The samples will be prepared and analyzed according to instructions listed below.

Homogenized sample material will be transferred from the HLRF to the SAL for preparation and distribution to appropriate analytical laboratories for homogenization check analyses.

Homogenized sample material will be transferred from the HLRF to the SAL for preparation and distribution to the analytical laboratories to complete the scope of work.

Sample preparation and analysis should be charged against the work packages provided in this test instruction.

All activities identified in this Test Instruction shall be charged against Project 22762. All analyses are to be completed at Impact Level 2. All analyses are to be completed following the identified procedures. Any deviations to the procedures must be documented and this documentation must accompany the analytical data. All analytical data are to be returned to the Laboratory Support Office.

SAMPLE PREPARATION INSTRUCTIONS:

- All sample preps shall be performed in duplicate.
- MCS-033 requirements for QC samples will be followed.
- SAL Task Management activities should be charged to work package K36442.

- Preps shall be performed in accordance with the following procedures, and time shall be charged to the following work packages:

Prep Type	Procedure Number	Work Package
KOH Fusion	PNL-ALO-115	K36444
Water Leach	PNL-ALO-103	K36445

- Preparation of samples is prioritized as follows:

1. Fusion preparation of the bottom semi-segments (see Table 1). The prepared samples will be transfered immediately to the radiochemistry group for Total Alpha analysis, which is on the 45-day clock (due to the client 2/21/96).

Table 1: First Priority Fusion Preps

Core 126 Semi-segment 1A	96-02979
Core 126 Semi-segment 2B (Top of sample, for homogenization check)	96-02982
Core 127 Semi-segment 1B	96-02984
Core 127 Semi-segment 2A (Top of sample, for homogenization check)	96-02985

2. Subsampling and dilution of drainable liquid samples for Total Alpha, IC, and ICP analyses (HLRF: DSC/TGA and bulk density analyses) are required.

3. Subsampling and distribution of the field blank (sample 96-02987) to the lab.

4. Fusion preparation of the two additional homogenization check samples (96-02980 & 96-02986).

5. Fusion preparation of the top semi-segments (see Table 2).

Table 2: Second Priority Fusion Preps

Core 126 Semi-segment 2A	96-02981
Core 127 Semi-segment 1A	96-02983

6. Water leach for IC of all semi-segment samples.

- Perform direct analyses for IC & ICP on the hydrostatic head fluid (sample number 96-02988).

- Transfer prepared material to laboratories as soon as possible. All remaining analyses (excluding the first priority fusions listed in Table 1 and drainable liquids) are on the 105-day clock, and are due to the client on 4/19/96.

SAMPLE ANALYSIS INSTRUCTIONS:

The analysis scheme being impelmented in this test instruction is being divided into a 45-day data deliverable and a 105-day data deliverable. The following analyses are on the 45-day clock, and are due to the client on 2/21/96: Total Alpha analyses (fusion prep) on the bottom semi-segments listed in Table 1, and DSC/TGA and density on all of the homogenized semi-segments.

If any of the notification limits for the 45-day analyses are exceeded, a 90-day data deliverable will be required. Any required secondary analyses (90-day) will communicated in a seperate test instruction.

Safety Screening Notification Limits

Analysis	Notification Limit	Action Required
DSC	≥ 480 J/g (dry weight) *	Contact PM immediately and provide data
Total Alpha	> 41 μCi/g (assuming density of 1.5 g/cm^3) *	Contact PM immediately and provide data

* The requirement for safety screening notification is that they be below the limit when compared at a 95% confidence level. The equation for determining the upper 95% confidence value is:

$$\hat{\mu} + t_{(n-1)} * \frac{\sqrt{\hat{\sigma}^2}}{\sqrt{n}} \qquad (1)$$

Where $\hat{\mu}$ is the sample mean, $\hat{\sigma}^2$ is the sample variance, n is the number of observations (for a sample run in duplicate, n equals 2), and $t_{(n-1)}$ is the quantile from Student's t distribution with (n-1) degrees of freedom (for a one-sided 95% confidence interval and when n is 2, t is 6.314). This equation is appropriate for confidence limit estimates of the mean when the sample size is small. This equation, as well as a table of values for the Student t statistic, should be found in any introductory statistics textbook (e.g. Lapin, 1983). For a sample run in duplicate, n equals 2.

The analyst must contact the Project Manager or delegate immediately when a limit is exceeded. Verbal communication to the client will follow with additional written notification within one day.

All of the samples described in this test instruction have been logged into LIMS. The analysis due dates have been logged in based on the associated deliverable (45-day report or the 105-day report). The attached LIMS Sample Cross-Reference Report identifies the client sample number, analyses to be performed, samples to be analyzed, order numbers, and work packages. The client sample number includes the core number, type of sample (i.e., semi-segment identification, composite, drainable liquid, blank), and the prep type (i.e., D = direct,
F = KOH fusion, W = water leach).

- Analyses shall be performed in accordance with the following procedures, and time shall be charged to the following work packages:

Analysis	Procedure Number	Work Package
DSC/TGA	PNL-ALO-508	K36439
Bulk Density	PNL-ALO-501	K36441

Total Alpha	PNL-ALO-420/421	K36452
ICP	PNL-ALO-211	K36449
IC	PNL-ALO-212	K36450
GEA	PNL-ALO-450	K28848
TOC by Hot Persulfate	PNL-ALO-381	K36447

Tank BX-112 Analyses

Prep	Analysis	Sample Type
Fusion	Total Alpha	bottom 1/2 segs, field blank
Fusion	ICP	all 1/2 segs, field blank, homog check samples
Fusion	GEA	homog check samples
Water Leach	IC	all 1/2 segs
Direct	DSC/TGA, bulk density, TOC by hot persulfate	all 1/2 segs, field blank, and drainable liquids
Direct	ICP, IC, Total Alpha	drainable liquids, field blank, hydrostatic head fluid (IC & ICP only)

Tank BX-104 ACL Number Assignment

Sample Identification	ACL Numbers
Core 126 1/2 Seg 1A	96-02979
Core 126 1/2 Seg 2A	96-02981
Core 126 1/2 Seg 2B	96-02982
Core 127 1/2 Seg 1A	96-02983
Core 127 1/2 Seg 1B	96-02984
Core 127 1/2 Seg 2A	96-02985
Field Blank	96-02987
Hydrostatic Fluid	96-02988
CORE 126 Segment 1 Drainable Liquid	96-02989
Core 126 Segment 2 Drainable Liquid	96-02990
Core 127 Segment 2 Drainable Liquid	96-02992
Homogenization Check Samples	
Core 126 Segment 2B	96-02980
Core 127 Segment 2A	96-02986

Core 126

Prep Type	Seg 1A (-) 96-02979	Seg 2A (top) 96-02981	Seg 2B (seg bot, smp bot) 96-02982	Seg 1 Drain Liq 96-02989	Seg 2 Drain Liq 96-02990	Seg 2D (smp top) homog chk 96-02980
Fusion	Total Alpha (45) ICP (ASAP)	ICP (ASAP)	Total Alpha (45) ICP (homog ASAP) GEA (homog ASAP)			ICP (homog ASAP) GEA (homog ASAP)
Water Leach	IC (ASAP)	IC (ASAP)	IC (ASAP)			
Direct	DSC/TGA (45) Density (45) TOC (105)	DSC/TGA (45) Density (45) TOC (105)	DSC/TGA (45) Density (45) TOC (105)	Total Alpha (45) DSC/TGA (45) Density (45) ICP (105) IC (105) TOC (105)	Total Alpha (45) DSC/TGA (45) Density (45) ICP (105) IC (105) TOC (105)	

Page 1

2-96

Core 127

Prep Type	Seg 1A (top) 96-02983	Seg 1D (bottom) 96-02984	Seg 2A (-) 96-02985	Seg 2 Drain Liq 96-02992	Seg 2A (smp top) homog chk 96-02986
Fusion	ICP (ASAP)	Total Alpha (45) ICP (ASAP)	Total Alpha (45) ICP (homog ASAP) GEA (homog ASAP)		ICP (homog ASAP) GEA (homog ASAP)
Water Leach	IC (ASAP)	IC (ASAP)	IC (ASAP)		
Direct	DSC/TGA (45) Density (45) TOC (105)	DSC/TGA (45) Density (45) TOC (105)	DSC/TGA (45) Density (45) TOC (105)	Total Alpha (45) DSC/TGA (45) Density (45) ICP (105) IC (105) TOC (105)	

Page 2

Other

Prep Type	Field Blank 96-02987	Hydrostatic Head Fluid 96-02988
Fusion		
Water Leach		
Direct	DSC/TGA (45) Density (45) Total Alpha (45) TOC (105) IC (105) ICP (105)	IC (ASAP) ICP (ASAP)

SAMPLE CROSS-REFERENCE Report by Sample Group, ASR, Client Sample Number

Sample Group / Client Sample Number	ASR	Proj./WP / ACL Num.	Client Order	Project Manager / Test	WP	Due
TWRS/BX-104	002822	22762/K36431	SILVERS/KL	SILVERS/KL		
126.1A.D		96-002979	39103	DSC-TGA/	.K36439	02/21
				PHYSICAL/	.K36441	02/21
				TC,TOC,TIC/P	.K36447	.04/19
126.1A.F		96-002979	39120	.FUSION/KOH	.K36444	02/21
				ALPHA/GROSS	.K36452	02/21
				ICP	.K36449	02/21
126.1A.W		96-002979	39109	.LEACH	.K36445	02/21
				IC/ANIONS	.K36450	02/21
126.1DL.D		96-002989	39116	ALPHA/GROSS	.K36452	02/21
				DSC-TGA/	.K36439	02/21
				IC/ANIONS	.K36450	.04/19
				ICP	.K36449	.04/19
				PHYSICAL/	.K36441	02/21
				TC,TOC,TIC/P	.K36447	.04/19
126.2A.D		96-002981	39104	DSC-TGA/	.K36439	02/21
				PHYSICAL/	.K36441	02/21
				TC,TOC,TIC/P	.K36447	.04/19
126.2A.F		96-002981	39126	.FUSION/KOH	.K36444	02/21
				ICP	.K36449	02/21
126.2A.W		96-002981	39110	.LEACH	.K36445	02/21
				IC/ANIONS	.K36450	02/21
126.2B.D		96-002982	39105	DSC-TGA/	.K36439	02/21
				PHYSICAL/	.K36441	02/21
				TC,TOC,TIC/P	.K36447	02/21
126.2B.F		96-002982	39122	.FUSION/KOH	.K36444	02/21
				ALPHA/GROSS	.K36452	02/21
				GEA	.K28848	02/21
				ICP	.K36449	02/21
126.2B.W		96-002982	39111	.LEACH	.K36445	02/21
				IC/ANIONS	.K36450	02/21
126.2BH.F		96-002980	39124	.FUSION/KOH	.K36444	02/21
				GEA	.K28848	02/21
				ICP	.K36449	02/21
126.2DL.D		96-002990	39117	ALPHA/GROSS	.K36452	02/21
				DSC-TGA/	.K36439	02/21
				IC/ANIONS	.K36450	.04/19

.:Indicates test is a prep, or WP or Due Date from supplemental table
OSTATUS/CrossRf2 2.02 02/15/96 16:32:53 Page: 1

SAMPLE CROSS-REFERENCE Report by Sample Group, ASR, Client Sample Number

Sample Group / Client Sample Number	ASR / Proj./WP ACL Num.	Client Order	Project Manager Test	WP	Due
126.2DL.D	96-002990	39117	ICP	.K36449	.04/19
			PHYSICAL/	.K36441	02/21
			TC,TOC,TIC/P	.K36447	.04/19
127.1A.D	96-002983	39106	DSC-TGA/	.K36439	02/21
			PHYSICAL/	.K36441	02/21
			TC,TOC,TIC/P	.K36447	.04/19
127.1A.F	96-002983	39127	.FUSION/KOH	.K36444	02/21
			ICP	.K36449	02/21
127.1A.W	96-002983	39112	.LEACH	.K36445	02/21
			IC/ANIONS	.K36450	02/21
127.1B.D	96-002984	39107	DSC-TGA/	.K36439	02/21
			PHYSICAL/	.K36441	02/21
			TC,TOC,TIC/P	.K36447	.04/19
127.1B.F	96-002984	39121	.FUSION/KOH	.K36444	02/21
			ALPHA/GROSS	.K36452	02/21
			ICP	.K36449	02/21
127.1B.W	96-002984	39113	.LEACH	.K36445	02/21
			IC/ANIONS	.K36450	02/21
127.2A.D	96-002985	39108	DSC-TGA/	.K36439	02/21
			PHYSICAL/	.K36441	02/21
			TC,TOC,TIC/P	.K36447	.04/19
127.2A.F	96-002985	39123	.FUSION/KOH	.K36444	02/21
			ALPHA/GROSS	.K36452	02/21
			GEA	.K28848	02/21
			ICP	.K36449	02/21
127.2A.W	96-002985	39114	.LEACH	.K36445	02/21
			IC/ANIONS	.K36450	02/21
127.2AH.F	96-002986	39125	.FUSION/KOH	.K36444	02/21
			GEA	.K28848	02/21
			ICP	.K36449	02/21
127.2DL.D	96-002992	39118	ALPHA/GROSS	.K36452	02/21
			DSC-TGA/	.K36439	02/21
			IC/ANIONS	.K36450	.04/19
			ICP	.K36449	.04/19
			PHYSICAL/	.K36441	02/21
			TC,TOC,TIC/P	.K36447	.04/19
FLD-BLANK.D	96-002987	39119	ALPHA/GROSS	.K36452	02/21

.:Indicates test is a prep, or WP or Due Date from supplemental table
OSTATUS/CrossRf2 2.02 02/15/96 16:32:53 Page: 2

SAMPLE CROSS-REFERENCE Report by Sample Group, ASR, Client Sample Number

Sample Group / Client Sample Number	ASR	Proj./WP / ACL Num.	Client Order	Project Manager / Test	WP	Due
FLD-BLANK.D		96-002987	39119	DSC-TGA/	.K36439	02/21
				IC/ANIONS	.K36450	.04/19
				ICP	.K36449	.04/19
				PHYSICAL/	.K36441	02/21
				TC,TOC,TIC/P	.K36447	.04/19
HYD-FLUID.D		96-002988	39115	IC/ANIONS	.K36450	02/21
				ICP	.K36449	02/21

.:Indicates test is a prep, or WP or Due Date from supplemental table
OSTATUS/CrossRf2 2.02 02/15/96 16:32:53 Page: 3

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A5 - SAMPLE PREP DATA SHEETS

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WATER LEACH

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DATE TO QC: 03/04/96

DATA QUALITY REVIEW

I have reviewed the following data for completeness and for compliance with project requirements.

Analyte - Water Leach

Data Package/Report - BX-104

Project No. - 22762

ACL Numbers - 96-2979, 96-2981, 96-2985

PNL ACL Quality Representative

3/12/96
Date

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
Shielded Analytical Laboratory

Shielded Analytical Laboratory
WATER LEACH

Tank BX104 Core(s) 126/127

Project Id: 22762 WP Number: K36445

TI Number: TI96-PM-08 Procedure: PNL-ALO-103

Sample Ident.	Sample Gross Wt (g)	Sample Tare Wt (g)	Sample Net Wt (g)	DIW Gross Wt (g)	DIW Tare Wt (g)	DIW Net Wt (g)	Spike Volume
96-02979-BLK PROCESS BLK		89.7164		81.6144	38.7756	42.2388	
96-02979-BS BLANK SPIKE		86.8006		92.4467	43.1295	49.3172	0.4990
96-02979 126.1A.W	92.2057	91.7053	0.5004	95.6170	44.2259	51.3911	
96-02979-DUP 126.1A.W	88.3573	87.8198	0.5315	98.3383	44.1411	54.1871	
96-02979-MS MATRIX SPIKE	90.9482	90.4683	0.5399	93.6800	40.5541	53.1259	0.4990
96-02981 126.2A.W	83.5438	83.0186	0.5252	90.3615	40.3680	49.9935	
96-02981-DUP 126.2A.W	91.6559	with Lid 91.1019	0.5540	92.7275	41.3998	51.3677	

Spike Id: 960213IC SP1

M&TE:

X Mettler AE160 (360-06-01-016) ___ Mettler AE200 (362-06-01-038)

___ Sartorius R200D (360-06-01-024)

Analyst: Date: 2/26/96 Reviewer: Date: 2/26/96

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
Shielded Analytical Laboratory

.5 ml Pipet DIW @ 23°C
.5008 $\bar{X}$ = .4978 g
.4979
.4935 S = .0027
.4978 RSD = .55%
.4992
Del. = 0.4990

Shielded Analytical Laboratory
WATER LEACH

Tank BX104 Core(s) 126/127

Project Id: 22762 WP Number: K36445

TI Number: TI96-PM-08 Procedure: PNL-ALO-103

Sample Ident.	Sample Gross Wt (g)	Sample Tare Wt (g)	Sample Net Wt (g)	DIW Gross Wt (g)	DIW Tare Wt (g)	DIW Net Wt (g)	Spike Volume
96-02982 126.2B.W	87.9112	87.4451	0.4661	89.3597	38.8081 ~~89.3597~~ ~~50.5516~~	50.5516	
96-02982-DUP 126.2B.W	87.0552	86.5530	0.5022	89.3439	38.8136	50.5303	
96-02983 127.1A.W	86.5702	86.0469	0.5233	93.7371	42.7209	51.0162	
96-02983-DUP 127.1A.W	91.3814	90.8446	0.5368	89.5885	38.8384	50.7501	
96-02984 127.1B.W	89.5970	89.0765	0.5205	93.6167	41.6595	51.9572	
96-02984-DUP 127.1B.W	85.3668	84.8550	0.5118	89.5738	38.9295	50.6443	
96-02985 127.2A.W	85.1293	84.5869	0.5424	90.8821	40.6575	50.2246	
96-02985-DUP 127.2A.W	89.9857	89.4782	0.5075	90.5447	40.7491	49.7956	

M&TE:

X Mettler AE160 (360-06-01-016) ___ Mettler AE200 (362-06-01-038)

___ Sartorius R200D (360-06-01-024)

Analyst: [signature] Date: 2/26/96 Reviewer: [signature] Date: 2/26/96

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
325 Shielded Analytical Laboratory

SAMPLE PREP SHEET
(325 SHIELDED ANALYTICAL LABORATORY)

TI NO.: T196-PM-08/ASR 2822 PROJECT NO.: 22762 WBS NO.: _____ SAMPLE TYPE: SLUDGE

ISSUED BY: Rick T. Steele DATE: 2/15/96 PREP TYPE: WATER LEACH

ANALYST: [signature] DATE: 2/26/96 CONTROLLING PROCEDURE: PNL-ALO-010

REVIEW: [signature] DATE: 2/26/96 QA PLAN: MCS 033 IMPACT LEVEL: II

CORE ID: CORES 126/127 TANK ID: BX104

WORK PACKAGE NUMBER	ALO NUMBER	SAMPLE IDENTIFICATION	ANALYTE OR ANALYSIS	SAMPLE WT	WATER WT (g)	TOTAL VOL (mL)	SPIKE ID	SPIKE VOL (mL)	DILUTION FACTOR	DILUTION MATRIX	PIPET CALIB (mL)	ORDER NUMBER
K36497	96-02979-BLK	PROCESS BLANK	IC ASAP		42.2388	960213 IC SPH	KTS 2-2-IC				0.4990	
	96-02979-BS	BLANK SPIKE			49.3172		920213 IC SP1	0.4990				
	96-02979	126.1A.W	0.5004		51.3911							39109
	96-02979-DUP	126.1A.W	0.5315		54.1871							
	96-02979-MS	MATRIX SPIKE	0.5399		53.1259		920213 IC SP1	0.4990				
	96-02981	126.2A.W	0.5252		49.9935							39110
	96-02981-DUP	126.2A.W	0.5540		51.3677							
	96-02982	126.2B.W	0.4661		50.5516							39111
	96-02982-DUP	126.2B.W	0.5022		50.5303							
	96-02983	127.1A.W	0.5233		51.0162							39112
	96-02983-DUP	127.1A.W	0.5368		50.7501							
	96-02984	127.1B.W	0.5295	RES 3-6-96	51.9572							39113
	96-02984-DUP	127.1B.W	0.5118		50.6443							
	96-02985	127.2A.W	0.5424		50.2246							39114
	96-02985-DUP	127.2A.W	0.5075		49.7956							

REQUIRED PROCEDURE(S) BY ANALYTE: IC PNL-ALO-212

ACIDIFICATION

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DATE TO QC: 03/13/96

DATA QUALITY REVIEW

I have reviewed the following data for completeness and for compliance with project requirements.

Analyte - Drainable Liquid Subsample/Acidification

Data Package/Report - BX-104

Project No. - 22762

ACL Numbers - 96-2989, 96-2990, 96-2992

PNL ACL Quality Representative

3/19/96
Date

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
Shielded Analytical Laboratory

Shielded Analytical Laboratory
Bench Sheet

Client: KL SILVERS WP Number: K36445

TI#/ARF: TI96-PM-08/ASR 2822 Procedure: BENCH INSTRUCTION

96-02989 DRAINABLE LIQ; 96-02990 DRAINABLE LIQ; 96-02992 DRAINABLE LIQ
SAMPLE IDENTIFICATION

SAMPLE IDENT	TARE WT	WATER WT	DRAINABLE LIQUID WT	NITRIC ACID WT
96-02989-BLK	26.4203	40.8754	XXXXXXXXX	41.5791
96-02989	26.3804	37.9482	41.7531	42.4186 + 43.0572 additional HNO3
96-02990	26.1613	37.6083	41.4464	42.1295 + 42.9196
96-02992	26.2463	37.7312	41.1658	41.8604

M&TE:

X Mettler AE160 (360-06-01-016) Mettler AE200 (362-06-01-038) ___

___ Sartorius R200D (360-06-01-024) OTHER ___

Analyst: [signature] Date: 3/5/96 Reviewer: [signature] Date: 3/6/96

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
325 Shielded Analytical Laboratory

SAMPLE PREP SHEET
(325 SHIELDED ANALYTICAL LABORATORY)

TI NO.: TI96-PM-08/ASR 2822 PROJECT NO.: 22762 WBS NO.: _____ SAMPLE TYPE: DRAINABLE LIQUID

ISSUED BY: Rick T. Steele DATE: 2/13/96 PREP TYPE: ACIDIFICATION

ANALYST: [signature] DATE: 3/6/96 CONTROLLING PROCEDURE: PNL-ALO-010

REVIEW: [signature] DATE: 3/6/96 QA PLAN: MCS 033 IMPACT LEVEL: II

CORE ID: CORE 126/127 TANK ID: BX104

WORK PACKAGE NUMBER	ALO NUMBER	SAMPLE IDENTIFICATION	ANALYTE OR ANALYSIS	SAMPLE WT	WATER WT (g)	TOTAL VOL (mL)	SPIKE ID	SPIKE VOL (mL)	DILUTION FACTOR	DILUTION MATRIX	PIPET CALIB (mL)	ORDER NUMBER
K36496	96-02989-BLK	PROCESS BLANK	ICP 105					4/6/96 [illegible]	~~4.38x~~ NONE	3% HNO_3		
	96-02989	126.1DL.D	105						4.38x			39116
	96-02990	126.2DL.D	105						4.37x			39117
	96-02992	127.2DL.D	105						4.55x			39118

PERFORM ANALYSIS IN DUPLICATE

REQUIRED PROCEDURE(S) BY ANALYTE:
ICP PNL-ALO-211

PAGE 1 OF 1

41.5782
4414.1
T818

TWRS CORE CHARACTERIZATION

BX104 DRAINABLE LIQUIDS

42.2613
.1318
42.1295

BX104 96-02989/96-02990/96-02992 DRAINABLE LIQUIDS

PERFORM THE FOLLOWING ACIDIFICATION IN THE SEQUENCE SHOWN BELOW.

	DRAINABLE LIQUID VIAL	BLANK VIAL
1)TARE VIALS(RECORD WT)		
2)ADD DIW TO 20ML GLASS VIAL + STIR BAR(RECORD WT)	11.5MLS	14.5MLS
3)ADD DRAIN LIQ (RECORD WT)	3MLS	0MLS
4)ADD CONC HNO3 (RECORD WT)	0.5MLS	0.5MLS

STIR AND SAMPLE AS FOLLOWS:

5MLS UNDILUTED TO LAB 309
10MLS UNDILUTED TO LAB 405

Done 8/15/96

NOT DONE because of Precipitation

KL SILVERS/PROJ#22762/WP#K36445/TI96-PM-08/ASR2822

Finished 3/5/96

*** RMIS View/Print Document Cover Sheet ***

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Accession #: D196089656

Document #: SD-WM-DP-171

Title/Desc:
FINAL REPORT FOR TANK 241-BX-104 PUSH MODE CORES 126 & 127 [SEC 2 OF 9]

Pages: 207

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

DOCUMENT NUMBER: SD-WM-DP-171 Rev. 1

SECTION 2 OF 9

TITLE: Final Report for Tank 241-BX-104 Push Mode Cores 126 and 127.

DATE: 4/25/96

ORIGINATOR: Hu, Da

CO: WHC

RECIPIENT:

CO:

REFERENCES: ECN- 629038

DATE TO QC: 02/23/96

DATA QUALITY REVIEW

I have reviewed the following data for completeness and for compliance with project requirements.

Analyte - Subsample/Acidification

Data Package/Report - BX-104

Project No. - 22762

ACL Numbers - 96-2989, 96-2990, 96-2992

PNL ACL Quality Representative

2/23/96
Date

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
Shielded Analytical Laboratory

Shielded Analytical Laboratory
Bench Sheet

Client: KL SILVERS WP Number: K36445

TI#/ARF: TI96-PM-08/ASR 2822 Procedure: BENCH INSTRUCTION

96-02989 DRAINABLE LIQ; 96-02990 DRAINABLE LIQ; 96-02992 DRAINABLE LIQ
SAMPLE IDENTIFICATION

Temp = 25°C

SAMPLE IDENT	TARE WT g.	WATER WT	DRAINABLE LIQUID WT	NITRIC ACID WT
96-02989-BLK	13.3212	28.0085	XXXXXXXXX	28.6885
* 96-02989	13.2569	24.6365	28.4689	29.1356
* 96-02990	13.2557	24.8702	28.7714	29.4505
96-02992	13.1109	24.5559	27.9062	28.5946

1 ml weighed for Rad chem.

			NET
96-2989-BLK	31.8452	32.8604	1.0152
96-2989	32.8604	33.8891	1.0287
96-2990	31.5454	32.6302	1.0848
96-2992	32.6302	33.6193	0.9891

SpG DIW = 1.00 SpG 96-02989 = 1.28 g/mL SpG 96-02992 = 1.15 g/mL

SpG HNO_3 = 1.40 SpG 96-02990 = 1.29 g/mL

* When .5 ml Acid was Added, there was a considerable Amount of bubbling And white fresh at Top of vial. No NO_x fumes. About ¼" of Precipitate formed at the bottom After Stirring. A representative 1 ml Aliquot was Taken to Lab 309 for Acid Digestion & Analysis.

M&TE:

X Mettler AE160 (360-06-01-016) Mettler AE200 (362-06-01-038) ___

___ Sartorius R200D (360-06-01-024) OTHER ___

Analyst: Date: Reviewer: Date:

2/15/96 2/16/96

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
Shielded Analytical Laboratory

Shielded Analytical Laboratory
Bench Sheet

Client: KL SILVERS WP Number: K36445

TI#/ARF: TI96-PM-08/ASR 2822 Procedure: BENCH INSTRUCTION

96-02989 DRAINABLE LIQ; 96-02990 DRAINABLE LIQ; 96-02992 DRAINABLE LIQ
SAMPLE IDENTIFICATION

DILUTIONS MADE FOR ION CHROMATOGRAPHY

5 ml. Pipet DIW @ 25°C (Bench)		.1 ml Pipet DIW @ 25°C (cell)	
4.9295	$\bar{x}$ = 4.9255 g.	.0987	$\bar{x}$ = .0964 g
4.9189		.0953	
4.9224	S = .0048	.0956	S = .0014
4.9301		.0964	
4.9268	RSD = .1%	.0958	RSD = 1.42%
Del = 4.9401 ml x 2		Del = .0967 ml.	

$.0967 \rightarrow \frac{9.8802}{.0967} = 103.17x$

M&TE:

X Mettler AE160 (360-06-01-016) Mettler AE200 (362-06-01-038) ___

X ~~Sartorius R200D (360-06-01-024)~~ 2/16/96 Corning pH Meter Model 240 S/N 6629 ___
Denver A-160 360-06-01-040

Analyst:	Date:	Reviewer:	Date:
[signature]	2/16/96	[signature]	2/16/96

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
325 Shielded Analytical Laboratory

SAMPLE PREP SHEET
(325 SHIELDED ANALYTICAL LABORATORY)

TI NO.: TI96-PM-08/ASR 2822 PROJECT NO.: 22762 WBS NO.: _____ SAMPLE TYPE: DRAINABLE LIQUID

ISSUED BY: Rick T. Steele DATE: 2/13/96 PREP TYPE: NONE

ANALYST: [signature] DATE: 2/16/96 CONTROLLING PROCEDURE: PNL-ALO-010

REVIEW: [signature] DATE: 2/16/96 QA PLAN: MCS 033 IMPACT LEVEL: II

CORE ID: CORE 126/127 TANK ID: BX104

WORK PACKAGE NUMBER	ALO NUMBER	SAMPLE IDENTIFICATION	ANALYTE OR ANALYSIS	SAMPLE WT	WATER WT (g)	TOTAL VOL (mL)	SPIKE ID	SPIKE VOL (mL)	DILUTION FACTOR	DILUTION MATRIX	PIPET CALIB (mL)	ORDER NUMBER
K36497	96-02989-BLK	PROCESS BLANK	IC 105						—	DIW	.0967	
	96-02989	126.1DL.D	105						103.17 x		4.9401 x2	39116
	96-02990	126.2DL.D	105						↓	↓		39117
	96-02992	127.2DL.D	105									39118

PERFORM ANALYSIS IN DUPLICATE

REQUIRED PROCEDURE(S) BY ANALYTE:
IC PNL-ALO-212

Dil. : .0967 → 9.8802 / .0967 = 103.17 x

PAGE 1 OF 1

2-116

WHC-SD-WM-DP-171, REV. 1

KOH FUSION

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DATE TO QC: 03/04/96

DATA QUALITY REVIEW

I have reviewed the following data for completeness and for compliance with project requirements.

Analyte - Ni/KOH Fusion

Data Package/Report - BX-104

Project No. - 22762

ACL Numbers - 96-2980, 96-2981, 96-2983, 96-2986

PNL ACL Quality Representative

3/13/96
Date

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
Shielded Analytical Laboratory

PNL-ALO-115

Solubilization of Metals from Solids Using a KOH-KNO3 Fusion

Client name: Kurt Silvers
Work Auth. Doc (WAD): TI96-PM-08 / ASR #2822
Tank/Core/Project: BX 104 Core's 126 and 127
Special instructions:

Work package number: K36444
Project number: 22762
PNL QA plan: MCS-033
PNL impact level: 2
Prep. lab (SAL/SRPL/other): SAL
Preparation batch number:

	ACL Sample ID	ACL order number or Client sample ID	Crucible Identifier	Crucible weight (g)	Crucible + sample weight (g)	Sample weight (g)	Spike added Vol. (ml)	Spike added Weight. (g)	Final solution Volume (ml)	Process Factor (1)
1	96-02980-BLK	Process Blank	1			—			100	100
2	96-02980	126.2BH.F	2	52.3943	52.5980	0.2037				490.92
3	96-02980-DUP	126.2BH.F	3	48.6008	48.8210	0.2202				454.13
4	96-02981	126.2A.F	4	45.3439	45.6883	0.3444				290.36
5	96-02981-DUP	126.2AF	5	54.4874	54.6329	0.1455				687.29
6	96-02983	127.1A.F	6	51.1692	51.3538	0.1846	*			541.71
7	96-02983-DUP	127.1A.F	7	53.2239	53.4523	0.2284	*			437.83
8	96-02986	127.2AH.F	8	43.4262	43.6120	0.1858				538.21
9	96-02986-DUP	127.2AH .F	9	31.5109	31.7099	0.1990				502.51
10	SRM2709	LCS/BX104/HOMO CHK	10	32.3997	32.~~5499~~ 4863 2/24/96	0.0866				1,154.73
11	96-02980 BLK#2	Blank for #6 & 7	1			—				
12										
13										
14										

Analyst's sample preparation comments:

8 ml Cal. DIW @ 25°C
8.0090 $\bar{x}$ = 8.0112 g.
8.0218 S = .0085
8.0065 RSD = .11%
8.0009 Del. = 8.0349 ml
8.0179

DOSE RATE:

1 ml cal. DIW @ 25°C
1.0223 $\bar{x}$ = 1.0170 g
1.0145 S = .0033
1.0153 RSD = .33%
1.0147 Del. = 1.0200 ml
1.0184

Spike source:
PNL spike ID number:
Anal. balance M&TE: 360-06-01-016
360-06-01-040
HCl volume added (ml): * 1 ml
Solution heated (yes/no): * yes/others no
Sample filtered (yes/no): NO

(1) Process factor = Final volume (ml) / [Crucible & sample weight (g) - Crucible weight (g)]

Other sample preparation worksheets may be substituted at the discretion of the Cognizant Scientist. Use one worksheet per client.

Analyst/Date: [signature] 2/21/96 Reviewer/Date: [signature] 2/21/96

Rev. 2.0 7-28-95 JMR

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
325 Shielded Analytical Laboratory

SAMPLE PREP SHEET
(325 SHIELDED ANALYTICAL LABORATORY)

TI NO.: T196-PM-08/ASR 2822 PROJECT NO.: 22762 WBS NO.: _____ SAMPLE TYPE: SLUDGE

ISSUED BY: Rick T. Steele DATE: 2/15/96 PREP TYPE: NI/KOH FUSION

ANALYST: [signature] DATE: 2/22/96 CONTROLLING PROCEDURE: PNL-ALO-010

REVIEW: [signature] DATE: 2/22/96 QA PLAN: MCS 033 IMPACT LEVEL: II

CORE ID: 126/127 TANK ID: BX104

WORK PACKAGE NUMBER	ALO NUMBER	SAMPLE IDENTIFICATION	ANALYTE OR ANALYSIS	SAMPLE WT g	WATER WT (g)	TOTAL VOL (mL)	SPIKE ID	SPIKE VOL (mL)	DILUTION FACTOR	DILUTION MATRIX	PIPET CALIB (mL)	ORDER NUMBER
K28848	96-02980-BLK	PROCESS BLANK	GEA ASAP	–		100						
	96-02980	126.2BH.F	ASAP	0.2037		↓						39124
	96-02980-DUP	126.2BH.F	ASAP	0.2202								
	96-02986	127.2AH.F	ASAP	0.1858								39125
	96-02986-DUP	127.2AH.F	ASAP	0.1990		↓						

REQUIRED PROCEDURE(S) BY ANALYTE:
GEA PNL-ALO-450 you received 5 mg straight

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
325 Shielded Analytical Laboratory

SAMPLE PREP SHEET
(325 SHIELDED ANALYTICAL LABORATORY)

TI NO.: T196-PM-08/ASR 2822 PROJECT NO.: 22762 WBS NO.: _____ SAMPLE TYPE: SLUDGE

ISSUED BY: Rick T. Steele DATE: 2/15/96 PREP TYPE: Ni/KOH FUSION

ANALYST: [signature] DATE: 2/21/96 CONTROLLING PROCEDURE: PNL-ALO-010

REVIEW: [signature] DATE: 2/21/96 QA PLAN: MCS 033 IMPACT LEVEL: II

CORE ID: CORE 126/127 TANK ID: BX104

WORK PACKAGE NUMBER	ALO NUMBER	SAMPLE IDENTIFICATION	ANALYTE OR ANALYSIS	SAMPLE WT g.	WATER WT (g)	TOTAL VOL (mL)	SPIKE ID	SPIKE VOL (mL)	DILUTION FACTOR	DILUTION MATRIX	PIPET CALIB (mL)	ORDER NUMBER
K36496	96-02980-BLK	PROCESS BLANK	ICP As/P	—		100			4.94 X	2% HNO_3	1.02 X2	
	96-02980	126.2BH.F		0.2037							8.0349	39124
	96-02980-DUP	126.2BH.F		0.2202								
	96-02981	126.2A.F		0.3444								39126
	96-02981-DUP	126.2A.F		0.1455								
*	96-02983	127.1A.F		0.1846						+ 2% HCl		39127
*	96-02983-DUP	127.1A.F		0.2254								
	96-02986	127.2AH.F		0.1858								39125
	96-02986-DUP	127.2AH.F		0.1990								
	SRM 2709	LCS BX104/HOMO CHK		0.0866								
	96-02980 BLK #2 FOR 96-2983			—						1% HCl		

REQUIRED PROCEDURE(S) BY ANALYTE:
ICP PNL-ALO-211

* Added 1 ML CON HCl, ULTRASONIC 2 MIN, Heated to Near boiling, in Flask.

Dil. Fact: 2.04 → 8.0349 / 2.04 = 4.94 X

PAGE 1 OF 1

2-122

WHC-SD-WM-DP-171, REV. 1

DATE TO QC: 02/23/96

DATA QUALITY REVIEW

I have reviewed the following data for completeness and for compliance with project requirements.

Analyte - Ni/KOH Fusion

Data Package/Report - BX-104

Project No. - 22762

ACL Numbers - 96-2979, 96-2982, 96-2984, 96-2985

PNL ACL Quality Representative

2/23/96
Date

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
Shielded Analytical Laboratory

PNL-ALO-115 Solubilization of Metals from Solids Using a KOH-KNO$_3$ Fusion

Client name: Kurt Silvers
Work Auth. Doc (WAD): TI96-PM-08 / ASR #2822
Tank/Core/Project: BX 104 Core's 126 and 127
Special instructions

Work package number: K36444
Project number: 22762
PNL QA plan: MCS-033
PNL impact level: 2
Prep. lab (SAL/SRPL/other): SAL
Preparation batch number:

	ACL Sample ID	ACL order number or Client sample ID	Crucible identifier	Crucible weight (g)	Crucible + sample weight (g)	Sample weight (g)	Spike added Vol. (ml)	Spike added Weight. (g)	Final solution Volume (ml)	Process Factor (1)
1	96-02979-BLK	Process Blank	1	—	—	—	100	4.15	100	
2	96-02979	126.1A.F	4	38.2931	38.4553	0.1622		4.17		
3	96-02979-DUP	126.1A.F-DUP	5	38.5274	38.7457	0.2183				
4	96-02982	126.2B.F	2	39.5012	39.7802	0.2790				
5	96-02982-DUP	126.2B.F-DUP	3	39.6716	39.8702	0.1986				
6	96-02984	127.1B.F	6	39.1892	39.4142	0.2250				
7	96-02984-DUP	127.1B.F-DUP	7	38.9680	39.1844	0.2164				
8	96-02985	127.2A.F	8	36.8634	37.0575	0.1941				
9	96-02985-DUP	127.2A.F-DUP	9	38.8612	39.0862	0.2250				
10	SRM 2709	LCS BX104/45 DAY	10	39.7381	39.8271	0.0890				
11										
12										
13										
14										

Analyst's sample preparation comments:

DOSE RATE: 1 to 7 mr/hr

5 mL Pipet DIW @ 25°C (Bench)
4.9258 g = 4.9251 g.
4.9351 s = .0066
4.9176 RSD = .13%
4.9269 Rel = 4.9397 mL

1 mL Pipet DIW @ 25°C (CCU)
.9987 g = 1.0003 g.
1.0012 s = .0015
1.0024 RSD = .15%
.9992 Rel = 1.0033 mL

Spike source:
PNL spike ID number:
Anal. balance M&TE: 360-06-01.040, 360-06-01.CIL
HCl volume added (ml): 2 mL
Solution heated (yes/no): yes
Sample filtered (yes/no): NO.

(1) Process factor = Final volume (ml) / [Crucible & sample weight (g) - Crucible weight (g)]

Other sample preparation worksheets may be substituted at the discretion of the Cognizant Scientist. Use one worksheet per client.

Analyst/Date: [signature] 2/13/96 Reviewer/Date: [signature] 2/15/96

Rev. 2.0 7-28-95 JMR

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
Shielded Analytical Laboratory

PNL-ALO-115 Solubilization of Metals from Solids Using a KOH-KNO3 Fusion

Client name: Kurt Silvers
Work Auth. Doc (WAD): TI96-PM-08 / ASR #2822
Tank/Core/Project: BX 104 Core's 126 and 127
Special instructions

Work package number: K36444
Project number: 22762
PNL QA plan: MCS-033
PNL impact level: 2
Prep. lab (SAL/SRPL/other): SAL
Preparation batch number:

	ACL Sample ID	ACL order number or Client sample ID	Crucible identifier	Crucible weight (g)	Crucible + sample weight (g)	Sample weight (g)	Spike added Vol. (ml)	Spike added Weight. (g)	Final solution Volume (ml)	Process Factor (1)
1	96-02979-BLK	Process Blank	1	—	—	—	100		100	
2	96-02978 82	126.1A.F	2 82	39.5012	39.7802		25	96		
3	96-02979-DUP 83	126.1A.F	3	39.6716	39.8702					
4	96-02982 79	126.2B.F	4 79	38.2931	38.4553					
5	96-02982-DUP 79	126.2B.F	5	38.5274	38.7459					
6	96-02984	127.1B.F	6	39.1892	39.4142					
7	96-02984-DUP	127.1B.F	7	38.9680	39.1844					
8	96-02985	127.2A.F	8	36.8624	37.0565					
9	96-02985-DUP	127.2A.F	9	38.8612	39.0862					
10	SRM2709	LCS/BX104/45DAY	10	39.7381	39.8271					
11										
12										
13										
14										

Analyst's sample preparation comments: DOSE RATE:

This Bench sheet WAS redone

Spike source:
PNL spike ID number:
Anal. balance M&TE:
HCl volume added (ml):
Solution heated (yes/no):
Sample filtered (yes/no):

(1) Process factor = Final volume (ml) / [Crucible & sample weight (g) - Crucible weight (g)]

Other sample preparation worksheets may be substituted at the discretion of the Cognizant Scientist. Use one worksheet per client.

Analyst/Date: 2/13/96 Reviewer/Date: 2/15/96

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
325 Shielded Analytical Laboratory

SAMPLE PREP SHEET
(325 SHIELDED ANALYTICAL LABORATORY)

TI NO.: TI96-PM-08/ASR 2822 PROJECT NO.: 22762 WBS NO.: _____ SAMPLE TYPE: SLUDGE

ISSUED BY: Rick T. Steele DATE: 2/10/96 PREP TYPE: NI/KOH FUSION

ANALYST: [signature] DATE: 2/14/96 CONTROLLING PROCEDURE: PNL-ALO-010

REVIEW: [signature] DATE: 2/15/96 QA PLAN: MCS 033 IMPACT LEVEL: II

CORE ID: CORES 126/127 TANK ID: BX104

WORK PACKAGE NUMBER	ALO NUMBER	SAMPLE IDENTIFICATION	ANALYTE OR ANALYSIS	SAMPLE WT	WATER WT (g)	TOTAL VOL (mL)	SPIKE ID	SPIKE VOL (mL)	DILUTION FACTOR	DILUTION MATRIX	PIPET CALIB (mL)	ORDER NUMBER
K36496	96-02979-BLK	PROCESS BLANK	ICP ASAP	—		100			5.92 X	2% HNO_3	1.0033	
	96-02979	126.1A.F	ASAP	0.1622							4.9397	39120
	96-02979-DUP	126.1A.F	ASAP	0.2185								
	96-02982	126.2B.F	ASAP	0.2790								39122
	96-02982-DUP	126.2B.F	ASAP	0.1986								
	96-02984	127.1B.F	ASAP	0.2250								39121
	96-02984-DUP	127.1B.F	ASAP	0.2164								
	96-02985	127.2A.F	ASAP	0.1941								39123
	96-02985-DUP	127.2A.F	ASAP	0.2250								
	SRM2709	LCS/BX104/45DAY	ASAP	0.0890								

REQUIRED PROCEDURE(S) BY ANALYTE: ICP PNL-ALO-211

Dil. Fact: 1.0033 → 4.9397 = 5.4335 X
1.0033

PAGE 1 OF 1

2-126

WHC-SD-WM-DP-171, REV. 1

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
325 Shielded Analytical Laboratory

SAMPLE PREP SHEET
(325 SHIELDED ANALYTICAL LABORATORY)

TI NO.: TI96-PM-08/ASR 2822 PROJECT NO.: 22762 WBS NO.: _____ SAMPLE TYPE: SLUDGE

ISSUED BY: Rick T. Steele DATE: 2/10/96 PREP TYPE: Ni/KOH FUSION

ANALYST: [signature] DATE: 2/14/96 CONTROLLING PROCEDURE: PNL-ALO-010

REVIEW: [signature] DATE: 2/15/96 QA PLAN: MCS 033 IMPACT LEVEL: II

CORE ID: CORES 126/127 TANK ID: BX104

WORK PACKAGE NUMBER	ALO NUMBER	SAMPLE IDENTIFICATION	ANALYTE OR ANALYSIS	SAMPLE WT g	WATER WT (g)	TOTAL VOL (mL)	SPIKE ID	SPIKE VOL (mL)	DILUTION FACTOR	DILUTION MATRIX	PIPET CALIB (mL)	ORDER NUMBER
SEE BELOW	96-02979-BLK	PROCESS BLANK	T. ALPHA[45] GEA ASAP	—	—	100					NONE.	
	96-02979	126.1A.F	T. ALPHA[45]	0.1622								39120
	96-02979-DUP	126.1A.F	T. ALPHA[45]	0.2185								
	96-02982	126.2B.F	T. ALPHA[45] GEA ASAP	0.2790								39122
	96-02982-DUP	126.2B.F	T. ALPHA[45] GEA ASAP	0.1986								
	96-02984	127.1B.F	T. ALPHA[45]	0.2250								39121
	96-02984-DUP	127.1B.F	T. ALPHA[45]	0.2164								
	96-02985	127.2A.F	T. ALPHA[45] GEA ASAP	0.1941								39123
	96-02985-DUP	127.2A.F	T. ALPHA[45] GEA ASAP	0.2250								
K36499			TOTAL[45] ALPHA									
K28848			GEA ASAP									

REQUIRED PROCEDURE(S) BY ANALYTE: TOTAL ALPHA PNL-ALO-420/421
GEA PNL-ALO-450

you received 5 mls. straight

TOTAL ALPHA NOTIFICATION LIMIT > 41 microCURIES PER GRAM

Introduction to Physical Properties Primary Data Package

This section of the BX-104 Cores 126 and 127 Primary Data Package contains primary or "raw" data collected during preparation and analysis of physical properties on these core samples.

SINGLE SHELL TANK

WASTE CHARACTERIZATION PROJECT

APPENDIX B

PHYSICAL PROPERTIES

TANK BX-104 CORES 126 & 127

March 1996

Pacific Northwest National Laboratory

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B1 - INTRODUCTION

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Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
325 Shielded Analytical Laboratory

SAMPLE PREP SHEET
(325 SHIELDED ANALYTICAL LABORATORY)

TI NO.: TI96-PM-08/ASR 2822 PROJECT NO.: 22762 WBS NO.: _____ SAMPLE TYPE: DRAINABLE LIQUID

ISSUED BY: Rick T. Steele DATE: 2/13/96 PREP TYPE: ACIDIFICATION

ANALYST: _____ DATE: _____ CONTROLLING PROCEDURE: PNL-ALO-010

REVIEW: _____ DATE: 2/16/96 QA PLAN: MCS 033 IMPACT LEVEL: II

CORE ID: CORE 126/127 TANK ID: BX104

WORK PACKAGE NUMBER	ALO NUMBER	SAMPLE IDENTIFICATION	ANALYTE OR ANALYSIS	SAMPLE WT	WATER WT (g)	TOTAL VOL (mL)	SPIKE ID	SPIKE VOL (mL)	DILUTION FACTOR	DILUTION MATRIX	PIPET CALIB (mL)	ORDER NUMBER
K36499	96-02989-BLK	PROCESS BLANK	TOTAL ALPHA 45	1.0152					NONE	0.6M HNO_3		
	96-02989	126.1DL.D	45	1.0287					4.14X	↓		39116
	96-02990	126.2DL.D	45	1.0848					4.15X			39117
	96-02992	127.2DL.D	45	0.9891					4.62X			39118

PERFORM ANALYSIS IN DUPLICATE

REQUIRED PROCEDURE(S) BY ANALYTE:
TOTAL ALPHA PNL-ALO-420/421

TOTAL ALPHA NOTIFICATION LIMIT > 41 microCURIES PER GRAM

PAGE 1 OF 1

DATE TO QC: 02/23/96

DATA QUALITY REVIEW

I have reviewed the following data for completeness and for compliance with project requirements.

Analyte - Acidification

Data Package/Report - BX-104

Project No. - 22762

ACL Numbers - 96-2987

K Hall-King

PNL ACL Quality Representative

2/23/96

Date

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
Shielded Analytical Laboratory

Shielded Analytical Laboratory
Bench Sheet

Client: KL SILVERS WP Number: K36445

TI#/ARF: TI96-PM-08/ASR 2822 Procedure: BENCH INSTRUCTION

96-02987 FIELD BLANK RADCHEM
SAMPLE IDENTIFICATION

Pipetted .1 ml of HNO_3 into 5 ml of 96-2987 and gave to Radchem for total alpha

M&TE:

___ Mettler AE160 (360-06-01-016) Mettler AE200 (362-06-01-038) ___

___ Sartorius R200D (360-06-01-024) Corning pH Meter Model 240 S/N 6629 ___

Analyst:	Date:	Reviewer:	Date:
[signature]	2/15/96	[signature]	2/15/96

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
325 Shielded Analytical Laboratory

SAMPLE PREP SHEET
(325 SHIELDED ANALYTICAL LABORATORY)

TI NO.: TI96-PM-08/ASR 2822 PROJECT NO.: 22762 WBS NO.: _____ SAMPLE TYPE: FIELD BLANK (LIQUID)

ISSUED BY: Rick T. Steele DATE: 2/13/96 PREP TYPE: ACIDIFICATION

ANALYST: _____ DATE: 2/15/96 CONTROLLING PROCEDURE: PNL-ALO-010

REVIEW: _____ DATE: 2/15/96 QA PLAN: MCS 033 IMPACT LEVEL: II

CORE ID: CORE 126/127 TANK ID: BX104

WORK PACKAGE NUMBER	ALO NUMBER	SAMPLE IDENTIFICATION	ANALYTE OR ANALYSIS	SAMPLE WT	WATER WT (g)	TOTAL VOL (mL)	SPIKE ID	SPIKE VOL (mL)	DILUTION FACTOR	DILUTION MATRIX	PIPET CALIB (mL)	ORDER NUMBER
K36499	96-02987	FLD-BLANK.D	TOTAL ALPHA *45									39119

PERFORM ANALYSIS IN DUPLICATE

REQUIRED PROCEDURE(S) BY ANALYTE:
TOTAL ALPHA PNL-ALO-420/421 .1 HNO3 to 5 ml sample.

TOTAL ALPHA NOTIFICATION LIMIT > 41 microCURIES PER GRAM

B2 - DSC/TGA ANALYSIS

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DATE TO QC: 02/28/96

DATA QUALITY REVIEW

I have reviewed the following data for completeness and for compliance with project requirements.

Analyte - DSC/TGA

Data Package/Report - BX-104

Project No. - 22762

ACL Numbers - 96-2979, 96-2981, 96-2982, 96-2989, 96-2990, 96-2987, 96-2983, 96-2984, 96-2985, 96-2992

PNL ACL Quality Representative

2/08/96
Date

ANALYST: J D Mathews 2/22/96
TECH. REVIEW: J M Tingey 2/22/96

THERMOGRAVIMETRIC ANALYSIS (TGA)

Percent water determinations by TGA were made on homogenized subsamples from Core 126 Segments 1 and 2 and Core 127 Segments 1 and 2. TGA determinations were also made on the drainable liquids from Core 126 Segments 1 and 2, and Core 127 Segment 2. The TGA determinations were measured according to technical procedure PNL-ALO-508 Rev. 0. TGA determinations provide data associated with all sample mass losses over a particular temperature range. In this report the initial endothermic transition and its associated mass loss are used to calculate the percent water in the sample. This accounts for the free water associated with the sample and does not include waters of hydration or loosely bound water.

Samples were run on a SEIKO 5200 instrument. Balance calibration of the instrument was checked against a known 20 mg standard laboratory weight. The instrument temperature was calibrated using indium and lead standards, and was checked periodically using the indium standard. Temperature readings for the instrument were within 2 °C of the reported literature value. Balance calibration of the TGA was within 0.01 mg of its expected value. The temperature range for the TGA runs was from ambient (~20 °C) to 550 °C, using a scan rate of 10 °C per minute to permit good thermal conductivity in the sample. Analyses were conducted using platinum sample pans under a nitrogen cover gas. Data for percent water are tabulated in Table 3 and scans are attached in Appendix A.

As shown by the data in Table 3, one sample (96-02979, Core 126 Segment 1) exceeded the established 20% RPD precision limit for TGA. The higher RPD in this case is a consequence of the lack of resolution between the initial and second transitions. If the mass losses for first two transitions are combined to a more definitive endpoint, the RPD is 1.6%. Because weight loss associated with transition 2 is low compared to the first transition, no impact to safety concerns is observed choosing either the mass loss for either or a combination of both transitions while doing calculations. Confidence intervals listed in Table 3 correspond to the 95% lower limit values for percent water in the samples.

DIFFERENTIAL SCANNING CALORIMETRY (DSC)

Energetics of samples from Cores 126 and 127 were determined by DSC. DSC analyses were conducted using a SEIKO 5200 instrument according to technical procedure PNL-ALO-508 Rev. 0. Temperature and enthalpy calibrations of the DSC instrument were made using indium and lead standards. Calibration was checked periodically using an indium standard. A melting temperature of 156.5 °C was measured for the indium standard. This melting temperature was within ± 1 °C of reported literature value (156.6 °C).

The temperature range for the DSC runs was from ambient (~20 °C) to 550 °C, using a scan rate of 10 °C per minute to permit good thermal conductivity in the sample. Analyses were conducted using platinum sample pans under a nitrogen cover gas.

Enthalpy data are tabulated in Table 4 and scans are attached in Appendix A. Listed values for transitions exhibiting exothermic behavior have been

corrected for percent moisture (e.g., dry-weight basis values). Data listed at the 95% confidence limits in Table 4 thus represent the maximum potential values for samples exhibiting exothermic behavior (e.g., upper confidence limit), and minimum values for sample exhibiting endothermic behavior (lower confidence limit). The notification limit for DSC samples (95% confidence interval) is -480 J/g. Sample enthalpies must exceed this value to represent a safety screening concern.

Samples 96-02983 (Core 127 Subsegment 1A), 96-02984 (Core 127 Subsegment 1B), 96-02989 (Core 126 Segment 1 drainable liquid), 96-02990 (Core 126 Segment 2 drainable liquid), and 96-02992 (Core 127 Segment 2 drainable liquid) exhibited exothermic activity. As shown in Table 4, none of these samples exceeded the notification limit at the 95% confidence limit (dry-weight basis).

Two samples, 96-02979 and 96-02992, had mean enthalpies (between the sample and duplicate analyses) which exceeded a 20% RPD precision criterion. For sample 96-02979 (Core 126, Segment 1A), a relatively large difference in starting temperature between the sample and duplicate was noted. In this case, the higher RPD was due to this temperature difference. While the enthalpy for transition 1 may be understated, the transition is endothermic and does not impact tank safety concerns. Therefore, no further action was taken.

Enthalpies for transition 1 of two samples, 96-02981 (Core 126 Subsegment 2A) and 96-02985 (Core 127 Segment 2) could not be calculated because the transition began at temperatures lower than the starting temperature of the scans. Again, while enthalpies for transition 1 in these samples may be understated, the transitions are endothermic and do not impact tank safety concerns. Therefore, no further action was taken.

For sample, 96-02992 (Core 127 Segment 2 drainable liquid) small enthalpy differences in the exotherm for transition 3 were noted, contributing to the larger calculated RPD values. Higher RPD values are expected for transitions exhibiting low overall enthalpies, where choice and placement of endpoints for particular transitions are less definitive. Because the enthalpies were low for this sample and duplicate, no impact to safety concerns was observed from the calculated results.

TABLE 4. DSC Results for Homogenized Samples from Tank 241-BX-104.

Description	Sample	(1) Delta#1	(1) Avg#1 J/g	(2) Delta#2	(2) Avg#2 J/g	(3) Delta#3**	(3) Avg#3 J/g **	(1) 95% C.L.	(2) 95% C.L.	(3) 95% C.L.	(1) RPD %	(2) RPD %	(3) RPD %
C126,51A,UH	96-02979	132.2	111.9	225.2	226.95	407.9	429.5	-17	216	299	36	2	10
Duplicate	96-02979D	91.5		228.7		451.0							
C126,51A,UH	96-02981	84.5	87.5	208	208.25	388.25							
Duplicate	96-02981D	90.5		208.5		388.5			680	321	n/a	16	
C126,52A,UH	96-02982	201.5	201.5	468.5	468.5								
Duplicate	96-02982D	412.1	379.8	458.0	453.8				175	427	17	2	
C126,52A,UH	96-02982	347.4		449.5									
Duplicate	96-02982D												
C126,51,DL	96-02989	884.2	959.9	61.9	60.9	-74.6	-58.1	519	55	-105	14	-3	-17
Duplicate	96-02989D	1031.6		59.9		-42.3							
C126,52,DL	96-02990	1088.5	1070.0	29.6	31.05	-53.5	-54.0	612	22	-56	6	0	-1
Duplicate	96-02990D	1110.8		32.5		-54.4							
C126,51B	96-02987	1589.7	1610.0	37.4	36.9	-35.2	-35.7	1434	310	-45	4	13	-9
Duplicate	96-02987D	1648.3		36.4		-36.2							
C127,51A,UH	96-02983	935.3	849.9	37.4	36.9	-33.6	-35.7	310	74	-45	26	13	-9
Duplicate	96-02983D	764.4		36.4		-36.7							
C127,51A,UH	96-02984	586.2	617.6	129.0	122.55	-9.8	-9.3	440	26	-13	9	12	-11
Duplicate	96-02984D	649.7		116.2		-8.8							
C127,52A	96-02985	*	418.2	553.4	532.5			n/a	401		n/a	8	n/a
Duplicate	96-02985D	418.2		511.6									
C127,52,DL	96-02992	1405.4	1339.7	34.2	31.6	-34.5	-33.6	925	15	-174	10	16	-71
Duplicate	96-02992D	1274		29.0		-32.6							

Southwest Residuals data provided by CTS.

* Enthalpy for this location was not calculable.

** Adjustment factor divisor for exothermic dry weight-basis corrections:

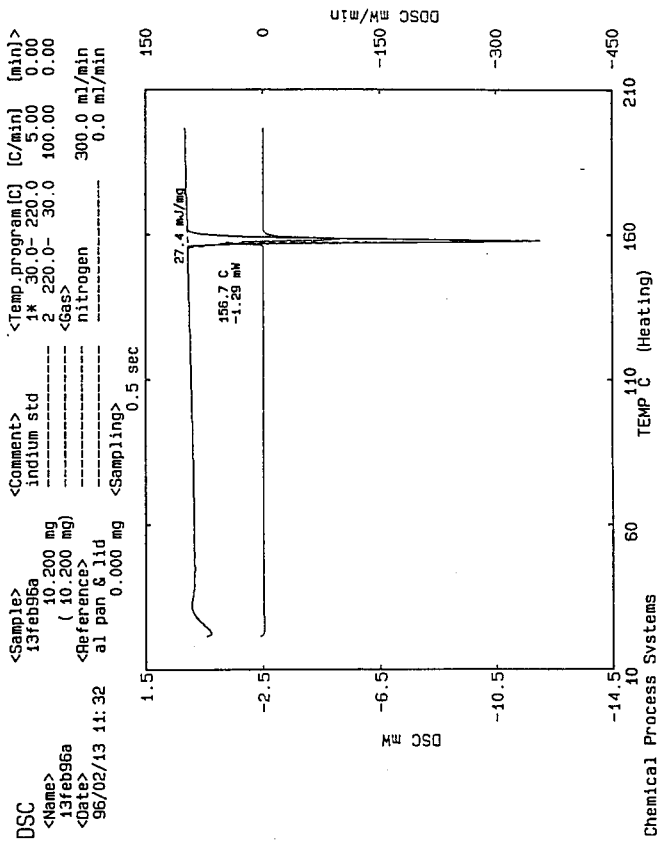
#96-02983:	1-0.4795	= 0.5205
#96-02984:	1-0.4295	= 0.5705
#96-02989:	1-0.5840	= 0.4160
#96-02990:	1-0.5975	= 0.4025
#96-02992:	1-0.7770	= 0.2230

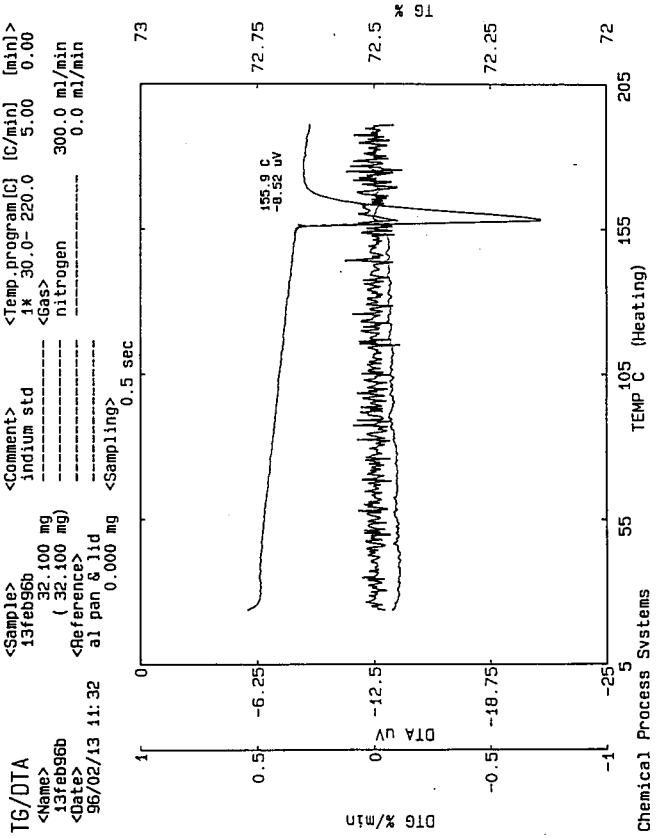
(1) Represents data and/or calculations for the first DSC transition.
(2) Represents data and/or calculations for the second DSC transition.
(3) Represents data and/or calculations for the fused DSC transition.

TABLE 3. TGA Results for Homogenized Samples from Tank 241-BX-104

Description	Sample#	(1) Delta Wt% H2O (1-2)	(1) Avg Wt% H2O	(2) Delta Wt% (1-2)	(2) Avg Mass Loss	(3) Delta Wt% (1-2)	(3) Avg Mass Loss	(1) 95% C.L.	(2) 95% C.L.	(3) 95% C.L.	(1) RPD%	(2) RPD%	(3) RPD%
C126,S1A,UH	96-02979	11.8	10.0	12.6	14.7	16.4	16.8	-2	2	15	37	28	4
Duplicate	96-02979D	8.1		16.7		17.1							
C126,S2A,UH	96-02981	11.8	11.6	24.9	24.3	4.8	4.7	10	21	4	4	5	6
Duplicate	96-02981D	11.3		23.7		4.5							
C126,S2A,LH	96-02982	23.5	22.2	15.6	15.8	3.6	3.7	14	15	3	12	3	5
Duplicate	96-02982D	20.8		16.0		3.8							
C126,S1,DL	96-02989	58.4	58.4	7.0	6.9	0.9	0.8	58	6	1	0	4	12
Duplicate	96-02989D	58.4		6.7		0.8							
C126,S2,DL	96-02990	60.5	59.8	4.3	4.4	0.2	0.2	55	4	0	3	2	0
Duplicate	96-02990D	59.0		4.4		0.2							
C126,FB	96-02987	96.9	97.9					92			2		
Duplicate	96-02987D	98.9											
C127,S1A,UH	96-02983	49.4	48.0	7.1	7.1	2.5	2.6	39	7	2	6	0	13
Duplicate	96-02983D	46.5		7.1		2.8							
C127,S1B,LH	96-02984	44.1	43.0	5.1	5.3	4.4	4.4	36	4	4	5	6	1
Duplicate	96-02984D	41.8		5.4		4.4							
C127,S2A	96-02985	24.1	23.5	18.5	18.6	4.5	4.5	20	18	5	5	1	0
Duplicate	96-02985D	22.9		18.7		4.5							
C127,S2,DL	96-02992	78.3	77.7	2.0	2.1			74	1		2	10	
Duplicate	96-02992D	77.1		2.2									

(1) Represents data and/or calculations for the first region of mass loss.
(2) Represents data and/or calculations for the second region of mass loss.
(3) Represents data and/or calculations for the third region of mass loss.


DSC
<Name>
13feb96a
<Date>
96/02/13 11:32
<Sample>
13feb96a
10.200 mg
(10.200 mg)
<Reference>
al pan & lid
0.000 mg
<Comment>
indium std
<Sampling>
0.5 sec
<Temp program[C] [C/min] [min]>
1* 30.0- 220.0 5.00 0.00
2 220.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
27.4 mJ/mg
156.7 C
-1.29 mW
DSC mW
DDSC mW/min
TEMP C (Heating)
Chemical Process Systems

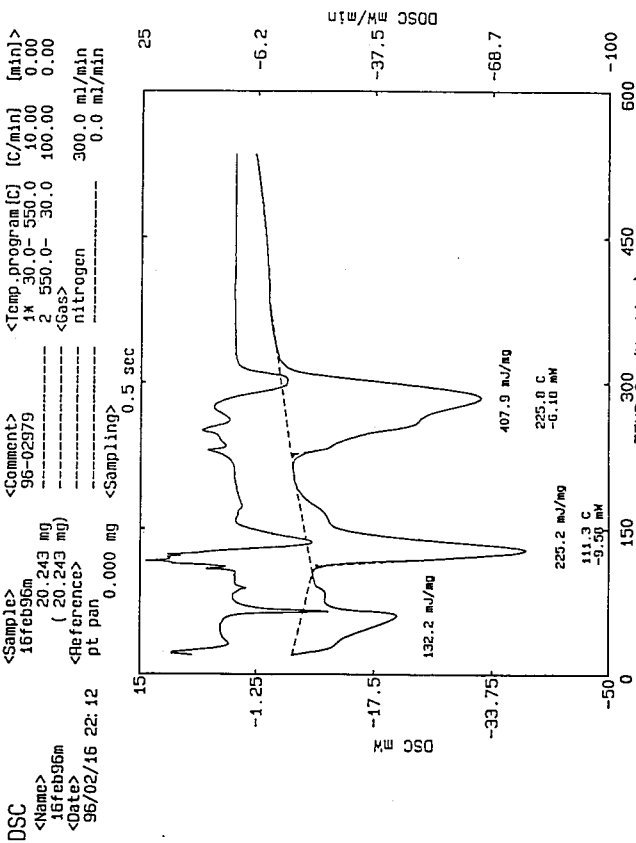

TG/DTA
<Name>
13feb96b
<Date>
96/02/13 11:32
<Sample>
13feb96b
32.100 mg
(32.100 mg)
<Reference>
al pan & lid
0.000 mg
<Comment>
indium std
<Temp.program[C] [C/min] [min]>
1* 30.0- 220.0 5.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
<Sampling>
0.5 sec
155.9 C
-8.52 uV
DTG %/min
DTA uV
TG %
TEMP C (Heating)
Chemical Process Systems

TG/DTA
<Name>
16feb96n
<Date>
96/02/16 22:12
<Sample>
16feb96n
18.287 mg
(18.287 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02979
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
11.0 %
12.6 %
16.4 %
5.3 %
DTG %/min
DTA uV
TG %
TEMP C (Heating)
Chemical Process Systems

A-1

TG/DTA
<Name>
16feb96p
<Date>
96/02/16 23:25
<Sample>
16feb96p
28.666 mg
(28.666 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-029790
<Temp.program(C) [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
<Sampling>
0.5 sec
0.1 %
16.7 %
17.1 %
5.3 %
DTG %/min
DTA uV
TG %
TEMP C (Heating)
Chemical Process Systems

A-2


DSC
<Name>
16feb96m
<Date>
96/02/16 22:12
<Sample>
16feb96m
20.243 mg
(20.243 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02979
<Sampling>
0.5 sec
<Temp program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
DSC mW
DSC mW/min
TEMP C (Heating)
Chemical Process Systems
132.2 mJ/mg
225.2 mJ/mg
111.3 C
-9.50 mW
407.9 mJ/mg
225.0 C
-6.10 mW

A-3

DSC
<Name>
16feb96o
<Date>
96/02/16 23:25
<Sample>
16feb96o
20.616 mg
(20.616 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02979D
<Temp.program [C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
<Sampling> 0.5 sec
91.5 mJ/mg
449.0 mJ/mg
217.1 C
-5.73 mW
220.7 mJ/mg
DSC mW
DDSC mW/min
TEMP C (Heating)
Chemical Process Systems

TG/DTA
<Name>
18feb96d
<Date>
96/02/18 16:47
<Sample>
18feb96d
30.659 mg
(30.659 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02981
<Gas>
nitrogen
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
300.0 ml/min
0.0 ml/min
11.0 %
222.7 C
07.9 %
21.9 %
4.0 %
DTG %/min
DTA uV
TG %
TEMP C (Heating)
Chemical Process Systems

A-5

TG/DTA
<Name>
18feb96f
<Date>
96/02/18 10:09
<Sample>
18feb96f
25.096 mg
(25.096 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-029010
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
11.23 %
223.4 C
02.70 %
23.69 %
4.51 %
DTG %/min
DTA uV
TG %
TEMP C (Heating)
Chemical Process Systems

A-6

DSC
<Name>
18feb96c
<Date>
96/02/18 16:47
<Sample>
18feb96c
16.818 mg
(16.818 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02981
<Sampling>
0.5 sec
<Temp program(C) [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
507.0 mJ/mg
220.4 C
-2.02 mW
DSC mW
DOSC mW/min
TEMP C (Heating)
Chemical Process Systems

A-7

DSC
<Name>
18feb96e
<Date>
96/02/18 18:08
<Sample>
18feb96e
25.096 mg
(25.096 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02901D
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
220.2 C
-3.41 mW
600.5 mJ/mg
231.5 mJ/mg
DSC mW
DDSC mW/min
TEMP C (Heating)
Chemical Process Systems

TG/DTA
<Name>
19feb96d
<Date>
96/02/19 11:43
<Sample>
19feb96d
29.799 mg
(29.799 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02982
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
6.7116
6.2837
5.8558
5.4279
DTG %/min
40
30
20
10
0
DTA uV
105.7
92.3
78.9
65.4
52
TG %
23.5 %
15.6 %
1.6 %
0
150
300
450
600
TEMP C (Heating)
Chemical Process Systems

A-9

TG/DTA
<Name>
19feb96f
<Date>
96/02/19 13:15
<Sample>
19feb96f
12.221 mg
(12.221 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-029B2D
<Temp program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen
300.0 ml/min
0.0 ml/min
<Sampling>
0.5 sec
20.0 %
15.9 %
3.9 %
DTG %/min
DTA uV
TG %
TEMP C (Heating)
Chemical Process Systems

A-10

DSC
<Name>
19feb96c
<Date>
96/02/19 11:41
<Sample>
19feb96c
18.344 mg
(18.344 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02902
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
<Sampling>
0.5 sec
412.1 mJ/mg
210.5 C
-5.13 mW
150.0 mJ/mg
DSC mW
DDSC mW/min
TEMP C (Heating)
Chemical Process Systems

DSC
<Name>
19feb96e
<Date>
96/02/19 13:13
<Sample>
19feb96e
23.387 mg
(23.387 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02982D
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen
300.0 ml/min
0.0 ml/min
<Sampling>
0.5 sec
347.4 mJ/mg
217.0 C
-4.55 mW
449.6 mJ/mg
DSC mW
DDSC mW/min
TEMP C (Heating)
Chemical Process Systems

A-12

TG/DTA
<Name>
19feb96a
<Date>
96/02/19 08:15
<Sample>
19feb96a
10.807 mg
(10.807 mg)
<Reference>
pt pan
0.000 mg
<Comment>
90-02983-3
<Sampling>
0.5 sec
<Temp program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
40.5 %
7.0 %
2.5 %
DTG %/min
DTA uV
TG %
TEMP C (Heating)
Chemical Process Systems

A-13

TG/DTA
<Name>
19feb96b
<Date>
96/02/19 09:49
<Sample>
19feb96b
7.598 mg
(7.598 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02903-4
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
<Sampling>
0.5 sec
46.5 %
7.1 %
2.0 %
TG %
DTG %/min
DTA uV
TEMP C (Heating)
Chemical Process Systems

A-14

DSC
<Name>
17feb96a
<Date>
96/02/17 08:37
<Sample>
17feb96a
11.229 mg
(11.229 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02903
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
935.3 mJ/mg
37.4 mJ/mg
-17.5 mJ/mg
DSC mW
DDSC mW/min
TEMP C (Heating)
Chemical Process Systems

A-15

DSC
<Name>
17feb96c
<Date>
96/02/17 10:17
<Sample>
17feb96c
11.080 mg
(11.080 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02983D
<Sampling>
0.5 sec
<Temp program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
764.4 mJ/mg
42.4 mJ/mg
-19.1 mJ/mg
DSC mW
DSC mW/min
TEMP°C (Heating)
Chemical Process Systems

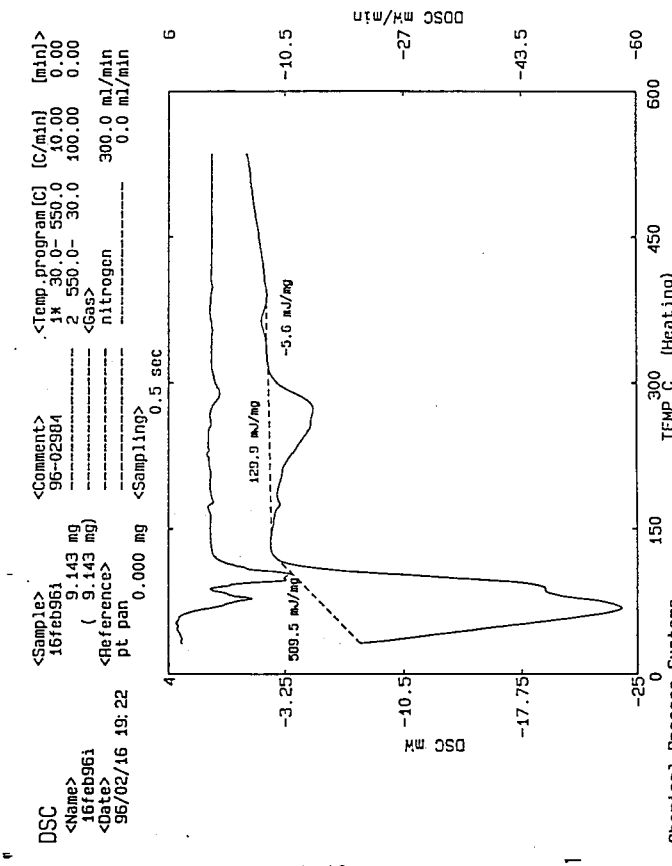
A-16

TG/DTA
<Name>
16feb96jra
<Date>
96/02/16 19:25
<Sample>
16feb96j
14.921 mg
(14.921 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02984
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
44.1 %
234.3 C
55.2 %
5.1 %
4.4 %
DTG %/min
DTA uV
TG %
TEMP C (Heating)
Chemical Process Systems

A-17

TG/DTA
<Name>
16feb961
<Date>
96/02/16 20:54
<Sample>
16feb961
10.679 mg
(10.679 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-029840
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
41.02 %
232.0 C
52.44 %
5.39 %
2.19 %
2.24 %
DTG %/min
DTA uV
TG %
TEMP C (Heating)
Chemical Process Systems

A-18


DSC
<Name>
16feb96i
<Date>
96/02/16 19:22
<Sample>
16feb96i
9.143 mg
(9.143 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-0204
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
129.9 mJ/mg
-5.6 mJ/mg
509.5 mJ/mg
DSC mW
DSC mW/mg
TEMP C (Heating)
Chemical Process Systems

A-19

DSC
<Name>
16feb96k
<Date>
96/02/16 20:53
<Sample>
16feb96k
10.679 mg
(10.679 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-029840
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
157.5 C
-0.71 mW
115.2 mJ/mg
645.7 mJ/mg
-5.0 mJ/mg
DSC mW
DDSC mW/min
TEMP C (Heating)
Chemical Process Systems

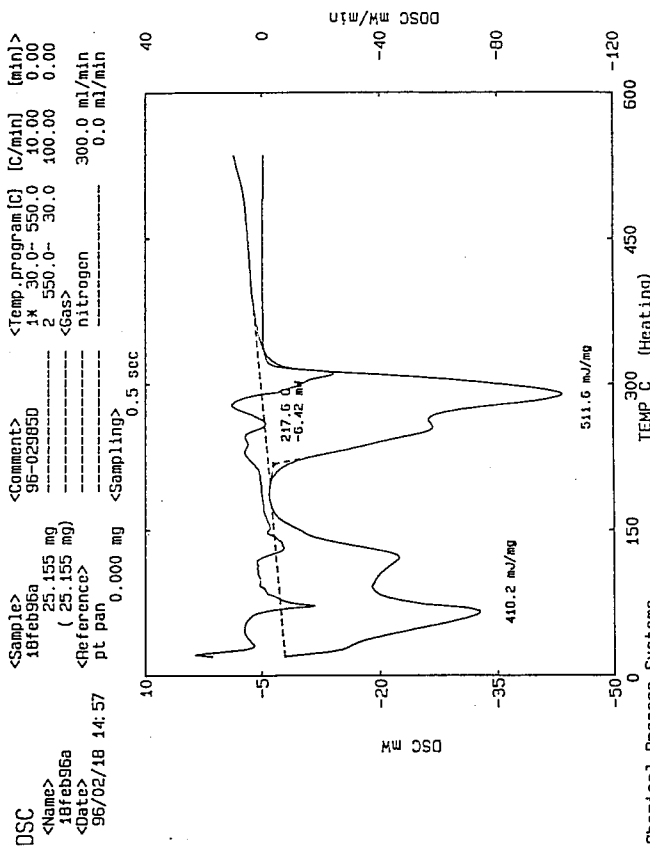
A-20

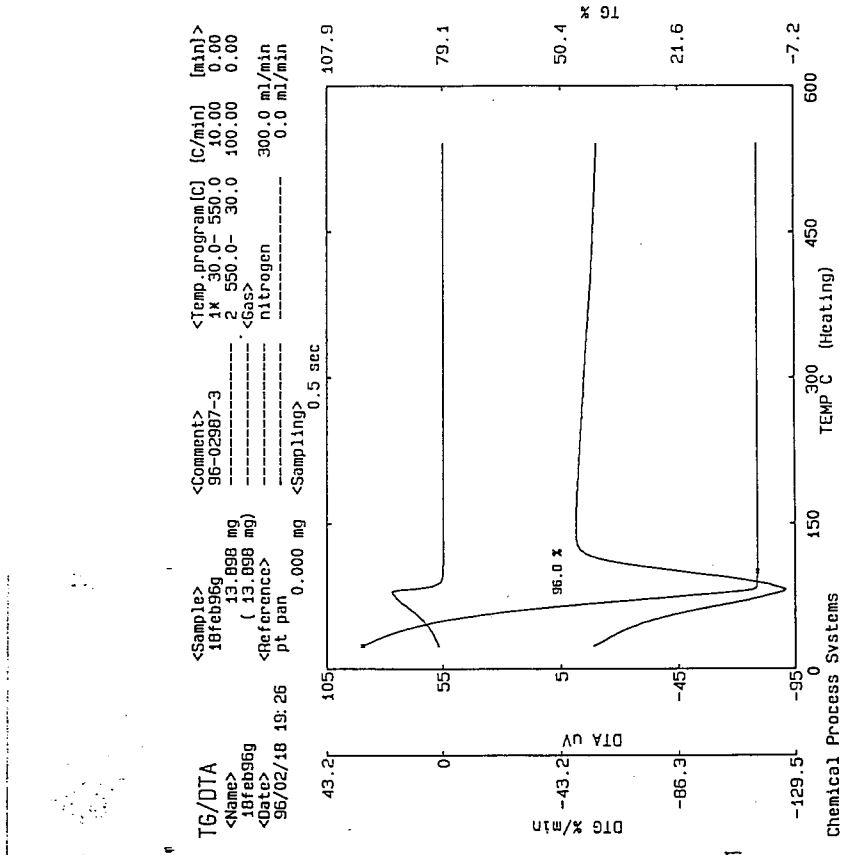
TG/DTA
<Name>
18feb961
<Date>
96/02/18 22:12
<Sample>
18feb961
37.000 mg
(37.000 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02985-3
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
24.0 %
229.1 C
75.9 %
10.5 %
4.5 %
DTG %/min
DTA uV
TG %
TEMP C (Heating)
Chemical Process Systems

TG/DTA
<Name>
10feb96j
<Date>
96/02/18 23:34
<Sample>
10feb96j
25.230 mg
(25.230 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02985-3
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen
300.0 ml/min
0.0 ml/min
22.9 %
227.0 C
76.9 %
10.7 %
4.5 %
91.3
77.5
63.8
TG %
DTG %/min
DTA uV
TEMP C (Heating)
Chemical Process Systems

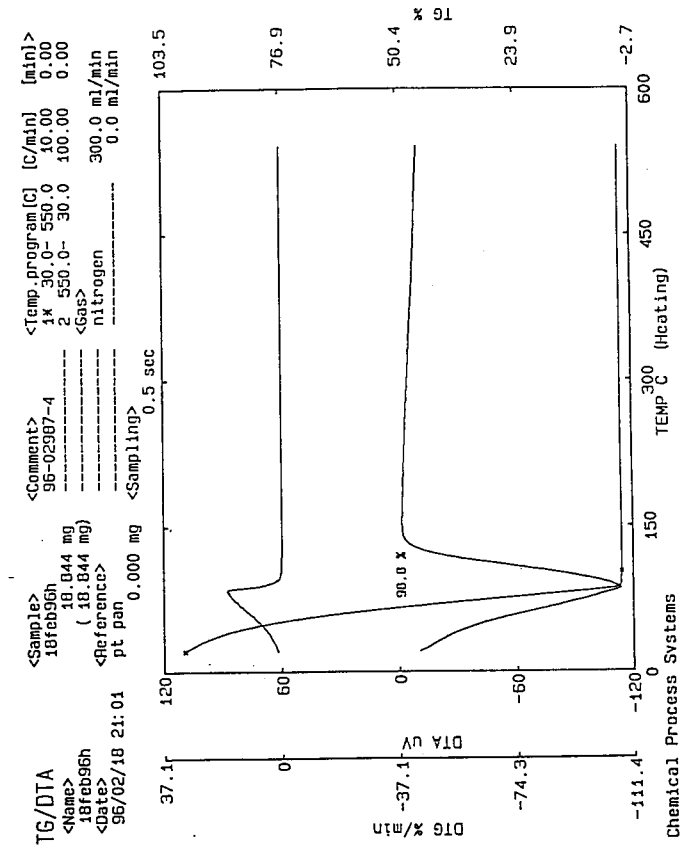
A-22

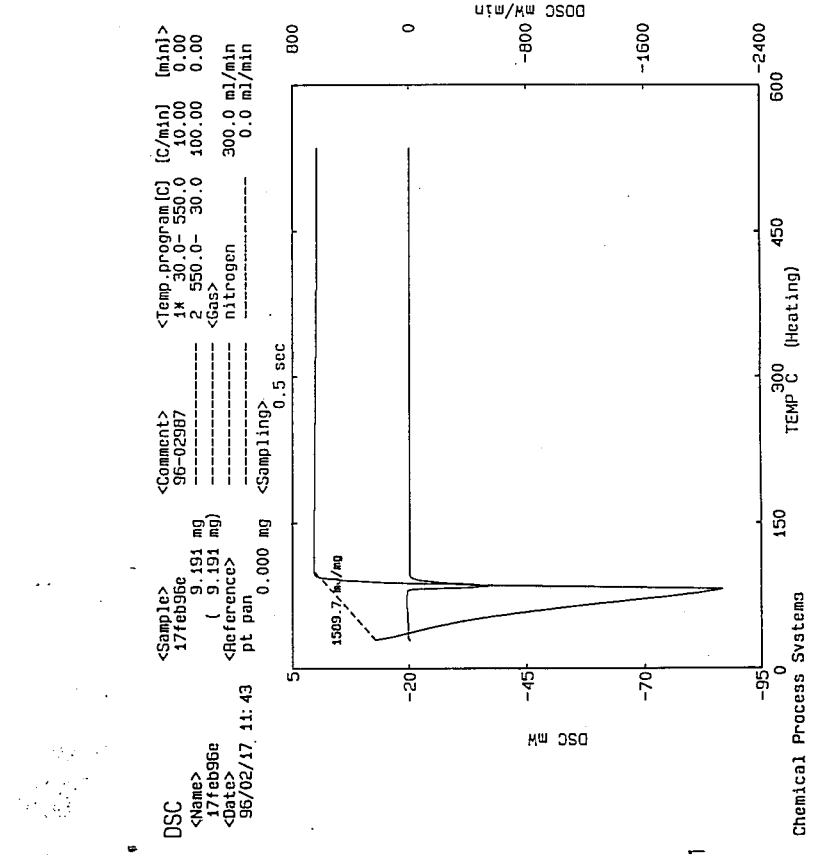
DSC
<Name>
17feb96i
<Date>
96/02/17 14:50
<Sample>
17feb96i
15.534 mg
(15.534 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02985
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
553.4 mJ/mg
214.9 C
-3.69 mW
DSC mW
DDSC mW/min
TEMP C (Heating)
Chemical Process Systems

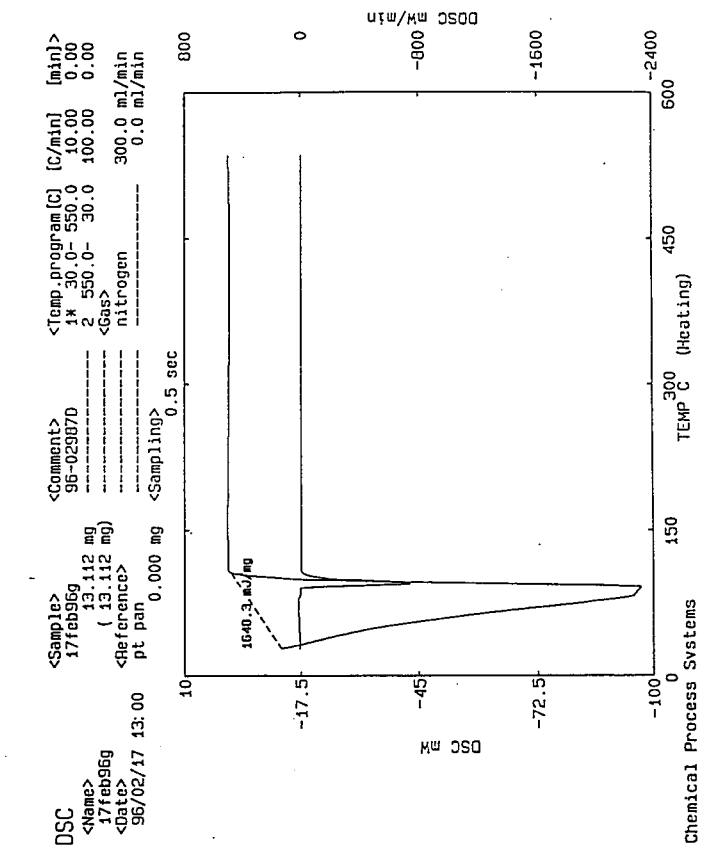

DSC
<Name>
18feb96a
<Date>
96/02/18 14:57
<Sample>
18feb96a
25.155 mg
(25.155 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-029850
<Sampling>
0.5 scc
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
217.6 C
-6.42 mW
410.2 mJ/mg
511.6 mJ/mg
DSC mW
DDSC mW/min
TEMP °C (Heating)
Chemical Process Systems


TG/DTA
<Name>
18feb96g
<Date>
96/02/18 19:26
<Sample>
18feb96g
13.898 mg
(13.898 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02987-3
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen
300.0 ml/min
0.0 ml/min
96.0 %
DTG %/min
43.2
-43.2
-86.3
-129.5
DTA uV
105
55
5
-45
-95
TG %
107.9
79.1
50.4
21.6
-7.2
0
150
300
450
600
TEMP C (Heating)
Chemical Process Systems

A-25


TG/DTA
<Name>
18feb96h
<Date>
96/02/18 21:01
<Sample>
18feb96h
18.044 mg
(18.044 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02987-4
<Sampling>
0.5 sec
<Temp program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
103.5
76.9
50.4
23.9
-2.7
TG %
120
60
0
-60
-120
DTA uV
37.1
-37.1
-74.3
-111.4
DTG %/min
90.0 %
0
150
300
450
600
TEMP C (Heating)
Chemical Process Systems


DSC
<Name>
17feb96e
<Date>
96/02/17 11:43
<Sample>
17feb96e
9.191 mg
(9.191 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02987
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
1509.7 mJ/mg
DSC mW
DSC mW/min
TEMP C (Heating)
Chemical Process Systems

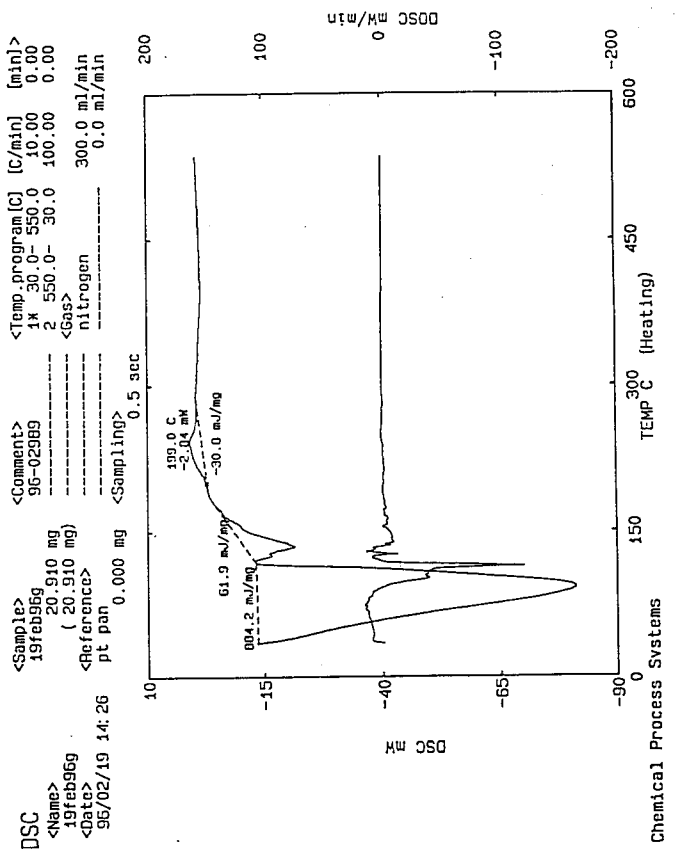

DSC
<Name>
17feb96g
<Date>
96/02/17 13:00
<Sample>
17feb96g
13.112 mg
(13.112 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02907D
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
1640.3 mJ/mg
DSC mW
DDSC mW/min
TEMP °C (Heating)
Chemical Process Systems

TG/DTA
<Name>
19feb96h
<Date>
96/02/19 14:26
<Sample>
19feb96h
20.297 mg
(20.297 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02089
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
<Sampling>
0.5 sec
DTG %/min
-1
-15.53
-30.06
-44.59
-59.12
DTA uV
90
70
50
30
10
TG %
105.9
86.2
66.5
46.8
27.1
50.4 %
7.0 %
0.5 %
0.4 %
0
150
300
450
600
TEMP C (Heating)
Chemical Process Systems

A-29

TG/DTA
<Name>
19feb96j
<Date>
96/02/19 15:41
<Sample>
19feb96j
22.392 mg
(22.392 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-029090
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen
300.0 ml/min
0.0 ml/min
DTG %/min
DTA uV
TG %
TEMP C (Heating)
50.4 %
6.7 %
0.5 %
0.4 %
Chemical Process Systems

A-30


DSC
<Name>
19feb96g
<Date>
96/02/19 14:26
<Sample>
19feb96g
20.910 mg
(20.910 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-02989
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1# 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
199.0 C
-2.04 mW
-30.0 mJ/mg
61.9 mJ/mg
804.2 mJ/mg
DSC mW
DDSC mW/min
TEMP C (Heating)
Chemical Process Systems

DSC
<Name>
19feb96i
<Date>
96/02/19 15:39
<Sample>
19feb96i
20.545 mg
(20.545 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-029890
<Temp program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
<Sampling>
0.5 sec
59.9 mJ/mg
1021.6 mJ/mg
-25.9 mJ/mg
200.0 C
-3.25 mW
DSC mW
DDSC mW/min
TEMP C (Heating)
Chemical Process Systems

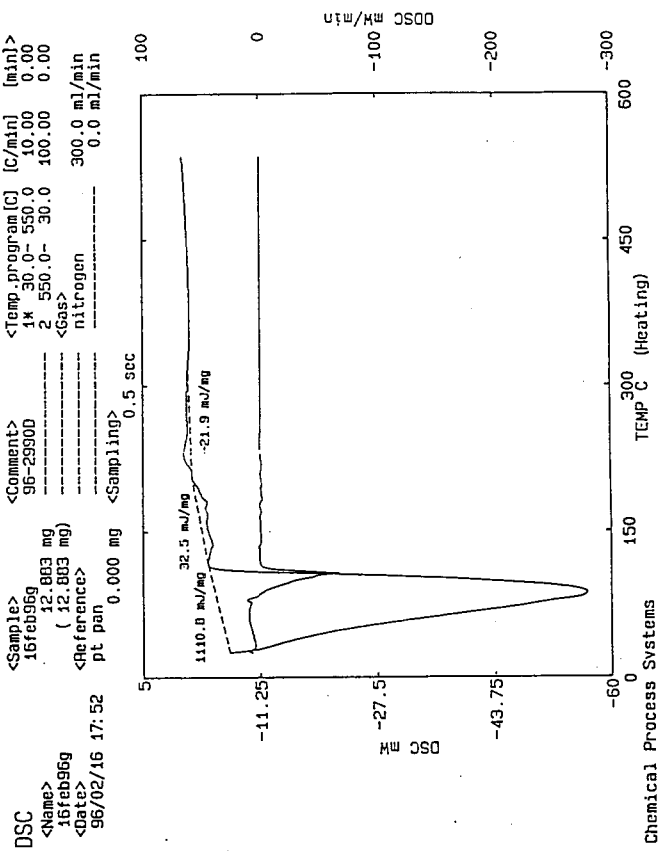
TG/DTA
<Name>
16feb96f
<Date>
96/02/16 16:13
<Sample>
16feb96f
13.808 mg
(13.808 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-2990
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
60.4 %
4.3 %
0.3 %
DTG %/min
-10
-23.8
-37.59
-51.39
-65.10
DTA uV
70
55
40
25
10
TG %
105
86.9
68.8
50.7
32.6
0
150
300
450
600
TEMP °C (Heating)
Chemical Process Systems

A-33

TG/DTA
<Name>
16feb96h
<Date>
96/02/16 17:53
<Sample>
16feb96h
13.677 mg
(13.677 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-2990D
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
59.0 %
4.4 %
0.2 %
DTG %/min
-10
-23.95
-37.9
-51.85
-65.8
DTA uV
70
55
40
25
10
TG %
106
87.7
69.5
51.2
32.9
0
150
300
450
600
TEMP C (Heating)
Chemical Process Systems

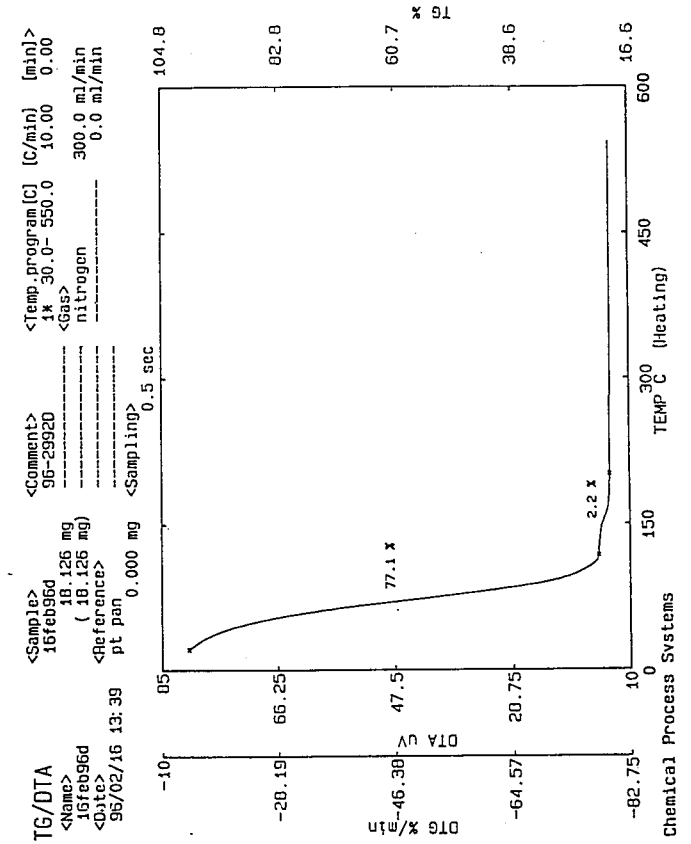
A-34

DSC
<Name>
16feb96e
<Date>
96/02/16 16:13
<Sample>
16feb96e
11.858 mg
(11.858 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-2990
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
29.6 mJ/mg
1029.1 mJ/mg
-21.6 mJ/mg
DSC mW
DDSC mW/min
TEMP °C (Heating)
Chemical Process Systems


DSC
<Name>
16feb96g
<Date>
96/02/16 17:52
<Sample>
16feb96g
12.883 mg
(12.883 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-2990D
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
1110.0 mJ/mg
32.5 mJ/mg
-21.9 mJ/mg
DSC mW
DDSC mW/min
TEMP C (Heating)
Chemical Process Systems

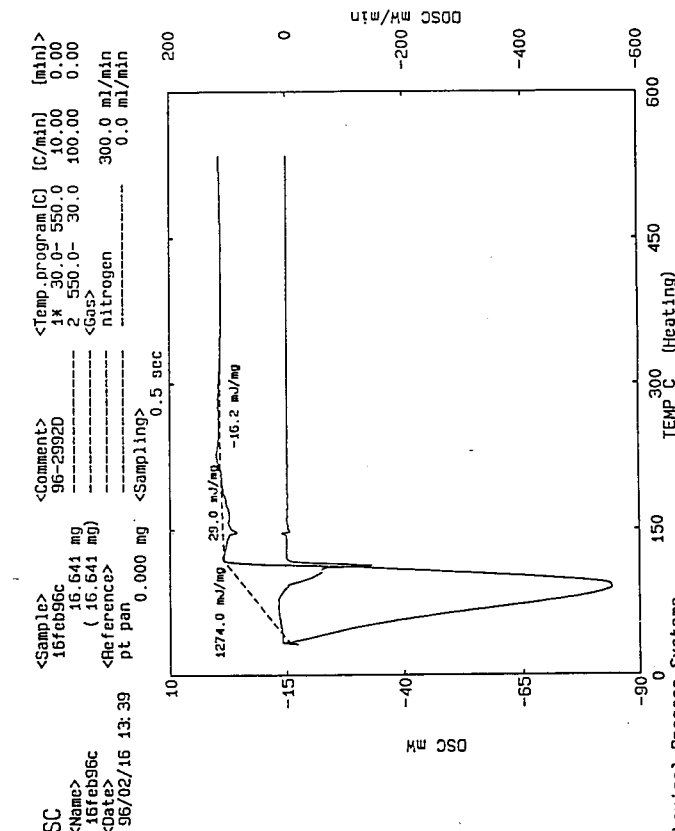
TG/DTA
<Name>
16feb96b
<Date>
96/02/16 11:28
<Sample>
16feb96b
16.794 mg
(16.794 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-2992
<Sampling>
0.5 sec
<Temp.program(C)
1* 30.0- 550.0
<Gas>
nitrogen
(C/min) (min)
10.00 0.00
300.0 ml/min
0.0 ml/min
DTG %/min
-10
-29.83
-49.66
-69.49
-89.32
DTA uV
90
70
50
30
10
70.3 %
2.0 %
TG %
107.2
83.4
59.5
35.7
11.9
0
150
300
450
600
TEMP C (Heating)
Chemical Process Systems

A-37


TG/DTA
<Name>
16feb96d
<Date>
96/02/16 13:39
<Sample>
16feb96d
18.126 mg
(18.126 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-2992D
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
77.1 %
2.2 %
DTG %/min
-10
-20.19
-46.38
-64.57
-82.75
DTA uV
105
66.25
47.5
20.75
-10
TG %
104.8
82.8
60.7
38.6
16.6
0
150
300
450
600
TEMP C (Heating)
Chemical Process Systems

A-38

DSC
<Name>
16feb96a
<Date>
96/02/16 11:28
<Sample>
16feb96a
15.935 mg
(15.935 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-2992
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen 300.0 ml/min
0.0 ml/min
<Sampling>
0.5 sec
1405.4 mJ/mg
34.2 mJ/mg
-7.7 mJ/mg
DSC mW
DDSC mW/min
TEMP C (Heating)
Chemical Process Systems


DSC
<Name>
16feb96c
<Date>
96/02/16 13:39
<Sample>
16feb96c
16.641 mg
(16.641 mg)
<Reference>
pt pan
0.000 mg
<Comment>
96-2992D
<Sampling>
0.5 sec
<Temp.program[C] [C/min] [min]>
1* 30.0- 550.0 10.00 0.00
2 550.0- 30.0 100.00 0.00
<Gas>
nitrogen
300.0 ml/min
0.0 ml/min
1274.0 mJ/mg
29.0 mJ/mg
-16.2 mJ/mg
DSC mW
DDSC mW/min
TEMP C (Heating)
Chemical Process Systems

A-40

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B3 - BULK DENSITY ANALYSIS

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DATE TO QC: 03/28/96

DATA QUALITY REVIEW

I have reviewed the following data for completeness and for compliance with project requirements.

Analyte - Bulk Density

Data Package/Report - BX-104

Project No. - 22762

ACL Numbers - 96-2979, 96-2981, 96-2982, 96-2983, 96-2984, 96-2985, 96-2987, 96-2989, 96-2990, 96-2992

PNL ACL Quality Representative — Date 3/28/96

3/28/96

February 19, 1996
Tank: 241-BX-104
Procedure: PNL-ALO-501

Density Data Sheet

Balance check ok

Core 126

Segment 1

Drainable Liquid (C126-DL-A)

	96-02989	96-02989 Duplicate
Total Mass	~~22.33~~ 21.41 g	21.62 g
Tare	15.38 g	15.38 g
Sample Mass	6.03 g	6.24 g
Volume	4.7 ml	~~4.95~~ ml

Semi-Segment

	96-02979	96-02979 Duplicate
Total Mass	17.438 g	~~17.553~~ g 17.497
Tare	5.648 g	5.646 g
Sample Mass	11.790 g	11.851 g
Volume	6.2 ml	6.4 ml

Segment 2

Drainable Liquid

	96-02990	96-02990 Duplicate
Total Mass	21.77 g	21.52 g
Tare	15.27 g	15.27 g
Sample Mass	6.50 g	6.25 g
Volume	5.1 ml	4.8 ml

Semi-Segments

	96-02981	96-02981 Duplicate
Total Mass	12.721 g	12.254 g
Tare	5.557 g	5.569 g
Sample Mass	6.664 g	6.685 g
Volume	3.5 ml	3.5 ml

	96-02982	96-02982 Duplicate
Total Mass	17.778 g	~~17.674~~ g 17.630
Tare	5.655 g	5.650 g
Sample Mass	12.123 g	~~12.024~~ g 11.980
Volume	6.0 ml	6.0 ml

February 19, 1996
Tank: 241-BX-104
Procedure: PNL-ALO-501

Density Data Sheet (cont.)

Balance check ok SMS

Core 126 (cont.)

Field Blank

	96-02987		96-02987 Duplicate	
Total Mass	19.99	g	19.92	g
Tare	15.39	g	15.35	g
Sample Mass		g		g
Volume	4.5	ml	4.5	ml

Core 127

Segment 1

Semi-Segments

	96-02983		96-02983 Duplicate	
Total Mass	15.656	g	15.593	g
Tare	5.650	g	5.588	g
Sample Mass	10.006	g	10.005	g
Volume	7.0	ml	7.0	ml

	96-02984		96-02984 Duplicate	
Total Mass	15.481	g	15.745	g
Tare	5.581	g	5.615	g
Sample Mass	9.900	g	10.130	g
Volume	6.1	ml	6.3	ml

Segment 2

Drainable Liquid

	96-02992		96-02992 Duplicate	
Total Mass	20.69	g	20.93	g
Tare	15.41	g	15.41	g
Sample Mass		g		g
Volume	4.6	ml	4.8	ml

Semi-Segments

	96-02985		96-02985 Duplicate	
Total Mass	12.165	g	12.133	g
Tare	5.655	g	5.602	g
Sample Mass	6.510	g	6.531	g
Volume	3.5	ml	3.6	ml

SMS 2

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SINGLE SHELL TANK

WASTE CHARACTERIZATION PROJECT

APPENDIX C

INORGANIC

TANK BX-104 CORES 126 & 127

March 1996

Pacific Northwest National Laboratory

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C1 - INTRODUCTION

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Introduction to Inorganic Primary Data Package

This section of the BX-104 Cores 126 and 127 Primary Data Package contains primary or "raw" data collected during preparation and analysis of inorganic samples. All analytical information is tracked by the laboratory sample number. Assessment of the primary analytical data will require in-depth knowledge of the methodology.

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C2 - ICP ANALYSIS

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DATE TO QC: 03/14/96

DATA QUALITY REVIEW

I have reviewed the following data for completeness and for compliance with project requirements.

Analyte - Fusion

Data Package/Report - BX-104

Project No. - 22762

ACL Numbers - 96-2980, 96-2981, 96-2983, 96-2986

PNL ACL Quality Representative

3/24/96
Date

Project: TWRS
Procedure: PNL-ALO-211

File: m022296b
Analyzed: 02/20/96

BX-104 Core 127
Samples batched with 126.2bH.F and 126.2A.F

		127 1/2 Seg 1A			127 1/2 Seg 2AH			
Sam Log#:		96-02983	96-02983		96-02986	96-02986		96-2980-2
Split#:		127.1A.F	127.1A.F		127.2AH.F	127.2AH.F		Blank
ICP Dil:		1.00	1.00		1.00	1.00		1.00
Dil Fctr:		2675.3	2162.3		2658.1	2481.7		2476.1
Est. IDL ug/mL	Analyte	Sample ug/g	Duplicate ug/g	RPD	Sample ug/g	Duplicate ug/g	RPD	Batch Blk ug/g
0.025	Ag	ND	ND		ND	ND		ND
0.060	Al	39,789	38,585	3	172,789	188,896	9	ND
0.080	As	ND	ND		(316)	(332)		ND
0.050	B	(293)	(325)		(235)	(236)		(182)
0.010	Ba	(49)	(45)		(30)	(34)		ND
0.005	Be	ND	ND		ND	ND		ND
0.100	Bi	(334)	(318)		ND	(251)		ND
0.250	Ca	(1,235)	(1,059)		(1,124)	(1,146)		ND
0.015	Cd	ND	(35)		ND	ND		ND
0.100	Ce	(272)	(269)		ND	ND		ND
0.050	Co	ND	ND		ND	ND		ND
0.020	Cr	13,550	13,553	0	2,155	2,334	8	ND
0.050	Cu	(330)	(170)		ND	ND		ND
0.050	Dy	ND	ND		ND	ND		ND
0.100	Eu	ND	ND		ND	ND		ND
0.050	Fe	16,053	14,179	12	3,342	3,883	15	7,680
2.000	K	n/a	n/a		n/a	n/a		n/a
0.050	La	(140)	(127)		ND	ND		ND
0.030	Li	ND	ND		(337)	(379)		ND
0.100	Mg	ND	(231)		ND	ND		ND
0.050	Mn	3,823	3,967	4	(791)	(829)		(370)
0.030	Mo	ND	ND		ND	ND		ND
0.250	Na	93,934	98,387	5	35,634	38,240	7	(2,196)
0.100	Nd	(380)	(353)		ND	ND		ND
0.030	Ni	n/a	n/a		n/a	n/a		n/a
0.250	P	(890)	(552)		(1,506)	(1,652)		ND
0.100	Pb	(840)	(1,096)		(678)	(713)		ND
0.300	Pd	ND	ND		ND	ND		ND
0.300	Rh	ND	ND		ND	ND		ND
0.100	Ru	ND	ND		ND	ND		ND
0.100	Se	(284)	(248)		(727)	(718)		ND
0.500	Si	(1,717)	(1,581)		(1,695)	(1,835)		ND
1.000	Sn	ND	ND		ND	ND		ND
0.015	Sr	ND	ND		(44)	(48)		ND
0.500	Te	ND	ND		ND	ND		ND
0.025	Ti	ND	ND		ND	ND		ND
0.500	Tl	ND	ND		ND	ND		ND
2.000	U	(20,788)	(20,517)		(30,231)	(31,895)		ND
0.015	V	ND	ND		ND	ND		ND
0.500	W	ND	ND		ND	ND		ND
0.010	Y	(55)	(46)		ND	ND		ND
0.020	Zn	(289)	(201)		(80)	(78)		(81)
0.025	Zr	1,733	930	60 *	(214)	(190)		ND

Note:
1) Estimated Quantitation Limit (EQL) = 10x IDL; "( )" results <EQL but =>IDL.
2) Above 5 times EQL, results reportable to 2 1/2 significant digits.
3) Blank is reported in ug/g "equivalence" to indicate blank effect on sample results.
4) The process "blank" has not been subtracted from the "Sample & Duplicate" results.
5) Above 5 times the EQL, precision is estimated at better than +/-20% and accuracy +/-25%.
6) "ND" = Not Detected; Estimated Sample Detection Limit (ug/g) = (IDL in ug/mL) * (Dil Fctr).
7) If RPD flagged with "*", then RPD >20% and sample & duplicate results >EQL.

Data, including calibration/QC, archived File ICP-325-405-1/96A0076

Analyzed Date: 02/20/96
Project: TWRS
Procedure: PNL-ALO-211
ICP Data Name: 96A0076
Tank ID: BX-104 Core 127

File: m022296b
Reported: 03/15/96

Segment ID:		127 1/2 Seg 1A		127 1/2 Seg 2AH		
Sample Log#		Sample 96-02983 127.1A.F	Duplicate 96-02983 127.1A.F	Sample 96-02986 127.2AH.F	Duplicate 96-02986 127.2AH.F	96-2980-2 Blank
Prep Type		Fusion	Fusion	Fusion	Fusion	Fusion
Sample Wt-g		0.1846	0.2284	0.1858	0.1990	0.1994
Makeup Vol-mL		100.0	100.0	100.0	100.0	100.0
Dil: Smpl-mL		2.04	2.04	2.04	2.04	2.04
Dil: Vol-mL		10.07	10.07	10.07	10.07	10.07
Prep Factor		2675.3	2162.3	2658.1	2481.7	2476.1
Spike ID						
Spike PreDil'n						
ICP Dilution		1.00	1.00	1.00	1.00	1.00
Dil Fctr		2675.3	2162.3	2658.1	2481.7	2476.1
Run Time		11:05	11:22	11:35	11:39	10:54
(ug/g)	Ag	43.4	47.0	22.9	26.5	1.6
	Al	39788.6	38585.1	172789.4	188896.4	111.7
	As	158.9	135.7	316.5	331.6	40.3
	B	292.6	324.6	234.6	235.7	181.9
	Ba	48.6	44.7	29.5	33.8	
	Be	2.2	2.0	0.3	0.3	-1.9
	Bi	334.0	318.4	240.2	250.6	32.6
	Ca	1234.9	1059.2	1124.1	1146.3	554.0
	Cd	37.2	34.8	11.9	9.4	4.0
	Ce	272.4	269.1	108.2	101.0	26.6
	Co	38.1	45.0	12.2	16.6	22.1
	Cr	13549.6	13552.7	2154.9	2333.8	14.9
	Cu	330.0	169.8	48.2	53.5	43.6
	Dy	12.5	13.4	14.0	11.9	4.9
	Eu	17.3	17.3	14.9	15.3	1.9
	Fe	16053.3	14179.3	3341.5	3883.0	7679.6
	K	6180351.4	5034185.8	5679181.2	5556657.5	4875157.8
	La	139.9	127.2	38.6	39.9	6.8
	Li	12.4	17.0	337.4	378.8	0.4
	Mg	245.0	231.3	50.3	85.4	35.4
	Mn	3822.6	3967.4	791.1	828.5	369.7
	Mo	24.3	20.8	44.2	40.0	4.0
	Na	93933.9	98387.5	35633.6	38240.4	2196.1
	Nd	380.3	353.5	110.1	105.5	33.7
	Ni	5395.0	7854.5	2665.6	2079.3	1001.2
	P	889.8	551.6	1505.8	1652.0	42.8
	Pb	839.8	1096.2	678.1	713.1	39.5
	Pd	323.6	306.3	180.6	170.8	47.4
	Rh	121.0	127.7	121.8	109.0	33.6
	Ru	81.0	81.7	65.0	59.5	30.5
	Se	284.2	247.7	727.3	718.3	67.8
	Si	1717.0	1580.6	1694.6	[illegible]	-404.5
	Sn	620.6	628.7	523.7	477.9	279.3
	Sr	26.8	25.2	43.7	48.3	-1.6
	Te	160.9	160.7	303.6	327.8	43.4
	Ti	40.9	52.3	23.9	32.2	12.7
	Tl	83.6	66.3	106.1	130.6	37.2
	U	20787.5	20517.0	30230.9	31894.9	411.0
	V	23.6	23.5	23.0	23.6	3.9
	W	216.9	246.7	125.9	130.7	-0.6
	Y	55.3	45.8	10.8	10.1	1.2
	Zn	288.7	200.8	80.3	77.8	81.1
(ug/g)	Zr	1733.2	929.8	213.7	189.9	0.3

Template: TC-KOH-2 ICP RAW DATA -- IEC Corrected m022296b

Analyzed: 02/20/96 BX-104 Core 127 Raw Data
Project: TWRS Data Page 2 of 2
Procedure: PNL-ALO-211
MT&E: JA ICP WB73520

Analyst: Nanny Sanders 3/25/96 Reviewer: MW Wilson 3/25/96

Sample ID:		96-02983	96-02983	96-02986	96-02986	96-2980-2	Post Spikes	
Split ID:		127.1A.F	127.1A.F	127.2AH.F	127.2AH.F	Blank		
Run Time:		11:05	11:22	11:35	11:39	10:54	"A" ug/mL	"B" ug/mL
(ug/mL)	Ag	0.0162	0.0218	0.0086	0.0107	0.0006	0.500	
	Al	14.8724	17.8445	65.0058	76.1143	0.0451	10.000	
	As	0.0594	0.0628	0.1191	0.1336	0.0163	2.500	
	B	0.1094	0.1501	0.0883	0.0950	0.0735	2.000	
	Ba	0.0182	0.0207	0.0111	0.0136		0.500	
	Be	0.0008	0.0009	0.0001	0.0001	-0.0008	0.100	
	Bi	0.1248	0.1472	0.0904	0.1010	0.0132	25.000	
	Ca	0.4616	0.4898	0.4229	0.4619	0.2237	25.000	
	Cd	0.0139	0.0161	0.0045	0.0038	0.0016	0.500	
	Ce	0.1018	0.1244	0.0407	0.0407	0.0107		2.000
	Co	0.0143	0.0208	0.0046	0.0067	0.0089	1.000	
	Cr	0.0646	0.2677	0.8107	0.9404	0.0060	1.000	
	Cu	0.1234	0.0785	0.0181	0.0216	0.0176	1.000	
	Dy	0.0047	0.0062	0.0053	0.0048	0.0020		2.000
	Eu	0.0065	0.0080	0.0056	0.0062	0.0008		2.000
	Fe	6.0005	6.5575	1.2571	1.5646	3.1014	20.000	
	K	2310.1186	2328.1704	2136.5884	2239.0105	1968.8478		
	La	0.0523	0.0588	0.0145	0.0161	0.0028		1.000
	Li	0.0047	0.0079	0.1270	0.1526	0.0002	2.000	
	Mg	0.0916	0.1070	0.0189	0.0344	0.0143	32.000	
	Mn	1.4288	1.8348	0.2976	0.3338	0.1493	0.500	
	Mo	0.0091	0.0096	0.0166	0.0161	0.0016	1.000	
	Na	35.1110	45.5015	13.4059	15.4087	0.8869	36.700	
	Nd	0.1421	0.1635	0.0414	0.0425	0.0136		2.000
	Ni	2.0166	3.6325	1.0028	0.8378	0.4043		
	P	0.3326	0.2551	0.5665	0.6657	0.0173	5.000	
	Pb	0.3139	0.5070	0.2551	0.2873	0.0160	2.500	
	Pd	0.1210	0.1417	0.0679	0.0688	0.0192		2.000
	Rh	0.0452	0.0591	0.0458	0.0439	0.0136		2.000
	Ru	0.0303	0.0378	0.0245	0.0240	0.0123		2.000
	Se	0.1062	0.1146	0.2736	0.2894	0.0274	2.500	
	Si	0.6418	0.7310	0.6375	0.7394	-0.1633	20.000	
	Sn	0.2320	0.2908	0.1970	0.1925	0.1128		2.000
	Sr	0.0100	0.0117	0.0164	0.0195	-0.0006	0.500	
	Te	0.0601	0.0743	0.1142	0.1321	0.0175		2.000
	Ti	0.0153	0.0242	0.0090	0.0130	0.0051	1.000	
	Tl	0.0312	0.0307	0.0399	0.0526	0.0150	2.500	
	U	7.7701	9.4886	11.3733	12.8518	0.1660		25.000
	V	0.0088	0.0109	0.0086	0.0095	0.0016	1.000	
	W	0.0811	0.1141	0.0474	0.0527	-0.0002		2.000
	Y	0.0207	0.0212	0.0041	0.0041	0.0005		1.000
	Zn	0.1079	0.0929	0.0302	0.0314	0.0328	1.000	
(ug/mL)	Zr	0.6479	0.4300	0.0804	0.0765	0.0001	2.000	

Sample ID: BX104 127.2A "HOMOGENIZATION TEST" Worksheet By: MWH
Date: 3/29/96

"t" test to determine the significance between two sample means (Tm and Bm)
where Tm is the mean of the duplicates for the top samples
and Bm is the mean of the duplicates of the bottoms samples.

Where t = (Dave) / Sqrt [(Sum(Di-Dave)^2) / (n*(n-1))]
For two pair, n=2 with degrees of freedom being 1, the following apply
Dave = Tm-Bm = ((T1+T2)/2) - (B1+B2)/2)
Di >> D1 = T1 - B1 D2 = T2 - B2

%D = ((Max - Min)/Avg

Test Failure If: Probability >90% "t" >6.314

Target 80% of RPD to be <10% ↓↓↓↓↓ Pass? Yes

		ug/g								<Relative % Difference>						Info Only
El	%D	T1 Top Sample	T2 Top Dupl.	B1 Bottom Sample	B2 Bottom Dupl.	T1T2 Average	B1B2 Average	"t"		T1T2	B1B2	T1B1	T1B2	T2B1	T2B2	<RSD> All
137	14%	45	47	47	52	46	49	2.52	80%	5	10	4	14	1	9	6
Al	9%	173000	189000	173000	189000	181000	181000	1.00	60%	9	9	0	9	9	0	5
Cr	11%	2090	2280	2160	2330	2185	2245	6.00	90%	9	8	3	11	5	2	5
Fe	23%	4250	4030	3340	3880	4140	3610	1.39	70%	5	15	24	9	19	4	10
Na	13%	33400	36600	35600	38200	35000	36900	6.33	fail	9	7	6	13	3	4	6
Sum	9%	212785	231957	214147	233462	222371	223804			9	9	1	9	8	1	5

2-232

WHC-SD-WM-DP-171, REV. 1

Project: TWRS
Procedure: PNL-ALO-211

File: m022296a
Analyzed: 02/20/96

BX-104 Core 126

		126 1/2 Seg 2BH			126 1/2 Seg 2A				
	Sam Log#:	96-02980	96-02980		96-02981	96-02981		96-02980	
	Split#:	126.2BH.F	126.2BH.F		126.2A.F	126.2A.F		Blank	
	ICP Dil:	1.00	1.00		1.00	1.00		1.00	
	Dil Fctr:	2424.5	2242.8		[illegible]	3394.3		2161.8	
Est. IDL ug/mL	Analyte	Sample ug/g	Duplicate ug/g	RPD	Sample ug/g	Duplicate ug/g	RPD	Batch Blk ug/g	Post Spike Recoveries Spk "A"	Spk "B"
0.025	Ag	ND	ND		ND	ND		ND	93.4%	
0.060	Al	148,625	163,188	9	235,239	232,753	1	ND	n/a	
0.080	As	(203)	(244)		(266)	(319)		ND	104.2%	
0.050	B	(309)	(264)		(171)	(505)		(187)	99.1%	
0.010	Ba	ND	ND		(17)	ND		ND	97.3%	
0.005	Be	ND	ND		ND	ND		ND	94.8%	
0.100	Bi	(486)	(519)		ND	ND		ND	96.8%	
0.250	Ca	(905)	(1,520)		(1,568)	(1,746)		(580)	100.5%	
0.015	Cd	ND	ND		ND	ND		ND	98.9%	
0.100	Ce	ND	ND		ND	ND		ND		99.1%
0.050	Co	ND	ND		ND	ND		ND	102.7%	
0.020	Cr	1,245	1,378	10	1,665	1,714	3	ND	98.9%	
0.050	Cu	(138)	ND		ND	ND		ND	96.3%	
0.050	Dy	ND	ND		ND	ND		ND		100.5%
0.100	Eu	ND	ND		ND	ND		ND		101.3%
0.050	Fe	3,373	2,148	44 *	1,702	3,061	57 *	(262)	99.6%	
2.000	K	n/a	n/a		n/a	n/a		n/a		
0.050	La	ND	ND		ND	ND		ND		101.7%
0.030	Li	ND	ND		ND	ND		ND	97.4%	
0.100	Mg	ND	ND		ND	ND		ND	100.5%	
0.050	Mn	(832)	(535)		(97)	(753)		(311)	101.8%	
0.030	Mo	ND	ND		ND	ND		ND	102.4%	
0.250	Na	53,636	59,876	11	39,719	41,627	5	(2,041)	99.5%	
0.100	Nd	ND	ND		ND	ND		ND		100.2%
0.030	Ni	n/a	n/a		n/a	n/a		n/a		
0.250	P	(1,547)	(2,016)		(794)	(871)		ND	101.5%	
0.100	Pb	(649)	(690)		(715)	(781)		ND	99.0%	
0.300	Pd	ND	ND		ND	ND		ND		92.4%
0.300	Rh	ND	ND		ND	ND		ND		99.2%
0.100	Ru	ND	ND		ND	ND		ND		102.4%
0.100	Se	(781)	(832)		(802)	(871)		ND	102.7%	
0.500	Si	ND	(2,999)		(2,492)	(2,945)		ND	95.4%	
1.000	Sn	ND	ND		ND	ND		ND		119.9%
0.015	Sr	(79)	(88)		ND	ND		ND	98.3%	
0.500	Te	ND	ND		ND	ND		ND		104.1%
0.025	Ti	ND	(66)		ND	ND		ND	99.0%	
0.500	Tl	ND	ND		ND	ND		ND	99.7%	
2.000	U	98,321	105,110	7	ND	ND		ND		94.1%
0.015	V	(39)	(43)		ND	ND		ND	97.6%	
0.500	W	ND	ND		ND	ND		ND		100.4%
0.010	Y	ND	ND		ND	ND		ND		98.6%
0.020	Zn	(113)	(114)		(105)	(209)		(47)	100.3%	
0.025	Zr	ND	ND		ND	ND		ND	98.1%	

Note:
1) Estimated Quantitation Limit (EQL) = 10x IDL; "( )" results <EQL but =>IDL.
2) Above 5 times EQL, results reportable to 2 1/2 significant digits.
3) Blank is reported in ug/g "equivalence" to indicate blank effect on sample results.
4) The process "blank" has not been subtracted from the "Sample & Duplicate" results.
5) Above 5 times the EQL, precision is estimated at better than +/-20% and accuracy +/-25%.
6) "ND" = Not Detected; Estimated Sample Detection Limit (ug/g) = (IDL in ug/mL) * (Dil Fctr).
7) If RPD flagged with "*", then RPD >20% and sample & duplicate results >EQL.
8) Spike recovery "n/a/" = spike concentration <25% of sample concentration.
Data, including calibration/QC, archived File ICP-325-405-1/96A0076

Analyzed Date: 02/20/96
Project: TWRS
Procedure: PNL-ALO-211
ICP Data Name: 96A0076
Tank ID: BX-104 Core 126

File: m022296a
Reported: 03/15/96
Data Page 1 of 2

Segment ID:		126 1/2 Seg 2BH		126 1/2 Seg 2A					
Sample Log#		Sample 96-02980 126.2BH.F	Duplicate 96-02980 126.2BH.F	Sample 96-02981 126.2A.F	Duplicate 96-02981 126.2A.F	96-02980 Blank	96-02980 P.S. "A"	96-02980 P.S. "B"	96-02980 PS Base
Prep Type		Fusion	Fusion	Fusion	Fusion	Fusion	Fusion	Fusion	Fusion
Sample Wt-g		0.2037	0.2202	0.3444	0.1455	0.2285	0.2037	0.2227	0.2037
Makeup Vol-mL		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Dil: Smpl-mL		2.04	2.04	2.04	2.04	2.04	2.04	2.04	2.04
Dil: Vol-mL		10.07	10.07	10.07	10.07	10.07	10.07	10.07	10.07
Prep Factor		2424.5	2242.8	1434.0	3394.3	2161.8	2424.5	2424.5	2424.5
Spike ID							9601301901	9602211901	
Spike PreDil'n							2.0	2.0	2.0
ICP Dilution		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Dil Fctr		2424.5	2242.8	1434.0	3394.3	2161.8	2424.5	2424.5	2424.5
Run Time		11:05	11:22	11:35	11:39	10:54	11:08	11:15	11:05
(ug/g)	Ag	9.7	11.8	17.9	29.6	3.8	565.9	-5.7	9.7
	Al	148624.9	163187.6	235238.6	232753.3	124.9	87298.3	74019.7	148624.9
	As	203.2	243.6	266.2	318.7	75.4	3260.2	480.6	203.2
	B	309.3	264.3	170.7	505.1	186.7	2558.3	301.4	309.3
	Ba	12.7	15.9	16.9	19.1	7.8	589.8	6.6	12.7
	Be	-1.8	-1.6	0.3	0.4	-1.6	114.9	-0.8	-1.8
	Bi	486.3	519.2	76.4	61.0	15.1	29573.0	356.6	486.3
	Ca	905.2	1520.0	1567.8	1745.5	579.5	30917.7	506.0	905.2
	Cd	16.6	18.7	9.5	6.0	3.5	599.3	14.6	16.6
	Ce	117.3	158.3	48.9	101.7	49.8	82.0	2402.7	117.3
	Co	73.7	15.4	13.6	61.8	23.9	1245.2	32.9	73.7
	Cr	1244.6	1378.3	1664.5	1714.0	10.7	1821.2	625.9	1244.6
	Cu	138.4	45.7	29.2	140.5	40.8	1236.1	95.5	138.4
	Dy	22.3	29.4	6.6	15.5	8.4	14.4	2436.7	22.3
	Eu	40.1	47.2	3.2	5.3	3.1	23.3	2454.8	40.1
	Fe	3372.7	2148.3	1701.6	3060.9	262.0	25843.8	1726.0	3372.7
	K	5491349.6	5339392.7	3431945.1	7994407.9	4353372.6	2834290.4	2757375.5	5491349.6
	La	46.0	54.5	20.9	34.7	13.1	29.1	1232.8	46.0
	Li	28.4	38.5	27.8	33.8	2.4	2361.6	16.0	28.4
	Mg	-193.7	-171.5	103.4	78.7	27.5	39003.1	-195.8	-193.7
	Mn	832.4	534.6	96.7	752.8	310.7	1033.3	413.4	832.4
	Mo	49.4	54.3	33.1	42.7	5.8	1241.7	30.6	49.4
	Na	53635.8	59876.4	39719.3	41627.1	2041.1	71090.5	27261.6	53635.8
	Nd	128.4	158.3	56.2	101.5	59.2	86.8	2428.7	128.4
	Ni	36874.4	20087.9	1426.8	7730.8	907.3	19781.6	18383.2	36874.4
	P	1546.6	2016.1	794.0	870.5	53.5	6926.4	877.5	1546.6
	Pb	648.8	690.3	715.0	781.4	52.6	3326.0	582.0	648.8
	Pd	261.7	248.6	122.4	275.8	132.6	123.2	2239.9	261.7
	Rh	172.1	191.6	60.3	144.8	74.5	90.3	2405.1	172.1
	Ru	75.6	88.8	37.7	63.3	30.2	65.2	2482.8	75.6
	Se	781.3	831.8	801.9	871.0	76.0	3503.6	477.9	781.3
	Si	1209.3	2399.2	2492.3	2945.5	-315.7	23130.3	8489.9	1209.3
	Sn	986.5	995.9	270.4	565.8	240.0	779.3	2906.3	986.5
	Sr	79.0	88.2	21.2	23.2	-0.6	635.2	41.0	79.0
	Te	317.3	347.6	378.1	422.3	47.9	215.8	2523.9	317.3
	Ti	43.0	65.8	23.7	56.4	12.8	1199.7	26.7	43.0
	Tl	106.7	93.0	95.2	125.4	55.0	3022.1	46.2	106.7
	U	98321.0	105110.4	2311.9	3117.5	870.0	50377.0	77674.4	98321.0
	V	39.0	43.4	7.5	13.6	5.5	1202.5	15.9	39.0
	W	183.9	191.2	50.6	71.5	24.6	148.9	2433.6	183.9
	Y	8.0	11.9	4.0	6.9	3.0	6.5	1195.6	8.0
	Zn	113.0	114.0	105.3	209.1	47.0	1272.7	62.6	113.0
(ug/g)	Zr	-0.5	0.8	19.5	8.2	4.6	2377.5	-80.1	-0.5

Template: TC-KOH-2 ICP RAW DATA -- IEC Corrected m022296a

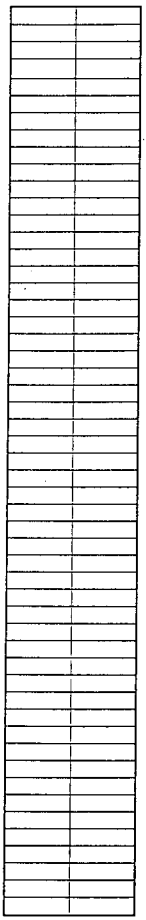
Analyzed: 02/20/96 BX-104 Core 126 Raw Data
Project: TWRS Data Page 2 of 2
Procedure: PNL-ALO-211
MT&E: JA ICP WB73520

Analyst: Danny Sanders 3/21/96 Reviewer: MDWhite 3/25/96

Sample ID:		96-02980	96-02980	96-02981	96-02981	96-02980	96-02980	96-02980	96-02980	Post Spikes	
Split ID:		126.2BH.F	126.2BH.F	126.2A.F	126.2A.F	Blank	P.S. "A"	P.S. "B"	PS Base	"A"	"B"
Run Time:		11:05	11:22	11:35	11:39	10:54	11:08	11:15	11:05	ug/mL	ug/mL
(ug/mL)	Ag	0.0040	0.0053	0.0125	0.0087	0.0018	0.2334	-0.0024	0.0040	0.500	
	Al	61.3017	72.7602	164.0443	68.5722	0.0578	36.0070	30.5301	61.3017	10.000	
	As	0.0838	0.1086	0.1857	0.0939	0.0349	1.3447	0.1982	0.0838	2.500	
	B	0.1276	0.1178	0.1190	0.1488	0.0863	1.0552	0.1243	0.1276	2.000	
	Ba	0.0053	0.0071	0.0118	0.0056	0.0036	0.2432	0.0027	0.0053	0.500	
	Be	-0.0007	-0.0007	0.0002	0.0001	-0.0007	0.0474	-0.0004	-0.0007	0.100	
	Bi	0.2006	0.2315	0.0533	0.0180	0.0070	12.1976	0.1471	0.2006	25.000	
	Ca	0.3734	0.6777	1.0933	0.5142	0.2681	12.7523	0.2087	0.3734	25.000	
	Cd	0.0069	0.0083	0.0066	0.0018	0.0016	0.2472	0.0060	0.0069	0.500	
	Ce	0.0484	0.0706	0.0341	0.0300	0.0230	0.0338	0.9910	0.0484		2.000
	Co	0.0304	0.0069	0.0095	0.0182	0.0111	0.5136	0.0136	0.0304	1.000	
	Cr	0.5134	0.6145	1.1608	0.5050	0.0050	0.7512	0.2581	0.5134	1.000	
	Cu	0.0571	0.0204	0.0203	0.0414	0.0189	0.5098	0.0394	0.0571	1.000	
	Dy	0.0092	0.0131	0.0046	0.0046	0.0039	0.0059	1.0050	0.0092		2.000
	Eu	0.0166	0.0210	0.0022	0.0015	0.0014	0.0096	1.0125	0.0166		2.000
	Fe	1.3911	0.9579	1.1866	0.9018	0.1212	10.6595	0.7119	1.3911	20.000	
	K	2264.9548	2380.6657	2393.2766	2355.2593	2013.7540	1169.0277	1137.3035	2264.9548		
	La	0.0190	0.0243	0.0146	0.0102	0.0060	0.0120	0.5085	0.0190		1.000
	Li	0.0117	0.0172	0.0194	0.0100	0.0011	0.9740	0.0066	0.0117	2.000	
	Mg	-0.0799	-0.0765	0.0721	0.0232	0.0127	16.0872	-0.0808	-0.0799	32.000	
	Mn	0.3433	0.2384	0.0674	0.2218	0.1437	0.4262	0.1705	0.3433	0.500	
	Mo	0.0204	0.0242	0.0231	0.0126	0.0027	0.5122	0.0126	0.0204	1.000	
	Na	22.1226	26.6970	27.6984	12.2639	0.9441	29.3219	11.2443	22.1226	36.700	
	Nd	0.0530	0.0706	0.0392	0.0299	0.0274	0.0358	1.0017	0.0530		2.000
	Ni	15.2092	8.9566	0.9950	2.2776	0.4197	8.1591	7.5823	15.2092		
	P	0.6379	0.8989	0.5537	0.2565	0.0248	2.8568	0.3619	0.6379	5.000	
	Pb	0.2676	0.3078	0.4986	0.2302	0.0243	1.3718	0.2401	0.2676	2.500	
	Pd	0.1079	0.1109	0.0854	0.0813	0.0614	0.0508	0.9238	0.1079		2.000
	Rh	0.0710	0.0854	0.0421	0.0427	0.0344	0.0373	0.9920	0.0710		2.000
	Ru	0.0312	0.0396	0.0263	0.0186	0.0140	0.0269	1.0241	0.0312		2.000
	Se	0.3223	0.3709	0.5592	0.2566	0.0352	1.4451	0.1971	0.3223	2.500	
	Si	0.4988	1.3372	1.7380	0.8678	-0.1460	9.5403	3.5017	0.4988	20.000	
	Sn	0.4989	0.4440	0.1886	0.1667	0.1110	0.3214	1.1987	0.4069		2.000
	Sr	0.0326	0.0393	0.0148	0.0068	-0.0003	0.2620	0.0169	0.0326	0.500	
	Ta	0.1555	0.1550	0.2637	0.1244	0.0222	0.0890	1.0410	0.1309		2.000
	Ti	0.0178	0.0293	0.0165	0.0166	0.0059	0.4948	0.0110	0.0178	1.000	
	Tl	0.0440	0.0415	0.0664	0.0369	0.0254	1.2465	0.0191	0.0440	2.500	
	U	40.5534	46.8034	1.6122	0.9185	0.4024	20.7784	32.0375	40.5534		25.000
	V	0.0161	0.0194	0.0052	0.0040	0.0026	0.4960	0.0065	0.0161	1.000	
	W	0.0759	0.0852	0.0211	0.0211	0.0114	0.0614	1.0038	0.0759		2.000
	Y	0.0033	0.0053	0.0028	0.0020	0.0014	0.0027	0.4931	0.0033		1.000
	Zn	0.0466	0.0508	0.0735	0.0616	0.0218	0.5249	0.0258	0.0466	1.000	
(ug/mL)	Zr	-0.0002	0.0004	0.0136	0.0024	0.0021	0.9806	-0.0330	-0.0002	2.000	

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC CCV1 96012	V1 960126H901
										A0076	A0076
										2/22/96	2/22/96
										10:27	13:11
(HPS:CCV-1)										CONC	CONC
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	1381	1427
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)
Ag		2	0.001	0.000	32					0.001	0.001
Al	2.000	2	1.940	0.039	2	-0.060	-3.0			1.968	1.912
As	2.000	2	2.053	0.050	2	0.053	2.7			2.089	2.018
B	2.000	2	2.043	0.101	5	0.043	2.2			2.115	1.972
Ba	1.000	2	0.968	0.025	3	-0.032	-3.2			0.985	0.950
Be	1.000	2	0.981	0.033	3	-0.019	-1.9			1.005	0.957
Bi	2.000	2	1.945	0.063	3	-0.055	-2.8			1.989	1.900
Ca	2.000	2	2.021	0.050	2	0.021	1.0			2.056	1.986
Cd	1.000	2	1.007	0.020	2	0.007	0.7			1.021	0.993
Ce		2	0.005	0.008	157					-0.001	0.010
Co	1.000	2	1.007	0.022	2	0.007	0.7			1.022	0.991
Cr	0.500	2	0.500	0.010	2	0.000	0.0			0.507	0.493
Cu	2.000	2	1.968	0.029	1	-0.032	-1.6			1.989	1.948
Dy		2	0.002	0.001	49					0.001	0.002
Eu		2	0.000	0.000	9					0.000	0.000
Fe	2.000	2	1.979	0.077	4	-0.021	-1.1			2.034	1.924
K	5.000	2	4.687	0.016	0	-0.313	-6.3			4.675	4.698
La		2	0.003	0.001	43					0.002	0.004
Li	2.000	2	1.955	0.035	2	-0.045	-2.2			1.980	1.931
Mg	2.000	2	2.059	0.060	3	0.059	3.0			2.101	2.017
Mn	1.000	2	1.022	0.028	3	0.022	2.2			1.042	1.002
Mo	2.000	2	1.953	0.045	2	-0.047	-2.3			1.985	1.922
Na	8.100	2	8.251	0.077	1	0.151	1.9			8.305	8.197
Nd		2	0.007	0.005	81					0.003	0.010
Ni	2.000	2	2.042	0.048	2	0.042	2.1			2.076	2.008
P	5.000	2	4.854	0.082	2	-0.146	-2.9			4.912	4.796
Pb	2.000	2	2.004	0.051	3	0.004	0.2			2.040	1.967
Pd		2	0.027	0.015	57					0.016	0.038
Rh		2	0.008	0.009	108					0.002	0.015
Ru		2	0.006	0.002	29					0.008	0.005
Sb		2	0.025	0.012	50					0.034	0.016
Se	2.000	2	1.962	0.059	3	-0.038	-1.9			2.004	1.921
Si	5.000	2	4.967	0.460	9	-0.033	-0.7			5.292	4.641
Sn		2	0.046	0.015	32					0.057	0.036
Sr	2.000	2	1.958	0.037	2	-0.042	-2.1			1.984	1.932
Te		2	0.017	0.012	74					0.026	0.008
Th		2	0.007	0.000	6					0.008	0.007
Ti		2	0.000	0.000	56					0.000	0.000
Tl	2.000	2	1.948	0.044	2	-0.052	-2.6			1.979	1.917
U		2	0.081	0.063	77					0.037	0.126
V	1.000	2	0.951	0.025	3	-0.049	-4.9			0.969	0.934
W		2	0.020	0.007	34					0.025	0.015
Y		2	0.000	0.000	17					0.000	0.000
Zn	1.000	2	1.004	0.001	0	0.004	0.4			1.005	1.003
Zr		2	-0.001	0.001	-89					-0.002	0.000
TIME		2	########	0.000	0					########	########



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC_MCVA 9601	CVA 9601	CVA 9601	CVA 9601
										A0076	A0076	A0076	A0076
										2/22/96	2/22/96	2/22/96	2/22/96
			Statistical Summary for 'QC_MCVA 960130|901'							10:02	10:04	10:41	11:26
(QC-MCVA)										CONC	CONC	CONC	CONC
	TRUE	*N*	*Average*	*S.Dev*	*%RSD*	*Bias*	*Bias*	*High*	*Low*	1657	1703	1749	1795
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)	(ug/mL)	(ug/mL)
Ag	0.500	6	0.492	0.009	2	-0.008	-1.7			0.502	0.504	0.490	0.485
Al	10.000	6	9.923	0.183	2	-0.077	-0.8			10.142	10.142	9.918	9.843
As	2.500	6	2.569	0.052	2	0.069	2.8			2.613	2.645	2.568	2.544
B	2.000	6	2.070	0.095	5	0.070	3.5	+		2.202	2.177	2.042	1.980
Ba	0.500	6	0.491	0.010	2	-0.009	-1.8			0.503	0.503	0.492	0.484
Be	0.100	6	0.096	0.002	2	-0.004	-4.3			0.098	0.098	0.096	0.095
Bi	25.000	6	24.377	0.522	2	-0.623	-2.5			24.969	25.012	24.448	24.083
Ca	25.000	6	25.058	0.534	2	0.058	0.2			25.676	25.704	25.082	24.855
Cd	0.500	6	0.495	0.012	2	-0.005	-1.0			0.505	0.510	0.499	0.489
Ce		6	0.002	0.005	256					0.001	0.005	0.000	0.012
Co	1.000	6	0.999	0.018	2	-0.001	-0.1			1.019	1.021	1.001	0.993
Cr	1.000	6	0.999	0.021	2	-0.001	-0.1			1.026	1.025	0.996	0.988
Cu	1.000	6	0.954	0.016	2	-0.046	-4.6			0.964	0.967	0.954	0.938
Dy		6	0.000	0.001	-310					-0.001	0.000	-0.001	0.001
Eu		6	0.002	0.000	25					0.002	0.002	0.002	0.002
Fe	20.000	6	20.007	0.501	3	0.007	0.0			20.567	20.572	20.083	19.868
K	25.000	6	23.926	0.999	4	-1.074	-4.3			24.239	24.552	23.795	25.343
La		6	0.004	0.001	21					0.004	0.005	0.003	0.005
Li	2.000	6	1.994	0.034	2	-0.006	-0.3			2.034	2.032	1.999	1.958
Mg	31.200	6	32.420	0.597	2	1.220	3.9			33.150	33.112	32.456	32.134
Mn	0.500	6	0.510	0.011	2	0.010	2.0			0.522	0.523	0.510	0.504
Mo	1.000	6	1.000	0.019	2	0.000	0.0			1.019	1.025	1.000	0.992
Na	36.700	6	36.627	0.487	1	-0.073	-0.2			37.197	37.206	36.606	36.161
Nd		6	0.004	0.005	141					0.005	0.006	0.002	0.013
Ni	1.000	6	0.992	0.021	2	-0.008	-0.8			1.012	1.018	1.001	0.969
P	5.000	6	4.970	0.082	2	-0.030	-0.6			5.052	5.062	4.992	4.956
Pb	2.500	6	2.488	0.057	2	-0.012	-0.5			2.561	2.549	2.489	2.465
Pd		6	-0.031	0.014	-45					-0.020	-0.011	-0.048	-0.026
Rh		6	-0.005	0.006	-126					0.000	0.000	-0.013	0.001
Ru		6	0.019	0.003	17					0.018	0.022	0.015	0.023
Sb	2.500	6	3.199	0.073	2	0.699	28.0	+		3.276	3.294	3.200	3.165
Se	2.500	6	2.538	0.055	2	0.038	1.5			2.595	2.602	2.558	2.513
Si	20.000	6	19.232	1.558	8	-0.768	-3.8			21.700	20.693	18.411	18.131
Sn		6	0.207	0.026	13					0.207	0.232	0.213	0.236
Sr	0.500	6	0.500	0.008	2	0.000	-0.1			0.509	0.510	0.499	0.493
Te		6	0.037	0.011	30					0.047	0.048	0.036	0.042
Th		6	0.042	0.005	12					0.039	0.038	0.045	0.050
Ti	1.000	6	0.978	0.019	2	-0.022	-2.2			1.000	1.000	0.980	0.969
Tl	2.500	6	2.464	0.040	2	-0.036	-1.4			2.498	2.525	2.463	2.435
U		6	0.081	0.063	78					0.091	0.120	0.035	0.175
V	1.000	6	0.981	0.022	2	-0.019	-1.9			1.006	1.008	0.983	0.971
W		6	0.043	0.011	25					0.055	0.057	0.038	0.032
Y		6	0.001	0.000	31					0.001	0.001	0.001	0.001
Zn	1.000	6	0.996	0.013	1	-0.004	-0.4			1.008	1.009	0.995	0.984
Zr	2.000	6	1.963	0.032	2	-0.037	-1.8			2.002	2.002	1.965	1.945
TIME		6	########	0.000	0					########	########	########	########

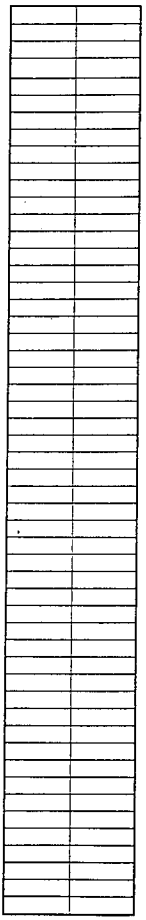
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

CVA 9601	CVA 9601
A0076	A0076
2/22/96	2/22/96
12:13	12:50
CONC	CONC
1841	1887
(ug/mL)	*(ug/mL)*
0.482	0.486
9.706	9.788
2.504	2.540
1.998	2.021
0.480	0.484
0.094	0.094
23.794	23.954
24.521	24.511
0.482	0.484
-0.002	-0.003
0.978	0.983
0.977	0.983
0.930	0.969
-0.001	-0.001
0.001	0.001
19.600	19.349
22.749	22.879
0.004	0.005
1.962	1.977
31.794	31.875
0.497	0.501
0.979	0.984
36.084	36.508
-0.002	-0.001
0.977	0.975
4.866	4.889
2.424	2.440
-0.041	-0.039
-0.007	-0.009
0.016	0.022
3.111	3.146
2.471	2.491
18.177	18.277
0.175	0.178
0.490	0.496
0.026	0.021
0.039	0.039
0.957	0.962
2.438	2.425
0.073	-0.005
0.957	0.962
0.035	0.038
0.001	0.001
0.978	1.005
1.928	1.938
########	########

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC_MCVB2 960	VB2 960221I901
										A0076	A0076
										2/22/96	2/22/96
			Statistical Summary for 'QC_MCVB2 960221I901'							10:08	12:54
(QC-MCVB)										CONC	CONC
	TRUE	*N*	*Average*	*S.Dev*	*%RSD*	*Bias*	*Bias*	*High*	*Low*	1979	2025
	(ug/mL)		*(ug/mL)*	*(ug/mL)*	*(%)*	*(ug/mL)*	*(%)*	*(>110%)*	*(<90%)*	*(ug/mL)*	*(ug/mL)*
Ag		2	-0.006	0.001	-24					-0.005	-0.007
Al		2	-0.013	0.023	-173					-0.030	0.003
As		2	0.297	0.017	6					0.285	0.309
B		2	0.180	0.054	30					0.218	0.142
Ba		2	0.001	0.000	18					0.001	0.000
Be		2	0.001	0.000	1					0.001	0.001
Bi		2	0.065	0.010	16					0.072	0.058
Ca		2	0.027	0.000	0					0.027	0.027
Cd		2	0.006	0.002	42					0.008	0.004
Ce	2.000	2	1.925	0.024	1	-0.075	-3.8			1.942	1.908
Co		2	-0.003	0.001	-30					-0.002	-0.003
Cr		2	0.006	0.000	5					0.006	0.005
Cu		2	0.091	0.069	76					0.042	0.140
Dy	2.000	2	1.977	0.015	1	-0.023	-1.1			1.988	1.967
Eu	2.000	2	1.996	0.011	1	-0.004	-0.2			2.004	1.988
Fe		2	0.024	0.013	54					0.015	0.032
K		2	-1.823	0.097	-5					-1.754	-1.891
La	1.000	2	0.982	0.000	0	-0.018	-1.8			0.982	0.983
Li		2	-0.001	0.000	-20					-0.001	-0.001
Mg		2	-0.088	0.010	-11					-0.095	-0.081
Mn		2	0.001	0.000	25					0.001	0.000
Mo		2	0.005	0.002	38					0.008	0.005
Na		2	0.200	0.050	25					0.164	0.236
Nd	2.000	2	1.943	0.020	1	-0.057	-2.9			1.957	1.929
Ni		2	0.014	0.003	23					0.016	0.011
P		2	0.099	0.001	1					0.100	0.098
Pb		2	0.226	0.012	5					0.235	0.217
Pd	2.000	2	1.860	0.007	0	-0.140	-7.0			1.855	1.865
Rh	2.000	2	1.919	0.016	1	-0.081	-4.0			1.930	1.908
Ru	2.000	2	1.996	0.034	2	-0.004	-0.2			2.019	1.972
Sb		2	0.114	0.015	13					0.125	0.104
Se		2	0.063	0.026	40					0.082	0.045
Si		2	9.925	3.024	30					12.064	7.787
Sn	2.000	2	1.958	0.052	3	-0.042	-2.1			1.995	1.921
Sr		2	0.002	0.000	6					0.003	0.002
Te	2.000	2	1.898	0.047	2	-0.102	-5.1			1.931	1.865
Th	10.000	2	9.868	0.049	0	-0.132	-1.3			9.902	9.833
Ti		2	0.004	0.001	35					0.003	0.005
Tl		2	0.011	0.007	64					0.016	0.006
U	25.000	2	22.903	0.515	2	-2.097	-8.4			23.268	22.539
V		2	-0.002	0.001	-44					-0.002	-0.003
W	2.000	2	1.930	0.048	3	-0.070	-3.5			1.965	1.896
Y	1.000	2	0.960	0.014	1	-0.040	-4.0			0.969	0.950
Zn		2	0.035	0.044	125					0.004	0.066
Zr		2	-0.057	0.004	-7					-0.054	-0.060
TIME		2	########	0.000	0					########	########

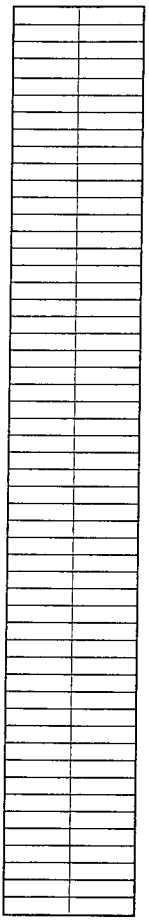
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC_SRM-1643d	M-1643d 108518
										A0076	A0076
										2/22/96	2/22/96
Statistical Summary for 'QC_SRM-1643d 108518'										10:23	13:07
(NIST:SRM1643d)										CONC	CONC
	TRUE	***N***	***Average***	***S.Dev***	***%RSD***	***Bias***	***Bias***	***High***	***Low***	2071	2117
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)
Ag	0.001	2	0.001	0.000	12	0.000	5.1	+		0.001	0.001
Al	0.128	2	0.144	0.000	0	0.016	12.7	+		0.144	0.144
As	0.056	2	0.057	0.004	7	0.001	1.1			0.059	0.054
B	0.145	2	0.174	0.078	45	0.029	20.3	+	-	0.230	0.119
Ba	0.507	2	0.505	0.014	3	-0.002	-0.4			0.515	0.494
Be	0.013	2	0.012	0.000	4	0.000	-3.6			0.012	0.012
Bi	0.013	2	0.032	0.015	47	0.019	148.5	+		0.043	0.021
Ca	31.050	2	31.091	0.895	3	0.041	0.1			31.724	30.458
Cd	0.006	2	0.009	0.001	14	0.003	41.2	+		0.010	0.008
Ce		2	0.012	0.007	60					0.007	0.017
Co	0.025	2	0.025	0.001	6	0.000	1.9			0.027	0.024
Cr	0.019	2	0.021	0.000	1	0.002	10.2	+		0.021	0.021
Cu	0.021	2	0.024	0.005	23	0.003	16.3	+		0.020	0.028
Dy		2	0.001	0.001	128					0.000	0.002
Eu		2	0.001	0.000	7					0.001	0.001
Fe	0.091	2	0.099	0.002	2	0.008	8.7	+		0.101	0.097
K	2.356	2	2.288	0.216	9	-0.068	-2.9			2.136	2.440
La		2	0.012	0.002	18					0.011	0.014
Li	0.017	2	0.020	0.002	8	0.004	22.5	+		0.021	0.019
Mg	7.989	2	8.436	0.220	3	0.447	5.6			8.591	8.281
Mn	0.038	2	0.040	0.001	3	0.002	5.1			0.040	0.039
Mo	0.113	2	0.111	0.003	3	-0.002	-1.9			0.113	0.109
Na	22.070	2	21.665	0.323	1	-0.405	-1.8			21.893	21.437
Nd		2	0.016	0.007	43					0.011	0.021
Ni	0.058	2	0.126	0.001	1	0.068	117.6	+		0.126	0.127
P		2	0.033	0.001	2					0.034	0.033
Pb	0.018	2	0.022	0.009	40	0.004	19.9	+	-	0.028	0.016
Pd		2	0.030	0.004	13					0.027	0.033
Rh		2	0.011	0.006	53					0.007	0.015
Ru		2	0.001	0.002	405					0.002	-0.001
Sb	0.054	2	0.071	0.008	11	0.017	31.4	+		0.077	0.066
Se	0.011	2	0.026	0.025	98	0.014	126.7	+	-	0.044	0.008
Si	2.700	2	3.162	0.780	25	0.462	17.1	+		3.714	2.611
Sn		2	0.000	0.011	5579					-0.008	0.008
Sr	0.295	2	0.295	0.006	2	0.001	0.2			0.300	0.291
Te	0.001	2	0.002	0.006	272	0.001	109.5	+	-	0.006	-0.002
Th		2	-0.014	0.004	-25					-0.017	-0.012
Ti		2	0.001	0.000	10					0.001	0.001
Tl	0.007	2	0.007	0.002	30	0.000	0.5	+	-	0.009	0.006
U		2	0.334	0.050	15					0.299	0.369
V	0.035	2	0.034	0.001	4	-0.001	-2.5			0.035	0.033
W		2	0.016	0.003	18					0.014	0.018
Y		2	0.001	0.000	5					0.001	0.001
Zn	0.072	2	0.077	0.003	4	0.004	6.0			0.075	0.079
Zr		2	0.000	0.001	424				-	0.000	0.001
TIME		2	########	0.000	0					########	########

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										ICP1.0 960103	.0 960103	.0 960103	.0 960103
										A0076	A0076	A0076	A0076
										2/22/96	2/22/96	2/22/96	2/22/96
Statistical Summary for 'ICP1.0 960103F100'										09:59	10:32	10:46	11:33
(ICP1.0 "Blank")										CONC	CONC	CONC	CONC
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	1013	1059	1105	1151
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)	(ug/mL)	(ug/mL)
Ag		6	0.000	0.001	-483					0.000	0.000	-0.002	0.000
Al		6	-0.003	0.007	-228					0.005	0.000	0.001	-0.012
As		6	0.006	0.010	163					0.007	-0.011	0.004	0.020
B		6	0.007	0.064	885					0.136	-0.008	-0.035	-0.002
Ba		6	0.000	0.001	1712					0.000	-0.001	-0.001	0.000
Be		6	0.000	0.001	-726					0.000	-0.001	-0.001	0.000
Bi		6	-0.009	0.011	-122					0.010	-0.011	-0.002	-0.020
Ca		6	-0.002	0.003	-134					0.000	-0.003	-0.001	-0.006
Cd		6	0.000	0.002	-2924					0.001	-0.001	-0.001	0.000
Ce		6	0.002	0.007	390					0.000	-0.005	0.000	-0.004
Co		6	-0.001	0.001	-49					-0.001	-0.001	-0.001	-0.002
Cr		6	0.000	0.001	7149					0.001	-0.002	-0.001	0.001
Cu		6	0.002	0.006	270					0.002	-0.002	-0.002	0.000
Dy		6	0.001	0.001	245					0.000	0.000	0.000	-0.001
Eu		6	0.000	0.000	888					0.000	0.000	0.000	0.000
Fe		6	-0.008	0.002	-33					-0.006	-0.008	-0.005	-0.011
K		6	-0.048	0.186	-384					-0.206	-0.091	0.000	-0.297
La		6	0.001	0.002	204					0.000	-0.001	0.000	-0.001
Li		6	0.000	0.002	8116					0.001	-0.002	-0.002	-0.002
Mg		6	-0.016	0.009	-58					-0.016	-0.011	-0.003	-0.028
Mn		6	0.000	0.001	-438					0.000	-0.001	-0.001	0.000
Mo		6	-0.001	0.002	-141					0.001	-0.002	-0.002	-0.002
Na		6	0.011	0.034	318					-0.005	-0.018	-0.016	0.004
Nd		6	0.004	0.006	164					0.004	0.003	0.002	-0.007
Ni		6	0.001	0.018	2335					0.002	-0.003	-0.022	-0.002
P		6	0.000	0.008	2276					-0.002	0.005	-0.001	0.008
Pb		6	0.001	0.003	622					0.004	0.002	0.004	-0.005
Pd		6	0.009	0.017	191					0.020	-0.006	0.002	-0.013
Rh		6	0.005	0.009	193					0.008	-0.006	-0.002	-0.002
Ru		6	0.001	0.002	171					0.003	-0.001	0.001	0.001
Sb		6	-0.003	0.007	-216					0.004	0.003	0.001	-0.009
Se		6	0.003	0.008	280					0.000	0.012	0.014	-0.005
Si		6	0.894	2.385	267					5.761	-0.076	-0.237	-0.007
Sn		6	0.002	0.017	843					0.014	-0.001	0.022	0.001
Sr		6	0.000	0.001	-871					0.000	-0.001	-0.002	0.000
Te		6	-0.003	0.005	-197					0.006	-0.001	-0.002	-0.008
Th		6	0.001	0.004	322					-0.004	0.009	0.002	0.004
Ti		6	0.000	0.000	814					0.000	0.000	0.000	-0.001
Tl		6	-0.002	0.004	-176					0.000	0.000	-0.003	-0.006
U		6	0.049	0.098	200					0.026	-0.033	0.034	-0.065
V		6	0.000	0.001	-203					0.000	-0.001	-0.001	-0.001
W		6	0.005	0.014	283					0.031	-0.002	-0.009	-0.002
Y		6	0.000	0.000	3951					0.000	0.000	0.000	0.000
Zn		6	0.000	0.002	1670					0.000	-0.002	-0.002	0.000
Zr		6	-0.001	0.001	-103					-0.002	-0.001	0.000	-0.002
TIME		6	########	0.000	0					########	########	########	########

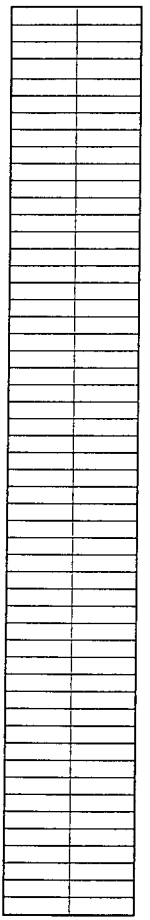
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

.0 960103	.0 960103
A0076	A0076
2/22/96	2/22/96
12:19	13:15
CONC	CONC
1197	1243
(ug/mL)	*(ug/mL)*
0.001	0.000
-0.010	-0.002
0.009	0.006
-0.025	-0.023
0.000	0.002
0.000	0.001
-0.013	-0.018
0.000	-0.001
-0.002	0.003
0.007	0.013
-0.001	0.000
0.000	0.000
0.001	0.013
0.002	0.002
0.000	0.000
-0.006	-0.010
0.137	0.168
0.003	0.004
0.002	0.003
-0.012	-0.024
0.000	0.001
-0.002	0.001
0.030	0.070
0.009	0.011
-0.004	0.033
0.006	-0.013
-0.002	0.000
0.024	0.029
0.013	0.018
0.000	0.001
-0.013	-0.005
-0.001	-0.002
-0.037	-0.037
0.005	-0.028
0.000	0.002
-0.007	-0.004
-0.001	-0.001
0.000	0.000
0.003	-0.006
0.154	0.178
0.000	0.001
0.004	0.009
0.000	0.000
0.000	0.005
0.000	0.000
#########	#########

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										MCVA @2			
										A0076			
										2/22/96			
				Statistical Summary for 'MCVA @2'						11:11			
(MCVA @2 Post Digestion Spike)										CONC			
	TRUE	***N***	***Average***	***S.Dev***	***%RSD***	***Bias***	***Bias***	***High***	***Low***	1289			
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)			
Ag	0.250	1	0.238	#DIV/0!	#######	-0.012	-4.9			0.238			
Al	5.000	1	5.127	#DIV/0!	#######	0.127	2.5			5.127			
As	1.250	1	1.306	#DIV/0!	#######	0.056	4.5			1.306			
B	1.000	1	0.991	#DIV/0!	#######	-0.009	-0.9			0.991			
Ba	0.250	1	0.249	#DIV/0!	#######	-0.001	-0.6			0.249			
Be	0.050	1	0.048	#DIV/0!	#######	-0.002	-3.7			0.048			
Bi	12.500	1	12.352	#DIV/0!	#######	-0.148	-1.2			12.352			
Ca	12.500	1	13.332	#DIV/0!	#######	0.832	6.7			13.332			
Cd	0.250	1	0.250	#DIV/0!	#######	0.000	-0.2			0.250			
Ce		1	0.002	#DIV/0!	#######					0.002			
Co	0.500	1	0.510	#DIV/0!	#######	0.010	2.0			0.510			
Cr	0.500	1	0.506	#DIV/0!	#######	0.006	1.3			0.506			
Cu	0.500	1	0.479	#DIV/0!	#######	-0.021	-4.2			0.479			
Dy		1	0.001	#DIV/0!	#######					0.001			
Eu		1	0.001	#DIV/0!	#######					0.001			
Fe	10.000	1	10.227	#DIV/0!	#######	0.227	2.3			10.227			
K	12.500	1	13.945	#DIV/0!	#######	1.445	11.6	+		13.945			
La		1	0.004	#DIV/0!	#######					0.004			
Li	1.000	1	1.008	#DIV/0!	#######	0.008	0.8			1.008			
Mg	15.600	1	16.659	#DIV/0!	#######	1.059	6.8			16.659			
Mn	0.250	1	0.263	#DIV/0!	#######	0.013	5.4			0.263			
Mo	0.500	1	0.509	#DIV/0!	#######	0.009	1.8			0.509			
Na	18.350	1	18.490	#DIV/0!	#######	0.140	0.8			18.490			
Nd		1	0.007	#DIV/0!	#######					0.007			
Ni	0.500	1	0.494	#DIV/0!	#######	-0.006	-1.2			0.494			
P	2.500	1	2.527	#DIV/0!	#######	0.027	1.1			2.527			
Pb	1.250	1	1.274	#DIV/0!	#######	0.024	1.9			1.274			
Pd		1	-0.008	#DIV/0!	#######					-0.008			
Rh		1	0.000	#DIV/0!	#######					0.000			
Ru		1	0.012	#DIV/0!	#######					0.012			
Sb	1.250	1	1.628	#DIV/0!	#######	0.378	30.2	+		1.628			
Se	1.250	1	1.308	#DIV/0!	#######	0.058	4.6			1.308			
Si	10.000	1	9.441	#DIV/0!	#######	-0.559	-5.6			9.441			
Sn		1	0.125	#DIV/0!	#######					0.125			
Sr	0.250	1	0.253	#DIV/0!	#######	0.003	1.1			0.253			
Te		1	0.020	#DIV/0!	#######					0.020			
Th		1	0.026	#DIV/0!	#######					0.026			
Ti	0.500	1	0.501	#DIV/0!	#######	0.001	0.1			0.501			
Tl	1.250	1	1.262	#DIV/0!	#######	0.012	0.9			1.262			
U		1	0.090	#DIV/0!	#######					0.090			
V	0.500	1	0.498	#DIV/0!	#######	-0.002	-0.4			0.498			
W		1	0.020	#DIV/0!	#######					0.020			
Y		1	0.001	#DIV/0!	#######					0.001			
Zn	0.500	1	0.511	#DIV/0!	#######	0.011	2.2			0.511			
Zr	1.000	1	0.995	#DIV/0!	#######	-0.005	-0.5			0.995			
TIME		1	########	#DIV/0!	#######					########			

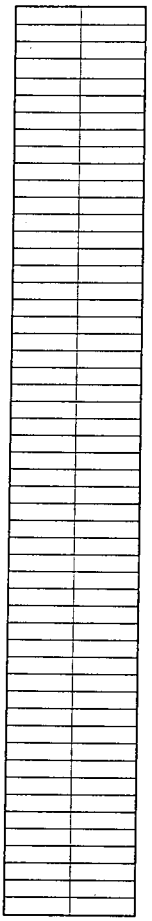
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										MCVB 2 @2
										A0076
										2/22/96
			Statistical Summary for 'MCVB 2 @2'							11:18
(MCVB @2 Post Digestion Spike)										CONC
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	1335
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)
Ag		1	-0.005	#DIV/0!	######					-0.005
Al		1	0.034	#DIV/0!	######					0.034
As		1	0.143	#DIV/0!	######					0.143
B		1	0.033	#DIV/0!	######					0.033
Ba		1	0.000	#DIV/0!	######					0.000
Be		1	0.000	#DIV/0!	######					0.000
Bi		1	0.030	#DIV/0!	######					0.030
Ca		1	0.242	#DIV/0!	######					0.242
Cd		1	-0.002	#DIV/0!	######					-0.002
Ce	1.000	1	0.989	#DIV/0!	######	-0.011	-1.1			0.989
Co		1	-0.002	#DIV/0!	######					-0.002
Cr		1	0.005	#DIV/0!	######					0.005
Cu		1	0.009	#DIV/0!	######					0.009
Dy	1.000	1	1.009	#DIV/0!	######	0.009	0.9			1.009
Eu	1.000	1	1.020	#DIV/0!	######	0.020	2.0			1.020
Fe		1	0.000	#DIV/0!	######					0.000
K		1	0.297	#DIV/0!	######					0.297
La	0.500	1	0.508	#DIV/0!	######	0.008	1.6			0.508
Li		1	-0.002	#DIV/0!	######					-0.002
Mg		1	-0.046	#DIV/0!	######					-0.046
Mn		1	0.000	#DIV/0!	######					0.000
Mo		1	0.000	#DIV/0!	######					0.000
Na		1	0.103	#DIV/0!	######					0.103
Nd	1.000	1	0.999	#DIV/0!	######	-0.001	-0.1			0.999
Ni		1	-0.014	#DIV/0!	######					-0.014
P		1	0.047	#DIV/0!	######					0.047
Pb		1	0.120	#DIV/0!	######					0.120
Pd	1.000	1	0.934	#DIV/0!	######	-0.066	-6.6			0.934
Rh	1.000	1	0.992	#DIV/0!	######	-0.008	-0.8			0.992
Ru	1.000	1	1.032	#DIV/0!	######	0.032	3.2			1.032
Sb		1	0.061	#DIV/0!	######					0.061
Se		1	0.045	#DIV/0!	######					0.045
Si		1	3.557	#DIV/0!	######					3.557
Sn	1.000	1	1.038	#DIV/0!	######	0.038	3.8			1.038
Sr		1	0.000	#DIV/0!	######					0.000
Te	1.000	1	0.985	#DIV/0!	######	-0.015	-1.5			0.985
Th	5.000	1	5.070	#DIV/0!	######	0.070	1.4			5.070
Ti		1	0.002	#DIV/0!	######					0.002
Tl		1	0.002	#DIV/0!	######					0.002
U	12.500	1	11.784	#DIV/0!	######	-0.716	-5.7			11.784
V		1	-0.001	#DIV/0!	######					-0.001
W	1.000	1	0.969	#DIV/0!	######	-0.031	-3.1			0.969
Y	0.500	1	0.494	#DIV/0!	######	-0.006	-1.3			0.494
Zn		1	0.005	#DIV/0!	######					0.005
Zr		1	-0.033	#DIV/0!	######					-0.033
TIME		1	########	#DIV/0!	######					########

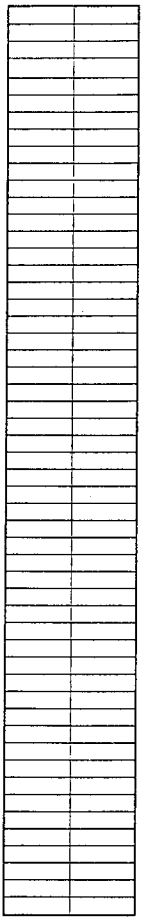
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC SSTMCV 951	MCV 9512081903
										A0076	A0076
										2/22/96	2/22/96
Statistical Summary for 'QC SSTMCV 9512081903'										10:19	13:02
("QC-SSTMCV" SST Midrange Cal. Check Std.)										CONC	CONC
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	1565	1611
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)
Ag	0.500	2	0.505	0.007	1	0.005	0.9			0.510	0.500
Al	5.000	2	5.134	0.013	0	0.134	2.7			5.143	5.125
As	2.000	2	2.089	0.051	2	0.089	4.5			2.125	2.053
B		2	0.069	0.130	188					0.162	-0.023
Ba	0.100	2	0.100	0.002	2	0.000	0.0			0.102	0.098
Be	0.100	2	0.099	0.003	3	-0.001	-1.4			0.101	0.097
Bi	1.500	2	1.684	0.002	0	0.184	12.3	+		1.686	1.682
Ca	1.000	2	1.175	0.050	4	0.175	17.5	+		1.140	1.210
Cd	0.200	2	0.204	0.000	0	0.004	1.9			0.204	0.204
Ce		2	0.006	0.001	13					0.006	0.007
Co		2	-0.003	0.001	-44					-0.002	-0.004
Cr	0.300	2	0.308	0.007	2	0.008	2.7			0.313	0.303
Cu		2	0.009	0.009	111					0.002	0.015
Dy		2	0.001	0.001	47					0.001	0.002
Eu		2	0.007	0.000	3					0.008	0.007
Fe	0.500	2	0.633	0.042	7	0.133	26.6	+		0.603	0.662
K	50.000	2	49.265	1.357	3	-0.735	-1.5			50.224	48.305
La		2	0.036	0.018	49					0.024	0.049
Li		2	0.001	0.001	63					0.001	0.002
Mg		2	-0.076	0.007	-10					-0.071	-0.081
Mn	0.100	2	0.104	0.003	3	0.004	4.3			0.106	0.102
Mo		2	0.003	0.002	51					0.005	0.002
Na	5.000	2	5.068	0.020	0	0.068	1.4			5.082	5.053
Nd		2	0.006	0.000	3					0.006	0.006
Ni	0.500	2	0.718	0.052	7	0.218	43.7	+		0.681	0.755
P	4.000	2	4.170	0.003	0	0.170	4.2			4.171	4.168
Pb	3.000	2	3.033	0.080	3	0.033	1.1			3.090	2.977
Pd		2	-0.006	0.022	-363					0.009	-0.021
Rh		2	0.006	0.003	41					0.005	0.008
Ru		2	0.003	0.003	121					0.005	0.000
Sb	2.000	2	2.649	0.055	2	0.649	32.5	+		2.688	2.610
Se	2.500	2	2.569	0.067	3	0.069	2.8			2.616	2.521
Si	3.000	2	4.356	2.205	51	1.356	45.2	+		5.916	2.797
Sn		2	0.065	0.019	29					0.078	0.052
Sr		2	0.001	0.000	14					0.002	0.001
Te		2	0.007	0.012	186					0.015	-0.002
Th		2	0.060	0.016	26					0.049	0.071
Ti		2	0.000	0.000	-216					0.000	0.000
Tl		2	0.000	0.013	29117					0.009	-0.009
U	20.000	2	19.756	0.361	2	-0.244	-1.2			20.011	19.501
V	0.500	2	0.503	0.013	3	0.003	0.6			0.512	0.494
W		2	0.032	0.007	23					0.038	0.027
Y		2	0.001	0.000	27					0.001	0.001
Zn		2	0.005	0.005	103					0.001	0.008
Zr	0.500	2	0.497	0.010	2	-0.003	-0.6			0.504	0.490
TIME	10000	2	########	0.000	0	0.000	0.0			########	########

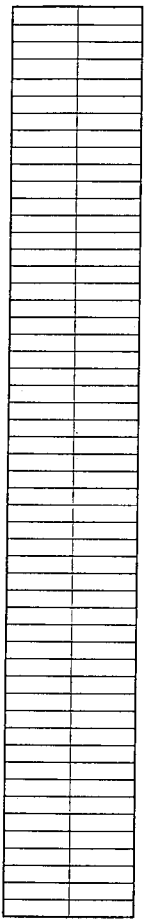
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC SSTA 9512	STA 9512081902
										A0076	A0076
										2/22/96	2/22/96
Statistical Summary for 'QC SSTA 9512081902'										10:15	12:58
("QC-SSTA" Interference Check Std.)										CONC	CONC
	TRUE	***N***	***Average***	***S.Dev***	***%RSD***	***Bias***	***Bias***	***High***	***Low***	1473	1519
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	*(ug/mL)*	*(ug/mL)*
Ag		2	-0.012	0.000	-4					-0.011	-0.012
Al	250.0	2	249.936	3.967	2	-0.364	-0.1			252.441	246.831
As		2	0.368	0.014	4					0.378	0.358
B		2	0.182	0.216	119					0.334	0.029
Ba		2	0.009	0.001	6					0.010	0.009
Be		2	-0.001	0.000	-15					-0.001	-0.001
Bi	200.0	2	196.088	3.983	2	-3.912	-2.0			198.905	193.272
Ca	250.0	2	246.622	6.024	2	-3.378	-1.4			250.882	242.363
Cd		2	0.068	0.004	5					0.065	0.070
Ce		2	0.095	0.019	20					0.108	0.082
Co		2	0.007	0.001	18					0.008	0.007
Cr		2	0.247	0.005	2					0.250	0.243
Cu		2	-0.096	0.031	-32					-0.118	-0.075
Dy		2	0.030	0.000	1					0.030	0.030
Eu		2	0.088	0.001	1					0.089	0.087
Fe	200.0	2	192.369	6.371	3	-7.631	-3.8			196.874	187.864
K	100.0	2	99.597	3.188	3	-0.403	-0.4			101.852	97.343
La	50.0	2	50.076	0.505	1	0.076	0.2			50.433	49.719
Li		2	0.034	0.003	9					0.036	0.032
Mg		2	-0.694	0.051	-7					-0.730	-0.658
Mn		2	0.019	0.001	3					0.020	0.019
Mo		2	0.100	0.005	5					0.104	0.097
Na		2	0.859	0.002	0					0.858	0.861
Nd		2	0.187	0.012	7					0.195	0.178
Ni	200.0	2	189.489	3.067	2	-10.511	-5.3			191.658	187.320
P	200.0	2	199.674	2.764	1	-0.326	-0.2			201.629	197.720
Pb		2	0.971	0.043	4					1.002	0.941
Pd		2	0.667	0.150	22					0.773	0.562
Rh		2	0.207	0.008	4					0.212	0.201
Ru		2	0.293	0.045	15					0.262	0.325
Sb		2	0.733	0.033	4					0.756	0.710
Se		2	1.511	0.074	5					1.563	1.459
Si		2	4.755	7.089	149					9.767	-0.258
Sn		2	3.041	0.008	0					3.046	3.035
Sr		2	0.019	0.001	3					0.020	0.019
Te		2	0.633	0.036	6					0.658	0.608
Th		2	0.465	0.142	31					0.365	0.565
Ti		2	0.002	0.001	55					0.002	0.001
Tl		2	0.337	0.016	5					0.348	0.326
U	200.0	2	197.240	4.256	2	-2.760	-1.4			200.249	194.231
V		2	0.042	0.003	6					0.044	0.040
W		2	0.540	0.026	5					0.558	0.522
Y		2	0.023	0.001	3					0.023	0.022
Zn		2	0.062	0.011	18					0.054	0.070
Zr		2	0.008	0.011	135					0.016	0.000
TIME		2	#######	0.000	0					########	########

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

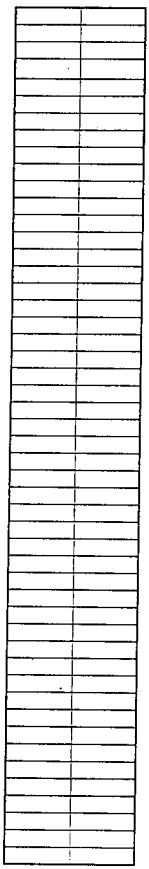


Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										5704.4			
										SRM 2709			
										LCS BX104/HOMO CHK			
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	2/22/96			
	(ug/g)		(ug/g)	(ug/g)	(%)	(ug/g)	(%)	(>125%)	(<75%)	ug/g			
Ag	0.410	0								–			
Al	75000	1	69885.4	#DIV/0!	######	-5114.6	-6.8			69885.37			
As	17.700	0								–			
B		1	562.7	#DIV/0!	######					[562.68]			
Ba	968.0	1	828.8	#DIV/0!	######	-139.2	-14.4			828.79			
Be		0								–			
Bi		0								–			
Ca	18900	1	19321.6	#DIV/0!	######	421.6	2.2			19321.56			
Cd	0.380	0								–			
Ce		0								–			
Co	13.400	0								–			
Cr	130.0	1	192.0	#DIV/0!	######	62.0	47.7		-	[191.95]			
Cu	34.600	0								–			
Dy		0								–			
Eu		0								–			
Fe	35000	1	32119.0	#DIV/0!	######	-2881.0	-8.2			32119.01			
La		0								–			
Li		0								–			
Mg	15100	1	14804.1	#DIV/0!	######	-295.9	-2.0			14804.14			
Mn	538.0	1	969.2	#DIV/0!	######	431.2	80.1		-	[969.18]			
Mo		0								–			
Na	11600	1	17293.8	#DIV/0!	######	5693.8	49.1	+		17293.82			
Nd		0								–			
P	620.0	0								–			
Pb	18.900	0								–			
Pd		0								–			
Rh		0								–			
Ru		0								–			
Sb	7.900	0								–			
Se	1.570	0								–			
Si	296600	1	269144.8	#DIV/0!	######	######	-9.3			269144.78			
Sn		0								–			
Sr	231.0	1	217.2	#DIV/0!	######	-13.8	-6.0		-	[217.22]			
Te		0								–			
Th		0								–			
Ti	3420.0	1	2720.8	#DIV/0!	######	-699.2	-20.4			2720.76			
Tl	0.740	0								–			
U		0								–			
V	112.0	1	126.7	#DIV/0!	######	14.7	13.1		-	[126.69]			
W		0								–			
Y		0								–			
Zn	106.0	1	277.3	#DIV/0!	######	171.3	161.6		-	[277.29]			
Zr		0								–			

No blank from Fusion Reagent
Not subtracted
Mull
3/14/96
Blank subtracted
Na = 11,900

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Analysis Report Summary Thu 02-22-96 01:24:09 PM page 1

A9476

ICP-325-405-1 2/22/96 DRS

	#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
	1	SPC-BLK 107448	A0076	ICP1A	02/22/96	08:40	DRS	S	INT
	2	SPC-BLK 107448	A0076	ICP1A	02/22/96	08:40	DRS	S	CONC
	3	SPC-STD 960103I100	A0076	ICP1A	02/22/96	08:45	DRS	S	INT
	4	SPC-STD 960103I100	A0076	ICP1A	02/22/96	08:45	DRS	S	CONC
	5	ICP1.0	A0076	ICP1A	02/22/96	09:23		X	IR
	6	ICP1.1B	A0076	ICP1A	02/22/96	09:25		X	IR
	7	ICP1.1A	A0076	ICP1A	02/22/96	09:29		X	IR
	8	ICP1.2	A0076	ICP1A	02/22/96	09:33		X	IR
	9	ICP1.3	A0076	ICP1A	02/22/96	09:36		X	IR
	10	ICP1.4	A0076	ICP1A	02/22/96	09:40		X	IR
	11	ICP1.5	A0076	ICP1A	02/22/96	09:43		X	IR
	12	ICP1.6	A0076	ICP1A	02/22/96	09:47		X	IR
	13	ICP1.7	A0076	ICP1A	02/22/96	09:51		X	IR
	14	ICP1.8	A0076	ICP1A	02/22/96	09:54		X	IR
	15	ICP1.0 960103F100	A0076	ICP1A	02/22/96	09:59	DRS	S	CONC
Fail B	16	QC_MCVA 960130I901	A0076	ICP1A	02/22/96	10:02	DRS	Q	CONC
Pass *17		QC_MCVA 960130I901	A0076	ICP1A	02/22/96	10:04	DRS	Q	CONC
PASS	18	QC_MCVB2 960221I901	A0076	ICP1A	02/22/96	10:06	DRS	Q	CONC
Fail-Th	19	QC_MCVB1 960213I501	A0076	ICP1A	02/22/96	10:11	DRS	Q	CONC
	20	QC SSTA 9512081902	A0076	ICP1A	02/22/96	10:15	DRS	S	CONC
	21	QC SSTMCV 9512081903	A0076	ICP1A	02/22/96	10:19	DRS	S	CONC
	22	QC_SRM-1643a 105518	A0076	ICP1A	02/22/96	10:23	DRS	Q	CONC
	23	QC CCV1 960126H901	A0076	ICP1A	02/22/96	10:27	DRS	S	CONC
	24	ICP1.0 960103F100	A0076	ICP1A	02/22/96	10:32	DRS	S	CONC
	25	96-3251 @5	A0076	ICP1A	02/22/96	10:34	DRS	S	CONC
	26	96-3251	A0076	ICP1A	02/22/96	10:39	DRS	S	CONC
Pass*	27	QC_MCVA 960130I901	A0076	ICP1A	02/22/96	10:41	DRS	Q	CONC
	28	ICP1.0 960103F100	A0076	ICP1A	02/22/96	10:46	DRS	S	CONC
	29	96-2980-BLK	A0076	ICP1A	02/22/96	10:54	DRS	S	CONC
	30	96-2980-BLK #2	A0076	ICP1A	02/22/96	10:57	DRS	S	CONC
	31	96-2980 @5	A0076	ICP1A	02/22/96	11:01	DRS	S	CONC
	32	96-2980	A0076	ICP1A	02/22/96	11:05	DRS	S	CONC
	33	96-2980-PS-A	A0076	ICP1A	02/22/96	11:08	DRS	S	CONC
	34	MCVA @2	A0076	ICP1A	02/22/96	11:11	DRS	S	CONC
	35	96-2980-PS-B	A0076	ICP1A	02/22/96	11:15	DRS	S	CONC
	36	MCVB 2 @2	A0076	ICP1A	02/22/96	11:18	DRS	S	CONC
	37	96-2980 DUP	A0076	ICP1A	02/22/96	11:22	DRS	S	CONC
Pass*	38	QC_MCVA 960130I901	A0076	ICP1A	02/22/96	11:26	DRS	Q	CONC
	39	ICP1.0 960103F100	A0076	ICP1A	02/22/96	11:33	DRS	S	CONC
	40	96-2981	A0076	ICP1A	02/22/96	11:35	DRS	S	CONC
	41	96-2981 DUP	A0076	ICP1A	02/22/96	11:39	DRS	S	CONC
	42	96-2983	A0076	ICP1A	02/22/96	11:42	DRS	S	CONC
	43	96-2983 DUP	A0076	ICP1A	02/22/96	11:45	DRS	S	CONC
	44	96-2986	A0076	ICP1A	02/22/96	11:49	DRS	S	CONC
	45	96-2986 DUP	A0076	ICP1A	02/22/96	11:54	DRS	S	CONC
	46	SRM 2709	A0076	ICP1A	02/22/96	11:57	DRS	S	CONC
148	47	Al @150 PPM	A0076	ICP1A	02/22/96	12:01	DRS	S	CONC
10.2	48	Th @10 PPM	A0076	ICP1A	02/22/96	12:05	DRS	S	CONC
47.6	49	U @50 PPM	A0076	ICP1A	02/22/96	12:09	DRS	S	CONC
Pass*	50	QC_MCVA 960130I901	A0076	ICP1A	02/22/96	12:13	DRS	Q	CONC
	51	ICP1.0 960103F100	A0076	ICP1A	02/22/96	12:19	DRS	S	CONC
	52	96-3316 @5	A0076	ICP1A	02/22/96	12:21	DRS	S	CONC
48.8	53	Zn @50 PPM	A0076	ICP1A	02/22/96	12:25	DRS	S	CONC

* SB-N/A
PS-A

Analysis Report Summary Thu 02-22-96 01:24:09 PM page 2

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
~~54~~	~~96-3316 Sum~~	~~A0076~~	~~ICP1A~~	~~02/22/96~~	~~12:29~~	~~DRS~~	~~S~~	~~CONC~~
55	96-3316 @2	A0076	ICP1A	02/22/96	12:33	DRS	S	CONC
56	96-3316 @10	A0076	ICP1A	02/22/96	12:37	DRS	S	CONC
57	96-3317	A0076	ICP1A	02/22/96	12:41	DRS	S	CONC
58	96-3317 @5	A0076	ICP1A	02/22/96	12:45	DRS	S	CONC
59	QC_MCVA 9601301901	A0076	ICP1A	02/22/96	12:50	DRS	Q	CONC
60	QC_MCVB2 9602211901	A0076	ICP1A	02/22/96	12:54	DRS	Q	CONC
61	QC SSTA 951208I902	A0076	ICP1A	02/22/96	12:58	DRS	S	CONC
62	QC SSTMCV 951208I903	A0076	ICP1A	02/22/96	13:02	DRS	S	CONC
63	QC_SRM-1643d 108518	A0076	ICP1A	02/22/96	13:07	DRS	Q	CONC
64	QC CCV1 960126H901	A0076	ICP1A	02/22/96	13:11	DRS	S	CONC
65	ICP1.0 960103F100	A0076	ICP1A	02/22/96	13:15	DRS	S	CONC

Analysis Report Averages Thu 02-22-96 01:24:09 PM page 3

#	Sample Name	Ag	Al	As	B	Ba	Be
1	SPC-BLK 107448	7038.33	2204.33	1668	1935.33	325	191
2	SPC-BLK 107448	.0357	.2069	.1467	.0383	.0078	.0016
3	SPC-STD 960103I100	7087	2238.33	1715	1921.33	324	191.333
4	SPC-STD 960103I100	.0380	.2143	.1740	.0364	.0077	.0016
5	ICP1.0	.70976	.22226	.17059	.1587	.03276	.01923
6	ICP1.1B					.76616	
7	ICP1.1A					7.28126	
8	ICP1.2		61.3269		40.4312		
9	ICP1.3						
10	ICP1.4			20.8342			
11	ICP1.5						
12	ICP1.6						1.65279
13	ICP1.7	27.5714					
14	ICP1.8						
15	ICP1.0 960103F100	-.0002	.0049	.0074	.1361	.0000	.0000
16	QC_MCVA 960130I901	.5024	10.14	2.613	02.202	.5026	.0980
17	QC_MCVA 960130I901	.5036	10.14	2.645	2.177	.5030	.0981
18	QC_MCVB2 960221I901	-.0048	-.0300	.2846	.2182	.0006	.0008
19	QC_MCVB1 960213I901	.0200	-.0793	.2918	.0058	.0004	.0006
20	QC SSTA 9512081902	-.0114	252.4	.3782	.3342	.0096	-.0008
21	QC SSTMCV 9512081903	.5097	5.143	2.125	.1617	.1017	.1008
22	QC_SRM-1643d 108518	0.0012	0.1441	0.0594	0.2296	.5146	0.0124
23	QC CCV1 960126H901	.0015	1.968	2.089	2.115	.9852	1.005
24	ICP1.0 960103F100	.0002	-.0000	-.0106	-.0076	-.0006	-.0005
25	96-3251 @5	.0009	.0031	-.0066	-.0171	-.0005	-.0006
26	96-3251	.0021	.0269	-.0138	-.0592	.0001	-.0007
27	QC_MCVA 960130I901	.4898	9.918	2.568	2.042	.4916	.0958
28	ICP1.0 960103F100	-.0021	.0013	.0043	-.0349	-.0007	-.0007
29	96-2980-BLK	.0018	.0578	.0349	.0863	.0036	-.0007
30	96-2980-BLK #2	.0006	.0451	.0163	.0735	.0000	-.0008
31	96-2980 @5	-.0040	12.62	-.0056	-.0163	-.0000	-.0009
32	96-2980	.0040	61.30	.0858	.1276	.0053	-.0007
33	96-2980-PS-A	.2334	36.01	1.345	1.055	.2433	.0474
34	MCVA @2	.2377	5.127	1.306	.9909	.2485	.0481
35	96-2980-PS-B	-.0024	30.53	.1982	.1243	.0027	-.0004
36	MCVB 2 @2	-.0048	.0342	.1434	.0330	-.0004	-.0004
37	96-2980 DUP	.0053	72.76	.1066	.1178	.0071	-.0007
38	QC_MCVA 960130I901	.4851	9.843	2.544	1.980	.4843	.0947
39	ICP1.0 960103F100	-.0001	-.0124	.0198	-.0024	-.0003	-.0000
40	96-2981	.0125	164.0	.1857	.1190	.0118	.0002
41	96-2981 DUP	.0087	68.57	.0939	.1488	.0056	.0001
42	96-2983	.0162	14.87	.0594	.1094	.0182	.0008
43	96-2983 DUP	.0217	17.84	.0628	.1501	.0207	.0009
44	96-2986	.0086	65.01	.1191	.0883	.0111	.0001
45	96-2986 DUP	.0107	76.11	.1336	.0950	.0136	.0001
46	SRM 2709	.0037	12.25	.0668	.0986	.1453	.0010
47	Al @150 PPM	-.0003	148.0	.1461	-.0181	-.0001	-.0001
48	Th @10 PPM	-.0008	.0622	.0187	-.0190	.0003	.0002
49	U @50 PPM	-.0012	-.0350	.0091	-.0184	.0008	-.0004
50	QC_MCVA 960130I901	.4823	9.706	2.504	1.998	.4797	.0938
51	ICP1.0 960103F100	.0007	-.0097	.0088	-.0248	.0003	-.0001
52	96-3316 @5	.0067	92.36	.2322	1.719	1.423	.0025
53	Zn @50 PPM	.0003	.1289	.0068	-.0192	.0023	-.0001

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Analysis Report Averages Thu 02-22-96 01:24:09 PM page 4

#	Sample Name	Ag	Al	As	B	Ba	Be
54	96-3316	k.0410	k473.5	k1.158	k8.675	7.188	k.0126
55	96-3316 @2	.0179	231.2	.5722	4.300	3.545	.0061
56	96-3316 @10	.0021	45.76	.1125	.8600	.7116	.0011
57	96-3317	.0017	69.78	.0674	6.362	.0070	.0054
58	96-3317 @5	-.0012	13.93	.0034	1.286	.0011	.0010
59	QC_MCVA 960130I901	.4860	9.788	2.540	2.021	.4838	.0939
60	QC_MCVB2 960221I901	-.0068	.0030	.3068	.1415	.0005	.0007
61	QC SSTA 951208I902	-.0121	246.8	.3577	.0291	.0089	-.0010
62	QC SSTMCV 951208I903	.4997	5.125	2.053	-.0227	.0984	.0965
63	QC_SRM-1643d 108518	0.0014	0.1436	0.0538	0.1187	.4944	0.0118
64	QC CCV1 960126H901	.0009	1.912	2.018	1.972	.9501	.9575
65	ICP1.0 960103F100	.0003	-.0018	.0064	-.0229	.0016	.0009

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	SPC-BLK 107448	1530.67	1300.33	552.333	6709	1488.33	465.333
2	SPC-BLK 107449	.1281	.0488	-.0059	.2628	.0358	.0130
3	SPC-STD 960103I100	1752	1663.33	549.667	6702.67	1493	496.333
4	SPC-STD 960103I100	.1544	.1843	-.0065	.2816	.0365	.0194
5	ICP1.0	.15353	.13033	.05493	.27445	.10116	.04846
6	ICP1.1B					1.87193	1.21079
7	ICP1.1A					16.4306	11.1272
8	ICP1.2		78.4072	8.84189			
9	ICP1.3						
10	ICP1.4				21.6983		
11	ICP1.5						
12	ICP1.6						
13	ICP1.7	22.3552					
14	ICP1.8						
15	ICP1.0 960103F100	.0095	.0000	.0011	.0001	-.0008	.0007
16	QC_MCVA 960130I901	24.97	25.68	.5047	.0011	1.019	1.026
17	QC_MCVA 960130I901	25.01	25.70	.5104	.0048	1.021	1.025
18	QC_MCVB2 960221I901	.0721	.0270	.0076	1.943	-.0021	.0057
19	QC_MCVB1 960213I901	.0743	.0205	.0061	1.896	-.0007	.0057
20	QC SSTA 951208I902	198.9	250.9	.0652	.1081	.0084	.2504
21	QC SSTMCV 951208I903	1.686	1.140	.2040	.0057	-.0019	.3131
22	QC_SRM-1643d 108518	.0432	031.72	0.0101	.0071	0.0265	0.0211
23	QC CCV1 960126H901	1.989	2.056	1.021	-.0006	1.022	.5075
24	ICP1.0 960103F100	-.0114	-.0035	-.0011	-.0054	-.0007	-.0016
25	96-3251 @5	-.0130	.0676	.0023	.0010	-.0013	.0092
26	96-3251	.0041	.1003	-.0007	.0165	-.0001	.0541
27	QC_MCVA 960130I901	24.45	25.08	.4991	-.0003	1.001	.9960
28	ICP1.0 960103F100	-.0018	-.0010	-.0010	.0002	-.0014	-.0007
29	96-2980-BLK	.0070	.2681	.0016	.0230	.0111	.0050
30	96-2980-BLK #2	.0132	.2237	.0016	.0107	.0089	.0060
31	96-2980 @5	.0186	.7152	-.0004	-.0089	.0022	.1039
32	96-2980	.2006	.3734	.0069	.0484	.0304	.5134
33	96-2980-PS-A	12.20	12.75	.2472	.0338	.5136	.7512
34	MCVA @2	12.35	13.33	.2496	.0022	.5102	.5063
35	96-2980-PS-B	.1471	.2067	.0060	.9910	.0136	.2581
36	MCVB 2 @2	.0300	.2420	-.0022	.9891	-.0018	.0046
37	96-2980 DUP	.2315	.6777	.0083	.9706	.0069	.6145
38	QC_MCVA 960130I901	24.08	24.86	.4885	.0115	.9930	.9882

Analysis Report Averages Thu 02-22-96 01:24:09 PM page 5

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
39	ICP1.0 960103F100	-.0203	-.0063	-.0001	-.0041	-.0017	.0009
40	96-2981	.0533	1.093	.0066	.0341	.0095	1.161
41	96-2981 DUP	.0180	.5143	.0016	.0300	.0182	.5050
42	96-2983	.1248	.4616	.0139	.1018	.0143	5.065
43	96-2983 DUP	.1472	.4898	.0161	.1244	.0208	6.268
44	96-2986	.0904	.4229	.0045	.0407	.0046	.8107
45	96-2986 DUP	.1010	.4619	.0038	.0407	.0067	.9404
46	SRM 2709	.0140	3.387	-.0004	.0350	.0121	.0337
47	Al @150 PPM	-.0114	.1753	-.0039	-.0004	-.0004	.0330
48	Th @10 PPM	-.0165	-.0201	.0009	.0071	-.0004	.0013
49	U @50 PPM	.0669	-.0235	.0010	.0082	-.0024	.0071
50	QC_MCVA 960130I901	23.79	24.52	.4822	-.0016	.9783	.9775
51	ICP1.0 960103F100	-.0132	-.0000	-.0021	.0071	-.0013	.0003
52	96-3316 @5	.1102	98.86	.0638	.1226	.1143	.4132
53	Zn @50 PPM	-.0129	.3360	-.0039	.0051	-.0007	.0040
54	96-3316	k.6166	471.9	k.3210	k.[illegible]	k.5560	k2.067
55	96-3316 C2	.3020	240.4	.1681	.[illegible]	.2791	1.0[illegible]
56	96-3316 @10	.0388	49.06	.0328	.0603	.0561	.2040
57	96-3317	-.0223	.3548	.0142	.0162	.0009	.4744
58	96-3317 @5	-.0262	.0899	-.0022	-.0019	-.0019	.0993
59	QC_MCVA 960130I901	23.95	24.51	.4845	-.0030	.9834	.9824
60	QC_MCV82 960221I901	.0576	.0272	.0041	1.908	-.0032	.0053
61	QC_SSTA 9512081902	197.1	242.4	.0742	.0815	.0368	.2426
62	QC_SSTMCV 9512081903	1.682	1.210	.2036	.0068	-.0036	.3034
63	QC_SRM-1643c 103019	.0218	20.46	0.0082	.0174	0.0044	0.0208
64	QC_CCV1 960126H901	1.900	1.986	.9934	.0103	.9911	.4927
65	ICP1.0 960103F100	-.0175	-.0005	.0029	.0129	-.0004	.0004

#	Sample Name	Cu	Dy	Eu	Fe	K	La
1	SPC-BLK 107448	526.667	2047.33	362.667	608.667	2163.67	1065.67
2	SPC-BLK 107448	.0047	.0398	.0127	.0205	6.765	.0668
3	SPC-STD 960103I100	20330.3	2231.33	362.667	660.667	2184.33	1065.33
4	SPC-STD 960103I100	10.76	.0402	.0127	.0205	6.542	.0658
5	ICP1.0	.05336	.20573	.03649	.06109	.21693	.10606
6	ICP1.1B	.45133			7.17196		
7	ICP1.1A	3.944			66.6311		
8	ICP1.2					2.40213	
9	ICP1.3		40.3066	9.63723			5.22996
10	ICP1.4						
11	ICP1.5						
12	ICP1.6						
13	ICP1.7						
14	ICP1.8						
15	ICP1.0 960103F100	.0023	-.0001	.0001	-.0056	-.2059	.0002
16	QC_MCVA 960130I901	.9641	-.0007	.0019	20.57	24.24	.0038
17	QC_MCVA 960130I901	.9671	-.0003	.0021	20.57	24.55	.0046
18	QC_MCV82 960221I901	.0417	1.988	2.004	.0146	-1.754	.9823
19	QC_MCV81 960213I901	.0361	1.934	1.960	.0060	-1.297	.9510
20	QC_SSTA 9512081902	-.1182	.0296	.0890	196.9	101.9	50.43
21	QC_SSTMCV 9512081903	.0019	.0009	.0076	.4033	50.22	.0237
22	QC_SRM-1643c 103019	.0200	.0001	.0012	0.1008	02.136	.0108
23	QC_CCV1 960126H901	1.959	.0011	.0004	2.034	4.675	.0021

Analysis Report Averages Thu 02-22-96 01:24:09 PM page 6

#	Sample Name	Cu	Dy	Eu	Fe	K	La
24	ICP1.0 960103F100	-.0019	-.0002	-.0000	-.0081	-.0915	-.0008
25	96-3251 @5	.0089	.0010	.0002	.0510	.1601	.0008
26	96-3251	.0575	.0033	.0010	.3080	.7700	.0046
27	QC_MCVA 960130I901	.9542	-.0006	.0017	20.08	23.80	.0027
28	ICP1.0 960103F100	-.0020	.0003	-.0001	-.0045	.0000	-.0001
29	96-2980-BLK	.0189	.0039	.0014	.1212	2014.	.0060
30	96-2980-BLK #2	.0176	.0020	.0008	3.101	1969.	.0028
31	96-2980 @5	.0049	-.0006	.0027	.2846	476.3	.0011
32	96-2980	.0571	.0092	.0166	1.391	2265.	.0190
33	96-2980-PS-A	.5093	.0059	.0096	10.66	1169.	.0120
34	MCVA @2	.4792	.0011	.0011	10.23	13.94	.0044
35	96-2980-PS-B	.0394	1.005	1.013	.7119	1137.	.5085
36	MCVA @2	.0091	1.009	1.020	-.0004	.2973	.5091
37	96-2981 DUP	.0204	.0131	.0210	.9579	2381.	.0243
38	QC_MCVA 960130I901	.9379	.0013	.0024	[illegible]97	25.34	.0052
39	ICP1.0 960103F100	-.0000	-.0009	-.0005	-.0107	-.2974	-.0005
40	96-2981	.0203	.0046	.0022	1.187	2393.	.0146
41	96-2981 DUP	.0414	.0046	.0016	.9016	2355.	.0102
42	96-2983	.1234	.0047	.0065	6.000	3310.	.0523
43	96-2983 DUP	.0735	.0062	.0080	6.553	3295.	.0588
44	96-2986	.0181	.0053	.0056	1.257	2137.	.0145
45	96-2986 DUP	.0216	.0048	.0062	1.565	2235.	.0161
46	SRM 2709	.0152	.0051	.0017	5.631	2329.	.0117
47	Al @150 PPM	-.0009	.0001	-.0002	-.0071	1.984	.0011
48	Th @10 PPM	-.0011	.0006	.0003	-.0097	.2135	.0010
49	U @50 PPM	-.0013	.0022	.0169	-.0191	-.1525	.0078
50	QC_MCVA 960130I901	.9300	-.0007	.0014	19.60	22.75	.0042
51	ICP1.0 960103F100	.0010	.0016	.0002	-.0064	.1373	.0031
52	96-3316 @5	7.750	.0123	.0161	214.8	8.305	.0646
53	Zn @50 PPM	.0253	.0008	-.0000	.3297	-.0747	.0014
54	96-3316	k38.63	k.0645	k.0790	$2326.	45.00	k.1510
55	96-3316 #2	19.46	.0304	.0391	415.8	21.23	.1151
56	96-3316 @10	3.916	.0065	.0078	107.2	3.897	.0362
57	96-3317	.0508	.0029	.0006	.3480	101.9	.0063
58	96-3317 @5	.0316	-.0008	-.0003	.0680	19.76	-.0004
59	QC_MCVA 960130I901	.9693	-.0008	.0012	19.35	22.88	.0046
60	QC_MCVB2 960221I901	.1398	1.967	1.988	.0325	-1.891	.9826
61	QC SSTA 951208I902	-.0746	.0399	.0875	187.9	97.34	49.72
62	QC SSTMCV 951208I903	.0152	.0018	.0073	.6624	48.31	.0490
63	QC_SRM-1643d 108518	0.0277	.0022	.0013	0.0974	02.440	.0139
64	QC CCV1 960126H901	1.948	.0022	.0004	1.924	4.698	.0039
65	ICP1.0 960103F100	.0132	.0023	.0004	-.0101	.1678	.0040

#	Sample Name	Li	Mg	Mn	Mo	Na	Nd
1	SPC-BLK 107448	413	1551.67	207.333	837.667	429.667	3917
2	SPC-BLK 107449	.0272	.1542	.0035	.0516	.4409	.2373
3	SPC-STD 960103I100	21579.3	2620	63215.3	874.333	429.667	3915.67
4	SPC-STD 960103I100	10.57	.1400	11.73	.0348	.4408	.2373
5	ICP1.0	.04156	.25573	.02109	.08529	.04309	.39466
6	ICP1.1B		4.51113		1.22156	.49766	
7	ICP1.1A		38.7961		10.9787	4.53306	
8	ICP1.2	10.4265		6.13433			

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Analysis Report Averages Thu 02-22-96 01:24:09 PM page 7

#	Sample Name	Li	Mg	Mn	Mo	Na	Nd
9	ICP1.3						13.8354
10	ICP1.4						
11	ICP1.5						
12	ICP1.6						
13	ICP1.7						
14	ICP1.8						
15	ICP1.0 960103F100	.0014	-.0163	-.0000	.0009	-.0054	.0036
16	QC_MCVA 960130I901	2.034	33.15	.5225	1.019	37.20	.0053
17	QC_MCVA 960130I901	2.032	33.11	.5233	1.025	37.21	.0065
18	QC_MCVB2 960221I901	-.0013	-.0946	.0007	.0081	.1645	1.957
19	QC_MCVB1 960213I901	-.0006	-.0937	.0007	.0076	.0918	1.926
20	QC SSTA 951208I902	.0361	-.7301	.0198	.1039	.8577	.1952
21	QC SSTMCV 951208I903	.0008	-.0709	.1065	.0047	5.082	.0063
22	QC_SRM-1643d 108518	0.0213	08.591	0.0404	.1129	021.89	.0113
23	QC CCV1 960136H901	1.980	2.101	1.042	1.985	8.305	.0029
24	ICP1.0 960103F100	-.0018	-.011A	-.0008	-.0016	-.0182	.0033
25	96-3251 @5	.0005	-.0009	.0036	-.0021	.0150	.0098
26	96-3251	.0010	.0153	.0160	.0004	.0704	.0206
27	QC_MCVA 960130I901	1.999	32.46	.5103	1.000	36.61	.0018
28	ICP1.0 960103F100	-.0021	-.0026	-.0007	-.0023	-.0164	.0020
29	96-2980-BLK	.0011	.0127	.1477	.0027	.9441	.0274
30	96-2980-BLK #2	.0002	.0143	.1493	.0016	.8869	.0136
31	96-2980 @5	-.0005	-.0394	.0696	.0004	4.577	-.0021
32	96-2980	.0117	-.0799	.3433	.0204	22.12	.0530
33	96-2980-PS-A	.9781	16.59	.4362	.5122	39.32	.0358
34	MCVA @2	1.006	16.66	.2835	.5088	18.49	.0046
35	96-2980-PS-B	.0066	-.0808	.1705	.0126	11.24	1.002
36	MCVB 2 @2	-.0018	-.0459	-.0002	.0001	.1033	.9992
37	96-2980 DUP	.0172	-.0765	.2384	.0242	26.70	.0706
38	QC_MCVA 960130I901	1.958	32.13	.5044	.9921	36.16	.0129
39	ICP1.0 960103F100	-.0019	-.0280	-.0002	-.0022	.0040	-.0065
40	96-2981	.0154	.0721	.0674	.0231	27.70	.0292
41	96-2981 DUP	.0100	.0232	.2218	.0126	12.26	.0299
42	96-2983	.0046	.0916	1.429	.0091	35.11	.1422
43	96-2983 DUP	.0079	.1070	1.835	.0096	45.50	.1635
44	96-2986	.1270	.0189	.2976	.0166	13.41	.0414
45	96-2986 DUP	.1326	.0344	.3339	.0161	15.41	.0425
46	SRM 2709	.0124	2.595	.1699	.0068	3.032	.0297
47	Al @150 PPM	-.0010	-.0278	.0045	.0063	.0428	-.0006
48	Th @10 PPM	.0016	-.0481	-.0005	-.0014	.0372	.0034
49	U @50 PPM	.0039	-.1402	-.0009	.0087	.0667	.0088
50	QC_MCVA 960130I901	1.962	31.79	.4973	.9787	36.08	-.0015
51	ICP1.0 960103F100	.0019	-.0122	.0003	-.0024	.0298	.0095
52	96-3316 @5	.0510	27.40	1.927	.3477	6.834	.1282
53	Zn @50 PPM	.0014	.0142	.0026	.0003	.0502	.0057
54	96-3316	.2491	k130.3	k9.306	k1.534	k35.08	k.6108
55	96-3316 @2	.1231	66.25	4.691	.8537	17.00	.2986
56	96-3316 @10	.0255	13.69	.9648	.1731	3.398	.0608
57	96-3317	.0072	.0318	.0066	.1500	641.3	.0143
58	96-3317 @5	.0006	-.0244	.0009	.0276	130.9	-.0023
59	QC_MCVA 960130I901	1.977	31.88	.5009	.9838	36.51	-.0014
60	QC_MCVB2 960221I901	-.0010	-.0809	.0005	.0047	.2357	1.929
61	QC SSTA 951208I902	.0319	-.6577	.0190	.0970	.8608	.1780
62	QC SSTMCV 951208I903	.0021	-.0813	.1020	.0022	5.053	.0060

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Analysis Report Averages Thu 02-22-96 01:24:09 PM page 8

#	Sample Name	Li	Mg	Mn	Mo	Na	Nd
63	QC_SRM-1643d 108518	0.0191	08.281	0.0387	0.1087	021.44	.0214
64	QC CCV1 960126H901	1.931	2.017	1.002	1.922	8.197	.0104
65	ICP1.0 960103F100	.0026	-.0242	.0007	.0008	.0705	.0109

#	Sample Name	Ni	P	Pb	Pd	Rh	Ru
1	SPC-BLK 107448	499.333	1334.33	14362.3	15856	15942	4492
2	SPC-BLK 107448	.0107	.2277	.2532	.6659	.3193	.1378
3	SPC-STD 960103I100	512.667	1502	128697	15834.3	15903.3	4502
4	SPC-STD 960103I100	.0162	.2419	12.05	.6594	.3151	.1399
5	ICP1.0	.05056	.13566	1.44953	1.5956	1.60586	.4541
6	ICP1.1B	.63876		7.30416			
7	ICP1.1A	5.59523		56.7031			
8	ICP1.2		11.7444				
9	ICP1.3						33.018
10	ICP1.4						
11	ICP1.5						
12	ICP1.6						
13	ICP1.7						
14	ICP1.8				18.2254	42.7015	
15	ICP1.0 960103F100	.0020	-.0020	.0038	.0199	.0077	.0034
16	QC_MCVA 960130I901	1.012	5.052	2.561	-.0200	.0004	.0184
17	QC_MCVA 960130I901	1.018	5.062	2.549	-.0112	-.0003	.0220
18	QC_MCVB2 960221I901	.0168	.0996	.2345	1.855	1.930	2.019
19	QC_MCVB1 960213I901	.0230	.0791	.2527	1.985	1.972	2.065
20	QC SSTA 951208I902	191.7	201.6	1.002	.7734	.2122	.2616
21	QC SSTMCV 951208I903	.6812	4.171	3.090	.0093	.0046	.0053
22	QC_SRM-1643d 108518	0.1259	.0339	0.0280	.0270	.0068	.0023
23	QC CCV1 960126H901	2.076	4.912	2.040	.0161	.0020	.0077
24	ICP1.0 960103F100	-.0030	.0048	.0018	-.0063	-.0055	-.0010
25	96-3251 @5	-.0044	.0079	.0048	.0145	.0053	.0013
26	96-3251	.0064	-.0070	.0044	.0415	.0168	.0026
27	QC_MCVA 960130I901	1.001	4.992	2.489	-.0478	-.0130	.0149
28	ICP1.0 960103F100	-.0219	-.0014	.0043	.0016	-.0021	.0012
29	96-2980-BLK	.4197	.0248	.0243	.0614	.0344	.0140
30	96-2980-BLK #2	.4043	.0173	.0160	.0192	.0136	.0123
31	96-2980 @5	3.093	.0933	.0334	-.0205	-.0088	-.0026
32	96-2980	15.21	.6379	.2676	.1079	.0710	.0312
33	96-2980-PS-A	8.159	2.857	1.372	.0508	.0373	.0269
34	MCVA @2	.4940	2.527	1.274	-.0082	.0003	.0121
35	96-2980-PS-B	7.582	.3620	.2401	.9239	.9920	1.024
36	MCVB 2 @2	-.0140	.0469	.1200	.9342	.9921	1.032
37	96-2980 DUP	8.957	.8989	.3078	.1109	.0854	.0396
38	QC_MCVA 960130I901	.9693	4.956	2.465	-.0261	.0009	.0225
39	ICP1.0 960103F100	-.0017	.0084	-.0046	-.0131	-.0018	.0012
40	96-2981	.9950	.5537	.4986	.0854	.0420	.0263
41	96-2981 DUP	2.278	.2565	.2302	.0813	.0427	.0186
42	96-2983	2.017	.3326	.3139	.1210	.0452	.0303
43	96-2983 DUP	3.633	.2551	.5070	.1417	.0591	.0378
44	96-2986	1.003	.5665	.2551	.0679	.0458	.0245
45	96-2986 DUP	.8379	.6657	.2873	.0688	.0439	.0240
46	SRM 2709	2.941	.1671	.0792	.0818	.0397	.0202
47	Al @150 PPM	-.0001	.0905	.3369	.0003	.0033	-.0006

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Analysis Report Averages Thu 02-22-96 01:24:09 PM page 9

#	Sample Name	Ni	P	Pb	Pd	Rh	Ru
48	Th @10 PPM	-.0032	.0521	.0009	-.1720	-.0004	.0009
49	U @50 PPM	.0187	.1378	-.0182	-.0439	.0087	.0021
50	QC_MCVA 9601301901	.9766	4.866	2.424	-.0406	-.0065	.0159
51	ICP1.0 960103F100	-.0044	.0055	-.0017	.0235	.0131	-.0003
52	96-3316 @5	.5107	23.80	3.795	.0737	.0322	.2677
53	Zn @50 PPM	-.0003	.0919	.0099	.0140	.0071	-.0006
54	96-3316	k2.434	k118.3	k18.32	k-6.605	k.1681	k-17.64
55	96-3316 @2	1.237	58.77	9.221	.9089	.0670	2.221
56	96-3316 @10	.2534	11.84	1.896	.0323	.0129	.1408
57	96-3317	.0376	2.631	.2674	.0712	.0426	.0411
58	96-3317 @5	.0003	.5110	.0379	-.0083	-.0036	.0006
59	QC_MCVA 9601301901	.9747	4.889	2.440	-.0387	-.0089	.0217
60	QC_MCVB2 9602211901	.0113	.0981	.2170	1.865	1.908	1.972
61	QC SSTA 9512081902	187.3	197.7	.9414	.5616	.2010	.3253
62	QC SSTMCV 9512081903	.7554	4.168	2.977	-.0212	.0083	.0004
63	QC_SRM-1643d 108518	0.1269	.0328	0.0156	.0326	.0150	-.0011
64	QC CCV1 960126H901	2.008	4.796	1.967	.0377	.0148	.0051
65	ICP1.0 960103F100	.0335	-.0132	-.0002	.0289	.0180	.0008

#	Sample Name	Sb	Se	Si	Sn	Sr	Te
1	SPC-BLK 107448	2695.67	1497.33	4269.33	7232.67	155.333	10610
2	SPC-BLK 107448	.2293	.2379	-.2521	1.138	.0032	.2487
3	SPC-STD 9601031100	2754.33	1522	4328.33	7258.67	157.333	11251.7
4	SPC-STD 9601031100	.2558	.2578	-.2318	1.110	.0034	.2779
5	ICP1.0	.27309	.1506	.42136	.72616	.01559	1.07536
6	ICP1.1B					.83356	
7	ICP1.1A					8.07436	
8	ICP1.2						
9	ICP1.3						
10	ICP1.4	24.7776					
11	ICP1.5						
12	ICP1.6			70.8419			46.9833
13	ICP1.7		3.13829				
14	ICP1.8				7.47109		
15	ICP1.0 960103F100	.0039	-.0004	5.761	.0135	.0001	.0063
16	QC_MCVA 9601301901	03.276	2.595	21.70	.2067	.5094	.0472
17	QC_MCVA 9601301901	03.294	2.602	20.69	.2319	.5097	.0490
18	QC_MCVB2 9602211901	.1252	.0815	12.06	1.995	.0025	1.931
19	QC_MCVB1 9602131901	.1334	.0756	18.49	2.117	.0023	2.006
20	QC SSTA 9512081902	.7560	1.563	9.767	3.046	.0196	.6581
21	QC SSTMCV 9512081903	2.688	2.616	5.916	.0780	.0016	.0152
22	QC_SRM-1643d 108518	0.0766	0.0439	3.714	-.0077	.2996	.0061
23	QC CCV1 960126H901	.0334	2.004	5.292	.0570	1.984	.0257
24	ICP1.0 960103F100	.0026	.0119	-.0756	-.0014	-.0011	-.0011
25	96-3251 @5	.0042	.0167	-.1116	.0103	-.0013	-.0051
26	96-3251	.0076	.0074	-.1441	.0585	-.0013	.0047
27	QC_MCVA 9601301901	03.200	2.558	18.41	.2125	.4992	.0365
28	ICP1.0 960103F100	.0011	.0142	-.2368	.0225	-.0015	-.0020
29	96-2980-BLK	.0122	.0352	-.1460	.1110	-.0003	.0222
30	96-2980-BLK #2	.0192	.0274	-.1633	.1128	-.0006	.0175
31	96-2980 @5	.0256	.0528	-.1364	-.0078	.0056	.0057
32	96-2980	.1852	.3223	.4990	.0969	.0771	.1706

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Analysis Report Averages Thu 02-22-96 01:24:09 PM page 10

#	Sample Name	Sb	Se	Si	Sn	Sr	Te
33	96-2980-PS-A	1.710	1.445	9.540	.3214	.2620	.0890
34	MCVA @2	1.628	1.308	9.441	.1248	.2528	.0201
35	96-2980-PS-B	.1482	.1971	3.502	1.199	.0169	1.041
36	MCVB 2 @2	.0610	.0446	3.557	1.038	-.0004	.9853
37	96-2980 DUP	.2059	.3709	1.337	.4440	.0393	.1550
38	QC_MCVA 960130I901	03.165	2.513	18.13	.2358	.4934	.0424
39	ICP1.0 960103F100	-.0088	-.0046	-.0073	.0008	-.0003	-.0076
40	96-2981	.2284	.5592	1.738	.1886	.0148	.2637
41	96-2981 DUP	.1119	.2566	.8678	.1667	.0068	.1244
42	96-2983	.0813	.1062	.6418	.2320	.0100	.0601
43	96-2983 DUP	.1065	.1146	.7310	.2908	.0117	.0743
44	96-2986	.1206	.2736	.6375	.1970	.0164	.1142
45	96-2986 DUP	.1269	.2894	.7394	.1926	.0195	.1321
46	SRM 2709	.0500	.0730	47.18	.1776	.0381	.0426
47	Al @150 PPM	.1535	.4592	-.0031	-.0029	-.0001	.1962
48	Th @10 PPM	-.0096	.0103	-.0375	.0123	-.0002	-.0066
49	U @50 PPM	.0580	.0848	-.1128	.1726	.0033	.0076
50	QC_MCVA 960130I901	03.111	2.471	18.18	.1745	.4904	.0258
51	ICP1.0 960103F100	-.0130	-.0014	-.0373	.0051	.0001	-.0072
52	96-3316 @5	.3713	.6207	.9591	3.328	.4309	.2972
53	Zn @50 PPM	.1177	.0051	-.0392	.0663	.0006	.0107
54	96-3316	k1.833	k3.121	k4.889	k-39.13	2.156	k-.0954
55	96-3316 @2	.9171	1.522	2.312	12.56	1.070	.8342
56	96-3316 @10	.1709	.3041	.7817	1.659	.2158	.1469
57	96-3317	.0769	.2106	3.117	.2932	.0048	.0900
58	96-3317 @5	-.0043	.0381	.5735	.0145	.0008	.0052
59	QC_MCVA 960130I901	03.146	2.491	18.28	.1780	.4956	.0214
60	QC_MCVB2 960221I901	.1037	.0454	7.787	1.921	.0023	1.665
61	QC SSTA 951208I902	.7097	1.459	-.2578	3.035	.0186	.6075
62	QC SSTMCV 951208I903	2.610	2.551	2.797	.0518	.0013	-.0021
63	QC_SRM-1643d 108516	0.0656	0.0079	2.611	.0081	.2911	-.0019
64	QC CCV1 960126H901	.0181	1.921	4.641	.0357	1.932	.0081
65	ICP1.0 960103F100	-.0048	-.0024	-.0374	-.021_	.0019	-.0038

#	Sample Name	Th	Ti	Tl	U	V	W
1	SPC-BLK 107448	2473.33	686	400.333	17955.3	1031.67	344
2	SPC-BLK 10744B	.0020	.0162	.1331	3.781	.0320	.1218
3	SPC-STD 960103I100	2473.33	687.667	425.667	17870.7	1034	347
4	SPC-STD 960103I100	.0082	.0166	.1845	3.673	.0326	.1280
5	ICP1.0	.24969	.0689	.04093	1.8033	.10386	.03339
6	ICP1.1B		1.42173				
7	ICP1.1A		13.4665				
8	ICP1.2						
9	ICP1.3	11.0483					
10	ICP1.4					11.139	
11	ICP1.5				##.####		
12	ICP1.6						
13	ICP1.7			1.21089			
14	ICP1.8						2.861
15	ICP1.0 960103F100	-.0041	.0000	.0001	.0258	.0001	.0310
16	QC_MCVA 960130I901	.0392	1.000	2.498	.0912	1.006	.0547
17	QC_MCVA 960130I901	.0375	1.000	2.525	.1201	1.008	.0570

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Analysis Report Averages Thu 02-22-96 01:24:09 PM page 11

#	Sample Name	Th	Ti	Tl	U	V	W
18	QC_MCVB2 960221I901	09.902	.0031	.0165	23.27	-.0016	1.965
19	QC_MCVB1 960213I901	04.298	.0032	.0176	23.51	.0003	1.972
20	QC SSTA 951208I902	.3645	.0025	.3479	200.2	.0441	.5581
21	QC SSTMCV 951208I903	.0487	.0001	.0093	20.01	.5123	.0376
22	QC_SRM-1643d 108518	-.0167	.0006	0.0089	.2990	.0351	.0141
23	QC CCV1 960126H901	.0075	.0005	1.979	.0368	.9686	.0250
24	ICP1.0 960103F100	.0086	-.0001	-.0004	-.0330	-.0009	-.0023
25	96-3251 @5	.0053	.0010	-.0021	.0659	-.0001	-.0061
26	96-3251	.0060	.0052	-.0018	.2363	.0010	.0050
27	QC_MCVA 9601301901	.0449	.9797	2.463	.0346	.9833	.0382
28	ICP1.0 960103F100	.0016	.0004	-.0030	.0337	-.0009	-.0094
29	96-2980-BLK	.0042	.0059	.0254	.4034	.0026	.0.14
30	96-2980-BLK #2	.0120	.0051	.0150	.1660	.0016	-.0002
31	96-2980 @5	.0300	.0025	.0005	8.285	.0006	.0135
32	96-2980	.1194	.0177	.0440	40.55	.0161	.0759
33	96-2980-PB-A	.0854	.4948	1.247	20.78	.4960	.0614
34	MCVA @2	.0257	.5005	1.262	.0902	.4978	.0205
35	96-2980-PB-B	5.099	.0110	.0191	32.04	.0065	1.004
36	MCVB 2 @2	5.070	.0017	.0021	11.76	-.0014	.9687
37	96-2980 DUP	.1546	.0293	.0415	46.87	.0194	.0852
38	QC_MCVA 9601301901	.0504	.9894	2.433	.1750	.9709	.0322
39	ICP1.0 960103F100	.0040	-.0006	-.0060	-.0548	-.0010	-.0024
40	96-2981	.0050	.0165	.0664	1.612	.0052	.0353
41	96-2981 DUP	.0098	.0166	.0369	.9185	.0040	.0211
42	96-2983	.2126	.0153	.0312	7.770	.0068	.0811
43	96-2983 DUP	.2385	.0242	.0307	9.489	.0109	.1141
44	96-2986	.0540	.0090	.0299	11.37	.0086	.0474
45	96-2986 DUP	.0647	.0052	.0352	12.85	.0095	.0527
46	SRM 2709	.0180	.4776	.0382	.4114	.0222	.0190
47	Al @150 PPM	-.0047	.0001	.0477	.0302	-.0008	.0077
48	Th @10 PPM	10.20	-.0005	-.0027	-.0428	-.0010	.0079
49	U @50 PPM	.1513	-.0011	-.0125	47.57	.0023	.0484
50	QC_MCVA 960130I901	.0792	.9871	2.438	.0732	.9873	.0349
51	ICP1.0 960103F100	-.0008	.0004	.0030	.1545	.0001	.0040
52	96-3316 @5	.2127	3.777	.2065	.8122	.7065	.2016
53	Zn @50 PPM	-.0004	.0062	.0007	.0746	.0000	.0023
54	96-3316	k.9897	k18.89	k1.017	k3.336	k1.812	k.9530
55	96-3316 @2	.4822	9.345	.5230	1.767	.9057	.4703
56	96-3316 @10	.0974	1.862	.0957	.4146	.1846	.0886
57	96-3317	-.0039	.0152	.0145	.2497	.0015	.2875
58	96-3317 @5	.0007	.0027	-.0099	-.0580	-.0017	.0575
59	QC_MCVA 960130I901	.0795	.9823	2.425	-.0051	.9816	.0363
60	QC_MCVB2 960221I901	9.833	.0051	.0262	22.54	-.0030	1.896
61	QC SSTA 951208I902	.3653	.0011	.3256	194.2	.0403	.5220
62	QC SSTMCV 951208I903	.0706	-.0004	-.0092	19.50	.4938	.0273
63	QC_SRM-1643d 108518	-.0117	.0007	0.0058	.3693	.0353	.0182
64	QC CCV1 960126H901	.0069	.0002	1.917	.1260	.9739	.0153
65	ICP1.0 960103F100	-.0011	.0002	-.0064	.1781	.0006	.0093

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Analysis Report Averages Thu 02-22-96 01:24:09 PM page 12

#	Sample Name	Y	Zn	Zr			
1	SPC-BLK 107448	264	350.647	831.333			
2	SPC-BLK 107448	.0147	.0018	.0284			
3	SPC-STD 960103I100	263.333	137037	830.333			
4	SPC-STD 960103I100	.0145	11.22	.0278			
5	ICP1.0	.02646	.03604	.08386			
6	ICP1.1B		2.85566	2.509			
7	ICP1.1A		26.7345	23.5849			
8	ICP1.2						
9	ICP1.3						
10	ICP1.4	2.84109					
11	ICP1.5						
12	ICP1.6						
13	ICP1.7						
14	ICP1.8						
15	ICP1.0 960103F100	.0002	-.0002	-.0018			
16	QC_MCVA 960130I901	.0011	1.008	2.002			
17	QC_MCVA 960130I901	.0011	1.009	2.002			
18	QC_MCVB2 960221I901	.9692	.0040	-.0540			
19	QC_MCVB1 960213I901	.9258	.0036	-.0305			
20	QC SSTA 951208I902	.0231	.0545	.0158			
21	QC SSTMCV 951208I903	.0007	.0013	.5042			
22	QC_SRM-1643d 108518	.0008	8.0747	-.0004			
23	QC CCV1 960126H901	.0003	1.005	-.0016			
24	ICP1.0 960103F100	-.0001	-.0022	-.0011			
25	96-3251 @5	.0001	.0074	-.0005			
26	96-3251	.0011	.0309	.0011			
27	QC_MCVA 960130I901	.0009	.9947	1.965			
28	ICP1.0 960103F100	-.0000	-.0015	-.0002			
29	96-2980-SLR	.0014	.0218	.0031			
30	96-2980-PS-A #2	.0017	.0329	.0006			
31	96-2980 @5	-.0003	.0406	-.0014			
32	96-2980	.0033	.0486	-.0002			
33	96-2980-PS-A	.0027	.5249	.9306			
34	MCVA @2	.0008	.5108	.9950			
35	96-2980-PS-B	.4932	.0258	-.0330			
36	MCVB 2 @2	.4936	.0054	-.0332			
37	96-2980 DUP	.0033	.0508	.0004			
38	QC_MCVA 960130I901	.0014	.9840	1.945			
39	ICP1.0 960103F100	-.0004	.0001	-.0018			
40	96-2981	.0028	.0735	.0136			
41	96-2981 DUP	.0020	.0616	.0024			
42	96-2983	.0207	.1079	.6479			
43	96-2983 DUP	.0212	.0929	.4300			
44	96-2986	.0041	.0302	.0804			
45	96-2986 DUP	.0041	.0314	.0765			
46	SRM 2709	.0046	.0486	.0136			
47	Al @150 PPM	.0001	.0082	-.0009			
48	Th @10 PPM	.0011	.0004	-.0617			
49	U @50 PPM	.0006	.0025	-.0081			
50	QC_MCVA 960130I901	.0007	.9781	1.928			
51	ICP1.0 960103F100	.0000	-.0000	-.0001			
52	96-3316 @5	.0512	49.08	.0490			
53	Zn @50 PPM	.0004	48.77	-.0006			

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Analysis Report Averages Thu 02-22-96 01:24:09 PM page 13

#	Sample Name	Y	Zn	Zr
54	96-3316	k.2453	8586.1	k.2493
55	96-3316 @2	.1254	101.2	.1263
56	96-3316 @10	.0254	24.97	.0242
57	96-3317	.0009	.1863	.0263
58	96-3317 @5	-.0003	.0507	.0033
59	QC_MCVA 960130I901	.0006	1.005	1.938
60	QC_MCVB2 960221I901	.9500	.0662	-.0596
61	QC SSTA 951208I902	.0223	.0700	.0004
62	QC SSTMCV 951206I903	.0005	.0080	.4900
63	QC_SRM-1643d 108518	.0008	0.0750	.0007
64	QC CCV1 960126H901	.0003	1.003	-.0004
65	ICP1.0 960103F100	.0003	.0048	-.0000

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Method: ICP1A Method Report Thu 02-22-96 01:29:06 PM page 1

A4476
ICP-325-405-1
2/22/96 DAB

STATUS INFORMATION **

Version: 34.0
Date Created: 01/18/95 12:46 Date Last Updated: 02/22/96 11:33

Number of elements: 45 Number of lines: 45

# of lines calibrated: 0
# of lines standardized: 45 02/22/96 11:31 - 02/22/96 11:31

Data collection mode: Spectrum Shifter <1 positions>

Approx. time for analysis 1.2 mins.

Protection status: Un-protected

METHOD INFORMATION **

Sample Introduction Device: Normal
Calibration Mode: Concentration

Default Setup:

Number of Repeats : 3
Flush Time (sec) : 45.0
Auto-Increment Sample Names? No

Auto-store Analysis Data? Yes
Auto-store Stdzn Data? Yes
Store Individual Repeats? Yes
Auto-print Analysis Data? Yes
Auto-print Stdzn Report : None
Condensed Print Format? No

Default File Names:

Analysis Data File : A0076
Calibration Data File : ICP1CAL
Calibration Stds Table : ICP1STDS

Autosampler Table : AUTOTAB
Sample Limits Table : LCTAB
Blank Limits Table : NONE
QC Check Table : ICV1

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Method: ICP1A Method Report Thu 02-22-96 01:27:06 PM page 2

OUTPUT INFORMATION **

Output Mode:	Concentration
Override Print Limits?	Yes
Override Significant Figures?	No
Apply Background Correction?	No
Apply Blank Subtraction?	No
Limits Table: LCTAB Check?	No
Correction Factor:	1

Report to:

Screen	Avgs, Stats, Reps, Errs, Units
Printer	Avgs, Stats, Reps, Errs, Units
Drive A:	Avgs, Stats, Reps, Errs, Units

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Method: ICP1A Element Information Thu 02-22-96 01:29:06 PM page 3

Element:	Ag	Al	As	B	Ba
Wavelength:	328.068	308.215	193.600	249.600/2	493.400
Element Name:	Ag	Al	As	B	Ba
Line Switch Conc:	0	0	0	0	0
Peak SS Offset:	0	0	0	0	0
Timing Group No.:	1	1	1	1	1
Print Limit Low:	0	0	0	0	0
Print Limit High:	0	0	0	0	0
Significant Figrs:	4	4	4	4	4
Print Units:	ppm	ppm	ppm	ppm	ppm
BKG Low SS Offset:	NONE	NONE	NONE	NONE	NONE
BKG High SS Offset:	NONE	NONE	NONE	NONE	NONE
BKG Element Name:	---n/a---	---n/a---	---n/a---	---n/a---	---n/a---
BKG Factor:	---n/a---	---n/a---	---n/a---	---n/a---	---n/a---
Stdz. Method:	2pt Uncalib	2pt Uncalib	2pt Uncalib	2pt Uncalib	Multiple
Std #1 (High) Name:	ICP1.7	ICP1.2	ICP1.4	ICP1.2	ICP1.0
Conc/Sig:	10	500	100	50	0
Std #2 (Low) Name:	ICP1.0	ICP1.0	ICP1.0	ICP1.0	ICP1.1B
Conc/Sig:	0	0	0	0	1
Std #3 Name:	---n/a---	---n/a---	---n/a---	---n/a---	ICP1.14
Conc:	---n/a---	---n/a---	---n/a---	---n/a---	10
Std #4 Name:	---n/a---	---n/a---	---n/a---	---n/a---	---n/a---
Conc:	---n/a---	---n/a---	---n/a---	---n/a---	---n/a---
Std #5 Name:	---n/a---	---n/a---	---n/a---	---n/a---	---n/a---
Conc:	---n/a---	---n/a---	---n/a---	---n/a---	---n/a---
Y - intercept:	-.265861	-1.84975	-.827976	-.184856	-.045694
Slope:	.372337	8.18352	4.84669	1.24129	1.37206
Date Standardized:	02/22/96	02/22/96	02/22/96	02/22/96	02/22/96
Time Standardized:	11:31	11:31	11:31	11:31	11:31
Offset (A0):	0	0	0	0	0
Gain (A1):	1	1	1	1	1
Curvature (A2):	0	0	0	0	0
Exponent (n):	1	1	1	1	1
Max. Inflection:	NONE	NONE	NONE	NONE	NONE
Date of Fit:	NO FIT	NO FIT	NO FIT	NO FIT	NO FIT
Time of Fit:					
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	10	10	8	6	0

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Affecting Element:	Ce	Ce	Al	Be	--n/a--
k1 factor:	.000535	.012687	.012024	.000897	--n/a--
k2 factor:	0	0	0	0	--n/a--
use?:	YES	YES	YES	YES	--n/a--
Affecting Element:	Dy	Dy	Dy	Co	--n/a--
k1 factor:	.002743	.010955	.001842	.001651	--n/a--
k2 factor:	0	0	0	0	--n/a--
use?:	YES	YES	YES	YES	--n/a--
Affecting Element:	Nd	Mn	Eu	Dy	--n/a--
k1 factor:	.000773	.002055	.186511	.001151	--n/a--
k2 factor:	0	0	0	0	--n/a--
use?:	YES	YES	YES	YES	--n/a--
Affecting Element:	Rh	Mo	Nd	U	--n/a--
k1 factor:	.005704	.015955	.006134	.000799	--n/a--
k2 factor:	0	0	0	0	--n/a--
use?:	YES	YES	YES	YES	--n/a--
Affecting Element:	Th	Nd	Rh	W	--n/a--
k1 factor:	.001727	.003461	.001857	.001568	--n/a--
k2 factor:	0	0	0	0	--n/a--
use?:	YES	YES	YES	YES	--n/a--
Affecting Element:	Ti	Th	Ru	Zr	--n/a--
k1 factor:	.000462	.126343	.005416	.001975	--n/a--
k2 factor:	0	0	0	0	--n/a--
use?:	YES	YES	YES	YES	--n/a--
Affecting Element:	U	Ti	U	--n/a--	--n/a--
k1 factor:	.002995	.005553	.002798	--n/a--	--n/a--
k2 factor:	0	0	0	--n/a--	--n/a--
use?:	YES	YES	YES	--n/a--	--n/a--
Affecting Element:	V	U	V	--n/a--	--n/a--
k1 factor:	.000362	.029188	.007452	--n/a--	--n/a--
k2 factor:	0	0	0	--n/a--	--n/a--
use?:	YES	YES	YES	--n/a--	--n/a--
Affecting Element:	Y	V	--n/a--	--n/a--	--n/a--
k1 factor:	.00103	.022286	--n/a--	--n/a--	--n/a--
k2 factor:	0	0	--n/a--	--n/a--	--n/a--
use?:	YES	YES	--n/a--	--n/a--	--n/a--

Method: ICP1A Element Information Thu 02-22-96 01:29:06 PM page 5

Affecting Element:	Zr	Zr	--n/a--	--n/a--	--n/a--
k1 factor:	.006176	.00132	--n/a--	--n/a--	--n/a--
k2 factor:	0	0	--n/a--	--n/a--	--n/a--
use?:	YES	YES	--n/a--	--n/a--	--n/a--

Element:	Be	Bi	Ca	Cd	Ce
Wavelength:	313.042	223.061/2	317.900	228.800/2	418.659
Element Name:	Be	Bi	Ca	Cd	Ce
Line Switch Conc:	0	0	0	0	0
Peak SS Offset:	0	0	0	0	0
Timing Group No.:	1	1	1	1	1
Print Limit Low:	0	0	0	0	0
Print Limit High:	0	0	0	0	0
Significant Figrs:	4	4	4	4	4
Print Units:	ppm	ppm	ppm	ppm	ppm
BKG Low SS Offset:	NONE	NONE	NONE	NONE	NONE
BKG High SS Offset:	NONE	NONE	NONE	NONE	NONE
BKG Element Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
BKG Factor:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--

Stdz. Method:	2pt Uncalib	2pt Uncalib	2pt Uncalib	2pt Uncalib	2pt Uncalib
Std #1 (High) Name:	ICP1.6	ICP1.7	ICP1.2	ICP1.2	ICP1.4
Conc/Sig:	1	100	250	10	50
Std #2 (Low) Name:	ICP1.0	ICP1.0	ICP1.0	ICP1.0	ICP1.0
Conc/Sig:	0	0	0	0	0
Std #3 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #4 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #5 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--

Method: IDF1A Element Information Thu 02-22-96 01:09:06 PM page 6

Y - intercept:	-.011677	-.724206	-.429374	-.064311	-1.61813
Slope:	.61222	4.50563	3.19396	1.13825	2.3789
Date Standardized:	02/22/96	02/22/96	02/22/96	02/22/96	02/22/96
Time Standardized:	11:31	11:31	11:31	11:31	11:31
Offset (A0):	0	0	0	0	0
Gain (A1):	1	1	1	1	1
Curvature (A2):	0	0	0	0	0
Exponent (n):	1	1	1	1	1
Max. Inflection:	NONE	NONE	NONE	NONE	NONE
Date of Fit:	NO FIT	NO FIT	NO FIT	NO FIT	NO FIT
Time of Fit:					
Use IEDs:	YES	YES	YES	YES	YES
Number of IEDs:	3	4	5	2	4
Affecting Element:	Ce	Ce	Dy	As	Dy
k1 factor:	.000192	.001007	.002009	.011346	.005802
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	U	Cu	Th	Se	Nd
k1 factor:	.000108	.009427	.00224	.002181	.009992
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	V	Ti	U	---n/a---	U
k1 factor:	.004724	.002355	.004348	---n/a---	.005964
k2 factor:	0	0	0	---n/a---	0
use?:	YES	YES	YES	---n/a---	YES
Affecting Element:	---n/a---	W	W	---n/a---	Zr
k1 factor:	---n/a---	.001986	.002238	---n/a---	.050657
k2 factor:	---n/a---	0	0	---n/a---	0
use?:	---n/a---	YES	YES	---n/a---	YES
Affecting Element:	---n/a---	---n/a---	Y	---n/a---	---n/a---
k1 factor:	---n/a---	---n/a---	.060271	---n/a---	---n/a---
k2 factor:	---n/a---	---n/a---	0	---n/a---	---n/a---
use?:	---n/a---	---n/a---	YES	---n/a---	---n/a---

Method: ICP1A Element Information Thu 02-22-96 01:29:06 PM page 7

Element:	Co	Cr	Cu	Dy	Eu
Wavelength:	228.600	205.500/2	324.700	353.170	381.900
Element Name:	Co	Cr	Cu	Dy	Eu
Line Switch Conc:	0	0	0	0	0
Peak SS Offset:	0	0	0	0	0
Timing Group No.:	1	1	1	1	1
Print Limit Low:	0	0	0	0	0
Print Limit High:	0	0	0	0	0
Significant Figrs:	4	4	4	4	4
Print Units:	ppm	ppm	ppm	ppm	ppm
BKG Low SS Offset:	NONE	NONE	NONE	NONE	NONE
BKG High SS Offset:	NONE	NONE	NONE	NONE	NONE
BKG Element Name:	---n/a---	---n/a---	---n/a---	---n/a---	---n/a---
BKG Factor:	---n/a---	---n/a---	---n/a---	---n/a---	---n/a---
Stdz. Method:	Multiple	Multiple	Multiple	2pt Uncalib	2pt Uncalib
Std #1 (High) Name:	ICP1.0	ICP1.0	ICP1.0	ICP1.3	ICP1.3
Conc/Sig:	0	0	0	50	20
Std #2 (Low) Name:	ICP1.1B	ICP1.1B	ICP1.1B	ICP1.0	ICP1.0
Conc/Sig:	2	2	2	0	0
Std #3 Name:	ICP1.1A	ICP1.1A	ICP1.1A	---n/a---	---n/a---
Conc:	20	20	20	---n/a---	---n/a---
Std #4 Name:	---n/a---	---n/a---	---n/a---	---n/a---	---n/a---
Conc:	---n/a---	---n/a---	---n/a---	---n/a---	---n/a---
Std #5 Name:	---n/a---	---n/a---	---n/a---	---n/a---	---n/a---
Conc:	---n/a---	---n/a---	---n/a---	---n/a---	---n/a---
Y-Intercept:	-.10402	-.03734	-.27892	-.260623	-.076004
Slope:	.17728	1.76418	5.15071	1.2348	2.05683
Date Standardized:	02/22/96	02/22/96	02/22/96	02/22/96	02/22/96
Time Standardized:	11:31	11:31	11:31	11:31	11:31
Offset (A0):	0	0	0	0	0
Gain (A1):	1	1	1	1	1
Curvature (A2):	0	0	0	0	0
Exponent (n):	1	1	1	1	1
Max. Inflection:	NONE	NONE	NONE	NONE	NONE
Date of Fit:	NO FIT	NO FIT	NO FIT	NO FIT	NO FIT
Time of Fit:					
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	8	4	12	6	1

Method: ICP1A Element Information Thu 02-22-96 01:29:06 PM

Affecting Element:	Ba	Be	Cr	Ce	Nd
k1 factor:	.000739	.001451	.000242	.002012	.00315
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES

Affecting Element:	Cd	Ce	Dy	Eu	--n/a--
k1 factor:	.001359	.000481	.002714	.002116	--n/a--
k2 factor:	0	0	0	0	--n/a--
use?:	YES	YES	YES	YES	--n/a--

Affecting Element:	Cr	Dy	Eu	Mn	--n/a--
k1 factor:	.000533	.001419	.000487	.002061	--n/a--
k2 factor:	0	0	0	0	--n/a--
use?:	YES	YES	YES	YES	--n/a--

Affecting Element:	Dy	Mo	Fe	Nd	--n/a--
k1 factor:	.001155	.000761	.000676	.003885	--n/a--
k2 factor:	0	0	0	0	--n/a--
use?:	YES	YES	YES	YES	--n/a--

Affecting Element:	Ni	--n/a--	La	Th	--n/a--
k1 factor:	.000643	--n/a--	.000916	.001593	--n/a--
k2 factor:	0	--n/a--	0	0	--n/a--
use?:	YES	--n/a--	YES	YES	--n/a--

Affecting Element:	Ti	--n/a--	Mg	U	--n/a--
k1 factor:	.001715	--n/a--	.000366	.001046	--n/a--
k2 factor:	0	--n/a--	0	0	--n/a--
use?:	YES	--n/a--	YES	YES	--n/a--

Affecting Element:	U	--n/a--	Mo	--n/a--	--n/a--
k1 factor:	.000572	--n/a--	.000738	--n/a--	--n/a--
k2 factor:	0	--n/a--	0	--n/a--	--n/a--
use?:	YES	--n/a--	YES	--n/a--	--n/a--

Affecting Element:	W	--n/a--	Nd	--n/a--	--n/a--
k1 factor:	.001249	--n/a--	.000946	--n/a--	--n/a--
k2 factor:	0	--n/a--	0	--n/a--	--n/a--
use?:	YES	--n/a--	YES	--n/a--	--n/a--

Affecting Element:	--n/a--	--n/a--	Th	--n/a--	--n/a--
k1 factor:	--n/a--	--n/a--	.003219	--n/a--	--n/a--
k2 factor:	--n/a--	--n/a--	0	--n/a--	--n/a--
use?:	--n/a--	--n/a--	YES	--n/a--	--n/a--

Method: ICP1A Element Information Thu 02-22-96 01:29:06 PM page 9

Affecting Element:	--n/a--	--n/a--	Ti	--n/a--	--n/a--
k1 factor:	--n/a--	--n/a--	.006357	--n/a--	--n/a--
k2 factor:	--n/a--	--n/a--	0	--n/a--	--n/a--
use?:	--n/a--	--n/a--	YES	--n/a--	--n/a--
Affecting Element:	--n/a--	--n/a--	U	--n/a--	--n/a--
k1 factor:	--n/a--	--n/a--	.002396	--n/a--	--n/a--
k2 factor:	--n/a--	--n/a--	0	--n/a--	--n/a--
use?:	--n/a--	--n/a--	YES	--n/a--	--n/a--
Affecting Element:	--n/a--	--n/a--	Y	--n/a--	--n/a--
k1 factor:	--n/a--	--n/a--	.001987	--n/a--	--n/a--
k2 factor:	--n/a--	--n/a--	0	--n/a--	--n/a--
use?:	--n/a--	--n/a--	YES	--n/a--	--n/a--

Element:	Fe	K	La	Li	Mg
Wavelength:	259.900	766.500	398.852	670.700	279.078
Element Name:	Fe	K	La	Li	Mg
Line Switch Conc:	0	0	0	0	0
Peak SS Offset:	0	0	0	0	0
Timing Group No.:	1	1	1	1	1
Print Limit Low:	0	0	0	0	0
Print Limit High:	0	0	0	0	0
Significant Figrs:	4	4	4	4	4
Print Units:	ppm	ppm	ppm	ppm	ppm
BKG Low SS Offset:	NONE	NONE	NONE	NONE	NONE
BKG High SS Offset:	NONE	NONE	NONE	NONE	NONE
BKG Element Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
BKG Factor:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--

Stdz. Method:	Multiple	2pt Uncalib	2pt Uncalib	2pt Uncalib	Multiple
Std #1 (High) Name:	ICP1.0	ICP1.2	ICP1.3	ICP1.2	ICP1.0
Conc/Sig:	0	500	20	50	0
Std #2 (Low) Name:	ICP1.1B	ICP1.0	ICP1.0	ICP1.0	ICP1.1B
Conc/Sig:	20	0	0	0	25
Std #3 Name:	ICP1.1A	--n/a--	--n/a--	--n/a--	ICP1.1A
Conc:	200	--n/a--	--n/a--	--n/a--	250
Std #4 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #5 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--

Method: ICP1A Element Information Thu 02-22-96 01:29:06 PM page 10

Y - intercept:	-.192336	-49.5867	-.425375	-.203029	-1.61932
Slope:	2.90734	228.791	3.97052	4.81491	6.17403
Date Standardized:	02/22/96	02/22/96	02/22/96	02/22/96	02/22/96
Time Standardized:	11:31	11:31	11:31	11:31	11:31
Offset (A0):	0	0	0	0	0
Gain (A1):	1	1	1	1	1
Curvature (A2):	0	0	0	0	0
Exponent (n):	1	1	1	1	1
Max. Inflection:	NONE	NONE	NONE	NONE	NONE
Date of Fit:	NO FIT	NO FIT	NO FIT	NO FIT	NO FIT
Time of Fit:					
Use IECs:	YES	NO	YES	NO	YES
Number of IECs:	6	0	5	0	8
Affecting Element:	Dy	--n/a--	Cs	--n/a--	Cr
k1 factor:	.000624	--n/a--	.001207	--n/a--	.00319
k2 factor:	0	--n/a--	0	--n/a--	0
use?:	YES	--n/a--	YES	--n/a--	YES
Affecting Element:	Mn	--n/a--	Eu	--n/a--	Dy
k1 factor:	.001523	--n/a--	.002747	--n/a--	.004786
k2 factor:	0	--n/a--	0	--n/a--	0
use?:	YES	--n/a--	YES	--n/a--	YES
Affecting Element:	Mo	--n/a--	Nd	--n/a--	Mn
k1 factor:	.000575	--n/a--	.002969	--n/a--	.00544
k2 factor:	0	--n/a--	0	--n/a--	0
use?:	YES	--n/a--	YES	--n/a--	YES
Affecting Element:	U	--n/a--	Th	--n/a--	Mo
k1 factor:	.001721	--n/a--	.002739	--n/a--	.00267
k2 factor:	0	--n/a--	0	--n/a--	0
use?:	YES	--n/a--	YES	--n/a--	YES
Affecting Element:	V	--n/a--	U	--n/a--	Nd
k1 factor:	.000605	--n/a--	.002027	--n/a--	.001613
k2 factor:	0	--n/a--	0	--n/a--	0
use?:	YES	--n/a--	YES	--n/a--	YES
Affecting Element:	Zr	--n/a--	--n/a--	--n/a--	Rh
k1 factor:	.000941	--n/a--	--n/a--	--n/a--	.008586
k2 factor:	0	--n/a--	--n/a--	--n/a--	0
use?:	YES	--n/a--	--n/a--	--n/a--	YES

Method: ICP1A Element Information Thu 02-22-96 01:29:06 PM page 11

Affecting Element:	--n/a--	--n/a--	--n/a--	--n/a--	Th
k1 factor:	--n/a--	--n/a--	--n/a--	--n/a--	.014641
k2 factor:	--n/a--	--n/a--	--n/a--	--n/a--	0
use?:	--n/a--	--n/a--	--n/a--	--n/a--	YES
Affecting Element:	--n/a--	--n/a--	--n/a--	--n/a--	U
k1 factor:	--n/a--	--n/a--	--n/a--	--n/a--	.041917
k2 factor:	--n/a--	--n/a--	--n/a--	--n/a--	0
use?:	--n/a--	--n/a--	--n/a--	--n/a--	YES

Element:	Mn	Mo	Na	Nd	Ni
Wavelength:	257.600	202.000	588.900	406.106	231.600/2
Element Name:	Mn	Mo	Na	Nd	Ni
Line Switch Conc:	0	0	0	0	0
Peak SS Offset:	0	0	0	0	0
Timing Group No.:	1	1	1	1	1
Print Limit Low:	0	0	0	0	0
Print Limit High:	0	0	0	0	0
Significant Figrs:	4	4	4	4	4
Print Units:	ppm	ppm	ppm	ppm	ppm
BKG Low SS Offset:	NONE	NONE	NONE	NONE	NONE
BKG High SS Offset:	NONE	NONE	NONE	NONE	NONE
BKG Element Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
BKG Factor:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Stdz. Method:	2pt Uncalib	Multiple	Multiple	2pt Uncalib	Multiple
Std #1 (High) Name:	ICP1.2	ICP1.0	ICP1.0	ICP1.3	ICP1.0
Conc/Sig:	10	0	0	50	0
Std #2 (Low) Name:	ICP1.0	ICP1.1B	ICP1.1B	ICP1.0	ICP1.1B
Conc/Sig:	0	2	25	0	2
Std #3 Name:	--n/a--	ICP1.1A	ICP1.1A	--n/a--	ICP1.1A
Conc:	--n/a--	20	250	--n/a--	20
Std #4 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #5 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--

Method: ICP1A Element Information Thu 02-22-96 01:29:06 PM page 12

Y - intercept:	-.034898	-.157215	-2.40712	-1.48722	-.186777
Slope:	1.63586	1.80285	55.4276	3.73579	3.51473
Date Standardized:	02/22/96	02/22/96	02/22/96	02/22/96	02/22/96
Time Standardized:	11:31	11:31	11:31	11:31	11:31
Offset (A0):	0	0	0	0	0
Gain (A1):	1	1	1	1	1
Curvature (A2):	0	0	0	0	0
Exponent (n):	1	1	1	1	1
Max. Inflection:	NONE	NONE	NONE	NONE	NONE
Date of Fit:	NO FIT	NO FIT	NO FIT	NO FIT	NO FIT
Time of Fit:					
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	6	5	2	4	1
Affecting Element:	Eu	Al	Ru	Ce	Cs
k1 factor:	.000177	.000456	.018339	.002352	.001552
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	Ru	Cr	Sr	Dy	--n/a--
k1 factor:	.000424	.00176	.003471	.003982	--n/a--
k2 factor:	0	0	0	0	--n/a--
use?:	YES	YES	YES	YES	--n/a--
Affecting Element:	Th	Dy	--n/a--	Sr	--n/a--
k1 factor:	.000282	.00076	--n/a--	.002465	--n/a--
k2 factor:	0	0	--n/a--	0	--n/a--
use?:	YES	YES	--n/a--	YES	--n/a--
Affecting Element:	U	Nd	--n/a--	U	--n/a--
k1 factor:	.000362	.001485	--n/a--	.00473	--n/a--
k2 factor:	0	0	--n/a--	0	--n/a--
use?:	YES	YES	--n/a--	YES	--n/a--
Affecting Element:	W	Zn	--n/a--	--n/a--	--n/a--
k1 factor:	.000468	.000404	--n/a--	--n/a--	--n/a--
k2 factor:	0	0	--n/a--	--n/a--	--n/a--
use?:	YES	YES	--n/a--	--n/a--	--n/a--
Affecting Element:	Zr	--n/a--	--n/a--	--n/a--	--n/a--
k1 factor:	.000163	--n/a--	--n/a--	--n/a--	--n/a--
k2 factor:	0	--n/a--	--n/a--	--n/a--	--n/a--
use?:	YES	--n/a--	--n/a--	--n/a--	--n/a--

Method: ICP1A Element Information Thu 02-22-96 01:29:06 PM page 13

Element:	P	Pb	Pd	Rh	Ru
Wavelength:	214.900/2	220.300	360.959	343.489	240.271
Element Name:	P	Pb	Pd	Rh	Ru
Line Switch Conc:	0	0	0	0	0
Peak SS Offset:	0	0	0	0	0
Timing Group No.:	1	1	1	1	1
Print Limit Low:	0	0	0	0	0
Print Limit High:	0	0	0	0	0
Significant Figrs:	4	4	4	4	4
Print Units:	ppm	ppm	ppm	ppm	ppm
BKG Low SS Offset:	NONE	NONE	NONE	NONE	NONE
BKG High SS Offset:	NONE	NONE	NONE	NONE	NONE
BKG Element Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
BKG Factor:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Stdz. Method:	2pt Uncalib	Multiple	2pt Uncalib	2pt Uncalib	2pt Uncalib
Std #1 (High) Name:	ICP1.2	ICP1.0	ICP1.8	ICP1.8	ICP1.3
Conc/Sig:	100	0	50	50	50
Std #2 (Low) Name:	ICP1.0	ICP1.1B	ICP1.0	ICP1.0	ICP1.0
Conc/Sig:	0	5	0	0	0
Std #3 Name:	--n/a--	ICP1.1A	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	50	--n/a--	--n/a--	--n/a--
Std #4 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #5 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Y - intercept:	-1.20249	-1.29137	-4.84381	-1.96924	-.703285
Slope:	8.75811	.880793	3.0092	1.21703	1.53568
Date Standardized:	02/22/96	02/22/96	02/22/96	02/22/96	02/22/96
Time Standardized:	11:31	11:31	11:31	11:31	11:31
Offset (A0):	0	0	0	0	0
Gain (A1):	1	1	1	1	1
Curvature (A2):	0	0	0	0	0
Exponent (n):	1	1	1	1	1
Max. Inflection:	NONE	NONE	NONE	NONE	NONE
Date of Fit:	NO FIT	NO FIT	NO FIT	NO FIT	NO FIT
Time of Fit:					
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	7	9	10	7	3

Method: ICP1A Element Information Thu 02-22-96 01:29:06 PM page 14

Affecting Element:	Al	Bi	Ce	Dy	Co
k1 factor:	.003246	.001836	.128897	.014952	.001951
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES

Affecting Element:	Cd	Ce	Cr	Eu	Fe
k1 factor:	.003297	.002686	.006472	.024323	.014701
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES

Affecting Element:	Cu	Co	Dy	Mo	U
k1 factor:	.014614	.00183	.042973	.005936	.003186
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES

Affecting Element:	Dy	Dy	Eu	Nd	--n/a--
k1 factor:	.011582	.010275	.009689	.007429	--n/a--
k2 factor:	0	0	0	0	--n/a--
use?:	YES	YES	YES	YES	--n/a--

Affecting Element:	Mg	Eu	Fe	Th	--n/a--
k1 factor:	.004447	.004785	.005799	.024835	--n/a--
k2 factor:	0	0	0	0	--n/a--
use?:	YES	YES	YES	YES	--n/a--

Affecting Element:	Mo	Nd	Nd	U	--n/a--
k1 factor:	.006609	.006044	.055063	.008102	--n/a--
k2 factor:	0	0	0	0	--n/a--
use?:	YES	YES	YES	YES	--n/a--

Affecting Element:	Y	Eu	Th	Zr	--n/a--
k1 factor:	.029561	.003961	.649964	.003977	--n/a--
k2 factor:	0	0	0	0	--n/a--
use?:	YES	YES	YES	YES	--n/a--

Affecting Element:	--n/a--	U	U	--n/a--	--n/a--
k1 factor:	--n/a--	.00405	.036963	--n/a--	--n/a--
k2 factor:	--n/a--	0	0	--n/a--	--n/a--
use?:	--n/a--	YES	YES	--n/a--	--n/a--

Affecting Element:	--n/a--	W	Y	--n/a--	--n/a--
k1 factor:	--n/a--	.00421	2.03458	--n/a--	--n/a--
k2 factor:	--n/a--	0	0	--n/a--	--n/a--
use?:	--n/a--	YES	YES	--n/a--	--n/a--

Method: ICP1A Element Information Thu 02-22-96 01:29:06 PM page 15

Affecting Element:	--n/a--	--n/a--	Zr	--n/a--	--n/a--
k1 factor:	--n/a--	--n/a--	.00521	--n/a--	--n/a--
k2 factor:	--n/a--	--n/a--	0	--n/a--	--n/a--
use?:	--n/a--	--n/a--	YES	--n/a--	--n/a--

Element:	Sb	Se	Si	Sn	Sr
Wavelength:	206.838	196.026	288.100	242.950	421.500
Element Name:	Sb	Se	Si	Sn	Sr
Line Switch Conc:	0	0	0	0	0
Peak SS Offset:	0	0	0	0	0
Timing Group No.:	1	1	1	1	1
Print Limit Low:	0	0	0	0	0
Print Limit High:	0	0	0	0	0
Significant Figrs:	4	4	4	4	4
Print Units:	ppm	ppm	ppm	ppm	ppm
BKG Low SS Offset:	NONE	NONE	NONE	NONE	NONE
BKG High SS Offset:	NONE	NONE	NONE	NONE	NONE
BKG Element Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
BKG Factor:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--

Stdz. Method:	2pt Uncalib	2pt Uncalib	2pt Uncalib	2pt Uncalib	Multiple
Std #1 (High) Name:	ICP1.4	ICP1.7	ICP1.6	ICP1.5	ICP1.0
Conc/Sig:	100	20	200	50	0
Std #2 (Low) Name:	ICP1.0	ICP1.0	ICP1.0	ICP1.0	ICP1.1B
Conc/Sig:	0	0	0	0	1
Std #3 Name:	--n/a--	--n/a--	--n/a--	--n/a--	ICP1.1A
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	10
Std #4 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #5 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--

Method: ICP1A Element Information Thu 02-22-96 01:29:06 PM page 16

Y - intercept:	-1.13456	-1.03207	-1.23348	-6.15081	-.019901
Slope:	4.0841	6.70174	2.8406	8.42384	1.23211
Date Standardized:	02/22/96	02/22/96	02/22/96	02/22/96	02/22/96
Time Standardized:	11:31	11:31	11:31	11:31	11:31
Offset (A0):	0	0	0	0	0
Gain (A1):	1	1	1	1	1
Curvature (A2):	0	0	0	0	0
Exponent (n):	1	1	1	1	1
Max. Inflection:	NONE	NONE	NONE	NONE	NONE
Date of Fit:	NO FIT	NO FIT	NO FIT	NO FIT	NO FIT
Time of Fit:					
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	5	3	12	11	1
Affecting Element:	Al	Co	Cr	Co	Nd
k1 factor:	.002972	.001743	.003638	.020492	.000122
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	Ce	Pd	Dy	Dy	--n/a--
k1 factor:	.001194	.00342	.005381	.010768	--n/a--
k2 factor:	0	0	0	0	--n/a--
use?:	YES	YES	YES	YES	--n/a--
Affecting Element:	Cr	W	Mg	Fe	--n/a--
k1 factor:	.0166	.003462	.004317	.042679	--n/a--
k2 factor:	0	0	0	0	--n/a--
use?:	YES	YES	YES	YES	--n/a--
Affecting Element:	Dy	--n/a--	Mo	Mn	--n/a--
k1 factor:	.003614	--n/a--	.002135	.004569	--n/a--
k2 factor:	0	--n/a--	0	0	--n/a--
use?:	YES	--n/a--	YES	YES	--n/a--
Affecting Element:	Mo	--n/a--	Pd	Mo	--n/a--
k1 factor:	.011727	--n/a--	.001831	.053073	--n/a--
k2 factor:	0	--n/a--	0	0	--n/a--
use?:	YES	--n/a--	YES	YES	--n/a--
Affecting Element:	--n/a--	--n/a--	Rh	Nd	--n/a--
k1 factor:	--n/a--	--n/a--	.002438	.015324	--n/a--
k2 factor:	--n/a--	--n/a--	0	0	--n/a--
use?:	--n/a--	--n/a--	YES	YES	--n/a--

Method: ICP1A Element Information Thu 02-22-96 01:29:06 PM page 17

Affecting Element:	--n/a--	--n/a--	Ru	Rh	--n/a--
k1 factor:	--n/a--	--n/a--	.00249	.06944	--n/a--
k2 factor:	--n/a--	--n/a--	0	0	--n/a--
use?:	--n/a--	--n/a--	YES	YES	--n/a--
Affecting Element:	--n/a--	--n/a--	Th	Ru	--n/a--
k1 factor:	--n/a--	--n/a--	.002444	.008563	--n/a--
k2 factor:	--n/a--	--n/a--	0	0	--n/a--
use?:	--n/a--	--n/a--	YES	YES	--n/a--
Affecting Element:	--n/a--	--n/a--	U	U	--n/a--
k1 factor:	--n/a--	--n/a--	.017319	.022943	--n/a--
k2 factor:	--n/a--	--n/a--	0	0	--n/a--
use?:	--n/a--	--n/a--	YES	YES	--n/a--
Affecting Element:	--n/a--	--n/a--	V	W	--n/a--
k1 factor:	--n/a--	--n/a--	.003455	.066251	--n/a--
k2 factor:	--n/a--	--n/a--	0	0	--n/a--
use?:	--n/a--	--n/a--	YES	YES	--n/a--
Affecting Element:	--n/a--	--n/a--	W	Zr	--n/a--
k1 factor:	--n/a--	--n/a--	.027862	.006835	--n/a--
k2 factor:	--n/a--	--n/a--	0	0	--n/a--
use?:	--n/a--	--n/a--	YES	YES	--n/a--
Affecting Element:	--n/a--	--n/a--	Zr	--n/a--	--n/a--
k1 factor:	--n/a--	--n/a--	.027261	--n/a--	--n/a--
k2 factor:	--n/a--	--n/a--	0	--n/a--	--n/a--
use?:	--n/a--	--n/a--	YES	--n/a--	--n/a--

Method: ICP1A Element Information Thu 02-22-96 01:29:[illegible] page 18

Element:	Te	Th	Ti	Tl	U
Wavelength:	214.275	283.730	334.900	190.864	378.280
Element Name:	Te	Th	Ti	Tl	U
Line Switch Conc:	0	0	0	0	0
Peak SS Offset:	0	0	0	0	0
Timing Group No.:	1	1	1	1	1
Print Limit Low:	0	0	0	0	0
Print Limit High:	0	0	0	0	0
Significant Figrs:	4	4	4	4	4
Print Units:	ppm	ppm	ppm	ppm	ppm
BKG Low SS Offset:	NONE	NONE	NONE	NONE	NONE
BKG High SS Offset:	NONE	NONE	NONE	NONE	NONE
BKG Element Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
BKG Factor:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Stdz. Method:	2pt Uncalib	2pt Uncalib	Multiple	2pt Uncalib	2pt Uncalib
Std #1 (High) Name:	ICP1.6	ICP1.3	ICP1.0	ICP1.7	ICP1.5
Conc/Sig:	50	50	0	20	500
Std #2 (Low) Name:	ICP1.0	ICP1.0	ICP1.18	ICP1.0	ICP1.0
Conc/Sig:	0	0	2	0	0
Std #3 Name:	--n/a--	--n/a--	ICP1.19	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	20	--n/a--	--n/a--
Std #4 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Std #5 Name:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Conc:	--n/a--	--n/a--	--n/a--	--n/a--	--n/a--
Y - intercept:	-1.1859	-1.16884	-.103537	-.706815	-21.1999
Slope:	1.08945	4.66e66	1.48712	17.1004	11.6643
Date Standardized:	02/22/96	02/22/96	02/22/96	02/22/96	02/22/96
Time Standardized:	11:31	11:31	11:31	11:31	11:31
Offset (A0):	0	0	0	0	0
Gain (A1):	1	1	1	1	1
Curvature (A2):	0	0	0	0	0
Exponent (n):	1	1	1	1	1
Max. Inflection:	NONE	NONE	NONE	NONE	NONE
Date of Fit:	NO FIT	NO FIT	NO FIT	NO FIT	NO FIT
Time of Fit:					
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	8	5	8	7	8

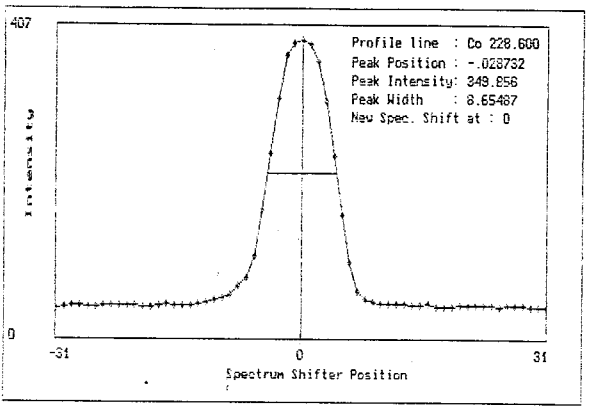
Affecting Element:	Cd	Cr	Cr	Al	Ce
k1 factor:	.040162	.036159	.0003	.0016	.169675
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	Dy	Dy	Dy	Eu	Dy
k1 factor:	.015296	.007793	.000485	.001603	.413306
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	La	Mg	Eu	Mo	Eu
k1 factor:	.010036	.004806	.000323	.009212	.026711
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	Th	U	La	Ti	La
k1 factor:	.002011	.058804	.000143	.007052	.026043
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	Ti	Zr	Nd	U	Nd
k1 factor:	.003135	.017497	.000583	.001554	.301883
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	U	--n/a--	Th	V	Th
k1 factor:	.001617	--n/a--	.000409	.002413	.331233
k2 factor:	0	--n/a--	0	0	0
use?:	YES	--n/a--	YES	YES	YES
Affecting Element:	V	--n/a--	U	W	V
k1 factor:	.047442	--n/a--	.000787	.048402	.090953
k2 factor:	0	--n/a--	0	0	0
use?:	YES	--n/a--	YES	YES	YES
Affecting Element:	Zn	--n/a--	Zr	--n/a--	Zr
k1 factor:	.004546	--n/a--	.000182	--n/a--	.136035
k2 factor:	0	--n/a--	0	--n/a--	0
use?:	YES	--n/a--	YES	--n/a--	YES

Method: ICP1A Element Information Thu 02-22-96 01:29:06 PM page 20

Element:	V	W	Y	Zn	Zr
Wavelength:	292.402	224.875/2	371.030	213.800/2	339.198
Element Name:	V	W	Y	Zn	Zr
Line Switch Conc:	0	0	0	0	0
Peak SS Offset:	0	0	0	0	0
Timing Group No.:	1	1	1	1	1
Print Limit Low:	0	0	0	0	0
Print Limit High:	0	0	0	0	0
Significant Figrs:	4	4	4	4	4
Print Units:	ppm	ppm	ppm	ppm	ppm
BKG Low SS Offset:	NONE	NONE	NONE	NONE	NONE
BKG High SS Offset:	NONE	NONE	NONE	NONE	NONE
BKG Element Name:	---n/a---	---n/a---	---n/a---	---n/a---	---n/a---
BKG Factor:	---n/a---	---n/a---	---n/a---	---n/a---	---n/a---
Stor. Method:	2pt Uncalib	2pt Uncalib	2pt Uncalib	Multiple	Multiple
Std #1 (High) Name:	ICP1.4	ICP1.6	ICP1.4	ICP1.0	ICP1.0
Conc/Sig:	20	50	10	0	0
Std #2 (Low) Name:	ICP1.0	ICP1.0	ICP1.0	ICP1.1B	ICP1.1B
Conc/Sig:	0	0	0	2	5
Std #3 Name:	---n/a---	---n/a---	---n/a---	ICP1.1A	ICP1.1A
Conc:	---n/a---	---n/a---	---n/a---	20	50
Std #4 Name:	---n/a---	---n/a---	---n/a---	---n/a---	---n/a---
Conc:	---n/a---	---n/a---	---n/a---	---n/a---	---n/a---
Std #5 Name:	---n/a---	---n/a---	---n/a---	---n/a---	---n/a---
Conc:	---n/a---	---n/a---	---n/a---	---n/a---	---n/a---
Y - intercept:	-.190077	-.612724	-.085251	-.026047	-.177504
Slope:	1.81256	17.9334	3.57191	.732721	2.09591
Date Standardized:	02/22/96	02/22/96	02/22/96	02/22/96	02/22/96
Time Standardized:	11:31	11:31	11:31	11:31	11:31
Offset (A0):	0	0	0	0	0
Gain (A1):	1	1	1	1	1
Curvature (A2):	0	0	0	0	0
Exponent (n):	1	1	1	1	1
Max. Inflection:	NONE	NONE	NONE	NONE	NONE
Date of Fit:	NO FIT	NO FIT	NO FIT	NO FIT	NO FIT
Time of Fit:					
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	9	3	6	2	7

Method: ICP1A Element Information Thu 02-22-96 01:29:06 PM page 21

Affecting Element:	Dy	Ag	Ce	Cu	Dy
k1 factor:	.000547	.045721	.001058	.001253	.008119
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	Eu	Gd	Dy	Mo	Eu
k1 factor:	.000619	.002972	.002216	.004156	.003477
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES
Affecting Element:	La	Rh	Sm	---n/a---	Mo
k1 factor:	.00075	.013894	.000413	---n/a---	.000838
k2 factor:	0	0	0	---n/a---	0
use?:	YES	YES	YES	---n/a---	YES
Affecting Element:	Mg	---n/a---	Nd	---n/a---	Nd
k1 factor:	.000264	---n/a---	.000727	---n/a---	.000718
k2 factor:	0	---n/a---	0	---n/a---	0
use?:	YES	---n/a---	YES	---n/a---	YES
Affecting Element:	Mo	---n/a---	U	---n/a---	U
k1 factor:	.000888	---n/a---	.000564	---n/a---	.074641
k2 factor:	0	---n/a---	0	---n/a---	0
use?:	YES	---n/a---	YES	---n/a---	YES
Affecting Element:	Rh	---n/a---	Zr	---n/a---	Ti
k1 factor:	.001225	---n/a---	.000296	---n/a---	.000778
k2 factor:	0	---n/a---	0	---n/a---	0
use?:	YES	---n/a---	YES	---n/a---	YES
Affecting Element:	Th	---n/a---	---n/a---	---n/a---	U
k1 factor:	.002564	---n/a---	---n/a---	---n/a---	.00081
k2 factor:	0	---n/a---	---n/a---	---n/a---	0
use?:	YES	---n/a---	---n/a---	---n/a---	YES
Affecting Element:	Ti	---n/a---	---n/a---	---n/a---	---n/a---
k1 factor:	.000545	---n/a---	---n/a---	---n/a---	---n/a---
k2 factor:	0	---n/a---	---n/a---	---n/a---	---n/a---
use?:	YES	---n/a---	---n/a---	---n/a---	---n/a---
Affecting Element:	U	---n/a---	---n/a---	---n/a---	---n/a---
k1 factor:	.001434	---n/a---	---n/a---	---n/a---	---n/a---
k2 factor:	0	---n/a---	---n/a---	---n/a---	---n/a---
use?:	YES	---n/a---	---n/a---	---n/a---	---n/a---



A0076
ICP-325-405-1
2/22/96 WKB

Analysis Report Thu 02-22-96 08:42:12 AM Page 1

Method: ICP1A Sample Name: SPC-BLK 107448 Operator: DRS
Run Time: 02/22/96 08:40:54
Comment: SPC-BLK FOR Mn/Cu RATIO
Mode: INT Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Avge	7038	2204	1668	1935	325	191	1531
SDev	23	4	15	3	1	0	18
%RSD	.3290	.1889	.9072	.1661	.3077	.0000	1.155
#1	7064	2209	1673	1933	326	191	1522
#2	7019	2201	1651	1939	325	191	1519
#3	7032	2203	1680	1934	324	191	1551

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Avge	1300	552	6709	1488	465	527	2047
SDev	4	26	14	3	10	3	5
%RSD	.3202	4.701	.2065	.2053	2.087	.4778	.2506
#1	1305	524	6717	1488	457	529	2050
#2	1297	558	6693	1491	463	527	2043
#3	1299	575	6717	1489	474	524	2046

Elem	Eu	Fe	K	La	Li	Mg	Mn
Avge	383	609	2164	1056	413	2552	207
SDev	1	2	6	5	4	14	2
%RSD	.1592	.3420	.2e28	.4768	.9685	.5629	.7367
#1	383	607	2170	1061	417	2568	209
#2	382	608	2162	1051	409	2546	206
#3	383	611	2159	1055	413	2541	207

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Avge	838	430	3917	499	1334	14360	15860
SDev	6	5	18	3	21	47	42
%RSD	.6892	1.146	.4488	.5040	1.574	.3276	.2668
#1	841	432	3937	499	1313	14380	15900
#2	841	433	3910	497	1355	14310	15820
#3	831	424	3904	502	1335	14400	15840

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Avge	15940	4492	2696	1497	4269	7233	155
SDev	30	13	12	15	28	55	1
%RSD	.1870	.2894	.4472	1.005	.6543	.7646	.3717
#1	15970	4507	2697	1513	4294	7291	156
#2	15940	4484	2683	1483	4239	7181	155
#3	15920	4485	2707	1496	4275	7226	155

Elem	Te	Th	Ti	Tl	U	V	W
Avge	10610	2473	686	400	17960	1032	344
SDev	48	16	3	2	29	3	3
%RSD	.4531	.6320	.3857	.5200	.1633	.2798	.8721
#1	10670	2471	689	398	17990	1035	347
#2	10580	2459	684	401	17930	1030	341
#3	10590	2490	685	402	17940	1030	344

Analysis Report Thu 02-22-96 08:42:12 AM page 2

Elem	Y	Zn	Zr
Avge	264	351	831
SDev	0	12	2
%RSD	.0000	3.485	.2504
#1	264	364	832
#2	264	340	833
#3	264	348	829

Analysis Report Thu 02-22-96 08:43:29 AM page 1

Method: ICP1A Sample Name: SPC-BLK 107448 Operator: DRS
Run Time: 02/22/96 08:40:54
Comment: SPC-BLK FOR Mn/Cu RATIO
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0357	.2069	.1467	.0383	.0078	.0016	.1281
SDev	.0008	.0028	.0087	.0005	.0001	.0000	.0086
%RSD	2.237	1.339	5.920	1.256	1.914	.4155	6.695
#1	.0366	.2101	.1493	.0379	.0080	.0016	.1239
#2	.0350	.2055	.1370	.0388	.0078	.0016	.1225
#3	.0355	.2051	.1537	.0381	.0077	.0016	.1380

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0488	-.0059	.2625	.0358	.0130	.0347	.0398
SDev	.0014	.0033	.0035	.0005	.0020	.0013	.0006
%RSD	2.852	55.22	1.343	1.273	15.67	3.777	1.551
#1	.0503	-.0095	.2643	.0353	.0112	.0359	.0405
#2	.0476	-.0051	.2585	.0363	.0125	.0350	.0393
#3	.0483	-.0031	.2648	.0359	.0152	.0333	.0397

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0127	.0206	6.763	.0668	.0272	.1542	.0035
SDev	.0001	.0008	.135	.0021	.0020	.0056	.0003
%RSD	.9529	3.614	1.993	3.064	7.317	3.577	7.602
#1	.0128	.0200	6.917	.0689	.0292	.1538	.0038
#2	.0126	.0204	6.724	.0649	.0282	.1512	.0033
#3	.0129	.0215	6.653	.0665	.0272	.1474	.0035

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0316	.4409	.2373	.0107	.2277	.2532	.6659
SDev	.0012	.0282	.0068	.0010	.0216	.0048	.0135
%RSD	3.845	6.399	2.859	9.630	9.505	1.878	2.028
#1	.0323	.4542	.2450	.0106	.2057	.2548	.6814
#2	.0323	.4600	.2347	.0098	.2490	.2479	.6600
#3	.0302	.4085	.2323	.0118	.2285	.2570	.6564

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3193	.1378	.2293	.2379	-.2521	1.138	.0032
SDev	.0037	.0022	.0055	.0120	.0081	.049	.0001
%RSD	1.147	1.605	2.384	5.048	3.229	4.332	2.453
#1	.3231	.1404	.2299	.2504	-.2453	1.189	.0033
#2	.3190	.1365	.2235	.2265	-.2611	1.091	.0031
#3	.3158	.1366	.2344	.2369	-.2500	1.132	.0031

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2487	.0020	.0162	.1331	3.781	.0320	.1218
SDev	.0060	.0085	.0004	.0045	.035	.0006	.0061

%RSD	2.416	421.3	2.552	3.394	.9243	1.711	5.005
#1	.2556	-.0016	.0167	.1280	3.821	.0326	.1279
#2	.2445	-.0041	.0159	.1348	3.759	.0317	.1157
#3	.2460	.0117	.0161	.1365	3.763	.0316	.1219

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0147	.0018	.0284
SDev	.0000	.0010	.0011
%RSD	.1895	57.26	3.918
#1	.0146	.0028	.0288
#2	.0147	.0009	.0293
#3	.0147	.0015	.0272

Analysis Report Thu 02-22-96 08:47:16 AM page 1

Method: ICP1A Sample Name: SPC-STD 960103I100 Operator: DRS
Run Time: 02/22/96 08:45:58
Comment: SPC-STD FOR Mn/Cu RATIO
Mode: INT Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Avge	7087	2238	1715	1921	324	191	1752
SDev	46	9	11	20	1	1	11
%RSD	.6514	.3852	.6307	1.034	.3086	.6035	.6279
#1	7037	2229	1718	1907	323	190	1741
#2	7128	2246	1724	1913	325	192	1752
#3	7096	2240	1703	1944	324	192	1763

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Avge	1663	550	6703	1493	496	20330	2231
SDev	4	12	45	5	7	267	12
%RSD	.2303	2.132	.6646	.3480	1.342	1.316	.5477
#1	1660	545	6657	1487	498	20610	2218
#2	1668	541	6746	1496	502	20080	2242
#3	1662	563	6705	1496	489	20300	2234

Elem	Eu	Fe	K	La	Li	Mg	Mn
Avge	363	661	2154	1053	21580	2620	63220
SDev	2	4	10	8	347	4	709
%RSD	.6368	.6117	.4876	.7615	1.609	.1376	1.122
#1	360	657	2144	1045	21960	2616	63960
#2	364	665	2165	1061	21270	2621	62550
#3	364	660	2154	1054	21510	2623	63140

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Avge	874	430	3916	513	1502	128700	15830
SDev	3	6	20	2	20	910	102
%RSD	.3494	1.496	.4994	.4060	1.337	.7067	.6446
#1	875	425	3897	515	1481	129600	15720
#2	877	437	3936	512	1504	127800	15920
#3	871	427	3914	511	1521	128600	15860

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Avge	15900	4502	2754	1522	4328	7259	157
SDev	114	55	13	24	26	40	1
%RSD	.7152	1.218	.4626	1.593	.6097	.5484	.3470
#1	15780	4444	2746	1496	4298	7213	157
#2	16000	4553	2769	1544	4341	7286	157
#3	15930	4509	2748	1526	4346	7277	158

Elem	Te	Th	Ti	Tl	U	V	W
Avge	11250	2473	688	426	17870	1034	347
SDev	32	26	5	7	104	6	5
%RSD	.2844	1.033	.6557	1.732	.5848	.5883	1.497
#1	11270	2447	683	420	17770	1027	350
#2	11270	2498	692	423	17980	1038	341
#3	11220	2475	688	434	17870	1037	350

Elem	Y	Zn	Zr
Avge	263	137000	830
SDev	2	1434	6
%RSD	.7905	1.046	.7259
#1	261	138600	824
#2	265	135700	836
#3	264	136800	831

Analysis Report Thu 02-22-96 08:48:33 AM page 1

Method: ICP1A Sample Name: SPC-STD 960103I100 Operator: DRS
Run Time: 02/22/96 08:45:58
Comment: SPC-STD FOR Mn/Cu RATIO
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0380	.2143	.1740	.0364	.0077	.0016	.1344
SDev	.0014	.0032	.0062	.0028	.0001	.0001	.0062
%RSD	3.592	1.493	3.557	7.649	1.951	4.046	4.624
#1	.0365	.2107	.1764	.0345	.0075	.0016	.1277
#2	.0391	.2166	.1787	.0351	.0078	.0017	.1357
#3	.0383	.2156	.1670	.0396	.0077	.0017	.1399

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1843	-.0063	.2616	.0365	.0194	10.76	.0402
SDev	.0010	.0015	.0107	.0007	.0014	.15	.0017
%RSD	.5479	23.57	4.102	1.854	7.149	1.349	4.245
#1	.1837	-.0072	.2505	.0357	.0198	10.91	.0384
#2	.1855	-.0077	.2720	.0369	.0206	10.62	.0417
#3	.1838	-.0048	.2622	.0369	.0179	10.74	.0406

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0127	.0205	6.542	.0658	10.57	.1400	11.73
SDev	.0005	.0014	.249	.0031	.17	.0035	.13
%RSD	3.843	6.562	3.806	4.720	1.636	2.474	1.125
#1	.0122	.0193	6.297	.0628	10.76	.1419	11.86
#2	.0130	.0219	6.795	.0688	10.42	.1360	11.60
#3	.0130	.0203	6.534	.0661	10.54	.1421	11.71

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0348	.4408	.2373	.0162	.2419	12.05	.6594
SDev	.0006	.0366	.0071	.0009	.0219	.09	.0215
%RSD	1.865	8.311	2.999	5.281	9.065	.7838	3.262
#1	.0349	.4143	.2306	.0172	.2181	12.15	.6350
#2	.0354	.4827	.2447	.0160	.2463	11.96	.6756
#3	.0341	.4256	.2367	.0155	.2613	12.05	.6675

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3151	.1399	.2558	.2578	-.2318	1.110	.0034
SDev	.0134	.0094	.0057	.0195	.0067	.034	.0001
%RSD	4.252	6.683	2.247	7.574	2.876	3.037	2.285
#1	.3002	.1300	.2520	.2369	-.2392	1.071	.0034
#2	.3262	.1486	.2624	.2755	-.2297	1.133	.0034
#3	.3187	.1412	.2529	.2609	-.2264	1.126	.0035

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2779	.0082	.0166	.1845	3.673	.0326	.1280
SDev	.0041	.0060	.0006	.0148	.124	.0011	.0109

%RSD	1.459	72.83	3.933	8.021	3.373	3.276	8.483
#1	.2795	.0018	.0159	.1728	3.549	.0314	.1344
#2	.2809	.0137	.0172	.1794	3.797	.0332	.1154
#3	.2733	.0091	.0167	.2011	3.673	.0332	.1341

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0145	11.22	.0278
SDev	.0007	.12	.0008
%RSD	5.119	1.049	3.058
#1	.0136	11.34	.0269
#2	.0150	11.11	.0286
#3	.0147	11.20	.0279

Standardization Rpt. Thu 02-22-96 09:25:13 AM page 1

Method: ICP1A Standard: ICP1.0

Elem	Ag	Al	As	B	Ba	Be	Bi
Avge	.7098	.2223	.1706	.1587	.0328	.0192	.1535
SDev	.0011	.0003	.0006	.0024	.0001	.0001	.0011
%RSD	.1571	.1580	.3565	1.528	.1762	.3002	.6964
#1	.7106	.2226	.1702	.1613	.0327	.0193	.1523
#2	.7085	.2219	.1713	.1583	.0328	.0192	.1541
#3	.7102	.2223	.1703	.1565	.0328	.0192	.1542

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Avge	.1303	.0549	.6745	.1512	.0485	.0534	.2057
SDev	.0001	.0006	.0021	.0006	.0014	.0002	.0001
%RSD	.1172	1.112	.3125	.4201	2.809	.3901	.0281
#1	.1303	.0548	.6727	.1508	.0480	.0533	.2057
#2	.1302	.0556	.6739	.1509	.0474	.0535	.2057
#3	.1305	.0544	.6768	.1519	.0500	.0532	.2058

Elem	Eu	Fe	K	La	Li	Mg	Mn
Avge	.0365	.0611	.2169	.1061	.0416	.2557	.0211
SDev	.0001	.0003	.0003	.0001	.0001	.0011	.0001
%RSD	.2740	.4330	.1408	.0544	.2778	.4498	.4739
#1	.0365	.0609	.2172	.1061	.0415	.2557	.0211
#2	.0364	.0610	.2166	.1060	.0415	.2546	.0210
#3	.0366	.0614	.2170	.1061	.0417	.2569	.0212

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Avge	.0853	.0431	.3947	.0506	.1357	1.450	1.596
SDev	.0003	.0004	.0007	.0009	.0020	.004	.001
%RSD	.3517	.8366	.1868	1.794	1.475	.2615	.0904
#1	.0850	.0435	.3944	.0502	.1356	1.448	1.596
#2	.0853	.0428	.3941	.0499	.1337	1.447	1.594
#3	.0856	.0430	.3953	.0516	.1377	1.454	1.597

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Avge	1.606	.4541	.2731	.1506	.4214	.7262	.0156
SDev	.002	.0021	.0018	.0009	.0001	.0035	.0000
%RSD	.1496	.4598	.6437	.6086	.0137	.4830	.0000
#1	1.606	.4517	.2738	.1496	.4213	.7259	.0156
#2	1.603	.4551	.2711	.1514	.4214	.7228	.0156
#3	1.608	.4555	.2744	.1508	.4214	.7298	.0156

Elem	Te	Th	Ti	Tl	U	V	W
Avge	1.075	.2497	.0688	.0409	1.803	.1039	.0334
SDev	.002	.0010	.0001	.0003	.008	.0003	.0005
%RSD	.1535	.3862	.1453	.7052	.4209	.3381	1.372
#1	1.077	.2501	.0687	.0411	1.795	.1039	.0338
#2	1.074	.2504	.0688	.0406	1.804	.1035	.0329
#3	1.075	.2486	.0689	.0411	1.810	.1042	.0335

Elem	Y	Zn	Zr
Avge	.0265	.0361	.0839
SDev	.0001	.0008	.0001

%RSD	.2181	2.358	.1377
#1	.0265	.0352	.0838
#2	.0264	.0361	.0840
#3	.0265	.0369	.0836

Method: ICP1A Standard: ICP1.1B

Elem	Ba	Co	Cr	Cu	Fe	Mg	Mo
Avge	.7662	1.872	1.211	.4513	7.172	4.511	1.222
SDev	.0023	.005	.000	.0008	.021	.009	.004
%RSD	.3026	.2517	.0298	.1884	.2892	.1949	.3297
#1	.7673	1.875	1.211	.4523	7.181	4.515	1.219
#2	.7635	1.867	1.210	.4507	7.148	4.501	1.220
#3	.7677	1.874	1.211	.4510	7.186	4.517	1.226

Elem	Na	Ni	Pb	Sr	Ti	Zn	Zr
Avge	.4977	.6388	7.304	.8336	1.422	2.856	2.509
SDev	.0026	.0010	.022	.0023	.004	.004	.006
%RSD	.5210	.1504	.3012	.2794	.2581	.1418	.2591
#1	.4995	.6386	7.310	.8352	1.424	2.859	2.513
#2	.4947	.6379	7.280	.8309	1.418	2.851	2.501
#3	.4988	.6398	7.323	.8346	1.424	2.857	2.513

Standardization Rpt. Thu 02-22-96 09:30:51 AM page 1

Method: ICP1A Standard: ICP1.1A

Elem	Ba	Co	Cr	Cu	Fe	Mg	Mo
Avge	7.281	16.43	11.13	3.944	66.63	38.80	10.98
SDev	.065	.12	.08	.036	.46	.25	.09
%RSD	.8956	.7381	.7384	.9075	.6976	.6464	.8301
#1	7.207	16.29	11.03	3.903	66.10	38.51	10.87
#2	7.328	16.51	11.19	3.966	66.97	38.97	11.03
#3	7.310	16.49	11.16	3.963	66.82	38.91	11.03

Elem	Na	Ni	Pb	Sr	Ti	Zn	Zr
Avge	4.523	5.595	56.70	8.074	13.47	26.73	23.58
SDev	.041	.040	.37	.076	.11	.16	.18
%RSD	.9024	.7080	.6446	.9446	.8322	.6086	.7833
#1	4.476	5.550	56.28	7.986	13.34	26.55	23.37
#2	4.551	5.625	56.93	8.125	13.54	26.84	23.72
#3	4.541	5.611	56.90	8.112	13.52	26.82	23.66

Standardization Rpt. Thu 02-22-96 09:34:29 AM page 1

Method: ICP1A Standard: ICP1.2

Elem	Al	B	Ca	Cd	K	Li	Mn
Avge	61.33	40.43	78.41	8.842	2.402	10.43	6.134
SDev	.09	.09	.13	.028	.002	.02	.011
%RSD	.1389	.1883	.1599	.3180	.0977	.2046	.1857
#1	61.36	40.41	78.52	8.846	2.403	10.43	6.142
#2	61.39	40.51	78.43	8.868	2.404	10.45	6.139
#3	61.23	40.36	78.27	8.812	2.399	10.41	6.121

Elem	P
Avge	11.74
SDev	.04
%RSD	.3398
#1	11.78
#2	11.76
#3	11.70

Standardization Rpt. Thu 02-22-96 09:38:09 AM page 1

Method: ICP1A Standard: ICP1.3

Elem	Dy	Eu	La	Nd	Ru	Th
Avge	40.31	9.837	5.230	13.84	33.02	11.05
SDev	.30	.081	.038	.11	.22	.07
%RSD	.7411	.8242	.7188	.7882	.6766	.6706
#1	40.04	9.761	5.197	13.74	32.80	10.99
#2	40.25	9.828	5.222	13.82	33.00	11.03
#3	40.63	9.923	5.271	13.95	33.25	11.13

Standardization Rpt. Thu 02-22-96 09:41:38 AM page 1

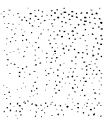
Method: ICP1A Standard: ICP1.4

Elem	As	Ca	Sb	V	Y
Avge	20.83	21.70	24.78	11.14	2.841
SDev	.06	.10	.07	.05	.014
%RSD	.3106	.4655	.3004	.4360	.4804
#1	20.86	21.75	24.78	11.16	2.844
#2	20.88	21.76	24.85	11.17	2.853
#3	20.76	21.58	24.70	11.09	2.826

Standardization Rpt. Thu 02-22-96 09:45:16 AM page 1

Method: ICP1A Standard: ICP1.5

Elem	U
Avge	44.68
SDev	.27
%RSD	.6100
#1	44.87
#2	44.81
#3	44.37



Standardization Rpt. Thu 02-22-96 09:48:44 AM page 1

Method: ICP1A Standard: ICP1.6

Elem	Be	Si	Te
Avge	1.653	70.84	46.98
SDev	.003	.09	.06
%RSD	.1895	.1246	.1344
#1	1.656	70.92	47.05
#2	1.651	70.75	46.96
#3	1.651	70.84	46.93

Standardization Rpt. Thu 02-22-96 09:52:31 AM page 1

Method: ICP1A Standard: ICP1.7

Elem	Ag	Bi	Se	Tl
Avge	27.57	22.36	3.138	1.211
SDev	.17	.15	.023	.008
%RSD	.6267	.6542	.7190	.6399
#1	27.38	22.20	3.113	1.203
#2	27.62	22.39	3.147	1.212
#3	27.71	22.48	3.155	1.218

Standardization Rpt. Thu 03-22-96 09:56:13 AM page 1

Method: ICP1A Standard: ICP1.8

Elem	Pd	Rh	Sn	W
Avge	18.23	42.70	7.471	2.861
SDev	.04	.09	.012	.008
%RSD	.1930	.2074	.1600	.2674
#1	18.22	42.68	7.464	2.853
#2	18.26	42.80	7.485	2.868
#3	18.20	42.63	7.464	2.862

Standardization Report Thu 02-22-96 09:56:37 AM Page 1

Method: ICP1A Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Ag	328.068	ICP1.7	ICP1.0	.372278	-.264231	02/22/96 09:54:56
Al	308.215	ICP1.2	ICP1.0	8.19268	-1.81874	02/22/96 09:54:56
As	193.600	ICP1.4	ICP1.0	4.83942	-.825605	02/22/96 09:54:56
B	249.600	ICP1.2	ICP1.0	1.24154	-.197033	02/22/96 09:54:56
Ba	493.400	Multiple	Standards	1.37155	-.044994	02/22/96 09:29:33
Be	313.042	ICP1.6	ICP1.0	.612157	-.011774	02/22/96 09:54:56
Bi	223.061	ICP1.7	ICP1.0	4.50417	-.691541	02/22/96 09:54:56
Ca	317.900	ICP1.2	ICP1.0	3.19579	-.416257	02/22/96 09:54:56
Cd	228.800	ICP1.2	ICP1.0	1.13605	-.062517	02/22/96 09:54:56
Ce	418.659	ICP1.4	ICP1.0	2.37825	-1.60405	02/22/96 09:54:56
Co	228.600	Multiple	Standards	1.19465	-.181089	02/22/96 09:29:33
Cr	205.500	Multiple	Standards	1.76216	-.085836	02/22/96 09:29:33
Cu	324.700	Multiple	Standards	5.08268	-.271449	02/22/96 09:29:33
Dy	353.170	ICP1.3	ICP1.0	1.24630	-.056570	02/22/96 09:54:56
Eu	381.900	ICP1.3	ICP1.0	2.04816	-.074484	02/22/96 09:54:56
Fe	259.900	Multiple	Standards	2.90579	-.183454	02/22/96 09:29:33
K	766.500	ICP1.2	ICP1.0	228.812	-49.6370	02/22/96 09:54:56
La	398.852	ICP1.3	ICP1.0	7.90328	-.414006	02/22/96 09:54:56
Li	670.700	ICP1.2	ICP1.0	4.81464	-.200128	02/22/96 09:54:56
Mg	279.078	Multiple	Standards	6.16716	-1.58824	02/22/96 09:29:33
Mn	257.600	ICP1.2	ICP1.0	1.63580	-.034515	02/22/96 09:54:56
Mo	202.000	Multiple	Standards	1.79743	-.153700	02/22/96 09:29:33
Na	588.900	Multiple	Standards	55.3998	-2.38936	02/22/96 09:29:33
Nd	406.106	ICP1.3	ICP1.0	3.72003	-1.46817	02/22/96 09:54:56
Ni	231.600	Multiple	Standards	3.50109	-.177568	02/22/96 09:29:33
P	214.900	ICP1.2	ICP1.0	8.61423	-1.16886	02/22/96 09:54:56
Pb	220.300	Multiple	Standards	.878881	-1.27523	02/22/96 09:29:33
Pd	360.959	ICP1.8	ICP1.0	3.00666	-4.79742	02/22/96 09:54:56
Rh	343.489	ICP1.8	ICP1.0	1.21667	-1.95381	02/22/96 09:54:56
Ru	240.271	ICP1.3	ICP1.0	1.53554	-.697244	02/22/96 09:54:56
Sb	206.838	ICP1.4	ICP1.0	4.08088	-1.11449	02/22/96 09:54:56
Se	196.026	ICP1.7	ICP1.0	6.69411	-1.00813	02/22/96 09:54:56
Si	288.100	ICP1.6	ICP1.0	2.84008	-1.19672	02/22/96 09:54:56
Sn	242.950	ICP1.8	ICP1.0	8.41885	-6.11348	02/22/96 09:54:56
Sr	421.500	Multiple	Standards	1.23169	-.019281	02/22/96 09:29:33
Te	214.275	ICP1.6	ICP1.0	1.08914	-1.17122	02/22/96 09:54:56
Th	283.730	ICP1.3	ICP1.0	4.63024	-1.15617	02/22/96 09:54:56
Ti	334.900	Multiple	Standards	1.48553	-.102292	02/22/96 09:29:33
Tl	190.864	ICP1.7	ICP1.0	17.0945	-.699735	02/22/96 09:54:56
U	378.280	ICP1.5	ICP1.0	11.6804	-21.0273	02/22/96 09:54:56
V	292.402	ICP1.4	ICP1.0	1.81240	-.186248	02/22/96 09:54:56
W	224.875	ICP1.8	ICP1.0	17.9285	-.598813	02/22/96 09:54:56
Y	371.030	ICP1.4	ICP1.0	3.55286	-.094032	02/22/96 09:54:56
Zn	213.800	Multiple	Standards	.728769	-.026773	02/22/96 09:29:33
Zr	339.100	Multiple	Standards	2.09430	-.176346	02/22/96 09:29:33

Standardization Report Thu 02-22-96 09:57:06 AM page 1

Method: ICP1A Slope = IR/Conc(SIR)

Element	Wavelen	High std	Low std	Slope	BEC	Date Standardized
Ag	328.068	ICP1.7	ICP1.0	2.68616	.264231	02/22/96 09:54:56
Al	308.215	ICP1.2	ICP1.0	.122209	1.81874	02/22/96 09:54:56
As	193.600	ICP1.4	ICP1.0	.206636	.825605	02/22/96 09:54:56
B	249.600	ICP1.2	ICP1.0	.805450	.197033	02/22/96 09:54:56
Ba	493.400	Multiple	Standards	.729104	.044994	02/22/96 09:29:33
Be	313.042	ICP1.6	ICP1.0	1.63357	.011774	02/22/96 09:54:56
Bi	223.061	ICP1.7	ICP1.0	.222016	.691541	02/22/96 09:54:56
Ca	317.900	ICP1.2	ICP1.0	.313108	.416257	02/22/96 09:54:56
Cd	228.800	ICP1.2	ICP1.0	.878697	.062517	02/22/96 09:54:56
Ce	418.659	ICP1.4	ICP1.0	.420477	1.60405	02/22/96 09:54:56
Co	228.600	Multiple	Standards	.837064	.181089	02/22/96 09:29:33
Cr	205.500	Multiple	Standards	.567485	.085836	02/22/96 09:29:33
Cu	324.700	Multiple	Standards	.196747	.271449	02/22/96 09:29:33
Dy	353.170	ICP1.3	ICP1.0	.802017	.256520	02/22/96 09:54:56
Eu	381.900	ICP1.3	ICP1.0	.490037	.074484	02/22/96 09:54:56
Fe	259.900	Multiple	Standards	.344141	.183454	02/22/96 09:29:33
K	766.500	ICP1.2	ICP1.0	.004370	49.6370	02/22/96 09:54:56
La	398.852	ICP1.3	ICP1.0	.256193	.414008	02/22/96 09:54:56
Li	670.700	ICP1.2	ICP1.0	.207700	.200128	02/22/96 09:54:56
Mg	279.078	Multiple	Standards	.162149	1.58824	02/22/96 09:29:33
Mn	257.600	ICP1.2	ICP1.0	.611323	.024515	02/22/96 09:54:56
Mo	202.000	Multiple	Standards	.556344	.153700	02/22/96 09:29:33
Na	588.900	Multiple	Standards	.018051	2.38936	02/22/96 09:29:33
Nd	406.106	ICP1.3	ICP1.0	.268815	1.44817	02/22/96 09:54:56
Ni	231.600	Multiple	Standards	.285625	.177568	02/22/96 09:29:33
P	214.900	ICP1.2	ICP1.0	.116087	1.16866	02/22/96 09:54:56
Pb	220.300	Multiple	Standards	1.13784	1.27523	02/22/96 09:29:33
Pd	360.959	ICP1.6	ICP1.0	.332595	4.79742	02/22/96 09:54:56
Rh	343.489	ICP1.6	ICP1.0	.821913	1.95381	02/22/96 09:54:56
Ru	240.271	ICP1.3	ICP1.0	.651279	.697244	02/22/96 09:54:56
Sb	206.836	ICP1.4	ICP1.0	.345045	1.11449	02/22/96 09:54:56
Se	196.026	ICP1.7	ICP1.0	.149385	1.00813	02/22/96 09:54:56
Si	288.100	ICP1.6	ICP1.0	.352102	1.19672	02/22/96 09:54:56
Sn	242.950	ICP1.8	ICP1.0	.118781	6.11348	02/22/96 09:54:56
Sr	421.500	Multiple	Standards	.811892	.019281	02/22/96 09:29:33
Te	214.275	ICP1.6	ICP1.0	.918139	1.17122	02/22/96 09:54:56
Th	283.730	ICP1.3	ICP1.0	.215971	1.15617	02/22/96 09:54:56
Ti	334.900	Multiple	Standards	.673159	.102292	02/22/96 09:29:33
Tl	190.864	ICP1.7	ICP1.0	.058498	.699735	02/22/96 09:54:56
U	378.280	ICP1.5	ICP1.0	.035760	21.0273	02/22/96 09:54:56
V	292.402	ICP1.4	ICP1.0	.551755	.188248	02/22/96 09:54:56
W	224.875	ICP1.8	ICP1.0	.055777	.598813	02/22/96 09:54:56
Y	371.030	ICP1.4	ICP1.0	.281463	.094032	02/22/96 09:54:56
Zn	213.800	Multiple	Standards	1.37218	.026773	02/22/96 09:29:33
Zr	339.100	Multiple	Standards	.477486	.176346	02/22/96 09:29:33

Standardization Readback Report Thu 02-22-96 09:57:27 AM page 1

Method: ICP1A

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ag	328.068	ICP1.0	.000000	.000000	-.000000
		ICP1.7	10.0000	10.0000	.000000
Al	308.215	ICP1.0	.000000	.000000	-.000000
		ICP1.2	500.000	500.000	.000031
As	193.600	ICP1.0	.000000	-.000000	.000000
		ICP1.4	100.000	100.000	.000000
B	249.600	ICP1.0	.000000	-.000000	.000000
		ICP1.2	50.0000	50.0000	.000000
Ba	493.400	ICP1.0	.000000	-.000053	.000053
		ICP1.1B	1.00000	1.00584	-.005840
		ICP1.1A	10.0000	9.94160	.058396
CorCoef:	1.00000				
Be	313.042	ICP1.0	.000000	.000000	-.000000
		ICP1.6	1.00000	1.00000	.000000
Bi	223.061	ICP1.0	.000000	-.000000	.000000
		ICP1.7	100.000	100.000	.000000
Ca	317.900	ICP1.0	.000000	.000000	-.000000
		ICP1.2	250.000	250.000	.000000
Cd	228.800	ICP1.0	.000000	-.000000	.000000
		ICP1.2	10.0000	10.0000	.000000
Ce	418.659	ICP1.0	.000000	-.000000	.000000
		ICP1.4	50.0000	50.0000	.000004

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Co	228.600	ICP1.0	.000000	-.000497	.000497
		ICP1.1B	2.00000	2.05522	-.055220
		ICP1.1A	20.0000	19.4478	.552202
CorCoef:	0.99999				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cr	205.500	ICP1.0	.000000	-.000430	.000430
		ICP1.1B	2.00000	2.04779	-.047790
		ICP1.1A	20.0000	19.5221	.477901
CorCoef:	0.99999				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cu	324.700	ICP1.0	.000000	-.000203	.000203
		ICP1.1B	2.00000	2.02254	-.022535
		ICP1.1A	20.0000	19.7746	.225351
CorCoef:	1.00000				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Dy	353.170	ICP1.0	.000000	-.000000	.000000
		ICP1.3	50.0000	50.0000	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Eu	381.900	ICP1.0	.000000	.000000	-.000000
		ICP1.3	20.0000	20.0000	.000002

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Fe	259.900	ICP1.0	.000000	-.005911	.005911
		ICP1.1B	20.0000	20.6568	-.656761
		ICP1.1A	200.000	193.432	6.56760
CorCoef:	0.99998				

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
K	766.500	ICP1.0	.000000	-.000001	.000001
		ICP1.2	500.000	500.000	.000031

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
La	398.852	ICP1.0	.000000	-.000000	.000000
		ICP1.3	20.0000	20.0000	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Li	670.700	ICP1.0	.000000	.000000	-.000000
		ICP1.2	50.0000	50.0000	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mg	279.078	ICP1.0	.000000	-.011094	.011094
		ICP1.1B	25.0000	26.2326	-1.23263
		ICP1.1A	250.000	237.674	12.3263
CorCoef:	0.99995				

Standardization Readback Report Thu 02-22-96 09:57:27 AM page 3

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mn	257.600	ICP1.0	.000000	-.000000	.000000
		ICP1.2	10.0000	10.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mo	202.000	ICP1.0	.000000	-.000378	.000378
		ICP1.1B	2.00000	2.04200	-.042004
		ICP1.1A	20.0000	19.5800	.420042
CorCoef:	0.99999				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Na	588.900	ICP1.0	.000000	-.001631	.001631
		ICP1.1B	25.0000	25.1813	-.181255
		ICP1.1A	250.000	248.187	1.81256
CorCoef:	1.00000				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Nd	406.106	ICP1.0	.000000	.000000	-.000000
		ICP1.3	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ni	231.600	ICP1.0	.000000	-.000529	.000529
		ICP1.1B	2.00000	2.05881	-.058813
		ICP1.1A	20.0000	19.4119	.588137
CorCoef:	0.99998				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
P	214.900	ICP1.0	.000000	.000000	-.000000
		ICP1.2	100.000	100.000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb	220.300	ICP1.0	.000000	-.001297	.001297
		ICP1.1B	5.00000	5.14411	-.144111
		ICP1.1A	50.0000	48.5589	1.44110
CorCoef:	0.99998				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pd	360.959	ICP1.0	.000000	-.000000	.000000
		ICP1.3	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Rh	343.489	ICP1.0	.000000	.000000	-.000000
		ICP1.6	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ru	240.271	ICP1.0	.000000	-.000000	.000000
		ICP1.3	50.0000	50.0000	.000000

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Standardization Readback Report Thu 02-22-96 09:57:27 AM page 4

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sb	206.838	ICP1.0	.000000	.000000	-.000000
		ICP1.4	100.000	100.0000	.000008
Se	196.026	ICP1.0	.000000	-.000000	.000000
		ICP1.7	20.0000	20.0000	.000000
Si	288.100	ICP1.0	.000000	-.000000	.000000
		ICP1.6	200.000	200.000	.000000
Sn	242.950	ICP1.0	.000000	-.000000	.000000
		ICP1.8	50.0000	56.7845	-6.78453
Sr	421.500	ICP1.0	.000000	-.000067	.000067
		ICP1.1B	1.00000	1.00742	-.007416
		ICP1.1A	10.0000	9.92584	.074156
CorCoef:	1.00000				
Te	214.275	ICP1.0	.000000	-.000000	.000000
		ICP1.6	50.0000	50.0000	.000000
Th	283.730	ICP1.0	.000000	-.000000	.000000
		ICP1.3	50.0000	50.0000	.000000
Ti	334.900	ICP1.0	.000000	-.000088	.000088
		ICP1.1B	2.00000	2.00974	-.009740
		ICP1.1A	20.0000	19.9026	.097403
CorCoef:	1.00000				
Tl	190.864	ICP1.0	.000000	-.000000	.000000
		ICP1.7	20.0000	20.0000	.000000
U	378.280	ICP1.0	.000000	-.000000	.000000
		ICP1.5	500.000	500.000	.000000
V	292.402	ICP1.0	.000000	-.000000	.000000
		ICP1.4	20.0000	20.0000	.000000

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Standardization Readback Report Thu 02-22-96 09:57:27 AM page 5

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
W	224.875	ICP1.0	.000000	-.000000	.000000
		ICP1.8	30.0000	30.6947	-.694702
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Y	371.030	ICP1.0	.000000	.000000	-.000000
		ICP1.4	10.0000	10.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Zn	213.800	ICP1.0	.000000	-.000489	.000489
		ICP1.1B	2.00000	2.05433	-.054348
		ICP1.1A	20.0000	19.4565	.543478
CorCoef:	0.99999				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Zr	339.100	ICP1.0	.000000	-.000704	.000704
		ICP1.1B	5.00000	5.07825	-.078254
		ICP1.1A	50.0000	49.2175	.782539
CorCoef:	1.00000				

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Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 02/22/96 09:59:40
Comment: (RECYCLE WATER)M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0049	.0074	.1361	.0000	.0000	.0095
SDev	.0012	.0074	.0021	.0047	.0003	.0001	.0034
%RSD	585.4	151.1	28.42	3.470	814.6	311.6	35.99
#1	-.0012	-.0000	.0054	.1413	-.0001	-.0000	.0133
#2	-.0005	.0013	.0091	.1347	-.0001	-.0000	.0065
#3	.0011	.0135	.0050	.1322	.0004	.0001	.0088

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0011	.0002	-.0006	.0007	.0023	-.0001
SDev	.0020	.0008	.0069	.0005	.0011	.0004	.0011
%RSD	8733.	74.84	5151.	67.78	168.1	17.45	910.6
#1	-.0011	.0018	.0010	-.0004	-.0005	.0027	-.0007
#2	-.0012	.0002	-.0083	-.0013	.0009	.0020	-.0008
#3	.0024	.0013	.0077	-.0005	.0017	.0022	.0011

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	-.0035	-.2039	.0002	.0014	-.0163	-.0000
SDev	.0002	.0008	.1999	.0007	.0015	.0029	.0001
%RSD	171.2	14.07	97.08	325.6	101.8	17.94	504.2
#1	.0000	-.0038	-.3737	-.0001	.0011	-.0142	-.0001
#2	.0000	-.0062	-.2593	-.0003	.0002	-.0196	-.0000
#3	.0004	-.0047	.0153	.0010	.0030	-.0150	.0001

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	-.0054	.0036	.0020	-.0020	.0038	.0199
SDev	.0015	.0273	.0070	.0018	.0164	.0019	.0149
%RSD	165.0	507.3	195.1	85.84	800.6	49.77	85.01
#1	-.0007	-.0183	-.0002	.0003	-.0049	.0041	.0130
#2	.0012	-.0239	-.0007	.0020	-.0168	.0055	.0076
#3	.0023	.0260	.0117	.0038	.0156	.0018	.0392

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0077	.0034	.0039	-.0004	5.761	.0135	.0001
SDev	.0091	.0021	.0053	.0024	.465	.0210	.0001
%RSD	118.5	61.93	134.2	675.1	8.075	155.8	146.1
#1	.0015	.0013	-.0012	-.0030	6.229	-.0105	-.0001
#2	.0034	.0055	.0037	.0017	5.753	.0223	.0002
#3	.0181	.0034	.0093	.0002	5.299	.0287	.0002

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0063	-.0041	-.0000	.0002	.0258	.0001	.0310
SDev	.0085	.0021	.0002	.0066	.1174	.0013	.0036

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%RSD	135.0	51.73	2653.	4320.	455.8	897.2	11.73
#1	.0022	-.0024	-.0000	-.0037	-.0909	-.0009	.0323
#2	.0006	-.0064	-.0005	-.0036	.0242	-.0003	.0264
#3	.0160	-.0034	.0002	.0078	.1440	.0017	.0336

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0002	-.0002	-.0018
SDev	.0001	.0009	.0006
%RSD	61.50	390.9	32.43
#1	.0002	.0004	-.0023
#2	.0001	-.0013	-.0021
#3	.0004	.0002	-.0012

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Analysis Report QC Standard Thu 02-22-96 10:03:31 AM page 1

Method: ICP1A Sample Name: QC_MCVA 960130I901 Operator: DRS
Run Time: 02/22/96 10:02:12
Comment: (RECYCLE WATER)M.EBY
Mode: CONC Corr. Factor: 1

Fail-B ✓ DRS 2/22/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5025	10.14	2.613	02.202	.5026	.0980	24.97
SDev	.0007	.01	.023	.012	.0013	.0002	.03
%RSD	.1425	.1407	.8759	.5385	.2594	.1986	.1289
#1	.5018	10.14	2.587	2.190	.5027	.0978	24.95
#2	.5032	10.13	2.620	02.203	.5013	.0979	24.95
#3	.5023	10.16	2.632	02.213	.5039	.0982	25.01
Errors	QC Pass	QC Pass	QC Pass	QC Fail	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.68	.5047	.0011	1.019	1.026	.9641	-.0007
SDev	.03	.0056	.0018	.001	.007	.0050	.0006
%RSD	.1224	1.149	155.1	.1293	.6990	.5149	91.87
#1	25.66	.5077	.0003	1.018	1.018	.9656	-.0014
#2	25.66	.4981	.0032	1.019	1.030	.9588	-.0004
#3	25.71	.5085	-.0000	1.020	1.031	.9650	-.0003
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0019	20.57	24.24	.0038	2.034	33.15	.5225
SDev	.0001	.03	.03	.0010	.004	.04	.0008
%RSD	6.413	.1279	.1090	27.19	.1777	.1307	.1448
#1	.0018	20.56	24.27	.0033	2.031	33.16	.5232
#2	.0020	20.55	24.22	.0050	2.031	33.10	.5217
#3	.0018	20.60	24.22	.0032	2.038	33.19	.5226
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.019	37.20	.0053	1.012	5.052	2.561	-.0200
SDev	.002	.15	.0017	.001	.031	.009	.0106
%RSD	.1630	.4023	32.49	.0601	.6069	.3605	53.14
#1	1.018	37.20	.0072	1.013	5.080	2.562	-.0318
#2	1.017	37.05	.0041	1.012	5.019	2.551	-.0112
#3	1.020	37.35	.0045	1.012	5.058	2.570	-.0170
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0184	03.276	2.595	21.70	.2067	.5094
SDev	.0018	.0042	.016	.007	.10	.0240	.0011
%RSD	418.3	22.96	.4761	.2778	.4618	11.62	.2180
#1	-.0005	.0166	03.287	2.601	21.81	.1965	.5094
#2	.0025	.0233	03.284	2.587	21.68	.2341	.5084
#3	-.0007	.0154	03.256	2.598	21.61	.1894	.5106
Errors	NOCHECK	NOCHECK	QC Fail	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0472	.0392	1.000	2.496	.0912	1.006	.0547
SDev	.0063	.0070	.002	.015	.0573	.001	.0054
%RSD	13.25	17.78	.1902	.6498	62.85	.0721	9.915
#1	.0424	.0463	1.001	2.491	.0451	1.005	.0547
#2	.0543	.0388	.9978	2.486	.1533	1.005	.0492
#3	.0449	.0324	1.001	2.517	.0751	1.006	.0601
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0011	1.008	2.002
SDev	.0002	.002	.003
%RSD	17.61	.1491	.1507
#1	.0013	1.010	2.002
#2	.0012	1.009	1.998
#3	.0009	1.007	2.005
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report QC Standard Thu 02-22-96 10:05:27 AM page 1

Method: ICP1A Sample Name: QC_MCVA 960130I901 Operator: DRS
Run Time: 02/22/96 10:04:08
Comment: (RECYCLE WATER)M.EBY
Mode: CONC Corr. Factor: 1

Pass *
SD-Na
DRS 2/22/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5036	10.14	2.645	2.177	.5030	.0981	25.01
SDev	.0035	.08	.032	.025	.0039	.0007	.12
%RSD	.7034	.8079	1.192	1.163	.7719	.7075	.4607
#1	.5013	10.11	2.619	2.167	.5009	.0976	24.95
#2	.5077	10.23	2.680	02.206	.5075	.0989	25.14
#3	.5018	10.08	2.636	2.159	.5006	.0978	24.94
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.70	.5104	.0048	1.021	1.025	.9671	-.0003
SDev	.13	.0047	.0063	.006	.013	.0043	.0006
%RSD	.5191	.9234	130.0	.6127	1.239	.4467	238.9
#1	25.63	.5050	.0090	1.018	1.013	.9649	.0005
#2	25.86	.5139	-.0024	1.028	1.038	.9721	-.0012
#3	25.62	.5122	.0080	1.017	1.025	.9643	-.0003
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0021	20.57	24.55	.0046	2.032	33.11	.5233
SDev	.0002	.13	.21	.0011	.026	.20	.0036
%RSD	10.63	.6271	.8353	23.55	1.256	.6106	.6932
#1	.0022	20.51	24.66	.0046	2.021	33.00	.5204
#2	.0018	20.72	24.68	.0036	2.061	33.35	.5273
#3	.0022	20.49	24.32	.0057	2.014	32.99	.5220
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.025	37.21	.0065	1.018	5.062	2.549	-.0112
SDev	.007	.40	.0044	.010	.019	.014	.0196
%RSD	.6979	1.085	68.43	.9479	.3704	.5439	174.4
#1	1.019	37.03	.0100	1.011	5.084	2.535	.0068
#2	1.033	37.67	.0015	1.029	5.050	2.563	-.0320
#3	1.023	36.92	.0079	1.014	5.053	2.548	-.0085
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	.0220	03.294	2.602	20.69	.2319	.5097
SDev	.0089	.0017	.021	.035	.14	.0208	.0039
%RSD	2541.	7.561	.6347	1.338	.6870	8.956	.7652
#1	.0077	.0232	03.280	2.572	20.68	.2556	.5070
#2	-.0098	.0227	03.318	2.640	20.84	.2169	.5142
#3	.0011	.0201	03.283	2.595	20.55	.2232	.5079
Errors	NOCHECK	NOCHECK	QC Fail	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.60		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0480	.0375	1.000	2.525	.1201	1.008	.0570
SDev	.0083	.0028	.007	.037	.1095	.006	.0109
%RSD	17.35	7.411	.6731	1.297	91.39	.5969	19.09
#1	.0570	.0343	.9974	2.493	.1647	1.004	.0582
#2	.0406	.0390	1.008	2.558	-.0049	1.014	.0436
#3	.0463	.0392	.9951	2.523	.2006	1.004	.0571
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0011	1.009	2.002
SDev	.0004	.007	.014
%RSD	35.06	.6983	.6773
#1	.0015	1.002	1.995
#2	.0009	1.016	2.017
#3	.0008	1.008	1.993
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report QC Standard Thu 02-22-96 10:09:20 AM page 1

Method: ICP1A Sample Name: QC_MCVB2 960221I901 Operator: DRS
Run Time: 02/22/96 10:08:01
Comment: (RECYCLE WATER) M.EBY
Mode: CONC Corr. Factor: 1

PASS DRS 2/22/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0048	-.0300	.2846	.2162	.0006	.0008	.0721
SDev	.0004	.0070	.0037	.0026	.0002	.0000	.0038
%RSD	8.910	23.49	1.284	1.186	33.09	5.050	5.295
#1	-.0046	-.0378	.2806	.2153	.0008	.0008	.0765
#2	-.0053	-.0280	.2853	.2203	.0004	.0008	.0693
#3	-.0046	-.0241	.2878	.2190	.0007	.0007	.0706
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0270	.0076	1.942	-.0021	.0057	.0417	1.986
SDev	.0020	.0009	.013	.0003	.0008	.0010	.009
%RSD	7.367	12.43	.6652	12.36	13.21	2.407	.4478
#1	.0293	.0067	1.929	-.0021	.0053	.0429	1.979
#2	.0255	.0086	1.943	-.0023	.0054	.0414	1.996
#3	.0263	.0075	1.954	-.0018	.0066	.0410	1.991
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			2.000				2.000
Range			10.00				10.00

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.004	.0146	-1.754	.9823	-.0013	-.0946	.0007
SDev	.010	.0014	.140	.0044	.0005	.0011	.0002
%RSD	.5145	9.474	7.970	.4459	37.50	1.156	33.64
#1	1.992	.0160	-1.632	.9784	-.0013	-.0940	.0004
#2	2.013	.0144	-1.907	.9815	-.0018	-.0939	.0007
#3	2.005	.0133	-1.724	.9870	-.0008	-.0958	.0009
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK
Value	2.000			1.000			
Range	10.00			10.00			

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0081	.1645	1.957	.0158	.0996	.2345	1.855
SDev	.0009	.0284	.009	.0012	.0093	.0019	.027
%RSD	11.59	17.30	.4471	7.777	9.859	.7946	1.482
#1	.0078	.1720	1.947	.0146	.0912	.2324	1.826
#2	.0074	.1684	1.962	.0171	.0973	.2358	1.880
#3	.0092	.1330	1.961	.0157	.1104	.2353	1.859
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			2.000				2.000

Analysis Report QC Standard Thu 02-22-96 10:09:20 AM page 2

Range			10.00				10.00
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.930	2.019	.1252	.0815	12.06	1.995	.0025
SDev	.010	.008	.0196	.0012	.66	.039	.0000
%RSD	.5239	.3866	15.62	1.501	5.431	1.974	.0422
#1	1.919	2.010	.1284	.0822	11.38	1.978	.0025
#2	1.938	2.024	.1042	.0801	12.14	1.967	.0025
#3	1.934	2.024	.1430	.0822	12.68	2.040	.0025
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value	2.000	2.000				2.000	
Range	10.00	10.00				10.00	

Elem	Te	Tn	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.931	09.902	.0031	.0165	23.27	-.0016	1.965
SDev	.008	.028	.0006	.0052	.05	.0009	.007
%RSD	.4003	.2852	19.02	31.72	.2299	56.35	.3748
#1	1.930	09.870	.0037	.0202	23.21	-.0007	1.973
#2	1.924	09.920	.0025	.0188	23.32	-.0024	1.963
#3	1.939	09.917	.0030	.0105	23.28	-.0016	1.958
Errors	QC Pass	QC Fail	NOCHECK	NOCHECK	QC Pass	NOCHECK	QC Pass
Value	2.000	~~25.000~~ 10.0			25.00		2.000
Range	10.00	10.00			10.00		10.00

Pass

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.9692	.0040	-.0540
SDev	.0039	.0002	.0018
%RSD	.4010	5.355	3.264
#1	.9650	.0042	-.0553
#2	.9727	.0039	-.0520
#3	.9699	.0039	-.0548
Errors	QC Pass	NOCHECK	NOCHECK
Value	1.000		
Range	10.00		

Analysis Report QC Standard Thu 02-22-96 10:13:09 AM page 1

Method: ICP1A Sample Name: QC_MCVB1 960213I901 Operator: DRS
Run Time: 02/22/96 10:11:50
Comment: (RECYCLE WATER)M.EBY
Mode: CONC Corr. Factor: 1

Fail Th
AB 2/24/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0200	-.0793	.2918	.0058	.0004	.0006	.0743
SDev	.0014	.0174	.0131	.0026	.0002	.0001	.0008
%RSD	6.913	21.92	4.504	44.46	44.13	12.66	1.053
#1	.0197	-.0923	.2792	.0031	.0005	.0007	.0738
#2	.0188	-.0861	.3055	.0081	.0003	.0007	.0752
#3	.0215	-.0595	.2907	.0061	.0003	.0006	.0739
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0205	.0061	1.896	-.0007	.0057	.0361	1.954
SDev	.0006	.0016	.008	.0009	.0019	.0022	.010
%RSD	3.156	25.48	.4286	127.1	32.85	6.085	.4910
#1	.0200	.0044	1.903	.0003	.0074	.0386	1.945
#2	.0212	.0065	1.898	-.0014	.0060	.0344	1.964
#3	.0203	.0075	1.887	-.0012	.0037	.0353	1.953
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			2.000				2.000
Range			10.00				10.00

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.960	.0060	-1.297	.9510	-.0061	-.0037	.0007
SDev	.006	.0008	.103	.0042	.0027	.0063	.0002
%RSD	.3162	13.15	7.956	.4391	114.6	6.737	30.57
#1	1.957	.0068	-1.197	.9531	-.0008	-.0876	.0008
#2	1.967	.0052	-1.403	.9538	-.0013	-.0933	.0008
#3	1.956	.0060	-1.289	.9462	.0002	-.1002	.0004
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK
Value	2.000			1.000			
Range	10.00			10.00			

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0076	.0918	1.926	.0230	.0791	.2527	1.983
SDev	.0010	.0209	.009	.0023	.0289	.0076	.036
%RSD	13.47	22.75	.4624	9.964	36.59	3.024	1.829
#1	.0068	.0829	1.933	.0227	.0930	.2614	1.947
#2	.0073	.0768	1.929	.0255	.0458	.2492	1.982
#3	.0088	.1156	1.916	.0209	.0985	.2474	2.020
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			2.000				2.000

Range			10.00				10.00
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.972	2.056	.1334	.0756	18.49	2.117	.0023
SDev	.014	.015	.0035	.0053	2.17	.025	.0000
%RSD	.6864	.7308	2.645	7.019	11.72	1.179	.0476
#1	1.957	2.039	.1295	.0738	16.34	2.138	.0023
#2	1.982	2.065	.1364	.0816	18.46	2.123	.0023
#3	1.976	2.064	.1343	.0715	20.67	2.089	.0023
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value	2.000	2.000				2.000	
Range	10.00	10.00				10.00	

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.006	04.298	.0032	.0176	23.51	.0003	1.972
SDev	.009	1.572	.0004	.0003	.15	.0003	.009
%RSD	.4475	36.58	13.78	1.761	.6392	91.45	.4389
#1	1.999	05.969	.0035	.0173	23.34	.0003	1.962
#2	2.016	04.078	.0027	.0178	23.57	.0000	1.978
#3	2.002	02.847	.0035	.0178	23.63	.0006	1.976
Errors	QC Pass	QC Fail	NOCHECK	NOCHECK	QC Pass	NOCHECK	QC Pass
Value	2.000	10.00			25.00		2.000
Range	10.00	10.00			10.00		10.00

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.9258	.0036	-.0305
SDev	.0088	.0004	.0086
%RSD	.9490	11.79	28.19
#1	.9327	.0033	-.0390
#2	.9287	.0041	-.0308
#3	.9159	.0034	-.0218
Errors	QC Pass	NOCHECK	NOCHECK
Value	1.000		
Range	10.00		

Analysis Report Thu 02-22-96 10:16:46 AM page 1

Method: ICP1A Sample Name: CC 99TA 9512031902 Operator: DRS
Run Time: 02/22/96 10:15:27
Comment: (RECYCLE WATER)M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0114	252.4	.3782	.3342	.0096	-.0008	198.9
SDev	.0005	1.5	.0053	.0016	.0002	.0000	1.1
%RSD	4.600	.5809	1.399	.4739	1.643	3.446	.5693
#1	-.0108	251.0	.3790	.3337	.0095	-.0008	197.8
#2	-.0115	253.9	.3830	.3329	.0097	-.0008	200.0
#3	-.0119	252.5	.3725	.3359	.0097	-.0007	198.9

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	250.9	.0652	.1081	.0084	.2504	-.1182	.0296
SDev	1.2	.0012	.0080	.0007	.0028	.0021	.0010
%RSD	.4921	1.794	7.374	8.699	1.100	1.789	3.357
#1	249.7	.0665	.1129	.0091	.2472	-.1168	.0300
#2	252.2	.0641	.1124	.0077	.2518	-.1171	.0304
#3	250.7	.0650	.0989	.0084	.2522	-.1206	.0283

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0890	196.9	101.9	50.43	.0361	-.7301	.0198
SDev	.0005	1.0	.6	.33	.0018	.0083	.0003
%RSD	.5934	.5130	.5764	.6599	5.048	1.207	1.674
#1	.0885	196.0	101.4	50.10	.0353	-.7207	.0200
#2	.0896	198.0	102.5	50.77	.0382	-.7381	.0200
#3	.0888	196.7	101.7	50.43	.0348	-.7315	.0194

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1039	.8577	.1952	191.7	201.6	1.002	.7734
SDev	.0008	.0221	.0083	1.0	1.0	.003	.0330
%RSD	.7841	2.580	4.272	.5358	.4944	.3212	4.271
#1	.1035	.8578	.1986	190.6	200.6	.9983	.7636
#2	.1049	.8798	.2013	192.7	202.6	1.005	.8102
#3	.1034	.8356	.1857	191.7	201.6	1.001	.7464

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2122	.2616	.7560	1.563	9.767	3.046	.0196
SDev	.0059	.0042	.0234	.009	.772	.018	.0001
%RSD	2.796	1.599	3.093	.5934	7.900	.5982	.7233
#1	.2132	.2572	.7479	1.556	10.53	3.027	.0195
#2	.2176	.2655	.7823	1.574	9.790	3.048	.0197
#3	.2058	.2621	.7377	1.561	8.984	3.064	.0195

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6581	.3645	.0025	.3479	200.2	.0441	.5581
SDev	.0118	.0205	.0004	.0090	1.5	.0013	.0057

%RSD	1.797	5.622	14.56	2.589	.7422	2.834	1.016
#1	.6699	.3759	.0029	.3375	198.8	.0445	.5623
#2	.6462	.3409	.0023	.3522	201.7	.0451	.5604
#3	.6582	.3768	.0023	.3539	200.2	.0427	.5517

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0231	.0545	.0158
SDev	.0008	.0042	.0018
%RSD	3.572	7.724	11.24
#1	.0241	.0570	.0160
#2	.0227	.0568	.0175
#3	.0226	.0496	.0139

Analysis Report Thu 02-22-96 10:20:24 AM

Method: ICP1A Sample Name: QC SSTMCV 9512081903 Operator: DRS
Run Time: 02/22/96 10:19:05
Comment: (RECYCLE WATER)M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5097	5.143	2.125	.1617	.1017	.1008	1.686
SDev	.0011	.014	.031	.0033	.0002	.0002	.023
%RSD	.2194	.2672	1.439	2.068	.2061	.2193	1.374
#1	.5092	5.144	2.133	.1635	.1016	.1008	1.699
#2	.5089	5.129	2.091	.1637	.1015	.1005	1.659
#3	.5110	5.157	2.151	.1578	.1019	.1009	1.700

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.140	.2040	.0057	-.0019	.3131	.0019	.0009
SDev	.009	.0037	.0036	.0005	.0015	.0011	.0003
%RSD	.8279	1.806	63.97	26.54	.4789	60.12	31.77
#1	1.150	.2078	.0067	-.0022	.3115	.0006	.0011
#2	1.132	.2038	.0087	-.0013	.3145	.0027	.0011
#3	1.138	.2004	.0017	-.0022	.3131	.0023	.0006

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0076	.6033	50.22	.0237	.0008	-.0709	.1065
SDev	.0002	.0070	.12	.0023	.0014	.0041	.0003
%RSD	2.856	1.167	.2293	9.665	173.2	5.814	.2965
#1	.0077	.6113	50.24	.0262	.0016	-.0738	.1065
#2	.0077	.5980	50.10	.0232	.0016	-.0662	.1068
#3	.0073	.6007	50.33	.0218	-.0008	-.0728	.1062

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0047	5.082	.0063	.6812	4.171	3.090	.0093
SDev	.0018	.040	.0059	.0104	.019	.008	.0079
%RSD	38.50	.7889	94.47	1.521	.4566	.2495	85.26
#1	.0048	5.056	.0094	.6931	4.184	3.081	.0012
#2	.0028	5.062	.0099	.6742	4.150	3.096	.0171
#3	.0064	5.128	-.0006	.6763	4.181	3.093	.0097

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0046	.0053	2.688	2.616	5.916	.0780	.0016
SDev	.0066	.0015	.033	.015	.118	.0080	.0001
%RSD	143.8	27.85	1.222	.5712	2.001	10.22	4.492
#1	.0040	.0047	2.715	2.630	6.036	.0768	.0015
#2	.0115	.0069	2.652	2.600	5.912	.0706	.0017
#3	-.0017	.0042	2.698	2.618	5.799	.0865	.0015

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0152	.0487	.0001	.0093	20.01	.5123	.0376
SDev	.0051	.0039	.0002	.0029	.04	.0006	.0078

%RSD	33.65	7.938	181.3	31.09	.2199	.1201	20.70
#1	.0094	.0451	-.0000	.0120	20.05	.5125	.0287
#2	.0173	.0481	.0003	.0062	20.02	.5117	.0429
#3	.0190	.0528	.0000	.0097	19.96	.5128	.0412

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0007	.0013	.5042
SDev	.0003	.0004	.0015
%RSD	43.52	34.45	.3060
#1	.0011	.0008	.5035
#2	.0007	.0013	.5031
#3	.0004	.0017	.5059

Analysis Report QC Standard Thu 02-22-96 10:24:55 AM page 1

Method: ICP1A Sample Name: QC_SRM-1643[illegible]618 Operator: DRS
Run Time: 02/22/96 10:23:[illegible]
Comment: (RECYCLE WATER)M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	0.0012	0.1441	0.0594	0.2296	.5146	0.0124	.0432
SDev	.0007	.0020	.0050	.0013	.0005	.0001	.0122
%RSD	59.61	1.368	8.447	.5834	.1009	.5531	28.22
#1	0.0004	0.1461	0.0629	0.2284	.5149	0.0125	.0298
#2	0.0016	0.1442	0.0537	0.2311	.5140	0.0123	.0460
#3	0.0017	0.1421	0.0618	0.2294	.5150	0.0124	.0537
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Pass	QC Fail	NOCHECK
Value	.0013	.1276	.0560	.1448	.5065	.0125	
Range	.0570	3.500	.7300	5.200	8.900	.2600	

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	31.72	0.0101	.0071	0.0265	0.0211	.0200	.0001
SDev	.02	.0007	.0020	.0002	.0012	.0011	.0001
%RSD	.0506	6.983	28.84	.6196	5.557	5.659	66.77
#1	31.74	0.0095	.0069	0.0264	0.0217	0.0190	.0001
#2	31.72	0.0099	.0051	0.0266	0.0219	.0212	.0002
#3	31.71	0.0108	.0092	0.0267	0.0198	.0199	.0000
Errors	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Pass	NOCHECK
Value	31.04	.0065		.0250	.0185	.0205	
Range	.6400	.3700		.5900	.2000	7.800	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0012	0.1008	02.136	.0106	0.0213	08.591	0.0404
SDev	.0002	.0009	.070	.0009	.0017	.021	.0001
%RSD	15.67	.9193	3.273	8.287	8.133	.2476	.1937
#1	.0010	0.1019	02.075	.0101	0.0218	08.616	0.0403
#2	.0014	0.1003	02.212	.0116	0.0228	08.580	0.0404
#3	.0012	0.1004	02.120	.0105	0.0194	08.578	0.0405
Errors	NOCHECK	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail
Value		.0912	2.356		.0165	7.989	.0377
Range		3.900	.0350		.5500	.0350	.8300

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1129	021.89	.0113	0.1259	.0339	0.0280	.0270
SDev	.0007	.04	.0057	.0013	.0103	.0038	.0102
%RSD	.6349	.1896	50.24	1.003	30.52	13.57	37.78
#1	.1122	021.87	.0060	0.1273	.0435	0.0237	.0152
#2	.1129	21.94	.0174	0.1256	.0353	0.0308	.0325
#3	.1136	021.87	.0106	0.1249	.0230	0.0294	.0332
Errors	QC Pass	QC Fail	NOCHECK	QC Fail	NOCHECK	QC Fail	NOCHECK
Value	.1129	22.07		.0581		.0181	

Range	1.700	.6400		2.700		.6400	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0068	.0023	0.0766	0.0439	3.714	-.0077	.2996
SDev	.0043	.0040	.0020	.0047	.041	.0238	.0003
%RSD	62.29	170.7	2.664	10.67	1.098	309.5	.0858
#1	.0113	.0008	0.0787	0.0466	3.753	.0180	.2998
#2	.0062	.0068	0.0746	0.0466	3.716	-.0120	.2994
#3	.0029	-.0006	0.0767	0.0385	3.672	-.0291	.2995
Errors	NOCHECK	NOCHECK	QC Fail	QC Fail	NOCHECK	NOCHECK	QC Pass
Value			.0541	.0114			.2948
Range			1.100	.1700			3.400

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0061	-.0167	.0006	0.0089	.2990	.0351	.0141
SDev	.0052	.0038	.0011	.0092	.0611	.0003	.0048
%RSD	85.47	22.98	45.35	103.2	20.44	.8680	33.71
#1	.0002	-.0143	.0009	0.0020	.2416	.0351	.0159
#2	.0099	-.0148	.0004	0.0193	.3633	.0354	.0087
#3	.0083	-.0212	.0006	0.0053	.2923	.0348	.0177
Errors	NOCHECK	NOCHECK	NOCHECK	QC Fail	NOCHECK	QC Pass	NOCHECK
Value				.0073		.0351	
Range				.2500		1.400	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0008	0.0747	-.0004
SDev	.0004	.0011	.0002
%RSD	53.78	1.422	51.61
#1	.0010	0.0759	-.0005
#2	.0010	0.0746	-.0001
#3	.0003	0.0738	-.0004
Errors	NOCHECK	QC Fail	NOCHECK
Value		.0725	
Range		.6500	

Analysis Report Thu 02-22-96 10:28:5a AM page 1

Method: ICP1A Sample Name: QC CCV1 960126M901 Operator: DRS
Run Time: 02/22/96 10:27:38
Comment: (RECYCLE WATER)M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0015	1.968	2.089	2.115	.9852	1.005	1.989
SDev	.0006	.004	.009	.014	.0060	.005	.014
%RSD	40.24	.2207	.4196	.6780	.6134	.5311	.7038
#1	.0016	1.969	2.082	2.111	.9823	1.003	2.003
#2	.0006	1.971	2.099	2.131	.9922	1.011	1.989
#3	.0019	1.963	2.087	2.103	.9812	1.001	1.975

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.056	1.021	-.0006	1.022	.5075	1.989	.0011
SDev	.010	.009	.0028	.005	.0054	.012	.0006
%RSD	.4782	.8603	506.1	.4878	1.071	.6017	58.97
#1	2.052	1.012	.0020	1.020	.5059	1.979	.0009
#2	2.067	1.024	-.0035	1.028	.5135	2.002	.0005
#3	2.049	1.029	-.0002	1.019	.5029	1.988	.0018

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	2.034	4.675	.0021	1.980	2.101	1.042
SDev	.0002	.009	.092	.0008	.011	.017	.005
%RSD	49.75	.4589	1.978	35.64	.5768	.7869	.5160
#1	.0006	2.028	4.775	.0029	1.969	2.102	1.038
#2	.0002	2.044	4.591	.0015	1.992	2.117	1.048
#3	.0004	2.029	4.660	.0019	1.978	2.084	1.039

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.985	8.305	.0029	2.076	4.912	2.040	.0161
SDev	.011	.075	.0018	.008	.070	.010	.0104
%RSD	.5338	.9073	63.96	.3758	1.418	.4883	64.44
#1	1.985	8.279	.0049	2.079	4.993	2.049	.0281
#2	1.995	8.390	.0014	2.082	4.871	2.041	.0102
#3	1.974	8.246	.0022	2.068	4.872	2.030	.0100

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0020	.0077	.0336	2.004	5.292	.0570	1.984
SDev	.0016	.0017	.0044	.022	.019	.0104	.012
%RSD	83.00	21.52	12.99	1.103	.3616	18.21	.6112
#1	.0037	.0062	.0286	1.979	5.295	.0487	1.978
#2	.0005	.0095	.0365	2.015	5.310	.0535	1.998
#3	.0017	.0074	.0357	2.019	5.272	.0686	1.977

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0257	.0075	.0005	1.979	.0368	.9686	.0250
SDev	.0068	.0039	.0003	.021	.0328	.0048	.0053

%RSD	26.35	52.36	58.73	1.075	88.99	.4932	21.97
#1	.0292	.0080	.0007	1.962	.0745	.9665	.0201
#2	.0179	.0034	.0002	2.003	.0211	.9740	.0238
#3	.0301	.0112	.0005	1.972	.0149	.9652	.0309

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0003	1.005	-.0016
SDev	.0002	.004	.0001
%RSD	68.61	.4247	7.716
#1	.0001	1.000	-.0015
#2	.0005	1.008	-.0017
#3	.0005	1.007	-.0017

Analysis Report Thu 02-22-96 10:33:54 AM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 02/22/96 10:32:36
Comment: (RECYCLE WATER)M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	-.0000	-.0106	-.0076	-.0006	-.0005	-.0114
SDev	.0006	.0092	.0045	.0030	.0001	.0000	.0014
%RSD	270.2	53230.	43.03	39.67	24.87	5.758	12.72
#1	.0001	-.0005	-.0066	-.0042	-.0007	-.0006	-.0124
#2	.0008	.0094	-.0096	-.0100	-.0004	-.0005	-.0120
#3	-.0003	-.0089	-.0155	-.0086	-.0006	-.0006	-.0097

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0035	-.0011	-.0054	-.0007	-.0016	-.0019	-.0002
SDev	.0016	.0010	.0056	.0009	.0024	.0005	.0007
%RSD	44.82	88.51	104.6	119.5	148.1	28.32	292.1
#1	-.0042	-.0000	-.0055	-.0011	-.0033	-.0019	-.0006
#2	-.0017	-.0019	.0003	.0003	.0011	-.0023	.0005
#3	-.0046	-.0013	-.0110	-.0014	-.0026	-.0013	-.0007

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	-.0081	-.0915	-.0008	-.0018	-.0114	-.0008
SDev	.0002	.0007	.1601	.0015	.0010	.0068	.0000
%RSD	1894.	9.166	175.0	199.9	54.55	59.75	1.473
#1	.0000	-.0082	-.1601	-.0015	-.0027	-.0155	-.0008
#2	.0002	-.0073	.0915	.0010	-.0008	-.0035	-.0008
#3	-.0002	-.0087	-.2059	-.0018	-.0018	-.0153	-.0008

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0016	-.0182	.0033	-.0030	.0048	.0018	-.0063
SDev	.0007	.0254	.0070	.0028	.0251	.0069	.0188
%RSD	46.95	139.6	214.0	95.41	519.5	392.4	299.1
#1	-.0024	.0040	-.0039	-.0051	-.0239	.0035	-.0148
#2	-.0010	-.0127	.0102	.0002	.0157	.0076	.0152
#3	-.0013	-.0458	.0035	-.0040	.0226	-.0058	-.0193

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0055	-.0010	.0026	.0119	-.0756	-.0014	-.0011
SDev	.0079	.0027	.0071	.0112	.0106	.0250	.0001
%RSD	144.1	271.5	270.7	94.07	14.06	1816.	6.550
#1	-.0078	-.0016	-.0054	-.0006	-.0718	-.0050	-.0010
#2	.0033	.0020	.0084	.0154	-.0674	.0253	-.0010
#3	-.0120	-.0034	.0049	.0208	-.0876	-.0244	-.0012

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0011	.0086	-.0001	-.0004	-.0330	-.0009	-.0023
SDev	.0028	.0038	.0004	.0119	.0304	.0011	.0056

%RSD	244.9	44.60	586.2	3064.	92.23	130.6	240.8
#1	-.0041	.0048	.0001	-.0098	.0021	-.0013	.0025
#2	.0014	.0086	.0002	.0130	-.0516	.0004	-.0085
#3	-.0007	.0124	-.0005	-.0044	-.0494	-.0018	-.0010

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0001	-.0022	-.0011
SDev	.0002	.0003	.0006
%RSD	199.7	14.96	49.73
#1	.0000	-.0018	-.0011
#2	.0000	-.0023	-.0006
#3	-.0003	-.0024	-.0017

Analysis Report Thu 02-22-96 10:36:11 AM

Method: ICP1A Sample Name: 96-3251 @5 Operator: DRS
Run Time: 02/22/96 10:34:53
Comment: DFA #16403 41-V-4044 @5X DIL (RECYCLE WATER)M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	.0031	-.0066	-.0171	-.0005	-.0006	-.0130
SDev	.0003	.0044	.0031	.0004	.0001	.0000	.0028
%RSD	34.67	142.8	46.06	2.343	17.21	1.555	21.56
#1	.0012	.0080	-.0102	-.0176	-.0004	-.0006	-.0098
#2	.0006	.0019	-.0052	-.0169	-.0006	-.0006	-.0139
#3	.0010	-.0006	-.0046	-.0169	-.0004	-.0006	-.0152

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0676	.0023	.0010	-.0013	.0092	.0089	.0010
SDev	.0006	.0016	.0038	.0004	.0011	.0007	.0003
%RSD	.9628	71.39	394.6	29.85	11.64	8.055	29.17
#1	.0675	.0005	.0038	-.0014	.0082	.0081	.0012
#2	.0671	.0036	.0025	-.0009	.0090	.0094	.0011
#3	.0683	.0028	-.0034	-.0016	.0103	.0092	.0007

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.0510	.1601	.0008	.0005	-.0009	.0026
SDev	.0002	.0012	.1649	.0005	.0011	.0058	.0003
%RSD	93.48	2.423	103.0	67.99	230.9	664.8	10.15
#1	.0004	.0523	.3431	.0005	.0011	-.0063	.0027
#2	-.0000	.0499	.0229	.0004	.0011	.0052	.0023
#3	.0004	.0506	.1144	.0014	-.0008	-.0015	.0028

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0021	.0150	.0098	-.0044	.0079	.0048	.0145
SDev	.0005	.0199	.0065	.0009	.0209	.0056	.0155
%RSD	22.44	132.4	66.30	21.48	263.3	118.9	106.6
#1	-.0016	.0095	.0172	-.0037	.0320	.0109	.0323
#2	-.0023	-.0015	.0059	-.0040	-.0049	.0034	.0052
#3	-.0024	.0372	.0062	-.0054	-.0033	-.0001	.0060

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0053	.0013	.0042	.0167	-.1116	.0103	-.0013
SDev	.0064	.0040	.0126	.0040	.0016	.0106	.0001
%RSD	121.5	310.1	298.7	24.20	1.467	102.8	5.303
#1	.0117	.0024	-.0101	.0213	-.1098	.0059	-.0013
#2	-.0011	-.0032	.0091	.0154	-.1119	.0225	-.0014
#3	.0051	.0046	.0136	.0136	-.1130	.0027	-.0013

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0051	.0053	.0010	-.0021	.0659	-.0001	-.0061
SDev	.0136	.0019	.0003	.0085	.0663	.0006	.0130

%RSD	264.6	36.48	32.61	410.3	100.6	551.6	213.2
#1	-.0207	.0060	.0010	-.0116	.1153	.0005	.0004
#2	.0042	.0067	.0014	.0005	-.0093	-.0007	.0024
#3	.0012	.0031	.0007	.0049	.0919	-.0001	-.0210

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0001	.0074	-.0005
SDev	.0005	.0005	.0001
%RSD	733.0	7.073	19.67
#1	.0006	.0068	-.0005
#2	-.0000	.0075	-.0007
#3	-.0004	.0079	-.0005

Analysis Report Thu 02-22-96 10:39:59 AM page 1

Method: ICP1A Sample Name: 96-3251 Operator: DRS
Run Time: 02/22/96 10:38:40
Comment: DFA #16403 41-V-4044 (RECYCLE WATER)M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0021	.0269	-.0138	-.0592	.0001	-.0007	.0041
SDev	.0005	.0016	.0072	.0017	.0002	.0000	.0039
%RSD	23.14	6.159	52.15	2.840	179.0	1.063	96.68
#1	.0015	.0282	-.0069	-.0603	-.0000	-.0007	.0086
#2	.0024	.0274	-.0213	-.0573	.0003	-.0007	.0014
#3	.0023	.0250	-.0132	-.0600	-.0000	-.0007	.0023

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1003	-.0007	.0165	-.0001	.0541	.0575	.0035
SDev	.0051	.0029	.0008	.0002	.0023	.0023	.0004
%RSD	5.110	412.5	4.924	129.0	4.190	4.036	12.11
#1	.0948	-.0038	.0157	.0001	.0531	.0554	.0031
#2	.1011	-.0004	.0173	-.0002	.0558	.0572	.0035
#3	.1050	.0021	.0166	-.0002	.0515	.0600	.0039

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.3080	.7700	.0046	.0010	.0153	.0161
SDev	.0000	.0059	.0924	.0016	.0006	.0028	.0001
%RSD	.3640	1.904	12.00	35.56	57.73	18.16	.5318
#1	.0010	.3147	.6633	.0027	.0006	.0121	.0161
#2	.0010	.3058	.8234	.0057	.0016	.0167	.0161
#3	.0010	.3036	.8234	.0054	.0006	.0170	.0160

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0704	.0206	.0064	-.0070	.0044	.0415
SDev	.0012	.0200	.0011	.0021	.0223	.0052	.0081
%RSD	301.3	28.37	5.399	32.52	317.7	119.0	19.50
#1	.0009	.0483	.0194	.0088	.0046	.0034	.0321
#2	.0012	.0760	.0209	.0049	.0071	.0100	.0458
#3	-.0009	.0871	.0216	.0056	-.0327	-.0003	.0465

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0188	.0026	.0076	.0074	-.1441	.0585	-.0013
SDev	.0078	.0012	.0098	.0093	.0016	.0319	.0001
%RSD	41.65	48.14	129.8	126.2	1.099	54.53	5.676
#1	.0116	.0021	.0188	.0165	-.1458	.0255	-.0013
#2	.0271	.0039	.0029	.0078	-.1426	.0891	-.0012
#3	.0177	.0016	.0010	-.0021	-.1439	.0608	-.0013

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0047	.0060	.0052	-.0018	.2363	.0010	.0050
SDev	.0063	.0061	.0002	.0038	.0487	.0006	.0088

%RSD	132.5	101.8	4.428	205.9	20.60	55.07	175.8
#1	-.0022	-.0010	.0051	-.0054	.2035	.0004	.0093
#2	.0101	.0101	.0051	-.0022	.2922	.0015	.0109
#3	.0064	.0088	.0055	.0021	.2131	.0011	-.0051

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0011	.0309	.0011
SDev	.0002	.0018	.0005
%RSD	16.67	5.889	42.79
#1	.0009	.0294	.0016
#2	.0012	.0304	.0011
#3	.0013	.0330	.0006

Analysis Report QC Standard Thu 02-22-96 10:43:11 AM page 1

Method: ICP1A Sample Name: QC_MCVA 960130I901 Operator: DRS
Run Time: 02/22/96 10:41:52
Comment: (RECYCLE WATER)M.EBY
Mode: CONC Corr. Factor: 1

PASS DRS 2/22/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4898	9.918	2.568	2.042	.4916	.0958	24.45
SDev	.0017	.026	.012	.012	.0013	.0002	.05
%RSD	.3423	.2595	.4700	.5866	.2533	.2020	.1950
#1	.4898	9.935	2.555	2.034	.4928	.0959	24.43
#2	.4914	9.931	2.570	2.055	.4918	.0960	24.50
#3	.4881	9.888	2.579	2.035	.4903	.0956	24.41
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.03	.4991	-.0003	1.001	.9960	.9542	-.0006
SDev	.04	.0033	.0049	.002	.0016	.0040	.0003
%RSD	.1782	.6423	2026.	.2129	.1646	.4219	58.98
#1	25.09	.4956	-.0044	1.001	.9979	.9500	-.0009
#2	25.12	.4997	-.0043	1.003	.9949	.9545	-.0006
#3	25.03	.5020	.0076	.9987	.9953	.9581	-.0002
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0017	20.08	23.80	.0027	1.999	32.46	.5103
SDev	.0001	.04	.05	.0017	.009	.03	.0017
%RSD	7.050	.2198	.2001	63.09	.4611	.0897	.3261
#1	.0017	20.10	23.74	.0011	2.009	32.45	.5115
#2	.0018	20.12	23.81	.0046	1.996	32.49	.5109
#3	.0016	20.03	23.83	.0025	1.991	32.43	.5084
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.000	36.61	.0018	1.001	4.992	2.489	-.0478
SDev	.002	.10	.0043	.005	.018	.013	.0104
%RSD	.2218	.2838	233.8	.5132	.3603	.5186	21.75
#1	1.002	36.69	-.0023	.9979	5.011	2.474	-.0599
#2	1.001	36.64	.0015	1.006	4.990	2.498	-.0416
#3	.9976	36.49	.0063	.9972	4.975	2.494	-.0420
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Analysis Report QC Standard Thu 02-22-96 10:43:11 AM page 2

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0130	.0149	03.200	2.558	18.41	.2125	.4992
SDev	.0072	.0025	.014	.020	.04	.0342	.0015
%RSD	55.66	16.69	.4230	.7659	.1979	16.09	.2947
#1	-.0212	.0120	03.185	2.537	18.42	.1768	.5003
#2	-.0102	.0163	03.205	2.575	18.44	.2158	.4999
#3	-.0076	.0163	03.211	2.561	18.37	.2450	.4976
Errors	NOCHECK	NOCHECK	QC Fail	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0365	.0449	.9797	2.463	.0346	.9833	.0382
SDev	.0078	.0023	.0026	.005	.0745	.0024	.0046
%RSD	21.26	18.59	.2691	.2229	215.3	.2489	12.13
#1	.0337	.0538	.9797	2.467	-.0364	.9848	.0347
#2	.0453	.0373	.9824	2.463	.0279	.9846	.0434
#3	.0305	.0435	.9771	2.457	.1122	.9805	.0364
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0009	.9947	1.965
SDev	.0002	.0013	.005
%RSD	16.93	.1302	.2538
#1	.0009	.9942	1.966
#2	.0008	.9962	1.969
#3	.0011	.9937	1.959
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report Thu 02-22-96 10:48:09 AM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 02/22/96 10:46:50
Comment: DFA #16403 41-V-4044 (RECYCLE WATER)M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0021	.0013	.0043	-.0349	-.0007	-.0007	-.0018
SDev	.0007	.0044	.0034	.0021	.0001	.0000	.0092
%RSD	35.46	336.9	79.37	6.015	10.76	4.244	522.6
#1	-.0013	.0053	.0057	-.0348	-.0007	-.0007	.0038
#2	-.0021	.0020	.0004	-.0370	-.0008	-.0008	.0034
#3	-.0028	-.0034	.0067	-.0328	-.0007	-.0007	-.0124

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0010	-.0010	.0002	-.0014	-.0007	-.0020	.0003
SDev	.0010	.0011	.0027	.0001	.0018	.0017	.0005
%RSD	101.5	110.4	1468.	6.126	279.4	86.07	159.0
#1	.0001	-.0001	.0033	-.0015	-.0019	-.0000	.0008
#2	-.0019	-.0007	-.0017	-.0013	-.0015	-.0031	.0001
#3	-.0011	-.0021	-.0011	-.0015	.0015	-.0029	-.0000

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	-.0045	-.0000	-.0001	-.0021	-.0026	-.0007
SDev	.0001	.0014	.1585	.0012	.0020	.0111	.0003
%RSD	146.9	30.55	16e6	1539.	96.08	421.3	41.08
#1	-.0000	-.0031	.1830	.0012	.0002	.0099	-.0008
#2	-.0000	-.0046	-.0915	-.0012	-.0037	-.0113	-.0003
#3	-.0002	-.0058	-.0915	-.0002	-.0027	-.0065	-.0008

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0023	-.0164	.0020	-.0219	-.0014	.0043	.0016
SDev	.0006	.0160	.0040	.0011	.0063	.0039	.0094
%RSD	24.13	97.72	202.8	5.214	444.4	90.30	576.1
#1	-.0024	-.0072	.0063	-.0232	-.0080	.0071	.0083
#2	-.0028	-.0348	.0010	-.0211	.0045	-.0001	.0057
#3	-.0017	-.0071	-.0014	-.0214	-.0008	.0058	-.0092

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0021	.0012	.0011	.0142	-.2368	.0225	-.0015
SDev	.0038	.0034	.0046	.0077	.0056	.0097	.0000
%RSD	184.3	275.0	407.0	54.73	2.372	43.19	.0314
#1	.0021	.0049	.0052	.0081	-.2312	.0337	-.0015
#2	-.0030	.0006	.0020	.0247	-.2367	.0171	-.0015
#3	-.0053	-.0018	-.0038	.0115	-.2424	.0166	-.0015

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0020	.0016	.0004	-.0030	.0337	-.0009	-.0094
SDev	.0041	.0088	.0004	.0062	.0622	.0006	.0027

%RSD	204.0	540.4	105.3	205.9	184.5	62.68	33.35
#1	.0016	.0093	.0009	-.0095	.0559	-.0003	-.0065
#2	-.0012	-.0080	.0000	-.0024	.0818	-.0010	-.0118
#3	-.0065	.0035	.0004	.0028	-.0366	-.0014	-.0100

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0000	-.0015	-.0002
SDev	.0000	.0008	.0008
%RSD	181.7	50.72	523.9
#1	-.0000	-.0024	-.0005
#2	-.0000	-.0009	.0008
#3	.0000	-.0014	-.0008

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Document #: SD-WM-DP-171

Title/Desc:
FINAL REPORT FOR TANK 241-BX-104 PUSH MODE CORES 126 & 127 [SEC 3 OF 9]

Pages: 215

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

DOCUMENT NUMBER: SD-WM-DP-171 Rev. 1

SECTION 3 OF 9

TITLE: Final Report for Tank 241-SX-104 Push Mode Cores 126 and 127.

DATE: 4/25/96

ORIGINATOR: Hu, Pa

CO: WIC

RECIPIENT:

CO:

REFERENCES: ECN- 629038

Analysis Report Thu 02-22-96 10:55:24 AM page 1

Method: ICP1A Sample Name: 96-2980-BLK Operator: DRS
Run Time: 02/22/96 10:54:05
Comment: PROCESS BLANK (BX104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0018	.0578	.0349	.0863	.0036	-.0007	.0070
SDev	.0004	.0026	.0095	.0011	.0001	.0000	.0048
%RSD	21.33	4.476	27.23	1.334	2.194	4.850	68.86
#1	.0017	.0564	.0244	.0873	.0036	-.0008	.0017
#2	.0022	.0608	.0428	.0851	.0037	-.0007	.0080
#3	.0014	.0562	.0375	.0867	.0036	-.0008	.0112

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2681	.0016	.0230	.0111	.0050	.0189	.0039
SDev	.0013	.0015	.0030	.0012	.0028	.0006	.0003
%RSD	.4978	92.71	13.20	10.70	56.87	3.263	7.687
#1	.2667	.0033	.0214	.0120	.0050	.0182	.0039
#2	.2693	.0003	.0211	.0114	.0078	.0193	.0036
#3	.2683	.0013	.0265	.0098	.0021	.0192	.0042

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	.1212	2014.	.0060	.0011	.0127	.1437
SDev	.0001	.0015	8.	.0008	.0008	.0022	.0014
%RSD	8.994	1.220	.4197	13.40	74.23	17.50	.9828
#1	.0013	.1196	2004.	.0060	.0016	.0148	.1425
#2	.0016	.1226	2021.	.0069	.0016	.0131	.1453
#3	.0014	.1214	2016.	.0052	.0002	.0103	.1435

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0027	.9441	.0274	.4197	.0248	.0243	.0614
SDev	.0024	.0231	.0033	.0060	.0176	.0045	.0110
%RSD	91.70	2.447	12.08	1.432	71.14	18.47	17.96
#1	-.0002	.9182	.0307	.4146	.0147	.0198	.0574
#2	.0042	.9516	.0241	.4182	.0144	.0287	.0738
#3	.0040	.9626	.0274	.4263	.0451	.0245	.0529

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0344	.0140	.0122	.0352	-.1460	.1110	-.0003
SDev	.0058	.0019	.0029	.0026	.0030	.0240	.0006
%RSD	16.74	13.70	24.06	7.517	2.040	21.60	-1707
#1	.0398	.0159	.0147	.0352	-.1430	.0868	-.0003
#2	.0353	.0121	.0129	.0378	-.1461	.1348	-.0003
#3	.0283	.0138	.0090	.0325	-.1490	.1115	-.0003

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0222	.0042	.0059	.0254	.4025	.0026	.0114
SDev	.0074	.0021	.0001	.0036	.0104	.0003	.0052

%RSD	33.31	49.40	1.447	14.29	2.586	10.88	46.12
#1	.0145	.0020	.0060	.0269	.4133	.0026	.0053
#2	.0292	.0045	.0060	.0213	.3925	.0028	.0143
#3	.0228	.0061	.0058	.0281	.4015	.0023	.0145

Elem	V	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0014	.0218	.0022
SDev	.0002	.0004	.0003
%RSD	14.22	1.682	12.27
#1	.0015	.0213	.0024
#2	.0012	.0219	.0021
#3	.0015	.0220	.0019

Analysis Report Thu 02-22-96 10:59:11 AM page 1

Method: ICP1A Sample Name: 96-2980-BLK #2 Operator: DRS
Run Time: 02/22/96 10:57:53
Comment: PROCESS BLANK #2 (BX104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0451	.0163	.0735	-.0000	-.0008	.0132
SDev	.0012	.0037	.0064	.0017	.0001	.0000	.0120
%RSD	190.0	8.197	39.50	2.368	4623.	1.471	91.23
#1	.0019	.0488	.0110	.0748	.0001	-.0008	-.0005
#2	-.0004	.0414	.0234	.0742	-.0001	-.0008	.0220
#3	.0004	.0452	.0143	.0715	-.0000	-.0008	.0180

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2237	.0016	.0107	.0089	.0060	.0176	.0020
SDev	.0014	.0014	.0072	.0005	.0006	.0006	.0006
%RSD	.6211	85.93	66.75	5.874	10.47	3.300	32.22
#1	.2239	.0007	.0190	.0095	.0067	.0181	.0026
#2	.2223	.0010	.0057	.0088	.0059	.0170	.0013
#3	.2250	.0033	.0075	.0085	.0055	.0178	.0020

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	3.101	1969.	.0028	.0002	.0143	.1493
SDev	.0002	.032	18.	.0013	.0000	.0023	.0014
%RSD	24.98	1.019	.9373	45.12	.0000	15.97	.9693
#1	.0010	3.068	1948.	.0036	.0002	.0163	.1476
#2	.0006	3.105	1975.	.0012	.0002	.0118	.1501
#3	.0008	3.131	1983.	.0034	.0002	.0147	.1501

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0016	.8869	.0136	.4043	.0173	.0160	.0192
SDev	.0017	.0285	.0038	.0049	.0179	.0031	.0148
%RSD	103.5	3.210	28.03	1.220	103.1	19.27	77.09
#1	.0027	.8628	.0180	.4075	.0271	.0187	.0353
#2	-.0003	.8795	.0111	.3987	.0281	.0126	.0160
#3	.0024	.9183	.0118	.4068	-.0033	.0167	.0062

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0136	.0123	.0192	.0274	-.1633	.1128	-.0006
SDev	.0071	.0024	.0149	.0066	.0003	.0173	.0001
%RSD	52.28	19.70	77.64	24.21	.1910	15.31	11.22
#1	.0210	.0150	.0020	.0293	-.1635	.1278	-.0007
#2	.0069	.0103	.0282	.0200	-.1630	.0939	-.0007
#3	.0128	.0116	.0274	.0328	-.1635	.1167	-.0006

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0175	.0120	.0051	.0150	.1660	.0016	-.0002
SDev	.0062	.0037	.0002	.0020	.0929	.0001	.0041

%RSD	35.32	30.89	3.844	13.52	55.97	6.924	1690.
#1	.0224	.0077	.0052	.0136	.2590	.0016	.0020
#2	.0197	.0141	.0049	.0173	.0733	.0015	.0023
#3	.0106	.0142	.0053	.0141	.1656	.0017	-.0050

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0005	.0328	.0001
SDev	.0005	.0005	.0009
%RSD	101.8	1.426	783.9
#1	.0009	.0324	.0011
#2	-.0001	.0333	-.0004
#3	.0006	.0325	-.0003

Analysis Report Thu 02-22-96 11:02:41 AM

Method: ICP1A Sample Name: 96-2980 @5 Operator: DRS
Run Time: 02/22/96 11:01:22
Comment: 126.2BH.F @5X DIL (BX104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0040	12.62	-.0056	-.0163	-.0000	-.0009	.0186
SDev	.0004	.02	.0095	.0003	.0001	.0000	.0060
%RSD	8.960	.1390	170.9	1.773	162.7	3.248	32.07
#1	-.0038	12.61	-.0139	-.0163	-.0000	-.0009	.0163
#2	-.0044	12.60	.0048	-.0159	-.0000	-.0009	.0141
#3	-.0038	12.64	-.0075	-.0165	-.0001	-.0010	.0253

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.7152	-.0004	-.0089	.0022	.1039	.0049	-.0006
SDev	.0016	.0006	.0019	.0006	.0013	.0011	.0003
%RSD	.2211	139.3	21.45	25.69	1.274	23.58	58.51
#1	.7168	-.0011	-.0088	.0027	.1039	.0048	-.0009
#2	.7137	.0001	-.0071	.0022	.1052	.0038	-.0004
#3	.7151	-.0003	-.0110	.0016	.1025	.0061	-.0003

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0027	.2846	476.3	.0011	-.0005	-.0394	.0696
SDev	.0002	.0017	.5	.0001	.0012	.0047	.0002
%RSD	7.274	.5884	.1116	10.00	251.7	11.86	.2470
#1	.0029	.2849	476.5	.0010	-.0003	-.0347	.0694
#2	.0025	.2861	475.7	.0010	-.0018	-.0440	.0698
#3	.0027	.2828	476.7	.0012	.0006	-.0395	.0696

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	4.577	-.0021	3.093	.0933	.0354	-.0205
SDev	.0010	.020	.0035	.003	.0068	.0034	.0072
%RSD	275.9	.4354	166.3	.1033	7.334	9.591	35.29
#1	.0003	4.582	.0017	3.090	.0979	.0367	-.0279
#2	-.0006	4.555	-.0052	3.096	.0966	.0316	-.0204
#3	.0014	4.593	-.0027	3.093	.0855	.0380	-.0134

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0088	-.0026	.0238	.0528	-.1383	-.0078	.0056
SDev	.0029	.0033	.0115	.0086	.0021	.0289	.0000
%RSD	33.16	124.2	48.49	16.21	1.483	372.1	.0075
#1	-.0078	-.0015	.0329	.0573	-.1359	.0089	.0056
#2	-.0121	-.0063	.0277	.0430	-.1393	.0090	.0056
#3	-.0065	-.0001	.0108	.0582	-.1395	-.0412	.0056

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0037	.0300	.0025	.0005	8.285	.0006	.0135
SDev	.0025	.0064	.0001	.0062	.060	.0004	.0199

%RSD	67.78	21.45	4.440	1372.	.7274	67.07	148.2
#1	.0046	.0271	.0024	.0068	8.310	.0004	.0349
#2	.0056	.0255	.0025	.0001	8.329	.0003	-.0044
#3	.0009	.0373	.0026	-.0056	8.216	.0010	.0098

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0003	.0406	-.0014
SDev	.0002	.0011	.0006
%RSD	76.03	2.813	40.34
#1	-.0000	.0402	-.0009
#2	-.0004	.0419	-.0013
#3	-.0003	.0397	-.0021

Analysis Report Thu 02-22-96 11:06:21 AM

Method: ICP1A Sample Name: 96-2980 Operator: DRS
Run Time: 02/22/96 11:05:02
Comment: 126.28H.F (BX104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0040	61.30	.0838	.1276	.0053	-.0007	.2006
SDev	.0006	.27	.0190	.0008	.0002	.0001	.0159
%RSD	14.73	.4393	22.65	.6436	3.014	6.873	7.909
#1	.0047	61.02	.1020	.1272	.0053	-.0008	.1859
#2	.0037	61.56	.0641	.1285	.0051	-.0008	.1985
#3	.0036	61.32	.0854	.1270	.0053	-.0007	.2174

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3734	.0069	.0484	.0304	.5134	.0571	.0092
SDev	.0010	.0026	.0061	.0008	.0072	.0008	.0007
%RSD	.2698	38.39	12.59	2.574	1.404	1.373	7.611
#1	.3725	.0066	.0524	.0310	.5082	.0563	.0094
#2	.3732	.0096	.0414	.0295	.5103	.0570	.0084
#3	.3745	.0044	.0514	.0307	.5216	.0579	.0098

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0166	1.391	2265.	.0190	.0117	-.0799	.3433
SDev	.0001	.007	11.	.0014	.0014	.0120	.0015
%RSD	.5541	.5390	.4954	7.351	12.33	14.97	.4507
#1	.0167	1.383	2254.	.0205	.0132	-.0701	.3416
#2	.0165	1.396	2276.	.0179	.0103	-.0932	.3446
#3	.0165	1.394	2265.	.0185	.0117	-.0763	.3438

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0204	22.12	.0530	15.21	.6379	.2676	.1079
SDev	.0006	.12	.0094	.06	.0069	.0076	.0076
%RSD	3.002	.5446	17.74	.3899	1.079	2.824	7.079
#1	.0198	22.01	.0631	15.14	.6392	.2626	.1131
#2	.0210	22.25	.0445	15.26	.6440	.2640	.0992
#3	.0204	22.10	.0513	15.23	.6304	.2763	.1116

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0710	.0312	.1852	.3223	.4988	.4069	.0326
SDev	.0049	.0016	.0074	.0133	.0053	.0374	.0001
%RSD	6.849	5.094	4.006	4.125	1.054	9.180	.3816
#1	.0735	.0330	.1920	.3309	.5002	.4204	.0325
#2	.0654	.0301	.1773	.3070	.4930	.3647	.0327
#3	.0741	.0305	.1864	.3289	.5032	.4356	.0326

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1309	.1194	.0178	.0440	40.55	.0161	.0759
SDev	.0051	.0058	.0004	.0041	.19	.0007	.0057

%RSD	3.897	4.876	2.513	9.401	.4659	4.281	7.488
#1	.1296	.1174	.0182	.0411	40.36	.0164	.0800
#2	.1365	.1148	.0173	.0487	40.74	.0153	.0694
#3	.1265	.1259	.0178	.0421	40.56	.0166	.0782

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0033	.0466	-.0002
SDev	.0003	.0027	.0006
%RSD	8.654	5.697	310.0
#1	.0035	.0494	.0005
#2	.0030	.0462	-.0006
#3	.0034	.0443	-.0005

Analysis Report Thu 02-22-96 11:09:58 AM Page 1

Method: ICP1A Sample Name: 96-2980-PS-A Operator: DRS
Run Time: 02/22/96 11:08:39
Comment: 126.2BH.F POST SPIKE A (MCVA) (BX104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2334	36.01	1.345	1.055	.2433	.0474	12.20
SDev	.0064	.23	.013	.006	.0015	.0003	.12
%RSD	2.749	.6266	.9389	.6051	.6032	.6860	.9945
#1	.2393	36.20	1.357	1.053	.2445	.0477	12.25
#2	.2266	35.76	1.345	1.050	.2417	.0471	12.06
#3	.2344	36.05	1.332	1.062	.2436	.0474	12.28

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.75	.2472	.0338	.5136	.7512	.5098	.0059
SDev	.06	.0044	.0056	.0015	.0070	.0054	.0007
%RSD	.4765	1.767	16.47	.2953	.9383	1.062	12.24
#1	12.81	.2483	.0274	.5138	.7590	.5160	.0051
#2	12.69	.2509	.0364	.5120	.7452	.5059	.0064
#3	12.76	.2424	.0376	.5150	.7494	.5075	.0063

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0096	10.66	1169.	.0120	.9741	16.09	.4262
SDev	.0002	.06	7.	.0003	.0063	.08	.0024
%RSD	2.364	.5782	.5581	2.633	.6451	.5142	.5544
#1	.0094	10.71	1175.	.0117	.9790	16.16	.4286
#2	.0097	10.59	1162.	.0123	.9670	16.00	.4238
#3	.0098	10.67	1170.	.0119	.9761	16.11	.4262

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5122	29.32	.0358	8.159	2.857	1.372	.0508
SDev	.0025	.19	.0048	.032	.013	.012	.0090
%RSD	.4797	.6344	13.47	.3928	.4417	.8616	17.76
#1	.5148	29.50	.0320	8.194	2.850	1.380	.0410
#2	.5100	29.13	.0412	8.131	2.849	1.358	.0588
#3	.5117	29.33	.0341	8.153	2.871	1.377	.0527

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0373	.0269	1.710	1.445	9.540	.3214	.2620
SDev	.0094	.0015	.018	.010	.045	.0234	.0017
%RSD	25.18	5.632	1.033	.6599	.4760	7.296	.6613
#1	.0284	.0252	1.707	1.456	9.583	.2947	.2637
#2	.0471	.0275	1.694	1.439	9.492	.3310	.2602
#3	.0362	.0281	1.729	1.440	9.546	.3386	.2622

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0890	.0854	.4948	1.247	20.78	.4960	.0614
SDev	.0057	.0009	.0030	.014	.08	.0027	.0037

%RSD	6.448	1.032	.6059	1.102	.3855	.5391	5.941
#1	.0918	.0849	.4972	1.262	20.76	.4986	.0577
#2	.0824	.0849	.4915	1.237	20.71	.4932	.0616
#3	.0928	.0864	.4958	1.240	20.87	.4962	.0650

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0027	.5249	.9806
SDev	.0002	.0015	.0058
%RSD	8.921	.2888	.5919
#1	.0026	.5248	.9851
#2	.0029	.5265	.9741
#3	.0025	.5235	.9826

Analysis Report Thu 02-22-96 11:13:15 AM page 1

Method: ICP1A Sample Name: MCVA 60 Operator: DRS
Run Time: 02/22/96 11:11:57
Comment: MCVA 9601301701 @2X DIL (8X104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2377	5.127	1.306	.9909	.2485	.0481	12.35
SDev	.0007	.022	.004	.0054	.0009	.0002	.04
%RSD	.2790	.4330	.3205	.5438	.3621	.3640	.2998
#1	.2370	5.111	1.307	.9847	.2477	.0480	12.31
#2	.2382	5.152	1.302	.9945	.2495	.0483	12.38
#3	.2380	5.119	1.310	.9935	.2484	.0480	12.36

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.33	.2496	.0022	.5102	.5063	.4792	.0011
SDev	.04	.0021	.0036	.0031	.0079	.0016	.0002
%RSD	.2688	.8581	162.8	.6014	1.564	.3424	15.62
#1	13.30	.2516	.0020	.5076	.5011	.4774	.0010
#2	13.37	.2474	-.0013	.5136	.5154	.4805	.0010
#3	13.33	.2498	.0060	.5095	.5023	.4798	.0013

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	10.23	13.94	.0044	1.008	16.66	.2635
SDev	.0001	.03	.30	.0014	.006	.06	.0011
%RSD	10.18	.3166	2.141	32.04	.5738	.3500	.4348
#1	.0010	10.20	14.12	.0056	1.002	16.62	.2628
#2	.0010	10.24	14.01	.0039	1.014	16.73	.2648
#3	.0012	10.21	13.61	.0047	1.009	16.64	.2628

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5088	18.49	.0065	.4940	2.527	1.274	-.0082
SDev	.0017	.11	.0009	.0029	.039	.002	.0130
%RSD	.3333	.5861	14.08	.5805	1.552	.1794	159.6
#1	.5079	18.38	.0063	.4945	2.499	1.272	-.0068
#2	.5107	18.59	.0057	.4966	2.572	1.276	-.0218
#3	.5077	18.50	.0075	.4909	2.510	1.273	.0041

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0121	1.628	1.308	9.441	.1248	.2528
SDev	.0011	.0013	.007	.019	.020	.0207	.0016
%RSD	398.5	11.02	.4129	1.481	.2111	16.60	.4062
#1	.0015	.0112	1.629	1.296	9.425	.1103	.2520
#2	-.0006	.0115	1.633	1.330	9.463	.1156	.2539
#3	-.0001	.0137	1.620	1.297	9.435	.1485	.2524

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0201	.0257	.5005	1.262	.0902	.4978	.0205
SDev	.0088	.0041	.0017	.019	.0452	.0013	.0036

%RSD	43.89	16.03	.3446	1.490	50.09	.2687	17.43
#1	.0302	.0305	.4987	1.256	.0829	.4967	.0169
#2	.0146	.0234	.5022	1.283	.0461	.4993	.0205
#3	.0154	.0233	.5006	1.247	.1386	.4974	.0241

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0008	.5108	.9950
SDev	.0005	.0042	.0031
%RSD	64.82	.8304	.3126
#1	.0014	.5109	.9920
#2	.0004	.5149	.9982
#3	.0007	.5065	.9948

Analysis Report Thu 02-22-96 11:16:38 AM page 1

Method: ICP1A Sample Name: 96-2980-PS-B Operator: DRS
Run Time: 02/22/96 11:15:19
Comment: 126.2BH.F POST SPIKE B (MCV52)(BX104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0024	30.53	.1982	.1243	.0027	-.0004	.1471
SDev	.0005	.13	.0274	.0019	.0001	.0000	.0054
%RSD	20.41	.4108	13.80	1.502	5.005	7.225	3.691
#1	-.0020	30.39	.1730	.1230	.0029	-.0004	.1531
#2	-.0029	30.58	.1943	.1234	.0027	-.0003	.1427
#3	-.0022	30.62	.2273	.1264	.0026	-.0003	.1454

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2087	.0060	.9910	.0136	.2581	.0394	1.005
SDev	.0017	.0026	.0062	.0003	.0020	.0016	.004
%RSD	.8032	43.55	.6299	2.505	.7626	4.146	.4444
#1	.2106	.0083	.9865	.0139	.2585	.0412	1.0000
#2	.2074	.0031	.9884	.0136	.2599	.0380	1.007
#3	.2082	.0066	.9981	.0132	.2560	.0391	1.008

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.013	.7119	1137.	.5085	.0066	-.0808	.1705
SDev	.005	.0041	4.	.0050	.0007	.0147	.0015
%RSD	.4610	.5817	.3782	.9709	11.18	18.25	.8724
#1	1.007	.7083	1132.	.5027	.0059	-.0959	.1688
#2	1.015	.7164	1139.	.5121	.0064	-.0799	.1717
#3	1.015	.7110	1141.	.5106	.0074	-.0664	.1710

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0126	11.24	1.002	7.582	.3620	.2401	.9239
SDev	.0003	.04	.007	.049	.0247	.0067	.0046
%RSD	2.392	.3203	.7439	.6497	6.829	2.787	.4945
#1	.0128	11.21	.9932	7.527	.3362	.2366	.9190
#2	.0128	11.28	1.007	7.620	.3642	.2478	.9281
#3	.0123	11.24	1.005	7.600	.3855	.2358	.9244

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9920	1.024	.1482	.1971	3.502	1.199	.0169
SDev	.0017	.003	.0101	.0074	.179	.010	.0001
%RSD	.1718	.2921	6.801	3.737	5.114	.8721	.4241
#1	.9917	1.022	.1384	.2000	3.313	1.197	.0170
#2	.9939	1.027	.1476	.2027	3.522	1.189	.0168
#3	.9905	1.023	.1585	.1888	3.670	1.210	.0170

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.041	5.099	.0110	.0191	32.04	.0065	1.004
SDev	.007	.025	.0003	.0049	.09	.0003	.034

%RSD	.6400	.4930	2.800	25.52	.2965	4.429	3.348
#1	1.048	5.071	.0110	.0179	31.93	.0068	.9661
#2	1.041	5.113	.0107	.0244	32.11	.0062	1.031
#3	1.034	5.115	.0113	.0149	32.08	.0066	1.015

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.4932	.0258	-.0330
SDev	.0020	.0006	.0009
%RSD	.4031	2.399	2.580
#1	.4909	.0265	-.0321
#2	.4943	.0253	-.0332
#3	.4943	.0256	-.0338

Analysis Report Thu 02-22-96 11:20:06 AM page 1

Method: ICP1A Sample Name: MCVB 2 @2 Operator: DRS
Run Time: 02/22/96 11:18:47
Comment: MCVB 2 960221I901 @2X DIL (8X104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0048	.0342	.1434	.0330	-.0004	-.0004	.0300
SDev	.0009	.0114	.0063	.0009	.0001	.0000	.0004
%RSD	18.40	33.42	4.395	2.884	33.09	7.629	1.448
#1	-.0041	.0460	.1418	.0331	-.0006	-.0004	.0296
#2	-.0058	.0231	.1381	.0320	-.0004	-.0004	.0305
#3	-.0045	.0336	.1504	.0339	-.0003	-.0004	.0300

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2420	-.0022	.9891	-.0018	.0046	.0091	1.009
SDev	.0007	.0028	.0037	.0009	.0005	.0006	.003
%RSD	.2863	125.4	.3778	53.64	10.99	6.737	.3247
#1	.2413	-.0002	.9876	-.0007	.0043	.0093	1.007
#2	.2423	-.0054	.9863	-.0023	.0052	.0096	1.013
#3	.2426	-.0010	.9933	-.0024	.0043	.0084	1.008

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.020	-.0004	.2973	.5081	-.0018	-.0459	-.0002
SDev	.004	.0005	.1601	.0009	.0010	.0082	.0005
%RSD	.4005	113.9	53.85	.1700	54.55	17.89	312.5
#1	1.017	-.0008	.4574	.5083	-.0027	-.0429	.0003
#2	1.024	-.0006	.1372	.5089	-.0018	-.0552	-.0007
#3	1.018	.0001	.2973	.5072	-.0008	-.0396	-.0001

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.1033	.9992	-.0140	.0469	.1200	.9342
SDev	.0002	.0031	.0010	.0011	.0042	.0053	.0112
%RSD	330.7	3.017	.0999	7.641	8.921	4.410	1.197
#1	-.0002	.1015	.9984	-.0150	.0473	.1187	.9214
#2	.0002	.1015	.9989	-.0129	.0425	.1155	.9419
#3	.0002	.1069	1.000	-.0140	.0509	.1258	.9393

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9921	1.032	.0610	.0446	3.557	1.038	-.0004
SDev	.0012	.005	.0031	.0100	.235	.030	.0001
%RSD	.1175	.4438	5.068	22.42	6.594	2.889	18.38
#1	.9907	1.030	.0581	.0334	3.320	1.033	-.0004
#2	.9928	1.029	.0606	.0526	3.560	1.011	-.0004
#3	.9927	1.038	.0643	.0478	3.789	1.070	-.0003

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9853	5.070	.0017	.0021	11.78	-.0014	.9687
SDev	.0053	.012	.0003	.0051	.07	.0011	.0144

%RSD	.5406	.2377	17.43	249.7	.6128	79.74	1.485
#1	.9891	5.064	.0019	.0046	11.72	-.0010	.9537
#2	.9793	5.084	.0014	.0055	11.77	-.0026	.9699
#3	.9877	5.063	.0019	-.0039	11.86	-.0005	.9824

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.4936	.0054	-.0332
SDev	.0019	.0004	.0006
%RSD	.3760	6.916	1.810
#1	.4915	.0057	-.0338
#2	.4950	.0054	-.0333
#3	.4943	.0050	-.0326

Analysis Report Thu 02-22-96 11:23:37 AM page 1

Method: ICP1A Sample Name: 96-2980 DUP Operator: DRS
Run Time: 02/22/96 11:22:18
Comment: 126.2BH.F DUPLICATE (BX104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0053	72.76	.1086	.1178	.0071	-.0007	.2315
SDev	.0008	.41	.0108	.0052	.0002	.0000	.0112
%RSD	14.18	.5671	9.946	4.437	2.236	2.803	4.852
#1	.0061	73.14	.0990	.1195	.0070	-.0007	.2389
#2	.0052	72.82	.1203	.1220	.0073	-.0007	.2186
#3	.0046	72.32	.1066	.1120	.0070	-.0007	.2370

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6777	.0083	.0706	.0069	.6145	.0204	.0131
SDev	.0070	.0019	.0049	.0004	.0023	.0015	.0009
%RSD	1.039	22.68	6.906	5.533	.3799	7.412	6.846
#1	.6843	.0095	.0650	.0073	.6154	.0191	.0121
#2	.6786	.0061	.0732	.0067	.6163	.0220	.0133
#3	.6703	.0094	.0736	.0066	.6119	.0200	.0139

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0210	.9579	2381.	.0243	.0172	-.0765	.2384
SDev	.0001	.0081	14.	.0025	.0019	.0085	.0011
%RSD	.5949	.8419	.5927	10.19	11.33	11.17	.4535
#1	.0212	.9650	2393.	.0216	.0151	-.0853	.2394
#2	.0210	.9595	2383.	.0251	.0175	-.0682	.2385
#3	.0210	.9491	2365.	.0263	.0189	-.0760	.2372

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0242	26.70	.0706	8.957	.8989	.3078	.1109
SDev	.0015	.12	.0029	.038	.0230	.0005	.0185
%RSD	6.286	.4554	4.173	.4230	2.556	.1545	16.64
#1	.0260	26.79	.0683	8.992	.8737	.3073	.1040
#2	.0232	26.75	.0695	8.962	.9043	.3079	.0968
#3	.0234	26.56	.0739	8.916	.9187	.3082	.1318

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0854	.0396	.2059	.3709	1.337	.4440	.0393
SDev	.0055	.0013	.0085	.0161	.017	.0209	.0002
%RSD	6.389	3.257	4.135	4.348	1.276	4.703	.4796
#1	.0791	.0393	.2145	.3779	1.355	.4261	.0395
#2	.0885	.0385	.1975	.3524	1.335	.4390	.0394
#3	.0886	.0410	.2056	.3823	1.322	.4670	.0391

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1550	.1546	.0293	.0415	46.87	.0194	.0852
SDev	.0021	.0107	.0001	.0160	.20	.0004	.0095

%RSD	1.324	6.926	.4857	38.49	.4257	1.916	11.11
#1	.1572	.1503	.0295	.0249	47.06	.0190	.0781
#2	.1532	.1668	.0293	.0427	46.88	.0197	.0816
#3	.1546	.1467	.0292	.0568	46.66	.0194	.0960

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0053	.0508	.0004
SDev	.0003	.0033	.0011
%RSD	5.712	6.511	291.5
#1	.0051	.0543	.0001
#2	.0052	.0504	-.0006
#3	.0057	.0477	.0015

Analysis Report QC Standard Thu 02-22-96 11:27:39 AM page 1

Method: ICP1A Sample Name: QC_MCVA 960130I901 Operator: DRS
Run Time: 02/22/96 11:26:21
Comment: (BX104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Pass* DB 2/22/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4851	9.843	2.544	1.980	.4843	.0947	24.08
SDev	.0031	.063	.034	.019	.0038	.0006	.13
%RSD	.6313	.6401	1.326	.9840	.7853	.6898	.5361
#1	.4815	9.771	2.518	1.958	.4799	.0939	23.94
#2	.4870	9.880	2.532	1.985	.4865	.0950	24.19
#3	.4867	9.880	2.582	1.996	.4865	.0950	24.12
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.86	.4885	.0115	.9930	.9882	.9379	.0013
SDev	.13	.0069	.0057	.0047	.0069	.0066	.0010
%RSD	.5160	1.409	49.79	.4702	.6954	.7044	72.19
#1	24.71	.4814	.0181	.9880	.9808	.9307	.0024
#2	24.91	.4951	.0077	.9937	.9944	.9436	.0006
#3	24.95	.4891	.0088	.9973	.9894	.9395	.0009
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0024	19.87	25.34	.0053	1.958	32.13	.5044
SDev	.0002	.12	.06	.0018	.019	.16	.0023
%RSD	9.370	.6029	.2388	33.29	.9537	.4945	.4535
#1	.0026	19.73	25.32	.0065	1.937	31.95	.5018
#2	.0022	19.93	25.41	.0062	1.971	32.25	.5057
#3	.0022	19.94	25.30	.0033	1.966	32.19	.5057
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9921	36.16	.0129	.9693	4.956	2.465	-.0261
SDev	.0084	.20	.0069	.0025	.056	.018	.0129
%RSD	.8485	.5537	53.39	.2596	1.125	.7266	49.40
#1	.9826	35.93	.0190	.9671	4.902	2.448	-.0125
#2	.9985	36.27	.0055	.9720	4.952	2.463	-.0276
#3	.9951	36.28	.0141	.9688	5.013	2.484	-.0382
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Analysis Report QC Standard Thu 02-22-96 11:27:39 AM page 2

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	.0225	03.165	2.513	18.13	.2358	.4934
SDev	.0064	.0039	.023	.008	.12	.0190	.0037
%RSD	718.9	17.33	.7223	.3095	.6477	8.048	.7577
#1	.0076	.0269	03.139	2.512	018.00	.2355	.4890
#2	-.0051	.0194	03.176	2.506	18.19	.2170	.4955
#3	.0002	.0213	03.181	2.522	18.20	.2550	.4956
Errors	NOCHECK	NOCHECK	QC Fail	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0424	.0504	.9694	2.435	.1750	.9709	.0322
SDev	.0117	.0088	.0070	.026	.0741	.0060	.0010
%RSD	27.68	17.52	.7275	1.084	42.34	.6175	2.991
#1	.0433	.0451	.9612	2.408	.2605	.9641	.0311
#2	.0302	.0456	.9734	2.437	.1332	.9738	.0328
#3	.0536	.0606	.9735	2.460	.1312	.9750	.0328
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0014	.9840	1.945
SDev	.0001	.0095	.013
%RSD	3.469	.9606	.6915
#1	.0014	.9731	1.929
#2	.0015	.9890	1.952
#3	.0015	.9898	1.953
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report Thu 02-22-96 11:34:45 AM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 02/22/96 11:33:26
Comment: 126.2BH.F DUPLICATE (BX104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	-.0124	.0198	-.0024	-.0003	-.0000	-.0203
SDev	.0006	.0018	.0047	.0013	.0001	.0000	.0074
%RSD	454.4	14.37	23.85	56.60	24.43	110.3	36.64
#1	.0001	-.0133	.0231	-.0022	-.0003	-.0000	-.0285
#2	.0004	-.0103	.0144	-.0038	-.0004	-.0000	-.0141
#3	-.0009	-.0135	.0220	-.0011	-.0003	.0000	-.0182

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0063	-.0001	-.0041	-.0017	.0009	-.0000	-.0009
SDev	.0008	.0022	.0055	.0009	.0015	.0008	.0002
%RSD	12.70	3049.	134.7	50.52	165.0	3842.	19.32
#1	-.0054	-.0024	.0021	-.0014	.0026	-.0010	-.0010
#2	-.0070	.0002	-.0085	-.0026	.0005	.0006	-.0010
#3	-.0064	.0020	-.0059	-.0010	-.0004	.0004	-.0007

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	-.0107	-.2974	-.0005	-.0019	-.0280	-.0002
SDev	.0001	.0003	.0699	.0019	.0020	.0033	.0001
%RSD	25.73	2.866	23.50	372.2	104.1	11.87	34.60
#1	-.0003	-.0110	-.2384	.0017	-.0013	-.0250	-.0003
#2	-.0005	-.0105	-.3737	-.0019	-.0003	-.0275	-.0002
#3	-.0005	-.0106	-.2822	-.0013	-.0042	-.0316	-.0002

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0022	.0040	-.0065	-.0017	.0084	-.0046	-.0131
SDev	.0003	.0000	.0015	.0027	.0167	.0053	.0103
%RSD	14.58	1.084	23.40	161.2	197.5	115.5	78.62
#1	-.0020	.0039	-.0063	-.0040	.0135	-.0095	-.0074
#2	-.0025	.0040	-.0051	.0013	.0219	.0010	-.0069
#3	-.0020	.0040	-.0082	-.0023	-.0102	-.0053	-.0250

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0018	.0012	-.0088	-.0046	-.0073	.0008	-.0003
SDev	.0053	.0023	.0034	.0053	.0027	.0053	.0000
%RSD	297.2	197.1	38.98	113.7	36.19	660.6	.0596
#1	-.0072	.0037	-.0126	-.0086	-.0061	-.0019	-.0003
#2	.0034	-.0009	-.0061	.0013	-.0055	.0069	-.0003
#3	-.0016	.0007	-.0077	-.0066	-.0104	-.0026	-.0003

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0076	.0040	-.0006	-.0060	-.0648	-.0010	-.0024
SDev	.0073	.0021	.0002	.0054	.0485	.0002	.0057

%RSD	95.29	51.95	31.06	89.47	74.74	17.51	241.3
#1	-.0142	.0018	-.0007	-.0001	-.0906	-.0009	-.0065
#2	.0002	.0059	-.0004	-.0074	-.0949	-.0009	.0041
#3	-.0089	.0041	-.0008	-.0105	-.0869	-.0012	-.0047

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0004	.0001	-.0018
SDev	.0002	.0008	.0005
%RSD	50.12	1039.	26.36
#1	-.0002	-.0007	-.0013
#2	-.0005	.0001	-.0022
#3	-.0006	.0009	-.0018

Analysis Report Thu 02-22-96 11:36:47 AM

Method: ICP1A Sample Name: 96-2981 Operator: DRS
Run Time: 02/22/96 11:35:28
Comment: 126.2A.F (BX104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0125	164.0	.1857	.1190	.0118	.0002	.0533
SDev	.0004	.7	.0059	.0026	.0000	.0000	.0066
%RSD	3.427	.4043	3.158	2.198	.0000	14.58	12.35
#1	.0130	164.4	.1877	.1186	.0118	.0002	.0504
#2	.0121	163.3	.1902	.1218	.0118	.0002	.0486
#3	.0124	164.4	.1790	.1166	.0118	.0003	.0608

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.093	.0066	.0341	.0095	1.161	.0203	.0046
SDev	.003	.0033	.0042	.0004	.003	.0015	.0003
%RSD	.2751	50.19	12.26	4.317	.2217	7.494	7.413
#1	1.095	.0029	.0312	.0091	1.164	.0201	.0042
#2	1.090	.0092	.0389	.0094	1.160	.0220	.0049
#3	1.095	.0078	.0322	.0099	1.159	.0190	.0046

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0022	1.187	2393.	.0146	.0194	.0721	.0674
SDev	.0002	.005	11.	.0011	.0005	.0089	.0005
%RSD	8.937	.3988	.4495	7.378	2.479	12.17	.7547
#1	.0022	1.190	2399.	.0146	.0189	.0698	.0676
#2	.0024	1.181	2381.	.0157	.0199	.0820	.0669
#3	.0020	1.188	2400.	.0134	.0194	.0655	.0679

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0231	27.70	.0392	.9950	.5537	.4986	.0854
SDev	.0015	.19	.0039	.0075	.0076	.0068	.0114
%RSD	6.420	.6858	10.06	.7496	1.378	1.361	13.34
#1	.0215	27.86	.0425	1.000	.5557	.5062	.0776
#2	.0235	27.49	.0403	.9864	.5452	.4933	.0984
#3	.0244	27.74	.0348	.9984	.5601	.4963	.0800

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0421	.0263	.2284	.5592	1.738	.1886	.0148
SDev	.0042	.0019	.0027	.0154	.007	.0244	.0001
%RSD	10.03	7.333	1.176	2.748	.4197	12.93	.4776
#1	.0394	.0262	.2305	.5436	1.734	.1702	.0148
#2	.0469	.0283	.2254	.5743	1.734	.2162	.0148
#3	.0398	.0244	.2293	.5596	1.746	.1793	.0147

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2637	.0090	.0165	.0664	1.612	.0052	.0353
SDev	.0078	.0039	.0003	.0099	.033	.0001	.0018

%RSD	2.948	43.12	1.779	14.94	2.038	1.065	4.990
#1	.2580	.0112	.0162	.0551	1.578	.0053	.0335
#2	.2726	.0112	.0166	.0738	1.643	.0052	.0370
#3	.2605	.0045	.0168	.0704	1.616	.0052	.0353

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0028	.0735	.0136
SDev	.0002	.0014	.0006
%RSD	6.576	1.927	4.037
#1	.0027	.0728	.0131
#2	.0030	.0751	.0137
#3	.0027	.0725	.0142

Analysis Report Thu 02-22-96 11:40:29 AM

Method: ICP1A Sample Name: 96-2981 DUP Operator: DRS
Run Time: 02/22/96 11:39:10
Comment: 126.2A.F DUPLICATE (BX104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0087	68.57	.0939	.1488	.0056	.0001	.0180
SDev	.0003	.18	.0103	.0025	.0000	.0000	.0077
%RSD	3.043	.2666	10.93	1.660	.0000	5.592	42.63
#1	.0084	68.63	.1048	.1461	.0056	.0001	.0174
#2	.0090	68.72	.0925	.1493	.0056	.0001	.0106
#3	.0087	68.37	.0844	.1510	.0056	.0001	.0259

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5143	.0018	.0300	.0182	.5050	.0414	.0046
SDev	.0019	.0006	.0046	.0005	.0055	.0012	.0001
%RSD	.3776	33.07	15.19	2.636	1.083	2.791	1.158
#1	.5162	.0022	.0344	.0180	.5061	.0427	.0046
#2	.5142	.0011	.0253	.0179	.5098	.0406	.0045
#3	.5123	.0020	.0303	.0188	.4990	.0408	.0046

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0016	.9018	2355.	.0102	.0100	.0232	.2218
SDev	.0001	.0034	6.	.0009	.0006	.0024	.0004
%RSD	8.361	.3710	.2565	8.909	5.587	10.15	.1829
#1	.0016	.9026	2358.	.0099	.0103	.0215	.2222
#2	.0016	.9046	2360.	.0095	.0103	.0239	.2217
#3	.0014	.8981	2348.	.0113	.0093	.0222	.2214

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0126	12.26	.0299	2.278	.2565	.2302	.0813
SDev	.0015	.04	.0036	.019	.0327	.0036	.0046
%RSD	12.08	.3130	12.18	.8166	12.75	1.582	5.697
#1	.0112	12.29	.0291	2.297	.2841	.2335	.0805
#2	.0142	12.22	.0268	2.275	.2204	.2263	.0771
#3	.0124	12.29	.0339	2.260	.2650	.2309	.0862

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0427	.0186	.1119	.2566	.8678	.1667	.0068
SDev	.0013	.0014	.0063	.0022	.0019	.0030	.0000
%RSD	3.056	7.783	5.673	.8673	.2158	1.824	.0065
#1	.0434	.0180	.1072	.2543	.8696	.1648	.0068
#2	.0433	.0176	.1191	.2569	.8658	.1702	.0068
#3	.0411	.0203	.1093	.2587	.8679	.1650	.0068

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1244	.0098	.0166	.0369	.9185	.0040	.0211
SDev	.0047	.0020	.0001	.0100	.0479	.0004	.0126

%RSD	3.761	20.03	.7308	27.06	5.219	9.773	59.61
#1	.1195	.0114	.0167	.0277	.9388	.0040	.0085
#2	.1287	.0076	.0166	.0355	.9529	.0044	.0211
#3	.1250	.0105	.0165	.0476	.8637	.0036	.0336

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0020	.0616	.0024
SDev	.0000	.0014	.0001
%RSD	1.183	2.245	3.081
#1	.0020	.0629	.0025
#2	.0020	.0602	.0023
#3	.0021	.0617	.0024

Analysis Report Thu 02-22-96 11:43:49 AM page 1

Method: ICP1A Sample Name: 96-2983 Operator: DRS
Run Time: 02/22/96 11:42:30
Comment: 127.1A.F (BX104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0162	14.87	.0594	.1094	.0182	.0008	.1248
SDev	.0001	.07	.0098	.0020	.0001	.0000	.0083
%RSD	.3686	.4833	16.44	1.839	.4364	.4780	6.668
#1	.0163	14.85	.0594	.1071	.0181	.0008	.1200
#2	.0162	14.82	.0496	.1110	.0181	.0008	.1200
#3	.0162	14.95	.0692	.1099	.0182	.0008	.1345

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4616	.0139	.1018	.0143	5.065	.1234	.0047
SDev	.0008	.0015	.0051	.0003	.023	.0016	.0009
%RSD	.1642	10.65	5.010	2.267	.4488	1.334	19.72
#1	.4608	.0122	.1049	.0146	5.054	.1215	.0051
#2	.4619	.0147	.1046	.0140	5.049	.1246	.0053
#3	.4622	.0148	.0959	.0141	5.091	.1240	.0036

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0065	6.000	2310.	.0523	.0047	.0916	1.429
SDev	.0001	.027	12.	.0010	.0027	.0015	.006
%RSD	2.026	.4557	.5011	1.990	56.97	1.637	.4017
#1	.0064	5.991	2305.	.0524	.0064	.0933	1.427
#2	.0064	5.980	2302.	.0532	.0016	.0910	1.424
#3	.0066	6.031	2325.	.0511	.0059	.0905	1.435

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0091	35.11	.1422	2.017	.3326	.3139	.1210
SDev	.0015	.21	.0043	.017	.0117	.0026	.0113
%RSD	16.44	.5843	3.024	.8560	3.509	.8236	9.321
#1	.0106	35.00	.1427	2.002	.3252	.3168	.1286
#2	.0091	34.98	.1462	2.012	.3266	.3133	.1080
#3	.0076	35.35	.1376	2.036	.3461	.3117	.1262

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0452	.0303	.0813	.1062	.6418	.2320	.0100
SDev	.0075	.0022	.0104	.0058	.0025	.0264	.0000
%RSD	16.47	7.250	12.80	5.471	.3948	11.39	.0052
#1	.0473	.0316	.0861	.1006	.6397	.2625	.0100
#2	.0514	.0315	.0883	.1122	.6446	.2163	.0100
#3	.0369	.0277	.0693	.1060	.6410	.2171	.0100

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0601	.2126	.0153	.0312	7.770	.0088	.0811
SDev	.0049	.0097	.0002	.0022	.039	.0003	.0081

%RSD	8.082	4.580	1.327	6.905	.4957	2.905	10.01
#1	.0655	.2093	.0154	.0292	7.760	.0085	.0888
#2	.0560	.2235	.0154	.0335	7.737	.0089	.0726
#3	.0589	.2049	.0150	.0310	7.813	.0090	.0818

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0207	.1079	.6479
SDev	.0004	.0016	.0044
%RSD	1.764	1.492	.6873
#1	.0210	.1077	.6463
#2	.0207	.1064	.6444
#3	.0203	.1096	.6529

Analysis Report Thu 02-22-96 11:47:11 AM page 1

Method: ICP1A Sample Name: 96-2983 DUP Operator: DRS
Run Time: 02/22/96 11:45:52
Comment: 127.1A.F DUPLICATE (BX104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0218	17.84	.0628	.1501	.0207	.0009	.1472
SDev	.0007	.08	.0145	.0015	.0001	.0000	.0108
%RSD	3.421	.4698	23.05	1.033	.3833	3.656	7.354
#1	.0212	17.81	.0525	.1484	.0206	.0009	.1348
#2	.0215	17.79	.0793	.1513	.0207	.0010	.1523
#3	.0226	17.94	.0565	.1506	.0207	.0009	.1546

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4898	.0161	.1244	.0208	6.268	.0785	.0062
SDev	.0025	.0012	.0071	.0009	.023	.0007	.0006
%RSD	.5050	7.569	5.709	4.264	.3742	.9051	9.610
#1	.4877	.0162	.1168	.0198	6.253	.0777	.0059
#2	.4893	.0148	.1309	.0215	6.255	.0787	.0069
#3	.4925	.0172	.1256	.0212	6.295	.0791	.0058

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0080	6.558	2328.	.0588	.0079	.1070	1.835
SDev	.0000	.029	12.	.0002	.0005	.0116	.009
%RSD	.0242	.4446	.5094	.2681	6.123	10.83	.4634
#1	.0080	6.547	2323.	.0587	.0079	.1077	1.830
#2	.0080	6.535	2320.	.0587	.0083	.1182	1.829
#3	.0080	6.591	2342.	.0590	.0074	.0951	1.845

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0096	45.50	.1635	3.633	.2551	.5070	.1417
SDev	.0012	.25	.0006	.024	.0060	.0021	.0081
%RSD	12.86	.5480	.3754	.6474	2.335	.4097	5.697
#1	.0105	45.31	.1630	3.628	.2604	.5046	.1330
#2	.0102	45.41	.1633	3.612	.2487	.5076	.1432
#3	.0082	45.78	.1642	3.658	.2562	.5086	.1489

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0591	.0378	.1065	.1146	.7310	.2908	.0117
SDev	.0031	.0057	.0126	.0198	.0041	.0179	.0001
%RSD	5.160	15.17	11.81	17.30	.5560	6.163	.6094
#1	.0560	.0359	.0921	.1299	.7263	.2854	.0116
#2	.0621	.0442	.1117	.1217	.7339	.3108	.0116
#3	.0592	.0332	.1156	.0922	.7327	.2762	.0117

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0743	.2355	.0242	.0307	9.489	.0109	.1141
SDev	.0054	.0058	.0003	.0053	.036	.0005	.0067

%RSD	7.270	2.445	1.351	17.16	.3761	4.583	5.896
#1	.0799	.2310	.0238	.0311	9.471	.0107	.1064
#2	.0692	.2420	.0244	.0357	9.465	.0114	.1188
#3	.0738	.2335	.0243	.0252	9.530	.0105	.1170

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0212	.0929	.4300
SDev	.0004	.0017	.0039
%RSD	1.723	1.819	.8966
#1	.0215	.0945	.4278
#2	.0208	.0911	.4278
#3	.0211	.0929	.4345

Analysis Report Thu 02-22-96 11:50:48 AM page 1

Method: ICP1A Sample Name: 96-2986 Operator: DRS
Run Time: 02/22/96 11:49:29
Comment: 127.2AH.F (BX104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0086	65.01	.1191	.0883	.0111	.0001	.0904
SDev	.0003	.44	.0120	.0011	.0001	.0000	.0031
%RSD	4.013	.6844	10.07	1.208	1.235	37.79	3.392
#1	.0089	64.57	.1257	.0895	.0112	.0001	.0928
#2	.0082	64.99	.1052	.0878	.0110	.0001	.0869
#3	.0088	65.46	.1263	.0875	.0111	.0001	.0914

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4229	.0045	.0407	.0046	.8107	.0181	.0053
SDev	.0028	.0010	.0043	.0006	.0066	.0006	.0005
%RSD	.6634	21.59	10.49	13.48	.8074	3.408	10.29
#1	.4197	.0035	.0450	.0040	.8093	.0175	.0055
#2	.4251	.0046	.0365	.0046	.8049	.0183	.0056
#3	.4239	.0054	.0406	.0052	.8178	.0187	.0046

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0056	1.257	2137.	.0145	.1270	.0189	.2976
SDev	.0003	.005	13.	.0006	.0031	.0077	.0009
%RSD	4.393	.4022	.6052	3.931	2.409	40.75	.2948
#1	.0055	1.253	2124.	.0143	.1287	.0194	.2968
#2	.0059	1.256	2135.	.0141	.1234	.0264	.2976
#3	.0055	1.263	2150.	.0152	.1287	.0110	.2985

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0166	13.41	.0414	1.003	.5665	.2551	.0679
SDev	.0003	.06	.0031	.003	.0239	.0054	.0049
%RSD	2.090	.4378	7.543	.3160	4.214	2.108	7.153
#1	.0168	13.36	.0428	.9998	.5521	.2575	.0706
#2	.0168	13.38	.0379	1.003	.5534	.2490	.0709
#3	.0162	13.47	.0436	1.006	.5941	.2589	.0623

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0458	.0245	.1206	.2736	.6375	.1970	.0164
SDev	.0051	.0021	.0102	.0134	.0044	.0056	.0001
%RSD	11.08	8.370	8.443	4.912	.6917	2.861	.7473
#1	.0501	.0267	.1089	.2774	.6326	.1969	.0164
#2	.0471	.0239	.1269	.2848	.6388	.1914	.0163
#3	.0402	.0228	.1261	.2587	.6411	.2027	.0166

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1142	.0540	.0090	.0399	11.37	.0086	.0474
SDev	.0026	.0069	.0003	.0038	.07	.0001	.0027

%RSD	2.307	12.72	3.593	9.569	.6426	1.674	5.638
#1	.1161	.0576	.0091	.0435	11.29	.0086	.0497
#2	.1154	.0461	.0093	.0359	11.39	.0085	.0480
#3	.1112	.0583	.0086	.0404	11.43	.0088	.0445

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0041	.0302	.0804
SDev	.0002	.0006	.0012
%RSD	4.379	2.077	1.474
#1	.0040	.0297	.0795
#2	.0039	.0309	.0817
#3	.0043	.0301	.0800

Analysis Report Thu 02-22-96 11:55:23 AM page 1

Method: ICP1A Sample Name: 96-2986 DUP Operator: DRS
Run Time: 02/22/96 11:54:04
Comment: 127.2AH.F DUPLICATE (BX104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0107	76.11	.1336	.0950	.0136	.0001	.1010
SDev	.0011	.23	.0031	.0001	.0003	.0000	.0020
%RSD	10.78	.3040	2.349	.1236	2.096	29.39	2.024
#1	.0096	76.34	.1332	.0950	.0133	.0002	.1031
#2	.0107	76.13	.1369	.0949	.0139	.0001	.0990
#3	.0119	75.87	.1307	.0951	.0137	.0001	.1009

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4619	.0038	.0407	.0067	.9404	.0216	.0048
SDev	.0006	.0018	.0046	.0003	.0091	.0006	.0006
%RSD	.1396	47.00	11.32	4.031	.9677	2.905	11.46
#1	.4615	.0026	.0364	.0068	.9329	.0208	.0042
#2	.4626	.0058	.0401	.0064	.9505	.0220	.0050
#3	.4616	.0030	.0456	.0068	.9378	.0218	.0052

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0062	1.565	2239.	.0161	.1526	.0344	.3339
SDev	.0002	.002	6.	.0016	.0015	.0043	.0004
%RSD	3.587	.1333	.2642	9.750	1.014	12.41	.1065
#1	.0059	1.566	2245.	.0144	.1538	.0389	.3342
#2	.0063	1.566	2239.	.0164	.1533	.0304	.3335
#3	.0063	1.562	2233.	.0175	.1509	.0338	.3339

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0161	15.41	.0425	.8379	.6657	.2873	.0688
SDev	.0006	.08	.0066	.0037	.0249	.0058	.0127
%RSD	3.971	.5040	15.49	.4367	3.749	2.032	18.39
#1	.0154	15.48	.0365	.8367	.6924	.2809	.0558
#2	.0165	15.41	.0496	.8420	.6429	.2923	.0697
#3	.0165	15.33	.0415	.8349	.6617	.2888	.0811

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0439	.0240	.1269	.2894	.7394	.1926	.0195
SDev	.0039	.0007	.0101	.0064	.0018	.0601	.0001
%RSD	8.931	2.799	7.961	2.220	.2415	31.21	.3647
#1	.0400	.0247	.1217	.2821	.7401	.1287	.0195
#2	.0439	.0235	.1204	.2941	.7408	.2480	.0195
#3	.0478	.0237	.1385	.2921	.7374	.2009	.0194

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1321	.0647	.0130	.0526	12.85	.0095	.0527
SDev	.0029	.0064	.0001	.0077	.08	.0009	.0064

%RSD	2.221	9.927	.6380	14.71	.8400	9.636	12.08
#1	.1347	.0709	.0129	.0615	12.78	.0085	.0534
#2	.1289	.0581	.0131	.0493	12.94	.0101	.0587
#3	.1326	.0652	.0130	.0471	12.83	.0100	.0460

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0041	.0314	.0765
SDev	.0005	.0005	.0004
%RSD	12.16	1.529	.5465
#1	.0035	.0319	.0760
#2	.0045	.0313	.0769
#3	.0042	.0309	.0766

Analysis Report Thu 02-22-96 11:58:57 AM

Method: ICP1A Sample Name: SRM 2709 Operator: DRS
Run Time: 02/22/96 11:57:38
Comment: LCS BX104/HOMOGENIZATION CHECK(BX104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0037	12.25	.0668	.0986	.1453	.0010	.0140
SDev	.0005	.09	.0028	.0020	.0006	.0000	.0062
%RSD	12.46	.7215	4.204	2.020	.4116	3.444	44.37
#1	.0033	12.32	.0695	.0977	.1457	.0011	.0093
#2	.0042	12.28	.0639	.1009	.1456	.0010	.0210
#3	.0037	12.15	.0671	.0973	.1446	.0011	.0116

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.387	-.0004	.0350	.0121	.0337	.0152	.0051
SDev	.008	.0014	.0021	.0005	.0018	.0006	.0008
%RSD	.2353	340.5	5.998	4.241	5.479	4.171	16.37
#1	3.391	-.0020	.0325	.0116	.0349	.0159	.0046
#2	3.393	.0006	.0361	.0121	.0345	.0152	.0046
#3	3.378	.0001	.0362	.0127	.0315	.0146	.0061

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0017	5.631	2329.	.0117	.0124	2.595	.1699
SDev	.0003	.016	9.	.0011	.0015	.007	.0007
%RSD	17.38	.2860	.3874	9.014	11.90	.2777	.4327
#1	.0014	5.640	2334.	.0112	.0108	2.603	.1707
#2	.0016	5.640	2334.	.0110	.0127	2.590	.1696
#3	.0020	5.612	2318.	.0130	.0136	2.592	.1694

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0068	3.032	.0297	2.941	.1671	.0792	.0818
SDev	.0003	.031	.0068	.002	.0200	.0026	.0155
%RSD	4.012	1.007	22.95	.0613	11.96	3.272	18.91
#1	.0071	3.052	.0254	2.940	.1561	.0822	.0682
#2	.0065	3.046	.0262	2.943	.1901	.0781	.0785
#3	.0069	2.997	.0376	2.941	.1550	.0774	.0986

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0397	.0202	.0500	.0730	47.18	.1776	.0381
SDev	.0055	.0013	.0100	.0016	.15	.0186	.0001
%RSD	13.90	6.306	19.90	2.243	.3113	10.46	.3743
#1	.0380	.0188	.0603	.0713	47.27	.1889	.0380
#2	.0352	.0211	.0404	.0732	47.27	.1562	.0383
#3	.0459	.0208	.0494	.0746	47.01	.1878	.0380

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0426	.0180	.4770	.0352	.4114	.0222	.0190
SDev	.0038	.0011	.0019	.0082	.0573	.0010	.0068

%RSD	8.971	6.380	.4085	23.38	13.92	4.437	36.02
#1	.0382	.0175	.4787	.0365	.3475	.0217	.0160
#2	.0450	.0193	.4774	.0427	.4289	.0216	.0268
#3	.0447	.0172	.4748	.0264	.4579	.0234	.0141

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0046	.0486	.0136
SDev	.0002	.0004	.0008
%RSD	4.455	.8809	5.867
#1	.0045	.0489	.0135
#2	.0048	.0488	.0129
#3	.0044	.0481	.0144

Analysis Report Thu 02-22-96 12:03:13 PM page 1

Method: ICP1A Sample Name: Al @150 PPM Operator: DRS
Run Time: 02/22/96 12:01:55
Comment: Al IEC 950622I102 @4X DIL (BX104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	148.0	.1461	-.0181	-.0001	-.0001	-.0114
SDev	.0007	.6	.0231	.0014	.0001	.0000	.0039
%RSD	226.0	.4078	15.83	7.584	82.91	31.29	34.06
#1	-.0012	148.7	.1535	-.0169	-.0001	-.0001	-.0159
#2	-.0001	147.7	.1202	-.0196	-.0000	-.0001	-.0092
#3	.0003	147.6	.1645	-.0178	-.0001	-.0001	-.0092

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1753	-.0039	-.0004	-.0004	.0330	-.0009	.0001
SDev	.0015	.0024	.0061	.0005	.0024	.0003	.0006
%RSD	.8498	60.76	1374.	116.8	7.360	29.98	634.4
#1	.1769	-.0012	-.0058	-.0010	.0351	-.0007	-.0006
#2	.1739	-.0055	-.0017	-.0000	.0303	-.0009	.0003
#3	.1752	-.0051	.0061	-.0003	.0335	-.0012	.0006

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	-.0071	1.884	.0011	-.0010	-.0278	.0045
SDev	.0001	.0006	.092	.0006	.0014	.0050	.0000
%RSD	63.74	8.426	4.909	53.31	144.3	17.90	.4445
#1	-.0001	-.0066	1.983	.0005	-.0018	-.0325	.0045
#2	-.0004	-.0070	1.800	.0011	-.0018	-.0283	.0045
#3	-.0001	-.0077	1.868	.0016	.0006	-.0226	.0045

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0063	.0428	-.0006	-.0001	.0905	.3369	.0003
SDev	.0008	.0111	.0065	.0025	.0315	.0012	.0044
%RSD	13.44	25.99	1021.	1700.	34.82	.3490	1718.
#1	.0053	.0428	-.0082	.0016	.0779	.3359	-.0046
#2	.0067	.0539	.0030	-.0030	.1263	.3365	.0029
#3	.0069	.0317	.0033	.0009	.0672	.3382	.0027

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0033	-.0006	.1535	.4592	-.0031	-.0029	-.0001
SDev	.0047	.0025	.0068	.0033	.0008	.0110	.0001
%RSD	143.2	452.8	4.428	.7159	25.74	382.8	67.97
#1	-.0012	-.0024	.1598	.4571	-.0023	-.0139	-.0001
#2	.0029	-.0015	.1543	.4576	-.0031	.0081	-.0001
#3	.0082	.0023	.1463	.4630	-.0039	-.0028	-.0002

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1962	-.0047	.0001	.0477	.0302	-.0008	.0077
SDev	.0065	.0003	.0000	.0083	.0498	.0004	.0053

%RSD	3.316	6.032	48.65	17.29	164.7	54.24	68.76
#1	.1965	-.0044	.0001	.0452	-.0041	-.0010	.0025
#2	.1895	-.0036	.0000	.0410	.0874	-.0011	.0131
#3	.2025	-.0044	.0001	.0369	.0074	-.0003	.0076

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0001	.0082	-.0009
SDev	.0000	.0004	.0003
%RSD	31.95	4.516	38.53
#1	.0001	.0080	-.0009
#2	.0001	.0087	-.0012
#3	.0001	.0081	-.0005

Analysis Report Thu 02-22-96 12:06:55 PM page 1

Method: ICP1A Sample Name: Th @10 PPM Operator: DRS
Run Time: 02/22/96 12:05:36
Comment: Th IEC 950920I903 @10X DIL (8X104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	.0622	.0187	-.0190	.0003	.0002	-.0165
SDev	.0005	.0165	.0113	.0006	.0001	.0000	.0034
%RSD	61.84	26.48	60.54	3.276	25.06	21.04	20.48
#1	-.0010	.0803	.0119	-.0184	.0003	.0002	-.0132
#2	-.0002	.0585	.0317	-.0188	.0004	.0002	-.0164
#3	-.0012	.0480	.0124	-.0197	.0003	.0001	-.0200

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0201	.0009	.0071	-.0004	.0013	-.0011	.0006
SDev	.0004	.0022	.0015	.0007	.0005	.0005	.0004
%RSD	2.199	239.5	20.59	163.5	39.84	44.96	70.98
#1	-.0204	-.0013	.0065	.0001	.0016	-.0017	.0011
#2	-.0196	.0009	.0060	-.0001	.0007	-.0009	.0004
#3	-.0204	.0032	.0088	-.0013	.0016	-.0008	.0003

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	-.0097	.2135	.0010	.0016	-.0481	-.0005
SDev	.0001	.0006	.0528	.0011	.0017	.0090	.0002
%RSD	35.56	5.671	24.74	111.6	103.9	18.63	35.03
#1	.0003	-.0091	.2440	-.0001	-.0003	-.0541	-.0006
#2	.0005	-.0101	.2440	.0021	.0026	-.0378	-.0005
#3	.0003	-.0099	.1525	.0010	.0026	-.0523	-.0003

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0014	.0372	.0034	-.0032	.0521	.0009	-.1720
SDev	.0008	.0192	.0024	.0009	.0139	.0050	.0107
%RSD	59.09	51.60	70.40	27.71	26.64	550.4	6.209
#1	-.0008	.0483	.0056	-.0023	.0512	-.0047	-.1843
#2	-.0011	.0150	.0038	-.0040	.0386	.0048	-.1661
#3	-.0024	.0483	.0009	-.0033	.0663	.0026	-.1655

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	.0009	-.0096	.0103	-.0375	.0123	-.0002
SDev	.0034	.0002	.0058	.0050	.0054	.0279	.0001
%RSD	811.9	23.78	60.18	48.52	14.25	226.7	30.95
#1	-.0028	.0007	-.0162	.0052	-.0407	-.0012	-.0002
#2	.0034	.0011	-.0055	.0106	-.0314	.0444	-.0002
#3	-.0019	.0011	-.0071	.0152	-.0405	-.0063	-.0003

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0066	10.20	-.0005	-.0027	-.0428	-.0010	.0078
SDev	.0006	.05	.0002	.0079	.0388	.0004	.0096

Analysis Report Thu 02-22-96 12:06:55 PM page 2

%RSD	9.375	.5173	45.67	295.0	90.60	37.07	122.3
#1	-.0067	10.15	-.0007	-.0099	-.0129	-.0011	.0150
#2	-.0060	10.26	-.0004	-.0038	-.0866	-.0005	-.0077
#3	-.0072	10.20	-.0003	.0057	-.0289	-.0012	.0114

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0011	.0004	-.0617
SDev	.0002	.0004	.0004
%RSD	19.38	106.6	.6533
#1	.0012	.0004	-.0618
#2	.0012	.0007	-.0620
#3	.0009	-.0001	-.0613

Analysis Report Thu 02-22-96 12:10:21 PM page 1

Method: ICP1A Sample Name: U @50 PPM Operator: DRS
Run Time: 02/22/96 12:09:02
Comment: U IEC 9510051903 (BX104 CORES 126/127)K.SILVER
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0012	-.0350	.0091	-.0184	.0008	-.0004	.0669
SDev	.0007	.0085	.0083	.0021	.0002	.0001	.0097
%RSD	57.50	24.21	90.23	11.50	20.48	14.77	14.57
#1	-.0009	-.0340	.0156	-.0168	.0007	-.0003	.0620
#2	-.0008	-.0271	-.0001	-.0176	.0010	-.0004	.0781
#3	-.0021	-.0440	.0120	-.0208	.0007	-.0004	.0606

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0235	.0010	.0082	-.0024	.0071	-.0013	.0022
SDev	.0025	.0009	.0056	.0013	.0004	.0027	.0015
%RSD	10.79	88.89	68.55	55.31	6.285	205.6	68.83
#1	-.0235	.0014	.0050	-.0015	.0067	-.0019	.0019
#2	-.0210	.0016	.0148	-.0019	.0070	.0016	.0038
#3	-.0260	-.0000	.0049	-.0040	.0076	-.0038	.0008

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0169	-.0191	-.1525	.0078	.0039	-.1902	-.0009
SDev	.0002	.0009	.2348	.0026	.0015	.0078	.0002
%RSD	1.160	4.537	153.9	33.71	38.19	4.103	26.19
#1	.0167	-.0184	-.2135	.0065	.0026	-.1829	-.0011
#2	.0171	-.0189	.1068	.0108	.0055	-.1893	-.0006
#3	.0169	-.0201	-.3508	.0061	.0035	-.1984	-.0009

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0087	.0667	.0086	.0187	.1378	-.0182	-.0439
SDev	.0015	.0064	.0060	.0009	.0357	.0050	.0244
%RSD	17.25	9.542	67.50	4.728	25.91	27.42	55.46
#1	.0079	.0594	.0084	.0178	.1073	-.0129	-.0499
#2	.0104	.0703	.0149	.0195	.1771	-.0191	-.0171
#3	.0077	.0705	.0031	.0188	.1292	-.0228	-.0648

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0087	.0021	.0580	.0848	-.1128	.1726	.0033
SDev	.0065	.0043	.0134	.0105	.0034	.0243	.0000
%RSD	73.85	206.5	23.08	12.34	3.000	14.06	.0222
#1	.0074	.0001	.0595	.0735	-.1163	.1787	.0033
#2	.0158	.0070	.0439	.0941	-.1096	.1932	.0033
#3	.0031	-.0008	.0706	.0869	-.1126	.1458	.0033

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0076	.1513	-.0011	-.0125	47.57	.0023	.0484
SDev	.0077	.0137	.0006	.0106	.60	.0006	.0027

%RSD	101.5	9.039	55.37	84.75	1.268	24.85	5.586
#1	.0028	.1667	-.0010	-.0218	47.42	.0018	.0454
#2	.0166	.1404	-.0006	-.0147	47.06	.0029	.0506
#3	.0035	.1469	-.0018	-.0010	48.24	.0021	.0491

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0006	.0025	-.0081
SDev	.0003	.0007	.0015
%RSD	52.80	26.25	18.98
#1	.0005	.0019	-.0092
#2	.0010	.0032	-.0064
#3	.0004	.0024	-.0088

Analysis Report QC Standard Thu 02-22-96 12:14:32 PM page 1

Method: ICP1A Sample Name: QC_MCVA 960130I901 Operator: DRS
Run Time: 02/22/96 12:13:13
Comment: (BX104 CORES 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Pass * DRS 2/22/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4823	9.706	2.504	1.998	.4797	.0938	23.79
SDev	.0021	.048	.010	.010	.0032	.0006	.11
%RSD	.4341	.4992	.4009	.5198	.6611	.5896	.4723
#1	.4818	9.682	2.496	1.987	.4780	.0934	23.71
#2	.4806	9.675	2.501	1.999	.4777	.0934	23.75
#3	.4846	9.762	2.516	2.008	.4834	.0944	23.92
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.52	.4822	-.0016	.9783	.9775	.9300	-.0007
SDev	.10	.0076	.0059	.0064	.0049	.0080	.0008
%RSD	.4135	1.587	365.9	.6515	.5007	.8634	116.4
#1	24.44	.4759	-.0016	.9723	.9788	.9225	-.0005
#2	24.49	.4800	.0043	.9778	.9721	.9291	.0000
#3	24.64	.4907	-.0076	.9850	.9816	.9384	-.0016
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	19.60	22.75	.0042	1.962	31.79	.4973
SDev	.0003	.10	.05	.0014	.019	.13	.0035
%RSD	22.00	.5091	.2531	34.00	.8979	.4182	.7119
#1	.0013	19.54	22.69	.0046	1.954	31.72	.4974
#2	.0017	19.54	22.80	.0053	1.950	31.72	.4937
#3	.0011	19.72	22.76	.0026	1.982	31.95	.5008
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9787	36.08	-.0015	.9766	4.866	2.424	-.0406
SDev	.0066	.24	.0037	.0111	.058	.012	.0188
%RSD	.6727	.6533	237.8	1.133	1.196	.4826	46.27
#1	.9730	35.99	-.0030	.9765	4.799	2.425	-.0531
#2	.9773	35.91	.0026	.9656	4.898	2.411	-.0190
#3	.9859	36.35	-.0043	.9877	4.901	2.434	-.0498
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Analysis Report QC Standard Thu 02-22-96 12:14:32 PM page 2

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0065	.0155	03.111	2.471	18.16	.1745	.4904
SDev	.0038	.0027	.034	.010	.08	.0419	.0034
%RSD	58.70	16.99	1.088	.4085	.4622	24.01	.6892
#1	-.0069	.0161	03.112	2.482	18.12	.1387	.4890
#2	-.0025	.0185	03.077	2.462	18.13	.2206	.4880
#3	-.0102	.0131	03.145	2.468	18.27	.1643	.4943
Errors	NOCHECK	NOCHECK	QC Fail	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0258	.0392	.9571	2.438	.0732	.9573	.0349
SDev	.0070	.0047	.0051	.032	.0587	.0041	.0048
%RSD	27.05	12.12	.5290	1.292	80.21	.4250	13.77
#1	.0311	.0446	.9543	2.416	.0725	.9549	.0368
#2	.0285	.0358	.9541	2.424	.1321	.9550	.0385
#3	.0179	.0372	.9629	2.474	.0148	.9620	.0295
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0007	.9781	1.928
SDev	.0002	.0100	.011
%RSD	24.33	1.021	.5967
#1	.0006	.9744	1.922
#2	.0009	.9706	1.921
#3	.0006	.9895	1.941
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report Thu 02-22-96 12:20:41 PM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 02/22/96 12:19:22
Comment: U IEC 951005I903 (BX104 CORES 126/127)K.SILVER
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	-.0097	.0088	-.0248	.0003	-.0001	-.0132
SDev	.0005	.0008	.0061	.0012	.0002	.0000	.0084
%RSD	73.56	8.080	69.65	4.914	66.31	57.09	63.17
#1	.0008	-.0088	.0051	-.0234	.0003	-.0001	-.0038
#2	.0012	-.0100	.0158	-.0255	.0005	-.0000	-.0164
#3	.0002	-.0103	.0054	-.0255	.0001	-.0001	-.0195

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	-.0021	.0071	-.0013	.0003	.0010	.0016
SDev	.0019	.0005	.0031	.0015	.0013	.0013	.0003
%RSD	4297.	24.86	43.87	115.6	477.8	136.2	21.43
#1	.0010	-.0020	.0060	-.0007	.0016	.0004	.0014
#2	.0011	-.0027	.0106	-.0002	.0003	.0025	.0020
#3	-.0022	-.0017	.0046	-.0030	-.0011	.0000	.0015

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	-.0064	.1373	.0031	.0019	-.0122	.0003
SDev	.0001	.0013	.1471	.0016	.0015	.0015	.0003
%RSD	67.56	20.15	107.2	19.84	52.04	12.88	122.1
#1	.0002	-.0057	.1983	.0034	.0011	-.0137	.0004
#2	.0002	-.0057	.2440	.0035	.0016	-.0106	.0005
#3	.0000	-.0079	-.0305	.0024	.0030	-.0125	-.0001

Elem	Mo	Na	Ng	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0024	.0298	.0095	-.0044	.0055	-.0017	.0235
SDev	.0008	.0352	.0006	.0016	.0247	.0059	.0118
%RSD	33.17	117.9	6.214	36.90	448.7	341.6	49.98
#1	-.0018	.0095	.0089	-.0026	-.0015	-.0018	.0262
#2	-.0020	.0705	.0100	-.0047	.0329	.0042	.0337
#3	-.0033	.0096	.0095	-.0058	-.0150	-.0076	.0106

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0131	-.0003	-.0130	-.0015	-.0373	.0051	.0001
SDev	.0046	.0018	.0049	.0060	.0044	.0318	.0000
%RSD	35.48	615.7	37.74	412.1	11.80	623.6	.1262
#1	.0125	.0008	-.0086	-.0074	-.0388	.0171	.0001
#2	.0180	.0007	-.0122	-.0016	-.0323	.0292	.0001
#3	.0088	-.0024	-.0183	.0046	-.0407	-.0309	.0001

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0072	-.0008	.0004	.0030	.1545	.0001	.0040
SDev	.0008	.0073	.0004	.0075	.0271	.0001	.0100

%RSD	10.92	908.8	92.70	247.8	17.54	220.2	250.4
#1	-.0076	.0066	.0004	.0029	.1767	.0001	-.0068
#2	-.0063	-.0010	.0007	.0006	.1625	.0002	.0128
#3	-.0076	-.0080	.0000	.0044	.1243	-.0001	.0059

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0000	-.0000	-.0001
SDev	.0000	.0003	.0005
%RSD	124.1	923.3	592.1
#1	.0000	.0003	-.0007
#2	.0000	-.0001	.0003
#3	.0000	-.0003	.0001

Analysis Report Thu 02-22-96 12:22:53 PM page 1

Method: ICP1A Sample Name: 96-3316 @5 Operator: DRS
Run Time: 02/22/96 12:21:34
Comment: SUMP SLUDGE @5X DIL (WASTE)K.POEPPEL
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0067	92.38	.2523	1.719	1.423	.0025	.1102
SDev	.0011	.43	.0066	.010	.008	.0000	.0079
%RSD	15.99	.4677	2.604	.6024	.5616	1.339	7.154
#1	.0076	91.92	.2448	1.707	1.414	.0024	.1183
#2	.0068	92.45	.2549	1.725	1.424	.0025	.1097
#3	.0055	92.78	.2571	1.724	1.430	.0024	.1026

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	98.86	.0638	.1226	.1143	.4132	7.750	.0123
SDev	.37	.0011	.0044	.0006	.0030	.042	.0003
%RSD	.3767	1.745	3.598	.5699	.7253	.5384	2.188
#1	98.45	.0626	.1249	.1146	.4172	7.707	.0122
#2	98.97	.0644	.1255	.1147	.4162	7.754	.0127
#3	99.17	.0646	.1176	.1136	.4102	7.790	.0122

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0161	214.8	8.305	.0646	.0510	27.40	1.927
SDev	.0002	.7	.095	.0005	.0003	.10	.006
%RSD	1.291	.3203	1.147	.7850	.5447	.3837	.4291
#1	.0159	214.0	8.412	.0650	.0507	27.30	1.919
#2	.0163	215.0	8.229	.0648	.0512	27.41	1.928
#3	.0161	215.4	8.275	.0641	.0512	27.49	1.935

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3477	6.834	.1332	.5107	23.60	3.795	.0757
SDev	.0014	.042	.0026	.0025	.14	.003	.0191
%RSD	.3999	.6086	2.038	.4818	.6053	.0909	24.55
#1	.3461	6.810	.1304	.5079	23.66	3.791	.0828
#2	.3487	6.810	.1290	.5118	23.81	3.797	.0854
#3	.3483	6.882	.1354	.5125	23.95	3.796	.0529

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0322	.2677	.3713	.6207	.9591	3.328	.4309
SDev	.0008	.0024	.0094	.0129	.0100	.022	.0022
%RSD	2.592	.9070	2.532	2.080	1.044	.6673	.5171
#1	.0312	.2700	.3794	.6128	.9664	3.309	.4286
#2	.0326	.2652	.3610	.6137	.9632	3.353	.4312
#3	.0326	.2678	.3736	.6356	.9477	3.323	.4330

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2972	.2103	3.777	.2065	.8122	.3685	.2016
SDev	.0115	.0040	.017	.0053	.0297	.0016	.0167

%RSD	3.865	1.885	.4472	2.552	3.659	.4448	8.087
#1	.2956	.2098	3.739	.2022	.7975	.3666	.2039
#2	.3093	.2067	3.780	.2124	.7928	.3697	.1842
#3	.2865	.2145	3.793	.2050	.8465	.3692	.2165

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0512	49.09	.0490
SDev	.0003	.16	.0001
%RSD	.6820	.3265	.2410
#1	.0508	48.92	.0491
#2	.0512	49.08	.0489
#3	.0515	49.24	.0489

Analysis Report THU 02-22-96 12:27:10 PM page 1

Method: ICP1A Sample Name: Zn @50 PPM Operator: DRS
Run Time: 02/22/96 12:25:52
Comment: Zn IEC 951004I930 (WASTE)K.POEPPEL
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.1289	.0068	-.0192	.0023	-.0001	-.0129
SDev	.0005	.0165	.0039	.0016	.0004	.0000	.0026
%RSD	157.1	12.76	57.40	8.588	18.36	7.994	20.43
#1	.0006	.1450	.0030	-.0189	.0027	-.0001	-.0099
#2	-.0002	.1297	.0108	-.0177	.0022	-.0001	-.0148
#3	.0006	.1121	.0065	-.0209	.0019	-.0001	-.0139

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3560	-.0039	.0051	-.0007	.0040	.0253	.0008
SDev	.0124	.0021	.0013	.0002	.0012	.0018	.0006
%RSD	3.481	53.48	24.51	30.34	30.15	7.032	79.90
#1	.3679	-.0063	.0037	-.0009	.0049	.0262	.0015
#2	.3568	-.0024	.0063	-.0008	.0044	.0264	.0002
#3	.3432	-.0030	.0062	-.0005	.0028	.0232	.0008

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	.3297	-.0763	.0014	.0014	.0142	.0026
SDev	.0001	.0273	.0825	.0001	.0015	.0028	.0006
%RSD	647.5	8.273	108.2	9.979	101.8	19.75	21.32
#1	.0000	.3584	.0153	.0015	.0030	.0165	.0032
#2	-.0002	.3266	-.0991	.0013	.0002	.0111	.0027
#3	.0000	.3041	-.1449	.0013	.0011	.0150	.0020

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0502	.0057	-.0003	.0919	.0099	.0140
SDev	.0008	.0033	.0006	.0025	.0214	.0032	.0066
%RSD	225.9	6.546	10.14	953.6	23.27	32.00	47.26
#1	.0011	.0483	.0061	.0002	.1128	.0065	.0198
#2	.0005	.0482	.0051	-.0030	.0700	.0128	.0153
#3	-.0005	.0540	.0060	.0020	.0930	.0103	.0068

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0071	-.0006	.1177	.0051	-.0392	.0663	.0006
SDev	.0041	.0049	.0097	.0056	.0021	.0415	.0001
%RSD	58.28	854.3	8.244	110.9	5.403	62.67	12.01
#1	.0118	.0002	.1240	.0032	-.0380	.1123	.0007
#2	.0039	.0039	.1065	.0006	-.0417	.0314	.0006
#3	.0056	-.0059	.1226	.0114	-.0380	.0553	.0006

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0107	-.0004	.0052	.0007	.0746	-.0000	.0023
SDev	.0050	.0002	.0003	.0015	.0446	.0002	.0035

%RSD	47.03	42.17	5.680	221.8	59.76	7611.	155.4
#1	.0074	-.0002	.0066	.0021	.1206	.0002	.0058
#2	.0166	-.0005	.0062	.0007	.0516	-.0002	.0024
#3	.0083	-.0005	.0059	-.0008	.0716	-.0001	-.0013

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0004	48.77	-.0006
SDev	.0004	.28	.0006
%RSD	87.76	.5740	97.08
#1	.0000	48.47	-.0001
#2	.0004	49.03	-.0013
#3	.0008	48.80	-.0005

Analysis Report Thu 02-22-96 12:30:34 PM page 1

Method: ICP1A Sample Name: 96-3316 Operator: DRS
Run Time: 02/22/96 12:29:15
Comment: SUMP SLUDGE (WASTE) K.PDEPPEL
Mode: CONC Corr. Factor: 1

Ignore DLS 2/22/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	k.0410	k473.5	k1.158	k3.675	7.188	k.0126	k.6166
SDev	.0007	.6	.024	.029	.019	.0001	.0151
%RSD	1.607	.1690	2.100	.3289	.2683	.3591	2.445
#1	k.0402	k472.6	k1.130	k8.645	7.166	k.0125	k.6064
#2	k.0412	k474.0	k1.166	k8.678	7.202	k.0125	k.6095
#3	k.0415	k474.0	k1.177	k8.702	7.196	k.0126	k.6339

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	471.9	k.3210	k.6131	k.5560	k2.009	k38.63	k.0645
SDev	.4	.0036	.0046	.0017	.008	.10	.0003
%RSD	.0811	1.112	.7463	.3049	.3874	.2661	1.190
#1	471.5	k.3244	k.6162	k.5547	k2.001	k38.51	k.0643
#2	472.0	k.3212	k.6079	k.5553	k2.016	k38.69	k.0639
#3	472.3	k.3173	k.6153	k.5579	k2.011	k38.68	k.0654

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	k.0790	82326.	43.[illegible]	k.1510	.2491	k130.3	k9.306
SDev	.0003	.	.21	.0018	.0019	.2	.010
%RSD	.3933	.0000	.4650	1.166	.7732	.1615	.1074
#1	k.0788	82326.	44.77	k.1505	.2510	k130.1	k9.295
#2	k.0790	82326.	45.04	k.1495	.2491	k130.3	k9.311
#3	k.0794	82326.	45.18	k.1529	.2472	k130.5	k9.313

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	k1.534	k35.08	k.6108	k2.434	k118.3	k18.32	k-6.603
SDev	.004	.23	.0040	.008	.3	.02	.021
%RSD	.2825	.6672	.6487	.3183	.2950	.1035	.3113
#1	k1.539	k34.81	k.6127	k2.441	k117.9	k18.30	k-6.627
#2	k1.532	k35.18	k.6062	k2.434	k118.4	k18.32	k-6.587
#3	k1.532	k35.25	k.6134	k2.426	k118.6	k18.33	k-6.601

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	k.1681	k-17.64	k1.833	k3.121	k4.889	k-39.13	2.156
SDev	.0027	.05	.021	.018	.008	.07	.005
%RSD	1.612	.2567	1.138	.5777	.1565	.1680	.2518
#1	k.1693	k-17.68	k1.853	k3.130	k4.883	k-39.18	2.150
#2	k.1650	k-17.65	k1.834	k3.100	k4.897	k-39.15	2.159
#3	k.1700	k-17.59	k1.811	k3.133	k4.885	k-39.06	2.159

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	k-.0954	k.9597	k18.89	k1.017	k3.336	k1.812	k.9530
SDev	.0090	.0154	.04	.003	.066	.006	.0108

%RSD	9.465	1.602	.1918	.2681	2.045	.3410	1.133
#1	k-.1031	k.9716	k18.85	k1.014	k3.408	k1.807	k.9632
#2	k-.0976	k.9424	k18.91	k1.020	k3.273	k1.812	k.9417
#3	k-.0855	k.9652	k18.92	k1.018	k3.325	k1.819	k.9541

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	k.2453	S586.1	k.2493
SDev	.0005	.0	.0018
%RSD	.2169	.0000	.7097
#1	k.2451	S586.1	k.2473
#2	k.2448	S586.1	k.2502
#3	k.2459	S586.1	k.2505

Analysis Report Thu 02-22-96 12:34:30 PM page 1

Method: ICP1A Sample Name: 96-3316 @2 Operator: DRS
Run Time: 02/22/96 12:33:12
Comment: SUMP SLUDGE @2X DIL (WASTE)K.POEPPEL
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0179	231.2	.5722	4.300	3.545	.0061	.3020
SDev	.0006	.8	.0346	.010	.012	.0000	.0126
%RSD	3.271	.3533	6.047	.2324	.3409	.4664	4.176
#1	.0172	232.1	.5436	4.311	3.557	.0061	.2885
#2	.0184	231.2	.6107	4.296	3.544	.0061	.3040
#3	.0181	230.4	.5622	4.293	3.533	.0061	.3134

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	240.4	.1651	.3012	.2791	1.009	19.46	.0304
SDev	.9	.0021	.0023	.0003	.006	.07	.0006
%RSD	.3870	1.297	.7577	.1001	.6280	.3725	1.987
#1	241.4	.1665	.3021	.2794	1.017	19.53	.0298
#2	240.1	.1662	.2986	.2791	1.007	19.47	.0304
#3	239.6	.1626	.3029	.2789	1.004	19.39	.0311

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0391	415.8	21.23	.1191	.1231	66.25	4.691
SDev	.0002	.3	.07	.0022	.0015	.24	.021
%RSD	.5871	.0649	.3292	1.871	1.257	.3600	.4453
#1	.0392	416.0	21.25	.1167	.1249	66.49	4.713
#2	.0392	415.9	21.29	.1210	.1220	66.26	4.684
#3	.0388	415.5	21.16	.1197	.1225	66.01	4.675

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.8537	17.00	.2986	1.237	58.77	9.221	.9089
SDev	.0042	.02	.0046	.006	.33	.036	.0032
%RSD	.4900	.1195	1.547	.5184	.5651	.3924	.3570
#1	.8583	17.00	.2963	1.242	59.15	9.260	.9068
#2	.8529	16.99	.3039	1.230	58.56	9.188	.9127
#3	.8500	17.03	.2956	1.240	58.60	9.217	.9073

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0670	2.221	.9171	1.522	2.312	12.56	1.070
SDev	.0025	.026	.0080	.027	.007	.09	.003
%RSD	3.693	1.173	.8711	1.767	.2849	.7342	.3171
#1	.0683	2.247	.9263	1.554	2.318	12.65	1.073
#2	.0686	2.221	.9127	1.507	2.305	12.56	1.070
#3	.0642	2.195	.9123	1.507	2.313	12.47	1.066

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.8342	.4882	9.345	.5230	1.767	.9057	.4703
SDev	.0136	.0058	.035	.0094	.015	.0029	.0098

%RSD	1.635	1.187	.3778	1.793	.8529	.3178	2.092
#1	.8322	.4904	9.381	.5299	1.776	.9088	.4697
#2	.8216	.4817	9.342	.5123	1.750	.9050	.4804
#3	.8487	.4926	9.311	.5267	1.776	.9032	.4607

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.1254	101.2	.1263
SDev	.0008	.0	.0008
%RSD	.5956	.0485	.6433
#1	.1260	101.2	.1267
#2	.1256	101.3	.1268
#3	.1245	101.2	.1253

Analysis Report Thu 02-22-96 12:38:42 PM page 1

Method: ICP1A Sample Name: 96-3316 @10 Operator: DRS
Run Time: 02/22/96 12:37:24
Comment: SUMP SLUDGE @10X DIL (WASTE)K.POEPPEL
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0021	45.76	.1125	.8600	.7116	.0011	.0388
SDev	.0009	.20	.0112	.0052	.0037	.0000	.0007
%RSD	43.28	.4272	9.934	.5997	.5268	2.806	1.805
#1	.0011	45.94	.0996	.8629	.7147	.0012	.0383
#2	.0029	45.55	.1189	.8540	.7074	.0011	.0396
#3	.0023	45.78	.1190	.8630	.7126	.0011	.0385

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	49.06	.0328	.0603	.0561	.2040	3.916	.0065
SDev	.15	.0011	.0071	.0003	.0042	.020	.0007
%RSD	.3020	3.495	11.75	.4438	2.050	.5017	10.86
#1	49.21	.0329	.0551	.0560	.2078	3.934	.0063
#2	48.91	.0315	.0684	.0564	.2046	3.895	.0072
#3	49.05	.0338	.0575	.0560	.1995	3.919	.0059

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0078	107.2	3.897	.0362	.0255	13.69	.9648
SDev	.0001	.4	.192	.0016	.0012	.06	.0031
%RSD	1.519	.3736	4.924	4.531	4.748	.4656	.3246
#1	.0077	107.5	3.676	.0345	.0257	13.74	.9679
#2	.0079	106.7	4.019	.0378	.0266	13.62	.9617
#3	.0077	107.2	3.936	.0363	.0242	13.70	.9648

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1731	3.398	.0608	.2534	11.86	1.896	.0323
SDev	.0012	.033	.0011	.0051	.02	.007	.0141
%RSD	.6981	.9813	1.837	2.021	.1778	.3812	43.61
#1	.1744	3.398	.0618	.2570	11.87	1.888	.0210
#2	.1730	3.432	.0612	.2476	11.84	1.900	.0481
#3	.1719	3.365	.0596	.2556	11.88	1.900	.0279

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0129	.1408	.1709	.3041	.7817	1.658	.2158
SDev	.0051	.0064	.0170	.0070	.0210	.035	.0012
%RSD	39.22	4.563	9.961	2.308	2.688	2.116	.5718
#1	.0088	.1360	.1854	.3113	.7967	1.620	.2170
#2	.0185	.1383	.1752	.3038	.7577	1.689	.2146
#3	.0114	.1481	.1522	.2973	.7908	1.664	.2159

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1469	.0974	1.882	.0957	.4146	.1846	.0886
SDev	.0035	.0080	.009	.0077	.0757	.0005	.0054

%RSD	2.370	8.193	.4687	8.097	18.27	.2746	6.131
#1	.1467	.0914	1.891	.0936	.3791	.1849	.0899
#2	.1505	.0943	1.873	.1043	.5015	.1840	.0933
#3	.1436	.1064	1.882	.0892	.3631	.1849	.0827

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0254	24.97	.0242
SDev	.0002	.06	.0009
%RSD	.7152	.2387	3.914
#1	.0255	25.03	.0244
#2	.0254	24.91	.0249
#3	.0251	24.97	.0231

Analysis Report Thu 02-22-96 12:42:26 PM page 1

Method: ICP1A Sample Name: 96-3317 Operator: DRS
Run Time: 02/22/96 12:41:07
Comment: BROWN (SAMPLE COMPOSITE) #1 (WASTE)K.POEPPEL
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0017	69.78	.0674	6.362	.0070	.0054	-.0223
SDev	.0016	.76	.0220	.373	.0005	.0000	.0045
%RSD	95.29	1.086	32.61	1.178	6.796	.7995	20.01
#1	.0034	68.98	.0586	6.285	.0075	.0054	-.0189
#2	.0004	69.85	.0512	6.367	.0067	.0054	-.0206
#3	.0012	70.49	.0924	6.434	.0067	.0055	-.0273

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3548	.0142	.0162	.0009	.4944	.0508	.0029
SDev	.0123	.0054	.0113	.0008	.0033	.0049	.0011
%RSD	3.459	37.81	69.38	93.60	.6701	9.665	38.86
#1	.3689	.0095	.0290	.0017	.4906	.0564	.0042
#2	.3483	.0131	.0118	.0008	.4954	.0479	.0022
#3	.3471	.0200	.0078	.0001	.4970	.0479	.0023

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.3480	101.9	.0063	.0072	.0318	.0066
SDev	.0002	.0275	.9	.0037	.0006	.0087	.0006
%RSD	50.32	7.908	.9235	59.18	7.698	27.46	8.400
#1	.0010	.3786	101.0	.0106	.0069	.0413	.0072
#2	.0005	.3401	102.0	.0041	.0069	.0298	.0061
#3	.0004	.3253	102.8	.0042	.0079	.0242	.0066

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1500	641.3	.0143	.0376	2.631	.2674	.0712
SDev	.0018	8.1	.0111	.0012	.064	.0095	.0257
%RSD	1.228	1.264	77.41	3.285	2.428	3.535	36.12
#1	.1511	632.4	.0268	.0389	2.568	.2767	.0986
#2	.1478	643.2	.0056	.0364	2.696	.2578	.0476
#3	.1510	648.3	.0105	.0375	2.630	.2679	.0674

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0426	.0411	.0789	.2106	3.117	.2932	.0048
SDev	.0083	.0036	.0170	.0048	.025	.0367	.0001
%RSD	19.55	8.850	21.54	2.288	.7886	12.52	1.461
#1	.0517	.0451	.0844	.2060	3.094	.3291	.0049
#2	.0354	.0404	.0924	.2102	3.113	.2947	.0047
#3	.0406	.0379	.0598	.2156	3.143	.2557	.0047

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0900	-.0039	.0152	.0145	.2497	.0015	.2875
SDev	.0071	.0011	.0009	.0077	.0569	.0012	.0085

%RSD	7.904	28.41	5.782	53.65	22.79	81.12	2.948
#1	.0978	-.0041	.0162	.0218	.3148	.0028	.2902
#2	.0839	-.0050	.0145	.0153	.2243	.0005	.2942
#3	.0882	-.0027	.0150	.0065	.2099	.0012	.2779

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0009	.1864	.0263
SDev	.0004	.0063	.0012
%RSD	40.29	3.382	4.628
#1	.0013	.1936	.0277
#2	.0007	.1836	.0256
#3	.0007	.1819	.0256

Method: ICP1A Sample Name: 96-3317 @5 Operator: DRS
Run Time: 02/22/96 12:45:04
Comment: BROWN (SAMPLE COMPOSITE) #1 @5X DIL (WASTE)K.POEPPEL
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0012	13.93	.0034	1.286	.0011	.0010	-.0262
SDev	.0009	.11	.0145	.011	.0002	.0000	.0066
%RSD	73.81	.8248	429.7	.8556	21.73	3.362	25.23
#1	-.0019	14.02	-.0078	1.296	.0010	.0010	-.0321
#2	-.0002	13.80	.0198	1.275	.0014	.0010	-.0191
#3	-.0015	13.96	-.0018	1.286	.0010	.0009	-.0276

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0899	-.0022	-.0019	-.0019	.0993	.0316	-.0008
SDev	.0036	.0008	.0054	.0009	.0017	.0014	.0011
%RSD	3.999	36.57	289.7	48.14	1.699	4.314	142.5
#1	.0927	-.0026	-.0063	-.0030	.0991	.0301	-.0017
#2	.0912	-.0013	.0042	-.0012	.0977	.0327	.0004
#3	.0858	-.0026	-.0034	-.0017	.1011	.0321	-.0010

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	.0680	19.76	-.0004	.0006	-.0244	.0009
SDev	.0003	.0045	.02	.0016	.0032	.0059	.0002
%RSD	104.2	6.569	.1138	456.6	491.8	24.37	25.30
#1	-.0005	.0719	19.76	-.0011	-.0022	-.0250	.0006
#2	.0001	.0689	19.78	.0016	.0040	-.0161	.0010
#3	-.0005	.0671	19.74	-.0	.0002	-.0300	.0009

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0276	130.9	-.0023	.0003	.5110	.0379	-.0083
SDev	.0014	1.2	.0022	.0011	.0239	.0056	.0240
%RSD	5.161	.8866	94.72	346.1	4.685	14.81	290.0
#1	.0280	131.9	-.0042	-.0001	.5329	.0347	-.0257
#2	.0288	129.7	.0001	.0016	.4854	.0444	.0191
#3	.0261	131.2	-.0029	-.0005	.5148	.0347	-.0182

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0036	.0006	-.0043	.0381	.5735	.0145	.0008
SDev	.0078	.0031	.0079	.0111	.0091	.0529	.0001
%RSD	217.7	502.5	183.6	29.18	1.583	364.6	9.364
#1	-.0078	-.0012	-.0085	.0484	.5783	-.0198	.0007
#2	.0054	.0042	.0048	.0396	.5630	.0755	.0008
#3	-.0084	-.0012	-.0092	.0263	.5787	-.0121	.0008

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0052	.0007	.0027	-.0099	-.0580	-.0017	.0575
SDev	.0084	.0064	.0005	.0122	.0996	.0005	.0022

%RSD	162.2	971.6	17.13	124.3	171.7	29.97	3.749
#1	-.0033	-.0066	.0023	-.0209	-.1281	-.0021	.0600
#2	.0054	.0027	.0032	-.0121	.0560	-.0011	.0561
#3	.0134	.0059	.0025	.0033	-.1019	-.0020	.0564

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0003	.0507	.0033
SDev	.0003	.0013	.0002
%RSD	108.6	2.585	6.316
#1	-.0005	.0518	.0031
#2	.0001	.0510	.0035
#3	-.0005	.0493	.0032

Analysis Report QC Analysis Run 02-22-96 12:52:00 PM page 1

Method: ICP1A Sample Name: QC_MCVA 960130f901 Operator: DRS
Run Time: 02/22/96 12:50:42
Comment: (WASTE)K.POEPPEL
Mode: CONC Corr. Factor: 1

Pass X DRS 2/22/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4860	9.788	2.540	2.021	.4838	.0939	23.95
SDev	.0060	.152	.035	.035	.0083	.0015	.38
%RSD	1.226	1.555	1.390	1.731	1.716	1.585	1.595
#1	.4826	9.701	2.515	2.001	.4784	.0930	23.67
#2	.4825	9.700	2.523	2.001	.4797	.0931	23.80
#3	.4929	9.964	2.580	2.061	.4934	.0957	24.39
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.51	.4845	-.0030	.9834	.9829	.9693	-.0006
SDev	.36	.0050	.0081	.0156	.0153	.0167	.0008
%RSD	1.480	1.038	267.4	1.590	1.555	1.720	144.7
#1	24.27	.4832	.0042	.9748	.9664	.9603	-.0003
#2	24.34	.4802	-.0015	.9739	.9858	.9591	.0001
#3	24.93	.4900	-.0117	1.001	.9966	.9885	-.0015
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0012	19.35	22.88	.0046	1.977	31.88	.5009
SDev	.0002	.30	.13	.0029	.022	.48	.0076
%RSD	19.06	1.557	.5686	61.95	1.128	1.505	1.524
#1	.0013	19.16	22.73	.0050	1.958	31.56	.4959
#2	.0013	19.20	22.92	.0072	1.970	31.64	.4970
#3	.0009	19.70	22.99	.0016	2.001	32.43	.5097
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9838	36.51	-.0014	.9747	4.889	2.440	-.0387
SDev	.0145	.44	.0065	.0099	.038	.046	.0180
%RSD	1.473	1.206	448.8	1.013	.7711	1.898	46.56
#1	.9726	36.27	-.0031	.9674	4.927	2.409	-.0329
#2	.9787	36.23	.0057	.9709	4.851	2.417	-.0243
#3	1.000	37.02	-.0069	.9859	4.891	2.493	-.0589
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0089	.0217	03.146	2.491	18.28	.1780	.4956
SDev	.0077	.0030	.050	.043	.27	.0245	.0086
%RSD	85.98	14.01	1.587	1.746	1.471	13.75	1.729
#1	-.0047	.0189	03.111	2.463	18.10	.1782	.4899
#2	-.0043	.0249	03.124	2.470	18.14	.2024	.4914
#3	-.0177	.0212	03.203	2.541	18.59	.1535	.5055
Errors	NOCHECK	NOCHECK	QC Fail	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500
Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0214	.0395	.9623	2.425	-.0051	.9616	.0383
SDev	.0084	.0037	.0156	.042	.0517	.0157	.0054
%RSD	39.24	9.262	1.622	1.738	1007.	1.628	14.04
#1	.0204	.0394	.9521	2.380	-.0051	.9509	.0438
#2	.0302	.0365	.9544	2.433	.0466	.9543	.0331
#3	.0135	.0435	.9802	2.463	-.0569	.9796	.0381
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0006	1.005	1.938
SDev	.0003	.013	.032
%RSD	54.60	1.323	1.671
#1	.0010	.9946	1.917
#2	.0006	1.001	1.922
#3	.0003	1.020	1.975
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report QC Standard Thu 02-22-96 12:55:38 PM page 1

Method: ICP1A Sample Name: QC_MCVB2 9602211901 Operator: DRS
Run Time: 02/22/96 12:54:19
Comment: (WASTE)K.POEPPEL
Mode: CONC Corr. Factor: 1

PASS DRS 2/22/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0068	.0030	.3088	.1415	.0005	.0007	.0576
SDev	.0020	.0088	.0155	.0052	.0004	.0001	.0101
%RSD	28.82	293.0	5.015	3.672	88.39	6.731	17.53
#1	-.0055	-.0032	.3011	.1429	.0007	.0007	.0691
#2	-.0059	.0131	.2986	.1358	.0008	.0008	.0532
#3	-.0091	-.0009	.3266	.1459	-.0000	.0007	.0504
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0272	.0041	1.908	-.0032	.0053	.1358	1.967
SDev	.0078	.0033	.037	.0012	.0014	.0027	.051
%RSD	28.88	79.28	1.924	36.51	27.11	2.795	2.588
#1	.0342	.0006	1.887	-.0024	.0037	.1428	1.936
#2	.0287	.0048	1.886	-.0026	.0066	.1412	1.938
#3	.0187	.0070	1.950	-.0046	.0057	.1334	2.025
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			2.000				2.000
Range			10.00				10.00

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.986	.0325	-1.891	.9826	-.0010	-.0809	.0005
SDev	.051	.0077	.331	.0210	.0007	.0142	.0004
%RSD	2.571	23.81	17.50	2.141	76.38	17.50	78.41
#1	1.956	.0395	-1.678	.9701	-.0003	-.0730	.0009
#2	1.960	.0337	-1.724	.9709	-.0006	-.0725	.0004
#3	2.047	.0242	-2.273	1.007	-.0018	-.0973	.0002
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK
Value	2.000			1.000			
Range	10.00			10.00			

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0047	.2357	1.929	.0113	.0981	.2170	1.865
SDev	.0014	.0182	.039	.0036	.0184	.0059	.052
%RSD	28.89	7.728	2.035	31.64	18.75	2.715	2.792
#1	.0049	.2566	1.906	.0139	.0907	.2103	1.816
#2	.0059	.2230	1.906	.0129	.0845	.2197	1.860
#3	.0032	.2275	1.974	.0072	.1190	.2211	1.920
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			2.000				2.000

Range			10.00				10.00
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.908	1.972	.1037	.0454	7.787	1.921	.0023
SDev	.037	.039	.0141	.0069	.521	.022	.0003
%RSD	1.924	1.960	13.63	15.20	6.689	1.133	11.21
#1	1.893	1.942	.1111	.0448	7.292	1.943	.0025
#2	1.891	1.958	.1126	.0388	7.737	1.899	.0024
#3	1.950	2.015	.0874	.0525	8.331	1.921	.0020
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value	2.000	2.000				2.000	
Range	10.00	10.00				10.00	

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.845	9.833	.0051	.0062	22.54	-.0030	1.896
SDev	.035	.204	.0010	.0033	.53	.0014	.070
%RSD	1.867	2.072	20.17	53.34	2.363	46.32	3.687
#1	1.852	9.720	.0060	.0099	022.22	-.0022	1.831
#2	1.840	9.710	.0053	.0036	022.24	-.0022	1.882
#3	1.905	10.07	.0040	.0050	23.15	-.0046	1.970
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	QC Pass
Value	2.000	10.00			25.00		2.000
Range	10.00	10.00			10.00		10.00

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.9500	.0662	-.0596
SDev	.0243	.0041	.0007
%RSD	2.555	6.227	1.215
#1	.9350	.0704	-.0590
#2	.9371	.0661	-.0594
#3	.9780	.0622	-.0604
Errors	QC Pass	NOCHECK	NOCHECK
Value	1.000		
Range	10.00		

Analysis Report Thu 02-22-96 12:59:43 PM page 1

Method: ICP1A Sample Name: QC SSTA 9512081902 Operator: DRS
Run Time: 02/22/96 12:58:23
Comment: BROWN (SAMPLE COMPOSITE) #1 05X DIL (WASTE)K.POEPPEL
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0121	246.8	.3577	.0291	.0089	-.0010	193.3
SDev	.0006	1.4	.0054	.0045	.0002	.0001	.7
%RSD	4.752	.5548	1.502	15.30	1.786	5.699	.3437
#1	-.0122	245.9	.3606	.0343	.0091	-.0009	192.7
#2	-.0126	248.4	.3515	.0266	.0088	-.0010	194.0
#3	-.0115	246.1	.3611	.0266	.0088	-.0010	193.1

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	242.4	.0702	.0815	.0065	.2426	-.0746	.0299
SDev	.7	.0020	.0066	.0014	.0030	.0026	.0015
%RSD	.2870	2.844	8.155	21.97	1.234	3.477	5.124
#1	242.0	.0681	.0864	.0081	.2456	-.0721	.0314
#2	243.2	.0703	.0739	.0053	.2396	-.0773	.0284
#3	241.9	.0721	.0841	.0062	.2429	-.0745	.0300

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0875	187.9	97.34	49.72	.0319	-.6577	.0190
SDev	.0005	.7	.32	.24	.0005	.0224	.0003
%RSD	.5538	.3913	.3265	.4874	1.508	3.401	1.392
#1	.0877	187.4	97.18	49.53	.0324	-.6584	.0188
#2	.0878	188.7	97.71	49.99	.0315	-.6798	.0188
#3	.0869	187.5	97.14	49.64	.0319	-.6351	.0193

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0970	.8608	.1780	187.3	197.7	.9414	.5616
SDev	.0022	.0323	.0091	.5	.9	.0150	.0385
%RSD	2.277	3.752	5.095	.2672	.4658	1.591	6.858
#1	.0960	.8847	.1851	187.0	197.2	.9455	.6001
#2	.0955	.8240	.1678	187.9	198.8	.9248	.5231
#3	.0996	.8735	.1812	187.1	197.2	.9539	.5615

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2010	.3253	.7097	1.459	-.2578	3.035	.0186
SDev	.0145	.0108	.0073	.005	.0201	.091	.0000
%RSD	7.229	3.328	1.033	.3292	7.789	3.013	.0059
#1	.2159	.3292	.7123	1.464	-.2350	3.129	.0186
#2	.1869	.3131	.7014	1.455	-.2726	2.947	.0186
#3	.2000	.3336	.7154	1.457	-.2659	3.030	.0186

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6075	.5655	.0011	.3256	194.2	.0403	.5220
SDev	.0154	.0244	.0011	.0131	1.3	.0010	.0071

%RSD	2.536	4.308	99.28	4.027	.6614	2.543	1.352
#1	.6072	.5377	.0018	.3374	193.5	.0409	.5218
#2	.5923	.5752	-.0002	.3115	195.7	.0391	.5150
#3	.6231	.5834	.0016	.3281	193.5	.0409	.5292

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0223	.0700	.0004
SDev	.0005	.0013	.0021
%RSD	2.095	1.910	579.1
#1	.0228	.0696	.0027
#2	.0220	.0690	-.0008
#3	.0221	.0715	-.0009

Analysis Report Thu 02-22-96 01:03:56 PM page 1

Method: ICP1A Sample Name: QC SSTMCV 951206I903 Operator: DRS
Run Time: 02/22/96 13:02:36
Comment: BROWN (SAMPLE COMPOSITE) #1 @5X DIL (WASTE)K.POEPPEL
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4997	5.125	2.053	-.0227	.0984	.0965	1.682
SDev	.0055	.075	.011	.0003	.0010	.0011	.008
%RSD	1.101	1.464	.5204	1.140	.9763	1.169	.5037
#1	.5051	5.195	2.066	-.0226	.0993	.0976	1.687
#2	.4999	5.133	2.047	-.0230	.0984	.0966	1.687
#3	.4941	5.046	2.047	-.0226	.0974	.0954	1.673

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.210	.2036	.0068	-.0036	.3034	.0152	.0018
SDev	.027	.0025	.0097	.0007	.0040	.0006	.0013
%RSD	2.249	1.240	142.1	19.00	1.323	4.166	69.16
#1	1.239	.2059	-.0021	-.0044	.3077	.0146	.0007
#2	1.208	.2039	.0055	-.0033	.3027	.0151	.0016
#3	1.184	.2009	.0171	-.0032	.2997	.0158	.0032

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0073	.6624	48.31	.0490	.0021	-.0813	.1020
SDev	.0004	.0222	.33	.0019	.0017	.0039	.0012
%RSD	6.150	3.346	.6833	3.823	83.21	4.845	1.158
#1	.0071	.6852	48.52	.0508	.0002	-.0784	.1031
#2	.0071	.6609	48.47	.0492	.0026	-.0858	.1022
#3	.0078	.6410	47.92	.0471	.0035	-.0799	.1008

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0022	5.053	.0060	.7554	4.168	2.977	-.0212
SDev	.0008	.073	.0081	.0159	.093	.014	.0267
%RSD	34.75	1.439	136.1	2.111	2.228	.4782	125.7
#1	.0019	5.064	-.0004	.7724	4.274	2.992	-.0391
#2	.0016	5.120	.0031	.7530	4.127	2.975	-.0340
#3	.0031	4.976	.0152	.7407	4.102	2.963	.0094

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0083	.0004	2.610	2.521	2.797	.0518	.0013
SDev	.0105	.0012	.018	.020	.021	.0427	.0000
%RSD	126.7	295.1	.6963	.8035	.7424	82.46	.0770
#1	.0006	.0006	2.630	2.543	2.815	.0025	.0013
#2	.0041	-.0009	2.596	2.519	2.801	.0782	.0013
#3	.0203	.0016	2.603	2.502	2.774	.0746	.0013

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0021	.0706	-.0004	-.0092	19.50	.4938	.0273
SDev	.0077	.0043	.0006	.0063	.15	.0045	.0044

%RSD	368.3	6.017	128.9	68.19	.7157	.9129	16.26
#1	-.0099	.0738	-.0010	-.0115	19.66	.4984	.0313
#2	.0054	.0723	-.0004	-.0021	19.47	.4936	.0225
#3	-.0017	.0658	.0001	-.0141	19.37	.4894	.0279

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0005	.0080	.4900
SDev	.0003	.0011	.0045
%RSD	51.01	13.79	.9270
#1	.0003	.0092	.4948
#2	.0004	.0077	.4896
#3	.0008	.0071	.4857

Analysis Report QC Standard Thu 02-22-96 01:08:29 PM page 1

Method: ICP1A Sample Name: QC_SRM-1643d 108518 Operator: DRS
Run Time: 02/22/96 13:07:10
Comment: (WASTE)K.POEPPEL
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	0.0015	0.1436	0.0539	0.1187	.4944	0.0118	.0215
SDev	.0002	.0041	.0050	.0012	.0020	.0000	.0073
%RSD	10.66	2.876	9.371	1.021	.4119	.2975	33.95
#1	0.0015	0.1461	0.0583	0.1186	.4927	0.0118	.0261
#2	0.0016	0.1388	0.0483	0.1200	.4939	0.0117	.0252
#3	0.0013	0.1458	0.0548	0.1176	.4967	0.0118	.0131
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Pass	QC Fail	NOCHECK
Value	.0013	.1276	.0560	.1448	.5065	.0125	
Range	.0570	3.500	.7300	5.200	8.900	.2800	

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	030.46	0.0082	.0174	0.0244	0.0208	0.0277	.0022
SDev	.10	.0003	.0056	.0006	.0009	.0013	.0006
%RSD	.3243	3.488	32.18	2.345	4.366	4.514	24.83
#1	030.40	0.0081	.0239	0.0245	0.0205	0.0283	.0029
#2	030.40	0.0085	.0139	0.0238	0.0218	0.0262	.0019
#3	030.57	0.0080	.0145	.0250	0.0200	0.0285	.0019
Errors	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail	NOCHECK
Value	31.04	.0065		.0250	.0185	.0205	
Range	.6400	.3700		.5900	.2000	3.800	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0013	0.0974	02.440	.0139	0.0191	08.281	0.0387
SDev	.0001	.0028	.082	.0018	.0006	.023	.0004
%RSD	7.973	2.909	3.380	12.99	2.911	.2821	1.089
#1	.0014	0.1002	02.532	.0159	0.0185	08.255	0.0392
#2	.0012	0.0976	02.418	.0136	0.0194	08.287	0.0384
#3	.0012	.0945	02.372	.0123	0.0194	08.300	0.0386
Errors	NOCHECK	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail
Value		.0912	2.356		.0165	7.989	.0377
Range		3.900	.0350		.5500	.0350	.8300

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	0.1087	021.44	.0214	0.1269	.0328	0.0156	.0326
SDev	.0015	.05	.0047	.0065	.0054	.0066	.0083
%RSD	1.399	.2370	21.96	5.124	16.56	42.68	25.38
#1	0.1069	021.38	.0268	0.1334	.0309	0.0204	.0417
#2	0.1094	021.46	.0187	0.1271	.0339	0.0080	.0305
#3	0.1096	021.45	.0187	0.1204	.0286	0.0183	.0255
Errors	QC Fail	QC Fail	NOCHECK	QC Fail	NOCHECK	QC Fail	NOCHECK
Value	.1129	22.07		.0581		.0181	

Range	1.700	.6400		2.700		.6400	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0150	-.0011	0.0656	0.0079	2.611	.0081	.2911
SDev	.0057	.0028	.0109	.0240	.010	.0203	.0013
%RSD	38.10	252.9	16.54	301.8	.3894	250.9	.4297
#1	.0215	.0003	0.0531	0.0163	2.610	.0297	.2900
#2	.0106	.0007	0.0723	0-.0191	2.601	-.0106	.2908
#3	.0129	-.0044	0.0714	0.0266	2.621	.0052	.2924
Errors	NOCHECK	NOCHECK	QC Fail	QC Fail	NOCHECK	NOCHECK	QC Pass
Value			.0541	.0114			.2948
Range			1.100	.1700			3.400

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0019	-.0117	.0007	0.0058	.3693	0.0333	.0182
SDev	.0069	.0032	.0003	.0025	.0477	.0006	.0089
%RSD	356.5	27.53	39.11	42.81	12.90	1.896	48.97
#1	-.0094	-.0123	.0008	0.0047	.4041	0.0340	.0271
#2	.0044	-.0083	.0004	0.0086	.3889	0.0327	.0182
#3	-.0008	-.0147	.0009	0.0040	.3150	0.0332	.0093
Errors	NOCHECK	NOCHECK	NOCHECK	QC Fail	NOCHECK	QC Fail	NOCHECK
Value				.0073		.0351	
Range				.2500		1.400	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0008	0.0790	.0007
SDev	.0004	.0002	.0005
%RSD	46.79	.2035	68.12
#1	.0013	0.0790	.0009
#2	.0006	0.0789	.0002
#3	.0006	0.0792	.0011
Errors	NOCHECK	QC Fail	NOCHECK
Value		.0725	
Range		.6500	

Analysis Report Thu 02-22-96 01:12:31 PM page 1

Method: ICP1A Sample Name: OC CCV1 96012bH901 Operator: DRB
Run Time: 02/22/96 13:11:13
Comment: BROWN (SAMPLE COMPOSITE) #1 @5X DIL (WASTE)K.POEPPEL
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	1.912	2.018	1.972	.9501	.9575	1.900
SDev	.0011	.009	.011	.016	.0082	[illegible]	[illegible]
%RSD	120.4	.4731	.5213	.7978	.8598	[illegible]	[illegible]
#1	.0019	1.904	2.009	1.959	.9440	.9521	1.903
#2	.0012	1.910	2.030	1.967	.9469	.9557	1.871
#3	-.0003	1.922	2.015	1.990	.9593	.9646	1.926

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.986	.9934	.0103	.9911	.4927	1.948	.0022
SDev	.007	.0128	.0088	.0053	.0068	.019	.0008
%RSD	.3551	1.291	86.00	.5387	1.377	.9541	38.65
#1	1.981	.9804	.0179	.9859	.4860	1.931	.0031
#2	1.982	.9938	.0123	.9909	.4996	1.944	.0022
#3	1.994	1.006	.0006	.9966	.4927	1.968	[illegible]

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	1.924	4.698	.0039	1.931	2.017	1.002
SDev	.0002	.010	.048	.0021	.021	.004	.006
%RSD	40.49	.5446	1.014	53.24	1.070	.2034	.5987
#1	.0006	1.915	4.751	.0058	1.917	2.022	.9969
#2	.0004	1.921	4.660	.0042	1.921	2.014	1.001
#3	.0003	1.935	4.683	.0017	1.955	2.016	1.009

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.922	8.197	.0104	2.008	4.796	1.967	.0377
SDev	.011	.052	.0078	.013	.072	.015	.0116
%RSD	.5767	.6286	75.17	.6285	1.494	.7628	30.85
#1	1.910	8.162	.0180	2.011	4.715	1.951	.0499
#2	1.926	8.173	.0109	1.995	4.823	1.971	.0364
#3	1.931	8.256	.0024	2.020	4.851	1.980	.0267

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0148	.0051	.0161	1.921	4.641	.0357	1.932
SDev	.0046	.0044	.0032	.014	.031	.0279	.016
%RSD	30.72	87.52	20.01	.7364	.6577	78.09	.8313
#1	.0186	.0091	.0149	1.921	4.611	.0524	1.919
#2	.0161	.0057	.0198	1.906	4.640	.0513	1.928
#3	.0098	.0003	.0137	1.934	4.672	.0035	1.950

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0081	.0069	.0002	1.917	.1260	.9339	.0153
SDev	.0058	.0039	.0003	.018	.0566	.0068	.0001

%RSD	72.21	56.72	127.9	.9517	44.95	.7304	.6417
#1	.0127	.0076	.0004	1.901	.1543	.9283	.0153
#2	.0100	.0104	.0003	1.913	.1628	.9319	.0153
#3	.0015	.0027	-.0001	1.907	.0608	.9415	.0154

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0003	1.003	-.0004
SDev	.0002	.003	.0005
%RSD	60.40	.2525	137.8
#1	.0004	1.003	.0002
#2	.0004	1.001	-.0005
#3	.0001	1.007	-.0008

Analysis Report Thu 02-22-96 01:16:53 PM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 02/22/96 13:15:34
Comment: BROWN (SAMPLE COMPOSITE) #1 @5X DIL (WASTE)K.POEPPEL
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	-.0018	.0064	-.0229	.0016	.0009	-.0179
SDev	.0004	.0024	.0104	.0009	.0001	.0001	.0048
%RSD	157.0	137.7	161.8	3.933	5.108	14.73	[illegible]
#1	.0003	-.0034	.0181	-.0230	.0016	.0010	-.0125
#2	.0007	-.0029	.0032	-.0238	.0015	.0008	-.0197
#3	-.0002	.0010	-.0020	-.0220	.0015	.0008	-.0215

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	.0028	.0128	-.0004	.0004	.0132	.0023
SDev	.0009	.0013	.0043	.0005	.0021	.0007	.0002
%RSD	175.5	46.19	33.75	128.8	477.5	5.176	9.549
#1	.0004	.0028	.0177	.0002	-.0018	.0128	.0022
#2	-.0005	.0041	.0095	-.0007	.0024	.0140	.0022
#3	-.0014	.0015	.0111	-.0006	.0007	.0127	.0026

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	-.0101	.1678	.0040	.0026	-.0242	.0007
SDev	.0000	.0006	.0576	.0009	.0008	.0017	.0003
%RSD	1.144	5.669	34.32	23.23	32.48	7.227	40.80
#1	.0005	-.0103	[illegible]	[illegible]	.0021	-.0222	.0010
#2	.0004	-.0094	.1754	.0035	.0021	-.0255	.0005
#3	.0004	-.0104	.1069	.0034	.0035	-.0249	.0005

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0705	.0109	.0335	-.0132	-.0002	.0289
SDev	.0010	.0241	.0016	.0033	.0213	.0072	.0071
%RSD	125.3	34.19	14.78	9.921	160.6	3703.	24.53
#1	-.0000	.0981	.0092	.0361	.0110	-.0081	.0348
#2	.0005	.0539	.0124	.0297	-.0285	.0059	.0210
#3	.0020	.0594	.0112	.0347	-.0223	.0017	.0310

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0180	.0008	-.0048	-.0024	-.0374	-.0282	.0019
SDev	.0017	.0037	.0120	.0200	.0013	.0173	.0002
%RSD	9.691	450.9	249.2	826.0	3.523	61.24	9.675
#1	[illegible]	.0050	.0090	-.0123	-.0389	-.0481	[illegible]
#2	.0189	-.0015	-.0123	-.0156	-.0362	-.0165	.0019
#3	.0192	-.0011	-.0111	.0206	-.0372	-.0202	.0018

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0038	-.0011	.0002	-.0064	.1781	.0006	.0093
SDev	.0044	.0043	.0001	.0031	.0456	.0005	.0018

%RSD	115.2	408.7	69.79	47.41	25.60	81.93	18.99
#1	-.0056	.0017	.0001	-.0029	.1745	.0003	.0075
#2	-.0071	.0011	.0003	-.0082	.1343	.0011	.0111
#3	.0012	-.0060	.0001	-.0082	.1283	.0005	.0093

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0003	.0048	-.0000
SDev	.0004	.0001	.0003
%RSD	110.0	2.576	991.6
#1	.0003	.0047	-.0003
#2	.0007	.0049	-.0000
#3	-.0000	.0048	.0002

DATE TO QC: 03/15/96

DATA QUALITY REVIEW

I have reviewed the following data for completeness and for compliance with project requirements.

Analyte - ICP - Fusion

Data Package/Report - BX-112 & BX-104

Project No. - 22762

ACL Numbers - 96-2606, 96-2608, 96-2612, 96-2614, 96-2616
96-2979, 96-2982, 96-2984, 96-2985

PNL ACL Quality Representative

3/28/96
Date

Project: TWRS
Procedure: PNL-ALO-211

File: m022096d
Analyzed: 02/20/96

BX-104 Core 126/127

		126 1/2 Seg 1A			126 1/2 Seg 2B				
	Sam Log#:	96-02979	96-02979		96-02982	96-02982		96-02979	
	Split#:	126.1A.F	126.1A.F		126.2B.F	126.2B.F		Blank	
	ICP Dil:	1.00	1.00		1.00	1.00		1.00	
	Dil Fctr:	3651.9	2711.0		2123.1	2982.6		2760.6	
Est. IDL ug/mL	Analyte	Sample ug/g	Duplicate ug/g	RPD	Sample ug/g	Duplicate ug/g	RPD	Batch Blk ug/g	Post Spike Recoveries Spk "A"	Spk "B"
0.015	Ag	ND	(44)		ND	ND		ND	99.8%	
0.060	Al	162,552	171,523	5	150,340	148,074	2	(321)	105.1%	
0.275	As	ND	ND		ND	ND		ND	112.8%	
0.050	B	ND	ND		ND	ND		ND	97.3%	
0.010	Ba	ND	(29)		ND	ND		ND	100.0%	
0.005	Be	ND	ND		ND	ND		ND	97.4%	
0.100	Bi	(843)	(907)		(492)	(465)		ND	96.6%	
0.250	Ca	(3,450)	(2,214)		(1,729)	(1,786)		(1,423)	99.8%	
0.075	Cd	ND	ND		ND	ND		ND	128.0%	
0.125	Ce	ND	ND		ND	ND		ND		99.4%
0.050	Co	ND	ND		ND	ND		ND	104.2%	
0.020	Cr	3,699	4,015	8	1,368	1,430	4	ND	102.0%	
0.050	Cu	ND	ND		ND	ND		ND	97.3%	
0.050	Dy	ND	ND		ND	ND		ND		96.2%
0.100	Eu	ND	ND		ND	ND		ND		95.4%
0.050	Fe	3,689	4,048	9	1,249	2,003	46 *	(149)	101.8%	
2.000	K	n/a	n/a		n/a	n/a		n/a		
0.050	La	ND	ND		ND	ND		ND		97.8%
0.030	Li	ND	ND		ND	ND		ND	96.2%	
0.100	Mg	ND	ND		ND	ND		ND	102.8%	
0.050	Mn	(772)	(763)		(112)	(223)		ND	102.5%	
0.030	Mo	ND	ND		(66)	ND		ND	104.0%	
0.250	Na	50,864	53,958	6	57,607	60,272	5	(1,680)	100.1%	
0.100	Nd	ND	ND		ND	ND		ND		98.3%
0.030	Ni	n/a	n/a		n/a	n/a		n/a		
0.250	P	(2,456)	(2,706)		(1,666)	(1,725)		ND	99.1%	
0.350	Pb	ND	ND		ND	ND		ND	111.3%	
0.300	Pd	ND	ND		ND	ND		ND		108.3%
0.300	Rh	ND	ND		ND	ND		ND		102.0%
0.100	Ru	ND	ND		ND	ND		ND		105.2%
0.250	Sb	ND	ND		ND	ND		ND	136.7%	
0.500	Se	ND	ND		ND	ND		ND	114.2%	
0.500	Si	ND	(1,840)		(2,842)	(2,362)		ND	98.0%	
1.000	Sn	ND	ND		ND	ND		ND		122.2%
0.015	Sr	ND	(44)		(88)	(85)		ND	103.7%	
0.500	Te	ND	ND		ND	ND		ND		109.4%
0.800	Th	ND	ND		ND	ND		ND		43.9%
0.025	Ti	ND	ND		ND	ND		ND	100.9%	
0.500	Tl	ND	ND		ND	ND		ND	105.2%	
2.000	U	(19,190)	(19,249)		100,671	98,619	2	ND		93.5%
0.015	V	ND	ND		(46)	(53)		ND	100.5%	
0.500	W	ND	ND		ND	ND		ND		99.6%
0.010	Y	ND	ND		ND	ND		ND		91.3%
0.020	Zn	(320)	(179)		(110)	(313)		(190)	102.5%	
0.025	Zr	(484)	(367)		ND	ND		ND	100.5%	

Note: 1) Method Detecion Limit (MDL) = 10x IDL; "( )" results <MDL but =>IDL.
2) Above 5 times MDL, results reportable to 2 1/2 significant digits.
3) Blank is reported in ug/g "equivalence" to indicate blank effect on sample results.
4) The process "blank" has not been subtracted from the "Sample & Duplicate" results.
5) Above 5 times the MDL, precision is estimated at +/-10% and accuracy at +/-15%.
6) "ND" = Not Detected; Estimated Sample Detection Limit (ug/g) = (IDL in ug/mL) * (Dil Fctr).
7) If RPD flagged with "*", then RPD >20% and sample & duplicate results >MDL.

Data, including calibration/QC, archived File ICP-325-405-1/96A0075

Analyzed Date: 02/20/96
Project: TWRS
Procedure: PNL-ALO-211
ICP Data Name: 96A0075
Tank ID: BX-104 Core 126

File: m022096d
Reported: 03/14/96
Data Page 1 of 2

		Segment ID:	126 1/2 Seg 1A		126 1/2 Seg 2B						
		Sample Log#	Sample 96-02979 126.1A.F	Duplicate 96-02979 126.1A.F	Sample 96-02982 126.2B.F	Duplicate 96-02982 126.2B.F	96-02979 Blank	96-02979 P.S. "A"	96-02979 P.S. "B"	Sample 96-02979 PS A Base	Duplicate 96-02979 PS B Base
		Prep Type	Fusion	Fusion	Fusion	Fusion	Fusion	Fusion	Fusion	Fusion	Fusion
		Sample Wt-g	0.1622	0.2185	0.2790	0.1986	0.2146	0.1622	0.2185	0.1622	0.2185
		Makeup Vol-mL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
		Dil: Smpl-mL	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
		Dil: Vol-mL	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94	5.94
		Prep Factor	3651.9	2711.0	2123.1	2982.6	2760.6	3651.9	2711.0	3651.9	2711.0
		Spike ID						960130I901	960123I901		
		Spike PreDil'n						2.0	2.0	2.0	2.0
		ICP Dilution	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
		Dil Fctr	3651.9	2711.0	2123.1	2982.6	2760.6	3651.9	2711.0	3651.9	2711.0
		Run Time	12:07	12:18	12:36	12:40	11:59	12:10	12:21	12:07	12:18
(ug/g)	Ag		49.4	44.4	11.8	19.3	24.2	911.3	32.5	49.4	44.4
	Al		162552.4	171523.2	150339.6	148074.4	321.1	100474.6	86137.7	162552.4	171523.2
	As		507.1	460.4	451.7	468.3	126.3	5148.1	690.4	507.1	460.4
	B		-121.5	-92.6	81.8	95.1	-68.7	3551.9	-109.7	-121.5	-92.6
	Ba		30.9	29.1	17.3	19.0	8.1	913.4	17.0	30.9	29.1
	Be		1.6	1.5	0.9	1.3	0.7	177.9	2.1	1.6	1.5
	Bi		842.8	906.7	491.6	465.1	91.7	44536.1	617.0	842.8	906.7
	Ca		3450.1	2214.1	1728.5	1786.3	1423.5	47302.0	1125.0	3450.1	2214.1
	Cd		168.7	125.2	53.2	69.5	176.3	1168.2	55.8	168.7	125.2
	Ce		240.4	205.0	171.2	257.0	189.3	207.7	2693.9	240.4	205.0
	Co		54.6	48.9	31.5	46.6	35.8	1903.1	33.9	54.6	48.9
	Cr		3699.1	4015.5	1368.0	1430.1	10.4	3712.8	2032.4	3699.1	4015.5
	Cu		82.6	77.7	29.7	43.7	37.1	1776.7	74.3	82.6	77.7
	Dy		34.0	29.2	23.3	33.0	29.1	29.5	2607.1	34.0	29.2
	Eu		18.5	16.5	42.8	45.1	10.1	17.2	2585.0	18.5	16.5
	Fe		3689.4	4047.7	1248.6	2003.1	148.8	39035.0	2047.9	3689.4	4047.7
	K		4244798.7	3158127.1	2666021.2	3545860.6	3129022.7	2207560.7	1598715.5	4244798.7	3158127.1
	La		120.4	73.8	55.2	69.7	54.5	91.3	1326.3	120.4	73.8
	Li		26.7	24.8	42.0	47.5	19.2	3513.3	22.5	26.7	24.8
	Mg		233.4	221.6	-85.0	-46.9	116.5	60085.9	67.2	233.4	221.6
	Mn		772.3	762.6	111.8	222.8	89.3	1321.5	382.6	772.3	762.6
	Mo		51.5	49.1	66.4	73.5	22.4	1899.3	43.1	51.5	49.1
	Na		50864.2	53958.4	57607.4	60271.5	1680.3	92540.7	27558.5	50864.2	53958.4
	Nd		221.3	175.9	164.3	219.1	177.3	203.3	2665.8	221.3	175.9
	Ni		7234.1	12748.1	3121.8	2675.9	507.3	5494.3	6560.3	7234.1	12748.1
	P		2456.2	2706.5	1665.8	1725.5	217.8	10274.2	1537.1	2456.2	2706.5
	Pb		714.0	677.0	619.1	670.8	153.2	5081.6	729.0	714.0	677.0
	Pd		613.6	491.9	87.9	240.5	526.9	507.2	2935.7	613.6	491.9
	Rh		259.5	227.3	163.0	241.7	238.6	225.1	2765.5	259.5	227.3
	Ru		135.5	116.1	113.0	144.2	102.4	144.2	2850.7	135.5	116.1
	Sb		423.3	399.0	461.0	513.7	155.9	6242.5	440.6	423.3	399.0
	Se		828.8	851.9	857.2	927.6	183.2	5214.8	589.0	828.8	851.9
	Si		1704.3	1839.9	2842.5	2362.1	274.4	35788.2	22037.4	1704.3	1839.9
	Sn		896.3	790.9	841.9	1128.5	683.8	919.4	3313.4	896.3	790.9
	Sr		47.2	44.0	87.9	85.4	6.4	947.0	25.6	47.2	44.0
	Te		436.4	423.2	391.3	462.3	173.9	382.7	2964.5	436.4	423.2
	Th		80.5	89.0	420.7	410.8	-2.1	111.2	4045.2	80.5	89.0
	Ti		56.2	55.1	25.5	25.1	16.4	1841.7	37.6	56.2	55.1
	Tl		205.1	236.3	168.1	192.6	121.9	4804.3	189.8	205.1	236.3
	U		19189.7	19248.8	100670.8	98619.1	2772.4	11255.7	41300.1	19189.7	19248.8
	V		34.7	32.2	46.2	52.9	21.5	1835.3	24.8	34.7	32.2
	W		183.9	161.7	197.7	218.2	78.6	197.1	2699.4	183.9	161.7
	Y		16.1	15.5	12.3	14.9	10.5	15.3	1237.1	16.1	15.5
	Zn		320.3	179.0	110.4	312.7	189.5	2031.4	96.4	320.3	179.0
(ug/g)	Zr		484.3	367.4	-9.8	-5.8	19.3	3911.1	156.0	484.3	367.4

Template: TC-KOH-3 ICP RAW DATA -- IEC Corrected m022096d

Analyzed: 02/20/96
Project: TWRS
Procedure: PNL-ALO-211
MT&E: JA ICP WB73520

BX-104 Core 126/127

Raw Data
Data Page 2 of 2

Analyst: Danny Sanders 3/14/96 Reviewer: M O Thue 3-14-96

Sample ID:		96-02979	96-02979	96-02982	96-02982	96-02979	96-02979	96-02979	PS Bases		Post Spikes	
Split ID:		126.1A.F	126.1A.F	126.2B.F	126.2B.F	Blank	P.S. "A"	P.S. "B"	"A"	"B"	"A"	"B"
Run Time:		12:07	12:18	12:36	12:40	11:59	12:10	12:21	12:07	12:18	ug/mL	ug/mL
(ug/mL)	Ag	0.014	0.016	0.006	0.006	0.009	0.250	0.012	0.014	0.016	0.500	
	Al	44.511	63.270	70.811	49.646	0.116	27.513	31.774	44.511	63.270	10.000	
	As	0.139	0.170	0.213	0.157	0.046	1.410	0.255	0.139	0.170	2.500	
	B	-0.033	-0.034	0.039	0.032	-0.025	0.973	-0.040	-0.033	-0.034	2.000	
	Ba	0.008	0.011	0.008	0.006	0.003	0.250	0.006	0.008	0.011	0.500	
	Be	0.000	0.001	0.000	0.000	0.000	0.049	0.001	0.000	0.001	0.100	
	Bi	0.231	0.334	0.232	0.156	0.033	12.195	0.228	0.231	0.334	25.000	
	Ca	0.945	0.817	0.814	0.599	0.516	12.953	0.415	0.945	0.817	25.000	
	Cd	0.046	0.046	0.025	0.023	0.064	0.320	0.021	0.046	0.046	0.500	
	Ce	0.066	0.076	0.081	0.086	0.069	0.057	0.994	0.066	0.076		2.000
	Co	0.015	0.018	0.015	0.016	0.013	0.521	0.013	0.015	0.018	1.000	
	Cr	1.013	1.481	0.644	0.479	0.004	1.017	0.750	1.013	1.481	1.000	
	Cu	0.023	0.029	0.014	0.015	0.013	0.487	0.027	0.023	0.029	1.000	
	Dy	0.009	0.011	0.011	0.011	0.011	0.008	0.962	0.009	0.011		2.000
	Eu	0.005	0.006	0.020	0.015	0.004	0.005	0.954	0.005	0.006		2.000
	Fe	1.010	1.493	0.588	0.672	0.054	10.689	0.755	1.010	1.493	20.000	
	K	1162.340	1164.947	1255.720	1188.847	1133.478	604.489	589.723	1162.3	1164.9		
	La	0.033	0.027	0.026	0.023	0.020	0.025	0.489	0.033	0.027		1.000
	Li	0.007	0.009	0.020	0.016	0.007	0.962	0.008	0.007	0.009	2.000	
	Mg	0.064	0.082	-0.040	-0.016	0.042	16.453	0.025	0.064	0.082	32.000	
	Mn	0.211	0.281	0.053	0.075	0.032	0.362	0.141	0.211	0.281	0.500	
	Mo	0.014	0.018	0.031	0.025	0.008	0.520	0.016	0.014	0.018	1.000	
	Na	13.928	19.904	27.134	20.208	0.609	25.340	10.166	13.928	19.904	36.700	
	Nd	0.061	0.065	0.077	0.073	0.064	0.056	0.983	0.061	0.065		2.000
	Ni	1.981	4.702	1.470	0.897	0.184	1.504	2.420	1.981	4.702		
	P	0.673	0.998	0.785	0.579	0.079	2.813	0.567	0.673	0.998	5.000	
	Pb	0.196	0.250	0.292	0.225	0.055	1.391	0.269	0.196	0.250	2.500	
	Pd	0.168	0.181	0.041	0.081	0.191	0.139	1.083	0.168	0.181		2.000
	Rh	0.071	0.084	0.077	0.081	0.086	0.062	1.020	0.071	0.084		2.000
	Ru	0.037	0.043	0.053	0.048	0.037	0.039	1.052	0.037	0.043		2.000
	Sb	0.116	0.147	0.217	0.172	0.056	1.709	0.163	0.116	0.147	2.500	
	Se	0.227	0.314	0.404	0.311	0.066	1.428	0.217	0.227	0.314	2.500	
	Si	0.467	0.679	1.339	0.792	0.099	9.800	8.129	0.467	0.679	20.000	
	Sn	0.245	0.292	0.397	0.378	0.248	0.252	1.222	0.245	0.292		2.000
	Sr	0.013	0.016	0.041	0.029	0.002	0.259	0.009	0.013	0.016	0.500	
	Te	0.120	0.156	0.184	0.155	0.063	0.105	1.094	0.120	0.156		2.000
	Th	0.022	0.033	0.198	0.138	-0.001	0.030	1.492	0.022	0.033		6.800
	Ti	0.015	0.020	0.012	0.008	0.006	0.504	0.014	0.015	0.020	1.000	
	Tl	0.056	0.087	0.079	0.065	0.044	1.316	0.070	0.056	0.087	2.500	
	U	5.255	7.100	47.417	33.065	1.004	3.082	15.234	5.255	7.100		25.000
	V	0.009	0.012	0.022	0.018	0.008	0.503	0.009	0.009	0.012	1.000	
	W	0.050	0.060	0.093	0.073	0.028	0.054	0.996	0.050	0.060		2.000
	Y	0.004	0.006	0.006	0.005	0.004	0.004	0.456	0.004	0.006		1.000
	Zn	0.088	0.066	0.052	0.105	0.069	0.556	0.036	0.088	0.066	1.000	
(ug/mL)	Zr	0.133	0.136	-0.005	-0.002	0.007	1.071	0.058	0.133	0.136	2.000	

Sample ID: BX104 126.2B

"HOMOGENIZATION TEST" Worksheet

By: MWT

Date: 3/29/96

"t" test to determine the significance between two sample means (Tm and Bm)
where Tm is the mean of the duplicates for the top samples
and Bm is the mean of the duplicates of the bottoms samples.

Where t = (Dave) / Sqrt [(Sum(Di-Dave)^2) / (n*(n-1))]
For two pair, n=2 with degrees of freedom being 1, the following apply
Dave = Tm-Bm = ((T1+T2)/2) - (B1+B2)/2)
Di >> D1 = T1 - B1 D2 = T2 - B2

%D = ((Max - Min)/Avg

Test Failure If: Probability >90% "t" >6.314

Target 80% of RPD to be <10% Pass? No

		ug/g								<Relative % Difference>						Info Only <RSD>
El	%D	T1 Top Sample	T2 Top Dupl.	B1 Bottom Sample	B2 Bottom Dupl.	T1T2 Average	B1B2 Average	"t"		T1T2	B1B2	T1B1	T1B2	T2B1	T2B2	All
137	18%	74	78	65	76	76	70	1.55	70%	6	16	13	3	19	2	8
Al	10%	15000	14800	14800	16300	14900	15550	0.76	50%	1	10	1	8	0	10	5
Cr	13%	1370	1430	1250	1380	1400	1315	2.43	80%	4	10	9	1	13	4	6
Fe	97%	1250	2000	3370	2150	1625	2760	1.15	60%	46	44	92	53	51	7	40
Na	12%	57600	60300	53600	59900	58950	56750	1.22	60%	5	11	7	4	12	1	5
U	7%	101000	98600	98300	105000	99800	101650	0.41	50%	2	7	3	4	0	6	3
Sum	9%	75294	78608	73085	79806	76951	76445			4	9	3	6	7	2	4

Project: TWRS
Procedure: PNL-ALO-211

File: m022096e
Analyzed: 02/20/96

BX-104 Core 126/127
Samples batched with 126.1A.F and 126.2B.F

Est. IDL ug/mL	Analyte	127 1/2 Seg 1B Sample ug/g	127 1/2 Seg 1B Duplicate ug/g	RPD	127 1/2 Seg 2A Sample ug/g	127 1/2 Seg 2A Duplicate ug/g	RPD
	Sam Log#:	96-02984	96-02984		96-02985	96-02985	
	Split#:	127.1B.F	127.1B.F		127.2A.F	127.2A.F	
	ICP Dil:	1.00	1.00		1.00	1.00	
	Dil Fctr:	2632.6	2737.3		3051.8	2632.6	
0.015	Ag	(62)	(61)		(58)	(47)	
0.060	Al	60,693	59,972	1	172,829	189,103	9
0.275	As	ND	ND		ND	ND	
0.050	B	ND	ND		ND	ND	
0.010	Ba	(51)	(51)		(37)	(36)	
0.005	Be	ND	ND		ND	ND	
0.100	Bi	(617)	(654)		(319)	(350)	
0.250	Ca	(2,027)	(2,067)		(4,495)	(1,621)	
0.075	Cd	(211)	(288)		ND	ND	
0.125	Ce	(354)	(365)		ND	ND	
0.050	Co	ND	ND		ND	ND	
0.020	Cr	6,371	6,362	0	2,085	2,279	9
0.050	Cu	ND	ND		ND	ND	
0.050	Dy	ND	ND		ND	ND	
0.100	Eu	ND	ND		ND	ND	
0.050	Fe	4,148	4,486	8	4,251	4,031	5
2.000	K	n/a	n/a		n/a	n/a	
0.050	La	ND	ND		ND	ND	
0.030	Li	ND	ND		(329)	(360)	
0.100	Mg	ND	ND		ND	ND	
0.050	Mn	(1,033)	(1,076)		(803)	(799)	
0.030	Mo	ND	ND		ND	ND	
0.250	Na	92,952	93,335	0	33,431	36,603	9
0.100	Nd	(269)	ND		ND	ND	
0.030	Ni	n/a	n/a		n/a	n/a	
0.250	P	(4,818)	(4,745)		(1,613)	(1,584)	
0.350	Pb	ND	ND		ND	ND	
0.300	Pd	ND	ND		ND	ND	
0.300	Rh	ND	ND		ND	ND	
0.100	Ru	ND	ND		ND	ND	
0.250	Sb	ND	ND		ND	ND	
0.500	Se	ND	ND		ND	ND	
0.500	Si	(1,578)	(1,457)		(1,745)	(1,588)	
1.000	Sn	ND	ND		ND	ND	
0.015	Sr	(58)	(58)		(52)	(49)	
0.500	Te	ND	ND		ND	ND	
0.800	Th	ND	ND		ND	ND	
0.025	Ti	ND	ND		ND	ND	
0.500	Tl	ND	ND		ND	ND	
2.000	U	60,480	61,157	1	(32,637)	(33,786)	
0.015	V	(55)	(56)		ND	ND	
0.500	W	ND	ND		ND	ND	
0.010	Y	(39)	(39)		ND	ND	
0.020	Zn	(302)	(149)		(214)	(127)	
0.025	Zr	842	695	19 *	(202)	(194)	

Note:
1) Method Detecion Limit (MDL) = 10x IDL; "( )" results <MDL but =>IDL.
2) Above 5 times MDL, results reportable to 2 1/2 significant digits.
3) Blank is reported in ug/g "equivalence" to indicate blank effect on sample results.
4) The process "blank" has not been subtracted from the "Sample & Duplicate" results.
5) Above 5 times the MDL, precision is estimated at +/-10% and accuracy at +/-15%.
6) "ND" = Not Detected; Estimated Sample Detection Limit (ug/g) = (IDL in ug/mL) * (Dil Fctr).
7) If RPD flagged with "*", then RPD >20% and sample & duplicate results >MDL.

Data, including calibration/QC, archived File ICP-325-405-1/96A0075

Analyzed Date: 02/20/96
Project: TWRS
Procedure: PNL-ALO-211
ICP Data Name: 96A0075
Tank ID: BX-104 Core 126/127

File: m022096e
Reported: 03/14/96

Segment ID:		127 1/2 Seg 1B		127 1/2 Seg 2A	
Sample Log#		Sample 96-02984 127.1B.F	Duplicate 96-02984 127.1B.F	Sample 96-02985 127.2A.F	Duplicate 96-02985 127.2A.F
Prep Type		Fusion	Fusion	Fusion	Fusion
Sample Wt-g		0.2250	0.2164	0.1941	0.2250
Makeup Vol-mL		100.0	100.0	100.0	100.0
Dil: Smpl-mL		1.00	1.00	1.00	1.00
Dil: Vol-mL		5.94	5.94	5.94	5.94
Prep Factor		2632.6	2737.3	3051.8	2632.6
Spike ID					
Spike PreDil'n					
ICP Dilution		1.00	1.00	1.00	1.00
Dil Fctr		2632.6	2737.3	3051.8	2632.6
Run Time		12:44	12:47	12:51	12:54
(ug/g)	Ag	62.5	61.3	58.4	47.2
	Al	60692.7	59971.9	172829.0	189102.9
	As	312.8	323.2	461.2	523.8
	B	32.0	9.3	-3.7	-12.7
	Ba	50.6	50.7	36.8	35.7
	Be	1.8	2.0	1.3	1.2
	Bi	616.9	653.6	318.9	349.5
	Ca	2026.7	2066.8	4494.8	1621.5
	Cd	211.2	287.9	150.9	65.2
	Ce	353.6	365.1	253.7	185.8
	Co	36.0	44.3	48.6	35.9
	Cr	6370.6	6361.9	2085.1	2278.8
	Cu	43.9	45.8	60.9	55.2
	Dy	31.8	33.0	34.0	24.6
	Eu	34.0	34.2	22.9	20.6
	Fe	4148.5	4486.5	4251.4	4031.3
	K	3437552.9	3494881.2	3266201.2	3155043.5
	La	99.7	104.1	75.9	59.7
	Li	32.3	29.5	329.4	360.3
	Mg	166.0	162.0	164.3	143.8
	Mn	1032.8	1076.0	802.9	798.8
	Mo	50.3	52.3	50.5	53.6
	Na	92951.8	93335.5	33430.8	36603.3
	Nd	269.5	269.2	228.1	169.9
	Ni	9892.8	16875.6	10441.6	2162.1
	P	4818.3	4744.7	1613.3	1583.7
	Pb	751.7	775.6	824.4	793.1
	Pd	419.1	464.2	561.8	355.0
	Rh	252.8	253.1	263.3	184.5
	Ru	145.2	155.9	142.6	117.6
	Sb	360.5	354.9	442.0	450.7
	Se	563.5	524.8	894.3	914.2
	Si	1578.4	1457.0	1744.5	1587.8
	Sn	1018.6	1031.6	986.7	725.1
	Sr	57.8	58.0	52.2	48.7
	Te	308.2	308.7	445.6	459.1
	Th	670.5	702.3	143.1	173.8
	Ti	33.8	32.2	45.3	36.1
	Tl	195.2	176.9	254.7	201.7
	U	60479.7	61157.0	32637.1	33785.9
	V	55.2	56.4	39.4	33.3
	W	368.4	467.6	179.4	202.4
	Y	39.2	38.9	17.0	14.3
	Zn	302.4	148.7	214.1	126.6
(ug/g)	Zr	841.7	695.4	202.1	194.1

Template: TC-KOH-3 ICP RAW DATA -- IEC Corrected m022096e

Raw Data
Data Page 2 of 2

Analyzed: 02/20/96 BX-104 Core 126/127
Project: TWRS
Procedure: PNL-ALO-211
MT&E: JA ICP WB73520

Analyst: Danny Sanders 3/14/96 Reviewer: MOTh 3/14/96

	Sample ID:	96-02984	96-02984	96-02985	96-02985
	Split ID:	127.1B.F	127.1B.F	127.2A.F	127.2A.F
	Run Time:	12:44	12:47	12:51	12:54
(ug/mL)	Ag	0.0237	0.0224	0.0191	0.0179
	Al	23.0539	21.9094	56.6327	71.8300
	As	0.1188	0.1181	0.1511	0.1990
	B	0.0122	0.0034	-0.0012	-0.0048
	Ba	0.0192	0.0185	0.0121	0.0136
	Be	0.0007	0.0007	0.0004	0.0004
	Bi	0.2343	0.2388	0.1045	0.1328
	Ca	0.7698	0.7551	1.4728	0.6159
	Cd	0.0802	0.1052	0.0494	0.0248
	Ce	0.1343	0.1334	0.0831	0.0706
	Co	0.0137	0.0162	0.0159	0.0136
	Cr	2.4198	2.3242	0.6833	0.8656
	Cu	0.0167	0.0168	0.0200	0.0210
	Dy	0.0121	0.0121	0.0111	0.0093
	Eu	0.0129	0.0125	0.0075	0.0078
	Fe	1.5758	1.6390	1.3931	1.5313
	K	1305.7408	1276.7761	1070.2705	1198.4308
	La	0.0379	0.0380	0.0249	0.0227
	Li	0.0123	0.0108	0.1079	0.1368
	Mg	0.0631	0.0592	0.0539	0.0546
	Mn	0.3923	0.3931	0.2631	0.3034
	Mo	0.0191	0.0191	0.0165	0.0204
	Na	35.3074	34.0980	10.9546	13.9036
	Nd	0.1024	0.0984	0.0748	0.0645
	Ni	3.7577	6.1651	3.4215	0.8213
	P	1.8302	1.7334	0.5286	0.6016
	Pb	0.2855	0.2833	0.2701	0.3012
	Pd	0.1592	0.1696	0.1841	0.1348
	Rh	0.0960	0.0925	0.0863	0.0701
	Ru	0.0552	0.0569	0.0467	0.0447
	Sb	0.1369	0.1297	0.1449	0.1712
	Se	0.2140	0.1917	0.2931	0.3473
	Si	0.5996	0.5323	0.5716	0.6031
	Sn	0.3869	0.3769	0.3233	0.2754
	Sr	0.0220	0.0212	0.0171	0.0185
	Te	0.1171	0.1128	0.1460	0.1744
	Th	0.2547	0.2566	0.0469	0.0660
	Ti	0.0129	0.0118	0.0148	0.0137
	Tl	0.0742	0.0646	0.0835	0.0766
	U	22.9730	22.3423	10.6945	12.8334
	V	0.0210	0.0206	0.0129	0.0127
	W	0.1399	0.1708	0.0588	0.0769
	Y	0.0149	0.0142	0.0056	0.0054
	Zn	0.1149	0.0543	0.0702	0.0481
(ug/mL)	Zr	0.3197	0.2540	0.0662	0.0737

Project: TWRS
Procedure: PNL-ALO-211

File: m022096a
Analyzed: 02/20/96

BX-112 Core 118

		1/2 Segment 1AB			1/2 Segment 2B				
Sam Log#:		96-02606	96-02606		96-02608	96-02608		96-02606	
Split#:		118.1AB.F	118.1AB.F		118.2B.F	118.2B.F		Blank	
ICP Dil:		1.00	1.00		1.00	1.00		1.00	
Dil Fctr:		3571.4	2744.2		3028.5	2721.8		2980.6	
Est. IDL		Sample	Duplicate		Sample	Duplicate		Batch Blk	Post Spike Recoveries: Spk
ug/mL	Analyte	ug/g	ug/g	RPD	ug/g	ug/g	RPD	ug/g	Spk "A"
0.015	Ag	ND	ND		ND	ND		ND	102.7%
0.060	Al	16,087	15,952	1	10,814	10,955	1	(813)	103.7%
0.100	As	ND	ND		ND	ND		ND	113.8%
0.050	B	ND	(544)		ND	ND		ND	104.2%
0.010	Ba	ND	ND		ND	ND		ND	103.7%
0.005	Be	ND	ND		ND	ND		ND	102.1%
0.100	Bi	14,509	14,368	1	15,599	15,461	1	ND	100.7%
0.250	Ca	(1,852)	(1,534)		(1,639)	(1,467)		(1,365)	103.4%
0.030	Cd	ND	ND		ND	ND		ND	103.9%
0.125	Ce	ND	ND		ND	ND		ND	
0.050	Co	ND	ND		ND	ND		ND	107.3%
0.020	Cr	868	870	0	1,287	1,268	2	ND	106.3%
0.050	Cu	ND	ND		ND	ND		ND	100.2%
0.050	Dy	ND	ND		ND	ND		ND	
0.100	Eu	ND	ND		ND	ND		ND	
0.050	Fe	9,315	9,233	1	7,508	7,459	1	(155)	106.0%
2.000	K	n/a	n/a		n/a	n/a		n/a	
0.050	La	ND	ND		ND	ND		ND	
0.030	Li	(292)	(284)		ND	ND		ND	100.2%
0.100	Mg	(446)	(370)		(416)	(404)		(341)	106.3%
0.050	Mn	(404)	(306)		(246)	(231)		(230)	106.4%
0.030	Mo	ND	ND		ND	ND		ND	108.7%
0.250	Na	83,988	82,081	2	80,930	80,424	1	(3,401)	106.3%
0.100	Nd	ND	ND		ND	ND		ND	
0.030	Ni	n/a	n/a		n/a	n/a		n/a	
0.250	P	21,274	20,108	6	17,506	17,498	0	ND	107.8%
0.125	Pb	ND	ND		ND	ND		ND	110.1%
0.300	Pd	ND	ND		ND	ND		ND	
0.300	Rh	ND	ND		ND	ND		ND	
0.100	Ru	ND	ND		ND	ND		ND	
0.100	Sb	ND	ND		ND	ND		ND	138.8%
0.125	Se	ND	ND		ND	ND		ND	112.7%
0.500	Si	(8,115)	23,355		(7,944)	(7,591)		(2,329)	98.8%
1.000	Sn	ND	ND		ND	ND		ND	
0.015	Sr	(122)	(114)		(124)	(122)		ND	104.5%
0.500	Te	ND	ND		ND	ND		ND	
0.800	Th	ND	ND		ND	ND		ND	
0.025	Ti	ND	ND		ND	ND		ND	104.5%
0.500	Tl	ND	ND		ND	ND		ND	106.7%
2.000	U	ND	ND		ND	ND		ND	
0.015	V	ND	ND		ND	ND		ND	104.4%
0.500	W	ND	ND		ND	ND		ND	
0.010	Y	ND	ND		ND	ND		ND	
0.020	Zn	ND	ND		ND	ND		ND	106.7%
0.025	Zr	ND	ND		ND	ND		ND	104.1%

Post Spike Recoveries: Spk "B"

	102.0%
	98.7%
	98.1%
	98.7%
	100.6%
	107.7%
	104.5%
	108.0%
	125.7%
	108.6%
	44.6%
	100.2%
	102.9%
	94.1%

Note:
1) Method Detecion Limit (MDL) = 10x IDL; "( )" results <MDL but =>IDL.
2) Above 5 times MDL, results reportable to 2 1/2 significant digits.
3) Blank is reported in ug/g "equivalence" to indicate blank effect on sample results.
4) The process "blank" has not been subtracted from the "Sample & Duplicate" results.
5) Above 5 times the MDL, precision is estimated at +/-10% and accuracy at +/-15%.
6) "ND" = Not Detected; Estimated Sample Detection Limit (ug/g) = (IDL in ug/mL) * (Dil Fctr).
7) If RPD flagged with "*", then RPD >20% and sample & duplicate results >MDL.

Data, including calibration/QC, archived File ICP-325-405-1/96A0075

Analyzed Date: 02/20/96
Project: TWRS
Procedure: PNL-ALO-211
ICP Data Name: 96A0075
Tank ID: BX-112 Core 118

File: m022096a
Reported: 03/14/96
Data Page 1 of 2

Segment ID: 1/2 Segment 1AB 1/2 Segment 2B

		Sample	Duplicate	Sample	Duplicate				
Sample Log#		96-02606 118.1AB.F	96-02606 118.1AB.F	96-02608 118.2B.F	96-02608 118.2B.F	96-02606 Blank	96-02606 P.S. "A"	96-02606 P.S. "B"	96-02606 PS Base
Prep Type		Fusion	Fusion	Fusion	Fusion	Fusion	Fusion	Fusion	Fusion
Sample Wt-g		0.1400	0.1822	0.1651	0.1837	0.1678	0.1400	0.1400	0.1400
Makeup Vol-mL		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Dil: Smpl-mL		1	1	1	1	1	1	1	1
Dil: Vol-mL		5	5	5	5	5	5	5	5
Prep Factor		3571.4	2744.2	3028.5	2721.8	2980.6	3571.4	3571.4	3571.4
Spike ID							960130I901	960123I901	
Spike PreDil'n							2.0	2.0	2.0
ICP Dilution		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Dil Fctr		3571.4	2744.2	3028.5	2721.8	2980.6	3571.4	3571.4	3571.4
Run Time		09:58	10:16	10:28	10:31	09:51	10:02	10:09	09:58
(ug/g)	Ag	33.3	21.9	23.2	21.8	27.1	917.3	43.9	33.3
	Al	16087.4	15952.0	10814.1	10954.8	813.2	26561.0	8103.5	16087.4
	As	211.3	161.9	149.5	143.1	179.8	5080.0	717.4	211.3
	B	8.1	544.3	84.5	38.9	51.3	3722.4	-75.9	8.1
	Ba	26.7	22.7	22.6	22.9	11.1	925.5	17.4	26.7
	Be	1.1	0.7	0.9	0.9	2.3	182.4	2.6	1.1
	Bi	14509.2	14368.5	15598.6	15460.8	101.3	52201.6	7761.8	14509.2
	Ca	1852.3	1533.9	1638.8	1466.5	1364.5	47072.2	1053.9	1852.3
	Cd	25.1	-26.2	-35.8	11.1	-15.5	927.3	-17.1	25.1
	Ce	279.4	218.2	230.4	216.8	156.5	194.2	3642.1	279.4
	Co	55.8	45.3	44.6	41.2	49.7	1916.9	42.2	55.8
	Cr	867.7	869.6	1287.3	1267.5	22.5	2331.9	448.7	867.7
	Cu	58.0	35.0	47.1	40.3	57.5	1789.3	86.6	58.0
	Dy	31.4	25.1	23.6	22.9	23.7	22.8	3524.9	31.4
	Eu	12.2	13.0	10.4	8.9	8.5	12.6	3505.1	12.2
	Fe	9314.9	9233.0	7508.5	7459.4	154.7	42505.8	4836.4	9314.9
	K	8503446.7	6585383.8	7274897.5	6552986.9	7244351.7	4509885.1	4390920.1	8503446.7
	La	60.3	45.0	49.2	43.4	48.9	56.0	1763.1	60.3
	Li	291.8	283.9	59.8	50.2	22.7	3724.1	160.7	291.8
	Mg	446.2	369.8	416.0	404.2	340.6	60990.3	238.3	446.2
	Mn	404.2	305.5	246.1	231.1	230.3	1151.8	208.4	404.2
	Mo	72.3	58.4	69.5	59.6	43.6	1940.3	59.1	72.3
	Na	83987.8	82080.8	80929.9	80424.4	3400.7	111687.3	43804.6	83987.8
	Nd	187.6	146.4	153.6	144.1	142.4	156.8	3592.4	187.6
	Ni	3102.5	2666.8	1881.6	1653.3	2870.0	3471.2	1875.2	3102.5
	P	21273.9	20107.7	17506.1	17497.7	233.4	20263.5	11002.0	21273.9
	Pb	287.6	217.6	204.4	202.4	159.3	4913.4	660.0	287.6
	Pd	595.2	425.3	479.0	436.9	470.8	413.0	3847.0	595.2
	Rh	272.7	186.6	214.2	196.7	197.3	197.5	3732.9	272.7
	Ru	140.1	107.7	118.7	109.0	98.2	114.2	3855.4	140.1
	Sb	246.5	141.3	195.9	172.6	170.3	6197.9	474.5	246.5
	Se	324.6	285.0	256.6	216.8	241.8	5030.2	387.0	324.6
	Si	8114.8	23354.9	7943.8	7591.0	2328.8	39339.5	41616.1	8114.8
	Sn	1009.1	776.6	775.8	799.0	677.5	979.9	4490.5	1009.1
	Sr	122.1	113.9	123.7	122.1	13.2	993.6	68.9	122.1
	Te	285.1	204.3	216.1	199.0	198.5	284.1	3877.5	285.1
	Th	11.5	13.9	26.6	23.7	3.7	76.1	5418.2	11.5
	Ti	40.4	51.1	32.0	29.9	23.4	1865.8	34.1	40.4
	Tl	202.1	150.5	152.6	153.8	157.9	4764.7	222.2	202.1
	U	3904.7	2816.0	3571.9	3408.0	2430.4	2940.7	44718.6	3904.7
	V	31.2	25.0	25.6	22.2	23.8	1863.7	28.6	31.2
	W	97.2	56.4	87.0	68.8	40.7	172.1	3674.6	97.2
	Y	12.4	10.7	8.8	8.8	8.2	11.5	1680.3	12.4
	Zn	38.5	31.6	31.6	29.2	16.7	1904.6	33.4	38.5
(ug/g)	Zr	46.4	43.3	44.7	41.6	17.9	3716.9	-8.4	46.4

Template: TC-KOH-2 ICP RAW DATA -- IEC Corrected m022096a

Analyzed: 02/20/96 BX-112 Core 118 Raw Data
Project: TWRS Data Page 2 of 2
Procedure: PNL-ALO-211
MT&E: JA ICP WB73520

Analyst: Danny Sanders 3/14/96 Reviewer: MDUlm 3-14-96

	Sample ID:	96-02606	96-02606	96-02608	96-02608	96-02606	96-02606	96-02606	96-02606	Post Spikes	
	Split ID:	118.1AB.F	118.1AB.F	118.2B.F	118.2B.F	Blank	P.S. "A"	P.S. "B"	PS Base	"A"	"B"
	Run Time:	09:58	10:16	10:28	10:31	09:51	10:02	10:09	09:58	ug/mL	ug/mL
(ug/mL)	Ag	0.0093	0.0080	0.0077	0.0080	0.0091	0.2569	0.0123	0.0093	0.500	
	Al	4.5045	5.8129	3.5708	4.0248	0.2728	7.4371	2.2690	4.5045	10.000	
	As	0.0592	0.0590	0.0494	0.0526	0.0603	1.4224	0.2009	0.0592	2.500	
	B	0.0023	0.1984	0.0279	0.0143	0.0172	1.0423	-0.0212	0.0023	2.000	
	Ba	0.0075	0.0083	0.0075	0.0084	0.0037	0.2591	0.0049	0.0075	0.500	
	Be	0.0003	0.0003	0.0003	0.0003	0.0008	0.0511	0.0007	0.0003	0.100	
	Bi	4.0626	5.2359	5.1506	5.6803	0.0340	14.6164	2.1733	4.0626	25.000	
	Ca	0.5186	0.5590	0.5411	0.5388	0.4578	13.1802	0.2951	0.5186	25.000	
	Cd	0.0070	-0.0095	-0.0118	0.0041	-0.0052	0.2596	-0.0048	0.0070	0.500	
	Ce	0.0782	0.0795	0.0761	0.0797	0.0525	0.0544	1.0198	0.0782		2.000
	Co	0.0156	0.0165	0.0147	0.0151	0.0167	0.5367	0.0118	0.0156	1.000	
	Cr	0.2429	0.3169	0.4251	0.4657	0.0076	0.6529	0.1256	0.2429	1.000	
	Cu	0.0163	0.0128	0.0155	0.0148	0.0193	0.5010	0.0243	0.0163	1.000	
	Dy	0.0088	0.0092	0.0078	0.0084	0.0079	0.0064	0.9870	0.0088		2.000
	Eu	0.0034	0.0047	0.0034	0.0033	0.0028	0.0035	0.9814	0.0034		2.000
	Fe	2.6082	3.3645	2.4793	2.7406	0.0519	11.9016	1.3542	2.6082	20.000	
	K	2380.9651	2399.7139	2402.1711	2407.5674	2430.4800	1262.7678	1229.4576	2380.9651		
	La	0.0169	0.0164	0.0163	0.0160	0.0164	0.0157	0.4937	0.0169		1.000
	Li	0.0817	0.1035	0.0198	0.0184	0.0076	1.0428	0.0450	0.0817	2.000	
	Mg	0.1249	0.1348	0.1374	0.1485	0.1143	17.0773	0.0667	0.1249	32.000	
	Mn	0.1132	0.1113	0.0813	0.0849	0.0773	0.3225	0.0584	0.1132	0.500	
	Mo	0.0202	0.0213	0.0230	0.0219	0.0146	0.5433	0.0166	0.0202	1.000	
	Na	23.5166	29.9102	26.7231	29.5479	1.1409	31.2724	12.2653	23.5166	36.700	
	Nd	0.0525	0.0534	0.0507	0.0529	0.0478	0.0439	1.0059	0.0525		2.000
	Ni	0.8687	0.9718	0.6213	0.6074	0.9629	0.9719	0.5251	0.8687		
	P	5.9567	7.3273	5.7805	6.4287	0.0783	5.6738	3.0806	5.9567	5.000	
	Pb	0.0805	0.0793	0.0675	0.0744	0.0534	1.3758	0.1848	0.0805	2.500	
	Pd	0.1667	0.1550	0.1582	0.1605	0.1580	0.1156	1.0772	0.1667		2.000
	Rh	0.0764	0.0680	0.0707	0.0723	0.0662	0.0553	1.0452	0.0764		2.000
	Ru	0.0392	0.0392	0.0392	0.0400	0.0329	0.0320	1.0795	0.0392		2.000
	Sb	0.0690	0.0515	0.0647	0.0634	0.0571	1.7354	0.1328	0.0690	2.500	
	Se	0.0909	0.1039	0.0847	0.0797	0.0811	1.4084	0.1084	0.0909	2.500	
	Si	2.2721	8.5105	2.6231	2.7889	0.7813	11.0151	11.6525	2.2721	20.000	
	Sn	0.2825	0.2830	0.2562	0.2935	0.2273	0.2744	1.2573	0.2825		2.000
	Sr	0.0342	0.0415	0.0408	0.0449	0.0044	0.2782	0.0193	0.0342	0.500	
	Te	0.0798	0.0744	0.0714	0.0731	0.0666	0.0795	1.0857	0.0798		2.000
	Th	0.0032	0.0051	0.0088	0.0087	0.0013	0.0213	1.5171	0.0032		6.800
	Ti	0.0113	0.0186	0.0106	0.0110	0.0078	0.5224	0.0096	0.0113	1.000	
	Tl	0.0566	0.0549	0.0504	0.0565	0.0530	1.3341	0.0622	0.0566	2.500	
	U	1.0933	1.0261	1.1794	1.2521	0.8154	0.8234	12.5212	1.0933		25.000
	V	0.0087	0.0091	0.0085	0.0081	0.0080	0.5218	0.0080	0.0087	1.000	
	W	0.0272	0.0205	0.0287	0.0253	0.0137	0.0482	1.0289	0.0272		2.000
	Y	0.0035	0.0039	0.0029	0.0033	0.0027	0.0032	0.4705	0.0035		1.000
	Zn	0.0108	0.0115	0.0104	0.0107	0.0056	0.5333	0.0093	0.0108	1.000	
(ug/mL)	Zr	0.0130	0.0158	0.0148	0.0153	0.0060	1.0407	-0.0024	0.0130	2.000	

Project: TWRS
Procedure: PNL-ALO-211

File: m022096b
Analyzed: 02/20/96

BX-112 Core 119

		1/2 Segment 1B			1/2 Segment 2B				
Sam Log#:		96-02612	96-02612		96-02614	96-02614		96-02612	
Split#:		119.1B.F	119.1B.F		119.2B.F	119.2B.F		Blank	
ICP Dil:		1.00	1.00		1.00	1.00		1.00	
Dil Fctr:		2619.2	2612.3		3344.5	2820.1		2820.5	
								Post Spike Recoveries	
Est. IDL ug/mL	Analyte	Sample ug/g	Duplicate ug/g	RPD	Sample ug/g	Duplicate ug/g	RPD	Batch Blk ug/g	Spk "A"	Spk "B"
0.015	Ag	ND	ND		ND	ND		ND	101.3%	
0.060	Al	21,424	22,497	5	14,157	14,908	5	(629)	102.2%	
0.100	As	ND	ND		ND	ND		ND	112.0%	
0.050	B	ND	(601)		ND	ND		ND	99.0%	
0.010	Ba	(31)	(27)		ND	ND		ND	99.2%	
0.005	Be	ND	ND		ND	ND		ND	99.3%	
0.100	Bi	19,292	19,538	1	16,760	17,691	5	ND	98.7%	
0.250	Ca	(1,573)	(1,614)		(1,691)	(1,481)		(1,581)	101.3%	
0.030	Cd	ND	(82)		ND	ND		ND	103.0%	
0.125	Ce	ND	ND		ND	ND		ND		102.9%
0.050	Co	ND	ND		ND	ND		ND	105.6%	
0.020	Cr	995	1,010	1	1,149	1,200	4	ND	104.6%	
0.050	Cu	ND	ND		ND	ND		ND	97.5%	
0.050	Dy	ND	ND		ND	ND		ND		98.5%
0.100	Eu	ND	ND		ND	ND		ND		97.8%
0.050	Fe	13,999	15,269	9	8,284	8,988	8	ND	103.6%	
2.000	K	n/a	n/a		n/a	n/a		n/a		
0.050	La	ND	ND		ND	ND		ND		99.3%
0.030	Li	ND	ND		ND	ND		ND	96.7%	
0.100	Mg	(442)	(478)		(540)	(408)		(339)	103.7%	
0.050	Mn	(293)	(265)		(303)	(318)		(170)	104.0%	
0.030	Mo	ND	ND		ND	ND		ND	106.6%	
0.250	Na	79,702	82,194	3	79,442	79,013	1	(3,438)	103.0%	
0.100	Nd	ND	ND		ND	ND		ND		101.2%
0.030	Ni	n/a	n/a		n/a	n/a		n/a		
0.250	P	20,050	21,257	6	18,675	19,127	2	ND	104.1%	
0.125	Pb	ND	ND		ND	ND		ND	109.9%	
0.300	Pd	ND	ND		ND	ND		ND		110.8%
0.300	Rh	ND	ND		ND	ND		ND		105.6%
0.100	Ru	ND	ND		ND	ND		ND		108.9%
0.100	Sb	ND	ND		ND	ND		ND	135.7%	
0.125	Se	ND	ND		ND	ND		ND	111.6%	
0.500	Si	(8,810)	20,364		(11,212)	(9,047)		ND	97.3%	
1.000	Sn	ND	ND		ND	ND		ND		129.4%
0.015	Sr	(122)	(123)		(130)	(133)		ND	101.9%	
0.500	Te	ND	ND		ND	ND		ND		109.9%
0.800	Th	ND	ND		ND	ND		ND		44.5%
0.025	Ti	ND	ND		ND	ND		ND	102.5%	
0.500	Tl	ND	ND		ND	ND		ND	106.8%	
2.000	U	ND	ND		ND	ND		ND		102.0%
0.015	V	ND	ND		ND	ND		ND	102.2%	
0.500	W	ND	ND		ND	ND		ND		101.9%
0.010	Y	ND	ND		ND	ND		ND		93.8%
0.020	Zn	(397)	(69)		ND	ND		ND	103.5%	
0.025	Zr	ND	ND		ND	ND		ND	102.1%	

Note: 1) Method Detecion Limit (MDL) = 10x IDL; "( )" results <MDL but =>IDL.
2) Above 5 times MDL, results reportable to 2 1/2 significant digits.
3) Blank is reported in ug/g "equivalence" to indicate blank effect on sample results.
4) The process "blank" has not been subtracted from the "Sample & Duplicate" results.
5) Above 5 times the MDL, precision is estimated at +/-10% and accuracy at +/-15%.
6) "ND" = Not Detected; Estimated Sample Detection Limit (ug/g) = (IDL in ug/mL) * (Dil Fctr).
7) If RPD flagged with "*", then RPD >20% and sample & duplicate results >MDL.

Data, including calibration/QC, archived File ICP-325-405-1/96A0075

Analyzed Date: 02/20/96 File: m022096b
Project: TWRS Reported: 03/14/96
Procedure: PNL-ALO-211 Data Page 1 of 2
ICP Data Name: 96A0075
Tank ID: BX-112 Core 119

Segment ID:		1/2 Segment 1B		1/2 Segment 2B					
Sample Log#		Sample 96-02612 119.1B.F	Duplicate 96-02612 119.1B.F	Sample 96-02614 119.2B.F	Duplicate 96-02614 119.2B.F	96-02612 Blank	96-02612 P.S. "A"	96-02612 P.S. "B"	96-02612 PS Base
Prep Type		Fusion	Fusion	Fusion	Fusion	Fusion	Fusion	Fusion	Fusion
Sample Wt-g		0.1909	0.1914	0.1495	0.1773	0.1773	0.1909	0.1909	0.1909
Makeup Vol-mL		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Dil: Smpl-mL		1	1	1	1	1	1	1	1
Dil: Vol-mL		5	5	5	5	5	5	5	5
Prep Factor		2619.2	2612.3	3344.5	2820.1	2820.5	2619.2	2619.2	2619.2
Spike ID							9601301901	9601231901	
Spike PreDil'n							2.0	2.0	2.0
ICP Dilution		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Dil Fctr		2619.2	2612.3	3344.5	2820.1	2820.5	2619.2	2619.2	2619.2
Run Time		10:58	11:16	11:25	11:29	10:51	11:02	11:09	10:58
(ug/g)	Ag	26.9	24.0	36.9	27.8	27.4	663.3	24.0	26.9
	Al	21423.9	22497.3	14156.6	14908.3	628.8	24092.0	11025.3	21423.9
	As	206.6	214.7	195.1	207.6	150.0	3665.3	584.1	206.6
	B	-54.4	600.7	125.9	80.7	-66.6	2592.6	-89.5	-54.4
	Ba	31.5	27.5	27.3	24.6	11.6	665.3	18.8	31.5
	Be	0.9	0.9	1.3	1.0	0.9	130.0	1.9	0.9
	Bi	19292.0	19537.8	16759.9	17691.1	148.7	41962.3	10136.5	19292.0
	Ca	1573.1	1613.5	1691.0	1481.4	1580.8	33939.3	874.3	1573.1
	Cd	30.5	82.2	75.7	20.5	-34.6	674.6	34.4	30.5
	Ce	261.9	249.5	337.8	283.0	202.3	199.4	2695.6	261.9
	Co	46.1	43.8	56.8	52.0	42.5	1382.9	33.2	46.1
	Cr	995.2	1010.1	1149.1	1199.8	22.2	1867.1	527.8	995.2
	Cu	42.4	34.0	63.4	46.5	46.2	1276.5	59.9	42.4
	Dy	29.2	28.1	39.5	33.6	29.9	25.6	2581.2	29.2
	Eu	10.9	11.3	14.1	12.6	10.4	11.7	2562.6	10.9
	Fe	13999.3	15268.9	8284.3	8987.8	99.0	34146.0	7306.1	13999.3
	K	5903194.3	5988165.5	7534992.9	6358011.2	6610163.0	3106718.2	3085093.1	5903194.3
	La	54.6	52.7	72.2	64.1	54.8	53.6	1300.5	54.6
	Li	23.9	16.5	46.1	35.6	25.3	2531.9	20.0	23.9
	Mg	442.2	477.9	539.6	408.3	339.0	43665.2	195.0	442.2
	Mn	293.3	265.0	303.2	318.4	170.4	827.7	152.8	293.3
	Mo	61.6	52.7	71.4	61.0	39.1	1396.0	52.6	61.6
	Na	79702.1	82194.3	79441.5	79012.7	3438.2	89371.3	41776.6	79702.1
	Nd	169.8	173.4	242.5	199.1	182.5	164.4	2651.6	169.8
	Ni	1196.1	888.2	1037.7	1738.6	968.3	1944.7	758.8	1196.1
	P	20049.6	21256.8	18675.1	19127.3	281.9	16841.2	10536.4	20049.6
	Pb	278.9	272.4	284.1	243.5	186.9	3598.3	552.5	278.9
	Pd	511.3	491.3	689.5	591.8	526.5	430.3	2901.4	511.3
	Rh	233.4	219.0	326.5	277.3	247.3	201.5	2766.0	233.4
	Ru	122.8	123.4	150.7	129.5	112.1	121.7	2853.1	122.8
	Sb	196.4	202.3	249.6	243.1	191.4	4444.3	347.3	196.4
	Se	309.9	295.1	356.3	302.7	198.7	3654.0	290.0	309.9
	Si	8810.4	20363.7	11211.9	9047.0	1200.3	29882.3	26533.0	8810.4
	Sn	875.2	858.3	1025.5	901.4	861.1	909.6	3390.2	875.2
	Sr	122.2	122.7	130.0	132.9	10.3	728.6	67.7	122.2
	Te	252.6	240.9	292.0	251.2	195.5	260.3	2877.6	252.6
	Th	18.2	12.6	14.0	14.5	8.8	58.4	3960.4	18.2
	Ti	45.4	32.8	51.3	66.0	20.1	1341.9	32.8	45.4
	Tl	147.7	149.0	199.6	174.6	130.1	3496.0	194.0	147.7
	U	3732.1	3689.0	4658.2	4266.0	2952.4	2995.0	33409.7	3732.1
	V	30.4	28.7	36.4	31.5	26.7	1338.2	25.9	30.4
	W	97.6	103.0	105.8	83.5	66.6	140.3	2669.7	97.6
	Y	10.2	10.2	14.0	11.2	11.3	10.6	1228.1	10.2
	Zn	396.8	69.0	46.5	40.5	19.2	1553.5	214.2	396.8
(ug/g)	Zr	56.1	51.3	55.8	49.7	23.2	2674.6	1.3	56.1

Template: TC-KOH-2 ICP RAW DATA -- IEC Corrected m022096b

Analyzed: 02/20/96
Project: TWRS
Procedure: PNL-ALO-211
MT&E: JA ICP WB73520

BX-112 Core 119

Raw Data
Data Page 2 of 2

Analyst: Danny Sanders 3/14/96 Reviewer: MW Thr 3/14/96

Sample ID:		96-02612	96-02612	96-02614	96-02614	96-02612	96-02612	96-02612	96-02612	Post Spikes	
Split ID:		119.1B.F	119.1B.F	119.2B.F	119.2B.F	Blank	P.S. "A"	P.S. "B"	PS Base	"A"	"B"
Run Time:		10:58	11:16	11:25	11:29	10:51	11:02	11:09	10:58	ug/mL	ug/mL
(ug/mL)	Ag	0.0103	0.0092	0.0110	0.0099	0.0097	0.2532	0.0092	0.0103	0.500	
	Al	8.1797	8.6120	4.2328	5.2865	0.2230	9.1983	4.2095	8.1797	10.000	
	As	0.0789	0.0822	0.0583	0.0736	0.0532	1.3994	0.2230	0.0789	2.500	
	B	-0.0208	0.2299	0.0376	0.0286	-0.0236	0.9899	-0.0342	-0.0208	2.000	
	Ba	0.0120	0.0105	0.0082	0.0087	0.0041	0.2540	0.0072	0.0120	0.500	
	Be	0.0003	0.0004	0.0004	0.0004	0.0003	0.0497	0.0007	0.0003	0.100	
	Bi	7.3657	7.4791	5.0112	6.2732	0.0527	16.0212	3.8701	7.3657	25.000	
	Ca	0.6006	0.6177	0.5056	0.5253	0.5605	12.9580	0.3338	0.6006	25.000	
	Cd	0.0117	0.0315	0.0226	0.0073	-0.0123	0.2576	0.0132	0.0117	0.500	
	Ce	0.1000	0.0955	0.1010	0.1003	0.0717	0.0761	1.0292	0.1000		2.000
	Co	0.0176	0.0168	0.0170	0.0184	0.0151	0.5280	0.0127	0.0176	1.000	
	Cr	0.3800	0.3866	0.3436	0.4255	0.0079	0.7128	0.2015	0.3800	1.000	
	Cu	0.0162	0.0130	0.0190	0.0165	0.0164	0.4874	0.0229	0.0162	1.000	
	Dy	0.0111	0.0108	0.0118	0.0119	0.0106	0.0098	0.9855	0.0111		2.000
	Eu	0.0042	0.0043	0.0042	0.0045	0.0037	0.0045	0.9784	0.0042		2.000
	Fe	5.3449	5.8449	2.4770	3.1871	0.0351	13.0369	2.7895	5.3449	20.000	
	K	2253.8396	2292.2698	2252.9629	2254.5508	2343.6333	1186.1450	1177.8885	2253.8396		
	La	0.0209	0.0202	0.0216	0.0227	0.0194	0.0205	0.4965	0.0209		1.000
	Li	0.0091	0.0063	0.0138	0.0126	0.0090	0.9667	0.0076	0.0091	2.000	
	Mg	0.1688	0.1829	0.1613	0.1448	0.1202	16.6714	0.0745	0.1688	32.000	
	Mn	0.1120	0.1015	0.0907	0.1129	0.0604	0.3160	0.0583	0.1120	0.500	
	Mo	0.0235	0.0202	0.0214	0.0216	0.0139	0.5330	0.0201	0.0235	1.000	
	Na	30.4303	31.4640	23.7530	28.0179	1.2190	34.1219	15.9503	30.4303	36.700	
	Nd	0.0648	0.0664	0.0725	0.0706	0.0647	0.0628	1.0124	0.0648		2.000
	Ni	0.4567	0.3400	0.3103	0.6165	0.3433	0.7425	0.2897	0.4567		
	P	7.6549	8.1371	5.5838	6.7825	0.0999	6.4300	4.0228	7.6549	5.000	
	Pb	0.1065	0.1043	0.0850	0.0864	0.0663	1.3738	0.2109	0.1065	2.500	
	Pd	0.1952	0.1881	0.2061	0.2099	0.1867	0.1643	1.1077	0.1952		2.000
	Rh	0.0891	0.0838	0.0976	0.0983	0.0877	0.0769	1.0561	0.0891		2.000
	Ru	0.0469	0.0473	0.0451	0.0459	0.0397	0.0465	1.0893	0.0469		2.000
	Sb	0.0750	0.0774	0.0746	0.0862	0.0679	1.6968	0.1326	0.0750	2.500	
	Se	0.1183	0.1130	0.1065	0.1073	0.0705	1.3951	0.1107	0.1183	2.500	
	Si	3.3638	7.7952	3.3524	3.2081	0.4256	11.4091	10.1303	3.3638	20.000	
	Sn	0.3342	0.3286	0.3066	0.3196	0.3053	0.3473	1.2944	0.3342		2.000
	Sr	0.0466	0.0470	0.0389	0.0471	0.0037	0.2782	0.0259	0.0466	0.500	
	Te	0.0965	0.0922	0.0873	0.0891	0.0693	0.0994	1.0987	0.0965		2.000
	Th	0.0069	0.0048	0.0042	0.0052	0.0031	0.0223	1.5121	0.0069		6.800
	Ti	0.0173	0.0126	0.0153	0.0234	0.0071	0.5123	0.0125	0.0173	1.000	
	Tl	0.0564	0.0570	0.0597	0.0619	0.0461	1.3348	0.0741	0.0564	2.500	
	U	1.4249	1.4122	1.3928	1.5127	1.0468	1.1435	12.7558	1.4249		25.000
	V	0.0116	0.0110	0.0109	0.0112	0.0095	0.5109	0.0099	0.0116	1.000	
	W	0.0373	0.0394	0.0316	0.0296	0.0236	0.0536	1.0193	0.0373		2.000
	Y	0.0039	0.0039	0.0042	0.0040	0.0040	0.0041	0.4689	0.0039		1.000
	Zn	0.1515	0.0264	0.0139	0.0144	0.0068	0.5931	0.0818	0.1515	1.000	
(ug/mL)	Zr	0.0214	0.0196	0.0167	0.0176	0.0082	1.0212	0.0005	0.0214	2.000	

Project: TWRS
Procedure: PNL-ALO-211

File: m022096c
Analyzed: 02/20/96

BX-112 Core 119
119.3B.F Batched with 119.1B.F and 119.2B.F

1/2 Segment 3B

	Sam Log#:	96-02616	96-02616	
	Split#:	119.3B.F	119.3B.F	
	ICP Dil:	1.00	1.00	
	Dil Fctr:	2853.9	3043.2	
Est. IDL ug/mL	Analyte	Sample ug/g	Duplicate ug/g	RPD
0.015	Ag	ND	ND	
0.060	Al	9,661	10,167	5
0.100	As	ND	ND	
0.050	B	ND	ND	
0.010	Ba	ND	ND	
0.005	Be	ND	ND	
0.100	Bi	16,800	17,440	4
0.250	Ca	(1,549)	(1,819)	
0.030	Cd	ND	ND	
0.125	Ce	ND	ND	
0.050	Co	ND	ND	
0.020	Cr	1,253	1,273	2
0.050	Cu	ND	ND	
0.050	Dy	ND	ND	
0.100	Eu	ND	ND	
0.050	Fe	10,447	10,411	0
2.000	K	n/a	n/a	
0.050	La	ND	ND	
0.030	Li	(115)	(109)	
0.100	Mg	(410)	(416)	
0.050	Mn	(308)	(378)	
0.030	Mo	ND	ND	
0.250	Na	77,706	77,857	0
0.100	Nd	ND	ND	
0.030	Ni	n/a	n/a	
0.250	P	15,621	16,083	3
0.125	Pb	ND	ND	
0.300	Pd	ND	ND	
0.300	Rh	ND	ND	
0.100	Ru	ND	ND	
0.100	Sb	ND	ND	
0.125	Se	ND	ND	
0.500	Si	(8,234)	(9,217)	
1.000	Sn	ND	ND	
0.015	Sr	(134)	(138)	
0.500	Te	ND	ND	
0.800	Th	ND	ND	
0.025	Ti	ND	ND	
0.500	Tl	ND	ND	
2.000	U	ND	ND	
0.015	V	ND	ND	
0.500	W	ND	ND	
0.010	Y	ND	ND	
0.020	Zn	ND	ND	
0.025	Zr	ND	ND	

Note: 1) Method Detecion Limit (MDL) = 10x IDL; "( )" results <MDL but =>IDL.
2) Above 5 times MDL, results reportable to 2 1/2 significant digits.
3) Blank is reported in ug/g "equivalence" to indicate blank effect on sample results.
4) The process "blank" has not been subtracted from the "Sample & Duplicate" results.
5) Above 5 times the MDL, precision is estimated at +/-10% and accuracy at +/-15%.
6) "ND" = Not Detected; Estimated Sample Detection Limit (ug/g) = (IDL in ug/mL) * (Dil Fctr).
7) If RPD flagged with "*", then RPD >20% and sample & duplicate results >MDL.

Data, including calibration/QC, archived File ICP-325-405-1/96A0075

Analyzed Date: 02/20/96
Project: TWRS
Procedure: PNL-ALO-211
ICP Data Name: 96A0075
Tank ID: BX-112 Core 119

File: m022096c
Reported: 03/14/96
Data Page 1 of 2

Segment ID: 1/2 Segment 38

		Sample	Duplicate
Sample Log#		96-02616 119.38.F	96-02616 119.38.F
Prep Type		Fusion	Fusion
Sample Wt-g		0.1752	0.1643
Makeup Vol-mL		100.0	100.0
Dil: Smpl-mL		1	1
Dil: Vol-mL		5	5
Prep Factor		2853.9	3043.2
Spike ID			
Spike PreDil'n			
ICP Dilution		1.00	1.00
Dil Fctr		2853.9	3043.2
Run Time		11:32	11:37
(ug/g)	Ag	28.9	31.6
	Al	9661.4	10166.7
	As	180.3	167.3
	B	37.2	-0.6
	Ba	27.9	29.6
	Be	1.0	1.1
	Bi	16799.6	17440.1
	Ca	1549.3	1819.3
	Cd	3.7	30.7
	Ce	280.1	313.8
	Co	50.7	57.9
	Cr	1252.8	1272.9
	Cu	44.3	51.3
	Dy	33.3	36.3
	Eu	12.7	13.1
	Fe	10446.8	10410.6
	K	6517626.6	6897578.9
	La	60.9	70.2
	Li	114.7	109.2
	Mg	410.5	416.3
	Mn	307.7	378.2
	Mo	70.2	75.9
	Na	77705.7	77857.2
	Nd	210.8	217.2
	Ni	2240.2	1784.3
	P	15620.6	16083.4
	Pb	248.5	273.3
	Pd	586.0	646.6
	Rh	272.8	304.1
	Ru	133.3	142.0
	Sb	225.9	191.1
	Se	289.7	275.9
	Si	8234.2	9216.8
	Sn	962.9	965.5
	Sr	134.3	138.5
	Te	259.2	268.0
	Th	14.1	11.8
	Ti	40.9	64.9
	Tl	167.6	189.6
	U	3860.4	4203.9
	V	29.5	34.2
	W	69.0	102.5
	Y	12.0	12.4
	Zn	39.3	50.0
(ug/g)	Zr	46.5	44.4

Template: TC-KOH-2 ICP RAW DATA -- IEC Corrected m022096c

Analyzed: 02/20/96
Project: TWRS
Procedure: PNL-ALO-211
MT&E: JA ICP WB73520

BX-112 Core 119

Raw Data
Data Page 2 of 2

Analyst: Danny Sanders 3/14/96 Reviewer: MW Thu 3-14-96

	Sample ID:	96-02616	96-02616	Post Spikes "A"	Post Spikes "B"
	Split ID:	119.38.F	119.38.F		
	Run Time:	11:32	11:37	ug/mL	ug/mL
(ug/mL)	Ag	0.0101	0.0104	0.500	
	Al	3.3854	3.3408	10.000	
	As	0.0632	0.0550	2.500	
	B	0.0130	-0.0002	2.000	
	Ba	0.0098	0.0097	0.500	
	Be	0.0003	0.0004	0.100	
	Bi	5.8866	5.7308	25.000	
	Ca	0.5429	0.5978	25.000	
	Cd	0.0013	0.0101	0.500	
	Ce	0.0981	0.1031		2.000
	Co	0.0178	0.0190	1.000	
	Cr	0.4390	0.4183	1.000	
	Cu	0.0155	0.0169	1.000	
	Dy	0.0117	0.0119		2.000
	Eu	0.0044	0.0043		2.000
	Fe	3.6606	3.4209	20.000	
	K	2283.7764	2266.5444		
	La	0.0213	0.0231		1.000
	Li	0.0402	0.0359	2.000	
	Mg	0.1438	0.1368	32.000	
	Mn	0.1078	0.1243	0.500	
	Mo	0.0246	0.0249	1.000	
	Na	27.2281	25.5839	36.700	
	Nd	0.0739	0.0714		2.000
	Ni	0.7850	0.5863		
	P	5.4735	5.2850	5.000	
	Pb	0.0871	0.0898	2.500	
	Pd	0.2053	0.2125		2.000
	Rh	0.0956	0.0999		2.000
	Ru	0.0467	0.0467		2.000
	Sb	0.0792	0.0628	2.500	
	Se	0.1015	0.0907	2.500	
	Si	2.8853	3.0286	20.000	
	Sn	0.3374	0.3172		2.000
	Sr	0.0471	0.0455	0.500	
	Te	0.0908	0.0881		2.000
	Th	0.0049	0.0039		6.800
	Ti	0.0143	0.0213	1.000	
	Tl	0.0587	0.0623	2.500	
	U	1.3527	1.3814		25.000
	V	0.0103	0.0112	1.000	
	W	0.0242	0.0337		2.000
	Y	0.0042	0.0041		1.000
	Zn	0.0138	0.0164	1.000	
(ug/mL)	Zr	0.0163	0.0146	2.000	

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										QC CCV1 96012	V1 960126H901
										A0075	A0075
										2/20/96	2/20/96
Statistical Summary for 'QC CCV1 960126H901'										09:45	13:30
(HPS:CCV-1)										CONC	CONC
	TRUE	***N***	***Average***	***S.Dev***	***%RSD***	***Bias***	***Bias***	***High***	***Low***	1979	2025
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)
Ag		2	0.002	0.000	13					0.002	0.003
Al	2.000	2	1.953	0.007	0	-0.047	-2.4			1.957	1.948
As	2.000	2	2.106	0.040	2	0.106	5.3			2.077	2.134
B	2.000	2	2.054	0.019	1	0.054	2.7			2.041	2.067
Ba	1.000	2	0.990	0.011	1	-0.010	-1.0			0.998	0.983
Be	1.000	2	0.980	0.011	1	-0.020	-2.0			0.988	0.972
Bi	2.000	2	1.971	0.013	1	-0.029	-1.5			1.980	1.962
Ca	2.000	2	1.985	0.035	2	-0.015	-0.8			2.009	1.960
Cd	1.000	2	1.018	0.001	0	0.018	1.8			1.019	1.018
Ce		2	0.009	0.011	123					0.001	0.017
Co	1.000	2	1.025	0.002	0	0.025	2.5			1.024	1.026
Cr	0.500	2	0.507	0.005	1	0.007	1.4			0.510	0.503
Cu	2.000	2	1.959	0.021	1	-0.041	-2.1			1.974	1.943
Dy		2	0.002	0.002	73					0.001	0.003
Eu		2	0.001	0.000	34					0.001	0.001
Fe	2.000	2	2.037	0.017	1	0.037	1.9			2.049	2.025
K	5.000	2	4.586	0.285	6	-0.414	-8.3			4.788	4.385
La		2	0.006	0.002	28					0.005	0.008
Li	2.000	2	1.956	0.027	1	-0.044	-2.2			1.976	1.937
Mg	2.000	2	2.099	0.016	1	0.099	5.0			2.110	2.088
Mn	1.000	2	1.023	0.002	0	0.023	2.3			1.025	1.021
Mo	2.000	2	1.993	0.002	0	-0.007	-0.4			1.992	1.994
Na	8.100	2	8.462	0.012	0	0.362	4.5			8.453	8.471
Nd		2	0.012	0.011	94					0.004	0.020
Ni	2.000	2	2.059	0.008	0	0.059	3.0			2.065	2.053
P	5.000	2	4.812	0.024	0	-0.188	-3.8			4.828	4.795
Pb	2.000	2	2.043	0.011	1	0.043	2.2			2.035	2.051
Pd		2	0.046	0.036	79					0.020	0.072
Rh		2	0.018	0.014	78					0.008	0.027
Ru		2	0.011	0.005	45					0.007	0.014
Sb		2	0.023	0.008	35					0.017	0.029
Se	2.000	2	2.044	0.011	1	0.044	2.2			2.036	2.052
Si	5.000	2	5.157	0.096	2	0.157	3.1			5.225	5.089
Sn		2	0.066	0.038	58					0.039	0.092
Sr	2.000	2	2.006	0.003	0	0.006	0.3			2.008	2.004
Te		2	0.036	0.003	7					0.034	0.038
Th		2	0.004	0.006	134					0.009	0.000
Ti		2	0.001	0.001	136					0.000	0.001
Tl	2.000	2	1.981	0.031	2	-0.019	-0.9			1.959	2.003
U		2	0.230	0.158	68					0.119	0.342
V	1.000	2	0.965	0.006	1	-0.035	-3.5			0.969	0.961
W		2	0.019	0.004	20					0.016	0.021
Y		2	0.001	0.000	62					0.000	0.001
Zn	1.000	2	1.022	0.017	2	0.022	2.2			1.010	1.034
Zr		2	0.000	0.002	707					-0.001	0.002
TIME		2	########	0.000	0					########	########

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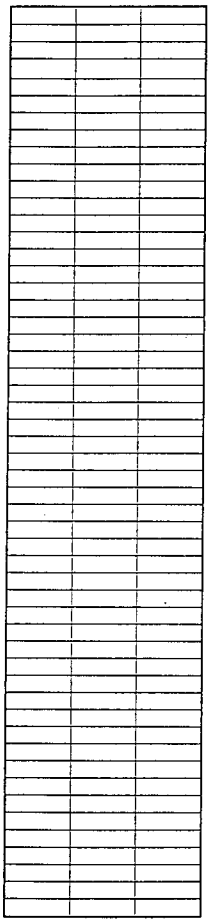

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC_MCVA 9601	CVA 9601	CVA 9601	CVA 9601
										A0075	A0075	A0075	A0075
										2/20/96	2/20/96	2/20/96	2/20/96
										09:25	10:21	10:44	11:21
			Statistical Summary for 'QC_MCVA 960130I901'							CONC	CONC	CONC	CONC
(QC-MCVA)										2255	2301	2347	2393
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low				
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)	(ug/mL)	(ug/mL)
Ag	0.500	7	0.506	0.008	2	0.006	1.2			0.506	0.522	0.506	0.496
Al	10.000	7	9.964	0.191	2	-0.036	-0.4			10.046	10.332	9.946	9.736
As	2.500	7	2.666	0.047	2	0.166	6.6			2.640	2.747	2.677	2.597
B	2.000	7	2.085	0.068	3	0.085	4.3			2.104	2.196	2.049	2.055
Ba	0.500	7	0.503	0.011	2	0.003	0.6			0.511	0.523	0.503	0.490
Be	0.100	7	0.096	0.002	2	-0.004	-4.2			0.097	0.099	0.096	0.093
Bi	25.000	7	24.577	0.473	2	-0.423	-1.7			24.816	25.490	24.573	24.069
Ca	25.000	7	24.867	0.459	2	-0.133	-0.5			25.035	25.747	24.834	24.295
Cd	0.500	7	0.508	0.017	3	0.008	1.7			0.503	0.501	0.488	0.497
Ce		7	0.017	0.011	69					-0.003	0.008	0.015	0.027
Co	1.000	7	1.026	0.018	2	0.026	2.6			1.029	1.061	1.025	1.004
Cr	1.000	7	1.026	0.021	2	0.026	2.6			1.035	1.066	1.026	1.007
Cu	1.000	7	0.928	0.019	2	-0.072	-7.2			0.936	0.959	0.935	0.904
Dy		7	0.003	0.002	62					0.000	0.001	0.003	0.005
Eu		7	0.003	0.001	21					0.002	0.003	0.003	0.004
Fe	20.000	7	20.540	0.411	2	0.540	2.7			20.778	21.299	20.510	20.035
K	25.000	7	24.155	0.848	4	-0.845	-3.4			24.287	25.915	24.169	24.074
La		7	0.011	0.003	30					0.005	0.007	0.011	0.014
Li	2.000	7	1.984	0.048	2	-0.016	-0.8			2.021	2.068	1.975	1.929
Mg	31.200	7	33.103	0.622	2	1.903	6.1			33.412	34.288	33.035	32.363
Mn	0.500	7	0.512	0.010	2	0.012	2.4			0.516	0.530	0.513	0.500
Mo	1.000	7	1.029	0.020	2	0.029	2.9			1.035	1.067	1.028	1.005
Na	36.700	7	37.314	0.754	2	0.614	1.7			37.693	38.696	37.187	36.407
Nd		7	0.023	0.009	41					0.008	0.013	0.024	0.031
Ni	1.000	7	1.007	0.023	2	0.007	0.7			1.016	1.053	1.011	0.982
P	5.000	7	4.945	0.085	2	-0.055	-1.1			5.008	5.094	4.945	4.849
Pb	2.500	7	2.573	0.043	2	0.073	2.9			2.576	2.658	2.566	2.518
Pd		7	0.046	0.029	64					-0.004	0.014	0.052	0.072
Rh		7	0.022	0.013	61					0.001	0.007	0.024	0.035
Ru		7	0.027	0.007	25					0.015	0.021	0.027	0.032
Sb	2.500	7	3.288	0.060	2	0.788	31.5	+		3.293	3.416	3.267	3.232
Se	2.500	7	2.642	0.050	2	0.142	5.7			2.634	2.743	2.644	2.587
Si	20.000	7	19.722	0.881	4	-0.278	-1.4			19.813	20.838	19.024	19.348
Sn		7	0.205	0.032	15					0.152	0.181	0.211	0.234
Sr	0.500	7	0.513	0.010	2	0.013	2.7			0.518	0.533	0.512	0.500
Te		7	0.073	0.006	8					0.066	0.071	0.082	0.071
Th		7	0.030	0.003	9					0.032	0.035	0.030	0.027
Ti	1.000	7	1.003	0.021	2	0.003	0.3			1.014	1.042	1.002	0.978
Tl	2.500	7	2.541	0.052	2	0.041	1.6			2.520	2.644	2.530	2.484
U		7	0.403	0.155	39					0.158	0.223	0.393	0.527
V	1.000	7	1.000	0.020	2	0.000	0.0			1.011	1.037	0.999	0.978
W		7	0.046	0.006	13					0.044	0.035	0.047	0.053
Y		7	0.002	0.000	22					0.001	0.002	0.003	0.003
Zn	1.000	7	1.024	0.015	1	0.024	2.4			1.020	1.052	1.020	1.004
Zr	2.000	7	2.007	0.039	2	0.007	0.3			2.022	2.080	2.004	1.958
TIME		7	########	0.000	0					########	########	########	########

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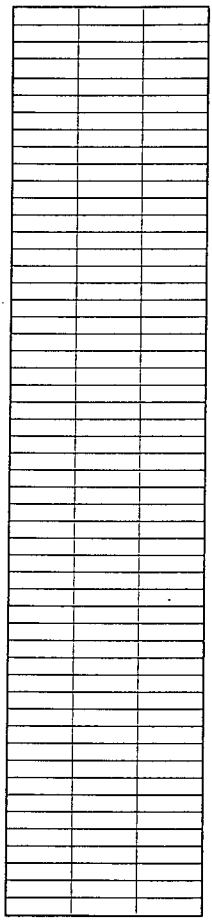
CVA 9601	CVA 9601	CVA 9601
A0075	A0075	A0075
2/20/96	2/20/96	2/20/96
11:49	12:30	13:10
CONC	CONC	CONC
2439	2485	2531
(ug/mL)	*(ug/mL)*	*(ug/mL)*
0.506	0.499	0.505
9.936	9.806	9.943
2.684	2.640	2.675
2.027	2.149	2.015
0.501	0.492	0.501
0.096	0.093	0.096
24.467	24.170	24.457
24.820	24.511	24.826
0.539	0.508	0.523
0.022	0.030	0.016
1.026	1.013	1.025
1.024	1.003	1.020
0.928	0.906	0.927
0.004	0.005	0.004
0.003	0.004	0.003
20.483	20.194	20.480
23.750	23.545	23.347
0.013	0.014	0.011
1.975	1.933	1.985
33.011	32.600	33.010
0.510	0.504	0.510
1.028	1.011	1.029
37.210	36.609	37.400
0.027	0.035	0.022
1.005	0.990	0.995
4.943	4.859	4.919
2.579	2.548	2.562
0.059	0.072	0.055
0.026	0.036	0.025
0.032	0.033	0.027
3.280	3.258	3.273
2.655	2.606	2.626
18.987	21.034	19.008
0.202	0.247	0.208
0.512	0.504	0.514
0.070	0.080	0.067
0.029	0.030	0.028
1.001	0.985	1.002
2.538	2.505	2.566
0.498	0.560	0.463
0.997	0.983	0.997
0.050	0.050	0.043
0.002	0.003	0.002
1.029	1.014	1.025
2.002	1.974	2.007
#########	#########	#########

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

									QC_MCVB1 960	VB1 960123I901
									A0075	A0075
									2/20/96	2/20/96
			Statistical Summary for 'QC_MCVB1 960123I901'						13:14	09:29
(QC-MCVB)									CONC	CONC
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	2577	2623
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)
Ag		2	0.012	0.011	88					0.005	0.020
Al		2	-0.104	0.051	-49					-0.068	-0.140
As		2	0.322	0.034	10					0.346	0.299
B		2	-0.031	0.015	-49					-0.042	-0.020
Ba		2	0.001	0.000	3					0.001	0.001
Be		2	0.001	0.000	12					0.001	0.001
Bi		2	0.114	0.032	28					0.091	0.137
Ca		2	0.029	0.017	58					0.017	0.041
Cd		2	0.019	0.002	13					0.021	0.017
Ce	2.000	2	1.909	0.020	1	-0.091	-4.5			1.895	1.924
Co		2	0.003	0.000	1					0.003	0.003
Cr		2	0.007	0.001	12					0.008	0.007
Cu		2	0.027	0.007	25					0.022	0.032
Dy	2.000	2	1.935	0.032	2	-0.065	-3.2			1.912	1.958
Eu	2.000	2	1.941	0.035	2	-0.059	-3.0			1.916	1.965
Fe		2	0.024	0.017	70					0.012	0.036
K		2	-1.126	0.006	0					-1.130	-1.122
La	1.000	2	0.951	0.013	1	-0.049	-4.9			0.942	0.960
Li		2	0.002	0.001	47					0.001	0.002
Mg		2	-0.036	0.001	-4					-0.035	-0.037
Mn		2	0.000	0.000	481					0.000	0.000
Mo		2	0.011	0.000	5					0.011	0.010
Na		2	0.169	0.003	2					0.171	0.167
Nd	2.000	2	1.917	0.027	1	-0.083	-4.1			1.898	1.937
Ni		2	0.105	0.043	40					0.075	0.135
P		2	0.094	0.006	7					0.090	0.099
Pb		2	0.261	0.001	1					0.262	0.260
Pd	2.000	2	1.924	0.059	3	-0.076	-3.8			1.965	1.882
Rh	2.000	2	1.969	0.000	0	-0.031	-1.6			1.969	1.968
Ru	2.000	2	2.049	0.011	1	0.049	2.4			2.041	2.057
Sb		2	0.141	0.009	7					0.148	0.134
Se		2	0.089	0.014	15					0.099	0.079
Si		2	16.851	3.599	21					14.306	19.395
Sn	2.000	2	2.116	0.023	1	0.116	5.8			2.100	2.133
Sr		2	0.003	0.000	6					0.003	0.003
Te	2.000	2	2.003	0.010	0	0.003	0.2			1.996	2.010
Th	10.000	2	3.742	1.180	32	-6.258	-62.6		-	2.907	4.577
Ti		2	0.005	0.000	4					0.005	0.005
Tl		2	0.044	0.004	9					0.041	0.046
U	25.000	2	23.429	0.240	1	-1.571	-6.3			23.260	23.599
V		2	0.003	0.000	16					0.003	0.002
W	2.000	2	1.961	0.025	1	-0.039	-2.0			1.943	1.978
Y	1.000	2	0.918	0.028	3	-0.082	-8.2		-	0.898	0.937
Zn		2	0.004	0.002	65					0.002	0.006
Zr		2	-0.020	0.001	-6					-0.019	-0.021
TIME		2	########	0.000	0					########	########

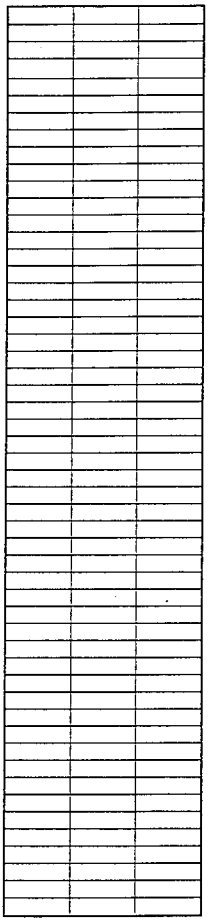
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC_SRM-1643d	M-1643d 108518
										A0075	A0075
										2/20/96	2/20/96
Statistical Summary for 'QC_SRM-1643d 108518'										09:41	13:25
(NIST:SRM1643d)										CONC	CONC
	TRUE	***N***	***Average***	***S.Dev***	***%RSD***	***Bias***	***Bias***	***High***	***Low***	2669	2715
	(ug/mL)		*(ug/mL)*	*(ug/mL)*	*(%)*	*(ug/mL)*	*(%)*	*(>110%)*	*(<90%)*	*(ug/mL)*	*(ug/mL)*
Ag	0.001	2	0.003	0.001	40	0.002	162.2	+		0.002	0.004
Al	0.128	2	0.168	0.029	17	0.040	31.6	+		0.189	0.147
As	0.056	2	0.070	0.001	2	0.014	24.4	+		0.069	0.071
B	0.145	2	0.193	0.028	15	0.048	33.0	+		0.172	0.213
Ba	0.507	2	0.523	0.001	0	0.016	3.2			0.523	0.522
Be	0.013	2	0.012	0.000	1	0.000	-1.1			0.012	0.012
Bi	0.013	2	0.070	0.017	25	0.057	439.4	+		0.082	0.058
Ca	31.050	2	31.161	0.176	1	0.111	0.4			31.036	31.285
Cd	0.006	2	0.016	0.010	63	0.010	150.5	+		0.009	0.023
Ce		2	0.018	0.016	88					0.007	0.030
Co	0.025	2	0.028	0.002	7	0.003	11.4	+		0.026	0.029
Cr	0.019	2	0.021	0.000	2	0.002	11.8	+		0.022	0.021
Cu	0.021	2	0.016	0.002	10	-0.004	-20.4		-	0.015	0.017
Dy		2	0.002	0.003	114					0.000	0.004
Eu		2	0.002	0.001	37					0.001	0.003
Fe	0.091	2	0.114	0.031	27	0.022	24.5	+		0.135	0.092
K	2.356	2	2.347	0.034	1	-0.009	-0.4			2.370	2.323
La		2	0.018	0.003	16					0.020	0.016
Li	0.017	2	0.021	0.002	12	0.005	29.3	+		0.020	0.023
Mg	7.989	2	8.691	0.044	1	0.702	8.8			8.660	8.723
Mn	0.038	2	0.039	0.001	1	0.002	4.6			0.039	0.040
Mo	0.113	2	0.118	0.003	3	0.005	4.2			0.115	0.120
Na	22.070	2	22.413	0.168	1	0.343	1.6			22.294	22.533
Nd		2	0.028	0.015	55					0.017	0.039
Ni	0.058	2	0.126	0.037	29	0.068	117.0	+		0.152	0.100
P		2	0.067	0.022	33					0.083	0.052
Pb	0.018	2	0.030	0.014	47	0.011	62.6	+		0.020	0.039
Pd		2	0.060	0.047	79					0.026	0.093
Rh		2	0.024	0.020	83					0.010	0.038
Ru		2	0.009	0.008	86					0.004	0.015
Sb	0.054	2	0.087	0.012	14	0.033	60.1	+		0.078	0.095
Se	0.011	2	0.043	0.013	30	0.032	280.5	+		0.034	0.053
Si	2.700	2	3.635	0.035	1	0.935	34.6	+		3.660	3.610
Sn		2	0.039	0.040	103					0.010	0.067
Sr	0.295	2	0.307	0.002	1	0.012	4.2			0.305	0.309
Te	0.001	2	0.027	0.009	33	0.026	2613.0	+		0.021	0.033
Th		2	-0.011	0.000	-2					-0.011	-0.011
Ti		2	0.001	0.001	65					0.001	0.002
Tl	0.007	2	0.025	0.008	31	0.018	247.3	+		0.020	0.031
U		2	0.522	0.144	28					0.420	0.624
V	0.035	2	0.037	0.002	4	0.002	4.5			0.036	0.038
W		2	0.012	0.004	38					0.009	0.015
Y		2	0.001	0.001	41					0.001	0.002
Zn	0.072	2	0.075	0.002	2	0.003	3.5			0.074	0.076
Zr		2	0.002	0.001	73					0.001	0.003
TIME		2	########	0.000	0					########	########

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										ICP1.0 960103	.0 960103	.0 960103	.0 960103
										A0075	A0075	A0075	A0075
										2/20/96	2/20/96	2/20/96	2/20/96
Statistical Summary for 'ICP1.0 960103F100'										09:23	09:49	10:25	10:49
(ICP1.0 "Blank")										CONC	CONC	CONC	CONC
	TRUE	***N***	***Average***	***S.Dev***	***%RSD***	***Bias***	***Bias***	*High*	*Low*	1381	1427	1473	1519
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)	(ug/mL)	(ug/mL)
Ag		7	0.002	0.001	49					0.000	0.002	0.001	0.002
Al		7	0.017	0.011	63					0.001	0.009	0.015	0.015
As		7	0.007	0.007	99					0.006	-0.004	0.004	0.005
B		7	-0.001	0.032	-2517					0.027	-0.003	0.006	-0.042
Ba		7	0.001	0.001	76					0.000	0.001	0.001	0.001
Be		7	0.000	0.000	143					0.000	0.001	0.000	0.000
Bi		7	0.020	0.013	63					0.034	0.008	0.025	0.021
Ca		7	-0.005	0.010	-203					-0.017	-0.005	0.005	-0.005
Cd		7	0.015	0.017	118					0.021	0.005	-0.005	-0.001
Ce		7	0.010	0.011	107					-0.006	-0.002	0.007	0.014
Co		7	0.002	0.001	84					-0.001	0.001	0.002	0.002
Cr		7	-0.001	0.001	-144					-0.001	-0.001	-0.002	0.000
Cu		7	0.000	0.001	314					-0.002	0.001	-0.001	0.002
Dy		7	0.001	0.002	135					-0.002	0.000	0.001	0.001
Eu		7	0.001	0.001	68					0.000	0.000	0.001	0.001
Fe		7	0.000	0.008	-18771					-0.007	-0.004	0.008	0.002
K		7	-0.076	0.195	-258					-0.371	-0.111	0.253	-0.055
La		7	0.005	0.002	51					0.000	0.003	0.005	0.005
Li		7	0.002	0.001	64					0.000	0.003	0.001	0.002
Mg		7	0.004	0.015	342					-0.017	-0.005	0.014	0.008
Mn		7	-0.001	0.000	-41					-0.002	0.000	-0.001	-0.001
Mo		7	0.002	0.002	83					-0.001	0.003	0.002	0.002
Na		7	0.043	0.025	59					-0.007	0.028	0.062	0.058
Nd		7	0.009	0.009	102					-0.006	0.002	0.006	0.010
Ni		7	-0.001	0.012	-876					-0.006	0.021	-0.004	-0.006
P		7	0.011	0.018	159					0.000	-0.004	-0.012	0.012
Pb		7	0.004	0.008	195					-0.008	0.003	-0.004	0.002
Pd		7	0.046	0.027	57					0.007	0.019	0.036	0.051
Rh		7	0.015	0.012	77					-0.004	0.004	0.013	0.018
Ru		7	0.008	0.004	57					0.002	0.003	0.005	0.009
Sb		7	0.009	0.009	104					0.000	-0.008	0.012	0.014
Se		7	0.021	0.011	53					0.004	0.008	0.017	0.024
Si		7	0.533	0.619	116					1.806	0.245	0.573	0.096
Sn		7	0.035	0.029	84					-0.002	0.014	0.004	0.044
Sr		7	0.001	0.001	105					0.000	0.003	0.001	0.001
Te		7	0.019	0.007	40					0.009	0.017	0.011	0.018
Th		7	-0.003	0.002	-86					0.000	-0.001	-0.007	-0.002
Ti		7	0.001	0.001	167					-0.001	-0.001	0.001	0.001
Tl		7	0.016	0.009	53					0.013	0.006	0.010	0.012
U		7	0.188	0.145	77					-0.066	0.068	0.183	0.211
V		7	0.001	0.001	91					-0.001	0.001	0.001	0.002
W		7	0.006	0.005	84					0.000	0.005	-0.001	0.007
Y		7	0.000	0.000	107					0.000	0.000	0.000	0.001
Zn		7	-0.002	0.000	-20					-0.003	-0.002	-0.002	-0.002
Zr		7	0.001	0.002	262					-0.002	-0.002	0.001	0.001
TIME		7	########	0.000	0					########	########	########	########

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

.0 960103	.0 960103	.0 960103
A0075	A0075	A0075
2/20/96	2/20/96	2/20/96
11:53	12:34	13:34
CONC	CONC	CONC
1565	1611	1657
(ug/mL)	*(ug/mL)*	*(ug/mL)*
0.002	0.003	0.002
0.021	0.035	0.024
0.010	0.012	0.020
-0.047	0.031	0.020
0.001	0.001	0.001
0.000	0.000	0.000
-0.002	0.030	0.025
-0.010	0.011	-0.012
0.043	0.029	0.011
0.016	0.025	0.017
0.003	0.003	0.003
-0.002	0.001	-0.001
0.001	0.001	0.001
0.003	0.003	0.003
0.001	0.001	0.001
-0.005	0.013	-0.008
-0.047	0.024	-0.221
0.007	0.006	0.007
0.001	0.003	0.002
0.000	0.028	0.002
-0.001	-0.001	-0.001
0.001	0.003	0.003
0.048	0.066	0.048
0.016	0.021	0.016
-0.011	-0.011	0.008
0.017	0.039	0.027
0.011	0.014	0.013
0.070	0.069	0.074
0.025	0.026	0.025
0.009	0.013	0.012
0.013	0.016	0.017
0.031	0.028	0.032
0.064	0.772	0.176
0.051	0.074	0.060
0.000	0.001	0.001
0.022	0.031	0.022
-0.002	-0.003	-0.002
0.001	0.002	0.001
0.020	0.022	0.031
0.298	0.357	0.266
0.002	0.003	0.002
0.008	0.010	0.013
0.001	0.001	0.001
-0.003	-0.002	-0.002
0.001	0.004	0.001
########	########	########

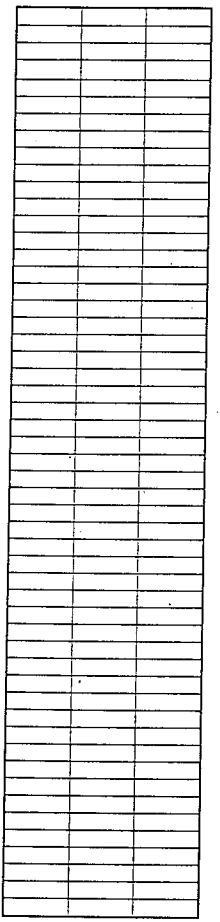
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

Statistical Summary for 'MCVA @2'

(MCVA @2 Post Digestion Spike)

	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	MCVA @2 A0075 2/20/96 10:05 CONC 1703	MCVA @2 A0075 2/20/96 11:06 CONC 1749	MCVA @2 A0075 2/20/96 12:14 CONC 1795
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)	(ug/mL)
Ag	0.250	3	0.258	0.005	2	0.008	3.2			0.263	0.257	0.254
Al	5.000	3	5.063	0.129	3	0.063	1.3			5.205	5.027	4.956
As	1.250	3	1.362	0.029	2	0.112	9.0	+		1.395	1.350	1.341
B	1.000	3	1.011	0.042	4	0.011	1.1			1.057	0.999	0.976
Ba	0.250	3	0.256	0.008	3	0.006	2.4			0.264	0.254	0.249
Be	0.050	3	0.049	0.001	3	-0.001	-1.4			0.051	0.049	0.048
Bi	12.500	3	12.533	0.345	3	0.033	0.3			12.913	12.447	12.239
Ca	12.500	3	12.641	0.318	3	0.141	1.1			12.992	12.556	12.374
Cd	0.250	3	0.284	0.038	13	0.034	13.7	+		0.250	0.277	0.326
Ce		3	0.014	0.014	104					-0.002	0.019	0.025
Co	0.500	3	0.525	0.012	2	0.025	5.0			0.538	0.521	0.516
Cr	0.500	3	0.519	0.011	2	0.019	3.7			0.532	0.514	0.511
Cu	0.500	3	0.475	0.016	3	-0.025	-5.1			0.492	0.471	0.461
Dy		3	0.002	0.002	106					-0.001	0.003	0.004
Eu		3	0.002	0.001	35					0.001	0.002	0.002
Fe	10.000	3	10.464	0.292	3	0.464	4.6			10.787	10.385	10.219
K	12.500	3	13.442	1.069	8	0.942	7.5	+		14.380	13.669	12.278
La		3	0.008	0.004	49					0.004	0.009	0.011
Li	1.000	3	1.007	0.035	3	0.007	0.7			1.046	0.998	0.978
Mg	15.600	3	16.924	0.458	3	1.324	8.5	+		17.433	16.793	16.545
Mn	0.250	3	0.260	0.007	3	0.010	4.0			0.268	0.258	0.254
Mo	0.500	3	0.524	0.013	2	0.024	4.7			0.538	0.520	0.513
Na	18.350	3	18.981	0.561	3	0.631	3.4			19.609	18.806	18.529
Nd		3	0.018	0.014	77					0.002	0.023	0.029
Ni	0.500	3	0.513	0.018	4	0.013	2.6			0.533	0.506	0.499
P	2.500	3	2.515	0.063	3	0.015	0.6			2.583	2.502	2.458
Pb	1.250	3	1.314	0.025	2	0.064	5.1			1.342	1.302	1.296
Pd		3	0.044	0.036	82					0.006	0.050	0.078
Rh		3	0.020	0.015	75					0.003	0.025	0.032
Ru		3	0.016	0.008	49					0.008	0.017	0.024
Sb	1.250	3	1.673	0.028	2	0.423	33.8	+		1.703	1.670	1.646
Se	1.250	3	1.347	0.014	1	0.097	7.7			1.363	1.338	1.339
Si	10.000	3	9.748	0.237	2	-0.252	-2.5			10.013	9.673	9.557
Sn		3	0.127	0.032	26					0.093	0.129	0.158
Sr	0.250	3	0.261	0.007	3	0.011	4.4			0.269	0.259	0.255
Te		3	0.048	0.005	11					0.041	0.050	0.051
Th		3	0.018	0.002	12					0.018	0.020	0.016
Ti	0.500	3	0.510	0.014	3	0.010	1.9			0.525	0.506	0.498
Tl	1.250	3	1.305	0.027	2	0.055	4.4			1.334	1.296	1.283
U		3	0.297	0.183	62					0.091	0.359	0.441
V	0.500	3	0.509	0.014	3	0.009	1.9			0.525	0.505	0.498
W		3	0.024	0.010	43					0.013	0.034	0.026
Y		3	0.001	0.000	35					0.001	0.002	0.002
Zn	0.500	3	0.521	0.009	2	0.021	4.2			0.532	0.519	0.513
Zr	1.000	3	1.017	0.028	3	0.017	1.7			1.048	1.009	0.995
TIME		3	########	0.000	0					########	########	########

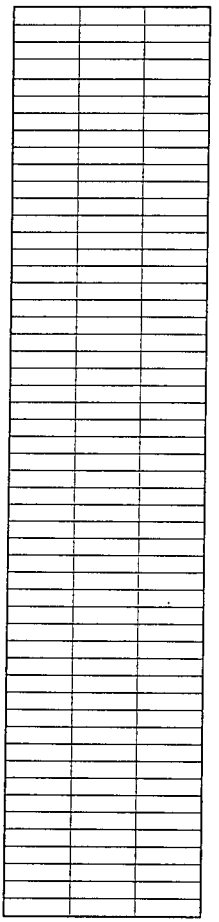
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										MCVB1 @	CVB1 @	CVB1 @2
										A0075	A0075	A0075
										2/20/96	2/20/96	2/20/96
			Statistical Summary for 'MCVB1 @2'							10:13	11:13	12:24
(MCVB @2 Post Digestion Spike)										CONC	CONC	CONC
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	1841	1887	1933
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)	(ug/mL)
Ag		3	0.004	0.001	19					0.004	0.003	0.004
Al		3	-0.016	0.045	-287					-0.046	-0.038	0.036
As		3	0.175	0.014	8					0.163	0.172	0.191
B		3	-0.008	0.005	-62					-0.009	-0.012	-0.002
Ba		3	0.001	0.000	27					0.001	0.001	0.001
Be		3	0.001	0.000	4					0.001	0.001	0.001
Bi		3	0.062	0.006	9					0.068	0.060	0.057
Ca		3	0.006	0.008	123					0.001	0.003	0.015
Cd		3	0.024	0.027	115					-0.005	0.049	0.026
Ce	1.000	3	0.981	0.010	1	-0.019	-1.9			0.981	0.991	0.970
Co		3	0.002	0.001	45					0.001	0.003	0.003
Cr		3	0.002	0.001	30					0.002	0.002	0.003
Cu		3	0.010	0.001	10					0.009	0.011	0.010
Dy	1.000	3	0.980	0.014	1	-0.020	-2.0			0.987	0.989	0.964
Eu	1.000	3	0.983	0.015	2	-0.017	-1.7			0.991	0.992	0.965
Fe		3	0.003	0.001	41					0.004	0.002	0.003
K		3	0.350	0.574	164					0.743	-0.308	0.616
La	0.500	3	0.487	0.005	1	-0.013	-2.7			0.487	0.491	0.482
Li		3	0.001	0.001	49					0.000	0.001	0.001
Mg		3	-0.023	0.011	-46					-0.031	-0.027	-0.011
Mn		3	0.000	0.000	-68					-0.001	-0.001	0.000
Mo		3	0.006	0.001	11					0.005	0.006	0.007
Na		3	0.114	0.031	27					0.094	0.098	0.150
Nd	1.000	3	0.977	0.008	1	-0.023	-2.3			0.977	0.984	0.968
Ni		3	0.054	0.021	38					0.077	0.048	0.037
P		3	0.068	0.015	22					0.054	0.068	0.083
Pb		3	0.145	0.002	1					0.143	0.147	0.144
Pd	1.000	3	1.026	0.027	3	0.026	2.6			0.998	1.028	1.053
Rh	1.000	3	1.017	0.007	1	0.017	1.7			1.014	1.025	1.012
Ru	1.000	3	1.057	0.013	1	0.057	5.7			1.061	1.067	1.042
Sb		3	0.076	0.009	12					0.066	0.078	0.083
Se		3	0.066	0.008	12					0.056	0.070	0.070
Si		3	9.220	0.619	7					9.926	8.777	8.956
Sn	1.000	3	1.128	0.010	1	0.128	12.8	+		1.124	1.140	1.122
Sr		3	0.001	0.000	8					0.001	0.001	0.001
Te	1.000	3	1.045	0.017	2	0.045	4.5			1.043	1.062	1.029
Th	5.000	3	1.493	0.030	2	-3.507	-70.1		-	1.512	1.510	1.458
Ti		3	0.003	0.000	17					0.002	0.003	0.003
Tl		3	0.029	0.010	35					0.025	0.022	0.041
U	12.500	3	12.055	0.157	1	-0.445	-3.6			12.129	12.161	11.875
V		3	0.002	0.001	38					0.002	0.002	0.003
W	1.000	3	0.998	0.010	1	-0.002	-0.2			1.000	1.006	0.987
Y	0.500	3	0.462	0.008	2	-0.038	-7.5			0.467	0.467	0.453
Zn		3	0.001	0.000	57					0.000	0.001	0.001
Zr		3	-0.011	0.001	-10					-0.011	-0.012	-0.009
TIME		3	########	0.000	0					########	########	########

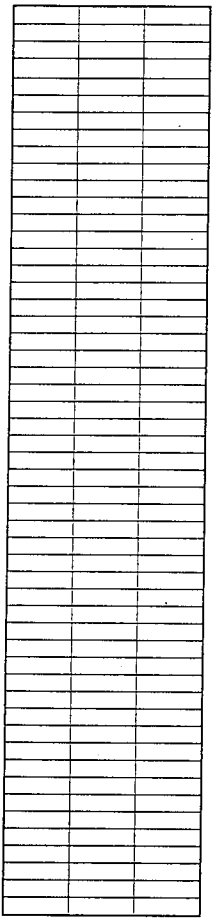
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

									QC SSTMCV 951	MCV 9512081903
									A0075	A0075
									2/20/96	2/20/96
Statistical Summary for 'QC SSTMCV 951208I903'									09:37	13:21
("QC-SSTMCV" SST Midrange Cal. Check Std.)									CONC	CONC
	TRUE	***N***	***Average***	***S.Dev***	***%RSD***	***Bias***	***Bias***	***High***	***Low***	2163	2209
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)
Ag	0.500	2	0.514	0.001	0	0.014	2.8			0.515	0.513
Al	5.000	2	5.124	0.192	4	0.124	2.5			5.259	4.988
As	2.000	2	2.151	0.008	0	0.151	7.6			2.146	2.157
B		2	0.135	0.080	59					0.079	0.191
Ba	0.100	2	0.102	0.001	1	0.002	2.5			0.103	0.102
Be	0.100	2	0.099	0.001	1	-0.001	-1.3			0.100	0.098
Bi	1.500	2	1.699	0.158	9	0.199	13.2	+		1.811	1.587
Ca	1.000	2	1.160	0.192	17	0.160	16.0	+		1.295	1.024
Cd	0.200	2	0.198	0.015	8	-0.002	-0.9			0.188	0.209
Ce		2	0.013	0.010	75					0.006	0.021
Co		2	0.001	0.001	177					0.000	0.002
Cr	0.300	2	0.314	0.002	1	0.014	4.5			0.315	0.312
Cu		2	-0.003	0.002	-60					-0.005	-0.002
Dy		2	0.003	0.002	87					0.001	0.004
Eu		2	0.008	0.000	2					0.008	0.008
Fe	0.500	2	0.659	0.162	25	0.159	31.7	+		0.773	0.544
K	50.000	2	49.238	1.497	3	-0.762	-1.5			50.297	48.180
La		2	0.041	0.034	83					0.064	0.017
Li		2	0.003	0.001	28					0.002	0.003
Mg		2	-0.057	0.017	-30					-0.069	-0.045
Mn	0.100	2	0.104	0.001	1	0.004	3.5			0.104	0.103
Mo		2	0.007	0.002	30					0.005	0.008
Na	5.000	2	5.185	0.022	0	0.185	3.7			5.200	5.170
Nd		2	0.014	0.010	74					0.007	0.021
Ni	0.500	2	0.803	0.145	18	0.303	60.5	+		0.905	0.700
P	4.000	2	4.119	0.190	5	0.119	3.0			4.254	3.985
Pb	3.000	2	3.115	0.006	0	0.115	3.8			3.119	3.111
Pd		2	-0.009	0.022	-231					-0.025	0.006
Rh		2	0.012	0.019	155					-0.001	0.026
Ru		2	0.014	0.004	26					0.012	0.017
Sb	2.000	2	2.697	0.011	0	0.697	34.8	+		2.689	2.705
Se	2.500	2	2.623	0.002	0	0.123	4.9			2.624	2.622
Si	3.000	2	5.409	0.055	1	2.409	80.3	+		5.370	5.448
Sn		2	0.092	0.031	34					0.070	0.114
Sr		2	0.002	0.000	15					0.002	0.002
Te		2	0.034	0.003	10					0.032	0.037
Th		2	0.072	0.008	11					0.067	0.078
Ti		2	0.001	0.001	111					0.000	0.001
Tl		2	0.024	0.007	28					0.019	0.029
U	20.000	2	20.139	0.240	1	0.139	0.7			20.309	19.969
V	0.500	2	0.512	0.004	1	0.012	2.4			0.515	0.509
W		2	0.031	0.007	24					0.036	0.025
Y		2	0.001	0.000	21					0.001	0.001
Zn		2	-0.002	0.000	-2					-0.002	-0.002
Zr	0.500	2	0.506	0.002	0	0.006	1.1			0.507	0.504
TIME	10000	2	#######	0.000	0	0.000	0.0			########	########

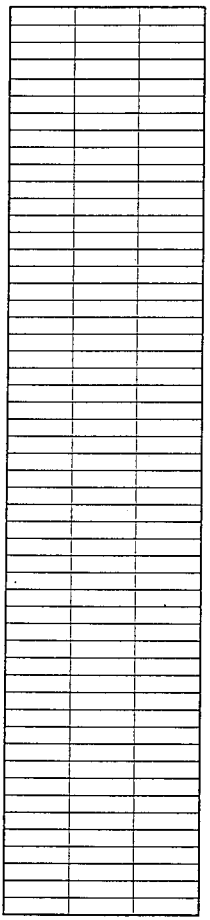
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC SSTA 9512	STA 9512081902
										A0075	A0075
										2/20/96	2/20/96
Statistical Summary for 'QC SSTA 9512081902'										09:33	13:18
("QC-SSTA" Interference Check Std.)										CONC	CONC
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	2071	2117
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)
Ag		2	-0.027	0.000	-1					-0.027	-0.027
Al	250.0	2	248.968	2.522	1	-1.032	-0.4			250.751	247.184
As		2	0.687	0.014	2					0.677	0.697
B		2	0.345	0.051	15					0.309	0.382
Ba		2	0.010	0.000	1					0.010	0.010
Be		2	0.001	0.000	1					0.001	0.001
Bi	200.0	2	195.660	2.555	1	-4.340	-2.2			197.467	193.853
Ca	250.0	2	245.212	2.225	1	-4.788	-1.9			246.785	243.639
Cd		2	0.072	0.007	10					0.067	0.077
Ce		2	0.105	0.002	2					0.104	0.106
Co		2	0.017	0.001	6					0.017	0.018
Cr		2	0.280	0.002	1					0.278	0.281
Cu		2	-0.150	0.002	-1					-0.152	-0.149
Dy		2	0.024	0.001	2					0.024	0.025
Eu		2	0.087	0.002	3					0.089	0.086
Fe	200.0	2	197.919	2.385	1	-2.081	-1.0			199.606	196.232
K	100.0	2	99.310	3.235	3	-0.690	-0.7			101.598	97.023
La	50.0	2	49.945	0.511	1	-0.055	-0.1			50.306	49.583
Li		2	0.036	0.000	1					0.035	0.036
Mg		2	-0.576	0.136	-24					-0.672	-0.480
Mn		2	0.020	0.000	1					0.019	0.020
Mo		2	0.116	0.001	1					0.116	0.117
Na		2	0.866	0.009	1					0.873	0.860
Nd		2	0.169	0.008	5					0.163	0.175
Ni	200.0	2	191.345	0.909	0	-8.655	-4.3			191.988	190.703
P	200.0	2	197.360	3.743	2	-2.640	-1.3			200.007	194.713
Pb		2	1.029	0.003	0					1.031	1.027
Pd		2	0.342	0.108	32					0.418	0.265
Rh		2	0.136	0.020	14					0.122	0.150
Ru		2	0.232	0.047	20					0.199	0.265
Sb		2	0.776	0.002	0					0.775	0.778
Se		2	1.659	0.007	0					1.665	1.654
Si		2	8.479	1.368	16					9.447	7.512
Sn		2	1.913	0.018	1					1.900	1.926
Sr		2	0.019	0.000	1					0.020	0.019
Te		2	0.643	0.002	0					0.644	0.641
Th		2	0.689	0.120	17					0.604	0.774
Ti		2	0.004	0.001	16					0.004	0.005
Tl		2	0.428	0.016	4					0.417	0.440
U	200.0	2	198.185	3.237	2	-1.815	-0.9			200.474	195.897
V		2	0.048	0.003	6					0.046	0.050
W		2	0.524	0.012	2					0.532	0.515
Y		2	0.025	0.001	4					0.026	0.024
Zn		2	0.013	0.000	4					0.013	0.013
Zr		2	-0.005	0.009	-186					0.002	-0.012
TIME		2	########	0.000	0					########	########

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										2796.4	3371.5	6651.7	
										SRM 2709	SRM 2709	SRM 2709	
										LCS BX112/	LCS BX112/	LCS/BX104/45day	
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	2/20/96	2/20/96	2/20/96	
	(ug/g)		(ug/g)	(ug/g)	(%)	(ug/g)	(%)	(>125%)	(<75%)	ug/g	ug/g	ug/g	
Ag	0.410	0								--	--	--	
Al	75000	3	69982.7	2225.3	3.2	-5017.3	-6.7			71237.64	67413.39	71297.22	
As	17.700	3	459.2	86.2	18.8	441.5	2494.5		-	[377.63]	[450.71]	[549.36]	
B		0								--	--	--	
Ba	968.0	3	862.7	25.7	3.0	-105.3	-10.9			882.07	833.48	872.44	
Be		0								--	--	--	
Bi		0								--	--	--	
Ca	18900	3	20255.5	1837.2	9.1	1355.5	7.2			19701.87	18758.73	22305.89	
Cd	0.380	0								--	--	--	
Ce		0								--	--	--	
Co	13.400	0								--	--	--	
Cr	130.0	3	192.2	21.0	10.9	62.2	47.9		-	[180.48]	[179.74]	[216.51]	
Cu	34.600	0								--	--	--	
Dy		0								--	--	--	
Eu		0								--	--	--	
Fe	35000	3	33415.2	1019.4	3.1	-1584.8	-4.5			33891.47	32244.88	34109.31	
La		0								--	--	--	
Li		0								--	--	--	
Mg	15100	3	15280.4	502.3	3.3	180.4	1.2			15555.55	14700.71	15584.90	
Mn	538.0	3	779.1	17.7	2.3	241.1	44.8		-	[767.00]	[799.36]	[770.86]	
Mo		0								--	--	--	
Na	11600	3	15152.0	854.6	5.6	3552.0	30.6	+		14636.16	14681.32	16138.39	
Nd		0								--	--	--	
P	620.0	2	922.7	52.4	5.7	302.7	48.8		-	[885.60]	[959.71]	--	
Pb	18.900	3	523.2	143.8	27.5	504.3	2668.2		-	[414.12]	[469.29]	[686.19]	
Pd		0								--	--	--	
Rh		0								--	--	--	
Ru		0								--	--	--	
Sb	7.900	2	346.5	24.8	7.2	338.6	4285.9		-	[328.94]	[364.03]	--	
Se	1.570	3	676.8	151.9	22.5	675.2	#####		-	[564.29]	[616.39]	[849.62]	
Si	296600	3	266081.3	######	4.1	######	-10.3			266778.36	254774.38	276691.09	
Sn		0								--	--	--	
Sr	231.0	3	230.4	9.5	4.1	-0.6	-0.3		-	[231.60]	[220.40]	[239.19]	
Te		0								--	--	--	
Th		0								--	--	--	
Ti	3420.0	3	2845.5	121.8	4.3	-574.5	-16.8			2966.19	2847.67	2722.67	
Tl	0.740	0								--	--	--	
U		0								--	--	--	
V	112.0	3	146.2	18.0	12.3	34.2	30.5		-	[133.36]	[138.40]	[166.69]	
W		0								--	--	--	
Y		0								--	--	--	
Zn	106.0	3	216.6	171.7	79.3	110.6	104.3		-	[120.22]	[114.70]	[414.73]	
Zr		0								--	--	--	

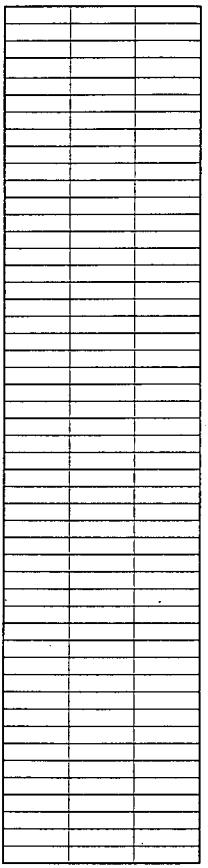
Due to HIGH Na BLANK FROM HOT cell

Other 2709's prep'd in SRPL

MWCh

Subr. Na Blank & then Na = 12,100

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Analysis Report Summary Tue 02-20-96 01:43:48 PM page 1

A #475
ICP-325-V05-1
2/22/96 DRS

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	SPC-BLK 108447	A0075	ICP1A	02/20/96	08:31	DRS	S	INT
2	SPC-BLK 108447	A0075	ICP1A	02/20/96	08:31	DRS	S	CONC
3	SPC-STD 960103I100	A0075	ICP1A	02/20/96	08:34	DRS	S	INT
4	SPC-STD 960103I100	A0075	ICP1A	02/20/96	08:34	DRS	S	CONC
5	ICP1.0	A0075	ICP1A	02/20/96	08:43		X	IR
6	ICP1.1B	A0075	ICP1A	02/20/96	08:45		X	IR
7	ICP1.1A	A0075	ICP1A	02/20/96	08:48		X	IR
8	ICP1.2	A0075	ICP1A	02/20/96	08:52		X	IR
9	ICP1.3	A0075	ICP1A	02/20/96	08:55		X	IR
10	ICP1.4	A0075	ICP1A	02/20/96	08:59		X	IR
11	ICP1.5	A0075	ICP1A	02/20/96	09:03		X	IR
12	ICP1.6	A0075	ICP1A	02/20/96	09:06		X	IR
13	ICP1.7	A0075	ICP1A	02/20/96	09:10		X	IR
14	ICP1.8	A0075	ICP1A	02/20/96	09:14		X	IR
15	ICP1.0 960103F100	A0075	ICP1A	02/20/96	09:23	DRS	S	CONC
Pass 16	QC_MCVA 960130I901	A0075	ICP1A	02/20/96	09:25	DRS	Q	CONC
PASS 17	QC_MCVB1 960123I901	A0075	ICP1A	02/20/96	09:29	DRS	Q	CONC
18	QC SSTA 951208I902	A0075	ICP1A	02/20/96	09:33	DRS	S	CONC
19	QC SSTMCV 951208I903	A0075	ICP1A	02/20/96	09:37	DRS	S	CONC
20	QC_SRM-1643d 108518	A0075	ICP1A	02/20/96	09:41	DRS	Q	CONC
21	QC CCV1 960126H901	A0075	ICP1A	02/20/96	09:45	DRS	S	CONC
22	ICP1.0 960103F100	A0075	ICP1A	02/20/96	09:49	DRS	S	CONC
23	96-2602-BLK (DRS 2-21-96)	A0075	ICP1A	02/20/96	09:51	DRS	S	CONC
24	96-2606 @5	A0075	ICP1A	02/20/96	09:54	DRS	S	CONC
25	96-2606	A0075	ICP1A	02/20/96	09:58	DRS	S	CONC
26	96-2606-PS-A	A0075	ICP1A	02/20/96	10:02	DRS	S	CONC
27	MCVA @2	A0075	ICP1A	02/20/96	10:05	DRS	S	CONC
28	96-2606-PS-B	A0075	ICP1A	02/20/96	10:09	DRS	S	CONC
29	MCVB1 @2 (DRS 2-21-96)	A0075	ICP1A	02/20/96	10:13	DRS	S	CONC
30	96-2606 DUP	A0075	ICP1A	02/20/96	10:16	DRS	S	CONC
Pass* 31	QC_MCVA 960130I901	A0075	ICP1A	02/20/96	10:21	DRS	Q	CONC
32	ICP1.0 960103F100	A0075	ICP1A	02/20/96	10:25	DRS	S	CONC
33	96-2608	A0075	ICP1A	02/20/96	10:28	DRS	S	CONC
34	96-2608 DUP (DRS 2-21-96)	A0075	ICP1A	02/20/96	10:31	DRS	S	CONC
35	SRM 2709 (LCS Dx112/C118-2)	A0075	ICP1A	02/20/96	10:34	DRS	S	CONC
Pass* 36	QC_MCVA 960130I901	A0075	ICP1A	02/20/96	10:44	DRS	Q	CONC
37	ICP1.0 960103F100	A0075	ICP1A	02/20/96	10:49	DRS	S	CONC
38	96-2612-BLK	A0075	ICP1A	02/20/96	10:51	DRS	S	CONC
39	96-2612 @5	A0075	ICP1A	02/20/96	10:55	DRS	S	CONC
40	96-2612	A0075	ICP1A	02/20/96	10:58	DRS	S	CONC
41	96-2612-PS-A	A0075	ICP1A	02/20/96	11:02	DRS	S	CONC
42	MCVA @2	A0075	ICP1A	02/20/96	11:06	DRS	S	CONC
43	96-2612-PS-B	A0075	ICP1A	02/20/96	11:09	DRS	S	CONC
44	MCVB1 @2	A0075	ICP1A	02/20/96	11:13	DRS	S	CONC
45	96-2612 DUP	A0075	ICP1A	02/20/96	11:16	DRS	S	CONC
Pass* 46	QC_MCVA 960130I901	A0075	ICP1A	02/20/96	11:21	DRS	Q	CONC
47	96-2614	A0075	ICP1A	02/20/96	11:25	DRS	S	CONC
48	96-2614 DUP	A0075	ICP1A	02/20/96	11:29	DRS	S	CONC
49	96-2616	A0075	ICP1A	02/20/96	11:32	DRS	S	CONC
50	96-2616 DUP (DRS 2-21-96)	A0075	ICP1A	02/20/96	11:37	DRS	S	CONC
51	SRM 2709 (LCS Dx112/C119-2)	A0075	ICP1A	02/20/96	11:41	DRS	S	CONC
Pass* 52	QC_MCVA 960130I901	A0075	ICP1A	02/20/96	11:49	DRS	Q	CONC
53	ICP1.0 960103F100	A0075	ICP1A	02/20/96	11:53	DRS	S	CONC

* Sb-N/A
@ Th, Y - N/A
PS-A Post spike MCVA1 sample (1:1)
PS-B Post spike MCVB1 sample (1:1)

Analysis Report Summary Tue 02-20-96 01:43:48 PM

	#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
	54	96-2979-BLK	A0075	ICP1A	02/20/96	11:59	DRS	S	CONC
	55	96-2979 @5	A0075	ICP1A	02/20/96	12:03	DRS	S	CONC
	56	96-2979	A0075	ICP1A	02/20/96	12:07	DRS	S	CONC
	57	96-2979-PS-A	A0075	ICP1A	02/20/96	12:10	DRS	S	CONC
	58	MCVA @2	A0075	ICP1A	02/20/96	12:14	DRS	S	CONC
	59	96-2979 DUP	A0075	ICP1A	02/20/96	12:18	DRS	S	CONC
	60	96-2979 DUP SPIKE-B	A0075	ICP1A	02/20/96	12:21	DRS	S	CONC
	61	MCVB1 @2	A0075	ICP1A	02/20/96	12:24	DRS	S	CONC
Pass*	62	QC_MCVA 960130I901	A0075	ICP1A	02/20/96	12:30	DRS	Q	CONC
	63	ICP1.0 960103F100	A0075	ICP1A	02/20/96	12:34	DRS	S	CONC
	64	96-2982	A0075	ICP1A	02/20/96	12:36	DRS	S	CONC
	65	96-2982 DUP	A0075	ICP1A	02/20/96	12:40	DRS	S	CONC
	66	96-2984	A0075	ICP1A	02/20/96	12:44	DRS	S	CONC
	67	96-2984 DUP	A0075	ICP1A	02/20/96	12:47	DRS	S	CONC
	68	96-2985	A0075	ICP1A	02/20/96	12:51	DRS	S	CONC
	69	96-2985 DUP	A0075	ICP1A	02/20/96	12:54	DRS	S	CONC
	70	SRM 2709 (LCS/DX104/45Day)	A0075	ICP1A	02/20/96	12:58	DRS	S	CONC
5.01	71	U @5 PPM	A0075	ICP1A	02/20/96	13:01	DRS	S	CONC
48.7	72	U @50 PPM	A0075	ICP1A	02/20/96	13:05	DRS	S	CONC
Pass*	73	QC_MCVA 960130I901	A0075	ICP1A	02/20/96	13:10	DRS	Q	CONC
Pass⊗	74	QC_MCVB 960123I901	A0075	ICP1A	02/20/96	13:14	DRS	Q	CONC
	75	QC SSTA 951208I902	A0075	ICP1A	02/20/96	13:18	DRS	S	CONC
	76	QC SSTMCV 951208I903	A0075	ICP1A	02/20/96	13:21	DRS	S	CONC
	77	QC_SRM-1643d 108518	A0075	ICP1A	02/20/96	13:25	DRS	Q	CONC
	78	QC CCV1 960126H901	A0075	ICP1A	02/20/96	13:30	DRS	S	CONC
	79	ICP1.0 960103F100	A0075	ICP1A	02/20/96	13:34	DRS	S	CONC

Analysis Report Averages Tue 02-20-96 01:43:48 PM page 3

#	Sample Name	Ag	Al	As	B	Ba	Be
1	SPC-BLK 108447	5787.33	1816	1363.33	1759.33	271	160
2	SPC-BLK 108447	-.0611	-.3790	-.2236	.0389	-.0139	-.0021
3	SPC-STD 960103I100	5854.67	1853.33	1399.33	1776	271.333	161
4	SPC-STD 960103I100	-.0587	-.3671	-.2073	.0409	-.0139	-.0020
5	ICP1.0	.5795	.18269	.13823	.16403	.0272	.01606
6	ICP1.1B					.70316	
7	ICP1.1A					6.6188	
8	ICP1.2		58.5051		35.5736		
9	ICP1.3						
10	ICP1.4			17.43			
11	ICP1.5						
12	ICP1.6						
13	ICP1.7	25.6993					1.38446
14	ICP1.8						
15	ICP1.0 960103F100	.0003	.0012	.0062	.0274	-.0003	.0000
16	QC_MCVA 960130I901	.5080	10.05	2.640	2.104	.5106	.0973
17	QC_MCVB1 960123I901	.0200	-.1402	.2986	-.0203	.0011	.0011
18	QC SSTA 951208I902	-.0274	250.8	.6775	.3093	.0100	.0006
19	QC SSTMCV 951208I903	.5151	5.259	2.146	.0790	.1031	.0997
20	QC_SRM-1643d 108518	0.0024	0.1886	0.0687	0.1725	.5233	0.0125
21	QC CCV1 960126H901	.0021	1.957	2.077	2.041	.9982	.9876
22	ICP1.0 960103F100	.0016	.0090	-.0042	-.0034	.0013	.0013
23	96-2608-BLK	.0091	.2728	.0603	.0172	.0037	.0008
24	96-2606 @5	.0036	.9576	.0183	-.0128	.0020	.0002
25	96-2606	.0093	4.504	.0592	.0023	.0075	.0003
26	96-2606-PS-A	.2569	7.437	1.422	1.042	.2592	.0511
27	MCVA @2	.2633	5.205	1.395	1.057	.2644	.0509
28	96-2606-PS-B	.0123	2.269	.2009	-.0212	.0049	.0007
29	MCVB @2	.0045	-.0460	.1631	-.0093	.0005	.0005
30	96-2606 DUP	.0080	5.813	.0590	.1984	.0083	.0003
31	QC_MCVA 960130I901	.5223	10.33	2.747	2.196	.5232	.0993
32	ICP1.0 960103F100	.0011	.0148	.0043	.0058	.0005	.0001
33	96-2608	.0077	3.571	.0494	.0279	.0075	.0003
34	96-2608 DUP	.0080	4.025	.0526	.0143	.0084	.0003
35	SRM 2709	.0079	25.47	.1350	.0232	.3154	.0025
36	QC_MCVA 960130I901	.5057	9.946	2.677	2.049	.5027	.0961
37	ICP1.0 960103F100	.0018	.0152	.0047	-.0418	.0006	.0001
38	96-2612-BLK	.0097	.2230	.0532	-.0236	.0041	.0003
39	96-2612 @5	.0055	1.745	.0208	-.0431	.0034	.0001
40	96-2612	.0103	8.180	.0789	-.0208	.0120	.0003
41	96-2612-PS-A	.2532	9.198	1.399	.9899	.2540	.0497
42	MCVA @2	.2568	5.027	1.350	.9987	.2539	.0489
43	96-2612-PS-B	.0092	4.209	.2230	-.0342	.0072	.0007
44	MCVB1 @2	.0031	-.0377	.1720	-.0115	.0008	.0006
45	96-2612 DUP	.0092	8.612	.0822	.2299	.0105	.0004
46	QC_MCVA 960130I901	.4962	9.738	2.597	2.055	.4903	.0931
47	96-2614	.0110	4.233	.0583	.0376	.0082	.0004
48	96-2614 DUP	.0099	5.286	.0736	.0286	.0087	.0004
49	96-2616	.0101	3.385	.0632	.0130	.0098	.0003
50	96-2616 DUP	.0104	3.341	.0550	-.0002	.0097	.0004
51	SRM 2709	.0108	19.99	.1337	.0086	.2472	.0020
52	QC_MCVA 960130I901	.5057	9.936	2.684	2.027	.5008	.0959
53	ICP1.0 960103F100	.0024	.0210	.0099	-.0474	.0006	.0001

Analysis Report Averages Tue 02-20-96 01:43:48 PM page 4

#	Sample Name	Ag	Al	As	B	Ba	Be
54	96-2979-BLK	.0088	.1163	.0457	-.0249	.0029	.0003
55	96-2979 @5	.0050	9.657	.0498	-.0511	.0024	.0002
56	96-2979	.0135	44.51	.1389	-.0333	.0085	.0004
57	96-2979-PS-A	.2495	27.51	1.410	.9726	.2501	.0487
58	MCVA @2	.2541	4.956	1.341	.9762	.2495	.0481
59	96-2979 DUP	.0164	63.27	.1698	-.0342	.0107	.0006
60	96-2979 DUP SPIKE-B	.0120	31.77	.2547	-.0405	.0063	.0008
61	MCVB1 @2	.0044	.0363	.1911	-.0023	.0009	.0005
62	QC_MCVA 960130I901	.4990	9.806	2.640	2.149	.4925	.0933
63	ICP1.0 960103F100	.0029	.0346	.0118	.0310	.0012	.0002
64	96-2982	.0056	70.81	.2128	.0385	.0082	.0004
65	96-2982 DUP	.0065	49.65	.1570	.0319	.0064	.0004
66	96-2984	.0237	23.05	.1188	.0122	.0192	.0007
67	96-2984 DUP	.0224	21.91	.1181	.0034	.0185	.0007
68	96-2985	.0191	56.63	.1511	-.0012	.0121	.0004
69	96-2985 DUP	.0179	71.83	.1990	-.0048	.0136	.0004
70	SRM 2709	.0092	10.72	.0826	-.0078	.1312	.0011
71	U @5 PPM	.0030	.0306	.0087	-.0308	.0012	.0001
72	U @50 PPM	-.0043	-.0697	.0312	-.0548	.0017	.0001
73	QC_MCVA 960130I901	.5046	9.943	2.675	2.015	.5010	.0959
74	QC_MCVB 960123I901	.0047	-.0681	.3459	-.0419	.0011	.0009
75	QC SSTA 951208I902	-.0270	247.2	.6869	.3815	.0101	.0006
76	QC SSTMCV 951208I903	.5150	4.988	2.157	.1914	.1018	.0977
77	QC_SRM-1643d 108518	0.0043	0.1473	0.0707	0.2127	.5222	0.0123
78	QC CCV1 960126H901	.0026	1.948	2.134	2.067	.9828	.9720
79	ICP1.0 960103F100	.0022	.0236	.0195	.0196	.0008	.0003

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	SPC-BLK 108447	1258	1060.67	628.333	5587	1249	388
2	SPC-BLK 108447	-.2656	-.0957	.0091	-.4348	-.0519	-.0277
3	SPC-STD 960103I100	1478.33	1374.33	636	5586	1228.33	412.667
4	SPC-STD 960103I100	-.2584	-.0028	.0097	-.4352	-.0542	-.0237
5	ICP1.0	.12646	.1121	.0586	.55976	.12143	.04003
6	ICP1.1B					1.57659	1.01883
7	ICP1.1A					13.8839	9.38583
8	ICP1.2		67.2875	8.02693			
9	ICP1.3						
10	ICP1.4				19.7638		
11	ICP1.5						
12	ICP1.6						
13	ICP1.7	20.7437					
14	ICP1.8						
15	ICP1.0 960103F100	.0340	-.0166	.0209	-.0058	-.0008	-.0009
16	QC_MCVA 960130I901	24.82	25.04	.5027	-.0031	1.029	1.035
17	QC_MCVB1 960123I901	.1371	.0406	.0172	1.924	.0030	.0067
18	QC SSTA 951208I902	197.5	246.8	.0869	.1035	.0166	.2781
19	QC SSTMCV 951208I903	1.811	1.295	.1875	.0063	-.0002	.3147
20	QC_SRM-1643d 108518	.0824	31.04	0.0090	.0070	0.0265	0.0216
21	QC CCV1 960126H901	1.980	2.009	1.019	.0012	1.024	.5105
22	ICP1.0 960103F100	.0084	-.0054	.0051	-.0016	.0006	-.0009
23	96-2608-BLK	.0340	.4578	-.0052	.0525	.0167	.0076
24	96-2606 @5	.8591	.1056	.0007	.0280	.0051	.0500

Analysis Report Averages Tue 02-20-96 01:43:48 PM page 5

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
25	96-2606	4.063	.5186	.0070	.0782	.0156	.2430
26	96-2606-PS-A	14.62	13.18	.2596	.0544	.5367	.6529
27	MCVA @2	12.91	12.99	.2502	-.0025	.5384	.5316
28	96-2606-PS-B	2.173	.2951	-.0048	1.020	.0118	.1256
29	MCVB @2	.0677	.0010	-.0049	.9805	.0013	.0016
30	96-2606 DUP	5.236	.5590	-.0095	.0795	.0165	.3169
31	QC_MCVA 960130I901	25.49	25.75	.5007	.0083	1.061	1.066
32	ICP1.0 960103F100	.0254	.0045	-.0054	.0070	.0017	-.0017
33	96-2608	5.151	.5411	-.0118	.0761	.0147	.4251
34	96-2608 DUP	5.680	.5388	.0041	.0797	.0151	.4657
35	SRM 2709	.0692	7.045	.0063	.0708	.0186	.0645
36	QC_MCVA 960130I901	24.57	24.83	.4881	.0152	1.025	1.026
37	ICP1.0 960103F100	.0206	-.0046	-.0009	.0145	.0018	-.0003
38	96-2612-BLK	.0527	.5605	-.0123	.0717	.0151	.0079
39	96-2612 @5	1.576	.1615	-.0043	.0492	.0064	.0823
40	96-2612	7.366	.6006	.0117	.1000	.0176	.3800
41	96-2612-PS-A	16.02	12.96	.2576	.0761	.5280	.7127
42	MCVA @2	12.45	12.56	.2768	.0191	.5210	.5139
43	96-2612-PS-B	3.870	.3338	.0132	1.029	.0127	.2015
44	MCVB1 @2	.0603	.0027	.0490	.9911	.0027	.0021
45	96-2612 DUP	7.479	.6177	.0315	.0955	.0168	.3967
46	QC_MCVA 960130I901	24.07	24.29	.4974	.0266	1.004	1.007
47	96-2614	5.011	.5056	.0226	.1010	.0170	.3435
48	96-2614 DUP	6.273	.5253	.0073	.1003	.0184	.4255
49	96-2616	5.887	.5429	.0013	.0981	.0178	.4390
50	96-2616 DUP	5.731	.5978	.0101	.1031	.0190	.4183
51	SRM 2709	.0756	5.564	.0079	.0882	.0227	.0553
52	QC_MCVA 960130I901	24.47	24.82	.5389	.0223	1.026	1.024
53	ICP1.0 960103F100	-.0020	-.0099	.0434	.0159	.0027	-.0015
54	96-2979-BLK	.0332	.5157	.0639	.0686	.0130	.0039
55	96-2979 @5	.0539	.1973	.0698	.0381	.0052	.1934
56	96-2979	.2308	.9447	.0462	.0658	.0150	1.013
57	96-2979-PS-A	12.20	12.95	.3199	.0569	.5211	1.017
58	MCVA @2	12.24	12.37	.3255	.0249	.5163	.5107
59	96-2979 DUP	.3345	.8167	.0462	.0756	.0180	1.481
60	96-2979 DUP SPIKE-B	.2276	.4150	.0206	.9937	.0125	.7497
61	MCVB1 @2	.0566	.0151	.0265	.9702	.0035	.0029
62	QC_MCVA 960130I901	24.17	24.51	.5077	.0305	1.013	1.003
63	ICP1.0 960103F100	.0298	.0110	.0294	.0246	.0033	.0014
64	96-2982	.2316	.8141	.0251	.0806	.0148	.6444
65	96-2982 DUP	.1560	.5989	.0233	.0862	.0156	.4795
66	96-2984	.2343	.7698	.0802	.1343	.0137	2.420
67	96-2984 DUP	.2388	.7551	.1052	.1334	.0162	2.324
68	96-2985	.1045	1.473	.0494	.0831	.0159	.6833
69	96-2985 DUP	.1328	.6159	.0248	.0706	.0136	.9656
70	SRM 2709	.0505	3.353	.0109	.0814	.0168	.0326
71	U @5 PPM	.0155	-.0190	.0232	.0333	.0032	-.0001
72	U @50 PPM	.0932	-.0172	.0287	.0266	.0004	.0064
73	QC_MCVA 960130I901	24.46	24.83	.5235	.0165	1.025	1.020
74	QC_MCVB 960123I901	.0912	.0171	.0206	1.895	.0029	.0080
75	QC SSTA 951208I902	193.9	243.6	.0771	.1060	.0181	.2812
76	QC SSTMCV 951208I903	1.587	1.024	.2091	.0206	.0017	.3125
77	QC_SRM-1643d 108518	.0578	031.29	0.0234	.0299	0.0292	0.0209
78	QC CCV1 960126H901	1.962	1.960	1.018	.0173	1.026	.5034

Analysis Report Averages Tue 02-20-96 01:43:48 PM page 6

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
79	ICP1.0 960103F100	.0247	-.0123	.0115	.0171	.0025	-.0011

#	Sample Name	Cu	Dy	Eu	Fe	K	La
1	SPC-BLK 108447	433.667	1698.67	300	505.333	1875	876.333
2	SPC-BLK 108447	-.0722	-.0678	-.0218	-.0501	-11.68	-.1124
3	SPC-STD 960103I100	18958.3	1871.67	301.333	553.333	1878.33	890.667
4	SPC-STD 960103I100	9.490	-.0638	-.0215	-.0498	-11.60	-.1109
5	ICP1.0	.04439	.17063	.03013	.05103	.18783	.08779
6	ICP1.1B	.42113			6.17566		
7	ICP1.1A	3.66709			57.3637		
8	ICP1.2					2.2973	
9	ICP1.3		37.8152	9.14099			4.81013
10	ICP1.4						
11	ICP1.5						
12	ICP1.6						
13	ICP1.7						
14	ICP1.8						
15	ICP1.0 960103F100	-.0021	-.0018	-.0001	-.0074	-.3713	.0005
16	QC_MCVA 960130I901	.9360	-.0003	.0022	20.78	24.29	.0053
17	QC_MCVB1 960123I901	.0315	1.958	1.965	.0358	-1.122	.9601
18	QC SSTA 951208I902	-.1518	.0240	.0891	199.6	101.6	50.31
19	QC SSTMCV 951208I903	-.0046	.0010	.0080	.7728	50.30	.0645
20	QC_SRM-1643d 108518	0.0151	.0005	.0015	0.1352	02.370	.0197
21	QC CCV1 960126H901	1.974	.0011	.0009	2.049	4.788	.0052
22	ICP1.0 960103F100	.0013	-.0000	.0002	-.0036	-.1106	.0028
23	96-2608-BLK	.0193	.0079	.0028	.0519	2430.	.0164
24	96-2606 @5	.0043	.0038	.0012	.5445	512.4	.0082
25	96-2606	.0163	.0088	.0034	2.608	2361.	.0169
26	96-2606-PS-A	.5010	.0064	.0035	11.90	1263.	.0157
27	MCVA @2	.4919	-.0005	.0012	10.79	14.38	.0036
28	96-2606-PS-B	.0243	.9870	.9814	1.354	1229.	.4937
29	MCVB @2	.0092	.9871	.9905	.0037	.7427	.4871
30	96-2606 DUP	.0128	.0092	.0047	3.365	2400.	.0164
31	QC_MCVA 960130I901	.9588	.0015	.0027	21.30	25.91	.0074
32	ICP1.0 960103F100	-.0006	.0010	.0009	.0085	.2528	.0047
33	96-2608	.0155	.0078	.0034	2.479	2402.	.0163
34	96-2608 DUP	.0148	.0084	.0033	2.741	2408.	.0160
35	SRM 2709	.0130	.0098	.0040	12.12	2432.	.0250
36	QC_MCVA 960130I901	.9351	.0034	.0031	20.51	24.17	.0110
37	ICP1.0 960103F100	.0020	.0013	.0010	.0025	-.0553	.0052
38	96-2612-BLK	.0164	.0106	.0037	.0351	2344.	.0194
39	96-2612 @5	.0064	.0067	.0024	1.127	482.0	.0135
40	96-2612	.0162	.0111	.0042	5.345	2254.	.0209
41	96-2612-PS-A	.4874	.0098	.0045	13.04	1186.	.0205
42	MCVA @2	.4708	.0034	.0022	10.38	13.67	.0090
43	96-2612-PS-B	.0229	.9855	.9784	2.789	1178.	.4965
44	MCVB1 @2	.0110	.9894	.9921	.0015	-.3091	.4911
45	96-2612 DUP	.0130	.0108	.0043	5.845	2292.	.0202
46	QC_MCVA 960130I901	.9038	.0048	.0036	20.03	24.07	.0140
47	96-2614	.0190	.0118	.0042	2.477	2253.	.0216
48	96-2614 DUP	.0165	.0119	.0045	3.187	2255.	.0227
49	96-2616	.0155	.0117	.0045	3.661	2284.	.0213

Analysis Report Averages Tue 02-20-96 01:43:48 PM page 7

#	Sample Name	Cu	Dy	Eu	Fe	K	La
50	96-2616 DUP	.0169	.0119	.0043	3.421	2267.	.0231
51	SRM 2709	.0193	.0126	.0047	9.564	2258.	.0290
52	QC_MCVA 960130I901	.9282	.0041	.0032	20.48	23.75	.0128
53	ICP1.0 960103F100	.0005	.0030	.0011	-.0049	-.0474	.0068
54	96-2979-BLK	.0135	.0105	.0037	.0539	1133.	.0197
55	96-2979 @5	.0043	.0052	.0023	.1895	228.1	.0138
56	96-2979	.0226	.0093	.0051	1.010	1162.	.0330
57	96-2979-PS-A	.4865	.0081	.0047	10.69	604.5	.0250
58	MCVA @2	.4615	.0040	.0025	10.22	12.28	.0110
59	96-2979 DUP	.0287	.0108	.0061	1.493	1165.	.0272
60	96-2979 DUP SPIKE-B	.0274	.9617	.9536	.7554	589.7	.4892
61	MCVB1 @2	.0097	.9638	.9653	.0034	.6163	.4830
62	QC_MCVA 960130I901	.9061	.0054	.0044	20.19	23.54	.0137
63	ICP1.0 960103F100	.0013	.0033	.0013	.0125	.0237	.0063
64	96-2982	.0140	.0110	.0302	.5881	1256.	.0260
65	96-2982 DUP	.0147	.0111	.0151	.6716	1189.	.0234
66	96-2984	.0167	.0121	.0129	1.576	1306.	.0379
67	96-2984 DUP	.0168	.0121	.0125	1.639	1277.	.0380
68	96-2985	.0200	.0111	.0075	1.393	1070.	.0249
69	96-2985 DUP	.0210	.0093	.0078	1.531	1198.	.0227
70	SRM 2709	.0128	.0118	.0045	5.128	1303.	.0247
71	U @5 PPM	-.0011	.0048	.0024	-.0046	.7664	.0107
72	U @50 PPM	-.0067	.0033	.0180	-.0097	-.0474	.0099
73	QC_MCVA 960130I901	.9265	.0037	.0031	20.48	23.35	.0112
74	QC_MCVB 960123I901	.0219	1.912	1.916	.0121	-1.130	.9417
75	QC SSTA 951208I902	-.1490	.0248	.0857	196.2	97.02	49.58
76	QC SSTMCV 951208I903	-.0018	.0042	.0082	.5443	48.18	.0167
77	QC_SRM-1643d 108518	0.0175	.0043	.0025	.0919	02.323	.0158
78	QC CCV1 960126H901	1.943	.0034	.0014	2.025	4.385	.0077
79	ICP1.0 960103F100	.0009	.0032	.0013	-.0079	-.2212	.0072

#	Sample Name	Li	Mg	Mn	Mo	Na	Nd
1	SPC-BLK 108447	355	2066.67	171	677	351	3253.33
2	SPC-BLK 108447	-.0683	-.2406	-.0081	-.0507	-.8761	-.4202
3	SPC-STD 960103I100	20498.7	2161.33	54968	707.333	360.667	3264
4	SPC-STD 960103I100	9.721	-.2336	8.475	-.0491	-.8217	-.4162
5	ICP1.0	.03583	.20813	.01803	.06836	.03516	.32696
6	ICP1.1B		3.97993		1.03756	.47776	
7	ICP1.1A		34.3828		9.32173	4.34726	
8	ICP1.2	10.0717		5.3933			
9	ICP1.3						12.9699
10	ICP1.4						
11	ICP1.5						
12	ICP1.6						
13	ICP1.7						
14	ICP1.8						
15	ICP1.0 960103F100	.0002	-.0172	-.0015	-.0012	-.0068	-.0063
16	QC_MCVA 960130I901	2.021	33.41	.5157	1.035	37.69	.0084
17	QC_MCVB1 960123I901	.0023	-.0365	.0001	.0105	.1673	1.937
18	QC SSTA 951208I902	.0354	-.6719	.0194	.1156	.8727	.1635
19	QC SSTMCV 951208I903	.0023	-.0686	.1040	.0054	5.200	.0066
20	QC_SRM-1643d 108518	0.0196	08.660	0.0390	0.1153	022.29	.0174

Analysis Report Averages Tue 02-20-96 01:43:48 PM page 8

#	Sample Name	Li	Mg	Mn	Mo	Na	Nd
21	QC CCV1 960126H901	1.976	2.110	1.025	1.992	8.453	.0040
22	ICP1.0 960103F100	.0032	-.0051	-.0003	.0034	.0275	.0019
23	96-2608-BLK	.0076	.1143	.0773	.0146	1.141	.0478
24	96-2606 @5	.0174	.0276	.0231	.0063	4.996	.0231
25	96-2606	.0817	.1249	.1132	.0202	23.52	.0525
26	96-2606-PS-A	1.043	17.08	.3225	.5433	31.27	.0439
27	MCVA @2	1.046	17.43	.2682	.5330	19.61	.0023
28	96-2606-PS-B	.0450	.0667	.0584	.0166	12.27	1.006
29	MCVB @2	.0005	-.0314	-.0008	.0054	.0940	.9774
30	96-2606 DUP	.1035	.1348	.1113	.0213	29.91	.0534
31	QC_MCVA 960130I901	2.068	34.29	.5303	1.067	38.70	.0129
32	ICP1.0 960103F100	.0012	.0140	-.0009	.0019	.0618	.0060
33	96-2608	.0198	.1374	.0813	.0230	26.72	.0507
34	96-2608 DUP	.0184	.1485	.0849	.0219	29.65	.0529
35	SRM 2709	.0221	5.563	.2743	.0139	5.234	.0620
36	QC_MCVA 960130I901	1.975	33.04	.5127	1.028	37.19	.0239
37	ICP1.0 960103F100	.0017	.0078	-.0011	.0017	.0579	.0102
38	96-2612-BLK	.0090	.1202	.0804	.0139	1.214	.0647
39	96-2612 @3	.0038	.0452	.0229	.0080	6.474	.0396
40	96-2612	.0091	.1658	.1120	.0235	30.43	.0646
41	96-2612-PS-A	.9867	16.67	.3160	.5330	34.19	.0529
42	MCVA @2	.9978	16.79	.2576	.5199	18.81	.0228
43	96-2612-PS-B	.0076	.0748	.0583	.0201	15.98	1.013
44	MCVB1 @2	.0015	-.0273	-.0008	.0056	.0977	.9845
45	96-2612 DUP	.0063	.1829	.1116	.0202	31.46	.0664
46	QC_MCVA 960130I901	1.929	32.36	.5004	1.005	36.41	.0306
47	96-2614	.0138	.1617	.0907	.0214	25.78	.0725
48	96-2614 DUP	.0126	.1448	.1129	.0216	28.62	.0706
49	96-2616	.0402	.1438	.1078	.0246	27.23	.0736
50	96-2616 DUP	.0359	.1369	.1143	.0249	25.58	.0714
51	SRM 2709	.0211	4.180	.2571	.0170	4.254	.0807
52	QC_MCVA 960130I901	1.975	33.01	.5101	1.028	37.21	.0265
53	ICP1.0 960103F100	.0012	-.0001	-.0010	.0013	.0494	.0160
54	96-2979-BLK	.0070	.0422	.0723	.0081	.6087	.0642
55	96-2979 @5	.0048	.0111	.0402	.0057	2.772	.0237
56	96-2979	.0073	.0639	.2115	.0141	13.93	.0606
57	96-2979-PS-A	.9820	16.45	.3419	.5201	25.34	.0567
58	MCVA @2	.9783	16.54	.2543	.5127	18.53	.0290
59	96-2979 DUP	.0091	.0819	.2813	.0181	19.90	.0643
60	96-2979 DUP SPIKE-3	.0083	.0248	.1411	.0159	10.17	.9833
61	MCVB1 @2	.0015	-.0112	-.0001	.0065	.1496	.9682
62	QC_MCVA 960130I901	1.933	32.60	.5038	1.011	36.61	.0350
63	ICP1.0 960103F100	.0033	.0285	-.0006	.0032	.0655	.0205
64	96-2982	.0198	-.0400	.0527	.0313	27.13	.0774
65	96-2982 DUP	.0159	-.0157	.0747	.0246	20.21	.0735
66	96-2984	.0123	.0631	.3923	.0191	35.31	.1024
67	96-2984 DUP	.0108	.0592	.3931	.0191	34.10	.0984
68	96-2985	.1079	.0539	.2631	.0165	10.95	.0748
69	96-2985 DUP	.1368	.0546	.3034	.0204	13.90	.0845
70	SRM 2709	.0161	2.343	.1159	.0112	2.426	.0711
71	U @5 PPM	.0038	-.0049	-.0010	.0033	.0597	.0290
72	U @50 PPM	.0065	-.1500	-.0013	.0134	.1283	.0234
73	QC_MCVA 960130I901	1.985	33.01	.5104	1.029	37.40	.0222
74	QC_MCVB 960123I901	.0012	-.0347	-.0001	.0112	.1714	1.898

Analysis Report Averages Tue 02-20-96 01:43:48 PM page 9

#	Sample Name	Li	Mg	Mn	Mo	Na	Nd
75	QC SSTA 95120SI902	.0360	-.4796	.0198	.1170	.8601	.1751
76	QC SSTMCV 95120SI903	.0035	-.0449	.1032	.0082	5.170	.0212
77	QC_SRM-1643d 108518	0.0231	08.723	0.0398	0.1199	022.53	.0393
78	QC CCV1 960126H901	1.937	2.088	1.021	1.994	8.471	.0198
79	ICP1.0 960103F100	.0017	.0019	-.0010	.0028	.0483	.0157

#	Sample Name	Ni	P	Pb	Pd	Rh	Ru
1	SPC-BLK 108447	480.667	1096.67	11503	13073.7	13133.3	3626.33
2	SPC-BLK 108447	-.0470	-.3612	-.3862	-1.152	-.5631	-.2071
3	SPC-STD 960103I100	487.667	1224.67	109703	13113.7	13166.3	3643.67
4	SPC-STD 960103I100	-.0446	-.3982	7.623	-1.144	-.5594	-.2047
5	ICP1.0	.04716	.1105	1.17103	1.31196	1.31946	.36483
6	ICP1.1B	.54916		6.14776			
7	ICP1.1A	4.756		48.3023			
8	ICP1.2		9.91723				
9	ICP1.3						28.4422
10	ICP1.4						
11	ICP1.5						
12	ICP1.6						
13	ICP1.7						
14	ICP1.8				16.7453	40.2358	
15	ICP1.0 960103F100	-.0055	.0004	-.0083	.0070	-.0041	.0025
16	QC_MCVA 960130I901	1.016	5.008	2.576	-.0039	.0013	.0146
17	QC_MCVB1 960123I901	.1354	.0987	.2604	1.882	1.968	2.057
18	QC SSTA 95120SI902	192.0	200.0	1.031	.4182	.1223	.1986
19	QC SSTMCV 95120SI903	.9049	4.254	3.119	-.0250	-.0012	.0118
20	QC_SRM-1643d 108518	0.1521	.0830	0.0197	.0263	.0100	.0036
21	QC CCV1 960126H901	2.065	4.828	2.035	.0205	.0079	.0074
22	ICP1.0 960103F100	.0207	-.0040	.0027	.0186	.0039	.0028
23	96-2608-BLK	.9629	.0783	.0534	.1580	.0662	.0329
24	96-2606 @5	.1930	1.216	.0278	.0772	.0314	.0139
25	96-2606	.8687	5.957	.0805	.1667	.0764	.0392
26	96-2606-PS-A	.9719	5.674	1.376	.1156	.0553	.0320
27	MCVA @2	.5334	2.583	1.342	.0057	.0032	.0082
28	96-2606-PS-B	.5251	3.081	.1848	1.077	1.045	1.080
29	MCVB @2	.0773	.0536	.1435	.9983	1.014	1.061
30	96-2606 DUP	.9718	7.327	.0793	.1550	.0680	.0392
31	QC_MCVA 960130I901	1.053	5.094	2.658	.0136	.0065	.0210
32	ICP1.0 960103F100	-.0043	-.0123	-.0037	.0364	.0126	.0047
33	96-2608	.6213	5.781	.0675	.1582	.0707	.0392
34	96-2608 DUP	.6074	6.429	.0744	.1605	.0723	.0400
35	SRM 2709	1.632	.3167	.1481	.1594	.0708	.0451
36	QC_MCVA 960130I901	1.011	4.945	2.566	.0519	.0244	.0273
37	ICP1.0 960103F100	-.0061	.0122	.0023	.0506	.0176	.0094
38	96-2612-BLK	.3433	.0999	.0663	.1867	.0677	.0397
39	96-2612 @5	.0904	1.612	.0423	.1298	.0516	.0265
40	96-2612	.4567	7.655	.1065	.1952	.0891	.0469
41	96-2612-PS-A	.7425	6.430	1.374	.1643	.0769	.0465
42	MCVA @2	.5063	2.502	1.302	.0498	.0252	.0167
43	96-2612-PS-B	.2897	4.023	.2109	1.108	1.056	1.089
44	MCVB1 @2	.0485	.0681	.1474	1.028	1.025	1.067
45	96-2612 DUP	.3400	8.137	.1043	.1881	.0839	.0473

Analysis Report Averages Tue 02-20-96 01:43:48 PM page 10

#	Sample Name	Ni	P	Pb	Pd	Rh	Ru
46	QC_MCVA 960130I901	.9820	4.849	2.518	.0724	.0348	.0323
47	96-2614	.3103	5.584	.0850	.2062	.0976	.0451
48	96-2614 DUP	.6165	6.783	.0864	.2099	.0983	.0459
49	96-2616	.7850	5.473	.0871	.2053	.0956	.0467
50	96-2616 DUP	.5863	5.285	.0898	.2125	.0999	.0466
51	SRM 2709	1.048	.2847	.1392	.2147	.0977	.0521
52	QC_MCVA 960130I901	1.005	4.943	2.579	.0585	.0257	.0316
53	ICP1.0 960103F100	-.0111	.0172	.0107	.0696	.0245	.0086
54	96-2979-BLK	.1838	.0769	.0555	.1909	.0865	.0371
55	96-2979 @5	.3727	.1556	.0480	.1170	.0414	.0193
56	96-2979	1.981	.6726	.1955	.1680	.0711	.0371
57	96-2979-PS-A	1.504	2.813	1.391	.1389	.0617	.0395
58	MCVA @2	.4987	2.458	1.296	.0780	.0320	.0241
59	96-2979 DUP	4.702	.9983	.2497	.1815	.0839	.0428
60	96-2979 DUP SPIKE-B	2.420	.5670	.2689	1.083	1.020	1.052
61	MCVB1 @2	.0370	.0831	.1444	1.053	1.012	1.042
62	QC_MCVA 960130I901	.9896	4.859	2.548	.0716	.0364	.0330
63	ICP1.0 960103F100	-.0107	.0394	.0137	.0693	.0259	.0131
64	96-2982	1.470	.7846	.2916	.0414	.0768	.0532
65	96-2982 DUP	.8972	.5786	.2249	.0806	.0810	.0483
66	96-2984	3.758	1.850	.2855	.1592	.0960	.0552
67	96-2984 DUP	6.165	1.733	.2833	.1696	.0925	.0569
68	96-2985	3.422	.5286	.2701	.1841	.0863	.0467
69	96-2985 DUP	.8213	.6016	.3012	.1348	.0701	.0447
70	SRM 2709	2.386	.1813	.1032	.2144	.0914	.0471
71	U @5 PPM	-.0102	.0606	.0160	.0824	.0341	.0167
72	U @50 PPM	.0089	.1610	.0053	-.0927	.0138	.0219
73	QC_MCVA 960130I901	.9949	4.919	2.562	.0550	.0247	.0273
74	QC_MCVB 960123I901	.0752	.0896	.2623	1.965	1.969	2.041
75	QC SSTA 951208I902	190.7	194.7	1.027	.2650	.1499	.2646
76	QC SSTMCV 951208I903	.7004	3.985	3.111	.0080	.0257	.0170
77	QC_SRM-1643d 108518	0.1001	.0519	0.0393	.0927	.0383	.0149
78	QC CCV1 960126H901	2.053	4.795	2.051	.0715	.0274	.0143
79	ICP1.0 960103F100	.0078	.0273	.0130	.0736	.0253	.0122

#	Sample Name	Sb	Se	Si	Sn	Sr	Te
1	SPC-BLK 108447	2176	1189.67	4812	5824.67	130	8597.67
2	SPC-BLK 108447	-.3743	-.3555	.1128	-1.814	-.0060	-.3850
3	SPC-STD 960103I100	2240	1215.67	4928.67	5947.67	132.667	9144.33
4	SPC-STD 960103I100	-.3472	-.3368	.1452	-1.753	-.0056	-.3669
5	ICP1.0	.21876	.11973	.48359	.58543	.0131	.85483
6	ICP1.1B					.75576	
7	ICP1.1A					7.25479	
8	ICP1.2						
9	ICP1.3						
10	ICP1.4	22.2189					
11	ICP1.5						
12	ICP1.6			63.8107			40.921
13	ICP1.7		2.60489				
14	ICP1.8				6.7803		
15	ICP1.0 960103F100	-.0003	.0043	1.806	-.0017	-.0001	.0092
16	QC_MCVA 960130I901	03.293	2.634	19.81	.1520	.5176	.0659

Analysis Report Averages Tue 02-20-96 01:43:48 PM page 11

#	Sample Name	Sb	Se	Si	Sn	Sr	Te
17	QC_MCVB1 960123I901	.1344	.0792	19.40	2.133	.0028	2.010
18	QC SSTA 951208I902	.7746	1.665	9.447	1.900	.0196	.6444
19	QC SSTMCV 951208I903	2.689	2.624	5.370	.0700	.0015	.0320
20	QC_SRM-1643d 108518	0.0779	0.0344	3.660	.0104	0.3053	.0209
21	QC CCV1 960126H901	.0175	2.036	5.225	.0386	2.008	.0341
22	ICP1.0 960103F100	-.0081	.0085	.2450	.0142	.0026	.0175
23	96-2608-BLK	.0571	.0811	.7813	.2273	.0044	.0666
24	96-2606 @5	.0223	.0487	.5477	.1004	.0076	.0415
25	96-2606	.0690	.0909	2.272	.2825	.0342	.0798
26	96-2606-PS-A	1.735	1.408	11.02	.2744	.2782	.0796
27	MCVA @2	1.703	1.363	10.01	.0930	.2693	.0414
28	96-2606-PS-B	.1329	.1084	11.65	1.257	.0193	1.066
29	MCVB @2	.0661	.0563	9.926	1.124	.0013	1.043
30	96-2606 DUP	.0515	.1039	8.511	.2830	.0415	.0744
31	QC_MCVA 960130I901	03.416	2.743	20.84	.1805	.5331	.0712
32	ICP1.0 960103F100	.0122	.0173	.5730	.0044	.0006	.0111
33	96-2608	.0647	.0847	2.623	.2562	.0408	.0714
34	96-2608 DUP	.0634	.0797	2.789	.2936	.0449	.0731
35	SRM 2709	.1176	.2018	95.40	.3544	.0828	.1147
36	QC_MCVA 960130I901	03.267	2.644	19.02	.2108	.5120	.0820
37	ICP1.0 960103F100	.0140	.0239	.0564	.0437	.0005	.0176
38	96-2612-BLK	.0679	.0705	.4256	.3055	.0037	.0693
39	96-2612 @5	.0490	.0581	.7148	.1674	.0103	.0541
40	96-2612	.0750	.1183	3.264	.3342	.0466	.0965
41	96-2612-PS-A	1.697	1.395	11.41	.3473	.2782	.0994
42	MCVA @2	1.670	1.338	9.673	.1287	.2588	.0501
43	96-2612-PS-B	.1326	.1107	10.13	1.294	.0259	1.099
44	MCVB1 @2	.0775	.0704	8.777	1.140	.0014	1.062
45	96-2612 DUP	.0774	.1130	7.795	.3286	.0470	.0922
46	QC_MCVA 960130I901	03.232	2.587	19.35	.2336	.5004	.0715
47	96-2614	.0746	.1065	3.352	.3066	.0389	.0873
48	96-2614 DUP	.0862	.1073	3.208	.3196	.0471	.0991
49	96-2616	.0792	.1015	2.885	.3374	.0471	.0908
50	96-2616 DUP	.0828	.0907	3.029	.3172	.0455	.0881
51	SRM 2709	.1080	.1828	75.57	.3790	.0854	.1238
52	QC_MCVA 960130I901	03.280	2.655	18.99	.2025	.5122	.0701
53	ICP1.0 960103F100	.0131	.0313	.0635	.0515	.0004	.0217
54	96-2979-BLK	.0565	.0664	.0994	.2477	.0023	.0630
55	96-2979 @5	.0305	.0703	.1095	.1049	.0029	.0411
56	96-2979	.1159	.2269	.4667	.2454	.0129	.1195
57	96-2979-PS-A	1.709	1.428	9.800	.2518	.2593	.1048
58	MCVA @2	1.646	1.339	9.557	.1578	.2550	.0513
59	96-2979 DUP	.1472	.3142	.6787	.2918	.0162	.1561
60	96-2979 DUP SPIKE-5	.1625	.2173	8.129	1.222	.0094	1.094
61	MCVB1 @2	.0833	.0705	8.956	1.122	.0015	1.029
62	QC_MCVA 960130I901	03.258	2.606	21.03	.2466	.5043	.0800
63	ICP1.0 960103F100	.0157	.0278	.7717	.0740	.0009	.0314
64	96-2982	.2171	.4038	1.339	.3966	.0414	.1843
65	96-2982 DUP	.1722	.3110	.7920	.3784	.0286	.1550
66	96-2984	.1369	.2141	.5996	.3849	.0220	.1171
67	96-2984 DUP	.1297	.1917	.5323	.3769	.0212	.1128
68	96-2985	.1449	.2931	.5716	.3233	.0171	.1460
69	96-2985 DUP	.1712	.3473	.6031	.2754	.0185	.1744
70	SRM 2709	.0910	.1277	41.60	.2997	.0360	.0882

Analysis Report Averages Tue 02-20-96 01:43:48 PM page 12

#	Sample Name	Sb	Be	Bi	Sn	Sr	Te
71	U @5 PPM	.0292	.0361	.0853	.0760	.0008	.0443
72	U @50 PPM	.0972	.1221	-.0144	.1782	.0039	.0439
73	QC_MCVA 960130I901	83.273	2.626	19.01	.2076	.5143	.0674
74	QC_MCVB 960123I901	.1477	.0986	14.31	2.100	.0026	1.996
75	QC SSTA 9512081902	.7776	1.654	7.512	1.926	.0193	.6414
76	QC SSTMCV 95120SI903	2.705	2.622	5.448	.1143	.0019	.0368
77	QC_SRM-1643d 108518	0.0953	0.0526	5.610	.0670	0.3088	.0334
78	QC CCV1 960126H901	.0288	2.052	5.089	.0925	2.004	.0379
79	ICP1.0 960103F100	.0165	.0323	.1765	.0598	.0007	.0218

#	Sample Name	Th	Ti	Tl	U	V	W
1	SPC-BLK 108447	2022.67	566.667	330	14791.3	844	282.667
2	SPC-BLK 108447	.0271	-.0251	-.1930	-6.395	-.0481	-.1626
3	SPC-STD 960103I100	2035	571	354	14801.7	851	284.333
4	SPC-STD 960103I100	.0319	-.0245	-.1543	-6.387	-.0469	-.1602
5	ICP1.0	.20373	.05696	.03286	1.4822	.08483	.02814
6	ICP1.1B		1.25746				
7	ICP1.1A		11.8393				
8	ICP1.2						
9	ICP1.3	9.83349					
10	ICP1.4					9.75116	
11	ICP1.5				41.4302		
12	ICP1.6						
13	ICP1.7			1.01643			
14	ICP1.8						2.49646
15	ICP1.0 960103F100	.0001	-.0008	.0130	-.0662	-.0009	.0000
16	QC_MCVA 960130I901	.0323	1.014	2.520	.1584	1.011	.0442
17	QC_MCVB1 960123I901	4.577	.0049	.0462	22.80	.0025	1.978
18	QC SSTA 9512081902	.6038	.0035	.4178	200.8	.0457	.5321
19	QC SSTMCV 95120SI903	.0668	.0001	.0192	20.31	.5148	.0360
20	QC_SRM-1643d 108518	-.0111	.0007	0.0198	.4201	0.0356	.0086
21	QC CCV1 960126H901	.0086	.0000	1.959	.1186	.9693	.0189
22	ICP1.0 960103F100	-.0013	-.0005	.0057	.0683	.0011	.0053
23	96-2605-BLK	.0013	.0078	.0530	.8154	.0080	.0137
24	96-2606 @5	.0063	.0029	.0330	.4378	.0054	.0131
25	96-2606	.0032	.0113	.0566	1.093	.0087	.0272
26	96-2606-PS-A	.0213	.5224	1.334	.8234	.5218	.0402
27	MCVA @2	.0183	.5253	1.334	.0914	.5245	.0130
28	96-2606-PS-B	1.517	.0096	.0622	12.52	.0080	1.029
29	MCVB @2	1.512	.0022	.0247	12.13	.0016	1.000
30	96-2606 DUP	.0051	.0186	.0549	1.026	.0091	.0205
31	QC_MCVA 960130I901	.0348	1.042	2.644	.2232	1.037	.0352
32	ICP1.0 960103F100	-.0070	.0009	.0099	.1825	.0011	-.0009
33	96-2608	.0088	.0106	.0504	1.179	.0085	.0287
34	96-2608 DUP	.0087	.0110	.0565	1.252	.0081	.0253
35	SRM 2709	.0159	1.061	.0869	.8813	.0477	.0458
36	QC_MCVA 9601301901	.0298	1.002	2.530	.3929	.9993	.0474
37	ICP1.0 960103F100	-.0019	.0010	.0122	.2107	.0015	.0065
38	96-2612-BLK	.0031	.0071	.0461	1.047	.0095	.0236
39	96-2612 @5	.0015	.0051	.0255	.7092	.0054	.0202
40	96-2612	.0069	.0173	.0564	1.425	.0116	.0373
41	96-2612-PS-A	.0223	.5123	1.335	1.143	.5109	.0536

Analysis Report Averages Tue 02-20-96 01:43:48 PM page 13

#	Sample Name	Th	Ti	Tl	U	V	W
42	MCVA @2	.0201	.5057	1.296	.3586	.5053	.0336
43	96-2612-PS-B	1.512	.0125	.0741	12.76	.0099	1.019
44	MCVB1 @2	1.510	.0028	.0223	12.16	.0025	1.006
45	96-2612 DUP	.0048	.0126	.0570	1.412	.0110	.0394
46	QC_MCVA 960130I901	.0273	.9784	2.484	.5268	.9777	.0533
47	96-2614	.0042	.0153	.0597	1.393	.0109	.0316
48	96-2614 DUP	.0052	.0234	.0619	1.513	.0112	.0296
49	96-2616	.0049	.0143	.0587	1.353	.0103	.0242
50	96-2616 DUP	.0039	.0213	.0623	1.381	.0112	.0337
51	SRM 2709	.0133	.8446	.0784	1.178	.0411	.0446
52	QC_MCVA 960130I901	.0292	1.001	2.538	.4983	.9970	.0501
53	ICP1.0 960103F100	-.0023	.0008	.0201	.2981	.0015	.0078
54	96-2979-BLK	-.0008	.0059	.0442	1.004	.0078	.0285
55	96-2979 @5	-.0039	.0038	.0314	1.400	.0041	.0129
56	96-2979	.0221	.0154	.0562	5.255	.0095	.0504
57	96-2979-PS-A	.0304	.5043	1.316	3.082	.5026	.0540
58	MCVA @2	.0158	.4983	1.283	.4409	.4984	.0261
59	96-2979 DUP	.0328	.0203	.0872	7.100	.0119	.0596
60	96-2979 DUP SPIKE-B	1.492	.0139	.0700	15.23	.0092	.9957
61	MCVB1 @2	1.458	.0031	.0412	11.87	.0035	.9866
62	QC_MCVA 960130I901	.0300	.9848	2.505	.5398	.9833	.0497
63	ICP1.0 960103F100	-.0034	.0019	.0219	.3570	.0031	.0098
64	96-2982	.1982	.0120	.0752	47.42	.0217	.0931
65	96-2982 DUP	.1377	.0084	.0646	33.06	.0177	.0732
66	96-2984	.2547	.0129	.0742	22.97	.0210	.1399
67	96-2984 DUP	.2566	.0118	.0646	22.34	.0206	.1708
68	96-2985	.0469	.0148	.0835	10.69	.0129	.0588
69	96-2985 DUP	.0660	.0137	.0766	12.63	.0127	.0769
70	SRM 2709	.0024	.4093	.0573	1.110	.0251	.0284
71	U @5 PPM	.0171	.0015	.0192	3.012	.0032	.0138
72	U @50 PPM	.1821	.0007	.0172	48.74	.0053	.0534
73	QC_MCVA 960130I901	.0277	1.002	2.566	.4626	.9970	.0434
74	QC_MCVB 960123I901	02.907	.0052	.0409	23.26	.0031	1.943
75	QC SSTA 951208I902	.7736	.0048	.4396	195.9	.0501	.5153
76	QC SSTMCV 951208I903	.0779	.0013	.0288	19.97	.5093	.0255
77	QC_SRM-1643d 108518	-.0114	.0018	0.0307	.6240	0.0378	.0149
78	QC CCV1 960126H901	.0002	.0011	2.003	.3416	.9608	.0211
79	ICP1.0 960103F100	-.0021	.0007	.0308	.2658	.0015	.0125

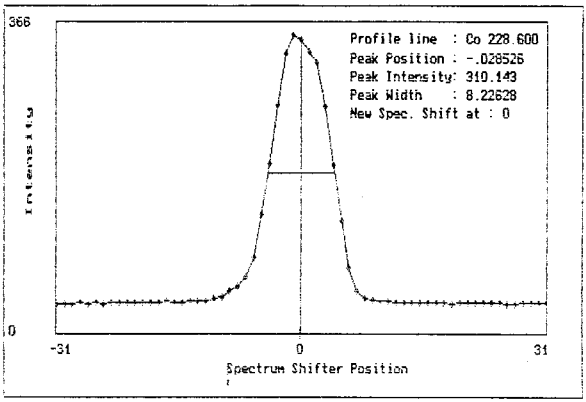
#	Sample Name	Y	Zn	Zr
1	SPC-BLK 108447	219.333	300.667	686
2	SPC-BLK 108447	-.0224	-.0076	-.0491
3	SPC-STD 960103I100	219.667	123853	688.667
4	SPC-STD 960103I100	-.0223	8.764	-.0489
5	ICP1.0	.02203	.0322	.06909
6	ICP1.1B		2.5367	2.2337
7	ICP1.1A		23.6735	20.97
8	ICP1.2			
9	ICP1.3			
10	ICP1.4	2.53893		
11	ICP1.5			
12	ICP1.6			

Analysis Report Averages Tue 02-20-96 01:43:48 PM page 14

#	Sample Name	Y	Zn	Zr			
13	ICP1.7						
14	ICP1.8						
15	ICP1.0 960103F100	-.0003	-.0031	-.0019			
16	QC_MCVA 960130I901	.0014	1.020	2.022			
17	QC_MCVB1 960123I901	.9371	.0055	-.0208			
18	QC SSTA 951208I902	.0255	.0133	.0016			
19	QC SSTMCV 951208I903	.0008	-.0018	.5068			
20	QC_SRM-1643d 108518	.0009	0.0738	.0009			
21	QC CCV1 960126H901	.0003	1.010	-.0012			
22	ICP1.0 960103F100	-.0000	-.0018	-.0015			
23	96-2608-BLK	.0027	.0056	.0060			
24	96-2606 @5	.0016	.0005	.0026			
25	96-2606	.0035	.0108	.0130			
26	96-2606-PS-A	.0032	.5333	1.041			
27	MCVA @2	.0008	.5316	1.048			
28	96-2606-PS-B	.4705	.0093	-.0024			
29	MCVB @2	.4672	.0005	-.0107			
30	96-2606 DUP	.0039	.0115	.0158			
31	QC_MCVA 960130I901	.0019	1.052	2.080			
32	ICP1.0 960103F100	.0004	-.0018	.0014			
33	96-2608	.0029	.0104	.0148			
34	96-2608 DUP	.0033	.0107	.0153			
35	SRM 2709	.0089	.0430	.0240			
36	QC_MCVA 960130I901	.0026	1.020	2.004			
37	ICP1.0 960103F100	.0006	-.0021	.0010			
38	96-2612-BLK	.0040	.0068	.0082			
39	96-2612 @5	.0023	.0319	.0063			
40	96-2612	.0039	.1515	.0214			
41	96-2612-PS-A	.0041	.5931	1.021			
42	MCVA @2	.0017	.5188	1.009			
43	96-2612-PS-B	.4689	.0818	.0005			
44	MCVB1 @2	.4674	.0013	-.0116			
45	96-2612 DUP	.0039	.0264	.0196			
46	QC_MCVA 960130I901	.0028	1.004	1.958			
47	96-2614	.0042	.0139	.0167			
48	96-2614 DUP	.0040	.0144	.0176			
49	96-2616	.0042	.0138	.0163			
50	96-2616 DUP	.0041	.0164	.0146			
51	SRM 2709	.0091	.0340	.0199			
52	QC_MCVA 960130I901	.0023	1.029	2.002			
53	ICP1.0 960103F100	.0007	-.0027	.0013			
54	96-2979-BLK	.0038	.0687	.0070			
55	96-2979 @5	.0019	.0158	.0273			
56	96-2979	.0044	.0877	.1326			
57	96-2979-PS-A	.0042	.5563	1.071			
58	MCVA @2	.0017	.5130	.9945			
59	96-2979 DUP	.0057	.0660	.1355			
60	96-2979 DUP SPIKE-B	.4563	.0356	.0576			
61	MCVB1 @2	.4528	.0007	-.0094			
62	QC_MCVA 960130I901	.0027	1.014	1.974			
63	ICP1.0 960103F100	.0011	-.0023	.0036			
64	96-2982	.0058	.0520	-.0046			
65	96-2982 DUP	.0050	.1049	-.0020			
66	96-2984	.0149	.1149	.3197			

Analysis Report Averages Tue 02-20-96 01:43:48 PM page 15

#	Sample Name	Y	Zn	Zr			
67	96-2984 DUP	.0142	.0543	.2541			
68	96-2985	.0056	.0702	.0662			
69	96-2985 DUP	.0054	.0481	.0737			
70	SRM 2709	.0064	.0624	.0170			
71	U @5 PPM	.0016	-.0018	.0013			
72	U @50 PPM	.0016	-.0004	-.0087			
73	QC_MCVA 960130I901	.0021	1.025	2.007			
74	QC_MCVB 960123I901	0.8981	.0020	-.0191			
75	QC SSTA 951208I902	.0241	.0126	-.0117			
76	QC SSTMCV 951208I903	.0011	-.0018	.5044			
77	QC_SRM-1643d 108518	.0017	0.0762	.0028			
78	QC CCV1 960126H901	.0008	1.034	.0017			
79	ICP1.0 960103F100	.0007	-.0023	.0011			



AØØ75
ICP-325-405-1
2/20/96 DRS

Analysis Report Tue 02-20-96 08:32:50 AM page 1

Method: ICP1A Sample Name: SPC-BLK 106447 Operator: DRS
Run Time: 02/20/96 08:31:32
Comment: SPC-BLK FOR Mn/Cu RATIO
Mode: INT Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Avge	5787	1816	1363	1759	271	160	1258
SDev	9	3	8	19	0	0	24
%RSD	.1558	.1457	.5505	1.076	.0000	.0000	1.929
#1	5796	1814	1356	1746	271	160	1231
#2	5788	1815	1371	1751	271	160	1265
#3	5778	1819	1363	1781	271	160	1278

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Avge	1061	628	5587	1249	388	434	1699
SDev	3	18	14	2	8	2	3
%RSD	.2722	2.781	.2461	.1387	2.013	.3522	.1482
#1	1064	643	5575	1250	379	435	1701
#2	1059	609	5584	1250	393	434	1699
#3	1059	633	5602	1247	392	432	1696

Elem	Eu	Fe	K	La	Li	Mg	Mn
Avge	300	505	1875	876	355	2067	171
SDev	0	1	3	1	1	5	1
%RSD	.0000	.1143	.1848	.0659	.2817	.2435	.5846
#1	300	505	1873	876	356	2072	170
#2	300	506	1873	876	354	2066	171
#3	300	505	1879	877	355	2062	172

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Avge	677	351	3253	481	1097	11500	13070
SDev	3	2	16	4	19	43	8
%RSD	.4431	.5698	.4902	.7306	1.712	.3702	.0614
#1	674	351	3235	477	1107	11520	13070
#2	677	353	3264	484	1108	11530	13070
#3	680	349	3261	481	1075	11450	13080

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Avge	13130	3626	2176	1190	4812	5825	130
SDev	38	11	9	10	3	3	0
%RSD	.2867	.3025	.3980	.8420	.0720	.0432	.0000
#1	13090	3620	2181	1200	4816	5827	130
#2	13160	3639	2181	1189	4810	5822	130
#3	13150	3620	2166	1180	4810	5825	130

Elem	Te	Th	Ti	Tl	U	V	W
Avge	8598	2023	567	330	14790	844	283
SDev	42	3	3	2	38	3	4
%RSD	.4861	.1589	.4441	.6061	.2543	.3555	1.339
#1	8550	2024	569	328	14760	841	281
#2	8615	2025	564	330	14780	847	280
#3	8628	2019	567	332	14830	844	287

Elem	Y	Zn	Zr
Avge	219	301	686
SDev	1	9	1
%RSD	.2632	2.906	.1458
#1	219	303	687
#2	219	308	685
#3	220	291	686

Analysis Report Tue 02-20-96 08:33:56 AM page 1

Method: ICP1A Sample Name: SPC-BLK 108447 Operator: DRS
Run Time: 02/20/96 08:31:32
Comment: SPC-BLK FOR Mn/Cu RATIO
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0611	-.3790	-.2236	.0389	-.0139	-.0021	-.2656
SDev	.0005	.0013	.0034	.0022	.0000	.0000	.0107
%RSD	.7975	.3392	1.514	5.728	.0000	.2964	4.035
#1	-.0607	-.3799	-.2268	.0373	-.0139	-.0021	-.2776
#2	-.0611	-.3796	-.2201	.0379	-.0139	-.0021	-.2625
#3	-.0617	-.3775	-.2239	.0414	-.0139	-.0021	-.2568

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0957	.0091	-.4348	-.0519	-.0277	-.0722	-.0678
SDev	.0010	.0019	.0030	.0002	.0013	.0009	.0004
%RSD	1.044	21.28	.6864	.4392	4.606	1.224	.5528
#1	-.0946	.0107	-.4374	-.0517	-.0292	-.0715	-.0675
#2	-.0961	.0070	-.4355	-.0517	-.0269	-.0720	-.0678
#3	-.0964	.0096	-.4316	-.0521	-.0271	-.0732	-.0682

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0218	-.0501	-11.68	-.1124	-.0684	-.2406	-.0081
SDev	.0000	.0002	.08	.0001	.0005	.0047	.0001
%RSD	.0844	.4013	.6828	.1274	.7109	1.947	1.699
#1	-.0218	-.0501	-11.72	-.1125	-.0679	-.2361	-.0083
#2	-.0218	-.0499	-11.72	-.1125	-.0688	-.2402	-.0081
#3	-.0218	-.0503	-11.59	-.1122	-.0684	-.2454	-.0080

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0507	-.8761	-.4202	-.0470	-.3612	-.3862	-1.152
SDev	.0005	.0112	.0058	.0012	.0153	.0037	.002
%RSD	.9887	1.283	1.389	2.471	4.225	.9587	.2046
#1	-.0512	-.8761	-.4269	-.0482	-.3528	-.3843	-1.153
#2	-.0507	-.8648	-.4161	-.0459	-.3519	-.3838	-1.152
#3	-.0502	-.8873	-.4176	-.0468	-.3788	-.3905	-1.149

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.5631	-.2071	-.3743	-.3555	.1128	-1.814	-.0060
SDev	.0044	.0016	.0034	.0065	.0017	.003	.0000
%RSD	.7792	.7814	.9178	1.829	1.512	.1588	.0120
#1	-.5682	-.2079	-.3723	-.3488	.1146	-1.811	-.0060
#2	-.5601	-.2053	-.3724	-.3559	.1127	-1.816	-.0060
#3	-.5612	-.2082	-.3783	-.3618	.1112	-1.815	-.0060

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.3850	.0271	-.0251	-.1930	-6.395	-.0481	-.1629
SDev	.0044	.0041	.0004	.0029	.045	.0005	.0065

%RSD	1.153	15.03	1.470	1.510	.7066	1.074	3.936
#1	-.3901	.0296	-.0247	-.1961	-6.427	-.0485	-.1657
#2	-.3831	.0292	-.0255	-.1928	-6.414	-.0475	-.1675
#3	-.3819	.0224	-.0251	-.1903	-6.343	-.0481	-.1555

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0224	-.0076	-.0491
SDev	.0002	.0006	.0003
%RSD	.7689	8.108	.6775
#1	-.0225	-.0075	-.0490
#2	-.0225	-.0071	-.0494
#3	-.0222	-.0083	-.0488

Analysis Report Tue 02-20-96 08:35:52 AM page 1

Method: ICP1A Sample Name: SPC-STD 960103I100 Operator: DRS
Run Time: 02/20/96 08:34:34
Comment: SPC-STD FOR Mn/Cu RATIO
Mode: INT Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Avge	5855	1853	1399	1776	271	161	1478
SDev	14	4	16	8	1	0	11
%RSD	.2424	.1895	1.122	.4251	.2128	.0000	.7420
#1	5852	1850	1417	1784	272	161	1472
#2	5842	1853	1387	1775	271	161	1491
#3	5870	1857	1394	1769	271	161	1472

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Avge	1374	636	5586	1228	413	18960	1872
SDev	4	43	13	4	11	10	4
%RSD	.2755	6.805	.2243	.3389	2.591	.0520	.2023
#1	1377	652	5573	1225	401	18950	1870
#2	1370	669	5587	1233	415	18960	1869
#3	1376	587	5598	1227	422	18970	1876

Elem	Eu	Fe	K	La	Li	Mg	Mn
Avge	301	553	1878	881	20500	2161	54970
SDev	1	1	3	2	20	1	34
%RSD	.1916	.1043	.1340	.1735	.0951	.0534	.0616
#1	301	553	1876	879	20500	2160	54930
#2	301	553	1878	882	20520	2162	54980
#3	302	554	1881	881	20480	2162	55000

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Avge	707	361	3264	488	1225	109700	13110
SDev	1	4	8	3	11	122	28
%RSD	.1632	1.154	.2393	.5920	.8957	.1112	.2136
#1	708	356	3259	486	1231	109700	13100
#2	706	364	3260	491	1212	109600	13100
#3	708	362	3273	486	1231	109800	13150

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Avge	13170	3644	2240	1216	4929	5948	133
SDev	18	11	11	10	7	17	1
%RSD	.1329	.2935	.4971	.7989	.1439	.2865	.4352
#1	13170	3646	2228	1205	4930	5964	133
#2	13180	3632	2242	1218	4921	5930	132
#3	13150	3653	2250	1224	4935	5949	133

Elem	Te	Th	Ti	Tl	U	V	W
Avge	9144	2035	571	354	14800	851	284
SDev	41	12	0	0	24	2	1
%RSD	.4484	.6138	.0000	.0000	.1630	.2035	.4061
#1	9167	2039	571	354	14820	850	285
#2	9169	2045	571	354	14780	850	285
#3	9097	2021	571	354	14810	853	283

Elem	Y	Zn	Zr
Avge	220	123900	689
SDev	1	67	2
%RSD	.2628	.0542	.3023
#1	220	123800	687
#2	220	123900	688
#3	219	123900	691

Analysis Report Tue 02-20-96 08:37:39 AM page 1

Method: ICP1A Sample Name: SPC-STD 9601031100 Operator: DRS
Run Time: 02/20/96 08:34:34
Comment: SPC-STD FOR Mn/Cu RATIO
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0587	-.3671	-.2073	.0409	-.0139	-.0020	-.2584
SDev	.0005	.0035	.0072	.0009	.0001	.0000	.0048
%RSD	.8593	.9497	3.459	2.193	.5696	.1892	1.867
#1	-.0588	-.3705	-.1992	.0418	-.0138	-.0020	-.2612
#2	-.0591	-.3672	-.2129	.0408	-.0139	-.0020	-.2529
#3	-.0581	-.3636	-.2099	.0400	-.0139	-.0020	-.2613

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0028	.0097	-.4352	-.0542	-.0237	9.490	-.0638
SDev	.0010	.0047	.0030	.0005	.0017	.005	.0004
%RSD	35.90	48.15	.6921	.8827	7.376	.0542	.7026
#1	-.0022	.0114	-.4384	-.0546	-.0256	9.484	-.0640
#2	-.0040	.0134	-.4347	-.0537	-.0233	9.493	-.0641
#3	-.0023	.0044	-.4324	-.0543	-.0222	9.494	-.0633

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0215	-.0498	-11.60	-.1109	9.721	-.2336	8.475
SDev	.0001	.0001	.06	.0006	.009	.0018	.005
%RSD	.5017	.2957	.4993	.5830	.0975	.7495	.0619
#1	-.0216	-.0499	-11.66	-.1116	9.721	-.2354	8.469
#2	-.0216	-.0498	-11.61	-.1103	9.730	-.2319	8.476
#3	-.0214	-.0496	-11.54	-.1107	9.711	-.2334	8.479

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0491	-.8217	-.4162	-.0446	-.3982	7.623	-1.144
SDev	.0002	.0235	.0029	.0010	.0089	.010	.012
%RSD	.4006	2.855	.6937	2.135	2.233	.1294	1.041
#1	-.0489	-.8480	-.4182	-.0452	-.3930	7.622	-1.149
#2	-.0493	-.8029	-.4176	-.0435	-.4085	7.614	-1.152
#3	-.0490	-.8142	-.4129	-.0452	-.3931	7.633	-1.130

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.5594	-.2047	-.3492	-.3388	.1452	-1.753	-.0056
SDev	.0022	.0014	.0043	.0062	.0016	.013	.0001
%RSD	.3883	.7065	1.245	1.841	1.117	.7630	1.241
#1	-.5597	-.2044	-.3539	-.3457	.1451	-1.740	-.0056
#2	-.5571	-.2063	-.3484	-.3373	.1436	-1.767	-.0057
#3	-.5615	-.2034	-.3453	-.3335	.1468	-1.752	-.0056

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.3669	.0319	-.0245	-.1545	-6.387	-.0469	-.1602
SDev	.0042	.0067	.0000	.0001	.030	.0003	.0020

%RSD	1.146	20.93	.0907	.0585	.4770	.6670	1.234
#1	-.3646	.0333	-.0245	-.1546	-6.361	-.0471	-.1590
#2	-.3644	.0384	-.0245	-.1545	-6.420	-.0470	-.1591
#3	-.3718	.0251	-.0245	-.1544	-6.379	-.0465	-.1625

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0223	8.764	-.0489
SDev	.0002	.005	.0009
%RSD	.9483	.0544	1.738
#1	-.0222	8.759	-.0493
#2	-.0222	8.769	-.0495
#3	-.0226	8.765	-.0480

Standardization Rpt. Tue 02-20-96 08:44:33 AM page 1

Method: ICP1A Standard: ICP1.0

Elem	Ag	Al	As	B	Ba	Be	Bi
Avge	.5795	.1827	.1382	.1640	.0272	.0161	.1265
SDev	.0012	.0002	.0024	.0012	.0000	.0001	.0009
%RSD	.2121	.1095	1.700	.7450	.0000	.3593	.7087
#1	.5786	.1825	.1382	.1651	.0272	.0160	.1260
#2	.5809	.1829	.1406	.1627	.0272	.0161	.1275
#3	.5790	.1827	.1359	.1643	.0272	.0161	.1259

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Avge	.1121	.0586	.5598	.1214	.0400	.0444	.1706
SDev	.0002	.0033	.0013	.0003	.0006	.0003	.0003
%RSD	.1545	5.616	.2262	.2516	1.464	.6757	.2058
#1	.1123	.0597	.5600	.1211	.0407	.0444	.1706
#2	.1120	.0612	.5609	.1215	.0396	.0441	.1710
#3	.1120	.0549	.5584	.1217	.0398	.0447	.1703

Elem	Eu	Fe	K	La	Li	Mg	Mn
Avge	.0301	.0510	.1878	.0878	.0358	.2081	.0180
SDev	.0001	.0002	.0006	.0004	.0003	.0006	.0001
%RSD	.1916	.4079	.3120	.4107	.7023	.3126	.8471
#1	.0301	.0512	.1874	.0879	.0361	.2075	.0179
#2	.0302	.0511	.1885	.0881	.0358	.2088	.0182
#3	.0301	.0508	.1876	.0874	.0356	.2081	.0180

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Avge	.0684	.0352	.3270	.0472	.1105	1.171	1.312
SDev	.0005	.0001	.0003	.0004	.0018	.010	.005
%RSD	.7362	.4344	.0883	.9560	1.651	.8411	.3861
#1	.0689	.0352	.3268	.0467	.1093	1.182	1.313
#2	.0679	.0353	.3273	.0476	.1126	1.165	1.316
#3	.0683	.0350	.3268	.0472	.1096	1.166	1.306

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Avge	1.319	.3648	.2188	.1197	.4836	.5854	.0131
SDev	.004	.0010	.0020	.0008	.0017	.0015	.0000
%RSD	.3138	.2759	.9077	.6751	.3588	.2558	.0000
#1	1.323	.3659	.2210	.1206	.4827	.5871	.0131
#2	1.321	.3647	.2181	.1190	.4856	.5850	.0131
#3	1.315	.3639	.2172	.1196	.4825	.5842	.0131

Elem	Te	Th	Ti	Tl	U	V	W
Avge	.8548	.2037	.0570	.0329	1.482	.0848	.0282
SDev	.0018	.0007	.0001	.0001	.002	.0001	.0005
%RSD	.2133	.3551	.2681	.1757	.1612	.1361	1.751
#1	.8545	.2029	.0568	.0329	1.480	.0849	.0276
#2	.8532	.2041	.0571	.0328	1.485	.0847	.0284
#3	.8568	.2042	.0570	.0329	1.482	.0849	.0285

Elem	Y	Zn	Zr
Avge	.0220	.0322	.0691
SDev	.0001	.0007	.0000

%RSD	.6933	2.152	.0000
#1	.0219	.0326	.0691
#2	.0220	.0314	.0691
#3	.0222	.0326	.0691

Standardization Rot. Tue 02-20-96 08:46:21 AM page 1

Method: ICP1A Standard: ICP1.1B

Elem	Ba	Co	Cr	Cu	Fe	Mg	Mo
Avge	.7032	1.577	1.019	.4211	6.176	3.980	1.038
SDev	.0026	.005	.001	.0020	.019	.009	.001
%RSD	.3627	.3140	.0912	.4845	.3092	.2161	.1301
#1	.7057	1.582	1.020	.4229	6.196	3.989	1.039
#2	.7006	1.572	1.018	.4189	6.159	3.973	1.036
#3	.7032	1.577	1.019	.4216	6.172	3.978	1.038

Elem	Na	Ni	Pb	Sr	Ti	Zn	Zr
Avge	.4778	.5492	6.148	.7558	1.257	2.537	2.234
SDev	.0032	.0021	.016	.0030	.004	.002	.008
%RSD	.6600	.3739	.2647	.3981	.2881	.0815	.3361
#1	.4810	.5509	6.165	.7589	1.261	2.539	2.241
#2	.4747	.5469	6.147	.7529	1.254	2.535	2.226
#3	.4776	.5497	6.132	.7555	1.257	2.536	2.233

Standardization Rpt. Tue 02-20-96 08:49:57 AM page 1

Method: ICP1A Standard: ICP1.1A

Elem	Ba	Co	Cr	Cu	Fe	Mg	Mo
Avge	6.619	13.88	9.386	3.667	57.36	34.38	9.322
SDev	.024	.04	.043	.012	.18	.11	.032
%RSD	.3671	.2860	.4562	.3224	.3133	.3315	.3483
#1	6.626	13.90	9.415	3.669	57.46	34.42	9.334
#2	6.592	13.84	9.337	3.655	57.16	34.26	9.285
#3	6.639	13.92	9.406	3.678	57.47	34.48	9.346

Elem	Na	Ni	Pb	Sr	Ti	Zn	Zr
Avge	4.347	4.756	48.30	7.255	11.84	23.67	20.97
SDev	.018	.014	.20	.029	.04	.09	.08
%RSD	.4170	.2914	.4149	.3950	.3625	.3864	.3643
#1	4.352	4.767	48.36	7.259	11.86	23.73	21.01
#2	4.327	4.740	48.08	7.224	11.79	23.57	20.88
#3	4.363	4.760	48.47	7.281	11.87	23.72	21.02

Standardization Rot. Tue 02-20-96 08:53:24 AM page 1

Method: ICP1A Standard: ICP1.2

Elem	Al	B	Ca	Cd	K	Li	Mn
Avge	58.51	35.57	67.29	8.027	2.297	10.07	5.393
SDev	.58	.39	.68	.064	.022	.11	.056
%RSD	.9870	1.109	1.013	.8026	.9640	1.092	1.037
#1	57.85	35.13	66.51	7.954	2.273	9.947	5.330
#2	58.72	35.72	67.56	8.052	2.304	10.11	5.416
#3	58.95	35.87	67.79	8.075	2.315	10.16	5.435

Elem	P
Avge	9.917
SDev	.092
%RSD	.9314
#1	9.811
#2	9.962
#3	9.979

Standardization Rot. Tue 02-20-96 08:57:01 AM page 1

Method: ICP1A Standard: ICP1.3

Elem	Dy	Eu	La	Nd	Ru	Th
Avge	37.82	9.141	4.810	12.97	28.44	9.833
SDev	.32	.073	.038	.10	.20	.080
%RSD	.8572	.8012	.7797	.7540	.7169	.8126
#1	37.90	9.151	4.813	12.98	28.44	9.850
#2	38.09	9.209	4.846	13.06	28.65	9.904
#3	37.46	9.063	4.772	12.87	28.24	9.747

Standardization Rpt. Tue 02-20-96 09:00:45 AM page 1

Method: ICP1A Standard: ICP1.4

Elem	As	Ce	Sb	V	Y
Avge	17.43	19.76	22.22	9.751	2.539
SDev	.13	.14	.16	.070	.018
%RSD	.7304	.7090	.7183	.7171	.7287
#1	17.29	19.60	22.04	9.672	2.518
#2	17.47	19.82	22.27	9.778	2.547
#3	17.53	19.87	22.35	9.804	2.552

Standardization Rpt. Tue 02-20-96 09:04:28 AM page 1

Method: ICP1A Standard: ICP1.5

Elem	U
Avge	41.43
SDev	.24
%RSD	.5827
#1	41.67
#2	41.19
#3	41.44

Standardization Rpt. Tue 02-20-96 09:07:59 AM page 1

Method: ICP1A Standard: ICP1.6

Elem	Be	Si	Te
Avge	1.384	63.81	40.92
SDev	.007	.26	.19
%RSD	.5174	.4090	.4524
#1	1.382	63.69	40.85
#2	1.393	64.11	41.13
#3	1.379	63.63	40.78

Standardization Rpt. Tue 02-20-96 09:11:58 AM page 1

Method: ICP1A Standard: ICP1.7

Elem	Ag	Bi	Se	Tl
Avge	25.70	20.74	2.605	1.016
SDev	.09	.05	.014	.002
%RSD	.3562	.2274	.5439	.1991
#1	25.65	20.73	2.603	1.018
#2	25.64	20.70	2.592	1.014
#3	25.80	20.80	2.620	1.018

Standardization Rpt. Tue 02-20-96 09:15:22 AM page 1

Method: ICP1A Standard: ICP1.8

Elem	Pd	Rh	Sn	W
Avge	16.75	40.24	6.780	2.496
SDev	.11	.29	.043	.021
%RSD	.6456	.7306	.6364	.8593
#1	16.74	40.23	6.772	2.496
#2	16.86	40.53	6.827	2.518
#3	16.64	39.94	6.742	2.475

Standardization Report Tue 02-20-96 09:15:47 AM page 1

Method: ICP1A Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Ag	328.068	ICP1.7	ICP1.0	.398092	-.230694	02/20/96 09:14:05
Al	308.215	ICP1.2	ICP1.0	8.57303	-1.56629	02/20/96 09:14:05
As	193.600	ICP1.4	ICP1.0	5.78311	-.799419	02/20/96 09:14:05
B	249.600	ICP1.2	ICP1.0	1.41205	-.231623	02/20/96 09:14:05
Ba	493.400	Multiple	Standards	1.49808	-.040861	02/20/96 08:48:40
Be	313.042	ICP1.6	ICP1.0	.730780	-.011741	02/20/96 09:14:05
Bi	223.061	ICP1.7	ICP1.0	4.85030	-.613402	02/20/96 09:14:05
Ca	317.900	ICP1.2	ICP1.0	3.72160	-.417192	02/20/96 09:14:05
Cd	228.800	ICP1.2	ICP1.0	1.25497	-.073541	02/20/96 09:14:05
Ce	418.659	ICP1.4	ICP1.0	2.60362	-1.45742	02/20/96 09:14:05
Co	228.600	Multiple	Standards	1.41292	-.172075	02/20/96 08:48:40
Cr	205.500	Multiple	Standards	2.09078	-.084115	02/20/96 08:48:40
Cu	324.700	Multiple	Standards	5.41322	-.240698	02/20/96 08:48:40
Dy	353.170	ICP1.3	ICP1.0	1.32821	-.226637	02/20/96 09:14:05
Eu	381.900	ICP1.3	ICP1.0	2.19518	-.066148	02/20/96 09:14:05
Fe	259.900	Multiple	Standards	3.37440	-.178156	02/20/96 08:48:40
K	766.500	ICP1.2	ICP1.0	237.027	-44.5215	02/20/96 09:14:05
La	398.852	ICP1.3	ICP1.0	4.23519	-.371850	02/20/96 09:14:05
Li	670.700	ICP1.2	ICP1.0	4.99213	-.178526	02/20/96 09:14:05
Mg	279.078	Multiple	Standards	6.95650	-1.45893	02/20/96 08:48:40
Mn	257.600	ICP1.2	ICP1.0	1.86037	-.033549	02/20/96 09:14:05
Mo	202.000	Multiple	Standards	2.11158	-.144776	02/20/96 08:48:40
Na	588.900	Multiple	Standards	57.2244	-2.01531	02/20/96 08:48:40
Nd	406.106	ICP1.3	ICP1.0	3.95479	-1.29308	02/20/96 09:14:05
Ni	231.600	Multiple	Standards	4.11214	-.194529	02/20/96 08:48:40
P	214.900	ICP1.2	ICP1.0	10.1971	-1.12678	02/20/96 09:14:05
Pb	220.300	Multiple	Standards	1.03215	-1.20990	02/20/96 08:48:40
Pd	360.959	ICP1.8	ICP1.0	3.23973	-4.25042	02/20/96 09:14:05
Rh	343.489	ICP1.8	ICP1.0	1.28481	-1.69526	02/20/96 09:14:05
Ru	240.271	ICP1.3	ICP1.0	1.78079	-.649692	02/20/96 09:14:05
Sb	206.838	ICP1.4	ICP1.0	4.54543	-.994589	02/20/96 09:14:05
Se	196.026	ICP1.7	ICP1.0	8.04775	-.963584	02/20/96 09:14:05
Si	288.100	ICP1.6	ICP1.0	3.15821	-1.52731	02/20/96 09:14:05
Sn	242.950	ICP1.8	ICP1.0	9.16639	-5.36631	02/20/96 09:14:05
Sr	421.500	Multiple	Standards	1.36356	-.017976	02/20/96 08:48:40
Te	214.275	ICP1.6	ICP1.0	1.24794	-1.06678	02/20/96 09:14:05
Th	283.730	ICP1.3	ICP1.0	5.19223	-1.05783	02/20/96 09:14:05
Ti	334.900	Multiple	Standards	1.68164	-.095966	02/20/96 08:48:40
Tl	190.864	ICP1.7	ICP1.0	20.3342	-.668316	02/20/96 09:14:05
U	378.280	ICP1.5	ICP1.0	12.5163	-18.5516	02/20/96 09:14:05
V	292.402	ICP1.4	ICP1.0	2.06904	-.175523	02/20/96 09:14:05
W	224.875	ICP1.8	ICP1.0	20.5383	-.578496	02/20/96 09:14:05
Y	371.030	ICP1.4	ICP1.0	3.97314	-.087542	02/20/96 09:14:05
Zn	213.800	Multiple	Standards	.821704	-.026976	02/20/96 08:48:40
Zr	339.100	Multiple	Standards	2.35055	-.163208	02/20/96 08:48:40

Standardization Report Tue 02-20-96 09:16:15 AM page 1

Method: ICP1A Slope = IR/Conc(SIR)

Element	Wavelen	High std	Low std	Slope	BEC	Date Standardized
Ag	328.068	ICP1.7	ICP1.0	2.51198	.230694	02/20/96 09:14:05
Al	308.215	ICP1.2	ICP1.0	.116645	1.56629	02/20/96 09:14:05
As	193.600	ICP1.4	ICP1.0	.172917	.799419	02/20/96 09:14:05
B	249.600	ICP1.2	ICP1.0	.708191	.231623	02/20/96 09:14:05
Ba	493.400	Multiple	Standards	.667522	.040861	02/20/96 08:48:40
Be	313.042	ICP1.6	ICP1.0	1.36840	.011741	02/20/96 09:14:05
Bi	223.061	ICP1.7	ICP1.0	.206173	.613402	02/20/96 09:14:05
Ca	317.900	ICP1.2	ICP1.0	.268701	.417192	02/20/96 09:14:05
Cd	228.800	ICP1.2	ICP1.0	.796833	.073541	02/20/96 09:14:05
Ce	418.659	ICP1.4	ICP1.0	.384080	1.45742	02/20/96 09:14:05
Co	228.600	Multiple	Standards	.707756	.172075	02/20/96 08:48:40
Cr	205.500	Multiple	Standards	.478291	.084115	02/20/96 08:48:40
Cu	324.700	Multiple	Standards	.184733	.240698	02/20/96 08:48:40
Dy	353.170	ICP1.3	ICP1.0	.752892	.226437	02/20/96 09:14:05
Eu	381.900	ICP1.3	ICP1.0	.455543	.066148	02/20/96 09:14:05
Fe	259.900	Multiple	Standards	.296349	.178156	02/20/96 08:48:40
K	766.500	ICP1.2	ICP1.0	.004219	44.5215	02/20/96 09:14:05
La	398.852	ICP1.3	ICP1.0	.236117	.371850	02/20/96 09:14:05
Li	670.700	ICP1.2	ICP1.0	.200717	.178526	02/20/96 09:14:05
Mg	279.078	Multiple	Standards	.143750	1.45893	02/20/96 08:48:40
Mn	257.600	ICP1.2	ICP1.0	.537527	.033549	02/20/96 09:14:05
Mo	202.000	Multiple	Standards	.473580	.144776	02/20/96 08:48:40
Na	588.900	Multiple	Standards	.017475	2.01531	02/20/96 08:48:40
Nd	406.106	ICP1.3	ICP1.0	.252858	1.29308	02/20/96 09:14:05
Ni	231.600	Multiple	Standards	.243182	.194529	02/20/96 08:48:40
P	214.900	ICP1.2	ICP1.0	.098067	1.12678	02/20/96 09:14:05
Pb	220.300	Multiple	Standards	.568856	1.20990	02/20/96 08:48:40
Pd	360.959	ICP1.8	ICP1.0	.308667	4.25042	02/20/96 09:14:05
Rh	343.489	ICP1.8	ICP1.0	.778327	1.69526	02/20/96 09:14:05
Ru	240.271	ICP1.3	ICP1.0	.561543	.649692	02/20/96 09:14:05
Sb	206.838	ICP1.4	ICP1.0	.220001	.994389	02/20/96 09:14:05
Se	196.026	ICP1.7	ICP1.0	.124258	.963584	02/20/96 09:14:05
Si	288.100	ICP1.6	ICP1.0	.316636	1.52731	02/20/96 09:14:05
Sn	242.950	ICP1.8	ICP1.0	.109094	5.36631	02/20/96 09:14:05
Sr	421.500	Multiple	Standards	.733373	.017976	02/20/96 08:48:40
Te	214.275	ICP1.6	ICP1.0	.801323	1.06678	02/20/96 09:14:05
Th	283.730	ICP1.3	ICP1.0	.192593	1.05783	02/20/96 09:14:05
Ti	334.900	Multiple	Standards	.594656	.095966	02/20/96 08:48:40
Tl	190.864	ICP1.7	ICP1.0	.049178	.668316	02/20/96 09:14:05
U	378.280	ICP1.5	ICP1.0	.079896	18.5516	02/20/96 09:14:05
V	292.402	ICP1.4	ICP1.0	.483317	.175523	02/20/96 09:14:05
W	224.875	ICP1.8	ICP1.0	.048690	.578496	02/20/96 09:14:05
Y	371.030	ICP1.4	ICP1.0	.251690	.087542	02/20/96 09:14:05
Zn	213.800	Multiple	Standards	1.21698	.026976	02/20/96 08:48:40
Zr	339.100	Multiple	Standards	.425433	.163208	02/20/96 08:48:40

Standardization Readback Report Tue 02-20-96 09:16:34 AM page 1

Method: ICP1A

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ag	328.068	ICP1.0	.000000	-.000000	.000000
		ICP1.7	10.0000	10.0000	.000000
Al	308.215	ICP1.0	.000000	-.000000	.000000
		ICP1.2	500.000	500.000	.000000
As	193.600	ICP1.0	.000000	-.000000	.000000
		ICP1.4	100.000	100.000	.000000
B	249.600	ICP1.0	.000000	.000000	-.000000
		ICP1.2	50.0000	50.0000	-.000004
Ba	493.400	ICP1.0	.000000	-.000113	.000113
		ICP1.1B	1.00000	1.01254	-.012538
		ICP1.1A	10.0000	9.87462	.125381
CorCoef: 1.00000					
Be	313.042	ICP1.0	.000000	.000000	-.000000
		ICP1.6	1.00000	1.00000	.000000
Si	223.061	ICP1.0	.000000	-.000000	.000000
		ICP1.7	100.000	100.000	.000000
Ca	317.900	ICP1.0	.000000	.000000	-.000000
		ICP1.2	250.000	250.000	.000000
Cd	228.800	ICP1.0	.000000	.000000	-.000000
		ICP1.2	10.0000	10.0000	.000000
Ce	418.659	ICP1.0	.000000	.000000	-.000000
		ICP1.4	50.0000	50.0000	.000000

Standardization Readback Report Tue 02-20-96 09:16:34 AM page 2

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Co	228.600	ICP1.0	.000000	-.000500	.000500
		ICP1.1B	2.00000	2.05553	-.055529
		ICP1.1A	20.0000	19.4447	.555288
CorCoef: 0.99999					
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cr	205.500	ICP1.0	.000000	-.000414	.000414
		ICP1.1B	2.00000	2.04604	-.046041
		ICP1.1A	20.0000	19.5396	.460405
CorCoef: 0.99999					
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cu	324.700	ICP1.0	.000000	-.000351	.000351
		ICP1.1B	2.00000	2.03899	-.038989
		ICP1.1A	20.0000	19.6101	.389889
CorCoef: 0.99999					
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Dy	353.170	ICP1.0	.000000	-.000000	.000000
		ICP1.3	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Eu	381.900	ICP1.0	.000000	-.000000	.000000
		ICP1.3	20.0000	20.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Fe	259.900	ICP1.0	.000000	-.005949	.005949
		ICP1.1B	20.0000	20.6610	-.661018
		ICP1.1A	200.000	193.390	6.61017
CorCoef: 0.99998					
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
K	766.500	ICP1.0	.000000	.000000	-.000000
		ICP1.2	500.000	500.000	-.000031
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
La	398.852	ICP1.0	.000000	-.000000	.000000
		ICP1.3	20.0000	20.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Li	670.700	ICP1.0	.000000	-.000000	.000000
		ICP1.2	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mg	279.078	ICP1.0	.000000	-.011047	.011047
		ICP1.1B	25.0000	26.2275	-1.22749
		ICP1.1A	250.000	237.725	12.2749
CorCoef: 0.99995					

Standardization Readback Report Tue 02-20-96 09:16:34 AM page 3

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mn	257.600	ICP1.0	.000000	-.000000	.000000
		ICP1.2	10.0000	10.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mo	202.000	ICP1.0	.000000	-.000415	.000415
		ICP1.1B	2.00000	2.04612	-.046124
		ICP1.1A	20.0000	19.5388	.461235
CorCoef:	0.99999				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Na	588.900	ICP1.0	.000000	-.002921	.002921
		ICP1.1B	25.0000	25.3246	-.324577
		ICP1.1A	250.000	246.754	3.24579
CorCoef:	1.00000				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Nd	406.106	ICP1.0	.000000	.000000	-.000000
		ICP1.3	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ni	231.600	ICP1.0	.000000	-.000573	.000573
		ICP1.1B	2.00000	2.06372	-.063720
		ICP1.1A	20.0000	19.3628	.637199
CorCoef:	0.99998				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
P	214.900	ICP1.0	.000000	-.000000	.000000
		ICP1.2	100.000	100.0000	.000008
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb	220.300	ICP1.0	.000000	-.001219	.001219
		ICP1.1B	5.00000	5.13549	-.135494
		ICP1.1A	50.0000	48.6451	1.35493
CorCoef:	0.99999				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pd	360.959	ICP1.0	.000000	-.000000	.000000
		ICP1.8	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Rh	343.489	ICP1.0	.000000	-.000000	.000000
		ICP1.8	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ru	240.271	ICP1.0	.000000	.000000	-.000000
		ICP1.3	50.0000	50.0000	.000000

Standardization Readback Report Tue 02-20-96 09:16:34 AM page 4

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sb	206.838	ICP1.0	.000000	-.000000	.000000
		ICP1.4	100.000	100.000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Se	196.026	ICP1.0	.000000	-.000000	.000000
		ICP1.7	20.0000	20.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Si	288.100	ICP1.0	.000000	.000000	-.000000
		ICP1.6	200.000	200.000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sn	242.950	ICP1.0	.000000	-.000000	.000000
		ICP1.8	50.0000	56.7845	-6.78455
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sr	421.500	ICP1.0	.000000	-.000113	.000113
		ICP1.1B	1.00000	1.01256	-.012560
		ICP1.1A	10.0000	9.87440	.125599
CorCoef:	1.00000				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Te	214.275	ICP1.0	.000000	.000000	-.000000
		ICP1.6	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Th	283.730	ICP1.0	.000000	.000000	-.000000
		ICP1.3	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ti	334.900	ICP1.0	.000000	-.000168	.000168
		ICP1.1B	2.00000	2.01865	-.018547
		ICP1.1A	20.0000	19.8135	.186468
CorCoef:	1.00000				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Tl	190.864	ICP1.0	.000000	.000000	-.000000
		ICP1.7	20.0000	20.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
U	378.280	ICP1.0	.000000	-.000001	.000001
		ICP1.5	500.000	500.000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
V	292.402	ICP1.0	.000000	.000000	-.000000
		ICP1.4	20.0000	20.0000	.000000

Standardization Readback Report Tue 02-20-96 09:16:34 AM page 5

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
W	224.875	ICP1.0	.000000	-.000000	.000000
		ICP1.B	50.0000	50.6947	-.694698
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Y	371.030	ICP1.0	.000000	-.000000	.000000
		ICP1.4	10.0000	10.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Zn	213.800	ICP1.0	.000000	-.000517	.000517
		ICP1.1B	2.00000	2.05744	-.057440
		ICP1.1A	20.0000	19.4256	.574400
CorCoef:	0.99998				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Zr	339.100	ICP1.0	.000000	-.000785	.000785
		ICP1.1B	5.00000	5.08721	-.087212
		ICP1.1A	50.0000	49.1279	.872128
CorCoef:	0.99999				

Analysis Report Tue 02-20-96 09:24:24 AM page 1

Method: ICP1A Sample Name: ICP1.0 96C103F100 Operator: DRS
Run Time: 02/20/96 09:23:05
Comment: (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.0012	.0062	.0274	-.0003	.0000	.0340
SDev	.0005	.0036	.0126	.0033	.0000	.0000	.0157
%RSD	169.8	293.5	202.8	11.98	.0000	7.738	46.14
#1	.0006	-.0002	.0041	.0297	-.0003	.0000	.0458
#2	.0006	.0053	.0198	.0236	-.0003	.0000	.0400
#3	-.0003	-.0015	-.0052	.0288	-.0003	.0000	.0162

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0166	.0209	-.0058	-.0008	-.0009	-.0021	-.0018
SDev	.0003	.0140	.0019	.0007	.0029	.0008	.0001
%RSD	1.673	67.02	33.00	90.92	329.2	35.97	5.037
#1	-.0169	.0312	-.0036	-.0003	-.0040	-.0013	-.0019
#2	-.0163	.0265	-.0070	-.0005	.0018	-.0028	-.0018
#3	-.0165	.0050	-.0069	-.0016	-.0005	-.0024	-.0018

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	-.0074	-.3713	.0005	.0002	-.0172	-.0015
SDev	.0001	.0005	.0137	.0021	.0016	.0029	.0002
%RSD	109.8	6.356	3.685	460.5	964.4	16.96	11.86
#1	-.0000	-.0073	-.3634	.0018	.0008	-.0170	-.0013
#2	-.0003	-.0079	-.3634	.0015	.0013	-.0203	-.0017
#3	-.0000	-.0070	-.3871	-.0020	-.0017	-.0144	-.0015

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0012	-.0068	-.0063	-.0055	.0004	-.0083	.0070
SDev	.0015	.0152	.0039	.0034	.0124	.0075	.0101
%RSD	125.4	223.6	62.63	62.64	3077.	90.74	145.4
#1	-.0026	.0047	-.0087	-.0095	-.0139	-.0020	.0084
#2	-.0012	-.0010	-.0017	-.0033	.0079	-.0063	.0163
#3	.0003	-.0240	-.0083	-.0037	.0072	-.0166	-.0038

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0041	.0025	-.0003	.0043	1.806	-.0017	-.0001
SDev	.0029	.0013	.0130	.0076	.082	.0137	.0000
%RSD	72.04	54.09	4909.	177.6	4.528	823.8	.4255
#1	-.0059	.0014	-.0152	.0095	1.887	-.0067	-.0001
#2	-.0007	.0020	.0060	-.0044	1.807	.0138	-.0001
#3	-.0057	.0040	.0084	.0078	1.723	-.0121	-.0001

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0092	.0001	-.0008	.0130	-.0662	-.0009	.0000
SDev	.0004	.0023	.0001	.0056	.0306	.0002	.0105

%RSD	3.890	3086.	11.09	43.40	46.27	18.53	23160.
#1	.0088	-.0010	-.0009	.0074	-.0429	-.0010	-.0116
#2	.0095	.0027	-.0009	.0187	-.1009	-.0008	.0089
#3	.0094	-.0015	-.0007	.0128	-.0548	-.0010	.0028

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0003	-.0031	-.0019
SDev	.0002	.0006	.0003
%RSD	70.95	20.37	17.74
#1	-.0005	-.0032	-.0018
#2	-.0001	-.0024	-.0016
#3	-.0005	-.0036	-.0023

Analysis Report QC Standard Tue 02-20-96 09:27:17 AM page 1

Method: ICP1A Sample Name: QC_MCVA 960130I901 Operator: DRS
Run Time: 02/20/96 09:25:58
Comment: (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Pass* SD-WM DRS 2/20/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5060	10.05	2.640	2.104	.5106	.0973	24.82
SDev	.0030	.05	.022	.017	.0028	.0006	.14
%RSD	.5933	.4919	.8439	.7964	.5444	.6493	.5570
#1	.5045	9.989	2.615	2.085	.5077	.0966	24.67
#2	.5099	10.07	2.649	2.111	.5109	.0975	24.83
#3	.5096	10.08	2.656	2.117	.5133	.0977	24.95
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ce	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.04	.5027	-.0031	1.029	1.035	.9360	-.0003
SDev	.14	.0100	.0028	.005	.006	.0083	.0004
%RSD	.5650	1.986	91.99	.4479	.5681	.8921	124.1
#1	24.87	.5082	-.0055	1.024	1.029	.9264	-.0002
#2	25.10	.5087	-.0038	1.029	1.037	.9398	-.0000
#3	25.14	.4912	.0000	1.033	1.040	.9418	-.0007
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0022	20.78	24.29	.0053	2.021	33.41	.5157
SDev	.0003	.11	.05	.0010	.014	.19	.0031
%RSD	11.50	.5398	.1952	18.07	.6850	.5593	.5983
#1	.0025	20.65	24.24	.0064	2.006	33.20	.5128
#2	.0021	20.83	24.29	.0044	2.026	33.48	.5154
#3	.0021	20.85	24.33	.0052	2.032	33.56	.5189
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.035	37.69	.0084	1.016	5.008	2.576	-.0039
SDev	.005	.21	.0015	.005	.035	.005	.0141
%RSD	.4363	.5469	17.48	.5257	.7015	.2065	362.1
#1	1.029	37.46	.0068	1.012	4.968	2.575	.0124
#2	1.036	37.79	.0097	1.013	5.031	2.572	-.0130
#3	1.038	37.83	.0088	1.022	5.026	2.582	-.0111
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Analysis Report QC Standard Tue 02-20-96 09:27:17 AM page 2

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0013	.0146	03.293	2.634	19.81	.1520	.5176
SDev	.0017	.0047	.022	.015	.11	.0113	.0032
%RSD	129.1	32.36	.6594	.5660	.5302	7.453	.6272
#1	.0033	.0167	03.274	2.617	19.69	.1461	.5139
#2	-.0001	.0180	03.317	2.644	19.87	.1448	.5189
#3	.0009	.0092	03.287	2.642	19.88	.1650	.5201
Errors	NOCHECK	NOCHECK	QC Fail	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0659	.0323	1.014	2.520	.1584	1.011	.0442
SDev	.0087	.0030	.005	.010	.0130	.007	.0135
%RSD	13.22	9.191	.5180	.3969	8.190	.6750	30.44
#1	.0598	.0343	1.009	2.509	.1488	1.003	.0423
#2	.0758	.0338	1.016	2.536	.1438	1.012	.0585
#3	.0619	.0289	1.019	2.522	.1630	1.017	.0318
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0014	1.020	2.022
SDev	.0002	.010	.013
%RSD	16.58	.9348	.6533
#1	.0016	1.013	2.008
#2	.0016	1.031	2.026
#3	.0012	1.016	2.033
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report QC Standard Tue 02-20-96 09:31:08 AM page 1

Method: ICP1A Sample Name: QC_MCVB1 960123I901 Operator: DRS
Run Time: 02/20/96 09:29:49
Comment: (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

PASS
RJS 2/20/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0200	-.1402	.2986	-.0203	.0011	.0011	.1371
SDev	.0006	.0098	.0010	.0039	.0001	.0000	.0177
%RSD	3.233	6.962	.3281	19.14	7.617	1.280	12.91
#1	.0193	-.1400	.2986	-.0242	.0012	.0011	.1492
#2	.0206	-.1500	.2995	-.0203	.0011	.0011	.1453
#3	.0200	-.1305	.2976	-.0164	.0011	.0011	.1168
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0406	.0172	1.924	.0030	.0067	.0315	1.958
SDev	.0044	.0019	.006	.0003	.0038	.0034	.004
%RSD	10.96	10.85	.2985	11.09	56.96	10.78	.1866
#1	.0442	.0186	1.924	.0026	.0054	.0347	1.960
#2	.0420	.0179	1.917	.0031	.0111	.0319	1.953
#3	.0357	.0151	1.929	.0032	.0037	.0279	1.959
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			2.000				2.000
Range			10.00				10.00

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.965	.0388	-1.122	.9601	.0023	-.0365	.0001
SDev	.002	.0034	.082	.0015	.0000	.0229	.0002
%RSD	.1125	9.506	7.319	.1577	.0000	62.64	141.1
#1	1.966	.0389	-1.075	.9604	.0023	-.0116	.0003
#2	1.963	.0363	-1.217	.9585	.0023	-.0415	-.0001
#3	1.967	.0322	-1.075	.9615	.0023	-.0565	.0001
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK
Value	2.000			1.000			
Range	10.00			10.00			

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0105	.1673	1.937	.1354	.0987	.2604	1.882
SDev	.0003	.0200	.007	.0070	.0280	.0005	.026
%RSD	2.371	11.95	.3400	5.193	28.40	.2082	1.378
#1	.0108	.1558	1.933	.1435	.1255	.2610	1.863
#2	.0103	.1903	1.932	.1307	.0696	.2599	1.872
#3	.0103	.1557	1.944	.1320	.1009	.2604	1.912
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			2.000				2.000

Analysis Report QC Standard Tue 02-20-96 09:31:08 AM page 2

Range			10.00				10.00
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.968	2.057	.1344	.0792	19.40	2.133	.0028
SDev	.011	.009	.0039	.0181	2.15	.015	.0001
%RSD	.5401	.4353	2.903	22.92	11.09	.7176	2.792
#1	1.970	2.059	.1337	.0671	17.18	2.146	.0029
#2	1.957	2.047	.1387	.1001	19.54	2.116	.0028
#3	1.978	2.064	.1310	.0704	21.47	2.136	.0028
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value	2.000	2.000				2.000	
Range	10.00	10.00				10.00	

Elem	Te	Tm	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.010	4.577	.0049	.0462	23.60	.0025	1.978
SDev	.004	.494	.0001	.0041	.13	.0002	.012
%RSD	.1743	10.79	3.159	8.952	.5552	7.839	.6147
#1	2.013	4.512	.0049	.0501	23.55	.0025	1.983
#2	2.006	5.100	.0051	.0418	23.50	.0025	1.987
#3	2.011	04.119	.0047	.0466	23.75	.0022	1.964
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	QC Pass
Value	2.000	5.000			25.00		2.000
Range	10.00	10.00			10.00		10.00

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.9371	.0055	-.0208
SDev	.0022	.0007	.0019
%RSD	.2340	12.19	9.302
#1	.9379	.0062	-.0204
#2	.9388	.0056	-.0228
#3	.9346	.0048	-.0190
Errors	QC Pass	NOCHECK	NOCHECK
Value	1.000		
Range	10.00		

Analysis Report Tue 02-20-96 09:34:42 AM page 1

Method: ICP1A Sample Name: QC SSTA 9512081902 Operator: DRS
Run Time: 02/20/96 09:33:23
Comment: (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0274	250.8	.6775	.3093	.0100	.0006	197.5
SDev	.0007	.3	.0009	.0030	.0001	.0001	.2
%RSD	2.526	.1243	.1337	.9575	.8672	12.19	.1226
#1	-.0267	250.9	.6781	.3121	.0101	.0007	197.4
#2	-.0281	250.4	.6764	.3096	.0099	.0006	197.2
#3	-.0275	251.0	.6779	.3062	.0099	.0006	197.7

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	246.8	.0669	.1035	.0166	.2781	-.1518	.0240
SDev	.4	.0121	.0125	.0023	.0044	.0023	.0008
%RSD	.1699	18.13	12.11	14.00	1.593	1.530	3.312
#1	246.7	.0587	.1096	.0171	.2812	-.1538	.0244
#2	246.4	.0611	.0891	.0140	.2730	-.1524	.0231
#3	247.2	.0808	.1119	.0186	.2801	-.1492	.0245

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0891	199.6	101.6	50.31	.0354	-.6719	.0194
SDev	.0005	.2	.3	.10	.0010	.0286	.0003
%RSD	.5225	.1230	.2963	.1915	2.932	4.263	1.281
#1	.0896	199.7	101.8	50.30	.0362	-.7050	.0196
#2	.0890	199.3	101.2	50.21	.0342	-.6552	.0192
#3	.0887	199.8	101.9	50.41	.0357	-.6556	.0195

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1156	.8727	.1635	192.0	200.0	1.031	.4182
SDev	.0019	.0087	.0044	.4	.7	.025	.0107
%RSD	1.625	.9950	2.684	.2074	.3447	2.438	2.569
#1	.1172	.8709	.1614	191.9	200.0	1.040	.4097
#2	.1162	.8822	.1605	191.6	199.3	1.003	.4147
#3	.1135	.8651	.1685	192.4	200.7	1.051	.4303

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1223	.1986	.7746	1.665	9.447	1.900	.0196
SDev	.0034	.0038	.0103	.017	1.010	.054	.0001
%RSD	2.820	1.930	1.327	1.013	10.69	2.833	.4007
#1	.1251	.1955	.7756	1.646	10.47	1.892	.0195
#2	.1184	.2029	.7844	1.668	9.428	1.851	.0196
#3	.1234	.1975	.7639	1.679	8.447	1.958	.0196

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6444	.6035	.0039	.4172	200.5	.0457	.5321
SDev	.0086	.0074	.0004	.0164	.1	.0015	.0144

%RSD	1.342	1.227	10.65	3.929	.0571	3.324	2.702
#1	.6359	.6066	.0040	.4190	200.6	.0449	.5423
#2	.6442	.5951	.0034	.3999	200.4	.0448	.5384
#3	.6532	.6089	.0041	.4326	200.4	.0475	.5157

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0255	.0133	.0016
SDev	.0003	.0059	.0004
%RSD	1.264	44.75	24.83
#1	.0259	.0201	.0016
#2	.0252	.0091	.0012
#3	.0255	.0107	.0020

Analysis Report Tue 02-20-96 09:38:33 AM page 1

Method: ICP1A Sample Name: QC SSTMCV 951208I903 Operator: DRS
Run Time: 02/20/96 09:37:14
Comment: (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5151	5.259	2.146	.0790	.1031	.0997	1.811
SDev	.0021	.015	.018	.0039	.0001	.0001	.013
%RSD	.4126	.2786	.8599	4.928	.1453	.1292	.6952
#1	.5126	5.270	2.124	.0828	.1030	.0996	1.825
#2	.5163	5.265	2.159	.0790	.1031	.0998	1.807
#3	.5164	5.243	2.153	.0751	.1033	.0996	1.801

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.295	.1875	.0063	-.0002	.3147	-.0046	.0010
SDev	.022	.0038	.0017	.0007	.0014	.0020	.0002
%RSD	1.675	2.041	26.43	366.6	.4327	43.42	18.90
#1	1.317	.1899	.0050	.0004	.3134	-.0060	.0011
#2	1.295	.1831	.0058	.0000	.3161	-.0055	.0008
#3	1.274	.1896	.0082	-.0010	.3146	-.0023	.0011

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0060	.7728	50.30	.0645	.0023	-.0686	.1040
SDev	.0002	.0173	.08	.0041	.0013	.0037	.0005
%RSD	2.750	2.236	.1655	6.296	56.69	5.440	.4515
#1	.0080	.7905	50.29	.0685	.0033	-.0687	.1035
#2	.0078	.7717	50.38	.0646	.0008	-.0649	.1045
#3	.0082	.7560	50.22	.0603	.0028	-.0723	.1039

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0054	5.200	.0066	.9049	4.254	3.119	-.0250
SDev	.0022	.021	.0022	.0161	.029	.011	.0084
%RSD	41.13	.3967	32.58	1.775	.6790	.3550	33.68
#1	.0066	5.206	.0042	.9223	4.282	3.110	-.0212
#2	.0028	5.218	.0082	.9017	4.256	3.131	-.0346
#3	.0066	5.178	.0075	.8906	4.224	3.116	-.0192

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0012	.0118	2.689	2.624	5.370	.0700	.0015
SDev	.0028	.0005	.003	.010	.103	.0142	.0000
%RSD	232.7	3.903	.1004	.3882	1.923	20.33	.0173
#1	-.0044	.0114	2.691	2.631	5.475	.0562	.0015
#2	.0003	.0123	2.689	2.630	5.367	.0692	.0015
#3	.0005	.0116	2.686	2.613	5.269	.0846	.0015

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0320	.0668	.0002	.0192	20.31	.5148	.0360
SDev	.0042	.0108	.0001	.0060	.04	.0002	.0084

%RSD	13.15	16.21	95.25	31.34	.1729	.0408	23.23
#1	.0288	.0590	-.0000	.0224	20.30	.5146	.0410
#2	.0305	.0791	.0002	.0123	20.28	.5150	.0407
#3	.0368	.0622	.0003	.0230	20.35	.5149	.0264

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0008	-.0018	.5068
SDev	.0002	.0002	.0009
%RSD	26.86	10.25	.1752
#1	.0006	-.0019	.5065
#2	.0010	-.0016	.5062
#3	.0009	-.0020	.5079

Analysis Report QC Standard Tue 02-20-96 09:42:24 AM page 1

Method: ICP1A Sample Name: QC_SRM-1643d 108518 Operator: DRS
Run Time: 02/20/96 09:41:05
Comment: (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	0.0024	0.1886	0.0687	0.1725	.5233	0.0125	.0824
SDev	.0004	.0034	.0097	.0012	.0011	.0001	.0076
%RSD	18.37	1.777	14.08	.7049	.2110	.3669	9.153
#1	0.0023	0.1900	0.0715	0.1738	.5245	.0125	.0820
#2	0.0020	0.1910	0.0767	0.1714	.5229	0.0125	.0902
#3	0.0029	0.1848	0.0580	0.1722	.5224	0.0124	.0752
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Pass	QC Fail	NOCHECK
Value	.0013	.1276	.0560	.1448	.5065	.0125	
Range	.0570	3.500	.7300	5.200	8.900	.2800	

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	31.04	0.0090	.0070	0.0265	0.0216	0.0151	.0005
SDev	.08	.0039	.0067	.0009	.0004	.0003	.0006
%RSD	.2674	42.75	95.46	3.554	1.671	1.950	123.6
#1	31.13	0.0087	.0028	0.0274	0.0214	0.0148	-.0002
#2	30.98	0.0130	.0035	0.0265	0.0214	0.0154	.0007
#3	30.99	0.0053	.0147	0.0255	0.0220	0.0152	.0009
Errors	QC Pass	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail	NOCHECK
Value	31.04	.0065		.0250	.0185	.0205	
Range	.6400	.3700		.5900	.2000	3.900	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0015	0.1352	02.370	.0197	0.0196	08.660	0.0390
SDev	.0003	.0032	.135	.0006	.0011	.042	.0003
%RSD	17.09	2.380	5.686	4.021	5.871	.4899	.7907
#1	.0012	0.1379	02.220	.0200	0.0203	08.707	0.0392
#2	.0016	0.1362	02.410	.0202	0.0183	08.624	0.0387
#3	.0016	0.1317	02.481	.0188	0.0203	08.649	0.0392
Errors	NOCHECK	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail
Value		.0912	2.356		.0165	7.989	.0377
Range		3.900	.0350		.5500	.0350	.8300

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	0.1153	022.29	.0174	0.1521	.0830	0.0197	.0263
SDev	.0029	.09	.0014	.0039	.0176	.0086	.0111
%RSD	2.501	.4109	7.824	2.579	21.25	43.88	42.11
#1	0.1158	022.38	.0173	0.1525	.0725	0.0173	.0136
#2	0.1179	022.30	.0161	0.1558	.0731	0.0125	.0316
#3	.1122	22.20	.0188	0.1480	.1034	0.0293	.0338
Errors	QC Fail	QC Fail	NOCHECK	QC Fail	NOCHECK	QC Fail	NOCHECK
Value	.1129	22.07		.0581		.0181	

Range	1.700	.6400		2.700		.6400	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0100	.0036	0.0779	0.0344	3.660	.0104	0.3053
SDev	.0036	.0034	.0043	.0061	.040	.0070	.0007
%RSD	36.23	92.30	5.590	17.65	1.088	67.55	.2363
#1	.0075	.0062	0.0738	0.0406	3.699	.0166	0.3061
#2	.0083	-.0001	0.0774	0.0342	3.661	.0028	0.3051
#3	.0142	.0048	0.0824	0.0284	3.619	.0118	.3048
Errors	NOCHECK	NOCHECK	QC Fail	QC Fail	NOCHECK	NOCHECK	QC Fail
Value			.0541	.0114			.2948
Range			1.100	.1700			3.400

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0209	-.0111	.0007	0.0198	.4201	0.0356	.0086
SDev	.0095	.0036	.0001	.0105	.0508	.0001	.0071
%RSD	45.43	32.98	12.56	52.83	12.09	.1800	82.59
#1	.0154	-.0082	.0007	0.0081	.3919	0.0357	.0127
#2	.0154	-.0078	.0006	0.0230	.3897	0.0357	.0004
#3	.0319	-.0152	.0007	0.0284	.4788	.0356	.0128
Errors	NOCHECK	NOCHECK	NOCHECK	QC Fail	NOCHECK	QC Fail	NOCHECK
Value				.0073		.0351	
Range				.2500		1.400	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0009	0.0738	.0009
SDev	.0006	.0015	.0003
%RSD	61.29	1.989	36.97
#1	.0008	.0722	.0006
#2	.0004	0.0741	.0009
#3	.0016	0.0751	.0012
Errors	NOCHECK	QC Fail	NOCHECK
Value		.0725	
Range		.6500	

Analysis Report Tue 02-20-96 09:46:37 AM page 1

Method: ICP1A Sample Name: QC CCV1 960126H901 Operator: DRS
Run Time: 02/20/96 09:45:18
Comment: (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0021	1.957	2.077	2.041	.9982	.9876	1.980
SDev	.0005	.008	.002	.012	.0032	.0024	.022
%RSD	24.25	.4202	.0813	.5945	.3229	.2483	1.102
#1	.0027	1.965	2.077	2.042	.9984	.9885	1.996
#2	.0020	1.958	2.076	2.052	1.001	.9895	1.988
#3	.0017	1.949	2.079	2.028	.9949	.9848	1.955

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.009	1.019	.0012	1.024	.5105	1.974	.0011
SDev	.010	.014	.0021	.001	.0047	.005	.0001
%RSD	.4807	1.404	170.3	.1177	.9301	.2320	10.80
#1	2.016	1.029	.0025	1.024	.5159	1.969	.0010
#2	2.013	1.026	-.0012	1.025	.5084	1.978	.0010
#3	1.998	1.003	.0023	1.022	.5071	1.974	.0012

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	2.049	4.788	.0052	1.976	2.110	1.025
SDev	.0001	.004	.090	.0004	.005	.007	.003
%RSD	14.32	.2016	1.874	8.157	.2343	.3479	.2739
#1	.0008	2.048	4.851	.0050	1.978	2.103	1.026
#2	.0008	2.054	4.827	.0049	1.979	2.118	1.026
#3	.0010	2.046	4.683	.0057	1.970	2.110	1.022

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.992	8.453	.0040	2.065	4.828	2.035	.0205
SDev	.005	.009	.0012	.002	.035	.010	.0130
%RSD	.2267	.1031	30.57	.1021	.7273	.4678	63.50
#1	1.990	8.455	.0043	2.067	4.832	2.041	.0213
#2	1.997	8.461	.0026	2.066	4.861	2.024	.0071
#3	1.988	8.444	.0050	2.063	4.791	2.040	.0330

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0079	.0074	.0175	2.036	5.225	.0386	2.008
SDev	.0034	.0018	.0154	.015	.015	.0097	.006
%RSD	42.48	23.98	87.88	.7261	.2777	25.10	.2789
#1	.0117	.0094	.0260	2.023	5.241	.0285	2.008
#2	.0053	.0063	-.0003	2.033	5.222	.0395	2.013
#3	.0068	.0065	.0267	2.052	5.212	.0478	2.002

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0341	.0086	.0000	1.959	.1188	.9694	.0159
SDev	.0059	.0143	.0004	.004	.0558	.0026	.0036

Analysis Report Tue 02-20-96 09:46:37 AM page 2

%RSD	17.15	167.5	1538.	.2163	47.01	.2669	22.56
#1	.0379	.0142	.0005	1.963	.0795	.9701	.0138
#2	.0274	.0192	-.0002	1.960	.0941	.9715	.0201
#3	.0372	-.0077	-.0002	1.954	.1827	.9665	.0139

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0003	1.010	-.0012
SDev	.0006	.003	.0013
%RSD	195.7	.2733	109.8
#1	.0010	1.007	-.0019
#2	.0002	1.012	-.0019
#3	-.0002	1.011	.0003

Analysis Report Tue 02-20-96 09:50:32 AM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 02/20/96 09:49:13
Comment: (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0016	.0090	-.0042	-.0034	.0013	.0013	.0084
SDev	.0005	.0061	.0099	.0030	.0001	.0001	.0029
%RSD	30.04	68.07	233.7	89.50	6.729	12.01	35.04
#1	.0012	.0037	-.0073	-.0039	.0012	.0014	.0065
#2	.0014	.0157	-.0123	-.0001	.0012	.0013	.0118
#3	.0021	.0075	.0068	-.0062	.0014	.0011	.0069

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0054	.0051	-.0016	.0006	-.0009	.0013	-.0000
SDev	.0006	.0045	.0044	.0006	.0004	.0008	.0005
%RSD	11.53	87.55	267.6	110.2	39.82	58.52	1612.
#1	-.0053	-.0000	.0032	-.0002	-.0007	.0007	-.0003
#2	-.0060	.0074	-.0053	.0009	-.0013	.0011	-.0003
#3	-.0048	.0080	-.0028	.0009	-.0007	.0021	.0005

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	-.0036	-.1106	.0028	.0032	-.0051	-.0003
SDev	.0003	.0008	.1120	.0006	.0003	.0077	.0001
%RSD	130.6	22.89	101.3	27.20	9.116	149.5	35.59
#1	-.0001	-.0031	-.1501	.0021	.0028	-.0012	-.0003
#2	.0001	-.0045	-.1975	.0028	.0033	-.0139	-.0005
#3	.0006	-.0032	.0158	.0036	.0033	-.0002	-.0003

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0034	.0275	.0019	.0207	-.0040	.0027	.0186
SDev	.0014	.0152	.0044	.0026	.0182	.0059	.0121
%RSD	42.72	55.01	229.8	12.64	459.5	215.8	64.96
#1	.0045	.0218	-.0016	.0222	.0101	-.0034	.0048
#2	.0039	.0161	.0005	.0222	.0026	.0033	.0235
#3	.0018	.0447	.0069	.0177	-.0245	.0084	.0274

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0039	.0028	-.0081	.0085	.2450	.0142	.0026
SDev	.0031	.0004	.0141	.0146	.0043	.0186	.0003
%RSD	79.54	12.89	175.1	171.9	1.753	130.4	11.07
#1	.0014	.0029	-.0204	.0085	.2490	.0116	.0029
#2	.0029	.0031	-.0113	-.0061	.2405	-.0029	.0025
#3	.0075	.0024	.0074	.0230	.2455	.0339	.0023

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0175	-.0013	-.0005	.0057	.0683	.0012	.0053
SDev	.0017	.0033	.0001	.0026	.0384	.0002	.0086

%RSD	9.741	247.4	28.40	44.90	56.25	18.04	160.5
#1	.0193	-.0021	-.0006	.0086	.0248	.0011	.0027
#2	.0170	-.0042	-.0005	.0038	.0975	.0015	.0150
#3	.0160	.0023	-.0004	.0047	.0826	.0010	-.0016

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0000	-.0018	-.0015
SDev	.0002	.0001	.0007
%RSD	584.5	4.694	42.74
#1	-.0001	-.0018	-.0021
#2	.0002	-.0016	-.0017
#3	-.0002	-.0019	-.0008

Analysis Report Tue 02-20-96 09:52:38 AM page 1

Method: ICP1A Sample Name: 96-2608-BLK Operator: DRS
Run Time: 02/20/96 09:51:20
Comment: PROCESS BLANK (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0091	.2728	.0603	.0172	.0037	.0008	.0340
SDev	.0002	.0067	.0081	.0034	.0002	.0001	.0031
%RSD	2.685	2.453	13.47	19.73	4.635	8.947	9.214
#1	.0088	.2652	.0642	.0149	.0039	.0008	.0304
#2	.0092	.2775	.0658	.0211	.0036	.0008	.0363
#3	.0093	.2758	.0510	.0156	.0036	.0007	.0353

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4578	-.0052	.0525	.0167	.0076	.0193	.0079
SDev	.0081	.0044	.0016	.0001	.0016	.0008	.0002
%RSD	1.778	83.61	3.086	.9131	20.78	4.233	2.673
#1	.4498	-.0052	.0525	.0165	.0057	.0202	.0082
#2	.4576	-.0095	.0541	.0167	.0085	.0185	.0078
#3	.4660	-.0008	.0509	.0168	.0085	.0192	.0079

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0028	.0519	2430.	.0164	.0076	.1143	.0773
SDev	.0000	.0007	40.	.0008	.0018	.0071	.0016
%RSD	.4504	1.433	1.651	5.045	22.90	6.213	2.016
#1	.0028	.0511	2390.	.0171	.0078	.1222	.0755
#2	.0028	.0521	2431.	.0167	.0093	.1119	.0778
#3	.0029	.0525	2470.	.0155	.0058	.1086	.0785

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0146	1.141	.0478	.9629	.0783	.0534	.1580
SDev	.0006	.020	.0041	.0112	.0105	.0018	.0175
%RSD	3.833	1.761	8.527	1.160	13.37	3.314	11.08
#1	.0142	1.120	.0514	.9560	.0669	.0514	.1782
#2	.0144	1.143	.0496	.9368	.0876	.0544	.1482
#3	.0153	1.160	.0434	.9758	.0804	.0545	.1475

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0662	.0329	.0571	.0811	.7813	.2273	.0044
SDev	.0044	.0010	.0038	.0072	.0095	.0095	.0001
%RSD	6.729	3.078	6.577	8.929	1.210	4.169	1.770
#1	.0696	.0321	.0604	.0730	.7896	.2382	.0045
#2	.0678	.0341	.0580	.0868	.7833	.2214	.0044
#3	.0612	.0326	.0530	.0836	.7710	.2223	.0044

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0666	.0013	.0078	.0530	.8154	.0080	.0137
SDev	.0074	.0056	.0002	.0039	.0331	.0004	.0035

%RSD	11.09	450.8	3.045	7.333	4.065	4.889	25.79
#1	.0592	-.0041	.0078	.0569	.8368	.0081	.0177
#2	.0739	.0008	.0081	.0531	.8322	.0083	.0116
#3	.0667	.0071	.0076	.0491	.7772	.0076	.0117

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0027	.0056	.0060
SDev	.0002	.0005	.0003
%RSD	7.526	9.171	4.807
#1	.0029	.0050	.0062
#2	.0029	.0060	.0061
#3	.0025	.0058	.0057

Analysis Report Tue 02-20-96 09:56:09 AM page 1

Method: ICP1A Sample Name: 96-2606 @5 Operator: DRS
Run Time: 02/20/96 09:54:51
Comment: 118.1A8.F @5X DIL (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0036	.9576	.0183	-.0128	.0020	.0002	.8591
SDev	.0001	.0027	.0094	.0037	.0001	.0000	.0064
%RSD	1.961	.2799	51.33	29.23	7.549	14.68	.7405
#1	.0036	.9582	.0082	-.0104	.0018	.0002	.8600
#2	.0037	.9599	.0199	-.0171	.0021	.0002	.8649
#3	.0035	.9547	.0269	-.0109	.0020	.0002	.8523

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1056	.0007	.0280	.0051	.0500	.0043	.0038
SDev	.0011	.0039	.0012	.0002	.0013	.0010	.0009
%RSD	1.031	546.5	4.319	4.803	2.555	23.88	24.53
#1	.1052	.0037	.0269	.0049	.0511	.0054	.0030
#2	.1068	.0022	.0293	.0051	.0503	.0040	.0048
#3	.1048	-.0037	.0277	.0054	.0488	.0034	.0036

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0012	.5445	512.4	.0082	.0174	.0276	.0231
SDev	.0001	.0006	1.1	.0007	.0008	.0083	.0003
%RSD	9.286	.1025	.2101	8.279	4.364	29.89	1.344
#1	.0012	.5444	513.7	.0076	.0183	.0368	.0234
#2	.0014	.5452	511.9	.0082	.0168	.0254	.0232
#3	.0012	.5441	511.7	.0089	.0173	.0207	.0228

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0063	4.996	.0231	.1930	1.216	.0278	.0772
SDev	.0012	.047	.0074	.0057	.018	.0069	.0152
%RSD	18.83	.9331	31.95	2.940	1.446	24.69	19.70
#1	.0065	5.029	.0146	.1994	1.222	.0309	.0597
#2	.0050	5.017	.0278	.1908	1.230	.0199	.0852
#3	.0073	4.943	.0270	.1887	1.196	.0325	.0868

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0314	.0139	.0223	.0487	.5477	.1004	.0076
SDev	.0031	.0009	.0079	.0079	.0059	.0225	.0001
%RSD	9.898	6.480	35.62	16.16	1.084	22.37	1.035
#1	.0287	.0142	.0259	.0397	.5546	.0758	.0075
#2	.0348	.0129	.0132	.0540	.5447	.1199	.0075
#3	.0306	.0146	.0277	.0524	.5439	.1055	.0077

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0415	.0063	.0029	.0330	.4378	.0034	.0131
SDev	.0063	.0094	.0002	.0122	.0307	.0002	.0031

Analysis Report Tue 02-20-96 09:56:09 AM page 2

%RSD	15.16	148.8	7.879	36.85	18.43	6.388	23.96
#1	.0482	.0122	.0026	.0346	.3456	.0033	.0104
#2	.0357	-.0045	.0030	.0201	.4721	.0033	.0123
#3	.0406	.0113	.0030	.0443	.4956	.0037	.0165

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0016	.0005	.0026
SDev	.0003	.0007	.0011
%RSD	22.58	131.9	40.08
#1	.0012	.0013	.0017
#2	.0015	.0002	.0038
#3	.0019	.0000	.0024

Analysis Report Tue 02-20-96 09:59:42 AM page 1

Method: ICP1A Sample Name: 96-2606 Operator: DRS
Run Time: 02/20/96 09:58:23
Comment: 118.1AB.F (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0093	4.504	.0592	.0023	.0075	.0003	4.063
SDev	.0004	.051	.0137	.0030	.0001	.0001	.032
%RSD	4.569	1.138	23.13	130.5	1.157	15.39	.7833
#1	.0092	4.452	.0474	-.0011	.0075	.0003	4.028
#2	.0098	4.507	.0558	.0034	.0075	.0004	4.090
#3	.0090	4.554	.0742	.0045	.0074	.0003	4.071

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5186	.0070	.0782	.0136	.2430	.0163	.0088
SDev	.0063	.0066	.0060	.0004	.0056	.0019	.0004
%RSD	1.209	93.54	7.719	2.651	2.319	11.89	4.887
#1	.5123	.0041	.0772	.0160	.2380	.0176	.0090
#2	.5186	.0146	.0728	.0158	.2418	.0140	.0090
#3	.5248	.0024	.0847	.0152	.2491	.0171	.0083

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0034	2.608	2381.	.0169	.0817	.1249	.1132
SDev	.0001	.030	24.	.0010	.0008	.0059	.0008
%RSD	3.634	1.147	1.013	6.177	.9314	4.689	.7349
#1	.0035	2.578	2356.	.0181	.0815	.1190	.1122
#2	.0033	2.608	2383.	.0166	.0810	.1308	.1136
#3	.0035	2.638	2404.	.0160	.0825	.1250	.1137

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0202	23.52	.0525	.8687	5.957	.0805	.1667
SDev	.0001	.19	.0032	.0070	.065	.0063	.0049
%RSD	.6100	.8285	5.999	.8010	1.093	7.806	2.935
#1	.0203	23.30	.0561	.8610	5.911	.0744	.1714
#2	.0201	23.56	.0515	.8746	5.928	.0802	.1617
#3	.0203	23.69	.0500	.8705	6.031	.0870	.1669

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0764	.0392	.0690	.0909	2.272	.2825	.0342
SDev	.0011	.0014	.0091	.0227	.012	.0128	.0003
%RSD	1.512	3.581	13.22	24.93	.5252	4.539	1.005
#1	.0764	.0399	.0790	.0656	2.259	.2691	.0338
#2	.0775	.0402	.0610	.1092	2.274	.2947	.0342
#3	.0752	.0376	.0671	.0979	2.283	.2839	.0345

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0798	.0032	.0113	.0566	1.093	.0087	.0272
SDev	.0091	.0059	.0003	.0044	.058	.0001	.0097

%RSD	11.39	184.5	2.427	7.870	5.347	.8286	35.70
#1	.0768	-.0032	.0113	.0527	1.154	.0087	.0382
#2	.0727	.0045	.0116	.0557	1.037	.0088	.0197
#3	.0901	.0084	.0110	.0614	1.089	.0087	.0238

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0035	.0108	.0130
SDev	.0004	.0003	.0002
%RSD	10.90	3.192	1.342
#1	.0034	.0109	.0132
#2	.0031	.0110	.0129
#3	.0039	.0104	.0128

Analysis Report Tue 02-20-96 10:03:21 AM page 1

Method: ICP1A Sample Name: 96-2606-PS-A Operator: DRS
Run Time: 02/20/96 10:02:03
Comment: 118.1AB.F POST SPIKE A (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2569	7.437	1.422	1.042	.2592	.0511	14.62
SDev	.0014	.055	.024	.014	.0020	.0004	.12
%RSD	.5624	.7438	1.714	1.375	.7891	.8188	.8356
#1	.2582	7.474	1.431	1.050	.2601	.0512	14.71
#2	.2553	7.373	1.395	1.026	.2568	.0506	14.48
#3	.2571	7.464	1.442	1.051	.2606	.0514	14.66

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.18	.2596	.0544	.5367	.6529	.5010	.0064
SDev	.09	.0090	.0039	.0051	.0028	.0055	.0006
%RSD	.7099	3.477	7.110	.9449	.4357	1.105	8.538
#1	13.23	.2579	.0513	.5381	.6561	.5034	.0058
#2	13.07	.2616	.0587	.5311	.6519	.4947	.0068
#3	13.23	.2694	.0532	.5410	.6507	.5049	.0066

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0035	11.90	1263.	.0157	1.043	17.08	.3225
SDev	.0002	.10	10.	.0014	.011	.15	.0024
%RSD	5.983	.8169	.7638	9.168	1.021	.8890	.7415
#1	.0033	11.94	1268.	.0149	1.051	17.17	.3241
#2	.0037	11.79	1252.	.0173	1.031	16.90	.3198
#3	.0035	11.97	1269.	.0148	1.047	17.16	.3237

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5433	31.27	.0439	.9719	5.674	1.376	.1156
SDev	.0060	.21	.0029	.0110	.046	.019	.0093
%RSD	1.105	.6814	6.541	1.132	.8158	1.399	8.038
#1	.5491	31.43	.0408	.9819	5.694	1.396	.1095
#2	.5371	31.03	.0464	.9602	5.621	1.358	.1263
#3	.5436	31.36	.0445	.9737	5.706	1.372	.1110

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0553	.0320	1.735	1.408	11.02	.2744	.2782
SDev	.0046	.0031	.010	.021	.07	.0138	.0023
%RSD	8.252	9.590	.5523	1.500	.6133	5.033	.8221
#1	.0580	.0285	1.739	1.402	11.06	.2773	.2794
#2	.0579	.0330	1.725	1.391	10.94	.2864	.2756
#3	.0500	.0344	1.743	1.432	11.05	.2593	.2797

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0796	.0213	.5224	1.334	.8234	.5218	.0482
SDev	.0034	.0019	.0041	.008	.0708	.0037	.0094

%RSD	4.289	9.141	.7815	.5790	8.602	.7087	19.56
#1	.0763	.0191	.5249	1.325	.7599	.5239	.0460
#2	.0831	.0224	.5177	1.340	.8998	.5176	.0400
#3	.0792	.0225	.5247	1.337	.8106	.5240	.0585

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0032	.5333	1.041
SDev	.0004	.0048	.008
%RSD	12.95	.9029	.7899
#1	.0030	.5359	1.045
#2	.0037	.5277	1.031
#3	.0030	.5362	1.046

Analysis Report Tue 02-20-96 10:06:52 AM page 1

Method: ICP1A Sample Name: MCVA @2 Operator: DRS
Run Time: 02/20/96 10:05:33
Comment: MCVA 960130I901 @2X DIL (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2633	5.205	1.395	1.057	.2644	.0509	12.91
SDev	.0018	.030	.005	.007	.0017	.0003	.10
%RSD	.6902	.5690	.3748	.6776	.6384	.6909	.8121
#1	.2651	5.239	1.395	1.064	.2664	.0513	13.03
#2	.2633	5.184	1.400	1.058	.2634	.0507	12.84
#3	.2615	5.193	1.390	1.050	.2635	.0507	12.87

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.99	.2502	-.0025	.5384	.5316	.4919	-.0005
SDev	.07	.0097	.0049	.0016	.0080	.0006	.0008
%RSD	.5335	3.866	195.9	.2895	1.506	.1325	157.4
#1	13.07	.2609	.0020	.5402	.5385	.4923	-.0013
#2	12.96	.2478	-.0019	.5373	.5228	.4923	.0003
#3	12.95	.2420	-.0077	.5376	.5334	.4912	-.0005

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0012	10.79	14.38	.0036	1.046	17.43	.2682
SDev	.0001	.06	.37	.0005	.010	.11	.0022
%RSD	9.602	.5253	2.559	12.83	.9113	.6355	.8042
#1	.0010	10.85	14.74	.0040	1.057	17.56	.2702
#2	.0012	10.75	14.40	.0035	1.039	17.36	.2659
#3	.0012	10.76	14.00	.0031	1.044	17.38	.2683

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5380	19.61	.0023	.5334	2.583	1.342	.0057
SDev	.0058	.12	.0066	.0030	.010	.003	.0103
%RSD	1.076	.6129	283.8	.5574	.3905	.2200	180.3
#1	.5443	19.73	-.0035	.5349	2.594	1.345	.0048
#2	.5367	19.49	.0096	.5300	2.574	1.339	.0164
#3	.5329	19.61	.0009	.5354	2.582	1.343	-.0041

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0032	.0082	1.703	1.363	10.01	.0930	.2693
SDev	.0054	.0029	.017	.018	.05	.0122	.0017
%RSD	167.4	35.96	1.006	1.309	.4972	13.13	.6334
#1	-.0018	.0059	1.719	1.382	10.07	.0831	.2712
#2	.0089	.0071	1.685	1.360	9.992	.1067	.2681
#3	.0025	.0115	1.705	1.347	9.976	.0893	.2685

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0414	.0183	.5253	1.334	.0914	.5245	.0130
SDev	.0118	.0071	.0029	.010	.0480	.0029	.0048

%RSD	28.49	38.53	.5446	.7695	52.54	.5483	36.95
#1	.0406	.0125	.5285	1.330	.0361	.5278	.0157
#2	.0535	.0164	.5234	1.346	.1224	.5232	.0075
#3	.0300	.0262	.5238	1.328	.1157	.5226	.0159

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0008	.5316	1.048
SDev	.0004	.0038	.007
%RSD	52.02	.7070	.6368
#1	.0003	.5335	1.056
#2	.0011	.5339	1.044
#3	.0011	.5272	1.044

Analysis Report Tue 02-20-96 10:10:34 AM page 1

Method: ICP1A Sample Name: 96-2606-PS-B Operator: DRS
Run Time: 02/20/96 10:09:15
Comment: 118.1AB.F POST SPIKE B (CORE 116 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0123	2.269	.2009	-.0212	.0049	.0007	2.173
SDev	.0013	.001	.0066	.0036	.0001	.0000	.013
%RSD	10.50	.0657	3.272	17.15	1.772	4.384	.6125
#1	.0108	2.268	.1994	-.0244	.0048	.0007	2.173
#2	.0131	2.271	.2081	-.0220	.0048	.0007	2.160
#3	.0130	2.269	.1952	-.0173	.0050	.0008	2.187

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2951	-.0048	1.020	.0118	.1256	.0243	.9870
SDev	.0012	.0063	.007	.0001	.0017	.0014	.0011
%RSD	.4054	132.2	.6882	.6462	1.334	5.890	.1137
#1	.2952	.0024	1.012	.0117	.1258	.0258	.9883
#2	.2962	-.0071	1.021	.0119	.1239	.0239	.9862
#3	.2939	-.0096	1.026	.0119	.1272	.0230	.9864

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9814	1.354	1229.	.4937	.0450	.0667	.0584
SDev	.0006	.001	1.	.0030	.0015	.0041	.0004
%RSD	.0559	.0398	.0983	.6043	3.382	6.154	.7373
#1	.9820	1.355	1231.	.4904	.0437	.0666	.0584
#2	.9809	1.354	1229.	.4944	.0447	.0709	.0579
#3	.9815	1.354	1228.	.4962	.0467	.0627	.0588

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0166	12.27	1.006	.5251	3.081	.1848	1.077
SDev	.0006	.02	.010	.0053	.044	.0039	.029
%RSD	3.930	.1614	.9580	1.018	1.443	2.127	2.661
#1	.0160	12.25	1.001	.5312	3.030	.1867	1.068
#2	.0173	12.29	1.000	.5222	3.101	.1874	1.054
#3	.0164	12.25	1.017	.5218	3.111	.1803	1.109

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.045	1.080	.1329	.1084	11.65	1.257	.0193
SDev	.004	.004	.0063	.0080	1.07	.028	.0001
%RSD	.3925	.4068	4.742	7.350	9.175	2.261	.4109
#1	1.042	1.074	.1259	.1135	10.61	1.226	.0193
#2	1.044	1.081	.1382	.0992	11.60	1.282	.0194
#3	1.050	1.083	.1345	.1124	12.75	1.263	.0193

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.086	1.517	.0096	.0622	12.52	.0080	1.029
SDev	.015	.018	.0004	.0099	.10	.0008	.014

Analysis Report Tue 02-20-96 10:10:34 AM page 2

%RSD	1.356	1.202	4.432	15.96	.8124	9.530	1.393
#1	1.075	1.504	.0091	.0540	12.57	.0075	1.029
#2	1.080	1.538	.0097	.0733	12.40	.0076	1.015
#3	1.103	1.510	.0099	.0594	12.59	.0089	1.043

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.4705	.0093	-.0024
SDev	.0006	.0014	.0015
%RSD	.1168	15.07	62.02
#1	.4703	.0106	-.0014
#2	.4700	.0078	-.0040
#3	.4711	.0097	-.0016

Analysis Report Tue 02-20-96 10:14:38 AM page 1

Method: ICP1A Sample Name: MCVB@2 Operator: DRS
Run Time: 02/20/96 10:13:19
Comment: MCVB@9601231901 @2X DIL (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC @ Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0045	-.0460	.1631	-.0093	.0005	.0005	.0677
SDev	.0009	.0041	.0112	.0093	.0001	.0001	.0045
%RSD	19.65	8.833	6.864	99.72	16.13	9.420	6.640
#1	.0051	-.0435	.1572	-.0191	.0005	.0006	.0703
#2	.0035	-.0438	.1562	-.0082	.0005	.0005	.0703
#3	.0048	-.0507	.1761	-.0006	.0006	.0005	.0626

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	-.0049	.9805	.0013	.0016	.0092	.9871
SDev	.0010	.0008	.0045	.0010	.0027	.0006	.0081
%RSD	96.96	15.37	.4552	80.09	164.8	5.994	.8198
#1	.0022	-.0057	.9758	.0023	-.0007	.0098	.9791
#2	.0004	-.0042	.9811	.0002	.0010	.0089	.9869
#3	.0005	-.0050	.9847	.0013	.0045	.0087	.9953

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9905	.0037	.7427	.4871	.0005	-.0314	-.0008
SDev	.0088	.0006	.1901	.0016	.0014	.0052	.0003
%RSD	.8860	16.47	25.60	.3211	288.7	16.68	38.68
#1	.9827	.0043	.9402	.4860	.0013	-.0265	-.0009
#2	.9888	.0031	.7269	.4865	-.0012	-.0308	-.0010
#3	1.000	.0037	.5610	.4889	.0013	-.0369	-.0004

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0054	.0940	.9774	.0773	.0536	.1435	.9983
SDev	.0007	.0250	.0057	.0023	.0129	.0078	.0156
%RSD	13.69	26.63	.5835	2.961	24.10	5.418	1.559
#1	.0047	.1113	.9711	.0793	.0644	.1524	.9910
#2	.0061	.1054	.9788	.0748	.0571	.1394	1.016
#3	.0053	.0653	.9823	.0777	.0393	.1385	.9877

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.014	1.061	.0661	.0563	9.926	1.124	.0013
SDev	.003	.006	.0061	.0176	.879	.027	.0000
%RSD	.2622	.5305	9.188	31.23	8.852	2.386	.0549
#1	1.013	1.055	.0714	.0360	9.059	1.154	.0013
#2	1.013	1.062	.0673	.0657	9.904	1.103	.0013
#3	1.017	1.066	.0595	.0673	10.82	1.114	.0013

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.043	1.512	.0022	.0247	12.13	.0016	1.000
SDev	.007	.020	.0004	.0081	.07	.0006	.010

Analysis Report Tue 02-20-96 10:14:38 AM page 2

%RSD	.6896	1.294	19.31	33.01	.6115	35.99	.9664
#1	1.035	1.505	.0027	.0299	12.04	.0021	.9927
#2	1.049	1.497	.0021	.0153	12.16	.0015	.9969
#3	1.045	1.534	.0018	.0288	12.18	.0010	1.011

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.4672	.0005	-.0107
SDev	.0037	.0003	.0007
%RSD	.7911	61.01	6.291
#1	.4644	.0003	-.0113
#2	.4658	.0003	-.0100
#3	.4714	.0008	-.0110

Analysis Report Tue 02-20-96 10:18:14 AM page 1

Method: ICP1A Sample Name: 96-2606 DUP Operator: DRS
Run Time: 02/20/96 10:16:56
Comment: 118.1AB.F DUPLICATE (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0080	5.813	.0590	.1984	.0083	.0003	5.236
SDev	.0001	.011	.0075	.0173	.0001	.0001	.010
%RSD	.6515	.1871	12.66	8.740	1.810	29.50	.1919
#1	.0080	5.823	.0579	.2117	.0083	.0002	5.239
#2	.0079	5.801	.0522	.2046	.0081	.0002	5.225
#3	.0080	5.815	.0670	.1788	.0084	.0004	5.245

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5590	-.0095	.0795	.0165	.3169	.0128	.0092
SDev	.0004	.0008	.0034	.0001	.0047	.0011	.0004
%RSD	.0683	8.507	4.342	.7805	1.499	8.561	4.685
#1	.5591	-.0098	.0784	.0164	.3212	.0119	.0089
#2	.5586	-.0086	.0768	.0165	.3118	.0124	.0089
#3	.5593	-.0102	.0834	.0167	.3177	.0140	.0097

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0047	3.365	2400.	.0164	.1035	.1348	.1113
SDev	.0001	.006	5.	.0017	.0010	.0023	.0005
%RSD	2.570	.1862	.1914	10.51	.9631	1.730	.4380
#1	.0046	3.365	2405.	.0145	.1045	.1322	.1110
#2	.0048	3.358	2395.	.0170	.1035	.1368	.1112
#3	.0048	3.370	2399.	.0178	.1025	.1353	.1119

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0213	29.91	.0534	.9718	7.327	.0793	.1550
SDev	.0004	.07	.0045	.0033	.043	.0089	.0145
%RSD	1.984	.2430	8.488	.3394	.5841	11.19	9.361
#1	.0208	29.99	.0512	.9684	7.377	.0707	.1401
#2	.0213	29.87	.0503	.9749	7.306	.0884	.1557
#3	.0217	29.87	.0585	.9721	7.299	.0789	.1691

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0680	.0392	.0515	.1039	8.511	.2830	.0415
SDev	.0097	.0005	.0195	.0134	.371	.0162	.0001
%RSD	14.28	1.382	37.92	12.86	4.360	5.736	.1883
#1	.0577	.0391	.0290	.0996	8.877	.2699	.0415
#2	.0694	.0398	.0619	.0932	8.520	.2779	.0415
#3	.0769	.0388	.0636	.1188	8.135	.3012	.0416

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0744	.0051	.0186	.0549	1.026	.0091	.0205
SDev	.0103	.0062	.0003	.0081	.024	.0006	.0024

%RSD	13.85	122.2	1.794	14.77	2.354	7.165	11.63
#1	.0703	.0121	.0186	.0596	.9983	.0089	.0221
#2	.0668	.0027	.0183	.0455	1.041	.0086	.0178
#3	.0862	.0004	.0189	.0595	1.040	.0098	.0218

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0039	.0115	.0158
SDev	.0000	.0005	.0012
%RSD	.4688	4.651	7.852
#1	.0039	.0121	.0145
#2	.0039	.0112	.0159
#3	.0039	.0112	.0170

Analysis Report QC Standard Tue 02-20-96 10:22:20 AM page 1

Method: ICP1A Sample Name: QC_MCVA 960130I901 Operator: DRS
Run Time: 02/20/96 10:21:01
Comment: (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5223	10.33	2.747	2.196	.5232	.0993	25.49
SDev	.0051	.11	.041	.032	.0056	.0011	.32
%RSD	.9794	1.059	1.509	1.462	1.078	1.123	1.243
#1	.5164	10.21	2.710	2.159	.5167	.0981	25.12
#2	.5255	10.40	02.792	02.217	.5269	.1001	25.69
#3	.5251	10.39	2.739	02.213	.5260	.0999	25.66
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.75	.5007	.0083	1.061	1.066	.9588	.0015
SDev	.28	.0090	.0071	.012	.012	.0086	.0009
%RSD	1.100	1.799	85.79	1.157	1.142	.8939	59.30
#1	25.42	.4907	.0092	1.047	1.052	.9489	.0025
#2	25.92	.5032	.0007	1.069	1.076	.9640	.0010
#3	25.91	.5082	.0148	1.068	1.070	.9634	.0010
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0027	21.30	25.91	.0074	2.068	34.29	.5303
SDev	.0002	.24	.13	.0011	.027	.36	.0074
%RSD	7.507	1.105	.5201	14.60	1.291	1.058	1.389
#1	.0029	21.03	26.07	.0085	2.037	33.87	.5219
#2	.0025	21.44	25.88	.0063	2.086	034.51	.5336
#3	.0027	21.43	25.80	.0075	2.079	034.49	.5355
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.067	38.70	.0129	1.053	5.094	2.658	.0136
SDev	.013	.43	.0046	.011	.070	.022	.0180
%RSD	1.180	1.111	35.35	1.049	1.373	.8115	131.9
#1	1.053	38.20	.0166	1.040	5.014	2.633	.0333
#2	1.077	38.97	.0078	1.060	5.142	2.673	-.0019
#3	1.070	38.92	.0143	1.059	5.125	2.668	.0094
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0065	.0210	03.416	2.743	20.84	.1805	.5331
SDev	.0066	.0014	.036	.031	.17	.0126	.0062
%RSD	101.0	6.698	1.058	1.145	.8104	6.994	1.161
#1	.0137	.0203	03.377	2.707	20.65	.1860	.5259
#2	.0007	.0226	03.424	02.756	20.96	.1661	.5370
#3	.0052	.0200	03.448	02.766	20.91	.1895	.5363
Errors	NOCHECK	NOCHECK	QC Fail	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0712	.0348	1.042	2.644	.2232	1.037	.0352
SDev	.0110	.0065	.015	.019	.0330	.011	.0037
%RSD	15.38	18.66	1.161	.7346	14.76	1.070	10.43
#1	.0836	.0273	1.028	2.625	.2480	1.025	.0374
#2	.0673	.0388	1.047	2.640	.1858	1.045	.0371
#3	.0628	.0383	1.050	2.665	.2357	1.043	.0309
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0019	1.052	2.080
SDev	.0004	.014	.023
%RSD	21.27	1.329	1.123
#1	.0023	1.036	2.053
#2	.0019	1.064	2.095
#3	.0015	1.054	2.092
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report Tue 02-20-96 10:26:49 AM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 02/20/96 10:25:30
Comment: 118.1A8.F DUPLICATE (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	.0148	.0043	.0058	.0005	.0001	.0254
SDev	.0005	.0021	.0036	.0009	.0001	.0000	.0053
%RSD	41.60	14.47	84.81	15.33	16.13	4.805	20.70
#1	.0016	.0124	.0007	.0065	.0005	.0001	.0239
#2	.0007	.0136	.0079	.0061	.0006	.0001	.0210
#3	.0011	.0165	.0042	.0048	.0005	.0001	.0312

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0045	-.0054	.0070	.0017	-.0017	-.0006	.0010
SDev	.0010	.0030	.0037	.0010	.0034	.0004	.0005
%RSD	21.19	55.41	52.45	56.31	208.9	61.97	48.34
#1	.0053	-.0059	.0050	.0008	.0024	-.0007	.0014
#2	.0049	-.0022	.0112	.0027	-.0034	-.0009	.0011
#3	.0034	-.0082	.0048	.0016	-.0043	-.0002	.0004

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	.0085	.2528	.0047	.0012	.0140	-.0009
SDev	.0001	.0005	.0627	.0012	.0003	.0004	.0003
%RSD	13.47	6.396	24.80	25.40	65.47	2.797	30.40
#1	.0008	.0088	.2054	.0035	.0018	.0139	-.0012
#2	.0010	.0087	.3239	.0059	.0013	.0144	-.0009
#3	.0008	.0078	.2291	.0048	.0003	.0136	-.0007

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0019	.0618	.0060	-.0043	-.0123	-.0037	.0364
SDev	.0011	.0152	.0042	.0017	.0064	.0054	.0114
%RSD	60.90	24.53	69.49	38.83	51.62	148.0	31.33
#1	.0030	.0446	.0061	-.0062	-.0092	.0023	.0305
#2	.0020	.0676	.0101	-.0033	-.0196	-.0050	.0476
#3	.0007	.0733	.0018	-.0033	-.0081	-.0084	.0292

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0126	.0047	.0122	.0173	.5730	.0044	.0006
SDev	.0033	.0024	.0095	.0155	.0264	.0075	.0003
%RSD	25.87	50.00	78.04	89.41	4.608	169.6	.0892
#1	.0095	.0070	.0018	.0101	.5930	.0075	.0006
#2	.0160	.0023	.0142	.0068	.5830	-.0041	.0006
#3	.0123	.0049	.0206	.0351	.5431	.0099	.0006

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0111	-.0070	.0009	.0099	.1825	.0011	-.0009
SDev	.0031	.0033	.0001	.0054	.0448	.0003	.0051

%RSD	28.16	47.29	10.45	55.06	24.52	26.69	562.0
#1	.0075	-.0078	.0008	.0106	.1617	.0009	-.0016
#2	.0129	-.0058	.0009	.0041	.2339	.0015	.0045
#3	.0128	-.0033	.0009	.0149	.1519	.0009	-.0057

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0004	-.0018	.0014
SDev	.0004	.0009	.0002
%RSD	103.6	50.18	14.51
#1	.0002	-.0009	.0015
#2	.0009	-.0027	.0016
#3	.0002	-.0018	.0012

Analysis Report Tue 02-20-96 10:29:39 AM page 1

Method: ICP1A Sample Name: 96-2608 Operator: DRS
Run Time: 02/20/96 10:28:20
Comment: 118.28.F (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0077	3.571	.0494	.0279	.0075	.0003	5.151
SDev	.0006	.004	.0105	.0005	.0002	.0000	.007
%RSD	7.394	.1077	21.27	1.859	2.313	11.27	.1445
#1	.0070	3.574	.0541	.0284	.0077	.0003	5.156
#2	.0080	3.571	.0373	.0279	.0074	.0003	5.154
#3	.0080	3.567	.0566	.0274	.0074	.0003	5.142

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5411	-.0118	.0761	.0147	.4251	.0155	.0078
SDev	.0011	.0025	.0025	.0011	.0041	.0004	.0006
%RSD	.1986	21.26	3.299	7.582	.9667	2.661	7.837
#1	.5413	-.0128	.0743	.0141	.4220	.0154	.0077
#2	.5400	-.0090	.0769	.0141	.4235	.0160	.0072
#3	.5421	-.0137	.0752	.0160	.4287	.0152	.0084

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0034	2.479	2402.	.0163	.0198	.1374	.0813
SDev	.0003	.003	6.	.0014	.0005	.0023	.0004
%RSD	9.248	.1382	.2669	8.781	2.521	1.703	.4864
#1	.0031	2.483	2409.	.0146	.0203	.1392	.0810
#2	.0035	2.478	2400.	.0168	.0198	.1381	.0817
#3	.0037	2.477	2397.	.0174	.0193	.1347	.0811

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0230	26.72	.0507	.6213	5.781	.0675	.1582
SDev	.0004	.09	.0059	.0054	.004	.0087	.0038
%RSD	1.585	.3336	11.72	.8654	.0624	12.85	2.377
#1	.0232	26.81	.0446	.6250	5.782	.0593	.1609
#2	.0225	26.73	.0510	.6151	5.776	.0666	.1539
#3	.0232	26.63	.0564	.6238	5.783	.0765	.1597

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0707	.0392	.0647	.0847	2.623	.2562	.0408
SDev	.0024	.0029	.0100	.0126	.021	.0343	.0001
%RSD	3.352	7.498	15.52	14.85	.7903	13.39	.1944
#1	.0681	.0359	.0540	.0833	2.647	.2383	.0409
#2	.0715	.0400	.0662	.0729	2.615	.2345	.0408
#3	.0726	.0416	.0738	.0980	2.608	.2957	.0408

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0714	.0088	.0106	.0504	1.179	.0085	.0287
SDev	.0083	.0094	.0004	.0056	.059	.0007	.0078

%RSD	11.57	107.2	3.756	11.17	5.012	8.596	27.21
#1	.0684	-.0016	.0102	.0441	1.161	.0076	.0343
#2	.0650	.0167	.0104	.0523	1.132	.0089	.0321
#3	.0807	.0113	.0110	.0548	1.245	.0089	.0198

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0029	.0104	.0148
SDev	.0002	.0001	.0010
%RSD	7.221	.e329	6.892
#1	.0031	.0104	.0154
#2	.0027	.0104	.0138
#3	.0030	.0105	.0153

Analysis Report Tue 02-20-96 10:32:59 AM page 1

Method: ICP1A Sample Name: 96-2608 DUP Operator: DRS
Run Time: 02/20/96 10:31:40
Comment: 118.2B.F DUPLICATE (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0080	4.025	.0526	.0143	.0084	.0003	5.680
SDev	.0005	.009	.0078	.0012	.0001	.0000	.042
%RSD	5.870	.2277	14.78	8.235	1.778	11.53	.7472
#1	.0077	4.035	.0512	.0134	.0083	.0003	5.693
#2	.0078	4.019	.0456	.0138	.0084	.0003	5.715
#3	.0086	4.020	.0609	.0156	.0086	.0003	5.633

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5388	.0041	.0797	.0151	.4657	.0148	.0084
SDev	.0028	.0067	.0043	.0005	.0105	.0004	.0004
%RSD	.5131	163.9	5.329	3.507	2.256	2.797	4.790
#1	.5411	-.0005	.0767	.0157	.4718	.0151	.0080
#2	.5357	.0116	.0777	.0147	.4718	.0150	.0085
#3	.5396	.0009	.0845	.0150	.4536	.0143	.0088

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0033	2.741	2406.	.0160	.0184	.1485	.0849
SDev	.0000	.001	4.	.0003	.0014	.0018	.0001
%RSD	.6160	.0360	.1831	2.158	7.802	1.197	.1413
#1	.0033	2.742	2411.	.0162	.0168	.1505	.0850
#2	.0033	2.739	2409.	.0161	.0193	.1472	.0848
#3	.0033	2.741	2403.	.0156	.0193	.1478	.0848

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0219	29.55	.0529	.6074	6.429	.0744	.1605
SDev	.0004	.03	.0064	.0062	.010	.0044	.0031
%RSD	1.986	.1162	12.09	1.018	.1603	5.885	1.899
#1	.0222	29.51	.0530	.6106	6.439	.0693	.1611
#2	.0214	29.58	.0465	.6114	6.418	.0762	.1633
#3	.0221	29.55	.0593	.6003	6.429	.0775	.1572

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0723	.0400	.0634	.0797	2.789	.2936	.0449
SDev	.0075	.0009	.0120	.0066	.008	.0278	.0000
%RSD	10.31	2.171	18.94	8.246	.2986	9.482	.0017
#1	.0655	.0410	.0499	.0834	2.794	.2954	.0449
#2	.0710	.0397	.0673	.0721	2.793	.2648	.0449
#3	.0803	.0394	.0730	.0835	2.779	.3204	.0449

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0731	.0087	.0110	.0565	1.252	.0081	.0253
SDev	.0087	.0063	.0002	.0075	.028	.0004	.0063

%RSD	11.88	72.19	1.814	13.43	3.062	5.455	25.07
#1	.0751	.0014	.0112	.0478	1.218	.0077	.0240
#2	.0636	.0124	.0110	.0616	1.244	.0081	.0322
#3	.0807	.0122	.0108	.0601	1.294	.0086	.0197

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0033	.0107	.0153
SDev	.0004	.0014	.0005
%RSD	13.20	13.11	3.016
#1	.0030	.0095	.0154
#2	.0030	.0104	.0148
#3	.0037	.0123	.0157

Analysis Report Tue 02-20-96 10:36:18 AM page 1

Method: ICP1A Sample Name: SRM 2709 Operator: DRS
Run Time: 02/20/96 10:34:59
Comment: LCS BX112/C118-2 (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0079	25.47	.1350	.0232	.3154	.0025	.0692
SDev	.0004	.07	.0208	.0013	.0003	.0000	.0030
%RSD	4.938	.2621	15.40	5.383	.1097	.2149	4.341
#1	.0074	25.52	.1317	.0226	.3152	.0025	.0658
#2	.0080	25.50	.1161	.0246	.3158	.0025	.0716
#3	.0082	25.40	.1573	.0224	.3152	.0025	.0701

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.045	.0063	.0708	.0186	.0645	.0130	.0098
SDev	.011	.0068	.0027	.0014	.0040	.0010	.0007
%RSD	.1501	108.4	3.740	7.811	6.113	7.907	2.957
#1	7.043	.0023	.0677	.0178	.0689	.0119	.0095
#2	7.057	.0024	.0723	.0203	.0636	.0138	.0098
#3	7.036	.0141	.0723	.0178	.0611	.0134	.0101

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0040	12.12	2432.	.0250	.0221	5.563	.2743
SDev	.0001	.02	5.	.0010	.0010	.010	.0018
%RSD	3.287	.1957	.2252	4.149	4.695	.1782	.6656
#1	.0039	12.12	2436.	.0239	.0218	5.554	.2731
#2	.0041	12.14	2435.	.0256	.0232	5.574	.2764
#3	.0039	12.09	2426.	.0255	.0213	5.560	.2734

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0139	5.234	.0620	1.632	.3167	.1481	.1594
SDev	.0005	.032	.0031	.014	.0064	.0030	.0060
%RSD	3.305	.6086	4.960	.8529	2.018	2.054	3.747
#1	.0133	5.268	.0598	1.642	.3132	.1448	.1536
#2	.0142	5.228	.0607	1.638	.3129	.1507	.1590
#3	.0140	5.205	.0655	1.616	.3241	.1488	.1655

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0708	.0451	.1176	.2018	95.40	.3544	.0828
SDev	.0039	.0009	.0114	.0145	.14	.0190	.0002
%RSD	5.481	1.961	9.723	7.172	.1459	5.364	.1901
#1	.0670	.0459	.1124	.1890	95.45	.3549	.0829
#2	.0705	.0441	.1307	.2168	95.51	.3352	.0829
#3	.0748	.0453	.1097	.2006	95.24	.3732	.0826

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1147	.0159	1.061	.0869	.8813	.0477	.0458
SDev	.0067	.0018	.002	.0036	.0334	.0003	.0103

%RSD	5.874	11.27	.1671	4.191	3.789	.5379	22.40
#1	.1111	.0139	1.060	.0832	.8445	.0474	.0363
#2	.1105	.0175	1.063	.0868	.9097	.0479	.0445
#3	.1224	.0162	1.059	.0905	.8898	.0477	.0567

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0089	.0430	.0240
SDev	.0006	.0009	.0001
%RSD	6.746	2.085	.2421
#1	.0088	.0424	.0240
#2	.0095	.0426	.0239
#3	.0083	.0440	.0240

Analysis Report QC Standard Tue 02-20-96 10:45:49 AM page 1

Method: ICP1A Sample Name: QC_MCVA 960130I901 Operator: DRS
Run Time: 02/20/96 10:44:30
Comment: (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Pass* R13 2/20/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5057	9.946	2.677	2.049	.5027	.0961	24.57
SDev	.0017	.044	.026	.007	.0022	.0004	.09
%RSD	.3403	.4458	.9679	.3446	.4463	.4726	.3579
#1	.5070	9.963	2.665	2.045	.5034	.0961	24.66
#2	.5063	9.978	2.707	2.057	.5046	.0965	24.58
#3	.5037	9.895	2.659	2.046	.5002	.0956	24.48
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.83	.4881	.0152	1.025	1.026	.9351	.0034
SDev	.10	.0031	.0021	.004	.005	.0029	.0001
%RSD	.3839	.6378	13.66	.3542	.4831	.3115	2.123
#1	24.85	.4851	.0175	1.026	1.029	.9342	.0034
#2	24.92	.4879	.0136	1.028	1.021	.9384	.0033
#3	24.73	.4913	.0144	1.021	1.029	.9327	.0035
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0031	20.51	24.17	.0110	1.975	33.04	.5127
SDev	.0001	.10	.17	.0010	.010	.11	.0015
%RSD	3.975	.4694	.6865	8.920	.4945	.3411	.2891
#1	.0029	20.53	24.17	.0111	1.976	33.08	.5127
#2	.0031	20.59	24.33	.0100	1.984	33.12	.5142
#3	.0031	20.41	24.00	.0120	1.965	32.91	.5112
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.028	37.19	.0239	1.011	4.945	2.566	.0519
SDev	.006	.17	.0031	.002	.034	.018	.0020
%RSD	.6173	.4588	12.90	.1935	.6963	.6943	3.916
#1	1.024	37.23	.0220	1.013	4.919	2.575	.0515
#2	1.035	37.33	.0221	1.009	4.984	2.578	.0542
#3	1.025	37.00	.0274	1.011	4.931	2.546	.0502
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Analysis Report QC Standard Tue 02-20-96 10:45:49 AM page 2

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0244	.0273	03.267	2.644	19.02	.2108	.5120
SDev	.0021	.0025	.008	.027	.07	.0140	.0024
%RSD	8.721	9.095	.2308	1.039	.3666	6.664	.4593
#1	.0265	.0246	03.265	2.638	19.04	.1947	.5124
#2	.0222	.0295	03.275	2.674	19.08	.2207	.5141
#3	.0244	.0278	03.260	2.620	18.95	.2170	.5094
Errors	NOCHECK	NOCHECK	QC Fail	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0820	.0298	1.002	2.530	.3929	.9993	.0474
SDev	.0044	.0028	.005	.021	.0348	.0043	.0053
%RSD	5.416	9.523	.4534	.8421	8.847	.4270	11.10
#1	.0771	.0326	1.004	2.548	.3567	1.000	.0419
#2	.0857	.0269	1.005	2.537	.4260	1.003	.0481
#3	.0833	.0298	.9968	2.506	.3960	.9947	.0523
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0026	1.020	2.004
SDev	.0004	.009	.010
%RSD	15.74	.8896	.5136
#1	.0030	1.019	2.006
#2	.0026	1.030	2.013
#3	.0022	1.012	1.992
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report Tue 02-20-96 10:51:00 AM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 02/20/96 10:49:41
Comment: LCS BX112/C118-2 (CORE 118 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0018	.0152	.0047	-.0418	.0006	.0001	.0206
SDev	.0004	.0004	.0101	.0025	.0001	.0000	.0070
%RSD	21.43	2.832	216.3	6.062	14.75	5.151	33.90
#1	.0016	.0147	-.0069	-.0403	.0005	.0001	.0166
#2	.0022	.0154	.0094	-.0448	.0006	.0001	.0287
#3	.0016	.0155	.0115	-.0405	.0006	.0001	.0166

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0046	-.0009	.0145	.0018	-.0003	.0020	.0013
SDev	.0009	.0026	.0043	.0008	.0013	.0009	.0008
%RSD	20.31	276.8	29.90	42.58	457.9	43.50	60.74
#1	-.0049	.0020	.0104	.0009	-.0007	.0014	.0004
#2	-.0035	-.0030	.0190	.0023	-.0013	.0016	.0017
#3	-.0053	-.0018	.0140	.0022	.0012	.0030	.0018

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.0025	-.0553	.0052	.0017	.0078	-.0011
SDev	.0002	.0008	.0946	.0014	.0003	.0010	.0002
%RSD	20.50	30.73	171.4	26.23	17.32	12.30	19.14
#1	.0008	.0024	-.1501	.0051	.0013	.0089	-.0011
#2	.0012	.0032	.0395	.0066	.0018	.0075	-.0013
#3	.0010	.0017	-.0553	.0039	.0018	.0070	-.0009

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0017	.0579	.0102	-.0061	.0122	.0023	.0506
SDev	.0004	.0231	.0052	.0023	.0282	.0062	.0028
%RSD	25.97	39.79	50.89	38.57	230.1	267.2	5.578
#1	.0015	.0446	.0056	-.0087	.0447	-.0033	.0510
#2	.0022	.0846	.0158	-.0041	-.0024	.0012	.0532
#3	.0013	.0446	.0092	-.0054	-.0056	.0090	.0476

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0176	.0094	.0140	.0239	.0964	.0437	.0005
SDev	.0036	.0038	.0038	.0242	.0071	.0543	.0001
%RSD	20.17	40.39	27.09	101.2	7.325	124.1	15.06
#1	.0136	.0079	.0096	.0012	.0939	.0419	.0006
#2	.0205	.0138	.0160	.0212	.1043	.0990	.0006
#3	.0187	.0067	.0164	.0493	.0909	-.0096	.0004

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0176	-.0019	.0010	.0122	.2107	.0015	.0065
SDev	.0047	.0024	.0001	.0145	.0577	.0000	.0061

%RSD	26.80	126.4	14.42	118.7	27.37	1.744	94.01
#1	.0126	-.0041	.0009	.0268	.1815	.0015	.0004
#2	.0219	.0006	.0012	-.0022	.2772	.0016	.0065
#3	.0182	-.0022	.0009	.0119	.1735	.0015	.0127

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0006	-.0021	.0010
SDev	.0002	.0003	.0008
%RSD	28.98	16.06	76.97
#1	.0005	-.0018	.0005
#2	.0009	-.0021	.0020
#3	.0005	-.0025	.0006

Analysis Report Tue 02-20-96 10:53:13 AM page 1

Method: ICP1A Sample Name: 96-2612-BLK Operator: DRS
Run Time: 02/20/96 10:51:54
Comment: PROCESS BLANK (CORE 119 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0097	.2230	.0532	-.0236	.0041	.0003	.0527
SDev	.0004	.0051	.0061	.0006	.0001	.0000	.0059
%RSD	4.072	2.303	11.54	2.662	2.093	13.76	11.12
#1	.0101	.2180	.0494	-.0230	.0042	.0003	.0474
#2	.0093	.2226	.0603	-.0236	.0041	.0003	.0590
#3	.0098	.2283	.0499	-.0243	.0041	.0004	.0518

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5605	-.0123	.0717	.0151	.0079	.0164	.0106
SDev	.0034	.0013	.0016	.0002	.0003	.0011	.0003
%RSD	.6074	10.28	2.240	1.374	4.041	6.777	3.097
#1	.5566	-.0111	.0700	.0148	.0078	.0153	.0103
#2	.5618	-.0136	.0732	.0152	.0082	.0163	.0109
#3	.5631	-.0121	.0719	.0151	.0076	.0175	.0106

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0037	.0351	2344.	.0194	.0090	.1202	.0604
SDev	.0000	.0008	16.	.0015	.0013	.0081	.0003
%RSD	.1457	2.318	.6637	7.671	13.98	6.729	.4782
#1	.0037	.0356	2326.	.0203	.0088	.1293	.0602
#2	.0037	.0342	2352.	.0177	.0103	.1172	.0604
#3	.0037	.0356	2353.	.0203	.0078	.1140	.0607

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0139	1.219	.0647	.3433	.0999	.0663	.1867
SDev	.0020	.012	.0017	.0026	.0176	.0037	.0040
%RSD	14.13	.9751	2.628	.7479	17.64	5.599	2.170
#1	.0117	1.206	.0650	.3413	.0874	.0706	.1904
#2	.0144	1.223	.0629	.3462	.0923	.0644	.1823
#3	.0155	1.229	.0662	.3425	.1201	.0639	.1873

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0877	.0397	.0679	.0705	.4256	.3053	.0037
SDev	.0034	.0016	.0084	.0022	.0144	.0120	.0001
%RSD	3.881	4.005	12.34	3.073	3.379	3.922	2.160
#1	.0840	.0384	.0582	.0697	.4405	.2943	.0037
#2	.0907	.0393	.0722	.0688	.4244	.3036	.0037
#3	.0884	.0415	.0731	.0729	.4118	.3180	.0036

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0693	.0031	.0071	.0461	1.047	.0095	.0236
SDev	.0027	.0047	.0002	.0057	.021	.0004	.0054

%RSD	3.938	149.2	2.554	12.30	1.990	4.515	22.94
#1	.0674	.0074	.0073	.0483	1.044	.0090	.0216
#2	.0681	-.0018	.0072	.0397	1.069	.0098	.0298
#3	.0724	.0038	.0069	.0504	1.028	.0096	.0195

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0040	.0068	.0082
SDev	.0002	.0006	.0004
%RSD	5.794	8.286	5.481
#1	.0043	.0062	.0078
#2	.0039	.0072	.0087
#3	.0039	.0071	.0063

Analysis Report Tue 02-20-96 10:56:57 AM page 1

Method: ICP1A Sample Name: 96-2612 @5 Operator: DRS
Run Time: 02/20/96 10:55:38
Comment: 119.1B.F @5X DIL (CORE 119 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0055	1.745	.0208	-.0431	.0034	.0002	1.576
SDev	.0008	.016	.0080	.0016	.0003	.0000	.012
%RSD	15.29	.9157	38.42	3.816	9.219	24.53	.7861
#1	.0047	1.763	.0116	-.0436	.0030	.0001	1.586
#2	.0055	1.738	.0252	-.0413	.0036	.0001	1.581
#3	.0063	1.733	.0256	-.0445	.0035	.0002	1.562

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1615	-.0043	.0492	.0064	.0823	.0064	.0067
SDev	.0008	.0024	.0047	.0005	.0024	.0009	.0008
%RSD	.4873	56.06	9.594	7.461	2.934	13.45	12.36
#1	.1612	-.0060	.0438	.0061	.0850	.0057	.0057
#2	.1624	-.0053	.0525	.0070	.0804	.0074	.0070
#3	.1610	-.0015	.0513	.0062	.0814	.0061	.0072

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0024	1.127	482.0	.0133	.0038	.0452	.0229
SDev	.0001	.011	3.8	.0016	.0005	.0046	.0002
%RSD	5.161	.9633	.7917	12.15	13.04	10.10	.8564
#1	.0022	1.138	485.6	.0118	.0043	.0466	.0231
#2	.0024	1.126	482.3	.0135	.0038	.0489	.0229
#3	.0024	1.116	478.0	.0151	.0033	.0401	.0227

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0080	6.474	.0396	.0904	1.612	.0423	.1298
SDev	.0014	.043	.0024	.0014	.012	.0059	.0080
%RSD	17.52	.6637	6.105	1.574	.7472	13.99	6.170
#1	.0083	6.516	.0378	.0896	1.620	.0463	.1225
#2	.0065	6.476	.0386	.0921	1.598	.0355	.1384
#3	.0092	6.430	.0423	.0896	1.617	.0451	.1284

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0516	.0265	.0490	.0581	.7248	.1674	.0103
SDev	.0018	.0013	.0055	.0149	.0164	.0184	.0001
%RSD	3.535	4.833	11.23	25.56	2.261	11.01	.7669
#1	.0503	.0258	.0538	.0433	.7389	.1885	.0104
#2	.0509	.0257	.0503	.0579	.7287	.1588	.0102
#3	.0537	.0280	.0430	.0730	.7068	.1549	.0102

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0541	.0015	.0051	.0255	.7092	.0054	.0202
SDev	.0018	.0045	.0002	.0051	.0291	.0003	.0128

%RSD	3.251	298.4	4.784	19.93	4.107	6.322	63.27
#1	.0560	-.0030	.0048	.0199	.7043	.0050	.0244
#2	.0537	.0015	.0052	.0269	.6829	.0057	.0059
#3	.0526	.0059	.0053	.0297	.7405	.0056	.0304

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0023	.0319	.0063
SDev	.0002	.0007	.0003
%RSD	9.172	2.322	4.907
#1	.0022	.0327	.0063
#2	.0022	.0315	.0067
#3	.0025	.0314	.0061

Analysis Report Tue 02-20-96 11:00:18 AM page 1

Method: ICP1A Sample Name: 96-2612 Operator: DRS
Run Time: 02/20/96 10:58:59
Comment: 119.1B.F (CORE 119 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0103	8.180	.0789	-.0208	.0120	.0003	7.366
SDev	.0007	.093	.0093	.0009	.0001	.0000	.086
%RSD	6.714	1.138	11.83	4.186	1.246	7.580	1.165
#1	.0098	8.189	.0895	-.0211	.0119	.0003	7.380
#2	.0099	8.268	.0720	-.0215	.0122	.0003	7.443
#3	.0111	8.082	.0751	-.0198	.0120	.0004	7.274

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6006	.0117	.1000	.0176	.3800	.0162	.0111
SDev	.0059	.0077	.0056	.0010	.0059	.0015	.0012
%RSD	.9862	66.28	5.578	5.770	1.561	9.152	10.56
#1	.5995	.0061	.1008	.0167	.3779	.0167	.0106
#2	.6070	.0063	.0941	.0174	.3867	.0145	.0104
#3	.5954	.0205	.1052	.0187	.3754	.0174	.0125

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0042	5.345	2254.	.0209	.0091	.1688	.1120
SDev	.0003	.065	27.	.0015	.0016	.0045	.0012
%RSD	7.686	1.216	1.192	7.150	17.53	2.679	1.046
#1	.0041	5.343	2235.	.0200	.0103	.1712	.1118
#2	.0039	5.411	2280.	.0200	.0073	.1717	.1133
#3	.0045	5.281	2227.	.0226	.0098	.1636	.1110

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0235	30.43	.0648	.4567	7.655	.1065	.1952
SDev	.0007	.31	.0043	.0162	.097	.0116	.0216
%RSD	2.916	1.009	6.637	3.540	1.270	10.86	11.05
#1	.0228	30.41	.0640	.4482	7.659	.1045	.1829
#2	.0238	30.75	.0610	.4753	7.750	.0961	.1826
#3	.0241	30.14	.0695	.4465	7.556	.1190	.2201

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0891	.0469	.0750	.1183	3.364	.3342	.0466
SDev	.0076	.0035	.0043	.0198	.046	.0491	.0006
%RSD	8.550	7.413	5.662	16.71	1.379	14.71	1.170
#1	.0886	.0453	.0723	.0977	3.372	.3271	.0466
#2	.0817	.0445	.0728	.1371	3.406	.2869	.0472
#3	.0969	.0509	.0799	.1201	3.314	.3865	.0461

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0965	.0069	.0173	.0564	1.425	.0116	.0373
SDev	.0052	.0051	.0002	.0081	.110	.0010	.0012

%RSD	5.349	73.60	1.074	14.44	7.686	9.071	3.134
#1	.0908	.0031	.0171	.0565	1.386	.0112	.0359
#2	.0976	.0127	.0173	.0645	1.340	.0108	.0381
#3	.1010	.0050	.0175	.0482	1.549	.0128	.0378

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0039	.1515	.0214
SDev	.0002	.0007	.0007
%RSD	5.651	.4339	3.083
#1	.0037	.1517	.0214
#2	.0041	.1521	.0207
#3	.0040	.1508	.0221

Analysis Report Tue 02-20-96 11:03:56 AM page 1

Method: ICP1A Sample Name: 96-2612-PS-A Operator: DRS
Run Time: 02/20/96 11:02:37
Comment: 119.1B.F POST SPIKE A (CORE 119 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2532	9.198	1.399	.9899	.2540	.0497	16.02
SDev	.0019	.044	.027	.0047	.0014	.0003	.06
%RSD	.7546	.4822	1.912	.4762	.5667	.6494	.3820
#1	.2511	9.149	1.369	.9847	.2525	.0493	15.95
#2	.2539	9.210	1.414	.9940	.2543	.0497	16.04
#3	.2548	9.235	1.415	.9909	.2553	.0499	16.07

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.96	.2576	.0761	.5280	.7129	.4874	.0098
SDev	.08	.0086	.0028	.0040	.0020	.0033	.0002
%RSD	.6508	3.329	3.680	.7648	.2769	.6690	1.744
#1	12.87	.2524	.0770	.5237	.7113	.4836	.0099
#2	12.97	.2528	.0784	.5285	.7122	.4891	.0099
#3	13.04	.2675	.0730	.5318	.7151	.4894	.0096

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0045	13.04	1186.	.0205	.9667	16.67	.3160
SDev	.0001	.08	6.	.0007	.0069	.12	.0023
%RSD	2.886	.6030	.5281	3.463	.7110	.7055	.7370
#1	.0046	12.95	1179.	.0212	.9589	16.55	.3137
#2	.0043	13.05	1187.	.0204	.9694	16.69	.3160
#3	.0046	13.11	1192.	.0198	.9719	16.78	.3184

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5330	34.12	.0628	.7425	6.430	1.374	.1643
SDev	.0057	.18	.0032	.0042	.069	.011	.0065
%RSD	1.073	.5368	5.026	.5603	1.069	.7755	3.953
#1	.5264	33.94	.0593	.7447	6.490	1.362	.1682
#2	.5359	34.11	.0636	.7377	6.355	1.378	.1679
#3	.5367	34.31	.0654	.7451	6.445	1.382	.1569

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0769	.0465	1.697	1.395	11.41	.3473	.2782
SDev	.0007	.0042	.023	.017	.06	.0117	.0020
%RSD	.8544	9.092	1.338	1.210	.5610	3.372	.7068
#1	.0762	.0427	1.677	1.405	11.34	.3339	.2760
#2	.0774	.0457	1.692	1.376	11.43	.3555	.2787
#3	.0772	.0510	1.722	1.404	11.46	.3525	.2798

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0994	.0223	.5123	1.335	1.143	.5109	.0336
SDev	.0117	.0042	.0031	.022	.043	.0033	.0105

%RSD	11.75	18.70	.6093	1.661	3.756	.6542	19.68
#1	.0863	.0230	.5089	1.312	1.186	.5073	.0564
#2	.1089	.0179	.5132	1.337	1.100	.5115	.0419
#3	.1030	.0261	.5150	1.356	1.144	.5139	.0624

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0041	.5931	1.021
SDev	.0002	.0029	.005
%RSD	5.668	.4965	.4856
#1	.0039	.5905	1.016
#2	.0040	.5926	1.022
#3	.0043	.5963	1.025

Analysis Report Tue 02-20-96 11:07:26 AM page 1

Method: ICP1A Sample Name: MCVA @2 Operator: DRS
Run Time: 02/20/96 11:06:07
Comment: MCVA 960130I901 @2X DIL (CORE 119 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2568	5.027	1.350	.9987	.2539	.0489	12.45
SDev	.0014	.038	.005	.0092	.0022	.0005	.12
%RSD	.5501	.7598	.3614	.9174	.8536	.9755	.9530
#1	.2580	5.053	1.350	1.0000	.2550	.0492	12.50
#2	.2573	5.044	1.355	1.007	.2553	.0490	12.53
#3	.2553	4.983	1.345	.9890	.2514	.0483	12.31

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.56	.2768	.0191	.5210	.5139	.4708	.0034
SDev	.11	.0061	.0010	.0045	.0058	.0041	.0004
%RSD	.8628	2.202	5.395	.8634	1.137	.8641	12.44
#1	12.64	.2753	.0202	.5240	.5161	.4755	.0038
#2	12.60	.2835	.0189	.5232	.5184	.4689	.0030
#3	12.43	.2715	.0181	.5159	.5073	.4680	.0034

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0022	10.38	13.67	.0090	.9978	16.79	.2576
SDev	.0002	.09	.07	.0023	.0047	.12	.0027
%RSD	11.07	.8635	.5202	25.67	.4763	.7259	1.067
#1	.0021	10.44	13.74	.0077	.9973	16.85	.2597
#2	.0021	10.43	13.67	.0076	1.003	16.88	.2586
#3	.0025	10.28	13.60	.0116	.9933	16.65	.2545

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5199	18.81	.0228	.5063	2.502	1.302	.0498
SDev	.0049	.08	.0037	.0063	.052	.015	.0132
%RSD	.9334	.4134	16.12	1.240	2.066	1.115	26.51
#1	.5250	18.85	.0192	.5132	2.561	1.309	.0440
#2	.5195	18.85	.0226	.5008	2.482	1.312	.0405
#3	.5153	18.72	.0266	.5050	2.463	1.286	.0649

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0252	.0167	1.670	1.338	9.673	.1287	.2588
SDev	.0045	.0029	.009	.020	.077	.0265	.0024
%RSD	17.73	17.25	.5450	1.469	.7917	20.62	.9142
#1	.0286	.0150	1.680	1.348	9.725	.1338	.2601
#2	.0201	.0152	1.664	1.351	9.710	.0999	.2603
#3	.0268	.0201	1.666	1.316	9.585	.1523	.2561

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0501	.0201	.5057	1.296	.3586	.5053	.0336
SDev	.0073	.0031	.0049	.009	.0249	.0047	.0066

%RSD	14.61	15.29	.9720	.6993	6.930	.9350	19.58
#1	.0490	.0235	.5083	1.304	.3299	.5085	.0362
#2	.0579	.0196	.5088	1.287	.3747	.5074	.0261
#3	.0434	.0174	.5000	1.298	.3710	.4999	.0385

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0017	.5188	1.009
SDev	.0000	.0036	.008
%RSD	.7713	.6841	.8382
#1	.0017	.5177	1.014
#2	.0017	.5228	1.013
#3	.0017	.5160	.9990

Analysis Report Tue 02-20-96 11:11:04 AM page 1

Method: ICP1A Sample Name: 96-2612-PS-B Operator: DRS
Run Time: 02/20/96 11:09:45
Comment: 119.1B.F POST SPIKE B (CORE 119 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0092	4.209	.2230	-.0342	.0072	.0007	3.870
SDev	.0007	.010	.0085	.0046	.0002	.0000	.026
%RSD	7.901	.2284	3.797	13.56	3.188	1.871	.6748
#1	.0100	4.198	.2284	-.0387	.0069	.0008	3.840
#2	.0086	4.216	.2274	-.0343	.0072	.0007	3.881
#3	.0089	4.214	.2132	-.0295	.0074	.0007	3.889

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3338	.0132	1.029	.0127	.2015	.0229	.9853
SDev	.0023	.0029	.009	.0003	.0012	.0011	.0024
%RSD	.6933	22.34	.9182	2.005	.5926	4.750	.2425
#1	.3327	.0110	1.021	.0124	.2019	.0219	.9829
#2	.3365	.0165	1.028	.0128	.2025	.0227	.9859
#3	.3323	.0120	1.039	.0128	.2002	.0241	.9877

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9784	2.789	1178.	.4965	.0076	.0745	.0583
SDev	.0026	.006	3.	.0032	.0023	.0043	.0004
%RSD	.2680	.2273	.2184	.6413	30.12	5.835	.7743
#1	.9758	2.782	1175.	.4931	.0063	.0746	.0580
#2	.9784	2.792	1178.	.4971	.0063	.0787	.0581
#3	.9810	2.794	1180.	.4994	.0103	.0701	.0589

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0201	15.95	1.012	.2897	4.023	.2109	1.108
SDev	.0004	.03	.008	.0041	.026	.0098	.013
%RSD	2.243	.1891	.8176	1.429	.6480	4.652	1.218
#1	.0204	15.92	1.013	.2853	4.047	.2101	1.095
#2	.0202	15.97	1.004	.2936	4.027	.2016	1.106
#3	.0196	15.96	1.020	.2903	3.995	.2212	1.122

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.056	1.089	.1326	.1107	10.13	1.294	.0259
SDev	.002	.006	.0029	.0237	1.02	.030	.0001
%RSD	.1945	.5100	2.149	21.43	10.08	2.329	.3080
#1	1.055	1.083	.1293	.0838	9.065	1.270	.0258
#2	1.055	1.092	.1342	.1198	10.22	1.285	.0259
#3	1.058	1.093	.1343	.1286	11.10	1.328	.0258

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.099	1.512	.0125	.0741	12.76	.0099	1.019
SDev	.017	.009	.0001	.0128	.10	.0003	.011

%RSD	1.564	.5777	1.031	17.33	.7925	2.508	1.111
#1	1.080	1.502	.0125	.0600	12.65	.0096	1.006
#2	1.113	1.519	.0124	.0772	12.76	.0098	1.025
#3	1.103	1.515	.0127	.0851	12.85	.0101	1.027

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.4689	.0818	.0005
SDev	.0013	.0004	.0001
%RSD	.2815	.4964	22.71
#1	.4675	.0822	.0006
#2	.4690	.0815	.0004
#3	.4701	.0816	.0006

Analysis Report Tue 02-20-96 11:14:33 AM page 1

Method: ICP1A Sample Name: MCVB1 @2 Operator: DRS
Run Time: 02/20/96 11:13:14
Comment: MCVB1 960123I901 @2X DIL(CORE 119 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0031	-.0377	.1720	-.0115	.0008	.0006	.0603
SDev	.0009	.0055	.0236	.0018	.0002	.0000	.0061
%RSD	28.30	14.50	13.71	15.63	27.37	2.247	10.10
#1	.0041	-.0318	.1992	-.0136	.0008	.0006	.0664
#2	.0027	-.0426	.1572	-.0105	.0011	.0005	.0601
#3	.0025	-.0386	.1596	-.0104	.0006	.0005	.0543

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0027	.0490	.9911	.0027	.0021	.0110	.9894
SDev	.0004	.0129	.0068	.0003	.0006	.0012	.0079
%RSD	15.07	26.34	.6858	10.01	29.98	10.52	.8015
#1	.0031	.0354	.9834	.0030	.0014	.0120	.9805
#2	.0023	.0505	.9938	.0025	.0022	.0097	.9957
#3	.0028	.0611	.9961	.0025	.0026	.0114	.9920

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9921	.0015	-.3061	.4911	.0013	-.0273	-.0005
SDev	.0086	.0016	.2071	.0037	.0010	.0059	.0001
%RSD	.8690	104.5	67.21	.7617	75.00	21.81	18.02
#1	.9829	.0033	-.0790	.4868	.0013	-.0243	-.0005
#2	1.0000	.0003	-.4820	.4931	.0023	-.0233	-.0004
#3	.9934	.0010	-.3634	.4935	.0003	-.0341	-.0006

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0056	.0977	.9845	.0485	.0681	.1474	1.028
SDev	.0013	.0065	.0055	.0014	.0195	.0100	.009
%RSD	22.86	6.665	.5620	2.937	28.58	6.756	.8937
#1	.0070	.0940	.9803	.0493	.0835	.1551	1.017
#2	.0044	.0938	.9908	.0493	.0462	.1510	1.034
#3	.0055	.1052	.9824	.0468	.0746	.1361	1.032

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.025	1.067	.0775	.0704	8.777	1.140	.0014
SDev	.007	.009	.0055	.0064	.951	.019	.0000
%RSD	.6693	.8367	7.043	9.054	10.84	1.697	.0481
#1	1.017	1.057	.0718	.0681	7.854	1.162	.0014
#2	1.029	1.071	.0781	.0776	8.722	1.131	.0014
#3	1.028	1.073	.0827	.0655	9.754	1.126	.0014

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.062	1.510	.0028	.0223	12.16	.0025	1.006
SDev	.010	.013	.0003	.0096	.12	.0003	.010

%RSD	.9460	.8470	10.47	43.25	.9521	11.88	1.042
#1	1.052	1.496	.0030	.0319	12.03	.0028	.9948
#2	1.072	1.520	.0025	.0126	12.22	.0024	1.009
#3	1.062	1.513	.0030	.0224	12.23	.0022	1.015

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.4674	.0013	-.0116
SDev	.0038	.0003	.0005
%RSD	.8173	25.02	4.407
#1	.4632	.0012	-.0111
#2	.4705	.0012	-.0121
#3	.4686	.0017	-.0115

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Title/Desc:
FINAL REPORT FOR TANK 241-BX-104 PUSH MODE CORES 126 & 127 [SEC 4 OF 9]

Pages: 229

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

DOCUMENT NUMBER: SD-WM-DP-171 Rev. 1

SECTION 11 OF 9

TITLE: Trial Report for Tank 241-BX-104 Push Mode Cores 126 and 127.

DATE: 4/25/96

ORIGINATOR: Wu, Pa

CO: WRC

RECIPIENT:

CO:

REFERENCES: ECN- 629038

Analysis Report Tue 02-20-96 11:18:06 AM page 1

Method: ICP1A Sample Name: 96-2612 DUP Operator: DRS
Run Time: 02/20/96 11:16:47
Comment: 119.1B.F DUPLICATE (CORE 119 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0092	8.612	.0822	.2299	.0105	.0004	7.479
SDev	.0008	.069	.0071	.0137	.0001	.0000	.069
%RSD	8.277	.8011	8.642	5.965	1.424	6.377	.9185
#1	.0084	8.687	.0830	.2448	.0107	.0003	7.546
#2	.0092	8.551	.0842	.2272	.0105	.0004	7.409
#3	.0100	8.598	.0743	.2178	.0104	.0004	7.482

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6177	.0315	.0955	.0168	.3867	.0130	.0108
SDev	.0055	.0155	.0062	.0006	.0044	.0021	.0008
%RSD	.8961	49.20	6.463	3.433	1.139	15.99	7.721
#1	.6204	.0356	.0885	.0163	.3871	.0107	.0092
#2	.6113	.0445	.0979	.0174	.3820	.0145	.0113
#3	.6213	.0143	.1001	.0167	.3909	.0139	.0112

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0043	5.845	2292.	.0202	.0063	.1829	.1015
SDev	.0004	.051	22.	.0014	.0023	.0058	.0007
%RSD	9.742	.8725	.9491	7.149	36.18	3.179	.6857
#1	.0039	5.897	2316.	.0185	.0043	.1787	.1021
#2	.0043	5.795	2273.	.0210	.0088	.1806	.1015
#3	.0048	5.843	2288.	.0210	.0058	.1896	.1007

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0202	31.46	.0664	.3400	8.137	.1043	.1881
SDev	.0020	.30	.0060	.0070	.120	.0037	.0128
%RSD	9.762	.9645	9.077	2.063	1.471	3.596	6.793
#1	.0179	31.80	.0595	.3478	8.249	.1078	.1746
#2	.0214	31.20	.0691	.3343	8.011	.1004	.1895
#3	.0213	31.40	.0706	.3380	8.151	.1047	.2001

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0838	.0473	.0774	.1130	7.795	.3286	.0470
SDev	.0091	.0022	.0090	.0073	.388	.0515	.0005
%RSD	10.87	4.645	11.61	6.471	4.982	15.67	1.021
#1	.0758	.0449	.0785	.1050	8.210	.2736	.0475
#2	.0820	.0493	.0680	.1146	7.736	.3363	.0465
#3	.0937	.0476	.0859	.1193	7.440	.3757	.0469

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0922	.0048	.0126	.0570	1.412	.0110	.0394
SDev	.0043	.0056	.0001	.0078	.133	.0008	.0042

%RSD	4.651	116.9	.7923	13.65	9.422	6.967	10.51
#1	.0910	.0113	.0125	.0518	1.259	.0101	.0382
#2	.0887	.0009	.0127	.0560	1.482	.0115	.0360
#3	.0970	.0023	.0125	.0533	1.496	.0114	.0441

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0039	.0264	.0196
SDev	.0001	.0012	.0011
%RSD	3.606	4.599	5.665
#1	.0038	.0276	.0183
#2	.0040	.0264	.0205
#3	.0040	.0252	.0202

Analysis Report QC Standard Tue 02-20-96 11:23:08 AM page 1

Method: ICP1A Sample Name: QC_MCVA 960130I901 Operator: DRS
Run Time: 02/20/96 11:21:49
Comment: (CORE 119 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Pass* DW 2/20/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4962	9.738	2.597	2.055	.4903	.0931	24.07
SDev	.0018	.039	.013	.013	.0014	.0003	.19
%RSD	.3533	.4005	.5008	.6563	.2904	.3755	.7773
#1	.4942	9.694	2.610	2.052	.4889	.0927	23.85
#2	.4976	9.768	2.584	2.070	.4917	.0934	24.19
#3	.4969	9.752	2.596	2.043	.4902	.0931	24.16
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.29	.4974	.0266	1.004	1.007	.9038	.0048
SDev	.10	.0006	.0030	.004	.010	.0045	.0003
%RSD	.3919	.1238	11.33	.3912	.9651	.5004	5.164
#1	24.19	.4980	.0238	1.000	.9959	0.8986	.0048
#2	24.38	.4973	.0298	1.008	1.011	.9069	.0045
#3	24.32	.4968	.0263	1.006	1.014	.9058	.0050
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0036	20.03	24.07	.0140	1.929	32.36	.5004
SDev	.0002	.06	.14	.0005	.007	.16	.0029
%RSD	6.368	.3022	.5989	3.656	.3885	.5021	.5834
#1	.0033	19.97	23.98	.0137	1.924	32.19	.4978
#2	.0038	20.09	24.24	.0138	1.938	32.51	.5035
#3	.0036	20.05	24.00	.0146	1.925	32.40	.4998
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.005	36.41	.0306	.9820	4.849	2.518	.0724
SDev	.005	.13	.0036	.0053	.064	.024	.0075
%RSD	.5245	.3515	11.81	.5438	1.312	.9338	10.42
#1	.9994	36.38	.0345	.9767	4.802	2.501	.0656
#2	1.007	36.55	.0299	.9874	4.922	2.545	.0805
#3	1.010	36.29	.0274	.9820	4.824	2.508	.0710
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0348	.0323	03.232	2.587	19.35	.2336	.5004
SDev	.0059	.0022	.028	.002	.09	.0187	.0014
%RSD	17.04	6.687	.8546	.0896	.4429	8.000	.2863
#1	.0279	.0321	03.206	2.585	19.27	.2206	.4989
#2	.0383	.0345	03.261	2.589	19.44	.2253	.5018
#3	.0382	.0302	03.228	2.585	19.34	.2550	.5004
Errors	NOCHECK	NOCHECK	QC Fail	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0715	.0273	.9784	2.484	.5268	.9777	.0533
SDev	.0025	.0052	.0034	.028	.0430	.0032	.0031
%RSD	3.463	18.96	.3484	1.142	8.159	.3312	5.875
#1	.0686	.0284	.9745	2.456	.4954	.9745	.0525
#2	.0731	.0217	.9809	2.513	.5236	.9810	.0504
#3	.0727	.0319	.9798	2.484	.5712	.9778	.0566
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0028	1.004	1.958
SDev	.0006	.007	.007
%RSD	21.04	.7206	.3662
#1	.0021	.9969	1.951
#2	.0029	1.011	1.965
#3	.0033	1.005	1.957
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report Tue 02-20-96 11:26:42 AM page 1

Method: ICP1A Sample Name: 96-2614 Operator: DRS
Run Time: 02/20/96 11:25:24
Comment: 119.2B.F (CORE 119 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC 1 Corr. Factor: 1

BD 2/4/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0110	4.233	.0583	.0376	.0082	.0004	5.011
SDev	.0004	.011	.0081	.0023	.0002	.0000	.033
%RSD	3.649	.2560	13.95	6.124	2.799	2.086	.6593
#1	.0107	4.242	.0666	.0352	.0080	.0004	4.991
#2	.0109	4.221	.0503	.0398	.0084	.0004	4.994
#3	.0115	4.236	.0581	.0379	.0081	.0004	5.049

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5056	.0226	.1010	.0170	.3436	.0190	.0118
SDev	.0010	.0043	.0019	.0008	.0089	.0005	.0002
%RSD	.1967	19.24	1.848	4.478	2.602	2.740	1.418
#1	.5048	.0275	.0992	.0161	.3465	.0187	.0120
#2	.5067	.0214	.1030	.0172	.3335	.0186	.0116
#3	.5053	.0190	.1008	.0176	.3507	.0196	.0118

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0042	2.477	2253.	.0216	.0138	.1613	.0907
SDev	.0003	.005	4.	.0012	.0026	.0045	.0003
%RSD	7.923	.1835	.1731	5.498	19.13	2.771	.2838
#1	.0039	2.473	2254.	.0206	.0118	.1646	.0904
#2	.0043	2.476	2249.	.0213	.0128	.1631	.0907
#3	.0045	2.482	2256.	.0229	.0168	.1563	.0909

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0214	23.75	.0725	.3103	5.584	.0850	.2062
SDev	.0010	.07	.0010	.0014	.090	.0023	.0096
%RSD	4.542	.2906	1.326	.4657	1.617	2.665	4.658
#1	.0204	23.75	.0730	.3116	5.540	.0831	.1955
#2	.0224	23.69	.0714	.3088	5.524	.0875	.2088
#3	.0213	23.83	.0732	.3104	5.688	.0843	.2142

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0976	.0451	.0746	.1065	3.352	.3066	.0389
SDev	.0084	.0031	.0080	.0038	.019	.0264	.0001
%RSD	8.606	6.962	10.79	3.539	.5766	8.605	.3507
#1	.0893	.0427	.0723	.1059	3.370	.3063	.0387
#2	.0975	.0486	.0680	.1106	3.356	.2804	.0389
#3	.1061	.0439	.0836	.1031	3.332	.3331	.0390

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0873	.0042	.0153	.0597	1.393	.0109	.0316
SDev	.0070	.0044	.0001	.0023	.058	.0005	.0147

%RSD	7.971	104.4	.6877	3.869	4.186	4.327	46.39
#1	.0690	.0091	.0153	.0577	1.330	.0104	.0194
#2	.0797	.0007	.0154	.0592	1.402	.0114	.0275
#3	.0933	.0027	.0152	.0622	1.446	.0109	.0479

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0042	.0139	.0167
SDev	.0002	.0016	.0003
%RSD	4.873	11.73	2.057
#1	.0041	.0121	.0163
#2	.0040	.0153	.0169
#3	.0044	.0142	.0169

Analysis Report Tue 02-20-96 11:30:24 AM page 1

Method: ICP1A Sample Name: 96-2614 DUP Operator: DRS
Run Time: 02/20/96 11:29:05
Comment: 119.2B.F DUPLICATE (CORE 119 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0099	5.286	.0736	.0286	.0087	.0004	6.273
SDev	.0006	.059	.0127	.0011	.0000	.0000	.054
%RSD	5.586	1.113	17.24	3.998	.0000	1.454	.8548
#1	.0096	5.221	.0732	.0277	.0087	.0004	6.221
#2	.0105	5.334	.0865	.0299	.0087	.0004	6.328
#3	.0095	5.305	.0612	.0283	.0087	.0004	6.271

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5253	.0073	.1003	.0184	.4255	.0165	.0119
SDev	.0057	.0017	.0023	.0009	.0075	.0013	.0001
%RSD	1.085	23.37	2.279	5.159	1.759	7.705	.6921
#1	.5187	.0066	.0995	.0190	.4191	.0150	.0120
#2	.5285	.0060	.1029	.0189	.4237	.0173	.0119
#3	.5287	.0092	.0986	.0173	.4337	.0171	.0118

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0045	3.187	2255.	.0227	.0126	.1448	.1129
SDev	.0001	.035	24.	.0001	.0006	.0098	.0019
%RSD	2.970	1.110	1.044	.4783	4.558	6.784	1.637
#1	.0045	3.147	2228.	.0227	.0133	.1437	.1108
#2	.0045	3.214	2273.	.0229	.0123	.1551	.1142
#3	.0043	3.201	2263.	.0227	.0123	.1355	.1138

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0216	28.02	.0706	.6165	6.783	.0864	.2099
SDev	.0009	.32	.0024	.0105	.078	.0070	.0082
%RSD	4.004	1.158	3.372	1.704	1.147	8.086	3.923
#1	.0222	27.65	.0712	.6057	6.693	.0929	.2191
#2	.0206	28.25	.0680	.6266	6.818	.0872	.2032
#3	.0221	28.15	.0727	.6172	6.837	.0790	.2074

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0983	.0459	.0862	.1073	3.208	.3196	.0471
SDev	.0034	.0027	.0157	.0109	.023	.0184	.0006
%RSD	3.479	5.987	18.16	10.20	.7074	5.756	1.169
#1	.1023	.0428	.1041	.1064	3.191	.3142	.0465
#2	.0963	.0474	.0796	.0969	3.234	.3046	.0475
#3	.0964	.0476	.0749	.1187	3.199	.3402	.0475

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0891	.0052	.0234	.0619	1.513	.0112	.0296
SDev	.0027	.0041	.0003	.0084	.036	.0002	.0123

%RSD	3.012	79.33	1.321	13.54	3.684	1.877	41.45
#1	.0910	.0011	.0230	.0587	1.539	.0109	.0419
#2	.0902	.0093	.0236	.0714	1.449	.0113	.0296
#3	.0860	.0051	.0235	.0556	1.551	.0113	.0173

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0040	.0144	.0176
SDev	.0004	.0004	.0002
%RSD	9.263	2.624	1.333
#1	.0040	.0140	.0177
#2	.0036	.0147	.0174
#3	.0044	.0145	.0178

Analysis Report Tue 02-20-96 11:34:15 AM page 1

Method: ICP1A Sample Name: 96-2616 Operator: DRS
Run Time: 02/20/96 11:32:57
Comment: 11[illegible]38.F (CORE 119 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC DB Corr. Factor: 1
WMH

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0101	3.385	.0632	.0130	.0098	.0003	5.887
SDev	.0004	.011	.0051	.0047	.0001	.0000	.035
%RSD	3.538	.3366	8.003	35.83	1.533	10.19	.5961
#1	.0104	3.373	.0595	.0096	.0096	.0003	5.848
#2	.0103	3.395	.0612	.0111	.0099	.0003	5.917
#3	.0097	3.388	.0689	.0183	.0098	.0004	5.894

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5429	.0013	.0981	.0178	.4390	.0155	.0117
SDev	.0039	.0008	.0038	.0012	.0031	.0005	.0007
%RSD	.7136	63.49	3.881	6.969	.6943	3.449	6.057
#1	.5384	.0017	.0951	.0164	.4377	.0151	.0112
#2	.5456	.0018	.0969	.0184	.4425	.0153	.0113
#3	.5446	.0003	.1024	.0186	.4368	.0161	.0125

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0045	3.661	2284.	.0213	.0402	.1438	.1078
SDev	.0001	.018	10.	.0008	.0009	.0076	.0007
%RSD	2.842	.5044	.4461	3.619	2.147	5.280	.8600
#1	.0045	3.641	2274.	.0205	.0397	.1366	.1067
#2	.0043	3.677	2294.	.0219	.0397	.1432	.1085
#3	.0045	3.663	2283.	.0217	.0412	.1517	.1082

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0246	27.23	.0739	.7650	5.473	.0871	.2053
SDev	.0005	.18	.0041	.0050	.041	.0084	.0047
%RSD	1.999	.6750	5.559	.6372	.7504	9.603	2.285
#1	.0249	27.04	.0700	.7825	5.486	.0776	.2007
#2	.0249	27.40	.0736	.7907	5.427	.0934	.2052
#3	.0240	27.25	.0781	.7817	5.507	.0902	.2101

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0956	.0467	.0792	.1015	2.885	.3374	.0471
SDev	.0047	.0040	.0140	.0142	.012	.0257	.0003
%RSD	4.912	8.518	17.67	13.98	.4265	7.604	.5791
#1	.0932	.0423	.0951	.0857	2.875	.3379	.0468
#2	.0925	.0481	.0691	.1131	2.899	.3115	.0473
#3	.1010	.0499	.0733	.1057	2.882	.3628	.0471

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0908	.0049	.0143	.0587	1.353	.0103	.0242
SDev	.0022	.0007	.0002	.0058	.060	.0006	.0083

%RSD	2.459	13.83	1.488	9.863	4.414	5.385	34.16
#1	.0883	.0053	.0141	.0546	1.377	.0102	.0256
#2	.0915	.0054	.0145	.0653	1.285	.0099	.0153
#3	.0927	.0041	.0144	.0563	1.396	.0109	.0316

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0042	.0138	.0163
SDev	.0002	.0007	.0004
%RSD	4.781	5.116	2.403
#1	.0041	.0130	.0158
#2	.0041	.0143	.0164
#3	.0044	.0141	.0166

Analysis Report Tue 02-20-96 11:38:54 AM page 1

Method: ICP1A Sample Name: 96-2616 DUP Operator: DRS
Run Time: 02/20/96 11:37:35
Comment: 119.3B.F DUPLICATE (CORE 119 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Si
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0104	3.341	.0550	-.0002	.0097	.0004	5.731
SDev	.0007	.014	.0060	.0002	.0002	.0001	.042
%RSD	6.585	.4298	10.91	85.80	1.779	12.59	.7399
#1	.0096	3.324	.0582	-.0002	.0096	.0003	5.717
#2	.0106	3.351	.0587	-.0004	.0096	.0004	5.697
#3	.0109	3.347	.0481	-.0000	.0099	.0004	5.778

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5978	.0101	.1031	.0190	.4183	.0169	.0119
SDev	.0036	.0049	.0017	.0003	.0049	.0011	.0003
%RSD	.6025	48.77	1.637	1.645	1.179	6.504	2.833
#1	.5937	.0055	.1043	.0188	.4178	.0157	.0121
#2	.6001	.0153	.1039	.0189	.4234	.0170	.0122
#3	.5997	.0095	.1012	.0194	.4136	.0179	.0115

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0043	3.421	2267.	.0231	.0359	.1368	.1243
SDev	.0000	.014	8.	.0009	.0003	.0041	.0008
%RSD	.0789	.3983	.3448	3.990	2.122	3.008	.6772
#1	.0043	3.405	2258.	.0241	.0357	.1375	.1235
#2	.0043	3.430	2272.	.0229	.0357	.1324	.1243
#3	.0043	3.428	2270.	.0224	.0362	.1405	.1251

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0249	25.58	.0714	.5863	5.285	.0898	.2125
SDev	.0000	.04	.0011	.0043	.011	.0107	.0057
%RSD	.0530	.1709	1.514	.7388	.3951	11.94	2.694
#1	.0249	25.54	.0701	.5867	5.295	.0779	.2074
#2	.0249	25.62	.0718	.5818	5.281	.0986	.2114
#3	.0249	25.59	.0721	.5904	5.299	.0929	.2187

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0999	.0467	.0628	.0907	3.029	.3173	.0455
SDev	.0015	.0019	.0056	.0185	.009	.0416	.0003
%RSD	1.527	4.017	8.999	20.39	.3075	13.11	.6916
#1	.0984	.0488	.0565	.1097	3.023	.2960	.0451
#2	.1014	.0459	.0645	.0727	3.039	.2906	.0457
#3	.1000	.0453	.0674	.0896	3.024	.3652	.0457

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0881	.0039	.0213	.0623	1.381	.0112	.0337
SDev	.0063	.0036	.0002	.0060	.063	.0002	.0055

%RSD	7.206	92.92	.8311	9.591	4.575	1.820	16.28
#1	.0922	.0057	.0211	.0620	1.419	.0111	.0399
#2	.0808	.0063	.0214	.0565	1.308	.0115	.0295
#3	.0912	-.0003	.0215	.0684	1.416	.0111	.0316

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0041	.0164	.0146
SDev	.0000	.0011	.0003
%RSD	.8418	6.829	1.831
#1	.0040	.0152	.0146
#2	.0041	.0173	.0149
#3	.0040	.0168	.0143

Analysis Report Tue 02-20-96 11:42:38 AM page 1

Method: ICP1A Sample Name: SRM 2709 Operator: DRS
Run Time: 02/20/96 11:41:19
Comment: LCS BX112/C119-2 (CORE 119 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0108	19.99	.1337	.0086	.2472	.0020	.0756
SDev	.0006	.05	.0088	.0012	.0005	.0000	.0147
%RSD	5.396	.2285	6.597	14.12	.2099	.2619	19.46
#1	.0111	20.04	.1238	.0079	.2475	.0020	.0924
#2	.0102	20.00	.1406	.0079	.2475	.0020	.0652
#3	.0112	19.95	.1366	.0100	.2466	.0020	.0691

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.564	.0079	.0882	.0227	.0533	.0193	.0126
SDev	.009	.0075	.0054	.0004	.0002	.0011	.0001
%RSD	.1549	94.67	6.166	1.578	.4528	5.887	.7102
#1	5.566	.0035	.0828	.0227	.0532	.0179	.0126
#2	5.571	.0037	.0882	.0223	.0536	.0199	.0127
#3	5.554	.0165	.0937	.0231	.0532	.0199	.0125

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0047	9.564	2258.	.0290	.0223	4.360	.2371
SDev	.0002	.024	7.	.0008	.0005	.005	.0003
%RSD	4.306	.2532	.2978	2.948	2.239	.1051	.1279
#1	.0045	9.582	2263.	.0289	.0228	4.365	.2374
#2	.0047	9.573	2260.	.0282	.0218	4.356	.2368
#3	.0049	9.538	2250.	.0299	.0223	4.359	.2370

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0170	4.354	.0807	1.048	.2847	.1392	.2147
SDev	.0005	.028	.0052	.002	.0069	.0060	.0052
%RSD	3.210	.6479	6.373	.2162	2.440	4.283	2.435
#1	.0165	4.335	.0755	1.049	.2880	.1349	.2190
#2	.0169	4.387	.0810	1.049	.2767	.1367	.2089
#3	.0176	4.341	.0858	1.045	.2893	.1460	.2162

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0977	.0521	.1080	.1828	75.57	.3790	.0654
SDev	.0025	.0009	.0181	.0181	.19	.0239	.0002
%RSD	2.548	1.787	16.74	9.906	.2552	6.308	.2417
#1	.0948	.0515	.0885	.1643	75.69	.3514	.0655
#2	.0990	.0532	.1113	.2005	75.67	.3921	.0655
#3	.0993	.0516	.1242	.1837	75.34	.3934	.0652

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1238	.0133	.8446	.0784	1.178	.0411	.0446
SDev	.0030	.0066	.0023	.0215	.047	.0002	.0052

%RSD	2.420	49.20	.2674	27.44	3.989	.4376	11.64
#1	.1271	.0070	.8458	.0561	1.124	.0412	.0440
#2	.1212	.0129	.8461	.0801	1.208	.0411	.0501
#3	.1232	.0200	.8420	.0991	1.202	.0409	.0398

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0091	.0340	.0199
SDev	.0002	.0007	.0002
%RSD	2.329	2.029	1.080
#1	.0090	.0340	.0197
#2	.0089	.0347	.0201
#3	.0093	.0333	.0199

Analysis Report QC Standard Tue 02-20-96 11:50:36 AM page 1

Method: ICP1A Sample Name: QC_MCVA 960130I901 Operator: DRS
Run Time: 02/20/96 11:49:17
Comment: (CORE 119 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

pass* DRS 2/20/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5057	9.936	2.684	2.027	.5008	.0959	24.47
SDev	.0029	.051	.037	.016	.0031	.0006	.16
%RSD	.5706	.5086	1.375	.7666	.6181	.5856	.6710
#1	.5066	9.944	2.671	2.032	.5017	.0962	24.51
#2	.5080	9.982	2.726	2.040	.5034	.0963	24.60
#3	.5025	9.882	2.655	2.010	.4974	.0953	24.28
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.82	.5389	.0223	1.026	1.024	.9282	.0041
SDev	.15	.0137	.0022	.007	.013	.0064	.0004
%RSD	.6154	2.537	9.912	.6364	1.258	.6865	9.910
#1	24.88	.5432	.0234	1.028	1.018	.9326	.0037
#2	24.94	.5236	.0198	1.032	1.038	.9311	.0042
#3	24.65	.5498	.0236	1.019	1.015	.9209	.0044
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0032	20.48	23.75	.0128	1.975	33.01	.5101
SDev	.0001	.14	.13	.0008	.008	.19	.0033
%RSD	3.830	.6591	.5675	6.173	.4005	.5660	.6525
#1	.0032	20.54	23.79	.0135	1.981	33.07	.5109
#2	.0031	20.58	23.86	.0119	1.978	33.16	.5129
#3	.0034	20.33	23.60	.0129	1.966	32.80	.5064
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.028	37.21	.0265	1.005	4.943	2.579	.0585
SDev	.006	.20	.0039	.013	.066	.013	.0037
%RSD	.5504	.5460	14.66	1.337	1.336	.5036	6.391
#1	1.028	37.33	.0221	1.015	4.989	2.586	.0600
#2	1.033	37.32	.0293	1.010	4.973	2.588	.0542
#3	1.022	36.98	.0281	.9894	4.868	2.564	.0612
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Analysis Report QC Standard Tue 02-20-96 11:50:36 AM page 2

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0257	.0316	03.280	2.655	18.99	.2025	.5122
SDev	.0013	.0020	.005	.019	.11	.0350	.0031
%RSD	5.028	6.264	.1441	.7332	.6021	17.29	.6018
#1	.0242	.0339	03.280	2.647	19.05	.1785	.5130
#2	.0265	.0309	03.276	2.677	19.06	.1863	.5148
#3	.0264	.0301	03.285	2.641	18.86	.2427	.5088
Errors	NOCHECK	NOCHECK	QC Fail	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0701	.0292	1.001	2.538	.4983	.9970	.0501
SDev	.0022	.0015	.008	.029	.0943	.0056	.0073
%RSD	3.110	5.022	.7789	1.142	18.93	.5630	14.53
#1	.0714	.0276	1.004	2.569	.5984	.9995	.0543
#2	.0676	.0305	1.007	2.551	.4864	1.001	.0521
#3	.0713	.0295	.9919	2.505	.4111	.9905	.0421
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0023	1.029	2.002
SDev	.0002	.004	.014
%RSD	8.108	.3822	.7034
#1	.0025	1.030	2.009
#2	.0021	1.033	2.011
#3	.0022	1.025	1.986
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report Tue 02-20-96 11:54:29 AM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 02/20/96 11:53:10
Comment: LCS BX112/C119-2 (CORE 119 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0024	.0210	.0099	-.0474	.0006	.0001	-.0020
SDev	.0004	.0092	.0084	.0036	.0002	.0000	.0079
%RSD	19.08	43.73	85.21	7.630	29.51	33.93	399.5
#1	.0019	.0183	.0110	-.0457	.0005	.0001	.0016
#2	.0027	.0134	.0177	-.0450	.0005	.0001	.0035
#3	.0026	.0312	.0010	-.0516	.0008	.0001	-.0110

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0099	.0434	.0159	.0027	-.0015	.0005	.0030
SDev	.0006	.0145	.0069	.0005	.0022	.0013	.0010
%RSD	5.910	33.43	43.60	19.20	143.2	247.6	33.59
#1	-.0093	.0267	.0169	.0022	.0001	.0016	.0035
#2	-.0100	.0502	.0086	.0032	-.0040	-.0010	.0019
#3	-.0105	.0532	.0223	.0026	-.0007	.0010	.0038

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	-.0049	-.0474	.0068	.0012	-.0001	-.0012
SDev	.0001	.0001	.0724	.0008	.0003	.0081	.0001
%RSD	11.81	1.763	152.8	11.83	24.74	8186.	7.637
#1	.0012	-.0049	.0158	.0065	.0013	.0092	-.0011
#2	.0010	-.0048	-.1264	.0062	.0008	-.0049	-.0013
#3	.0012	-.0050	-.0316	.0078	.0013	-.0046	-.0011

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0013	.0484	.0163	-.0111	.0172	.0107	.0696
SDev	.0019	.0033	.0020	.0030	.0141	.0062	.0085
%RSD	143.1	6.751	12.35	26.63	81.99	58.39	12.27
#1	-.0008	.0503	.0164	-.0103	.0208	.0079	.0741
#2	.0020	.0446	.0183	-.0087	.0291	.0063	.0598
#3	.0028	.0503	.0143	-.0144	.0016	.0178	.0750

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0245	.0086	.0131	.0313	.0635	.0515	.0004
SDev	.0017	.0019	.0141	.0095	.0036	.0050	.0000
%RSD	6.778	22.23	107.5	30.34	5.682	9.664	.0570
#1	.0241	.0097	.0146	.0372	.0677	.0566	.0004
#2	.0231	.0064	-.0017	.0204	.0614	.0467	.0004
#3	.0263	.0096	.0264	.0365	.0615	.0511	.0004

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0217	-.0023	.0008	.0201	.2981	.0015	.0078
SDev	.0048	.0015	.0006	.0040	.0496	.0002	.0052

%RSD	22.03	65.72	69.28	19.97	16.64	10.39	67.04
#1	.0260	-.0040	.0010	.0199	.3195	.0017	.0126
#2	.0226	-.0012	.0002	.0242	.2414	.0014	.0084
#3	.0166	-.0016	.0013	.0162	.3333	.0015	.0022

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0007	-.0027	.0013
SDev	.0002	.0009	.0004
%RSD	26.83	33.83	34.11
#1	.0008	-.0017	.0018
#2	.0005	-.0028	.0010
#3	.0008	-.0035	.0011

Analysis Report Tue 02-20-96 12:01:10 PM page 1

Method: ICP1A Sample Name: 96-2979-BLK Operator: DRS
Run Time: 02/20/96 11:59:51
Comment: PROCESS BLANK (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0088	.1163	.0457	-.0249	.0029	.0003	.0332
SDev	.0010	.0063	.0087	.0029	.0002	.0000	.0044
%RSD	11.19	5.412	19.10	11.83	5.897	14.53	13.19
#1	.0077	.1108	.0482	-.0283	.0027	.0002	.0300
#2	.0095	.1232	.0360	-.0236	.0030	.0002	.0314
#3	.0091	.1150	.0530	-.0229	.0030	.0003	.0382

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5157	.0639	.0686	.0130	.0038	.0135	.0105
SDev	.0054	.0185	.0108	.0004	.0019	.0010	.0009
%RSD	1.044	28.94	15.72	3.191	49.44	7.548	9.024
#1	.5218	.0643	.0561	.0125	.0026	.0123	.0094
#2	.5116	.0451	.0745	.0132	.0028	.0137	.0110
#3	.5136	.0821	.0751	.0133	.0059	.0143	.0112

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0037	.0539	1133.	.0197	.0070	.0422	.0323
SDev	.0004	.0009	17.	.0027	.0021	.0075	.0003
%RSD	9.903	1.711	1.505	13.83	29.74	17.65	.9429
#1	.0033	.0543	1153.	.0167	.0053	.0339	.0327
#2	.0039	.0528	1120.	.0204	.0093	.0445	.0321
#3	.0039	.0545	1128.	.0221	.0063	.0482	.0323

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0081	.6087	.0642	.1838	.0789	.0555	.1909
SDev	.0008	.0087	.0052	.0030	.0169	.0042	.0188
%RSD	9.234	1.433	8.056	1.613	21.43	7.480	9.861
#1	.0073	.6164	.0583	.1813	.0769	.0562	.1694
#2	.0087	.6105	.0678	.1871	.0967	.0510	.2046
#3	.0083	.5992	.0666	.1829	.0631	.0592	.1987

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0865	.0371	.0565	.0664	.0994	.2477	.0023
SDev	.0080	.0044	.0065	.0009	.0096	.0256	.0001
%RSD	9.225	11.76	11.57	1.435	9.656	10.36	5.819
#1	.0779	.0347	.0523	.0674	.1064	.2188	.0022
#2	.0936	.0422	.0531	.0655	.1034	.2677	.0025
#3	.0879	.0345	.0640	.0663	.0885	.2566	.0023

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0630	-.0008	.0059	.0442	1.004	.0078	.0285
SDev	.0054	.0022	.0003	.0026	.041	.0013	.0095

%RSD	8.635	295.0	5.663	5.787	4.077	16.70	33.53
#1	.0598	-.0029	.0060	.0468	.9571	.0063	.0177
#2	.0599	.0016	.0063	.0417	1.030	.0084	.0359
#3	.0693	-.0009	.0056	.0440	1.026	.0087	.0319

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0038	.0687	.0070
SDev	.0006	.0013	.0009
%RSD	14.99	1.838	12.47
#1	.0032	.0700	.0060
#2	.0043	.0684	.0077
#3	.0039	.0676	.0072

Analysis Report Tue 02-20-96 12:05:04 PM page 1

Method: ICP1A Sample Name: 96-2979 @5 Operator: DRS
Run Time: 02/20/96 12:03:45
Comment: 126.1A.F @5X DIL (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0050	8.657	.0488	-.0511	.0024	.0002	.0539
SDev	.0009	.031	.0148	.0007	.0000	.0000	.0104
%RSD	18.85	.3534	30.23	1.438	.0000	21.84	19.22
#1	.0041	8.624	.0335	-.0520	.0024	.0002	.0558
#2	.0060	8.663	.0500	-.0508	.0024	.0001	.0631
#3	.0049	8.684	.0629	-.0507	.0024	.0001	.0427

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1973	.0698	.0381	.0052	.1934	.0043	.0052
SDev	.0016	.0199	.0019	.0006	.0045	.0009	.0004
%RSD	.8021	28.53	4.959	11.79	2.329	19.94	8.363
#1	.1956	.0778	.0371	.0058	.1918	.0035	.0051
#2	.1975	.0644	.0370	.0046	.1985	.0042	.0057
#3	.1988	.0471	.0403	.0054	.1900	.0052	.0048

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0023	.1895	228.1	.0138	.0048	.0111	.0400
SDev	.0001	.0012	.8	.0013	.0009	.0043	.0002
%RSD	5.255	.6145	.3463	9.743	17.92	38.78	.5732
#1	.0022	.1898	227.4	.0124	.0043	.0110	.0398
#2	.0022	.1882	228.0	.0151	.0058	.0155	.0402
#3	.0024	.1905	228.9	.0138	.0043	.0069	.0402

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0053	2.778	.0337	.3727	.1556	.0480	.1170
SDev	.0006	.028	.0018	.0013	.0126	.0134	.0115
%RSD	12.21	1.015	5.270	.3371	8.087	27.80	9.824
#1	.0055	2.745	.0323	.3738	.1444	.0614	.1301
#2	.0059	2.791	.0332	.3729	.1693	.0347	.1089
#3	.0046	2.797	.0357	.3713	.1533	.0480	.1119

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0414	.0193	.0305	.0703	.1095	.1049	.0029
SDev	.0017	.0019	.0019	.0110	.0027	.0301	.0000
%RSD	4.168	10.08	6.355	15.68	2.425	28.71	.0075
#1	.0434	.0171	.0321	.0796	.1124	.0948	.0029
#2	.0402	.0208	.0310	.0581	.1089	.0811	.0029
#3	.0406	.0199	.0283	.0731	.1072	.1387	.0029

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0411	-.0039	.0038	.0314	1.400	.0041	.0129
SDev	.0097	.0095	.0001	.0045	.049	.0005	.0137

Analysis Report Tue 02-20-96 12:05:04 PM page 2

%RSD	23.51	244.1	3.315	14.20	3.508	11.84	106.4
#1	.0303	-.0136	.0037	.0305	1.451	.0046	.0163
#2	.0440	.0054	.0039	.0274	1.353	.0041	-.0022
#3	.0490	-.0035	.0037	.0362	1.397	.0037	.0245

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0019	.0158	.0273
SDev	.0002	.0001	.0008
%RSD	12.08	.9227	2.917
#1	.0017	.0156	.0281
#2	.0018	.0159	.0265
#3	.0022	.0158	.0272

Analysis Report Tue 02-20-96 12:08:33 PM page 1

Method: ICP1A Sample Name: 96-2979 Operator: DRS
Run Time: 02/20/96 12:07:14
Comment: 126.1A.F (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0135	44.51	.1389	-.0333	.0085	.0004	.2308
SDev	.0006	.41	.0053	.0029	.0001	.0000	.0012
%RSD	4.251	.9225	3.809	8.833	1.020	9.545	.5176
#1	.0133	44.04	.1414	-.0367	.0084	.0005	.2320
#2	.0131	44.79	.1328	-.0317	.0084	.0004	.2306
#3	.0142	44.71	.1424	-.0315	.0086	.0004	.2297

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9447	.0462	.0658	.0150	1.013	.0226	.0093
SDev	.0069	.0035	.0030	.0002	.007	.0016	.0005
%RSD	.7324	7.581	4.565	1.299	.6552	7.002	5.827
#1	.9368	.0447	.0671	.0148	1.005	.0237	.0095
#2	.9494	.0502	.0624	.0149	1.016	.0233	.0087
#3	.9480	.0437	.0680	.0152	1.019	.0208	.0097

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0051	1.010	1162.	.0330	.0073	.0639	.2115
SDev	.0002	.010	11.	.0007	.0010	.0042	.0016
%RSD	4.794	.9532	.9449	2.242	13.64	6.595	.7724
#1	.0052	.9991	1150.	.0333	.0073	.0665	.2097
#2	.0048	1.016	1170.	.0321	.0063	.0661	.2129
#3	.0052	1.016	1167.	.0335	.0083	.0590	.2119

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0141	13.93	.0606	1.981	.6726	.1955	.1680
SDev	.0002	.06	.0032	.023	.0350	.0030	.0089
%RSD	1.496	.4613	5.309	1.186	5.207	1.528	5.316
#1	.0142	13.86	.0629	1.955	.6497	.1938	.1689
#2	.0143	13.94	.0589	1.987	.7129	.1948	.1587
#3	.0139	13.98	.0620	2.000	.6551	.1930	.1765

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0711	.0371	.1159	.2269	.4667	.2454	.0129
SDev	.0061	.0033	.0109	.0037	.0062	.0196	.0001
%RSD	8.643	8.872	9.406	1.610	1.330	8.000	.6110
#1	.0749	.0337	.1282	.2271	.4737	.2441	.0128
#2	.0640	.0374	.1122	.2305	.4646	.2265	.0130
#3	.0743	.0402	.1074	.2232	.4618	.2657	.0130

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1195	.0221	.0154	.0562	5.255	.0095	.0504
SDev	.0059	.0104	.0001	.0066	.087	.0009	.0071

%RSD	4.972	46.96	.9928	11.74	1.659	7.909	14.05
#1	.1168	.0214	.0156	.0593	5.247	.0100	.0586
#2	.1154	.0327	.0153	.0486	5.171	.0086	.0464
#3	.1263	.0121	.0153	.0607	5.345	.0099	.0462

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0044	.0877	.1326
SDev	.0002	.0007	.0012
%RSD	5.368	.8447	.8795
#1	.0047	.0874	.1317
#2	.0043	.0886	.1323
#3	.0042	.0872	.1339

Analysis Report Tue 02-20-96 12:12:14 PM page 1

Method: ICP1A Sample Name: 96-2979-PS-A Operator: DRS
Run Time: 02/20/96 12:10:56
Comment: 126.1A.F POST SPIKE A (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2495	27.51	1.410	.9726	.2501	.0487	12.20
SDev	.0028	.08	.017	.0042	.0003	.0002	.04
%RSD	1.119	.2810	1.195	.4298	.1247	.3364	.3306
#1	.2464	27.44	1.391	.9735	.2498	.0485	12.16
#2	.2516	27.59	1.413	.9680	.2504	.0488	12.24
#3	.2506	27.51	1.425	.9763	.2502	.0488	12.18

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.95	.3199	.0569	.5211	1.017	.4865	.0081
SDev	.03	.0161	.0066	.0040	.007	.0007	.0003
%RSD	.2521	5.041	11.56	.7637	.7304	.1378	3.154
#1	12.92	.3373	.0639	.5167	1.020	.4866	.0078
#2	12.97	.3171	.0508	.5244	1.008	.4872	.0082
#3	12.98	.3054	.0560	.5223	1.022	.4858	.0083

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0047	10.69	604.5	.0250	.9620	16.45	.3619
SDev	.0001	.03	1.8	.0015	.0025	.07	.0015
%RSD	2.799	.2754	.2985	6.158	.2606	.4283	.4183
#1	.0048	10.65	602.5	.0236	.9594	16.37	.3603
#2	.0048	10.71	606.0	.0267	.9624	16.51	.3633
#3	.0046	10.71	605.0	.0247	.9644	16.47	.3621

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5201	25.34	.0557	1.504	2.813	1.391	.1389
SDev	.0043	.12	.0018	.011	.018	.013	.0011
%RSD	.8352	.4685	3.247	.7131	.6284	.9265	.8162
#1	.5161	25.23	.0551	1.494	2.827	1.377	.1384
#2	.5194	25.32	.0542	1.516	2.793	1.395	.1381
#3	.5247	25.47	.0577	1.503	2.820	1.402	.1402

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0617	.0395	1.709	1.428	9.800	.2518	.2593
SDev	.0028	.0015	.019	.032	.010	.0228	.0010
%RSD	4.472	3.933	1.085	2.211	.0995	9.054	.3981
#1	.0647	.0408	1.688	1.392	9.789	.2469	.2581
#2	.0594	.0378	1.717	1.442	9.804	.2318	.2600
#3	.0608	.0399	1.723	1.450	9.807	.2766	.2593

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1048	.0304	.3043	1.316	3.082	.5026	.0540
SDev	.0037	.0032	.0011	.019	.053	.0017	.0166

%RSD	3.546	10.68	.2212	1.435	1.713	.3311	30.70
#1	.1022	.0271	.5031	1.294	3.097	.5007	.0445
#2	.1032	.0306	.5046	1.331	3.024	.5030	.0443
#3	.1090	.0336	.5052	1.321	3.126	.5039	.0731

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0042	.5563	1.071
SDev	.0002	.0040	.002
%RSD	4.996	.7122	.1770
#1	.0040	.5528	1.069
#2	.0041	.5554	1.073
#3	.0044	.5606	1.071

Analysis Report Tue 02-20-96 12:15:45 PM page 1

Method: ICP1A Sample Name: MCVA @2 Operator: DRS
Run Time: 02/20/96 12:14:27
Comment: MCVA 9601301901 @2X DIL (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2541	4.956	1.341	.9762	.2495	.0481	12.24
SDev	.0010	.014	.034	.0092	.0008	.0001	.01
%RSD	.4068	.2908	2.510	.9388	.3344	.3106	.0891
#1	.2539	4.939	1.302	.9666	.2487	.0480	12.25
#2	.2532	4.966	1.363	.9849	.2493	.0480	12.23
#3	.2553	4.963	1.358	.9771	.2504	.0483	12.24

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.37	.3255	.0249	.5163	.5107	.4615	.0040
SDev	.03	.0063	.0060	.0002	.0010	.0005	.0004
%RSD	.2748	1.922	23.92	.0459	.1933	.1131	10.91
#1	12.34	.3232	.0292	.5160	.5111	.4609	.0045
#2	12.38	.3208	.0274	.5165	.5115	.4615	.0041
#3	12.41	.3326	.0181	.5163	.5098	.4620	.0036

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0025	10.22	12.28	.0110	.9783	16.54	.2543
SDev	.0000	.03	.04	.0012	.0047	.04	.0009
%RSD	.2173	.3059	.2949	11.27	.4858	.2482	.3686
#1	.0025	10.18	12.25	.0103	.9733	16.50	.2533
#2	.0025	10.23	12.32	.0124	.9828	16.55	.2543
#3	.0025	10.24	12.27	.0103	.9798	16.58	.2552

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5127	18.53	.0290	.4987	2.458	1.296	.0780
SDev	.0037	.03	.0017	.0033	.009	.009	.0049
%RSD	.7287	.1701	5.878	.6666	.3653	.6710	6.216
#1	.5094	18.49	.0301	.5017	2.461	1.287	.0815
#2	.5121	18.54	.0298	.4951	2.466	1.304	.0724
#3	.5168	18.55	.0270	.4992	2.449	1.298	.0800

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0320	.0241	1.646	1.339	9.557	.1578	.2550
SDev	.0019	.0005	.009	.017	.027	.0218	.0008
%RSD	6.045	2.240	.5202	1.268	.2791	13.80	.3253
#1	.0337	.0241	1.651	1.357	9.527	.1827	.2541
#2	.0324	.0236	1.636	1.334	9.578	.1421	.2556
#3	.0299	.0247	1.651	1.325	9.566	.1487	.2554

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0513	.0158	.4983	1.283	.4409	.4984	.0261
SDev	.0009	.0020	.0015	.014	.0157	.0013	.0107

Analysis Report Tue 02-20-96 12:15:45 PM page 2

%RSD	1.840	12.50	.2963	1.078	3.557	.2655	40.83
#1	.0518	.0167	.4966	1.274	.4565	.4969	.0384
#2	.0520	.0172	.4990	1.299	.4251	.4992	.0200
#3	.0502	.0135	.4993	1.277	.4412	.4992	.0199

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0017	.5130	.9945
SDev	.0000	.0049	.0025
%RSD	.7547	.9636	.2496
#1	.0016	.5186	.9919
#2	.0017	.5092	.9947
#3	.0017	.5113	.9969

Analysis Report Tue 02-20-96 12:19:24 PM page 1

Method: ICP1A Sample Name: 96-2979 DUP Operator: DRS
Run Time: 02/20/96 12:18:04
Comment: 126.1A.F DUPLICATE (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0164	63.27	.1698	-.0342	.0107	.0006	.3345
SDev	.0003	.10	.0083	.0026	.0001	.0000	.0094
%RSD	1.919	.1560	4.899	7.738	.8066	1.527	2.812
#1	.0160	63.38	.1631	-.0326	.0107	.0006	.3391
#2	.0166	63.22	.1791	-.0327	.0107	.0006	.3406
#3	.0166	63.20	.1672	-.0372	.0108	.0006	.3237

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.8167	.0462	.0756	.0180	1.481	.0287	.0108
SDev	.0012	.0015	.0061	.0004	.012	.0007	.0003
%RSD	.1484	3.352	8.059	2.145	.7851	2.548	2.622
#1	.8181	.0472	.0751	.0176	1.478	.0280	.0105
#2	.8161	.0444	.0698	.0184	1.494	.0286	.0108
#3	.8159	.0469	.0820	.0181	1.472	.0294	.0110

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0061	1.493	1165.	.0272	.0091	.0818	.2813
SDev	.0004	.002	2.	.0012	.0016	.0065	.0004
%RSD	6.123	.1303	.1673	4.547	17.53	7.936	.1586
#1	.0059	1.495	1167.	.0267	.0098	.0743	.2815
#2	.0059	1.493	1164.	.0264	.0073	.0861	.2816
#3	.0065	1.491	1163.	.0287	.0103	.0849	.2808

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0181	19.90	.0649	4.702	.9983	.2497	.1815
SDev	.0002	.00	.0026	.002	.0303	.0114	.0033
%RSD	1.067	.0165	4.043	.0364	3.036	4.553	1.818
#1	.0181	19.91	.0624	4.701	.9696	.2580	.1823
#2	.0183	19.91	.0647	4.704	1.030	.2368	.1778
#3	.0179	19.90	.0676	4.703	.9954	.2544	.1843

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0839	.0428	.1472	.3143	.6787	.2918	.0162
SDev	.0043	.0027	.0012	.0116	.0110	.0346	.0000
%RSD	5.071	6.355	.8327	3.704	1.618	11.87	.0020
#1	.0796	.0459	.1460	.3267	.6847	.3256	.0162
#2	.0838	.0409	.1471	.3036	.6853	.2564	.0162
#3	.0881	.0417	.1484	.3124	.6660	.2933	.0162

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1561	.0328	.0203	.0872	7.100	.0119	.0596
SDev	.0079	.0044	.0001	.0112	.065	.0003	.0149

%RSD	5.070	13.51	.5915	12.83	.9169	2.155	25.02
#1	.1483	.0290	.0203	.0773	7.104	.0116	.0768
#2	.1559	.0377	.0202	.0993	7.034	.0119	.0501
#3	.1642	.0319	.0205	.0848	7.164	.0121	.0520

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0057	.0660	.1355
SDev	.0008	.0007	.0006
%RSD	14.24	.9977	.4463
#1	.0048	.0655	.1359
#2	.0060	.0659	.1348
#3	.0064	.0668	.1359

Analysis Report Tue 02-20-96 12:22:52 PM page 1

Method: ICP1A Sample Name: 96-2979 DUP SPIKE-B Operator: DRS
Run Time: 02/20/96 12:21:33
Comment: 126.1A.F DUP POST SPIKE B (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0120	31.77	.2547	-.0405	.0063	.0008	.2276
SDev	.0010	.16	.0086	.0018	.0001	.0000	.0063
%RSD	8.024	.4922	3.367	4.537	1.378	1.736	2.779
#1	.0117	31.59	.2478	-.0423	.0063	.0008	.2336
#2	.0131	31.85	.2520	-.0405	.0063	.0008	.2282
#3	.0112	31.88	.2643	-.0387	.0062	.0008	.2210

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4150	.0206	.9937	.0125	.7497	.0274	.9617
SDev	.0023	.0074	.0060	.0003	.0073	.0013	.0063
%RSD	.5538	36.17	.6093	2.302	.9761	4.812	.6549
#1	.4124	.0131	.9873	.0127	.7426	.0267	.9544
#2	.4167	.0280	.9944	.0122	.7572	.0290	.9650
#3	.4159	.0206	.9993	.0126	.7493	.0267	.9657

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9536	.7554	589.7	.4892	.0083	.0248	.1411
SDev	.0055	.0045	2.8	.0020	.0013	.0021	.0009
%RSD	.5767	.5973	.4744	.4095	15.87	8.271	.6255
#1	.9474	.7505	586.5	.4870	.0068	.0268	.1401
#2	.9554	.7594	591.0	.4900	.0068	.0227	.1417
#3	.9579	.7563	591.7	.4907	.0093	.0248	.1415

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0159	10.17	.9833	2.420	.5670	.2689	1.083
SDev	.0001	.06	.0078	.004	.0265	.0051	.011
%RSD	.9189	.6258	.7922	.1639	4.674	1.891	.9817
#1	.0158	10.10	.9748	2.415	.5395	.2640	1.071
#2	.0160	10.18	.9899	2.423	.5923	.2742	1.092
#3	.0160	10.22	.9853	2.422	.5692	.2686	1.085

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.020	1.052	.1625	.2173	8.129	1.222	.0094
SDev	.008	.006	.0042	.0153	.954	.007	.0001
%RSD	.7769	.5768	2.577	7.051	11.73	.5517	1.436
#1	1.012	1.045	.1664	.1999	7.194	1.230	.0093
#2	1.027	1.053	.1581	.2287	8.094	1.220	.0094
#3	1.021	1.056	.1631	.2233	9.100	1.217	.0096

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.094	1.492	.0139	.0700	15.23	.0092	.9957
SDev	.007	.008	.0010	.0076	.09	.0006	.0071

Analysis Report Tue 02-20-96 12:22:52 PM page 2

%RSD	.6533	.5340	7.274	10.84	.5807	6.380	.7171
#1	1.088	1.483	.0131	.0779	15.14	.0085	.9965
#2	1.102	1.497	.0150	.0628	15.26	.0093	1.002
#3	1.091	1.496	.0135	.0694	15.31	.0096	.9882

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.4563	.0356	.0576
SDev	.0018	.0001	.0003
%RSD	.3962	.3887	.5287
#1	.4543	.0355	.0572
#2	.4578	.0355	.0576
#3	.4569	.0357	.0578

Analysis Report Tue 02-20-96 12:26:15 PM page 1

Method: ICP1A Sample Name: MCVB1 @2 Operator: DRS
Run Time: 02/20/96 12:24:56
Comment: MCVB1 960123I901 @2X DIL (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0044	.0363	.1911	-.0023	.0009	.0005	.0566
SDev	.0009	.0062	.0214	.0060	.0001	.0000	.0065
%RSD	20.26	17.13	11.22	254.3	16.01	1.271	11.52
#1	.0052	.0429	.1996	-.0085	.0011	.0005	.0539
#2	.0034	.0355	.2069	-.0019	.0008	.0005	.0519
#3	.0045	.0306	.1667	.0034	.0009	.0005	.0641

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0151	.0265	.9702	.0035	.0029	.0097	.9638
SDev	.0006	.0036	.0032	.0004	.0013	.0010	.0057
%RSD	3.700	13.60	.3281	12.95	44.07	10.23	.5940
#1	.0147	.0305	.9739	.0040	.0035	.0099	.9614
#2	.0149	.0235	.9683	.0031	.0014	.0086	.9703
#3	.0158	.0255	.9685	.0034	.0037	.0105	.9596

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9653	.0034	.6163	.4820	.0015	-.0112	-.0001
SDev	.0067	.0003	.1348	.0009	.0018	.0025	.0001
%RSD	.6970	7.669	21.87	.1927	117.1	22.51	95.67
#1	.9608	.0033	.7269	.4810	.0033	-.0139	-.0001
#2	.9730	.0032	.4662	.4829	.0013	-.0110	-.0003
#3	.9621	.0037	.6558	.4819	-.0002	-.0089	-.0001

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0066	.1496	.9682	.0370	.0831	.1444	1.053
SDev	.0012	.0239	.0079	.0027	.0209	.0080	.009
%RSD	17.47	15.98	.8147	7.291	25.20	5.572	.8448
#1	.0078	.1687	.9674	.0394	.0897	.1532	1.043
#2	.0065	.1228	.9764	.0374	.0999	.1375	1.060
#3	.0055	.1574	.9607	.0341	.0596	.1425	1.056

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.012	1.042	.0833	.0705	8.956	1.122	.0015
SDev	.005	.007	.0046	.0071	.926	.013	.0001
%RSD	.4688	.6437	5.573	10.06	10.34	1.114	5.321
#1	1.018	1.042	.0852	.0656	8.035	1.108	.0015
#2	1.012	1.049	.0780	.0672	8.947	1.129	.0014
#3	1.008	1.035	.0867	.0786	9.886	1.130	.0015

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.029	1.458	.0031	.0412	11.87	.0035	.9866
SDev	.009	.003	.0005	.0063	.06	.0003	.0089

%RSD	.8418	.1807	15.17	15.18	.4658	7.091	.9017
#1	1.031	1.458	.0035	.0484	11.84	.0036	.9927
#2	1.037	1.461	.0026	.0382	11.94	.0036	.9908
#3	1.020	1.456	.0032	.0370	11.84	.0032	.9764

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.4528	.0007	-.0094
SDev	.0029	.0006	.0002
%RSD	.6363	88.44	2.358
#1	.4506	.0000	-.0093
#2	.4561	.0012	-.0097
#3	.4518	.0007	-.0093

Analysis Report QC Standard Tue 02-20-96 12:31:19 PM page 1

Method: ICP1A Sample Name: QC_MCVA 960130I901 Operator: DRS
Run Time: 02/20/96 12:30:01
Comment: (CORES 126/127 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Pass* DRS 2/20/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4990	9.806	2.640	2.149	.4925	.0933	24.17
SDev	.0027	.075	.011	.019	.0035	.0006	.20
%RSD	.5466	.7628	.4150	.8993	.7115	.6697	.8147
#1	.5008	9.842	2.643	2.162	.4946	.0937	24.30
#2	.5004	9.856	2.648	2.158	.4944	.0936	24.26
#3	.4959	9.720	2.627	2.127	.4884	.0925	23.94
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.51	.5077	.0305	1.017	1.003	.9061	.0054
SDev	.17	.0079	.0037	.005	.020	.0092	.0005
%RSD	.6878	1.550	12.07	.4951	2.010	1.014	8.926
#1	24.60	.5059	.0334	1.016	1.017	.9122	.0051
#2	24.62	.5163	.0283	1.016	1.012	.9107	.0059
#3	24.32	.5008	.0317	1.007	.9800	0.8956	.0051
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0044	20.19	23.54	.0137	1.933	32.60	.5038
SDev	.0001	.14	.24	.0009	.014	.22	.0031
%RSD	3.019	.6760	1.008	6.290	.7307	.6692	.6056
#1	.0044	20.28	23.53	.0145	1.944	32.73	.5051
#2	.0044	20.27	23.79	.0128	1.938	32.73	.5061
#3	.0042	20.04	23.32	.0138	1.917	32.35	.5004
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.011	36.61	.0350	.9896	4.859	2.548	.0716
SDev	.010	.27	.0046	.0137	.050	.016	.0124
%RSD	.9872	.7437	13.28	1.383	1.024	.6256	17.26
#1	1.021	36.89	.0298	1.001	4.916	2.561	.0702
#2	1.010	36.59	.0388	.9939	4.823	2.551	.0646
#3	1.001	36.35	.0365	.9742	4.838	2.530	.0600
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.300	

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0364	.0330	03.258	2.606	21.03	.2466	.5043
SDev	.0035	.0031	.007	.015	.21	.0268	.0033
%RSD	9.546	9.423	.2264	.5755	1.003	10.88	.6492
#1	.0375	.0321	03.263	2.618	21.21	.2194	.5047
#2	.0325	.0304	03.262	2.610	21.09	.2474	.5056
#3	.0391	.0364	03.250	2.589	20.80	.2730	.5006
Errors	NOCHECK	NOCHECK	QC Fail	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0800	.0300	.9848	2.505	.5598	.9833	.0497
SDev	.0041	.0022	.0069	.029	.0993	.0067	.0050
%RSD	5.104	7.186	.6996	1.109	17.74	.6817	10.18
#1	.0755	.0323	.9886	2.519	.4593	.9876	.0543
#2	.0810	.0280	.9867	2.523	.6567	.9867	.0503
#3	.0834	.0296	.9769	2.473	.5644	.9735	.0443
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0027	1.014	1.974
SDev	.0002	.014	.013
%RSD	6.678	1.390	.6689
#1	.0025	1.023	1.981
#2	.0028	1.022	1.982
#3	.0029	.9980	1.959
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report Tue 02-20-96 12:35:49 PM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 02/20/96 12:34:31
Comment: MCVB1 960123I901 @2X DIL (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0029	.0346	.0118	.0310	.0012	.0002	.0298
SDev	.0005	.0019	.0076	.0011	.0001	.0000	.0072
%RSD	16.04	5.598	64.95	3.688	7.296	1.506	24.23
#1	.0033	.0366	.0030	.0311	.0012	.0002	.0379
#2	.0024	.0345	.0153	.0322	.0012	.0002	.0239
#3	.0031	.0328	.0169	.0299	.0011	.0002	.0278

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0110	.0294	.0246	.0033	.0014	.0013	.0033
SDev	.0022	.0209	.0017	.0000	.0011	.0004	.0001
%RSD	19.87	71.26	6.846	1.250	80.20	28.75	2.929
#1	.0131	.0327	.0265	.0032	.0022	.0009	.0034
#2	.0111	.0484	.0234	.0033	.0001	.0015	.0032
#3	.0088	.0070	.0238	.0033	.0015	.0014	.0033

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0013	.0125	.0237	.0063	.0033	.0285	-.0006
SDev	.0001	.0024	.0724	.0009	.0009	.0020	.0002
%RSD	9.782	18.91	305.5	14.15	35.98	6.881	30.98
#1	.0014	.0142	-.0553	.0055	.0028	.0284	-.0006
#2	.0012	.0136	.0395	.0061	.0028	.0305	-.0007
#3	.0014	.0098	.0869	.0072	.0043	.0266	-.0004

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0032	.0655	.0205	-.0107	.0394	.0137	.0693
SDev	.0013	.0132	.0032	.0015	.0234	.0033	.0027
%RSD	39.48	20.11	15.83	13.83	59.31	24.21	3.921
#1	.0045	.0732	.0232	-.0091	.0160	.0162	.0666
#2	.0032	.0603	.0215	-.0111	.0627	.0148	.0720
#3	.0019	.0731	.0169	-.0120	.0395	.0099	.0692

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0259	.0131	.0157	.0278	.7717	.0740	.0009
SDev	.0029	.0037	.0038	.0185	.0409	.0161	.0001
%RSD	11.26	28.42	24.26	66.45	5.296	21.76	8.870
#1	.0238	.0117	.0126	.0113	.8120	.0694	.0010
#2	.0247	.0103	.0200	.0244	.7727	.0607	.0008
#3	.0293	.0173	.0145	.0478	.7303	.0919	.0008

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0314	-.0034	.0019	.0219	.3570	.0031	.0098
SDev	.0068	.0029	.0002	.0121	.0257	.0001	.0184

%RSD	28.14	63.58	9.494	55.11	7.204	1.452	188.7
#1	.0372	-.0012	.0019	.0107	.3747	.0031	.0310
#2	.0212	-.0067	.0021	.0204	.3276	.0032	.0002
#3	.0356	-.0024	.0018	.0347	.3688	.0031	-.0019

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0011	-.0023	.0036
SDev	.0005	.0008	.0005
%RSD	44.16	34.04	13.33
#1	.0006	-.0026	.0039
#2	.0016	-.0028	.0039
#3	.0008	-.0014	.0030

Analysis Report Tue 02-20-96 12:37:44 PM page 1

Method: ICP1A Sample Name: 96-2982 Operator: DRS
Run Time: 02/20/96 12:36:25
Comment: 126.28.F (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0056	70.81	.2128	.0385	.0082	.0004	.2316
SDev	.0005	.59	.0189	.0019	.0002	.0000	.0053
%RSD	8.175	.8322	8.885	5.059	2.116	4.593	2.274
#1	.0061	70.33	.1965	.0368	.0080	.0005	.2272
#2	.0055	71.47	.2335	.0382	.0083	.0004	.2301
#3	.0052	70.64	.2084	.0406	.0083	.0004	.2374

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.8141	.0251	.0806	.0148	.6444	.0140	.0110
SDev	.0082	.0150	.0027	.0007	.0127	.0011	.0002
%RSD	1.007	59.67	3.410	4.523	1.979	7.598	1.784
#1	.8066	.0404	.0828	.0142	.6317	.0139	.0111
#2	.8228	.0242	.0775	.0155	.6572	.0151	.0107
#3	.8131	.0106	.0816	.0149	.6442	.0130	.0111

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0202	.5881	1256.	.0260	.0198	-.0400	.0527
SDev	.0002	.0060	10.	.0014	.0013	.0151	.0003
%RSD	1.166	1.030	.8057	5.444	6.670	37.70	.6003
#1	.0199	.5820	1247.	.0244	.0213	-.0506	.0524
#2	.0203	.5941	1267.	.0270	.0188	-.0467	.0530
#3	.0203	.5882	1253.	.0267	.0193	-.0228	.0526

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0313	27.13	.0774	1.470	.7846	.2916	.0414
SDev	.0026	.23	.0058	.017	.0316	.0059	.0142
%RSD	8.199	.8456	7.494	1.149	4.031	2.032	34.41
#1	.0286	26.95	.0707	1.458	.7924	.2873	.0254
#2	.0338	27.39	.0804	1.490	.8116	.2892	.0526
#3	.0314	27.06	.0811	1.463	.7498	.2984	.0462

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0768	.0532	.2171	.4038	1.339	.3966	.0414
SDev	.0036	.0050	.0076	.0135	.028	.0246	.0004
%RSD	4.651	9.302	3.490	3.338	2.081	6.197	1.005
#1	.0733	.0482	.2134	.3883	1.365	.4025	.0411
#2	.0767	.0581	.2259	.4130	1.343	.3696	.0419
#3	.0804	.0534	.2122	.4100	1.309	.4177	.0413

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1843	.1982	.0120	.0792	47.42	.0218	.0931
SDev	.0024	.0065	.0003	.0084	.41	.0007	.0137

%RSD	1.283	3.285	2.603	10.60	.8549	3.269	14.70
#1	.1816	.2020	.0120	.0688	47.05	.0210	.0897
#2	.1859	.1907	.0123	.0747	47.85	.0219	.1082
#3	.1854	.2018	.0117	.0740	47.36	.0224	.0814

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0058	.0520	-.0046
SDev	.0004	.0022	.0009
%RSD	7.742	4.167	19.76
#1	.0061	.0518	-.0056
#2	.0053	.0542	-.0037
#3	.0060	.0499	-.0046

Analysis Report Tue 02-20-96 12:41:27 PM page 1

Method: ICP1A Sample Name: 96-2982 DUR Operator: DRS
Run Time: 02/20/96 12:40:08
Comment: 126.2B.F DUPLICATE (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0065	49.65	.1570	.0319	.0064	.0004	.1560
SDev	.0007	.20	.0113	.0049	.0001	.0000	.0034
%RSD	10.67	.4076	7.224	15.38	1.356	5.126	2.168
#1	.0059	49.49	.1568	.0362	.0063	.0005	.1599
#2	.0063	49.88	.1685	.0329	.0063	.0004	.1540
#3	.0072	49.57	.1458	.0266	.0065	.0004	.1540

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5989	.0233	.0862	.0156	.4795	.0147	.0111
SDev	.0015	.0188	.0044	.0010	.0071	.0013	.0001
%RSD	.2571	80.56	5.067	6.510	1.486	8.547	.8440
#1	.5971	.0080	.0840	.0152	.4745	.0133	.0111
#2	.5998	.0177	.0833	.0149	.4876	.0158	.0110
#3	.5998	.0443	.0912	.0168	.4763	.0149	.0112

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0151	.6716	1169.	.0234	.0159	-.0157	.0747
SDev	.0002	.0038	4.	.0009	.0027	.0168	.0004
%RSD	1.616	.5646	.3689	3.989	17.21	106.5	.5439
#1	.0149	.6698	1166.	.0235	.0133	.0019	.0743
#2	.0153	.6760	1174.	.0224	.0188	-.0177	.0751
#3	.0153	.6691	1167.	.0243	.0158	-.0314	.0747

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0246	20.21	.0735	.8972	.5785	.2249	.0806
SDev	.0008	.05	.0039	.0097	.0196	.0060	.0014
%RSD	3.080	.2620	5.289	1.084	3.390	2.652	1.723
#1	.0238	20.24	.0701	.8931	.5924	.2206	.0814
#2	.0253	20.24	.0725	.9063	.5871	.2317	.0790
#3	.0248	20.15	.0777	.8902	.5561	.2224	.0815

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0810	.0483	.1722	.3110	.7920	.3784	.0286
SDev	.0045	.0049	.0033	.0028	.0139	.0117	.0003
%RSD	5.548	10.19	1.933	.8864	1.752	3.097	.9514
#1	.0822	.0438	.1684	.3078	.8071	.3663	.0284
#2	.0848	.0476	.1743	.3126	.7890	.3791	.0289
#3	.0761	.0536	.1740	.3125	.7798	.3897	.0286

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1550	.1377	.0084	.0646	33.06	.0177	.0732
SDev	.0098	.0066	.0001	.0068	.17	.0009	.0071

%RSD	6.331	4.770	.5663	10.49	.5187	5.127	9.763
#1	.1659	.1392	.0084	.0680	32.86	.0168	.0691
#2	.1521	.1306	.0085	.0689	33.21	.0186	.0690
#3	.1470	.1434	.0064	.0568	33.11	.0177	.0814

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0050	.1049	-.0020
SDev	.0002	.0014	.0003
%RSD	4.443	1.363	17.46
#1	.0050	.1054	-.0018
#2	.0048	.1060	-.0017
#3	.0052	.1032	-.0023

Analysis Report Tue 02-20-96 12:45:19 PM page 1

Method: ICP1A Sample Name: 96-2984 Operator: DRS
Run Time: 02/20/96 12:44:00
Comment: 127.1B.F (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0237	23.05	.1188	.0122	.0192	.0007	.2343
SDev	.0001	.01	.0090	.0026	.0001	.0000	.0056
%RSD	.3761	.0535	7.555	21.30	.7797	.7289	2.387
#1	.0237	23.04	.1158	.0096	.0192	.0007	.2280
#2	.0237	23.05	.1289	.0147	.0191	.0007	.2387
#3	.0238	23.07	.1117	.0121	.0194	.0007	.2362

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.7698	.0802	.1343	.0137	2.420	.0167	.0121
SDev	.0025	.0144	.0046	.0012	.025	.0013	.0005
%RSD	.3270	17.98	3.415	8.926	1.030	7.474	4.124.
#1	.7691	.0675	.1351	.0148	2.418	.0166	.0115
#2	.7678	.0773	.1294	.0124	2.396	.0155	.0123
#3	.7726	.0959	.1385	.0139	2.446	.0180	.0124

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0129	1.576	1306.	.0379	.0123	.0631	.3923
SDev	.0003	.003	2.	.0005	.0000	.0060	.0018
%RSD	1.929	.2061	.1438	1.438	.0000	9.525	.4517
#1	.0128	1.574	1305.	.0384	.0123	.0663	.3910
#2	.0128	1.574	1304.	.0379	.0123	.0561	.3916
#3	.0132	1.580	1308.	.0373	.0123	.0668	.3943

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0191	35.31	.1024	3.758	1.830	.2855	.1592
SDev	.0009	.10	.0028	.008	.027	.0068	.0003
%RSD	4.800	.2743	2.778	.2054	1.451	2.374	.2089
#1	.0189	35.39	.1040	3.759	1.803	.2857	.1595
#2	.0183	35.20	.0991	3.749	1.856	.2787	.1594
#3	.0201	35.33	.1040	3.765	1.833	.2923	.1588

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0960	.0552	.1369	.2141	.5996	.3869	.0220
SDev	.0029	.0015	.0084	.0065	.0163	.0106	.0001
%RSD	2.995	2.782	6.148	3.014	2.717	2.747	.6208
#1	.0980	.0540	.1375	.2079	.6178	.3751	.0218
#2	.0927	.0569	.1451	.2208	.5945	.3899	.0220
#3	.0974	.0545	.1283	.2135	.5864	.3957	.0221

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1171	.2547	.0129	.0742	22.97	.0210	.1399
SDev	.0069	.0107	.0002	.0062	.05	.0004	.0054

Analysis Report Tue 02-20-96 12:45:19 PM page 2

%RSD	5.870	4.197	1.713	8.329	.2078	1.880	3.874
#1	.1091	.2516	.0128	.0697	22.93	.0208	.1358
#2	.1214	.2459	.0126	.0716	22.97	.0214	.1379
#3	.1207	.2666	.0131	.0812	23.02	.0207	.1461

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0149	.1149	.3197
SDev	.0006	.0004	.0042
%RSD	3.858	.3285	1.320
#1	.0144	.1153	.3154
#2	.0148	.1146	.3200
#3	.0155	.1147	.3238

Analysis Report Tue 02-20-96 12:49:51 PM page 1

Method: ICP1A Sample Name: 96-2984 DUP Operator: DRS
Run Time: 02/20/96 12:47:32
Comment: 127.1B.F DUPLICATE (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0224	21.91	.1181	.0034	.0185	.0007	.2388
SDev	.0005	.12	.0156	.0007	.0001	.0000	.0039
%RSD	2.068	.5680	13.21	20.95	.4672	5.765	1.647
#1	.0225	21.96	.1144	.0026	.0185	.0007	.2405
#2	.0219	21.77	.1046	.0039	.0185	.0007	.2415
#3	.0228	22.00	.1352	.0037	.0186	.0008	.2343

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.7551	.1052	.1334	.0162	2.324	.0168	.0121
SDev	.0034	.0034	.0027	.0008	.010	.0008	.0006
%RSD	.4486	3.275	2.008	5.209	.4311	5.053	5.310
#1	.7562	.1086	.1304	.0155	2.318	.0174	.0113
#2	.7513	.1051	.1357	.0171	2.319	.0170	.0126
#3	.7577	.1017	.1340	.0159	2.336	.0158	.0122

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0125	1.639	1277.	.0380	.0108	.0592	.3931
SDev	.0001	.009	7.	.0004	.0015	.0010	.0031
%RSD	1.163	.5745	.5181	1.104	13.85	1.734	.7789
#1	.0126	1.641	1280.	.0383	.0123	.0593	.3946
#2	.0126	1.629	1269.	.0376	.0093	.0581	.3896
#3	.0123	1.647	1281.	.0383	.0108	.0602	.3951

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0191	34.10	.0984	6.165	1.733	.2833	.1696
SDev	.0018	.26	.0062	.034	.022	.0056	.0097
%RSD	9.482	.7642	6.301	.5579	1.273	1.975	5.744
#1	.0171	34.08	.0929	6.190	1.759	.2770	.1593
#2	.0205	33.84	.0970	6.126	1.722	.2857	.1708
#3	.0197	34.37	.1051	6.180	1.719	.2874	.1787

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0925	.0569	.1297	.1917	.5323	.3769	.0212
SDev	.0022	.0035	.0197	.0037	.0122	.0105	.0002
%RSD	2.343	6.213	15.17	1.958	2.285	2.794	.7423
#1	.0902	.0579	.1401	.1874	.5458	.3673	.0213
#2	.0926	.0530	.1070	.1939	.5288	.3881	.0210
#3	.0946	.0599	.1419	.1939	.5223	.3752	.0213

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1128	.2566	.0118	.0646	22.34	.0206	.1708
SDev	.0107	.0102	.0001	.0086	.02	.0004	.0074

%RSD	9.481	3.965	.6352	13.22	.1103	1.979	4.354
#1	.1031	.2683	.0118	.0560	22.35	.0210	.1791
#2	.1242	.2506	.0117	.0731	22.32	.0207	.1688
#3	.1111	.2508	.0118	.0648	22.36	.0202	.1646

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0142	.0543	.2541
SDev	.0002	.0019	.0014
%RSD	1.535	3.402	.5522
#1	.0144	.0522	.2556
#2	.0140	.0557	.2532
#3	.0143	.0550	.2534

Analysis Report Tue 02-20-96 12:52:21 PM page 1

Method: ICP1A Sample Name: 96-2985 Operator: DRS
Run Time: 02/20/96 12:51:02
Comment: 127.2A.F (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0191	56.63	.1511	-.0012	.0121	.0004	.1045
SDev	.0009	.07	.0238	.0020	.0001	.0001	.0150
%RSD	4.496	.1252	15.76	163.3	.7165	10.63	14.40
#1	.0182	56.71	.1679	.0010	.0120	.0005	.0929
#2	.0195	56.58	.1239	-.0030	.0122	.0004	.1215
#3	.0198	56.61	.1616	-.0017	.0120	.0005	.0991

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.473	.0494	.0831	.0159	.6833	.0200	.0111
SDev	.002	.0029	.0046	.0010	.0012	.0010	.0007
%RSD	.1029	5.800	5.508	6.366	.1765	4.996	6.392
#1	1.471	.0514	.0784	.0145	.6840	.0193	.0103
#2	1.473	.0462	.0836	.0159	.6819	.0195	.0110
#3	1.474	.0507	.0875	.0170	.6840	.0211	.0119

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0075	1.393	1070.	.0249	.1079	.0539	.2631
SDev	.0003	.002	2.	.0002	.0013	.0045	.0015
%RSD	4.338	.1339	.1699	.7123	1.221	8.417	.5850
#1	.0072	1.393	1072.	.0251	.1074	.0486	.2626
#2	.0076	1.391	1069.	.0248	.1094	.0566	.2618
#3	.0078	1.395	1070.	.0248	.1069	.0565	.2648

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0165	10.95	.0748	3.422	.5287	.2701	.1841
SDev	.0012	.03	.0029	.004	.0256	.0065	.0183
%RSD	7.360	.2362	3.855	.1090	4.836	2.396	9.964
#1	.0170	10.98	.0716	3.419	.5525	.2684	.1634
#2	.0152	10.96	.0755	3.420	.5318	.2647	.1985
#3	.0175	10.93	.0772	3.426	.5017	.2773	.1904

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0865	.0467	.1449	.2931	.5716	.3233	.0171
SDev	.0058	.0040	.0105	.0041	.0069	.0210	.0001
%RSD	6.741	8.620	7.256	1.388	1.207	6.507	.4588
#1	.0812	.0423	.1367	.2971	.5792	.2992	.0171
#2	.0851	.0481	.1567	.2971	.5702	.3333	.0171
#3	.0926	.0499	.1411	.2950	.5654	.3375	.0172

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1460	.0469	.0148	.0835	10.69	.0129	.0588
SDev	.0053	.0060	.0005	.0042	.09	.0004	.0030

%RSD	3.619	12.90	3.184	5.110	.8357	4.590	10.60
#1	.1516	.0528	.0143	.0794	10.59	.0126	.0603
#2	.1454	.0407	.0150	.0979	10.75	.0126	.0520
#3	.1410	.0472	.0152	.0832	10.74	.0136	.0642

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0056	.0702	.0662
SDev	.0003	.0021	.0007
%RSD	6.261	3.001	1.099
#1	.0052	.0678	.0655
#2	.0055	.0708	.0663
#3	.0059	.0719	.0669

Analysis Report Tue 02-20-96 12:55:43 PM page 1

Method: ICP1A Sample Name: 96-2985 DUP Operator: DRS
Run Time: 02/20/96 12:54:24
Comment: 127.2A.F DUPLICATE (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0179	71.83	.1990	-.0048	.0136	.0004	.1328
SDev	.0006	.19	.0068	.0010	.0002	.0000	.0200
%RSD	3.364	.2692	3.420	20.51	1.275	9.490	15.09
#1	.0172	71.89	.1947	-.0037	.0137	.0005	.1559
#2	.0182	71.61	.2068	-.0056	.0137	.0005	.1201
#3	.0183	71.99	.1954	-.0051	.0134	.0004	.1224

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6159	.0248	.0706	.0136	.8656	.0210	.0093
SDev	.0006	.0107	.0017	.0001	.0010	.0020	.0007
%RSD	.0886	43.13	2.413	.6394	.1143	9.546	7.491
#1	.6161	.0137	.0725	.0137	.8648	.0223	.0101
#2	.6153	.0350	.0698	.0137	.8652	.0187	.0093
#3	.6163	.0255	.0694	.0136	.8667	.0219	.0087

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0078	1.531	1198.	.0227	.1368	.0546	.3034
SDev	.0002	.005	3.	.0004	.0005	.0040	.0014
%RSD	2.915	.3529	.2285	1.902	.3641	7.386	.4638
#1	.0081	1.536	1199.	.0232	.1363	.0583	.3027
#2	.0076	1.525	1196.	.0224	.1368	.0552	.3026
#3	.0079	1.533	1201.	.0224	.1373	.0503	.3050

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0204	13.90	.0645	.8213	.6016	.3012	.1348
SDev	.0008	.05	.0039	.0017	.0125	.0049	.0085
%RSD	3.963	.3267	6.077	.2085	2.085	1.631	6.312
#1	.0195	13.96	.0632	.8232	.6046	.2996	.1341
#2	.0211	13.87	.0690	.8199	.5878	.3068	.1437
#3	.0205	13.89	.0615	.8207	.6123	.2973	.1267

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0701	.0447	.1712	.3473	.6031	.2754	.0185
SDev	.0018	.0030	.0191	.0053	.0132	.0082	.0001
%RSD	2.508	6.773	11.14	1.535	2.184	2.974	.4234
#1	.0692	.0452	.1536	.3421	.6170	.2823	.0186
#2	.0689	.0474	.1685	.3527	.6016	.2776	.0186
#3	.0721	.0414	.1915	.3469	.5908	.2664	.0184

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1744	.0660	.0137	.0766	12.83	.0127	.0769
SDev	.0056	.0055	.0002	.0019	.02	.0003	.0144

%RSD	3.180	8.334	1.363	2.471	.1764	2.637	18.69
#1	.1794	.0721	.0138	.0748	12.86	.0128	.0831
#2	.1733	.0614	.0135	.0764	12.82	.0123	.0605
#3	.1685	.0646	.0138	.0786	12.82	.0129	.0871

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0054	.0481	.0737
SDev	.0002	.0001	.0002
%RSD	4.148	.1963	.2894
#1	.0056	.0481	.0735
#2	.0052	.0481	.0739
#3	.0056	.0480	.0739

Analysis Report Tue 02-20-96 12:59:25 PM page 1

Method: ICP1A Sample Name: SRM 2709 Operator: DRS
Run Time: 02/20/96 12:58:06
Comment: LCS BX104/45DAY (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0092	10.72	.0826	-.0078	.1312	.0011	.0505
SDev	.0002	.11	.0076	.0060	.0014	.0000	.0050
%RSD	2.098	1.046	9.243	76.63	1.036	3.562	9.950
#1	.0091	10.85	.0767	-.0123	.1326	.0011	.0562
#2	.0094	10.64	.0912	-.0010	.1299	.0011	.0465
#3	.0090	10.67	.0798	-.0100	.1310	.0012	.0489

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.353	.0109	.0814	.0168	.0326	.0128	.0118
SDev	.034	.0040	.0019	.0006	.0011	.0008	.0006
%RSD	.9997	36.37	2.296	3.729	3.544	6.395	5.457
#1	3.390	.0144	.0805	.0160	.0337	.0137	.0113
#2	3.335	.0115	.0802	.0171	.0325	.0127	.0117
#3	3.345	.0066	.0836	.0171	.0314	.0120	.0125

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0045	5.128	1303.	.0247	.0161	2.343	.1159
SDev	.0001	.056	14.	.0005	.0010	.016	.0011
%RSD	2.592	1.092	1.061	1.954	6.438	.7036	.9664
#1	.0043	5.192	1319.	.0252	.0153	2.357	.1171
#2	.0045	5.086	1293.	.0245	.0173	2.325	.1149
#3	.0045	5.106	1299.	.0243	.0158	2.347	.1156

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0112	2.426	.0711	2.386	.1813	.1032	.2144
SDev	.0006	.038	.0036	.025	.0334	.0045	.0157
%RSD	5.131	1.570	4.990	1.028	18.45	4.323	7.309
#1	.0106	2.470	.0670	2.406	.1539	.0980	.1979
#2	.0113	2.401	.0733	2.358	.1714	.1058	.2161
#3	.0117	2.407	.0731	2.393	.2185	.1056	.2291

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0914	.0471	.0910	.1277	41.60	.2997	.0360
SDev	.0040	.0030	.0148	.0037	.46	.0231	.0004
%RSD	4.324	6.367	16.31	2.933	1.097	7.694	1.096
#1	.0869	.0483	.0757	.1275	42.11	.2912	.0364
#2	.0932	.0493	.0918	.1316	41.24	.3258	.0357
#3	.0941	.0437	.1054	.1241	41.45	.2822	.0357

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0882	.0024	.4093	.0573	1.110	.0251	.0264
SDev	.0024	.0102	.0039	.0129	.032	.0003	.0103

%RSD	2.746	427.2	.9537	22.56	2.866	.9965	36.45
#1	.0908	.0140	.4137	.0605	1.065	.0251	.0298
#2	.0875	-.0054	.4061	.0431	1.099	.0253	.0174
#3	.0861	-.0014	.4082	.0684	1.146	.0248	.0379

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0064	.0624	.0170
SDev	.0004	.0024	.0008
%RSD	6.955	3.877	4.802
#1	.0058	.0646	.0161
#2	.0066	.0627	.0173
#3	.0066	.0598	.0176

Analysis Report Tue 02-20-96 01:03:18 PM page 1

Method: ICP1A Sample Name: U @5 PPM Operator: DRS
Run Time: 02/20/96 13:01:59
Comment: U IEC 951005I903 @10X DIL (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0030	.0306	.0087	-.0508	.0012	.0001	.0155
SDev	.0006	.0119	.0101	.0040	.0001	.0001	.0053
%RSD	20.80	38.87	115.7	7.921	12.13	58.74	34.55
#1	.0031	.0420	.0028	-.0476	.0014	.0000	.0093
#2	.0023	.0182	.0203	-.0496	.0011	.0002	.0190
#3	.0036	.0316	.0030	-.0553	.0012	.0001	.0180

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0190	.0232	.0333	.0032	-.0001	-.0011	.0048
SDev	.0016	.0036	.0057	.0005	.0006	.0011	.0003
%RSD	8.650	15.38	17.25	15.55	602.6	99.70	5.426
#1	-.0175	.0270	.0394	.0030	.0001	-.0021	.0047
#2	-.0207	.0198	.0280	.0037	-.0007	-.0012	.0045
#3	-.0189	.0228	.0323	.0028	.0003	.0001	.0051

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0034	-.0046	.7664	.0108	.0038	-.0049	-.0010
SDev	.0003	.0010	.3094	.0018	.0015	.0066	.0002
%RSD	7.599	21.92	40.36	16.49	39.13	134.2	20.27
#1	.0036	-.0035	1.059	.0126	.0039	-.0111	-.0008
#2	.0031	-.0047	.4425	.0091	.0053	-.0058	-.0012
#3	.0036	-.0055	.7980	.0106	.0023	.0021	-.0010

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0033	.0597	.0280	-.0102	.0606	.0161	.0824
SDev	.0010	.0087	.0056	.0023	.0112	.0087	.0184
%RSD	29.52	14.59	20.15	22.25	18.58	54.01	22.29
#1	.0028	.0673	.0322	-.0103	.0677	.0101	.1035
#2	.0028	.0617	.0303	-.0078	.0476	.0260	.0701
#3	.0045	.0502	.0216	-.0124	.0664	.0121	.0736

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0341	.0167	.0292	.0361	.0853	.0760	.0008
SDev	.0022	.0053	.0053	.0005	.0053	.0166	.0001
%RSD	6.538	31.55	18.06	1.394	6.263	21.87	9.847
#1	.0350	.0218	.0313	.0363	.0912	.0588	.0009
#2	.0315	.0113	.0232	.0364	.0807	.0920	.0008
#3	.0357	.0171	.0331	.0355	.0840	.0772	.0007

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0443	.0171	.0015	.0192	5.012	.0032	.0138
SDev	.0049	.0025	.0004	.0147	.048	.0001	.0072

%RSD	11.17	14.68	24.95	76.69	.9487	4.827	52.02
#1	.0390	.0147	.0018	.0023	4.992	.0032	.0144
#2	.0488	.0171	.0011	.0290	5.066	.0033	.0063
#3	.0451	.0197	.0015	.0264	4.976	.0030	.0206

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0016	-.0018	.0013
SDev	.0002	.0011	.0006
%RSD	12.95	63.30	42.22
#1	.0017	-.0030	.0015
#2	.0017	-.0007	.0019
#3	.0014	-.0017	.0007

Analysis Report Tue 02-20-96 01:06:49 PM page 1

Method: ICP1A Sample Name: U @50 PPM Operator: DRS
Run Time: 02/20/96 13:05:29
Comment: U IEC 9510051903 (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0042	-.0697	.0312	-.0548	.0017	.0001	.0932
SDev	.0028	.0150	.0078	.0007	.0004	.0001	.0044
%RSD	67.76	21.50	24.94	1.292	24.93	45.43	4.676
#1	-.0024	-.0655	.0402	-.0543	.0020	.0002	.0917
#2	-.0027	-.0573	.0264	-.0556	.0020	.0001	.0898
#3	-.0074	-.0864	.0270	-.0545	.0012	.0001	.0981

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0172	.0287	.0266	.0004	.0064	-.0067	.0033
SDev	.0033	.0031	.0141	.0015	.0013	.0028	.0024
%RSD	19.33	10.80	53.01	408.4	20.30	32.60	71.44
#1	-.0150	.0260	.0379	.0009	.0068	-.0067	.0049
#2	-.0155	.0321	.0312	.0015	.0074	-.0075	.0045
#3	-.0210	.0279	.0108	-.0013	.0049	-.0120	.0006

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0180	-.0097	-.0474	.0099	.0065	-.1500	-.0013
SDev	.0002	.0007	.5817	.0035	.0019	.0142	.0003
%RSD	.8619	7.023	1227.	35.79	29.12	9.467	22.34
#1	.0180	-.0092	.3002	.0119	.0078	-.1372	-.0014
#2	.0178	-.0095	.2765	.0120	.0073	-.1476	-.0010
#3	.0181	-.0105	-.7190	.0058	.0043	-.1653	-.0015

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0134	.1283	.0234	.0089	.1610	.0053	-.0927
SDev	.0004	.0269	.0170	.0013	.0171	.0041	.0521
%RSD	3.359	20.97	72.55	14.16	10.64	76.30	56.24
#1	.0129	.1586	.0354	.0078	.1561	.0092	-.0595
#2	.0138	.1187	.0309	.0086	.1468	.0057	-.0658
#3	.0136	.1075	.0040	.0103	.1801	.0011	-.1528

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0138	.0219	.0972	.1221	-.0144	.1782	.0039
SDev	.0179	.0090	.0014	.0210	.0243	.0422	.0001
%RSD	129.7	41.23	1.397	17.20	168.4	23.71	1.995
#1	.0228	.0300	.0959	.1459	.0059	.2188	.0040
#2	.0254	.0236	.0986	.1145	-.0078	.1812	.0038
#3	-.0068	.0122	.0970	.1060	-.0413	.1345	.0038

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0439	.1821	.0007	.0172	48.74	.0053	.0534
SDev	.0114	.0126	.0009	.0039	2.49	.0014	.0048

%RSD	25.95	6.946	121.8	22.53	5.109	26.53	9.019
#1	.0562	.1855	.0014	.0143	47.11	.0062	.0539
#2	.0418	.1681	.0011	.0216	47.50	.0061	.0580
#3	.0337	.1926	-.0003	.0157	51.60	.0037	.0484

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0016	-.0004	-.0087
SDev	.0010	.0013	.0017
%RSD	65.18	308.7	20.03
#1	.0026	-.0018	-.0085
#2	.0016	-.0001	-.0070
#3	.0005	.0007	-.0105

Analysis Report QC Standard Tue 02-20-96 01:12:18 PM page 1

Method: ICP1A Sample Name: QC_MCVA 960130I901 Operator: DRS
Run Time: 02/20/96 13:10:59
Comment: (CORES 126/127 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Pass* DKB 2/20/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5046	9.943	2.675	2.015	.5010	.0959	24.46
SDev	.0019	.034	.023	.007	.0028	.0005	.05
%RSD	.3711	.3407	.8716	.3394	.5532	.5127	.2026
#1	.5048	9.931	2.668	2.020	.5010	.0959	24.43
#2	.5064	9.981	2.702	2.016	.5038	.0964	24.51
#3	.5026	9.917	2.657	2.007	.4983	.0954	24.42
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.83	.5235	.0165	1.025	1.020	.9265	.0037
SDev	.10	.0212	.0041	.005	.005	.0046	.0006
%RSD	.4200	4.058	24.93	.4766	.5157	.4988	16.32
#1	24.81	.5016	.0212	1.023	1.017	.9250	.0033
#2	24.94	.5247	.0145	1.031	1.026	.9317	.0033
#3	24.73	.5440	.0137	1.022	1.016	.9228	.0043
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0031	20.48	23.35	.0112	1.985	33.01	.5104
SDev	.0001	.10	.05	.0006	.012	.17	.0029
%RSD	3.785	.4908	.2345	5.603	.6079	.5164	.5686
#1	.0032	20.47	23.32	.0105	1.990	32.96	.5108
#2	.0029	20.58	23.41	.0111	1.993	33.20	.5130
#3	.0031	20.38	23.32	.0118	1.971	32.87	.5073
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.029	37.40	.0222	.9949	4.919	2.562	.0550
SDev	.005	.21	.0050	.0052	.068	.018	.0013
%RSD	.4556	.5623	22.68	.5242	1.377	.7147	2.279
#1	1.030	37.54	.0205	.9919	4.845	2.575	.0552
#2	1.033	37.51	.0182	1.001	4.978	2.571	.0537
#3	1.024	37.16	.0279	.9919	4.933	2.541	.0561
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0247	.0273	03.273	2.626	19.01	.2076	.5143
SDev	.0057	.0032	.033	.023	.08	.0173	.0027
%RSD	22.95	11.86	1.009	.8660	.4205	8.324	.5312
#1	.0185	.0277	03.240	2.617	18.98	.1935	.5145
#2	.0261	.0239	03.306	2.609	19.10	.2289	.5169
#3	.0295	.0303	03.273	2.652	18.95	.2025	.5115
Errors	NOCHECK	NOCHECK	QC Fail	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0674	.0277	1.002	2.566	.4626	.9970	.0434
SDev	.0061	.0057	.004	.011	.0358	.0039	.0086
%RSD	9.027	20.53	.4028	.4269	7.746	.3889	19.71
#1	.0630	.0306	1.001	2.578	.4247	.9971	.0503
#2	.0743	.0218	1.006	2.563	.4960	1.001	.0460
#3	.0648	.0314	.9979	2.556	.4672	.9931	.0338
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0021	1.025	2.007
SDev	.0000	.008	.011
%RSD	.7990	.7823	.5284
#1	.0022	1.016	2.007
#2	.0021	1.031	2.017
#3	.0021	1.027	1.996
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report QC Standard Tue 02-20-96 01:15:56 PM page 1

Method: ICP1A Sample Name: QC_MCVB 960123I901 Operator: DRS
Run Time: 02/20/96 13:14:36
Comment: (CORES 126/127 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Pass Th, Y-N/A DB 2/20/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0047	-.0681	.3459	-.0419	.0011	.0009	.0912
SDev	.0003	.0018	.0261	.0114	.0000	.0000	.0149
%RSD	6.639	2.694	7.542	27.27	.0000	1.840	16.28
#1	.0050	-.0690	.3250	-.0535	.0011	.0010	.0927
#2	.0044	-.0660	.3376	-.0415	.0011	.0009	.1052
#3	.0047	-.0694	.3752	-.0308	.0011	.0009	.0757
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0171	.0206	1.895	.0029	.0080	.0219	1.912
SDev	.0005	.0078	.005	.0007	.0022	.0009	.007
%RSD	3.022	36.07	.2743	24.42	27.56	4.223	.3838
#1	.0175	.0286	1.891	.0034	.0072	.0230	1.904
#2	.0174	.0129	1.901	.0021	.0105	.0215	1.918
#3	.0165	.0205	1.895	.0032	.0060	.0213	1.916
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			2.000				2.000
Range			10.00				10.00

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.916	.0121	-1.130	.9417	.0012	-.0347	-.0001
SDev	.008	.0003	.090	.0035	.0019	.0117	.0004
%RSD	.4336	2.508	7.943	.3693	162.3	33.75	592.7
#1	1.907	.0124	-1.169	.9377	.0003	-.0213	.0002
#2	1.923	.0118	-1.193	.9429	-.0002	-.0402	-.0005
#3	1.919	.0121	-1.027	.9444	.0033	-.0426	.0001
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK
Value	2.000			1.000			
Range	10.00			10.00			

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0112	.1714	1.898	.0752	.0896	.2623	1.965
SDev	.0009	.0119	.010	.0032	.0191	.0060	.022
%RSD	7.715	6.951	.5094	4.269	21.33	2.301	1.125
#1	.0110	.1678	1.888	.0789	.1083	.2670	1.954
#2	.0104	.1617	1.907	.0732	.0905	.2555	1.991
#3	.0121	.1847	1.899	.0736	.0701	.2644	1.951
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			2.000				2.000

Range			10.00				10.00
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.969	2.041	.1477	.0986	14.31	2.100	.0026
SDev	.008	.011	.0214	.0037	2.20	.026	.0001
%RSD	.4103	.5579	14.49	3.779	15.38	1.249	3.021
#1	1.960	2.028	.1469	.0979	12.12	2.126	.0027
#2	1.971	2.050	.1268	.0952	14.27	2.073	.0027
#3	1.975	2.044	.1696	.1026	16.52	2.100	.0025
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value	2.000	2.000				2.000	
Range	10.00	10.00				10.00	

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.996	02.907	.0052	.0409	23.26	.0031	1.943
SDev	.009	.021	.0003	.0117	.17	.0006	.009
%RSD	.4533	.7342	5.977	28.52	.7495	20.03	.4557
#1	1.991	02.894	.0052	.0288	23.08	.0035	1.933
#2	2.006	02.896	.0049	.0418	23.43	.0024	1.947
#3	1.991	02.932	.0055	.0521	23.27	.0033	1.949
Errors	QC Pass	QC Fail	NOCHECK	NOCHECK	QC Pass	NOCHECK	QC Pass
Value	2.000	5.000			25.00		2.000
Range	10.00	10.00			10.00		10.00

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	0.8981	.0020	-.0191
SDev	.0023	.0006	.0011
%RSD	.2555	31.35	5.977
#1	0.8955	.0018	-.0192
#2	0.8996	.0015	-.0179
#3	0.8993	.0028	-.0202
Errors	QC Fail	NOCHECK	NOCHECK
Value	1.000		
Range	10.00		

Analysis Report Tue 02-20-96 01:20:07 PM page 1

Method: ICP1A Sample Name: QC SSTA 9512081902 Operator: DRS
Run Time: 02/20/96 13:18:48
Comment: LCS BX104/45DAY (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0270	247.2	.6969	.3815	.0101	.0006	193.9
SDev	.0010	3.2	.0016	.0078	.0003	.0001	2.2
%RSD	3.688	1.310	.2273	2.049	3.080	14.78	1.155
#1	-.0277	249.6	.6953	.3815	.0098	.0006	195.4
#2	-.0276	248.5	.6985	.3894	.0104	.0005	194.9
#3	-.0259	243.5	.6968	.3737	.0102	.0007	191.3

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	243.6	.0771	.1060	.0181	.2812	-.1490	.0246
SDev	2.7	.0021	.0122	.0020	.0020	.0040	.0017
%RSD	1.105	2.741	11.55	11.14	.7056	2.696	6.876
#1	245.6	.0757	.0928	.0159	.2793	-.1531	.0229
#2	244.8	.0762	.1081	.0185	.2833	-.1488	.0253
#3	240.6	.0796	.1170	.0199	.2812	-.1451	.0262

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0857	196.2	97.02	49.58	.0360	-.4796	.0198
SDev	.0009	2.4	1.12	.58	.0014	.0272	.0003
%RSD	.9980	1.228	1.157	1.165	3.991	5.662	1.639
#1	.0863	193.0	97.69	50.00	.0352	-.5068	.0196
#2	.0861	197.2	97.65	49.83	.0352	-.4794	.0197
#3	.0847	198.5	95.73	48.92	.0377	-.4525	.0202

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1170	.8601	.1751	190.7	194.7	1.027	.2650
SDev	.0030	.0324	.0087	2.0	2.4	.013	.0036
%RSD	2.591	3.773	4.952	1.028	1.220	1.313	1.340
#1	.1199	.8239	.1660	192.2	196.6	1.040	.2611
#2	.1138	.8696	.1759	191.5	195.5	1.013	.2661
#3	.1171	.8867	.1833	188.5	192.0	1.029	.2680

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1499	.2646	.7776	1.654	7.512	1.926	.0193
SDev	.0054	.0048	.0122	.016	.610	.022	.0002
%RSD	3.625	1.812	1.572	.9772	8.126	1.152	1.083
#1	.1466	.2592	.7917	1.672	8.069	1.907	.0195
#2	.1469	.2663	.7714	1.650	7.608	1.922	.0194
#3	.1561	.2684	.7697	1.640	6.859	1.950	.0191

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6414	.7736	.0048	.4396	195.9	.0501	.5153
SDev	.0152	.0150	.0011	.0067	2.9	.0017	.0106

Analysis Report Tue 02-20-96 01:20:07 PM page 2

%RSD	2.377	1.935	22.65	1.517	1.466	3.395	2.047
#1	.6559	.7630	.0039	.4328	198.0	.0484	.5092
#2	.6429	.7670	.0046	.4461	197.1	.0501	.5092
#3	.6255	.7907	.0061	.4398	192.6	.0518	.5275

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0241	.0126	-.0117
SDev	.0003	.0030	.0007
%RSD	1.264	24.09	6.158
#1	.0238	.0161	-.0112
#2	.0242	.0104	-.0113
#3	.0244	.0114	-.0125

Analysis Report Tue 02-20-96 01:23:18 PM page 1

Method: ICP1A Sample Name: QC SSTMCV 9512081903 Operator: DRS
Run Time: 02/20/96 13:21:59
Comment: LCS BX104/45DAY (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5130	4.988	2.157	.1914	.1018	.0977	1.587
SDev	.0041	.044	.025	.0039	.0005	.0010	.006
%RSD	.8008	.8890	1.164	2.030	.4496	1.009	.3756
#1	.5156	5.027	2.167	.1933	.1019	.0985	1.591
#2	.5083	4.940	2.128	.1940	.1013	.0966	1.589
#3	.5151	4.998	2.175	.1870	.1022	.0980	1.580

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.024	.2091	.0206	.0017	.3125	-.0018	.0042
SDev	.009	.0028	.0008	.0006	.0064	.0004	.0001
%RSD	.8862	1.346	3.694	34.91	2.051	21.47	1.916
#1	1.033	.2123	.0212	.0014	.3180	-.0021	.0041
#2	1.015	.2069	.0197	.0024	.3054	-.0014	.0043
#3	1.024	.2080	.0208	.0014	.3140	-.0021	.0043

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0082	.5443	48.18	.0167	.0035	-.0449	.1032
SDev	.0000	.0056	.31	.0012	.0025	.0027	.0005
%RSD	.2568	1.023	.6395	7.212	71.90	6.057	.4933
#1	.0082	.5503	48.49	.0162	.0008	-.0452	.1032
#2	.0082	.5394	47.87	.0181	.0058	-.0474	.1026
#3	.0082	.5432	48.18	.0158	.0038	-.0420	.1038

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0082	5.170	.0212	.7004	3.985	3.111	.0060
SDev	.0002	.058	.0067	.0102	.049	.024	.0104
%RSD	2.901	1.131	31.51	1.462	1.218	.7769	173.3
#1	.0080	5.212	.0219	.7122	4.016	3.135	.0003
#2	.0084	5.103	.0276	.6953	3.929	3.087	.0180
#3	.0082	5.195	.0142	.6937	4.009	3.112	-.0003

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0257	.0170	2.705	2.622	5.448	.1143	.0019
SDev	.0087	.0009	.014	.033	.133	.0271	.0001
%RSD	33.70	5.206	.5085	1.248	2.447	23.68	4.182
#1	.0238	.0161	2.692	2.659	5.582	.1385	.0018
#2	.0352	.0179	2.703	2.595	5.447	.0850	.0019
#3	.0182	.0170	2.719	2.613	5.316	.1194	.0019

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0368	.0779	.0013	.0288	19.97	.5093	.0255
SDev	.0060	.0036	.0002	.0068	.17	.0043	.0011

%RSD	16.25	4.605	16.61	23.67	.8555	.8486	4.378
#1	.0414	.0781	.0010	.0360	20.05	.5128	.0261
#2	.0389	.0813	.0014	.0225	19.77	.5045	.0242
#3	.0300	.0742	.0013	.0279	20.08	.5107	.0262

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0011	-.0018	.5044
SDev	.0001	.0005	.0047
%RSD	8.414	27.04	.9400
#1	.0011	-.0014	.5083
#2	.0012	-.0016	.4991
#3	.0011	-.0023	.5057

Analysis Report QC Standard Tue 02-20-96 01:27:17 PM page 1

Method: ICP1A Sample Name: QC_SRM-1643d 108518 Operator: DRS
Run Time: 02/20/96 13:25:58
Comment: (CORES 126/127 KOH/KNO3 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	0.0043	0.1473	0.0707	0.2127	.5222	0.0123	.0578
SDev	.0004	.0023	.0060	.0032	.0026	.0000	.0076
%RSD	9.108	1.580	8.456	1.485	.4905	.3574	13.09
#1	0.0047	0.1475	0.0743	0.2161	.5209	0.0123	.0567
#2	0.0041	0.1495	0.0638	0.2120	.5205	0.0123	.0509
#3	0.0040	0.1449	0.0740	0.2099	.5251	0.0124	.0659
Errors	QC Fail	QC Fail	QC Fail	QC Fail	QC Pass	QC Fail	NOCHECK
Value	.0013	.1276	.0560	.1448	.5065	.0125	
Range	.0570	3.500	.7300	5.200	8.900	.2800	

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	031.29	0.0234	.0299	0.0292	0.0209	0.0175	.0043
SDev	.12	.0062	.0074	.0002	.0027	.0015	.0003
%RSD	.3846	26.52	24.85	.7949	12.99	8.348	7.448
#1	031.24	0.0177	.0383	0.0290	0.0224	0.0191	.0047
#2	31.19	0.0225	.0241	0.0294	0.0226	0.0163	.0042
#3	031.42	0.0300	.0274	0.0294	0.0178	0.0171	.0041
Errors	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail	NOCHECK
Value	31.04	.0065		.0250	.0185	.0205	
Range	.6400	.3700		.5900	.2000	3.800	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0025	.0919	02.323	.0158	0.0231	08.723	0.0398
SDev	.0001	.0003	.096	.0018	.0014	.025	.0005
%RSD	4.703	.2747	4.124	11.16	6.230	.2846	1.214
#1	.0026	.0919	02.433	.0168	0.0247	08.720	0.0397
#2	.0024	.0922	02.268	.0168	0.0223	08.700	0.0393
#3	.0025	.0917	02.269	.0138	0.0223	08.749	0.0403
Errors	NOCHECK	QC Pass	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail
Value		.0912	2.356		.0165	7.989	.0377
Range		3.900	.0350		.5500	.0350	.8300

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	0.1199	022.53	.0393	0.1001	.0519	0.0393	.0927
SDev	.0013	.16	.0043	.0034	.0085	.0057	.0102
%RSD	1.086	.6989	10.83	3.444	16.46	14.50	10.97
#1	0.1196	022.37	.0426	0.1023	.0428	0.0358	.1034
#2	0.1188	022.54	.0408	0.1019	.0531	0.0363	.0916
#3	0.1213	022.69	.0345	0.0962	.0598	0.0459	.0832
Errors	QC Fail	QC Fail	NOCHECK	QC Fail	NOCHECK	QC Fail	NOCHECK
Value	.1129	22.07		.0581		.0181	

Range	1.700	.6400		2.700		.6400	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0383	.0149	0.0953	0.0526	3.610	.0670	0.3086
SDev	.0028	.0037	.0075	.0089	.060	.0174	.0016
%RSD	7.270	24.66	7.886	16.88	1.665	25.95	.5233
#1	.0415	.0185	0.1033	0.0515	3.676	.0525	0.3078
#2	.0362	.0111	0.0943	0.0443	3.596	.0863	0.3079
#3	.0373	.0150	0.0884	0.0620	3.558	.0623	0.3106
Errors	NOCHECK	NOCHECK	QC Fail	QC Fail	NOCHECK	NOCHECK	QC Fail
Value			.0541	.0114			.2948
Range			1.100	.1700			3.400

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0334	-.0114	.0018	0.0307	.6240	0.0378	.0149
SDev	.0050	.0048	.0003	.0103	.0510	.0005	.0048
%RSD	15.06	41.75	18.24	33.45	8.178	1.305	31.91
#1	.0337	-.0069	.0021	0.0282	.6132	0.0380	.0121
#2	.0282	-.0164	.0018	0.0220	.6796	0.0381	.0122
#3	.0382	-.0111	.0014	0.0421	.5793	0.0372	.0204
Errors	NOCHECK	NOCHECK	NOCHECK	QC Fail	NOCHECK	QC Fail	NOCHECK
Value				.0073		.0351	
Range				.2500		1.400	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0017	0.0762	.0028
SDev	.0002	.0009	.0004
%RSD	11.91	1.192	13.84
#1	.0018	0.0756	.0028
#2	.0018	0.0773	.0032
#3	.0015	0.0758	.0025
Errors	NOCHECK	QC Fail	NOCHECK
Value		.0725	
Range		.6500	

Analysis Report Tue 02-20-96 01:31:50 PM page 1

Method: ICP1A Sample Name: QC CCV1 960126H901 Operator: DRS
Run Time: 02/20/96 13:30:31
Comment: LCS BX104/45DAY (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0026	1.948	2.134	2.067	.9828	.9720	1.962
SDev	.0001	.014	.011	.013	.0052	.0050	.019
%RSD	5.046	.7123	.4927	.6441	.5289	.5108	.9599
#1	.0027	1.945	2.142	2.058	.9816	.9704	1.983
#2	.0026	1.936	2.122	2.060	.9783	.9680	1.946
#3	.0024	1.963	2.138	2.082	.9885	.9775	1.958

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.960	1.018	.0173	1.026	.5034	1.943	.0034
SDev	.007	.011	.0036	.004	.0011	.009	.0003
%RSD	.3592	1.097	20.57	.4353	.2139	.4833	9.098
#1	1.958	1.017	.0137	1.027	.5046	1.937	.0036
#2	1.955	1.007	.0208	1.022	.5026	1.939	.0036
#3	1.968	1.029	.0175	1.030	.5032	1.954	.0030

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	2.025	4.385	.0077	1.937	2.088	1.021
SDev	.0002	.010	.036	.0012	.019	.015	.005
%RSD	14.80	.4716	.8257	15.61	.9928	.7207	.4426
#1	.0014	2.020	4.377	.0091	1.930	2.081	1.020
#2	.0016	2.019	4.424	.0074	1.921	2.078	1.018
#3	.0012	2.036	4.353	.0068	1.956	2.106	1.026

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.994	8.471	.0198	2.053	4.795	2.051	.0715
SDev	.008	.066	.0047	.015	.002	.008	.0116
%RSD	.4202	.7825	23.58	.7120	.0364	.3757	16.27
#1	1.988	8.427	.0227	2.050	4.796	2.053	.0800
#2	1.991	8.438	.0222	2.040	4.796	2.043	.0583
#3	2.004	8.547	.0144	2.069	4.793	2.058	.0764

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0274	.0143	.0288	2.052	5.089	.0925	2.004
SDev	.0049	.0019	.0174	.020	.015	.0169	.013
%RSD	17.89	13.68	60.43	.9665	.3044	18.24	.6286
#1	.0295	.0125	.0158	2.075	5.084	.1090	2.000
#2	.0308	.0164	.0486	2.037	5.077	.0753	1.993
#3	.0218	.0140	.0220	2.046	5.107	.0932	2.018

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0379	.0002	.0011	2.003	.3416	.9808	.0211
SDev	.0080	.0020	.0001	.017	.0615	.0044	.0106

%RSD	21.25	817.4	4.308	.8310	18.01	.4630	50.17
#1	.0287	.0025	.0011	1.993	.3646	.9596	.0094
#2	.0438	-.0004	.0011	1.994	.3883	.9570	.0238
#3	.0412	-.0014	.0010	2.022	.2719	.9657	.0301

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0008	1.034	.0017
SDev	.0004	.007	.0008
%RSD	44.87	.6377	43.34
#1	.0012	1.029	.0020
#2	.0008	1.032	.0024
#3	.0005	1.042	.0009

Analysis Report Tue 02-20-96 01:36:13 PM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 02/20/96 13:34:54
Comment: LCS BX104/45DAY (CORES 126/127 FUSIONS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0022	.0236	.0195	.0196	.0008	.0003	.0247
SDev	.0007	.0034	.0028	.0013	.0002	.0001	.0041
%RSD	33.18	14.28	14.53	6.629	27.37	22.98	16.71
#1	.0029	.0254	.0200	.0182	.0011	.0003	.0287
#2	.0023	.0256	.0221	.0201	.0008	.0003	.0205
#3	.0014	.0197	.0165	.0206	.0006	.0002	.0249

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0123	.0115	.0171	.0025	-.0011	.0008	.0032
SDev	.0009	.0017	.0060	.0011	.0021	.0004	.0005
%RSD	7.417	14.63	35.16	43.67	198.3	46.39	15.46
#1	-.0119	.0131	.0216	.0033	-.0034	.0005	.0038
#2	-.0116	.0117	.0195	.0029	.0005	.0012	.0028
#3	-.0133	.0097	.0103	.0013	-.0003	.0007	.0031

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0013	-.0079	-.2212	.0072	.0017	.0019	-.0010
SDev	.0001	.0008	.1254	.0017	.0010	.0056	.0001
%RSD	9.782	10.24	56.69	23.10	62.45	289.2	11.08
#1	.0014	-.0070	-.0790	.0073	.0026	-.0044	-.0011
#2	.0012	-.0085	-.2686	.0088	.0013	.0038	-.0009
#3	.0012	-.0081	-.3160	.0055	.0008	.0063	-.0011

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0028	.0484	.0157	.0078	.0273	.0130	.0736
SDev	.0008	.0144	.0011	.0014	.0188	.0013	.0124
%RSD	30.29	29.76	7.253	18.29	68.95	10.24	16.84
#1	.0019	.0617	.0167	.0094	.0392	.0145	.0879
#2	.0028	.0331	.0159	.0070	.0056	.0123	.0661
#3	.0036	.0503	.0145	.0070	.0371	.0121	.0667

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0253	.0122	.0165	.0324	.1765	.0598	.0007
SDev	.0024	.0034	.0104	.0050	.0063	.0291	.0001
%RSD	9.370	27.85	62.67	15.39	3.551	48.59	10.50
#1	.0237	.0150	.0228	.0379	.1816	.0682	.0008
#2	.0280	.0132	.0223	.0284	.1783	.0838	.0007
#3	.0241	.0084	.0046	.0307	.1695	.0275	.0007

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0218	-.0021	.0007	.0308	.2658	.0015	.0125
SDev	.0072	.0040	.0001	.0140	.0550	.0006	.0021

Analysis Report Tue 02-20-96 01:36:13 PM page 2

%RSD	32.92	186.0	20.76	45.37	20.68	39.47	16.76
#1	.0285	-.0022	.0008	.0198	.3279	.0019	.0125
#2	.0142	.0019	.0005	.0465	.2462	.0018	.0105
#3	.0227	-.0061	.0007	.0260	.2233	.0008	.0147

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0007	-.0023	.0011
SDev	.0002	.0009	.0003
%RSD	27.44	40.26	27.97
#1	.0008	-.0024	.0014
#2	.0009	-.0031	.0009
#3	.0005	-.0013	.0009

DATE TO QC: 03/18/96

DATA QUALITY REVIEW

I have reviewed the following data for completeness and for compliance with project requirements.

Analyte - ICP - Fusion, Field Blank, Hydrostatic Fluid

Data Package/Report - BX-112 & BX-104

Project No. - 22762

ACL Numbers - 96-2617, 96-2618, 96-3365, 96-3366
96-2987, 96-2988

PNL ACL Quality Representative

3/28/96
Date

Project: TWRS
Procedure: PNL-ALO-211

File: m030896c
Analyzed: 03/08/96
03/14/96

BX-104 Core 126/127

		126/127 Field Blk			126/127 Hyd. Head Fluid		
Sam Log#:		96-02987	96-02987		96-02988	96-02988	
Split#:		Fld-Blk.F	Fld-Blk.F		Hyd-Fld.D	Hyd-Fld.D	
ICP Dil:		1.00	1.00		5.00	5.00	
Dil Fctr:		1.02	1.02		5.10	5.10	
Est. IDL ug/mL	Analyte	Sample ug/ml	Duplicate ug/ml	RPD	Sample ug/ml	Duplicate ug/ml	RPD
0.015	Ag	ND	ND		ND	ND	
0.060	Al	(0.1)	(0.2)		ND	ND	
0.080	As	ND	ND		ND	ND	
0.050	B	1.9	2.6	31 *	(1.6)	2.9	
0.010	Ba	ND	ND		ND	ND	
0.015	Be	ND	ND		ND	ND	
0.100	Bi	ND	ND		ND	ND	
0.100	Ca	(0.7)	(0.7)		(1.5)	(1.7)	
0.025	Cd	ND	ND		ND	ND	
0.100	Ce	ND	ND		ND	ND	
0.050	Co	ND	ND		ND	ND	
0.020	Cr	ND	ND		ND	ND	
0.075	Cu	ND	ND		ND	ND	
0.050	Dy	ND	ND		ND	ND	
0.100	Eu	ND	ND		ND	ND	
0.050	Fe	ND	ND		ND	ND	
2.000	K	ND	ND		ND	ND	
0.050	La	ND	ND		ND	ND	
0.025	Li	(0.2)	(0.2)		701.9	724.2	3
0.100	Mg	(0.2)	(0.2)		ND	ND	
0.050	Mn	ND	ND		ND	ND	
0.030	Mo	ND	ND		ND	ND	
0.250	Na	10.0	11.0	10	(4.6)	(6.5)	
0.100	Nd	ND	ND		ND	ND	
0.030	Ni	(0.1)	ND		ND	ND	
0.250	P	(0.6)	(0.6)		ND	ND	
0.500	Pb	ND	ND		ND	ND	
0.500	Pd	ND	ND		ND	ND	
0.150	Rh	ND	ND		ND	ND	
0.100	Ru	ND	ND		ND	ND	
0.500	Se	ND	ND		ND	ND	
0.500	Si	(2.0)	(2.8)		(5.2)	(5.5)	
1.000	Sn	ND	ND		ND	ND	
0.015	Sr	ND	ND		ND	ND	
0.500	Te	ND	ND		ND	ND	
0.025	Ti	ND	ND		ND	ND	
0.500	Tl	ND	ND		ND	ND	
2.000	U	ND	ND		ND	ND	
0.075	V	ND	ND		ND	ND	
1.000	W	ND	ND		ND	ND	
0.010	Y	ND	ND		ND	ND	
0.020	Zn	(0.1)	(0.1)		ND	ND	
0.050	Zr	ND	ND		ND	ND	

Note: 1) Estimated Quantitation Limit (EQL) = 10x IDL; "( )" results <EQL but =>IDL.
2) Above 5 times EQL, results reportable to 2 1/2 significant digits.
3) The process "blank" has not been subtracted from the "Sample & Duplicate" results.
4) Above 5 times EQL, precision is estimated at better than +/-20% and accuracy +/-25%.
5) "ND" = Not Detected; Estimated Sample Detection Limit (ug/mL) = (IDL in ug/mL) * (Dil Fctr)
6) If RPD flagged with "*", then RPD >20% and sample & duplicate results >EQL.

Data, including calibration/QC, archived File ICP-325-405-1/96A0085

Analyzed Date: 03/08/96 03/14/96
Project: TWRS
Procedure: PNL-ALO-211
ICP Data Name: 96A0085
Tank ID: BX-104 Core 126/127

File: m030896c
Reported: 03/15/96
Data Page 1 of 2

Segment ID: 126/127 Field Blk 126/127 Hyd. Head Fluid

		Sample	Duplicate	Sample	Duplicate
Sample Log#		96-02987	96-02987	96-02988	96-02988
		Fld-Blk.F	Fld-Blk.F	Hyd-Fld.D	Hyd-Fld.D
Prep Type		Acidify	Acidify	Acidify	Acidify
Sample Vol-mL		10.000	10.000	10.000	10.000
Makeup Vol-mL		10.200	10.200	10.200	10.200
Dil: Smpl-mL					
Dil: Vol-mL					
Prep Factor		1.020	1.020	1.020	1.020
Spike ID					
Spike PreDil'n					
ICP Dilution		1.00	1.00	5.00	5.00
Dil Fctr		1.02	1.02	5.10	5.10
Run Time		10:23	11:53	10:28	11:56
(ug/mL)	Ag	0.00	-0.00	-0.01	-0.01
	Al	0.12	0.16	-0.02	0.06
	As	0.01	-0.01	-0.06	-0.11
	B	1.92	2.63	1.61	2.86
	Ba	0.00	0.00	0.04	0.04
	Be	0.00	-0.00	-0.00	-0.00
	Bi	0.02	0.01	0.01	0.01
	Ca	0.70	0.68	1.49	1.72
	Cd	-0.01	-0.01	0.00	-0.02
	Ce	0.01	-0.00	-0.20	-0.17
	Co	0.00	0.00	-0.01	-0.01
	Cr	0.01	0.01	-0.00	-0.01
	Cu	0.01	0.01	-0.01	0.00
	Dy	0.00	-0.00	-0.02	-0.02
	Eu	0.00	-0.00	-0.01	-0.01
	Fe	0.03	0.03	-0.05	-0.04
	K	0.08	0.20	-6.07	-4.26
	La	0.00	0.00	-0.04	-0.04
	Li	0.16	0.16	701.92	724.22
	Mg	0.23	0.22	0.06	0.04
	Mn	0.02	0.03	-0.01	-0.00
	Mo	0.01	0.01	0.01	0.00
	Na	9.97	10.98	4.59	6.53
	Nd	0.01	0.00	-0.17	-0.16
	Ni	0.05	0.00	0.11	-0.03
	P	0.60	0.61	-0.04	-0.07
	Pb	0.02	-0.01	-0.08	-0.12
	Pd	0.02	0.01	-0.25	-0.26
	Rh	0.01	0.00	-0.14	-0.16
	Ru	0.00	-0.00	-0.06	-0.05
	Sb	0.01	0.01	-0.04	-0.01
	Se	0.04	0.02	0.03	0.04
	Si	2.03	2.77	5.17	5.51
	Sn	0.01	0.02	-0.51	-0.40
	Sr	0.00	0.00	0.01	0.01
	Te	0.01	0.01	-0.09	-0.06
	Th	0.00	-0.00	0.03	-0.02
	Ti	0.00	0.00	-0.01	-0.01
	Tl	0.01	0.00	-0.04	-0.02
	U	0.13	-0.05	-2.37	-2.00
	V	0.00	-0.00	-0.02	-0.02
	W	0.01	0.01	-0.03	-0.09
	Y	0.00	-0.00	-0.01	-0.01
	Zn	0.06	0.07	0.01	0.09
(ug/mL)	Zr	0.00	0.00	-0.02	-0.02

Template: TC-lw1-2 ICP RAW DATA -- IEC Corrected m030896c

Analyzed: 03/08/96 03/14/96 BX-104 Core 126/127 Raw Data
Project: TWRS Data Page 2 of 2
Procedure: PNL-ALO-211
MT&E: JA ICP W873520

Analyst: [signature] 3/12/96 Reviewer: [signature] 3/21/96

Notes: Samples, blank, post spikes analyszed 3/8/96
Duplicates analyzed on 3/14/96
2988 Li @25x times 5

	Sample ID:	96-02987	96-02987	96-02988	96-02988
	Split ID:	Fld-Blk.F	Fld-Blk.F	Hyd-Fld.D	Hyd-Fld.D
	Run Time:	10:23	11:53	10:28	11:56
(ug/mL)	Ag	0.001	-0.000	-0.003	-0.003
	Al	0.122	0.161	-0.005	0.012
	As	0.011	-0.013	-0.012	-0.021
	B	1.887	2.581	0.317	0.561
	Ba	0.002	0.002	0.007	0.007
	Be	0.000	-0.000	-0.000	-0.000
	Bi	0.022	0.007	0.002	0.002
	Ca	0.682	0.665	0.293	0.336
	Cd	-0.006	-0.009	0.001	-0.005
	Ce	0.009	-0.000	-0.040	-0.032
	Co	0.004	0.002	-0.003	-0.003
	Cr	0.010	0.009	-0.000	-0.003
	Cu	0.009	0.009	-0.002	0.000
	Dy	0.000	-0.000	-0.005	-0.003
	Eu	0.001	-0.000	-0.001	-0.002
	Fe	0.028	0.028	-0.009	-0.007
	K	0.082	0.199	-1.190	-0.836
	La	0.001	0.001	-0.008	-0.008
	Li	0.153	0.157	137.631	142.004
	Mg	0.222	0.220	0.011	0.007
	Mn	0.023	0.025	-0.003	-0.000
	Mo	0.012	0.007	0.001	0.000
	Na	9.778	10.762	0.901	1.281
	Nd	0.008	0.001	-0.034	-0.031
	Ni	0.050	0.004	0.022	-0.007
	P	0.591	0.600	-0.008	-0.015
	Pb	0.019	-0.006	-0.017	-0.023
	Pd	0.022	0.008	-0.048	-0.051
	Rh	0.012	0.000	-0.027	-0.031
	Ru	0.004	-0.001	-0.013	-0.010
	Sb	0.005	0.015	-0.008	-0.002
	Se	0.035	0.017	0.007	0.007
	Si	1.986	2.719	1.013	1.081
	Sn	0.015	0.017	-0.099	-0.079
	Sr	0.005	0.004	0.002	0.002
	Te	0.008	0.005	-0.017	-0.011
	Th	0.005	-0.003	0.006	-0.005
	Ti	0.001	0.002	-0.002	-0.001
	Tl	0.008	0.005	-0.007	-0.005
	U	0.125	-0.045	-0.465	-0.392
	V	0.001	-0.000	-0.003	-0.003
	W	0.013	0.005	-0.007	-0.017
	Y	0.000	-0.000	-0.001	-0.001
	Zn	0.062	0.066	0.001	0.018
(ug/mL)	Zr	0.000	0.000	-0.005	-0.003

Project: TWRS
Procedure: PNL-ALO-211

File: m030896a
Analyzed: 03/08/96

BX-112 Core 118/119 Fusions

Est. IDL ug/mL	Analyte	118 Composite Sample ug/g	118 Composite Duplicate ug/g	RPD	119 Composite Sample ug/g	119 Composite Duplicate ug/g	RPD	Batch Blk ug/g	Post Spike Recoveries Spk "A"	Post Spike Recoveries Spk "B"
	Sam Log#:	96-02617	96-02617		96-02618	96-02618		96-02617		
	Split#:	118.com.F	118.com.F		119.com.F	119.com.F		Blank		
	ICP Dil:	1.00	1.00		1.00	1.00		1.00		
	Dil Fctr:	2360.7	2093.8		2351.8	1917.9		2164.7		
0.015	Ag	ND	ND		ND	ND		ND	87.3%	
0.060	Al	13,428	13,984	4	16,844	15,700	7	(343)	97.1%	
0.080	As	ND	ND		ND	ND		ND	104.9%	
0.050	B	ND	ND		ND	ND		ND	101.4%	
0.010	Ba	ND	ND		ND	(19)		ND	97.6%	
0.005	Be	ND	ND		ND	ND		ND	94.4%	
0.100	Bi	17,781	17,950	1	19,852	18,692	6	ND	95.3%	
0.250	Ca	(1,088)	(1,102)		(1,278)	(1,089)		(848)	98.6%	
0.015	Cd	ND	ND		ND	ND		ND	95.3%	
0.100	Ce	ND	ND		ND	ND		ND		100.9%
0.050	Co	ND	ND		ND	ND		ND	98.6%	
0.020	Cr	1,318	1,335	1	1,282	1,308	2	ND	97.0%	
0.050	Cu	ND	ND		ND	ND		ND	94.6%	
0.050	Dy	ND	ND		ND	ND		ND		98.7%
0.100	Eu	ND	ND		ND	ND		ND		99.4%
0.050	Fe	8,955	8,969	0	11,559	11,605	0	ND	99.1%	
2.000	K	n/a	n/a		n/a	n/a		n/a		
0.050	La	ND	ND		ND	ND		ND		99.5%
0.030	Li	(119)	(119)		ND	ND		ND	94.4%	
0.100	Mg	(289)	(345)		(337)	(273)		ND	99.4%	
0.050	Mn	(191)	(187)		(233)	(187)		(112)	99.7%	
0.030	Mo	ND	ND		ND	ND		ND	100.8%	
0.250	Na	83,287	84,326	1	82,427	82,590	0	(2,330)	99.6%	
0.100	Nd	ND	ND		ND	ND		ND		97.8%
0.030	Ni	n/a	n/a		n/a	n/a		n/a		
0.250	P	20,238	20,521	1	20,220	20,590	2	ND	93.1%	
0.100	Pb	ND	ND		ND	ND		ND	98.5%	
0.300	Pd	ND	ND		ND	ND		ND		91.3%
0.300	Rh	ND	ND		ND	ND		ND		99.7%
0.100	Ru	ND	ND		ND	ND		ND		101.4%
0.100	Sb	ND	ND		ND	ND		ND	102.1%	
0.100	Se	ND	ND		ND	ND		ND	103.2%	
0.500	Si	(6,784)	(7,526)		(9,063)	(8,286)		ND	92.5%	
1.000	Sn	ND	ND		ND	ND		ND		110.1%
0.015	Sr	(125)	(126)		(142)	(142)		ND	98.6%	
0.500	Te	ND	ND		ND	ND		ND		99.1%
0.800	Th	ND	ND		ND	ND		ND		145.8%
0.025	Ti	ND	ND		ND	ND		ND	97.5%	
0.500	Tl	ND	ND		ND	ND		ND	97.9%	
2.000	U	ND	ND		ND	ND		ND		95.2%
0.015	V	ND	ND		ND	ND		ND	98.2%	
0.500	W	ND	ND		ND	ND		ND		101.3%
0.010	Y	ND	ND		ND	ND		ND		97.6%
0.020	Zn	ND	(47)		(54)	(48)		ND	100.6%	
0.025	Zr	ND	ND		ND	ND		ND	97.9%	

Note:
1) Method Detecion Limit (MDL) = 10x IDL; "( )" results <MDL but =>IDL.
2) Above 5 times MDL, results reportable to 2 1/2 significant digits.
3) Blank is reported in ug/g "equivalence" to indicate blank effect on sample results.
4) The process "blank" has not been subtracted from the "Sample & Duplicate" results.
5) Above 5 times the MDL, precision is estimated at +/-10% and accuracy at +/-15%.
6) "ND" = Not Detected; Estimated Sample Detection Limit (ug/g) = (IDL in ug/mL) * (Dil Fctr).
7) If RPD flagged with "*", then RPD >20% and sample & duplicate results >MDL.

Data, including calibration/QC, archived File ICP-325-405-1/96A0085

Analyzed Date: 03/08/96
Project: TWRS
Procedure: PNL-ALO-211
ICP Data Name: 96A0085
Tank ID: BX-112 Core 118/119 Fusions

File: m030896a
Reported: 03/15/96
Data Page 1 of 2

Segment ID:		118 Composite		119 Composite						
Sample Log#		Sample 96-02617 118.com.F	Duplicate 96-02617 118.com.F	Sample 96-02618 119.com.F	Duplicate 96-02618 119.com.F	96-02617 Blank	96-02617 P.S. "A"	96-02617 P.S. "B"	Sample 96-02617 PS A Base	Duplicate 96-02617 PS B Base
Prep Type		Fusion	Fusion	Fusion	Fusion	Fusion	Fusion	Fusion	Fusion	Fusion
Sample Wt-g		0.2118	0.2388	0.2126	0.2607	0.2310	0.2118	0.2388	0.2118	0.2388
Makeup Vol-mL		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Dil: Smpl-mL		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Dil: Vol-mL		5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Prep Factor		2360.7	2093.8	2351.8	1917.9	2164.7	2360.7	2093.8	2360.7	2093.8
Spike ID							9602261901	9602211901		
Spike PreDil'n							2.0	2.0	2.0	2.0
ICP Dilution		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Dil Fctr		2360.7	2093.8	2351.8	1917.9	2164.7	2360.7	2093.8	2360.7	2093.8
Run Time		11:02	11:14	11:36	11:40	10:54	11:06	11:18	11:02	11:14
(ug/g)	Ag	10.4	11.5	12.3	10.5	8.8	515.1	-4.4	10.4	11.5
	Al	13427.7	13984.2	16844.4	15689.6	343.5	18176.3	6888.9	13427.7	13984.2
	As	57.9	86.2	77.3	76.7	54.1	3094.5	371.6	57.9	86.2
	B	15.4	29.7	31.8	26.5	2.9	2392.7	170.8	15.4	29.7
	Ba	18.4	19.9	22.2	19.5	5.4	576.3	6.8	18.4	19.9
	Be	0.3	0.4	0.5	0.4	0.3	111.4	0.6	0.3	0.4
	Bi	17780.7	17950.3	19851.8	18691.8	78.8	37003.7	8986.3	17780.7	17950.3
	Ca	1087.9	1101.6	1278.4	1088.6	847.8	29628.7	564.4	1087.9	1101.6
	Cd	-5.0	-3.4	-16.2	-16.3	-6.1	562.5	-14.8	-5.0	-3.4
	Ce	130.2	121.3	151.6	115.4	54.9	1.9	2112.9	130.2	121.3
	Co	19.1	26.4	30.3	23.0	15.4	1163.4	9.0	19.1	26.4
	Cr	1318.4	1335.2	1282.2	1308.1	6.0	1804.5	678.6	1318.4	1335.2
	Cu	16.9	27.3	28.8	19.6	15.7	1116.8	29.8	16.9	27.3
	Dy	10.5	10.3	10.9	10.5	7.7	-6.7	2066.5	10.5	10.3
	Eu	5.2	5.3	5.6	5.1	3.1	1.5	2080.2	5.2	5.3
	Fe	8954.9	8968.8	11558.9	11605.0	57.6	27869.8	4478.1	8954.9	8968.8
	K	5593031.2	4954986.8	5508771.9	4479152.1	5261576.4	2854376.8	2490842.7	5593031.2	4954986.8
	La	19.8	19.2	20.2	17.3	13.5	-5.8	1042.0	19.8	19.2
	Li	118.9	119.4	36.0	34.8	8.2	2287.5	51.6	118.9	119.4
	Mg	289.4	345.1	337.3	272.7	205.2	37679.6	5.8	289.4	345.1
	Mn	190.5	187.0	233.1	187.5	111.9	683.9	90.5	190.5	187.0
	Mo	47.7	46.0	45.8	44.1	18.0	1189.7	26.7	47.7	46.0
	Na	83286.9	84326.0	82426.6	82590.1	2329.9	84777.5	42453.6	83286.9	84326.0
	Nd	64.0	71.7	71.8	64.2	46.8	-34.5	2047.9	64.0	71.7
	Ni	2505.6	2305.1	2430.1	1053.4	1641.9	2410.6	1182.8	2505.6	2305.1
	P	20237.7	20520.6	20220.4	20590.4	104.7	15612.7	10162.9	20237.7	20520.6
	Pb	128.6	138.1	169.1	132.1	67.3	2906.2	278.9	128.6	138.1
	Pd	213.1	229.4	244.2	191.6	154.9	-101.1	1912.5	213.1	229.4
	Rh	107.6	106.7	113.1	98.6	70.9	-44.4	2086.5	107.6	106.7
	Ru	47.3	44.8	59.1	53.2	32.2	5.8	2123.4	47.3	44.8
	Sb	63.9	66.4	75.1	65.3	36.5	3012.1	112.8	63.9	66.4
	Se	148.9	165.9	184.8	176.7	106.7	3044.5	159.2	148.9	165.9
	Si	6784.0	7525.7	9063.3	8286.0	841.0	25231.7	9304.7	6784.0	7525.7
	Sn	418.6	382.7	492.1	448.2	250.2	222.2	2304.4	418.6	382.7
	Sr	125.5	126.4	141.5	141.6	6.2	644.7	65.7	125.5	126.4
	Te	104.3	98.4	129.1	112.4	69.6	56.6	2075.1	104.3	98.4
	Th	11.4	5.9	18.8	24.0	10.2	63.2	10377.8	11.4	5.9
	Ti	15.5	20.3	29.9	20.4	9.8	1151.3	10.9	15.5	20.3
	Tl	69.0	62.6	68.4	60.9	20.5	2887.9	39.1	69.0	62.6
	U	1996.4	1972.7	2076.1	1853.5	783.7	-0.9	24906.3	1996.4	1972.7
	V	10.5	13.3	13.3	12.0	6.1	1159.6	2.3	10.5	13.3
	W	42.6	52.3	65.8	32.0	33.1	53.1	2121.9	42.6	52.3
	Y	3.0	3.0	3.2	3.1	2.2	-1.7	1021.6	3.0	3.0
	Zn	43.4	47.3	53.6	48.1	8.3	1187.4	25.9	43.4	47.3
(ug/g)	Zr	44.6	45.0	44.1	40.2	6.4	2310.5	-46.4	44.6	45.0

Template: TC-KOH-2 ICP RAW DATA -- IEC Corrected m030896a

Analyzed: 03/08/96
Project: TWRS
Procedure: PNL-ALO-211
MT&E: JA ICP WB73520

BX-112 Core 118/119 Fusions

Raw Data
Data Page 2 of 2

Analyst: Danny Sanders 3/18/96 Reviewer: MW Ulm 3/18/96

Sample ID:		96-02617	96-02617	96-02618	96-02618	96-02617	96-02617	96-02617	PS Bases		Post Spikes	
Split ID:		118.com.F	118.com.F	119.com.F	119.com.F	Blank	P.S. "A"	P.S. "B"	"A"	"B"	"A"	"B"
Run Time:		11:02	11:14	11:36	11:40	10:54	11:06	11:18	11:02	11:14	ug/mL	ug/mL
(ug/mL)	Ag	0.0044	0.0055	0.0052	0.0055	0.0041	0.2182	-0.0021	0.0044	0.0055	0.500	
	Al	5.6880	6.6788	7.1623	8.1858	0.1587	7.6995	3.2902	5.6880	6.6788	10.000	
	As	0.0245	0.0412	0.0329	0.0400	0.0250	1.3108	0.1775	0.0245	0.0412	2.500	
	B	0.0065	0.0142	0.0135	0.0138	0.0013	1.0135	0.0816	0.0065	0.0142	2.000	
	Ba	0.0078	0.0095	0.0094	0.0102	0.0025	0.2441	0.0032	0.0078	0.0095	0.500	
	Be	0.0001	0.0002	0.0002	0.0002	0.0001	0.0472	0.0003	0.0001	0.0002	0.100	
	Bi	7.5319	8.5731	8.4410	9.7459	0.0364	15.6748	4.2918	7.5319	8.5731	25.000	
	Ca	0.4608	0.5261	0.5436	0.5676	0.3916	12.5507	0.2696	0.4608	0.5261	25.000	
	Cd	-0.0021	-0.0016	-0.0069	-0.0085	-0.0028	0.2383	-0.0071	-0.0021	-0.0016	0.500	
	Ce	0.0552	0.0579	0.0645	0.0602	0.0254	0.0008	1.0091	0.0552	0.0579		2.000
	Co	0.0081	0.0126	0.0129	0.0120	0.0071	0.4928	0.0043	0.0081	0.0126	1.000	
	Cr	0.5585	0.6377	0.5452	0.6820	0.0028	0.7644	0.3241	0.5585	0.6377	1.000	
	Cu	0.0072	0.0130	0.0123	0.0102	0.0072	0.4731	0.0142	0.0072	0.0130	1.000	
	Dy	0.0044	0.0049	0.0047	0.0055	0.0036	-0.0028	0.9870	0.0044	0.0049		2.000
	Eu	0.0022	0.0025	0.0024	0.0027	0.0014	0.0007	0.9935	0.0022	0.0025		2.000
	Fe	3.7933	4.2835	4.9148	6.0508	0.0266	11.8056	2.1387	3.7933	4.2835	20.000	
	K	2369.2080	2366.5017	2342.3298	2335.4299	2430.5852	1209.1140	1189.6265	2369.21	2366.50		
	La	0.0084	0.0092	0.0086	0.0090	0.0062	-0.0025	0.4977	0.0084	0.0092		1.000
	Li	0.0504	0.0570	0.0153	0.0182	0.0038	0.9690	0.0246	0.0504	0.0570	2.000	
	Mg	0.1226	0.1648	0.1434	0.1422	0.0948	15.9611	0.0028	0.1226	0.1648	32.000	
	Mn	0.0807	0.0893	0.0991	0.0977	0.0517	0.2897	0.0432	0.0807	0.0893	0.500	
	Mo	0.0202	0.0220	0.0195	0.0230	0.0083	0.5040	0.0127	0.0202	0.0220	1.000	
	Na	35.2803	40.2741	35.0478	43.0625	1.0763	35.9118	20.2759	35.2803	40.2741	36.700	
	Nd	0.0271	0.0342	0.0305	0.0335	0.0216	-0.0146	0.9781	0.0271	0.0342		2.000
	Ni	1.0614	1.1009	1.0333	0.5492	0.7585	1.0211	0.5649	1.0614	1.1009		
	P	8.5727	9.8006	8.5977	10.7358	0.0484	6.6135	4.8538	8.5727	9.8006	5.000	
	Pb	0.0545	0.0660	0.0719	0.0689	0.0311	1.2310	0.1332	0.0545	0.0660	2.500	
	Pd	0.0903	0.1096	0.1038	0.0999	0.0716	-0.0428	0.9134	0.0903	0.1096		2.000
	Rh	0.0456	0.0510	0.0481	0.0514	0.0327	-0.0188	0.9965	0.0456	0.0510		2.000
	Ru	0.0200	0.0214	0.0251	0.0278	0.0149	0.0025	1.0141	0.0200	0.0214		2.000
	Sb	0.0271	0.0317	0.0319	0.0340	0.0169	1.2759	0.0539	0.0271	0.0317	2.500	
	Se	0.0631	0.0792	0.0786	0.0921	0.0493	1.2897	0.0760	0.0631	0.0782	2.500	
	Si	2.8737	3.5943	3.8537	4.3203	0.3885	10.6881	4.4439	2.8737	3.5943	20.000	
	Sn	0.1773	0.1828	0.2092	0.2337	0.1156	0.0941	1.1006	0.1773	0.1828		2.000
	Sr	0.0532	0.0604	0.0602	0.0738	0.0029	0.2731	0.0314	0.0532	0.0604	0.500	
	Te	0.0442	0.0470	0.0549	0.0586	0.0322	0.0240	0.9911	0.0442	0.0470		2.000
	Th	0.0048	0.0028	0.0080	0.0125	0.0047	0.0268	4.9564	0.0048	0.0028		6.800
	Ti	0.0066	0.0097	0.0127	0.0106	0.0045	0.4877	0.0052	0.0066	0.0097	1.000	
	Tl	0.0292	0.0299	0.0291	0.0317	0.0095	1.2233	0.0187	0.0292	0.0299	2.500	
	U	0.8457	0.9422	0.8828	0.9664	0.3620	-0.0004	11.8952	0.8457	0.9422		25.000
	V	0.0044	0.0064	0.0057	0.0063	0.0028	0.4912	0.0011	0.0044	0.0064	1.000	
	W	0.0180	0.0250	0.0280	0.0167	0.0153	0.0225	1.0134	0.0180	0.0250		2.000
	Y	0.0013	0.0014	0.0014	0.0016	0.0010	-0.0007	0.4879	0.0013	0.0014		1.000
	Zn	0.0184	0.0226	0.0228	0.0251	0.0038	0.5030	0.0124	0.0184	0.0226	1.000	
(ug/mL)	Zr	0.0189	0.0215	0.0188	0.0210	0.0030	0.9787	-0.0222	0.0189	0.0215	2.000	

Project: TWRS
Procedure: PNL-ALO-211

File: m030896b
Analyzed: 03/08/96

BX-112 Core 118
Samples batched with 118.comp.F and 119.comp.F

	1/2 Segment 1A		1/2 Segment 1B	
Sam Log#:	96-03365	96-03365	96-03366	96-03366
Split#:	118.1A.F	118.1A.F	118.1B.F	118.1B.F
ICP Dil:	1.00	1.00	1.00	1.00
Dil Fctr:	2355.2	2174.9	1986.5	1973.2

Est. IDL ug/mL	Analyte	Sample ug/g	Duplicate ug/g	RPD	Sample ug/g	Duplicate ug/g	RPD
0.015	Ag	ND	ND		ND	ND	
0.060	Al	15,313	14,646	4	14,584	15,788	8
0.080	As	ND	ND		ND	ND	
0.050	B	ND	ND		ND	ND	
0.010	Ba	ND	ND		ND	(26)	
0.005	Be	ND	ND		ND	ND	
0.100	Bi	17,448	16,877	3	17,575	18,858	7
0.250	Ca	(1,233)	(1,030)		(1,001)	(1,063)	
0.015	Cd	ND	ND		ND	ND	
0.100	Ce	ND	ND		ND	ND	
0.050	Co	ND	ND		ND	ND	
0.020	Cr	1,373	1,325	4	923	895	3
0.050	Cu	ND	ND		ND	ND	
0.050	Dy	ND	ND		ND	ND	
0.100	Eu	ND	ND		ND	ND	
0.050	Fe	8,628	8,406	3	11,543	11,838	3
2.000	K	n/a	n/a		n/a	n/a	
0.050	La	ND	ND		ND	ND	
0.030	Li	ND	ND		ND	ND	
0.100	Mg	(318)	(298)		(286)	(253)	
0.050	Mn	(206)	(187)		(185)	(207)	
0.030	Mo	ND	ND		ND	ND	
0.250	Na	83,721	81,175	3	77,653	77,892	0
0.100	Nd	ND	ND		ND	ND	
0.030	Ni	n/a	n/a		n/a	n/a	
0.250	P	21,948	21,208	3	16,096	17,115	6
0.100	Pb	ND	ND		ND	ND	
0.300	Pd	ND	ND		ND	ND	
0.300	Rh	ND	ND		ND	ND	
0.100	Ru	ND	ND		ND	ND	
0.100	Sb	ND	ND		ND	ND	
0.100	Se	ND	ND		ND	ND	
0.500	Si	(7,845)	(7,499)		(8,896)	(7,895)	
1.000	Sn	ND	ND		ND	ND	
0.015	Sr	(129)	(123)		(110)	(251)	
0.500	Te	ND	ND		ND	ND	
0.800	Th	ND	ND		ND	ND	
0.025	Ti	ND	ND		ND	ND	
0.500	Tl	ND	ND		ND	ND	
2.000	U	ND	ND		ND	ND	
0.015	V	ND	ND		ND	ND	
0.500	W	ND	ND		ND	ND	
0.010	Y	ND	ND		ND	ND	
0.020	Zn	ND	ND		ND	ND	
0.025	Zr	ND	ND		(60)	(69)	

Note: 1) Method Detecion Limit (MDL) = 10x IDL; "( )" results <MDL but =>IDL.
2) Above 5 times MDL, results reportable to 2 1/2 significant digits.
3) Blank is reported in ug/g "equivalence" to indicate blank effect on sample results.
4) The process "blank" has not been subtracted from the "Sample & Duplicate" results.
5) Above 5 times the MDL, precision is estimated at +/-10% and accuracy at +/-15%.
6) "ND" = Not Detected; Estimated Sample Detection Limit (ug/g) = (IDL in ug/mL) * (Dil Fctr).
7) If RPD flagged with "*", then RPD >20% and sample & duplicate results >MDL.

Data, including calibration/QC, archived File ICP-325-40S-1/96A0085

Analyzed Date: 03/08/96
Project: TWRS
Procedure: PNL-ALO-211
ICP Data Name: 96A0085
Tank ID: BX-112 Core 118

File: m030896b
Reported: 03/15/96
Data Page 1 of 2

Segment ID:		1/2 Segment 1A		1/2 Segment 1B	
Sample Log#		Sample 96-03365 118.1A.F	Duplicate 96-03365 118.1A.F	Sample 96-03366 118.1B.F	Duplicate 96-03366 118.1B.F
Prep Type		Fusion	Fusion	Fusion	Fusion
Sample Wt-g		0.2123	0.2299	0.2517	0.2534
Makeup Vol-mL		100.0	100.0	100.0	100.0
Dil: Smpl-mL		1.00	1.00	1.00	1.00
Dil: Vol-mL		5.00	5.00	5.00	5.00
Prep Factor		2355.2	2174.9	1986.5	1973.2
Spike ID					
Spike PreDil'n					
ICP Dilution		1.00	1.00	1.00	1.00
Dil Fctr		2355.2	2174.9	1986.5	1973.2
Run Time		11:47	11:51	11:55	11:59
(ug/g)	Ag	10.1	14.8	11.0	14.4
	Al	15312.9	14645.6	14583.7	15788.0
	As	87.0	83.1	90.9	75.4
	B	20.7	25.0	22.4	11.2
	Ba	17.9	18.1	17.6	25.7
	Be	0.3	0.4	0.3	0.4
	Bi	17447.8	16876.9	17574.9	18858.3
	Ca	1232.9	1030.4	1001.1	1062.8
	Cd	-22.4	-17.7	-0.2	-1.6
	Ce	126.2	163.8	135.4	142.9
	Co	24.9	27.7	27.7	22.7
	Cr	1372.9	1325.2	923.1	895.4
	Cu	21.0	25.0	23.9	13.3
	Dy	10.2	16.0	12.8	16.0
	Eu	5.2	7.2	5.6	7.0
	Fe	8627.8	8406.4	11542.6	11838.5
	K	5481009.3	4924851.1	4482028.0	4332274.9
	La	19.7	27.5	25.6	28.6
	Li	2.6	11.3	4.7	7.8
	Mg	318.2	298.0	285.6	252.7
	Mn	205.9	186.6	185.5	207.2
	Mo	45.1	48.5	39.7	39.3
	Na	83721.2	81174.8	77653.2	77892.2
	Nd	60.5	101.3	82.4	97.0
	Ni	1618.6	1233.3	2771.3	2725.6
	P	21948.3	21208.4	16095.8	17115.1
	Pb	119.5	155.6	141.4	158.4
	Pd	206.1	306.8	257.6	311.0
	Rh	97.5	150.0	130.9	146.7
	Ru	50.2	60.0	57.6	68.0
	Sb	60.9	92.9	80.0	70.7
	Se	171.6	181.9	159.2	187.0
	Si	7845.3	7499.2	8896.3	7895.2
	Sn	451.6	502.6	502.2	564.4
	Sr	128.5	123.3	109.6	251.3
	Te	111.2	140.2	107.6	116.9
	Th	15.8	11.8	6.9	5.2
	Ti	20.6	21.1	22.8	17.2
	Tl	76.4	71.1	44.0	77.5
	U	1955.8	2493.7	2018.1	2147.5
	V	10.5	14.2	16.1	15.5
	W	41.2	61.4	68.0	73.0
	Y	2.5	4.8	3.6	4.6
	Zn	20.1	18.7	25.5	25.5
(ug/g)	Zr	49.9	46.8	59.5	68.9

Template: TC-KOH-2 ICP RAW DATA -- IEC Corrected m030896b

Analyzed: 03/08/96
Project: TWRS
Procedure: PNL-ALO-211
MT&E: JA ICP WB73520

BX-112 Core 118

Raw Data
Data Page 2 of 2

Analyst: Danny Sanders 3/11/96

Reviewer: MW Thm 3-18-96

Sample ID:		96-03365	96-03365	96-03366	96-03366	Post Spikes	
Split ID:		118.1A.F	118.1A.F	118.1B.F	118.1B.F	"A"	"B"
Run Time:		11:47	11:51	11:55	11:59	ug/mL	ug/mL
(ug/mL)	Ag	0.0043	0.0068	0.0056	0.0073	0.500	
	Al	6.5019	6.7340	7.3414	8.0014	10.000	
	As	0.0369	0.0382	0.0458	0.0382	2.500	
	B	0.0088	0.0115	0.0113	0.0057	2.000	
	Ba	0.0076	0.0083	0.0089	0.0130	0.500	
	Be	0.0001	0.0002	0.0002	0.0002	0.100	
	Bi	7.4083	7.7600	8.8472	9.5574	25.000	
	Ca	0.5235	0.4738	0.5039	0.5386	25.000	
	Cd	-0.0095	-0.0081	-0.0001	-0.0008	0.500	
	Ce	0.0536	0.0753	0.0681	0.0724		2.000
	Co	0.0106	0.0127	0.0140	0.0115	1.000	
	Cr	0.5829	0.6093	0.4647	0.4538	1.000	
	Cu	0.0089	0.0115	0.0120	0.0067	1.000	
	Dy	0.0043	0.0074	0.0065	0.0081		2.000
	Eu	0.0022	0.0033	0.0028	0.0036		2.000
	Fe	3.6634	3.8653	5.8106	5.9997	20.000	
	K	2327.2366	2264.4465	2256.2529	2195.5969		
	La	0.0084	0.0126	0.0129	0.0145		1.000
	Li	0.0011	0.0052	0.0024	0.0039	2.000	
	Mg	0.1351	0.1370	0.1438	0.1281	32.000	
	Mn	0.0874	0.0858	0.0934	0.1050	0.500	
	Mo	0.0192	0.0223	0.0200	0.0199	1.000	
	Na	35.5480	37.3242	39.0906	39.4758	36.700	
	Nd	0.0257	0.0466	0.0415	0.0492		2.000
	Ni	0.6873	0.5671	1.3951	1.3814		
	P	9.3193	9.7516	8.1026	8.6739	5.000	
	Pb	0.0508	0.0715	0.0712	0.0803	2.500	
	Pd	0.0875	0.1411	0.1297	0.1576		2.000
	Rh	0.0414	0.0690	0.0659	0.0743		2.000
	Ru	0.0213	0.0276	0.0290	0.0345		2.000
	Sb	0.0259	0.0427	0.0403	0.0358	2.500	
	Se	0.0729	0.0836	0.0802	0.0948	2.500	
	Si	3.3311	3.4481	4.4784	4.0013	20.000	
	Sn	0.1918	0.2311	0.2528	0.2860		2.000
	Sr	0.0546	0.0567	0.0552	0.1274	0.500	
	Te	0.0472	0.0645	0.0542	0.0592		2.000
	Th	0.0067	0.0054	0.0035	0.0026		6.800
	Ti	0.0087	0.0097	0.0115	0.0087	1.000	
	Tl	0.0324	0.0327	0.0221	0.0393	2.500	
	U	0.8305	1.1466	1.0139	1.0884		25.000
	V	0.0044	0.0065	0.0081	0.0079	1.000	
	W	0.0175	0.0282	0.0342	0.0370		2.000
	Y	0.0011	0.0022	0.0018	0.0024		1.000
	Zn	0.0085	0.0086	0.0128	0.0129	1.000	
(ug/mL)	Zr	0.0212	0.0215	0.0300	0.0349	2.000	

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

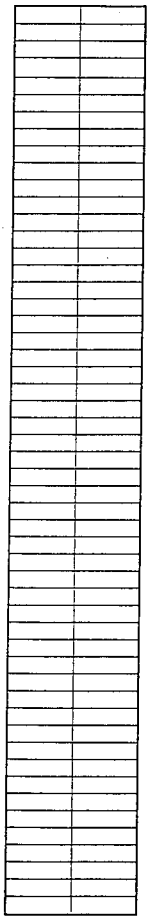
										QC CCV1 96012	V1 960126H901
										A0085	A0085
										3/8/96	3/8/96
										10:16	13:20
										CONC	CONC
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	1565	1611
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)
Ag		2	0.000	0.005	2192					0.004	-0.003
Al	2.000	2	1.960	0.009	0	-0.040	-2.0			1.966	1.954
As	2.000	2	2.085	0.001	0	0.085	4.2			2.085	2.085
B	2.000	2	2.050	0.012	1	0.050	2.5			2.041	2.058
Ba	1.000	2	0.993	0.016	2	-0.007	-0.7			0.981	1.004
Be	1.000	2	0.987	0.009	1	-0.013	-1.3			0.993	0.981
Bi	2.000	2	1.959	0.032	2	-0.041	-2.0			1.981	1.937
Ca	2.000	2	2.063	0.050	2	0.063	3.2			2.099	2.028
Cd	1.000	2	1.036	0.032	3	0.036	3.6			1.014	1.059
Ce		2	-0.010	0.018	-172					0.002	-0.023
Co	1.000	2	1.020	0.001	0	0.020	2.0			1.020	1.021
Cr	0.500	2	0.505	0.000	0	0.005	1.0			0.505	0.505
Cu	2.000	2	2.000	0.024	1	0.000	0.0			1.984	2.017
Dy		2	-0.001	0.003	-267					0.001	-0.003
Eu		2	0.000	0.001	-2517					0.001	-0.001
Fe	2.000	2	2.028	0.016	1	0.028	1.4			2.039	2.016
K	5.000	2	4.340	0.476	11	-0.660	-13.2			4.677	4.004
La		2	-0.001	0.007	-1046					0.004	-0.005
Li	2.000	2	1.964	0.029	1	-0.036	-1.8			1.944	1.985
Mg	2.000	2	2.090	0.018	1	0.090	4.5			2.103	2.078
Mn	1.000	2	1.031	0.002	0	0.031	3.1			1.032	1.030
Mo	2.000	2	1.978	0.008	0	-0.022	-1.1			1.972	1.983
Na	8.100	2	8.495	0.206	2	0.395	4.9			8.349	8.640
Nd		2	-0.007	0.022	-314					0.008	-0.022
Ni	2.000	2	2.085	0.003	0	0.085	4.3			2.088	2.083
P	5.000	2	4.848	0.019	0	-0.152	-3.0			4.861	4.834
Pb	2.000	2	2.008	0.043	2	0.008	0.4			2.038	1.977
Pd		2	-0.012	0.066	-551					0.035	-0.059
Rh		2	-0.009	0.028	-313					0.011	-0.028
Ru		2	0.000	0.009	2575					0.007	-0.006
Sb		2	0.004	0.018	450					0.017	-0.009
Se	2.000	2	2.008	0.018	1	0.008	0.4			2.020	1.995
Si	5.000	2	4.829	0.037	1	-0.171	-3.4			4.855	4.804
Sn		2	0.010	0.084	797					0.070	-0.049
Sr	2.000	2	2.006	0.038	2	0.006	0.3			1.980	2.033
Te		2	0.016	0.034	208					0.040	-0.008
Th		2	0.012	0.004	28					0.010	0.015
Ti		2	0.000	0.001	-424					0.001	-0.001
Tl	2.000	2	1.960	0.011	1	-0.041	-2.0			1.967	1.952
U		2	-0.107	0.328	-307					0.125	-0.339
V	1.000	2	0.980	0.003	0	-0.020	-2.0			0.982	0.979
W		2	0.004	0.020	486					0.018	-0.010
Y		2	-0.001	0.001	-196					0.000	-0.002
Zn	1.000	2	1.026	0.022	2	0.026	2.6			1.010	1.041
Zr		2	-0.003	0.002	-83					-0.001	-0.004
TIME		2	########	0.000	0					########	########

Statistical Summary for 'QC CCV1 960126H901'

(HPS:CCV-1)

2-607

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC_MCVA1 960	VA1 960	VA1 960	VA1 960
										A0085	A0085	A0085	A0085
										3/8/96	3/8/96	3/8/96	3/8/96
Statistical Summary for 'QC_MCVA1 960226I901'										09:57	10:47	11:29	12:08
(QC-MCVA)										CONC	CONC	CONC	CONC
	TRUE	*N*	*Average*	*S.Dev*	*%RSD*	*Bias*	*Bias*	*High*	*Low*	1887	1933	1979	2025
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)	(ug/mL)	(ug/mL)
Ag	0.500	5	0.482	0.007	1	-0.018	-3.7			0.478	0.493	0.481	0.477
Al	10.000	5	9.902	0.202	2	-0.098	-1.0			9.725	10.246	9.898	9.832
As	2.500	5	2.557	0.055	2	0.057	2.3			2.501	2.649	2.555	2.534
B	2.000	5	2.064	0.038	2	0.064	3.2			2.042	2.132	2.059	2.045
Ba	0.500	5	0.502	0.012	2	0.002	0.3			0.491	0.521	0.500	0.495
Be	0.100	5	0.095	0.002	2	-0.005	-4.9			0.094	0.099	0.095	0.094
Bi	25.000	5	24.196	0.507	2	-0.804	-3.2			23.847	25.075	24.172	23.997
Ca	25.000	5	24.864	0.426	2	-0.136	-0.5			24.631	25.614	24.804	24.681
Cd	0.500	5	0.496	0.010	2	-0.004	-0.7			0.499	0.501	0.481	0.493
Ce		5	-0.046	0.022	-48					-0.017	-0.077	-0.052	-0.051
Co	1.000	5	0.995	0.016	2	-0.005	-0.5			0.982	1.023	0.993	0.987
Cr	1.000	5	0.994	0.022	2	-0.006	-0.6			0.983	1.032	0.994	0.981
Cu	1.000	5	0.953	0.022	2	-0.047	-4.7			0.941	0.991	0.948	0.936
Dy		5	-0.009	0.003	-31					-0.006	-0.013	-0.009	-0.009
Eu		5	-0.001	0.001	-126					0.000	-0.002	-0.001	-0.001
Fe	20.000	5	20.196	0.406	2	0.196	1.0			19.960	20.908	20.146	20.023
K	25.000	5	23.111	0.599	3	-1.889	-7.6			23.800	23.569	22.863	22.283
La		5	-0.010	0.004	-44					-0.005	-0.016	-0.010	-0.011
Li	2.000	5	1.974	0.045	2	-0.026	-1.3			1.959	2.053	1.967	1.944
Mg	31.200	5	32.231	0.611	2	1.031	3.3			31.884	33.302	32.169	31.943
Mn	0.500	5	0.508	0.009	2	0.008	1.5			0.501	0.524	0.505	0.504
Mo	1.000	5	1.004	0.019	2	0.004	0.4			0.989	1.038	1.001	0.997
Na	36.700	5	37.055	0.745	2	0.355	1.0			36.072	38.161	37.117	36.905
Nd		5	-0.053	0.018	-34					-0.030	-0.078	-0.058	-0.059
Ni	1.000	5	1.006	0.032	3	0.006	0.6			0.978	1.060	1.007	0.996
P	5.000	5	4.784	0.080	2	-0.216	-4.3			4.768	4.925	4.746	4.740
Pb	2.500	5	2.416	0.038	2	-0.084	-3.3			2.411	2.481	2.409	2.389
Pd		5	-0.169	0.042	-25					-0.117	-0.231	-0.170	-0.178
Rh		5	-0.070	0.021	-31					-0.044	-0.101	-0.074	-0.075
Ru		5	-0.009	0.006	-74					-0.008	-0.019	-0.009	-0.004
Sb	2.500	5	2.532	0.041	2	0.032	1.3			2.521	2.600	2.534	2.503
Se	2.500	5	2.523	0.045	2	0.023	0.9			2.492	2.599	2.510	2.527
Si	20.000	5	18.465	0.340	2	-1.535	-7.7			18.248	19.051	18.471	18.303
Sn		5	0.040	0.078	192					0.135	-0.053	-0.011	0.030
Sr	0.500	5	0.512	0.012	2	0.012	2.5			0.500	0.532	0.512	0.510
Te		5	0.008	0.016	209					0.034	-0.005	0.005	-0.003
Th		5	0.045	0.003	7					0.043	0.045	0.044	0.042
Ti	1.000	5	0.994	0.021	2	-0.006	-0.6			0.976	1.030	0.992	0.987
Tl	2.500	5	2.443	0.036	1	-0.057	-2.3			2.420	2.505	2.441	2.437
U		5	-0.741	0.252	-34					-0.455	-1.110	-0.809	-0.766
V	1.000	5	1.000	0.020	2	0.000	0.0			0.989	1.035	0.997	0.990
W		5	0.025	0.006	25					0.035	0.022	0.027	0.022
Y		5	-0.002	0.001	-51					-0.001	-0.004	-0.002	-0.002
Zn	1.000	5	0.988	0.018	2	-0.012	-1.2			0.960	1.009	0.983	0.991
Zr	2.000	5	1.995	0.042	2	-0.005	-0.3			1.952	2.065	1.990	1.986
TIME		5	########	0.000	0					########	########	########	########

FAIL

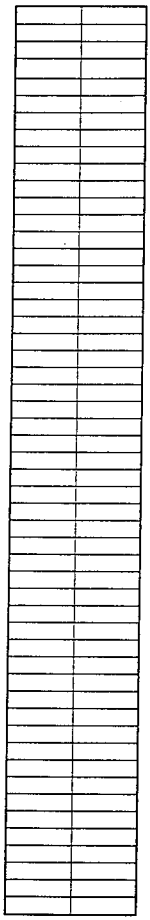
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

VA1 960226I901	
A0085	
3/8/96	
13:01	
CONC	
2071	
(ug/mL)	
0.479	
9.808	
2.548	
2.045	
0.500	
0.094	
23.888	
24.593	
0.508	
-0.035	
0.989	
0.979	
0.948	
-0.007	
0.000	
19.945	
23.039	
-0.007	
1.946	
31.856	
0.504	
0.995	
37.019	
-0.043	
0.988	
4.740	
2.392	
-0.151	
-0.057	
-0.003	
2.501	
2.486	
18.252	
0.101	
0.509	
0.007	
0.050	
0.983	
2.414	
-0.564	
0.987	
0.019	
-0.001	
0.996	
1.982	
##########	

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC_MCVB2 960	VB2 960221I901
										A0085	A0085
										3/8/96	3/8/96
			Statistical Summary for 'QC_MCVB2 960221I901'							10:01	13:04
(QC-MCVB)										CONC	CONC
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	2117	2163
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)
Ag		2	-0.009	0.003	-36					-0.007	-0.011
Al		2	-0.071	0.035	-49					-0.096	-0.047
As		2	0.306	0.011	4					0.298	0.314
B		2	0.163	0.007	4					0.168	0.158
Ba		2	0.001	0.001	107					0.000	0.001
Be		2	0.001	0.000	18					0.001	0.001
Bi		2	0.085	0.018	22					0.098	0.072
Ca		2	0.027	0.015	54					0.038	0.017
Cd		2	0.047	0.018	37					0.035	0.060
Ce	2.000	2	1.992	0.007	0	-0.008	-0.4			1.997	1.987
Co		2	-0.002	0.003	-109					-0.001	-0.004
Cr		2	0.006	0.004	71					0.008	0.003
Cu		2	0.032	0.010	30					0.039	0.026
Dy	2.000	2	2.001	0.009	0	0.001	0.0			1.994	2.007
Eu	2.000	2	2.019	0.012	1	0.019	0.9			2.010	2.027
Fe		2	0.027	0.001	3					0.028	0.026
K		2	-1.886	0.259	-14					-1.703	-2.069
La	1.000	2	1.000	0.012	1	0.000	0.0			0.991	1.009
Li		2	-0.004	0.001	-24					-0.003	-0.005
Mg		2	-0.133	0.001	-1					-0.132	-0.134
Mn		2	-0.001	0.001	-225					-0.001	0.000
Mo		2	0.008	0.002	29					0.010	0.007
Na		2	0.199	0.013	6					0.208	0.190
Nd	2.000	2	1.964	0.001	0	-0.036	-1.8			1.965	1.963
Ni		2	0.026	0.002	9					0.027	0.024
P		2	0.081	0.033	40					0.105	0.058
Pb		2	0.217	0.030	14					0.239	0.196
Pd	2.000	2	1.843	0.042	2	-0.157	-7.8			1.814	1.873
Rh	2.000	2	1.975	0.009	0	-0.025	-1.3			1.982	1.968
Ru	2.000	2	2.005	0.037	2	0.005	0.3			2.031	1.979
Sb		2	0.083	0.004	5					0.086	0.080
Se		2	0.068	0.022	32					0.084	0.053
Si		2	7.277	0.438	6					7.587	6.967
Sn	2.000	2	2.055	0.064	3	0.055	2.7			2.100	2.010
Sr		2	0.003	0.000	16					0.003	0.002
Te	2.000	2	1.894	0.041	2	-0.106	-5.3			1.922	1.865
Th	10.000	2	9.922	0.042	0	-0.078	-0.8			9.892	9.951
Ti		2	0.003	0.001	24					0.004	0.003
Tl		2	0.011	0.000	4					0.011	0.011
U	25.000	2	23.576	0.495	2	-1.424	-5.7			23.926	23.226
V		2	-0.001	0.003	-272					0.001	-0.003
W	2.000	2	1.980	0.027	1	-0.020	-1.0			1.999	1.962
Y	1.000	2	0.979	0.009	1	-0.021	-2.1			0.985	0.973
Zn		2	0.003	0.001	49					0.002	0.004
Zr		2	-0.052	0.008	-15					-0.046	-0.058
TIME		2	#######	0.000	0					########	########

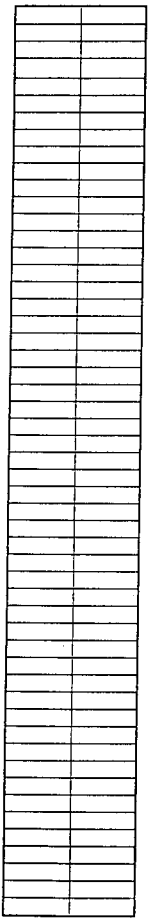
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC_SRM-1643d	M-1643d 108518
										A0085	A0085
										3/8/96	3/8/96
										10:12	13:16
										CONC	CONC
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	2209	1841
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)
Ag	0.001	2	0.001	0.004	690	-0.001	-54.7	+	-	0.003	-0.002
Al	0.128	2	0.154	0.056	36	0.026	20.4	+	-	0.193	0.114
As	0.056	2	0.053	0.010	19	-0.003	-5.2		-	0.060	0.046
B	0.145	2	0.145	0.002	1	0.000	0.0			0.146	0.143
Ba	0.507	2	0.515	0.002	0	0.009	1.7			0.514	0.517
Be	0.013	2	0.012	0.000	4	0.000	-3.4			0.012	0.012
Bi	0.013	2	0.052	0.048	92	0.039	299.3	+		0.086	0.018
Ca	31.050	2	31.291	0.501	2	0.241	0.8			31.645	30.937
Cd	0.006	2	0.045	0.044	97	0.038	594.6	+		0.014	0.076
Ce		2	-0.002	0.015	-651					0.008	-0.013
Co	0.025	2	0.025	0.003	12	0.000	-0.1			0.027	0.023
Cr	0.019	2	0.020	0.002	11	0.001	3.3	+		0.021	0.018
Cu	0.021	2	0.015	0.002	13	-0.005	-26.5		-	0.016	0.014
Dy		2	-0.001	0.002	-212					0.001	-0.003
Eu		2	0.001	0.001	129					0.002	0.000
Fe	0.091	2	0.112	0.035	32	0.021	23.1	+		0.137	0.087
K	2.356	2	1.924	0.445	23	-0.432	-18.4		-	2.238	1.609
La		2	0.012	0.011	95					0.019	0.004
Li	0.017	2	0.016	0.000	1	0.000	-2.4			0.016	0.016
Mg	7.989	2	8.495	0.121	1	0.506	6.3			8.581	8.409
Mn	0.038	2	0.039	0.001	2	0.001	2.5			0.038	0.039
Mo	0.113	2	0.112	0.003	3	-0.001	-0.9			0.114	0.110
Na	22.070	2	22.184	0.358	2	0.114	0.5			21.931	22.437
Nd		2	0.006	0.017	303					0.017	-0.006
Ni	0.058	2	0.138	0.039	28	0.080	137.8	+		0.166	0.110
P		2	0.021	0.063	294					0.066	-0.023
Pb	0.018	2	0.018	0.024	135	0.000	-1.8	+	-	0.035	0.001
Pd		2	-0.006	0.054	-922					0.032	-0.044
Rh		2	-0.004	0.025	-589					0.014	-0.022
Ru		2	-0.005	0.008	-163					0.001	-0.010
Sb	0.054	2	0.049	0.014	29	-0.005	-9.6		-	0.059	0.039
Se	0.011	2	0.019	0.030	158	0.007	65.3	+	-	0.040	-0.002
Si	2.700	2	2.712	0.059	2	0.012	0.5			2.754	2.670
Sn		2	-0.034	0.079	-231					0.022	-0.090
Sr	0.295	2	0.301	0.002	1	0.006	2.1			0.300	0.302
Te	0.001	2	-0.006	0.024	-396	-0.007	-694.5	+	-	0.011	-0.023
Th		2	-0.009	0.003	-32					-0.011	-0.007
Ti		2	0.000	0.001	672					0.001	0.000
Tl	0.007	2	0.009	0.014	156	0.002	25.4	+	-	0.019	-0.001
U		2	0.182	0.312	171					0.403	-0.038
V	0.035	2	0.035	0.003	8	-0.001	-1.5			0.037	0.033
W		2	-0.004	0.003	-78					-0.002	-0.006
Y		2	0.000	0.001	1677					0.001	-0.001
Zn	0.072	2	0.073	0.002	3	0.000	0.6			0.072	0.074
Zr		2	-0.001	0.002	-291					0.001	-0.002
TIME		2	########	0.000	0					########	########

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										ICP1.0 960103	.0 960103	.0 960103	0 960103
										A0085	A0085	A0085	A0085
										3/8/96	3/8/96	3/8/96	3/8/96
Statistical Summary for "ICP1.0 960103F100"										09:55	10:20	10:50	11:33
(ICP1.0 "Blank")										CONC	CONC	CONC	CONC
	TRUE	***N***	***Average***	***S.Dev***	***%RSD***	***Bias***	***Bias***	***High***	***Low***	1197	1243	1289	1335
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)	(ug/mL)	(ug/mL)
Ag		6	0.000	0.003	18436					0.001	0.005	-0.003	-0.003
Al		6	0.009	0.008	83					0.008	0.020	0.013	0.005
As		6	0.002	0.008	462					0.008	0.004	0.012	-0.004
B		6	-0.002	0.004	-218					0.002	0.000	0.002	-0.003
Ba		6	0.000	0.001	482					0.000	0.002	0.000	-0.001
Be		6	0.000	0.000	144					0.000	0.001	0.000	0.000
Bi		6	0.019	0.014	73					0.016	0.023	0.042	0.012
Ca		6	0.021	0.015	68					0.010	0.017	0.050	0.021
Cd		6	0.006	0.016	251					0.017	0.020	-0.002	-0.012
Ce		6	-0.007	0.015	-230					0.006	0.012	-0.023	-0.025
Co		6	0.000	0.001	-291					0.000	0.002	-0.001	-0.002
Cr		6	0.001	0.002	230					0.000	0.002	0.003	0.003
Cu		6	-0.001	0.002	-181					-0.001	0.002	-0.003	-0.004
Dy		6	-0.001	0.002	-207					0.000	0.002	-0.004	-0.003
Eu		6	0.000	0.001	-8123					0.000	0.001	-0.001	-0.001
Fe		6	0.004	0.015	354					-0.007	-0.001	0.031	0.007
K		6	-0.556	0.627	-113					-0.037	0.082	-0.996	-1.294
La		6	-0.001	0.003	-316					0.001	0.003	-0.005	-0.005
Li		6	-0.001	0.003	-340					-0.002	0.000	0.005	-0.005
Mg		6	0.007	0.024	323					-0.003	0.003	0.048	0.005
Mn		6	-0.002	0.001	-65					-0.002	-0.001	-0.002	-0.002
Mo		6	0.002	0.002	111					0.002	0.006	0.002	0.001
Na		6	0.026	0.021	80					0.006	0.058	0.025	0.008
Nd		6	-0.008	0.014	-185					0.002	0.012	-0.021	-0.025
Ni		6	0.015	0.018	121					0.000	0.044	0.010	0.004
P		6	0.001	0.013	2275					-0.005	0.020	0.013	-0.012
Pb		6	-0.003	0.012	-347					0.004	0.017	-0.007	-0.015
Pd		6	0.003	0.040	1413					0.039	0.057	-0.037	-0.042
Rh		6	-0.001	0.020	-1663					0.022	0.021	-0.019	-0.024
Ru		6	-0.004	0.006	-160					0.001	0.006	-0.008	-0.010
Sb		6	-0.006	0.008	-123					-0.003	0.004	-0.010	-0.017
Se		6	0.007	0.010	155					0.016	0.017	0.008	-0.002
Si		6	0.036	0.030	82					0.079	0.036	0.047	0.040
Sn		6	-0.035	0.067	-191					0.025	0.062	-0.092	-0.108
Sr		6	0.001	0.001	97					0.000	0.002	0.001	0.000
Te		6	-0.002	0.016	-661					0.016	0.018	-0.016	-0.011
Th		6	-0.001	0.003	-355					0.001	-0.001	-0.003	0.003
Ti		6	0.000	0.001	-1400					0.000	0.001	0.000	-0.001
Tl		6	0.000	0.008	6619					0.007	0.010	-0.001	-0.012
U		6	-0.097	0.204	-210					0.017	0.216	-0.254	-0.364
V		6	0.000	0.001	-439					0.000	0.002	-0.001	-0.002
W		6	0.002	0.014	713					0.026	0.009	-0.005	-0.006
Y		6	-0.001	0.001	-120					0.000	0.000	-0.001	-0.001
Zn		6	-0.001	0.001	-51					-0.002	-0.001	-0.001	-0.002
Zr		6	-0.001	0.001	-97					-0.001	0.000	0.000	-0.003
TIME		6	########	0.000	0					########	########	########	########

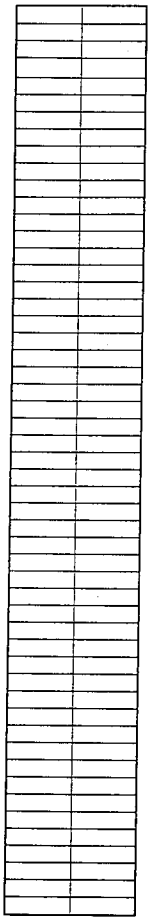
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

.0 960103	.0 960103
A0085	A0085
3/8/96	3/8/96
12:12	13:25
CONC	CONC
1381	1427
(ug/mL)	*(ug/mL)*
0.000	-0.001
0.013	-0.003
-0.007	-0.004
-0.008	-0.003
-0.001	0.001
0.000	0.000
0.018	0.001
0.019	0.012
-0.009	0.022
-0.004	-0.005
-0.001	-0.002
0.001	-0.003
-0.002	0.000
-0.001	0.000
0.000	0.000
0.006	-0.010
-1.071	-0.022
-0.001	0.000
-0.004	0.000
0.014	-0.023
-0.002	0.000
0.001	0.000
0.042	0.015
-0.010	-0.003
0.001	0.030
-0.003	-0.009
-0.009	-0.011
-0.001	0.000
-0.004	-0.003
-0.006	-0.004
-0.001	-0.011
0.011	-0.009
0.028	-0.013
-0.058	-0.037
0.001	0.001
-0.003	-0.018
0.000	-0.005
0.000	0.000
-0.002	-0.001
-0.130	-0.069
-0.001	-0.001
0.002	-0.015
-0.001	0.000
-0.001	-0.001
-0.001	-0.001
########	########

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										MCVA1 @2X
										A0085
										3/8/96
			Statistical Summary for 'MCVA1 @2X'							11:10
(MCVA @2 Post Digestion Spike)										CONC
	TRUE	***N***	***Average***	***S.Dev***	***%RSD***	***Bias***	***Bias***	***High***	***Low***	1473
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)
Ag	0.250	1	0.239	#DIV/0!	######	-0.011	-4.6			0.239
Al	5.000	1	4.935	#DIV/0!	######	-0.065	-1.3			4.935
As	1.250	1	1.292	#DIV/0!	######	0.042	3.4			1.292
B	1.000	1	1.024	#DIV/0!	######	0.024	2.4			1.024
Ba	0.250	1	0.249	#DIV/0!	######	-0.001	-0.3			0.249
Be	0.050	1	0.047	#DIV/0!	######	-0.003	-5.1			0.047
Bi	12.500	1	12.106	#DIV/0!	######	-0.394	-3.2			12.106
Ca	12.500	1	12.472	#DIV/0!	######	-0.028	-0.2			12.472
Cd	0.250	1	0.247	#DIV/0!	######	-0.003	-1.0			0.247
Ce		1	-0.047	#DIV/0!	######					-0.047
Co	0.500	1	0.498	#DIV/0!	######	-0.002	-0.4			0.498
Cr	0.500	1	0.500	#DIV/0!	######	0.000	0.0			0.500
Cu	0.500	1	0.465	#DIV/0!	######	-0.035	-7.0			0.465
Dy		1	-0.007	#DIV/0!	######					-0.007
Eu		1	-0.001	#DIV/0!	######					-0.001
Fe	10.000	1	10.128	#DIV/0!	######	0.128	1.3			10.128
K	12.500	1	12.231	#DIV/0!	######	-0.269	-2.2			12.231
La		1	-0.009	#DIV/0!	######					-0.009
Li	1.000	1	0.984	#DIV/0!	######	-0.016	-1.6			0.984
Mg	15.600	1	16.261	#DIV/0!	######	0.661	4.2			16.261
Mn	0.250	1	0.253	#DIV/0!	######	0.003	1.0			0.253
Mo	0.500	1	0.500	#DIV/0!	######	0.000	0.0			0.500
Na	18.350	1	18.491	#DIV/0!	######	0.141	0.8			18.491
Nd		1	-0.041	#DIV/0!	######					-0.041
Ni	0.500	1	0.515	#DIV/0!	######	0.015	3.1			0.515
P	2.500	1	2.413	#DIV/0!	######	-0.087	-3.5			2.413
Pb	1.250	1	1.204	#DIV/0!	######	-0.046	-3.7			1.204
Pd		1	-0.122	#DIV/0!	######					-0.122
Rh		1	-0.056	#DIV/0!	######					-0.056
Ru		1	-0.013	#DIV/0!	######					-0.013
Sb	1.250	1	1.266	#DIV/0!	######	0.016	1.3			1.266
Se	1.250	1	1.264	#DIV/0!	######	0.014	1.1			1.264
Si	10.000	1	9.315	#DIV/0!	######	-0.685	-6.8			9.315
Sn		1	-0.058	#DIV/0!	######					-0.058
Sr	0.250	1	0.254	#DIV/0!	######	0.004	1.6			0.254
Te		1	-0.006	#DIV/0!	######					-0.006
Th		1	0.024	#DIV/0!	######					0.024
Ti	0.500	1	0.493	#DIV/0!	######	-0.007	-1.4			0.493
Tl	1.250	1	1.217	#DIV/0!	######	-0.033	-2.6			1.217
U		1	-0.578	#DIV/0!	######					-0.578
V	0.500	1	0.497	#DIV/0!	######	-0.003	-0.7			0.497
W		1	0.007	#DIV/0!	######					0.007
Y		1	-0.002	#DIV/0!	######					-0.002
Zn	0.500	1	0.499	#DIV/0!	######	-0.001	-0.3			0.499
Zr	1.000	1	0.985	#DIV/0!	######	-0.015	-1.5			0.985
TIME		1	########	#DIV/0!	######					#########

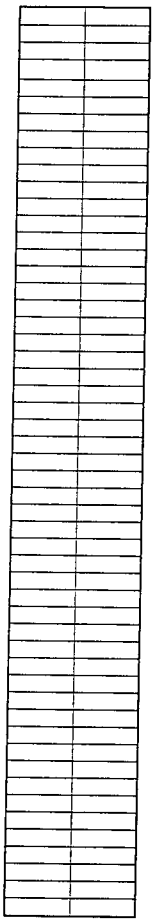
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										MCVB2 @2
										A0085
										3/8/96
				Statistical Summary for 'MCVB2 @2'						11:22
(MCVB @2 Post Digestion Spike)										CONC
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	1519
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)
Ag		1	-0.007	#DIV/0!	#######					-0.007
Al		1	-0.030	#DIV/0!	#######					-0.030
As		1	0.144	#DIV/0!	#######					0.144
B		1	0.074	#DIV/0!	#######					0.074
Ba		1	0.000	#DIV/0!	#######					0.000
Be		1	0.000	#DIV/0!	#######					0.000
Bi		1	0.032	#DIV/0!	#######					0.032
Ca		1	0.001	#DIV/0!	#######					0.001
Cd		1	-0.005	#DIV/0!	#######					-0.005
Ce	1.000	1	0.989	#DIV/0!	#######	-0.011	-1.1			0.989
Co		1	-0.004	#DIV/0!	#######					-0.004
Cr		1	0.001	#DIV/0!	#######					0.001
Cu		1	0.006	#DIV/0!	#######					0.006
Dy	1.000	1	1.009	#DIV/0!	#######	0.009	0.9			1.009
Eu	1.000	1	1.023	#DIV/0!	#######	0.023	2.3			1.023
Fe		1	-0.001	#DIV/0!	#######					-0.001
K		1	-1.257	#DIV/0!	#######					-1.257
La	0.500	1	0.500	#DIV/0!	#######	0.000	0.1			0.500
Li		1	-0.007	#DIV/0!	#######					-0.007
Mg		1	-0.081	#DIV/0!	#######					-0.081
Mn		1	-0.003	#DIV/0!	#######					-0.003
Mo		1	0.002	#DIV/0!	#######					0.002
Na		1	0.064	#DIV/0!	#######					0.064
Nd	1.000	1	0.978	#DIV/0!	#######	-0.022	-2.2			0.978
Ni		1	0.019	#DIV/0!	#######					0.019
P		1	0.051	#DIV/0!	#######					0.051
Pb		1	0.106	#DIV/0!	#######					0.106
Pd	1.000	1	0.892	#DIV/0!	#######	-0.108	-10.8		-	0.892
Rh	1.000	1	0.984	#DIV/0!	#######	-0.016	-1.6			0.984
Ru	1.000	1	1.018	#DIV/0!	#######	0.018	1.8			1.018
Sb		1	0.033	#DIV/0!	#######					0.033
Se		1	0.040	#DIV/0!	#######					0.040
Si		1	2.997	#DIV/0!	#######					2.997
Sn	1.000	1	0.964	#DIV/0!	#######	-0.036	-3.6			0.964
Sr		1	0.001	#DIV/0!	#######					0.001
Te	1.000	1	0.973	#DIV/0!	#######	-0.027	-2.7			0.973
Th	5.000	1	5.060	#DIV/0!	#######	0.060	1.2			5.060
Ti		1	0.000	#DIV/0!	#######					0.000
Tl		1	-0.001	#DIV/0!	#######					-0.001
U	12.500	1	11.618	#DIV/0!	#######	-0.882	-7.1			11.618
V		1	-0.004	#DIV/0!	#######					-0.004
W	1.000	1	0.997	#DIV/0!	#######	-0.003	-0.3			0.997
Y	0.500	1	0.496	#DIV/0!	#######	-0.004	-0.8			0.496
Zn		1	-0.002	#DIV/0!	#######					-0.002
Zr		1	-0.033	#DIV/0!	#######					-0.033
TIME		1	#######	#DIV/0!	#######					########

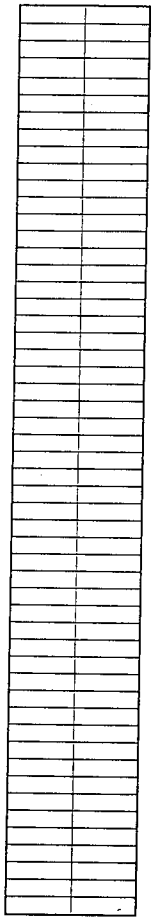
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC SSTMCV 951	MCV 951208I903
										A0085	A0085
										3/8/96	3/8/96
			Statistical Summary for 'QC SSTMCV 951208I903'							10:09	13:12
("QC-SSTMCV" SST Midrange Cal. Check Std.)										CONC	CONC
	TRUE	***N***	***Average***	***S.Dev***	***%RSD***	***Bias***	***Bias***	***High***	***Low***	1749	1795
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)
Ag	0.500	2	0.508	0.008	2	0.008	1.5			0.513	0.502
Al	5.000	2	5.211	0.153	3	0.211	4.2			5.319	5.103
As	2.000	2	2.138	0.053	2	0.138	6.9			2.175	2.101
B		2	-0.002	0.002	-84					-0.001	-0.003
Ba	0.100	2	0.102	0.000	0	0.002	2.5			0.103	0.102
Be	0.100	2	0.099	0.003	3	-0.001	-1.2			0.101	0.097
Bi	1.500	2	1.742	0.127	7	0.242	16.1	+		1.832	1.652
Ca	1.000	2	1.236	0.147	12	0.236	23.6	+		1.340	1.132
Cd	0.200	2	0.226	0.018	8	0.026	13.2	+		0.214	0.239
Ce		2	0.012	0.009	74					0.019	0.006
Co		2	-0.002	0.001	-64					-0.001	-0.003
Cr	0.300	2	0.313	0.006	2	0.013	4.3			0.317	0.308
Cu		2	-0.002	0.001	-54					-0.001	-0.003
Dy		2	0.000	0.001	-8721					0.001	-0.001
Eu		2	0.008	0.001	14					0.008	0.007
Fe	0.500	2	0.692	0.113	16	0.192	38.4	+		0.772	0.612
K	50.000	2	49.216	1.585	3	-0.784	-1.6			50.336	48.095
La		2	0.047	0.024	51					0.064	0.030
Li		2	-0.001	0.000	-71					0.000	-0.001
Mg		2	-0.097	0.000	0					-0.097	-0.097
Mn	0.100	2	0.104	0.000	0	0.004	4.0			0.104	0.104
Mo		2	0.005	0.003	54					0.007	0.003
Na	5.000	2	5.182	0.009	0	0.182	3.6			5.189	5.176
Nd		2	0.000	0.013	51110					0.009	-0.009
Ni	0.500	2	0.772	0.104	13	0.272	54.4	+		0.846	0.698
P	4.000	2	4.169	0.185	4	0.169	4.2			4.300	4.038
Pb	3.000	2	3.052	0.088	3	0.052	1.7			3.114	2.990
Pd		2	0.016	0.065	405					0.062	-0.030
Rh		2	0.002	0.017	926					0.014	-0.010
Ru		2	0.000	0.007	2513					0.005	-0.005
Sb	2.000	2	2.151	0.042	2	0.151	7.5			2.180	2.121
Se	2.500	2	2.600	0.056	2	0.100	4.0			2.640	2.561
Si	3.000	2	2.907	0.081	3	-0.093	-3.1			2.964	2.850
Sn		2	0.061	0.052	86					0.098	0.024
Sr		2	0.002	0.000	22					0.002	0.001
Te		2	0.009	0.019	205					0.023	-0.004
Th		2	0.038	0.011	30					0.030	0.046
Tl		2	0.000	0.001	-145					0.000	-0.001
Ti		2	0.007	0.005	67					0.011	0.004
U	20.000	2	20.041	0.412	2	0.041	0.2			20.333	19.750
V	0.500	2	0.516	0.011	2	0.016	3.2			0.524	0.508
W		2	0.021	0.012	58					0.030	0.013
Y		2	0.000	0.001	9192					0.001	-0.001
Zn		2	-0.002	0.000	-24					-0.002	-0.002
Zr	0.500	2	0.508	0.004	1	0.008	1.6			0.511	0.505
TIME	10000	2	########	0.000	0	0.000	0.0			########	########

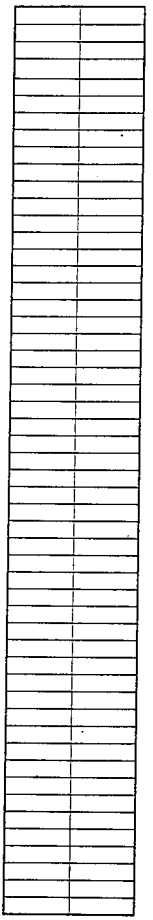
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC SSTA 9512	STA 9512081902
										A0085	A0085
										3/8/96	3/8/96
Statistical Summary for 'QC SSTA 9512081902'										10:05	13:08
("QC-SSTA" Interference Check Std.)										CONC	CONC
	TRUE	***N***	***Average***	***S.Dev***	***%RSD***	***Bias***	***Bias***	***High***	***Low***	1657	1703
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)
Ag		2	-0.015	0.006	-37					-0.011	-0.019
Al	250.0	2	253.411	2.136	1	3.411	1.4			251.901	254.922
As		2	0.404	0.000	0					0.404	0.404
B		2	0.051	0.007	14					0.056	0.046
Ba		2	0.010	0.001	6					0.010	0.011
Be		2	-0.001	0.000	-17					-0.001	-0.001
Bi	200.0	2	198.341	0.054	0	-1.659	-0.8			198.296	198.386
Ca	250.0	2	250.747	1.016	0	0.747	0.3			251.465	250.028
Cd		2	0.080	0.021	26					0.066	0.095
Ce		2	0.189	0.030	16					0.210	0.168
Co		2	0.010	0.002	22					0.011	0.008
Cr		2	0.237	0.003	1					0.235	0.239
Cu		2	-0.108	0.005	-5					-0.104	-0.112
Dy		2	0.033	0.002	5					0.035	0.032
Eu		2	0.092	0.001	1					0.093	0.091
Fe	200.0	2	198.010	0.522	0	-1.990	-1.0			198.379	197.641
K	100.0	2	100.761	1.473	1	0.761	0.8			101.802	99.720
La	50.0	2	51.678	1.120	2	1.678	3.4			50.886	52.469
Li		2	0.032	0.001	2					0.033	0.032
Mg		2	-0.843	0.071	-8					-0.894	-0.793
Mn		2	0.018	0.001	5					0.018	0.019
Mo		2	0.103	0.005	5					0.107	0.100
Na		2	0.918	0.011	1					0.925	0.910
Nd		2	0.215	0.013	6					0.224	0.205
Ni	200.0	2	193.636	1.089	1	-6.364	-3.2			192.866	194.406
P	200.0	2	201.746	0.044	0	1.746	0.9			201.714	201.777
Pb		2	0.974	0.037	4					1.000	0.948
Pd		2	1.029	0.289	28					1.233	0.825
Rh		2	0.255	0.016	6					0.267	0.244
Ru		2	0.216	0.058	27					0.175	0.257
Sb		2	0.458	0.001	0					0.459	0.458
Se		2	1.550	0.026	2					1.569	1.532
Si		2	-0.231	0.118	-51					-0.148	-0.315
Sn		2	3.747	0.168	4					3.865	3.628
Sr		2	0.020	0.000	1					0.020	0.020
Te		2	0.660	0.052	8					0.697	0.623
Th		2	0.337	0.218	65					0.183	0.491
Ti		2	0.004	0.002	60					0.005	0.002
Tl		2	0.342	0.027	8					0.362	0.323
U	200.0	2	201.496	1.344	1	1.496	0.7			200.546	202.447
V		2	0.046	0.003	7					0.049	0.044
W		2	0.573	0.029	5					0.593	0.552
Y		2	0.023	0.001	6					0.024	0.022
Zn		2	0.094	0.003	3					0.092	0.096
Zr		2	0.022	0.019	84					0.036	0.009
TIME		2	########	0.000	0					########	########

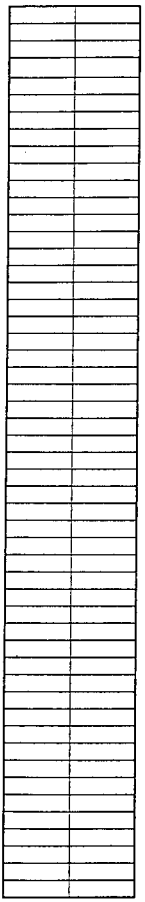
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										2126.8			
			Statistical Summary for 'SRM-2709'							SRM-2709			
(LCS-1 @5 [SRM-2709] ~.2351g/100ml)													
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	3/8/96			
	(ug/g)		(ug/g)	(ug/g)	(%)	(ug/g)	(%)	(>125%)	(<75%)	ug/g			
Ag	0.410	0								--			
Al	75000	1	69829.0	#DIV/0!	######	-5171.0	-6.9			69828.99			
As	17.700	0								--			
B		0								--			
Ba	968.0	1	855.1	#DIV/0!	######	-112.9	-11.7			855.10			
Be		0								--			
Bi		0								--			
Ca	18900	1	19209.8	#DIV/0!	######	309.8	1.6			19209.85			
Cd	0.380	0								--			
Ce		0								--			
Co	13.400	0								--			
Cr	130.0	1	167.9	#DIV/0!	######	37.9	29.2		-	[167.93]			
Cu	34.600	0								--			
Dy		0								--			
Eu		0								--			
Fe	35000	1	32915.0	#DIV/0!	######	-2085.0	-6.0			32915.04			
K		1	5025916	#DIV/0!	######					5025915.65			
La		0								--			
Li		0								--			
Mg	15100	1	14942.5	#DIV/0!	######	-157.5	-1.0			14942.45			
Mn	538.0	1	682.2	#DIV/0!	######	144.2	26.8		-	[682.24]			
Mo		0								--			
Na	11600	1	13665.0	#DIV/0!	######	2065.0	17.8			13665.04			
Nd		0								--			
Ni	88.000	1	5299.0	#DIV/0!	######	5211.0	5921.6	+		5299.02			
P	620.0	1	889.3	#DIV/0!	######	269.3	43.4		-	[889.32]			
Pb	18.900	1	300.4	#DIV/0!	######	281.5	1489.2		-	[300.36]			
Pd		0								--			
Rh		0								--			
Ru		0								--			
Sb	7.900	0								--			
Se	1.570	1	391.4	#DIV/0!	######	389.8	#####		-	[391.37]			
Si	296600	1	264516.4	#DIV/0!	######	######	-10.8			264516.40			
Sn		0								--			
Sr	231.0	1	221.5	#DIV/0!	######	-9.5	-4.1		-	[221.48]			
Te		0								--			
Th		0								--			
Ti	3420.0	1	2930.1	#DIV/0!	######	-489.9	-14.3			2930.07			
Tl	0.740	0								--			
U		0								--			
V	112.0	1	116.0	#DIV/0!	######	4.0	3.6		-	[115.99]			
W		0								--			
Y		0								--			
Zn	106.0	1	121.7	#DIV/0!	######	15.7	14.8		-	[121.67]			
Zr		0								--			

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Analysis Report Summary Fri 03-08-96 02:04:34 PM page 1

A0085
ICP-325-3/13-1
3/8/96 DAS

	#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
	1	SPC-BLK 108448	A0085	ICP1A	03/08/96	09:02	DRS	S	INT
	2	SPC-BLK 108448	A0085	ICP1A	03/08/96	09:02	DRS	S	CONC
	3	SPC-STD 960103I100	A0085	ICP1A	03/08/96	09:07	DRS	S	INT
	4	SPC-STD 960103I100	A0085	ICP1A	03/08/96	09:07	DRS	S	CONC
	5	ICP1.0	A0085	ICP1A	03/08/96	09:14		X	IR
	6	ICP1.1B	A0085	ICP1A	03/08/96	09:16		X	IR
	7	ICP1.1A	A0085	ICP1A	03/08/96	09:20		X	IR
	8	ICP1.2	A0085	ICP1A	03/08/96	09:24		X	IR
	9	ICP1.3	A0085	ICP1A	03/08/96	09:28		X	IR
	10	ICP1.4	A0085	ICP1A	03/08/96	09:31		X	IR
	11	ICP1.5	A0085	ICP1A	03/08/96	09:35		X	IR
	12	ICP1.6	A0085	ICP1A	03/08/96	09:39		X	IR
	13	ICP1.7	A0085	ICP1A	03/08/96	09:44		X	IR
	14	ICP1.8	A0085	ICP1A	03/08/96	09:47		X	IR
	15	ICP1.0 960103F100	A0085	ICP1A	03/08/96	09:55	DRS	S	CONC
PASS	16	QC_MCVA1 960226I901	A0085	ICP1A	03/08/96	09:57	DRS	Q	CONC
PASS	17	QC_MCVB2 960221I901	A0085	ICP1A	03/08/96	10:01	DRS	Q	CONC
	18	QC SSTA 951208I902	A0085	ICP1A	03/08/96	10:05	DRS	S	CONC
	19	QC SSTMCV 951208I903	A0085	ICP1A	03/08/96	10:09	DRS	S	CONC
	20	QC_SRM-1643d 108518	A0085	ICP1A	03/08/96	10:12	DRS	Q	CONC
	21	QC CCV1 960126H901	A0085	ICP1A	03/08/96	10:16	DRS	S	CONC
	22	ICP1.0 960103F100	A0085	ICP1A	03/08/96	10:20	DRS	S	CONC
	23	96-2987	A0085	ICP1A	03/08/96	10:23	DRS	S	CONC
	24	96-2988 @5	A0085	ICP1A	03/08/96	10:28	DRS	S	CONC
	25	96-2988 @25	A0085	ICP1A	03/08/96	10:32	DRS	S	CONC
	26	96-2988	A0085	ICP1A	03/08/96	10:36	DRS	S	CONC
PASS	27	QC_MCVA1 960226I901	A0085	ICP1A	03/08/96	10:47	DRS	Q	CONC
	28	ICP1.0 960103F100	A0085	ICP1A	03/08/96	10:50	DRS	S	CONC
	29	96-2617-BLK	A0085	ICP1A	03/08/96	10:54	DRS	S	CONC
	30	96-2617 @5 (F)	A0085	ICP1A	03/08/96	10:59	DRS	S	CONC
	31	96-2617 @25 (F)	A0085	ICP1A	03/08/96	11:02	DRS	S	CONC
	32	96-2617 PSA (F)	A0085	ICP1A	03/08/96	11:06	DRS	S	CONC
	33	MCVA1 @2X	A0085	ICP1A	03/08/96	11:10	DRS	S	CONC
	34	96-2617-DUP (F)	A0085	ICP1A	03/08/96	11:14	DRS	S	CONC
	35	96-2617-DUP PSB (F)	A0085	ICP1A	03/08/96	11:18	DRS	S	CONC
	36	MCVB2 @2	A0085	ICP1A	03/08/96	11:22	DRS	S	CONC
PASS	37	QC_MCVA1 960226I901	A0085	ICP1A	03/08/96	11:29	DRS	Q	CONC
	38	ICP1.0 960103F100	A0085	ICP1A	03/08/96	11:33	DRS	S	CONC
	39	96-2618 (F)	A0085	ICP1A	03/08/96	11:36	DRS	S	CONC
	40	96-2618-DUP (F)	A0085	ICP1A	03/08/96	11:40	DRS	S	CONC
	41	SRM-2709	A0085	ICP1A	03/08/96	11:44	DRS	S	CONC
	42	96-3365 (F)	A0085	ICP1A	03/08/96	11:47	DRS	S	CONC
	43	96-3365-DUP (F)	A0085	ICP1A	03/08/96	11:51	DRS	S	CONC
	44	96-3366 (F)	A0085	ICP1A	03/08/96	11:55	0	S	CONC
	45	96-3366-DUP (F)	A0085	ICP1A	03/08/96	11:59	DRS	S	CONC
PASS	46	QC_MCVA1 960226I901	A0085	ICP1A	03/08/96	12:08	DRS	Q	CONC
	47	ICP1.0 960103F100	A0085	ICP1A	03/08/96	12:12	DRS	S	CONC
	48	96-3520 @5	A0085	ICP1A	03/08/96	12:21	DRS	S	CONC
	49	96-3520	A0085	ICP1A	03/08/96	12:24	DRS	S	CONC
	50	96-3521	A0085	ICP1A	03/08/96	12:27	DRS	S	CONC
	51	BLANK FOR 3522	A0085	ICP1A	03/08/96	12:31	DRS	S	CONC
	52	BLANK SPIKE	A0085	ICP1A	03/08/96	12:34	DRS	S	CONC
	53	BLANK SPIKE @10	A0085	ICP1A	03/08/96	12:39	DRS	S	CONC

*-K-N/A for K on/N: fusions

PSA - Post spike A (MCVA1 : Sample) @ 1:1

PSB - Post spike B (MCVB2 : Sample) @ 1:1

Analysis Report Summary Fri 03-08-96 02:04:34 PM page 2

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	96-3522 @5	A0085	ICP1A	03/08/96	12:43	DRS	S	CONC
55	96-3522	A0085	ICP1A	03/08/96	12:46	DRS	S	CONC
56	96-3522-DUP	A0085	ICP1A	03/08/96	12:50	DRS	S	CONC
PASS 57	QC_MCVA1 9602261901	A0085	ICP1A	03/08/96	13:01	DRS	Q	CONC
PASS 58	QC_MCVB2 9602211901	A0085	ICP1A	03/08/96	13:04	DRS	Q	CONC
59	QC SSTA 951208I902	A0085	ICP1A	03/08/96	13:08	DRS	S	CONC
60	QC SSTMCV 95120BI903	A0085	ICP1A	03/08/96	13:12	DRS	S	CONC
61	QC_ SRM-1643d 108518	A0085	ICP1A	03/08/96	13:16	DRS	Q	CONC
62	QC CCV1 960126H901	A0085	ICP1A	03/08/96	13:20	DRS	S	CONC
63	ICP1.0 960103F100	A0085	ICP1A	03/08/96	13:25	DRS	S	CONC

Analysis Report Averages Fri 03-08-96 02:04:34 PM page 3

#	Sample Name	Ag	Al	As	B	Ba	Be
1	SPC-BLK 108448	7413.67	2310.67	1739.33	1354.33	349.667	197.333
2	SPC-BLK 108448	.0025	.0067	-.0112	.0100	-.0007	.0001
3	SPC-STD 960103I100	7464	2345	1815	1374	351.333	198.333
4	SPC-STD 960103I100	.0044	.0125	.0244	.0124	-.0004	.0001
5	ICP1.0	.74213	.23149	.1773	.13159	.0355	.01976
6	ICP1.1B					.78023	
7	ICP1.1A					7.38966	
8	ICP1.2		62.5618		41.0399		
9	ICP1.3						
10	ICP1.4			21.2352			
11	ICP1.5						
12	ICP1.6						1.72893
13	ICP1.7	28.2438					
14	ICP1.8						
15	ICP1.0 960103F100	.0015	.0079	.0084	.0018	-.0003	.0001
16	QC_MCVA1 960226I901	.4780	9.725	2.501	2.042	.4909	.0945
17	QC_MCVB2 960221I901	-.0068	-.0960	.2983	.1678	.0002	.0008
18	QC SSTA 951208I902	-.0110	251.9	.4039	.0557	.0098	-.0012
19	QC SSTMCV 951208I903	.5129	5.319	2.175	-.0008	.1026	.1006
20	QC_SRM-1643d 108518	0.0034	0.1929	0.0601	.1464	.5136	0.0124
21	QC CCV1 960126H901	.0040	1.966	2.085	2.041	.9813	.9932
22	ICP1.0 960103F100	.0054	.0196	.0042	.0001	.0020	.0011
23	96-2987	.0015	.1216	.0106	1.887	.0022	.0004
24	96-2988 @5	-.0029	-.0049	-.0120	.3165	.0072	-.0001
25	96-2988 @25	-.0035	.0007	-.0102	.0568	.0012	-.0001
26	96-2988	.0007	.0625	.0170	1.559	.0371	.0000
27	QC_MCVA1 960226I901	.4933	10.25	2.649	2.132	.5215	.0987
28	ICP1.0 960103F100	-.0027	.0130	.0117	.0022	-.0001	.0002
29	96-2617-BLK	.0041	.1587	.0250	.0013	.0025	.0001
30	96-2617 @5 (F)	-.0041	1.160	-.0077	-.0076	.0020	-.0001
31	96-2617 (F)	.0044	5.688	.0245	.0065	.0078	.0001
32	96-2614 PSA (F)	.2182	7.699	1.311	1.014	.2441	.0472
33	MCVA1 @2X	.2385	4.935	1.292	1.024	.2493	.0475
34	96-2617-DUP (F)	.0055	6.679	.0412	.0142	.0095	.0002
35	96-2617-DUP PSB (F)	-.0021	3.290	.1775	.0816	.0032	.0003
36	MCVB2 @2	-.0071	-.0295	.1436	.0744	-.0002	.0003
37	QC_MCVA1 960226I901	.4806	9.898	2.555	2.059	.5001	.0947
38	ICP1.0 960103F100	-.0025	.0051	-.0039	-.0034	-.0005	.0001
39	96-2618 (F)	.0052	7.162	.0329	.0135	.0094	.0002
40	96-2618-DUP (F)	.0055	8.186	.0400	.0138	.0102	.0002
41	SRM-2709	.0033	32.83	.0799	.0419	.4021	.0027
42	96-3365 (F)	.0043	6.502	.0369	.0088	.0076	.0001
43	96-3365-DUP (F)	.0068	6.734	.0382	.0115	.0083	.0002
44	96-3366 (F)	.0056	7.341	.0458	.0113	.0089	.0002
45	96-3366-DUP (F)	.0073	8.001	.0382	.0057	.0130	.0002
46	QC_MCVA1 960226I901	.4771	9.832	2.534	2.045	.4954	.0942
47	ICP1.0 960103F100	-.0003	.0128	-.0070	-.0076	-.0010	.0000
48	96-3520 @5	-.0003	.0076	.0042	-.0014	-.0001	-.0000
49	96-3520	.0030	.0272	.0016	-.0058	.0010	.0001
50	96-3521	.0001	.1229	-.0050	.0147	.0001	-.0000
51	BLANK FOR 3522	-.0022	.1672	-.0089	2.459	.0016	-.0001
52	BLANK SPIKE	-.0014	.1238	4.803	1.973	106.8	.0001
53	BLANK SPIKE @10	.0001	.0194	.4919	.1999	9.573	.0000

Analysis Report Averages Fri 03-08-96 02:04:34 PM page 4

#	Sample Name	Ag	Al	As	B	Ba	Be
54	96-3522 @5	-.0023	.0413	-.0029	.4063	.0183	-.0000
55	96-3522	-.0055	.1932	-.0059	1.961	.0060	-.0001
56	96-3522-DUP	-.0063	.2344	-.0064	2.514	.0043	-.0001
57	QC_MCVA1 960226I901	.4787	9.808	2.548	2.045	.5003	.0936
58	QC_MCVB2 960221I901	-.0114	-.0468	.3136	.1582	.0012	.0006
59	QC SSTA 951208I902	-.0189	254.9	.4037	.0459	.0106	-.0015
60	QC SSTMCV 951208I903	.5021	5.103	2.101	-.0032	.1024	.0969
61	QC_ SRM-1643d 108518	Q-.0022	Q.1144	Q.0462	.1433	.5168	Q.0118
62	QC CCV1 960126H901	-.0035	1.954	2.085	2.058	1.004	.9810
63	ICP1.0 960103F100	-.0013	-.0026	-.0037	-.0034	.0013	.0003

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	SPC-BLK 108448	1585.67	1383	612	7082.33	1624.33	506.667
2	SPC-BLK 108448	-.0021	.0071	-.0031	.0189	.0067	.0003
3	SPC-STD 960103I100	1844.33	1764	642.667	7042.67	1591	524.333
4	SPC-STD 960103I100	.0140	.1246	-.0001	.0097	.0028	.0032
5	ICP1.0	.15996	.13823	.06506	.70666	.15836	.05063
6	ICP1.1B					1.94183	1.26723
7	ICP1.1A					17.006	11.6367
8	ICP1.2		81.9149	9.19979			
9	ICP1.3						
10	ICP1.4				21.2962		
11	ICP1.5						
12	ICP1.6						
13	ICP1.7	23.1508					
14	ICP1.8						
15	ICP1.0 960103F100	.0162	.0098	.0171	.0057	-.0004	.0002
16	QC_MCVA1 960226I901	23.85	24.63	.4991	-.0168	.9822	.9829
17	QC_MCVB2 960221I901	.0982	.0380	.0351	1.997	-.0006	.0084
18	QC SSTA 951208I902	198.3	251.5	.0656	.2096	.0115	.2353
19	QC SSTMCV 951208I903	1.832	1.340	.2136	.0189	-.0010	.3172
20	QC_SRM-1643d 108518	.0857	Q31.65	Q.0141	.0085	Q.0272	Q.0212
21	QC CCV1 960126H901	1.981	2.099	1.014	.0022	1.020	.5054
22	ICP1.0 960103F100	.0227	.0169	.0204	.0123	.0022	.0018
23	96-2987	.0221	.6825	-.0056	.0091	.0040	.0097
24	96-2988 @5	.0015	.2928	.0008	-.0399	-.0029	-.0004
25	96-2988 @25	-.0059	.0901	.0031	-.0314	-.0033	-.0015
26	96-2988	.0424	1.449	-.0007	-.0414	.0038	.0015
27	QC_MCVA1 960226I901	25.07	25.61	.5005	-.0765	1.023	1.032
28	ICP1.0 960103F100	.0424	.0497	-.0020	-.0229	-.0005	.0029
29	96-2617-BLK	.0364	.3916	-.0028	.0254	.0071	.0028
30	96-2617 @5 (F)	1.512	.1037	-.0101	-.0222	-.0029	.1104
31	96-2617 (F)	7.532	.4608	-.0021	.0552	.0081	.5585
32	96-2614 PSA (F)	15.67	12.55	.2383	.0008	.4928	.7644
33	MCVA1 @2X	12.11	12.47	.2474	-.0465	.4982	.5000
34	96-2617-DUP (F)	8.573	.5261	-.0016	.0579	.0126	.6377
35	96-2617-DUP PSB (F)	4.292	.2696	-.0071	1.009	.0043	.3241
36	MCVB2 @2	.0319	.0007	-.0049	.9888	-.0039	.0012
37	QC_MCVA1 960226I901	24.17	24.80	.4810	-.0523	.9932	.9945
38	ICP1.0 960103F100	.0121	.0208	-.0119	-.0252	-.0016	.0026
39	96-2618 (F)	8.441	.5436	-.0069	.0644	.0129	.5452
40	96-2618-DUP (F)	9.746	.5676	-.0085	.0602	.0120	.6820

Analysis Report Averages Fri 03-08-96 02:04:34 PM page 5

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
41	SRM-2709	.0777	9.032	-.0068	.0371	.0195	.0790
42	96-3365 (F)	7.408	.5235	-.0095	.0536	.0106	.5829
43	96-3365-DUP (F)	7.760	.4738	-.0081	.0753	.0127	.6093
44	96-3366 (F)	8.847	.5039	-.0001	.0681	.0140	.4647
45	96-3366-DUP (F)	9.557	.5386	-.0008	.0724	.0115	.4538
46	QC_MCVA1 960226I901	24.00	24.68	.4933	-.0514	.9867	.9808
47	ICP1.0 960103F100	.0184	.0186	-.0089	-.0043	-.0009	.0005
48	96-3520 @5	.0096	.0266	.0156	-.0089	-.0005	.0126
49	96-3520	-.0037	.1977	.0225	.0223	.0061	.0661
50	96-3521	-.0068	.0912	.0329	.0038	-.0017	.0656
51	BLANK FOR 3522	-.0003	.0057	.0415	-.0509	-.0044	-.0014
52	BLANK SPIKE	.0076	.0042	.9374	-.0489	-.0123	4.618
53	BLANK SPIKE @10	.0075	-.0174	.1407	.0056	.0008	.4693
54	96-3522 @5	-.0038	.0389	.0319	-.0086	-.0013	.0266
55	96-3522	-.0041	.2441	.0551	-.0546	-.0034	.1145
56	96-3522-DUP	-.0049	.2552	.0298	-.0519	-.0030	.1247
57	QC_MCVA1 960226I901	23.89	24.59	.5082	-.0352	.9890	.9786
58	QC_MCVB2 960221I901	.0721	.0170	.0599	1.987	-.0044	.0028
59	QC SSTA 951208I902	198.4	250.0	.0952	.1677	.0084	.2390
60	QC SSTMCV 951208I903	1.652	1.132	.2390	.0059	-.0027	.3084
61	QC_ SRM-1643d 108518	.0182	30.94	0.0758	-.0132	0.0228	0.0181
62	QC CCV1 960126H901	1.937	2.028	1.059	-.0227	1.021	.5048
63	ICP1.0 960103F100	.0008	.0119	.0225	-.0048	-.0017	-.0027

#	Sample Name	Cu	Dy	Eu	Fe	K	La
1	SPC-BLK 108448	556	2143.33	381.333	641.333	2254.33	1112.33
2	SPC-BLK 108449	.0027	.0016	.0006	-.0042	.6785	.0043
3	SPC-STD 960103I100	20988	2353	382.333	695	2247.67	1110.67
4	SPC-STD 960103I100	10.24	.0056	.0008	-.0049	.5277	.0035
5	ICP1.0	.05649	.2148	.03813	.06433	.22533	.11129
6	ICP1.1B	.46283			7.36603		
7	ICP1.1A	4.0152			68.3544		
8	ICP1.2					2.46693	
9	ICP1.3		40.7334	9.92443			5.24683
10	ICP1.4						
11	ICP1.5						
12	ICP1.6						
13	ICP1.7						
14	ICP1.8						
15	ICP1.0 960103F100	-.0009	.0001	.0005	-.0067	-.0372	.0012
16	QC_MCVA1 960226I901	.9413	-.0062	.0004	19.96	23.80	-.0052
17	QC_MCVB2 960221I901	.0394	1.994	2.010	.0276	-1.703	.9915
18	QC SSTA 951208I902	-.1045	.0347	.0928	198.4	101.8	50.89
19	QC SSTMCV 951208I903	-.0012	.0009	.0084	.7716	50.34	.0643
20	QC_SRM-1643d 108518	0.0164	.0005	.0018	0.1373	02.238	.0192
21	QC CCV1 960126H901	1.984	.0009	.0008	2.039	4.677	.0040
22	ICP1.0 960103F100	.0022	.0017	.0010	-.0015	.0818	.0033
23	96-2987	.0093	.0003	.0006	.0282	.0818	.0006
24	96-2988 @5	-.0017	-.0047	-.0014	-.0092	-1.190	-.0084
25	96-2988 @25	-.0050	-.0041	-.0009	-.0080	-1.123	-.0059
26	96-2988	.0134	-.0006	-.0014	-.0051	-.9889	-.0072
27	QC_MCVA1 960226I901	.9908	-.0132	-.0020	20.91	23.57	-.0163

Analysis Report Averages Fri 03-08-96 02:04:34 PM page 6

#	Sample Name	Cu	Dy	Eu	Fe	K	La
28	ICP1.0 960103F100	-.0026	-.0038	-.0007	.0310	-.9963	-.0049
29	96-2617-BLK	.0072	.0036	.0014	.0266	2431.	.0062
30	96-2617 @5 (F)	-.0053	-.0046	-.0010	.7720	494.8	-.0062
31	96-2617 (F)	.0072	.0044	.0022	3.793	2369.	.0084
32	96-2614 PSA (F)	.4731	-.0028	.0007	11.81	1209.	-.0025
33	MCVA1 @2X	.4651	-.0072	-.0010	10.13	12.23	-.0094
34	96-2617-DUP (F)	.0130	.0049	.0025	4.283	2367.	.0092
35	96-2617-DUP PSB (F)	.0142	.9870	.9935	2.139	1190.	.4977
36	MCVB2 @2	.0064	1.009	1.022	-.0014	-1.257	.5004
37	QC_MCVA1 960226I901	.9480	-.0094	-.0008	20.15	22.86	-.0098
38	ICP1.0 960103F100	-.0043	-.0034	-.0007	.0068	-1.294	-.0048
39	96-2618 (F)	.0123	.0046	.0024	4.915	2342.	.0086
40	96-2618-DUP (F)	.0102	.0055	.0027	6.051	2335.	.0090
41	SRM-2709	.0142	.0052	.0028	15.48	2363.	.0179
42	96-3365 (F)	.0089	.0043	.0022	3.663	2327.	.0084
43	96-3365-DUP (F)	.0115	.0074	.0033	3.865	2264.	.0126
44	96-3366 (F)	.0120	.0065	.0028	5.811	2256.	.0129
45	96-3366-DUP (F)	.0067	.0081	.0036	6.000	2196.	.0145
46	QC_MCVA1 960226I901	.9357	-.0093	-.0008	20.02	022.28	-.0105
47	ICP1.0 960103F100	-.0022	-.0010	-.0000	.0056	-1.071	-.0006
48	96-3520 @5	.0032	-.0011	-.0005	.0791	-.2150	-.0019
49	96-3520	.0204	.0033	.0010	.4209	.8453	.0064
50	96-3521	.0441	-.0006	.0001	.2740	.1483	.0011
51	BLANK FOR 3522	.0093	-.0073	-.0024	.0063	-1.594	-.0127
52	BLANK SPIKE	4.740	-.0059	-.0017	.0086	-1.594	-.0109
53	BLANK SPIKE @10	.4762	.0002	.0001	-.0081	-.1335	.0005
54	96-3522 @5	.0140	-.0022	-.0006	.5376	-.5858	-.0027
55	96-3522	.0648	-.0073	-.0025	2.638	-1.631	-.0124
56	96-3522-DUP	.0632	-.0070	-.0022	2.994	-1.528	-.0124
57	QC_MCVA1 960226I901	.9478	-.0068	-.0003	19.94	23.04	-.0066
58	QC_MCVB2 960221I901	.0255	2.007	2.027	.0264	-2.069	1.009
59	QC SSTA 951208I902	-.1117	.0322	.0912	197.6	99.72	52.47
60	QC SSTMCV 951208I903	-.0026	-.0009	.0069	.6123	48.10	.0300
61	QC_ SRM-1643d 108518	0.0137	-.0027	.0001	0.0872	01.609	.0038
62	QC CCV1 960126H901	2.017	-.0030	-.0009	2.016	4.004	-.0053
63	ICP1.0 960103F100	.0003	.0001	-.0001	-.0102	-.0222	-.0004

#	Sample Name	Li	Mg	Mn	Mo	Na	Nd
1	SPC-BLK 108448	437	2678	217.667	895	457	4122.33
2	SPC-BLK 108448	.0014	-.0013	-.0002	.0008	.0455	.0166
3	SPC-STD 960103I100	21639	2765.67	66187.3	930.667	460.333	4129.67
4	SPC-STD 960103I100	10.13	-.0064	10.49	.0030	.0638	.0195
5	ICP1.0	.04466	.26766	.02356	.0891	.04509	.41306
6	ICP1.1B		4.66613		1.27123	.49343	
7	ICP1.1A		40.0173		11.3819	4.46613	
8	ICP1.2	10.597		6.3866			
9	ICP1.3						13.7883
10	ICP1.4						
11	ICP1.5						
12	ICP1.6						
13	ICP1.7						
14	ICP1.8						

Analysis Report Averages Fri 03-08-96 02:04:34 PM page 7

#	Sample Name	Li	Mg	Mn	Mo	Na	Nd
15	ICP1.0 960103F100	-.0021	-.0035	-.0023	.0015	.0059	.0020
16	QC_MCVA1 960226I901	1.959	31.88	.5009	.9894	36.07	-.0295
17	QC_MCVB2 960221I901	-.0035	-.1319	-.0015	.0100	.2082	1.965
18	QC SSTA 951208I902	.0327	-.8936	.0178	.1068	.9254	.2241
19	QC SSTMCV 951208I903	-.0003	-.0973	.1042	.0067	5.189	.0091
20	QC_SRM-1643d 108518	Q.0163	Q8.581	Q.0381	.1139	21.93	.0173
21	QC CCV1 960126H901	1.944	2.103	1.032	1.972	8.349	.0085
22	ICP1.0 960103F100	.0000	.0033	-.0012	.0061	.0582	.0118
23	96-2987	.1532	.2219	.0226	.0116	9.778	.0078
24	96-2988 @5	134.9	.0110	-.0025	.0012	.9009	-.0338
25	96-2988 @25	27.53	.0038	-.0025	.0007	.2195	-.0211
26	96-2988	600.0	.1339	-.0016	.0178	4.483	-.0337
27	QC_MCVA1 960226I901	2.053	33.30	.5241	1.038	38.16	-.0782
28	ICP1.0 960103F100	.0049	.0483	-.0017	.0023	.0248	-.0207
29	96-2617-BLK	.0038	.0948	.0517	.0083	1.076	.0216
30	96-2617 @5 (F)	.0047	.0139	.0141	.0012	7.312	-.0247
31	96-2617 (F)	.0504	.1226	.0807	.0202	35.28	.0271
32	96-2614 PSA (F)	.9690	15.96	.2897	.5040	35.91	-.0146
33	MCVA1 @2X	.9840	16.26	.2525	.5000	18.49	-.0415
34	96-2617-DUP (F)	.0570	.1648	.0893	.0220	40.27	.0342
35	96-2617-DUP PSB (F)	.0246	.0028	.0432	.0127	20.28	.9781
36	MCVB2 @2	-.0073	-.0810	-.0027	.0023	.0640	.9778
37	QC_MCVA1 960226I901	1.967	32.17	.5054	1.001	37.12	-.0577
38	ICP1.0 960103F100	-.0046	.0047	-.0023	.0007	.0080	-.0249
39	96-2618 (F)	.0153	.1434	.0991	.0195	35.05	.0305
40	96-2618-DUP (F)	.0182	.1422	.0977	.0230	43.06	.0335
41	SRM-2709	.0212	7.026	.3208	.0132	6.425	.0331
42	96-3365 (F)	.0011	.1351	.0874	.0192	35.55	.0257
43	96-3365-DUP (F)	.0052	.1370	.0858	.0223	37.32	.0466
44	96-3366 (F)	.0024	.1438	.0934	.0200	39.09	.0415
45	96-3366-DUP (F)	.0039	.1281	.1050	.0199	39.48	.0492
46	QC_MCVA1 960226I901	1.944	31.94	.5037	.9969	36.90	-.0585
47	ICP1.0 960103F100	-.0038	.0139	-.0020	.0011	.0416	-.0105
48	96-3520 @5	-.0009	.0391	.0895	.0026	.0732	-.0074
49	96-3520	.0032	.2559	.4086	.0186	.2695	.0203
50	96-3521	.0256	.1348	.0930	.0186	101.9	.0024
51	BLANK FOR 3522	-.0060	-.0194	.0006	-.0017	2.828	-.0452
52	BLANK SPIKE	-.0024	-.0233	.0003	-.0084	2.311	-.0433
53	BLANK SPIKE @10	-.0006	-.0107	.0001	-.0009	.2397	-.0007
54	96-3522 @5	-.0019	.0325	.0993	.0003	1.095	-.0151
55	96-3522	-.0047	.2361	.4824	.0023	5.438	-.0496
56	96-3522-DUP	-.0033	.2382	.4862	.0033	5.954	-.0474
57	QC_MCVA1 960226I901	1.946	31.86	.5037	.9953	37.02	-.0429
58	QC_MCVB2 960221I901	-.0049	-.1335	.0003	.0066	.1903	1.963
59	QC SSTA 951208I902	.0316	-.7931	.0190	.1000	.9105	.2054
60	QC SSTMCV 95120BI903	-.0009	-.0974	.1039	.0030	5.176	-.0090
61	QC_ SRM-1643d 108518	Q.0160	Q8.409	Q.0391	Q.1099	Q22.44	-.0063
62	QC CCV1 960126H901	1.985	2.078	1.030	1.983	8.640	-.0223
63	ICP1.0 960103F100	-.0005	-.0229	.0003	.0000	.0153	-.0029

Analysis Report Averages Fri 03-08-96 02:04:34 PM page 8

#	Sample Name	Ni	P	Pb	Pd	Rh	Ru
1	SPC-BLK 108448	546	1398.67	15189.7	16636.3	16787	4739.33
2	SPC-BLK 108448	.0062	.0059	.0068	.0542	.0239	.0042
3	SPC-STD 960103I100	549	1553	136200	16605.7	16782.3	4767.67
4	SPC-STD 960103I100	.0072	-.0177	10.27	.0398	.0233	.0085
5	ICP1.0	.05409	.14096	1.52433	1.66333	1.67816	.47789
6	ICP1.1B	.65139		7.66073			
7	ICP1.1A	5.65493		59.2452			
8	ICP1.2		12.482				
9	ICP1.3						34.3328
10	ICP1.4						
11	ICP1.5						
12	ICP1.6						
13	ICP1.7						
14	ICP1.8				18.2707	42.3892	
15	ICP1.0 960103F100	.0005	-.0054	.0042	.0394	.0222	.0005
16	QC_MCVA1 960226I901	.9782	4.768	2.411	-.1172	-.0441	-.0083
17	QC_MCVB2 960221I901	.0271	.1046	.2385	1.814	1.982	2.031
18	QC SSTA 951208I902	192.9	201.7	1.000	1.233	.2666	.1752
19	QC SSTMCV 951208I903	.8456	4.300	3.114	.0623	.0136	.0054
20	QC_SRM-1643d 108518	0.1660	.0658	0.0349	.0321	.0136	.0007
21	QC CCV1 960126H901	2.088	4.861	2.038	.0347	.0107	.0070
22	ICP1.0 960103F100	.0440	.0203	.0171	.0572	.0212	.0056
23	96-2987	.0501	.5909	.0189	.0223	.0120	.0042
24	96-2988 @5	.0221	-.0084	-.0166	-.0483	-.0266	-.0127
25	96-2988 @25	.0217	.0029	-.0175	-.0403	-.0263	-.0119
26	96-2988	.0253	.0339	.0261	.0468	.0058	-.0044
27	QC_MCVA1 960226I901	1.060	4.925	2.481	-.2307	-.1009	-.0192
28	ICP1.0 960103F100	.0098	.0127	-.0069	-.0371	-.0193	-.0078
29	96-2617-BLK	.7585	.0484	.0311	.0716	.0327	.0149
30	96-2617 @5 (F)	.2165	1.686	-.0175	-.0585	-.0306	-.0116
31	96-2617 (F).	1.061	8.573	.0545	.0903	.0456	.0200
32	96-2614 PSA (F)	1.021	6.614	1.231	-.0428	-.0188	.0025
33	MCVA1 @2X	.5153	2.413	1.204	-.1222	-.0555	-.0125
34	96-2617-DUP (F)	1.101	9.801	.0660	.1096	.0510	.0214
35	96-2617-DUP PSB (F)	.5649	4.854	.1332	.9134	.9965	1.014
36	MCVB2 @2	.0191	.0508	.1062	.8922	.9835	1.018
37	QC_MCVA1 960226I901	1.007	4.746	2.409	-.1700	-.0741	-.0094
38	ICP1.0 960103F100	.0042	-.0121	-.0149	-.0420	-.0242	-.0103
39	96-2618 (F)	1.033	8.598	.0719	.1039	.0481	.0251
40	96-2618-DUP (F)	.5492	10.74	.0689	.0999	.0514	.0278
41	SRM-2709	2.492	.4182	.1412	.0729	.0388	.0299
42	96-3365 (F)	.6873	9.319	.0508	.0875	.0414	.0213
43	96-3365-DUP (F)	.5671	9.752	.0715	.1411	.0690	.0276
44	96-3366 (F)	1.395	8.103	.0712	.1297	.0659	.0290
45	96-3366-DUP (F)	1.381	8.674	.0803	.1576	.0743	.0345
46	QC_MCVA1 960226I901	.9956	4.740	2.389	-.1782	-.0747	-.0040
47	ICP1.0 960103F100	.0009	-.0025	-.0089	-.0008	-.0040	-.0062
48	96-3520 @5	.0836	-.0177	-.0028	-.0102	-.0050	-.0020
49	96-3520	.3558	-.0082	.0182	.0684	.0282	.0077
50	96-3521	.1003	.0017	.0033	.0161	-.0009	.0018
51	BLANK FOR 3522	.0294	-.0428	-.0168	-.1252	-.0560	-.0140
52	BLANK SPIKE	4.735	-.0344	4.546	-.1280	-.0535	-.0055
53	BLANK SPIKE @10	.4844	-.0345	.4729	-.0015	.0039	.0034

Analysis Report Averages Fri 03-08-96 02:04:34 PM page 9

#	Sample Name	Ni	P	Pb	Pd	Rh	Ru
54	96-3522 @5	.1399	-.0140	-.0014	-.0400	-.0129	-.0022
55	96-3522	.6723	-.0291	-.0011	-.1395	-.0633	-.0145
56	96-3522-DUP	.7360	-.0203	.0051	-.1324	-.0637	-.0136
57	QC_MCVA1 960226I901	.9884	4.740	2.392	-.1506	-.0566	-.0029
58	QC_MCVB2 960221I901	.0240	.0581	.1961	1.873	1.968	1.979
59	QC SSTA 951208I902	194.4	201.8	.9483	.8246	.2443	.2572
60	QC SSTMCV 951208I903	.6982	4.038	2.990	-.0300	-.0100	-.0048
61	QC_ SRM-1643d 108518	0.1103	-.0231	0.0008	-.0437	-.0222	-.0104
62	QC CCV1 960126H901	2.083	4.834	1.977	-.0586	-.0284	-.0063
63	ICP1.0 960103F100	.0298	-.0094	-.0115	.0001	-.0029	-.0038

#	Sample Name	Sb	Se	Si	Sn	Sr	Te
1	SPC-BLK 108448	2845.33	1574.33	4280.33	7593.67	163.333	11290
2	SPC-BLK 108448	.0099	.0017	-.0018	.0684	.0001	.0190
3	SPC-STD 960103I100	2933.33	1614.67	4371	7696.67	166	11993.7
4	SPC-STD 960103I100	.0377	.0276	.0231	.1071	.0004	.0480
5	ICP1.0	.28803	.1567	.42583	.76216	.01636	1.12593
6	ICP1.1B					.83916	
7	ICP1.1A					8.12076	
8	ICP1.2						
9	ICP1.3						
10	ICP1.4	25.3773					
11	ICP1.5						
12	ICP1.6			73.2207			48.934
13	ICP1.7		3.2287				
14	ICP1.8				7.43476		
15	ICP1.0 960103F100	-.0028	.0163	.0788	.0249	.0002	.0162
16	QC_MCVA1 960226I901	2.521	2.492	18.25	.1348	.4995	.0342
17	QC_MCVB2 960221I901	.0856	.0840	7.587	2.100	.0028	1.922
18	QC SSTA 951208I902	.4590	1.569	-.1482	3.865	.0204	.6969
19	QC SSTMCV 951208I903	2.180	2.640	2.964	.0979	.0018	.0228
20	QC_SRM-1643d 108518	0.0589	0.0400	2.754	.0218	.2997	.0107
21	QC CCV1 960126H901	.0170	2.020	4.855	.0695	1.980	.0404
22	ICP1.0 960103F100	.0040	.0169	.0363	.0622	.0022	.0182
23	96-2987	.0055	.0354	1.986	.0146	.0046	.0083
24	96-2988 @5	-.0082	.0067	1.013	-.0994	.0020	-.0168
25	96-2988 @25	-.0128	.0003	.2169	-.1192	.0006	-.0153
26	96-2988	.0197	.0420	4.929	.0138	.0108	.0249
27	QC_MCVA1 960226I901	2.600	2.599	19.05	-.0526	.5317	-.0048
28	ICP1.0 960103F100	-.0097	.0078	.0473	-.0925	.0009	-.0161
29	96-2617-BLK	.0169	.0493	.3885	.1156	.0029	.0322
30	96-2617 @5 (F)	-.0212	-.0065	.5775	-.1173	.0109	-.0162
31	96-2617 (F)	.0271	.0631	2.874	.1773	.0532	.0442
32	96-2614 PSA (F)	1.276	1.290	10.69	.0941	.2731	.0240
33	MCVA1 @2X	1.266	1.264	9.315	-.0583	.2540	-.0061
34	96-2617-DUP (F)	.0317	.0792	3.594	.1828	.0604	.0470
35	96-2617-DUP PSB (F)	.0539	.0760	4.444	1.101	.0314	.9911
36	MCVB2 @2	.0334	.0405	2.997	.9644	.0009	.9734
37	QC_MCVA1 960226I901	2.534	2.510	18.47	-.0114	.5119	.0046
38	ICP1.0 960103F100	-.0173	-.0020	.0404	-.1085	.0003	-.0115
39	96-2618 (F)	.0319	.0786	3.854	.2092	.0602	.0549
40	96-2618-DUP (F)	.0340	.0921	4.320	.2337	.0738	.0586

Analysis Report Averages Fri 03-08-96 02:04:34 PM page 10

#	Sample Name	Sb	Se	Si	Sn	Sr	Te
41	SRM-2709	.0683	.1840	124.4	.3228	.1041	.0928
42	96-3365 (F)	.0259	.0729	3.331	.1918	.0546	.0472
43	96-3365-DUP (F)	.0427	.0836	3.440	.2311	.0567	.0644
44	96-3366 (F)	.0403	.0802	4.478	.2528	.0552	.0542
45	96-3366-DUP (F)	.0358	.0948	4.001	.2860	.1274	.0592
46	QC_MCVA1 9602261901	2.503	2.527	18.30	.0296	.5103	-.0034
47	ICP1.0 960103F100	-.0011	.0110	.0284	-.0585	.0005	-.0030
48	96-3520 @5	-.0056	-.0006	.0426	-.0153	-.0002	-.0031
49	96-3520	-.0008	-.0102	.2061	.0799	.0005	.0029
50	96-3521	-.0017	-.0035	.5384	-.0063	.0003	-.0106
51	BLANK FOR 3522	-.0157	-.0168	2.880	-.1170	-.0005	-.0191
52	BLANK SPIKE	-.0028	.9118	2.378	-.1060	-.0004	-.0091
53	BLANK SPIKE @10	-.0042	.0891	.2410	.0282	-.0001	-.0015
54	96-3522 @5	-.0037	-.0085	.6467	-.0122	-.0001	-.0105
55	96-3522	-.0184	-.0261	3.129	-.1147	-.0001	-.0278
56	96-3522-DUP	-.0212	-.0151	4.143	-.1022	.0001	-.0235
57	QC_MCVA1 9602261901	2.501	2.486	18.25	.1010	.5089	.0071
58	QC_MCVB2 9602211901	.0795	.0528	6.967	2.010	.0023	1.865
59	QC SSTA 951208I902	.4576	1.532	-.3146	3.628	.0201	.6230
60	QC SSTMCV 951208I903	2.121	2.561	2.850	.0239	.0013	-.0042
61	QC_ SRM-1643d 108518	0.0388	0-.0022	2.670	-.0904	.3023	-.0226
62	QC CCV1 960126H901	-.0089	1.995	4.804	-.0486	2.033	-.0077
63	ICP1.0 960103F100	-.0107	-.0094	-.0131	-.0375	.0005	-.0184

#	Sample Name	Th	Ti	Tl	U	V	W
1	SPC-BLK 108448	2599	718.667	418.333	18872.7	1086	350
2	SPC-BLK 108448	-.0058	.0011	-.0028	.2714	.0021	.0025
3	SPC-STD 960103I100	2619.67	721.667	441	18840.7	1090	365.333
4	SPC-STD 960103I100	.0059	.0015	.0334	.2300	.0028	.0295
5	ICP1.0	.26103	.07193	.04176	1.88843	.10883	.03533
6	ICP1.1B		1.44723				
7	ICP1.1A		13.6782				
8	ICP1.2						
9	ICP1.3	11.2691					
10	ICP1.4					11.286	
11	ICP1.5				45.1255		
12	ICP1.6						
13	ICP1.7			1.23589			
14	ICP1.8						2.8961
15	ICP1.0 960103F100	.0007	.0001	.0071	.0168	.0001	.0256
16	QC_MCVA1 9602261901	.0427	.9761	2.420	-.4551	.9888	.0355
17	QC_MCVB2 9602211901	9.892	.0041	.0114	23.93	.0009	1.999
18	QC SSTA 951208I902	.1832	.0050	.3618	200.5	.0486	.5934
19	QC SSTMCV 95120BI903	.0302	.0000	.0106	20.33	.5237	.0301
20	QC_SRM-1643d 108518	-.0109	.0007	0.0192	.4027	0.0366	-.0016
21	QC CCV1 960126H901	.0100	.0005	1.967	.1252	.9824	.0185
22	ICP1.0 960103F100	-.0008	.0007	.0103	.2162	.0022	.0095
23	96-2987	.0045	.0008	.0084	.1254	.0006	.0127
24	96-2988 @5	.0061	-.0017	-.0073	-.4655	-.0033	-.0066
25	96-2988 @25	-.0018	-.0014	-.0125	-.3347	-.0030	.0041
26	96-2988	.0128	.0002	.0200	-.3061	-.0006	-.0049
27	QC_MCVA1 9602261901	.0452	1.030	2.505	-1.110	1.035	.0225

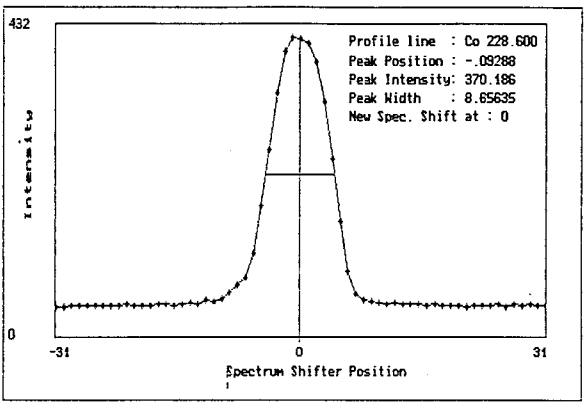
Analysis Report Averages Fri 03-08-96 02:04:34 PM page 11

#	Sample Name	Th	Ti	Tl	U	V	W
28	ICP1.0 960103F100	-.0029	.0003	-.0011	-.2542	-.0007	-.0049
29	96-2617-BLK	.0047	.0045	.0095	.3620	.0028	.0153
30	96-2617 @5 (F)	-.0003	-.0007	-.0167	-.3055	-.0031	-.0071
31	96-2617 (F)	.0048	.0066	.0292	.8457	.0044	.0180
32	96-2614 PSA (F)	.0268	.4877	1.223	-.0004	.4912	.0225
33	MCVA1 @2X	.0241	.4928	1.217	-.5777	.4966	.0067
34	96-2617-DUP (F)	.0028	.0097	.0299	.9422	.0064	.0250
35	96-2617-DUP PSB (F)	4.956	.0052	.0187	11.90	.0011	1.013
36	MCVB2 @2	5.060	-.0003	-.0009	11.62	-.0042	.9973
37	QC_MCVA1 960226I901	.0444	.9916	2.441	-.8094	.9970	.0269
38	ICP1.0 960103F100	.0035	-.0009	-.0120	-.3639	-.0023	-.0060
39	96-2618 (F)	.0080	.0127	.0291	.8828	.0057	.0280
40	96-2618-DUP (F)	.0125	.0107	.0317	.9664	.0063	.0167
41	SRM-2709	.0260	1.378	.0646	.3502	.0545	.0394
42	96-3365 (F)	.0067	.0087	.0324	.8305	.0045	.0175
43	96-3365-DUP (F)	.0054	.0097	.0327	1.147	.0065	.0282
44	96-3366 (F)	.0035	.0115	.0221	1.016	.0081	.0342
45	96-3366-DUP (F)	.0026	.0087	.0393	1.088	.0079	.0370
46	QC_MCVA1 960226I901	.0424	.9868	2.437	-.7661	.9902	.0224
47	ICP1.0 960103F100	-.0005	-.0002	-.0022	-.1299	-.0007	.0024
48	96-3520 @5	-.0018	.0007	.0064	-.0619	-.0001	-.0041
49	96-3520	-.0069	.0065	.0090	.2891	.0037	-.0041
50	96-3521	-.0048	.0179	-.0031	.1007	.0039	.0384
51	BLANK FOR 3522	.0167	.0004	.0048	-.6552	-.0038	-.0133
52	BLANK SPIKE	.0279	.0001	1.832	-.6332	-.0032	.0026
53	BLANK SPIKE @10	.0037	.0003	.1966	.0131	.0000	-.0054
54	96-3522 @5	.0032	.0043	.0102	-.1763	.0008	-.0003
55	96-3522	.0124	.0217	.0121	-.7442	.0029	-.0177
56	96-3522-DUP	.0081	.0228	.0037	-.6575	.0033	-.0100
57	QC_MCVA1 960226I901	.0503	.9832	2.414	-.5640	.9873	.0191
58	QC_MCVB2 960221I901	9.951	.0029	.0108	23.23	-.0028	1.962
59	QC SSTA 951208I902	.4914	.0020	.3230	202.4	.0440	.5521
60	QC SSTMCV 951208I903	.0464	-.0008	.0038	19.75	.5085	.0126
61	QC_ SRM-1643d 108518	-.0069	-.0005	0-.0009	-.0381	0.0325	-.0056
62	QC CCV1 960126H901	.0150	-.0010	1.952	-.3390	.9786	-.0102
63	ICP1.0 960103F100	-.0049	-.0002	-.0014	-.0690	-.0007	-.0147

#	Sample Name	Y	Zn	Zr
1	SPC-BLK 108448	276.333	385.667	876
2	SPC-BLK 108448	.0007	.0001	.0011
3	SPC-STD 960103I100	276.333	136023	874
4	SPC-STD 960103I100	.0007	9.888	-.0001
5	ICP1.0	.02773	.04256	.08753
6	ICP1.1B		2.80463	2.55163
7	ICP1.1A		26.2445	23.9376
8	ICP1.2			
9	ICP1.3			
10	ICP1.4	2.92336		
11	ICP1.5			
12	ICP1.6			
13	ICP1.7			
14	ICP1.8			

Analysis Report Averages Fri 03-08-96 02:04:34 PM page 12

#	Sample Name	Y	Zn	Zr			
15	ICP1.0 960103F100	-.0000	-.0021	-.0012			
16	QC_MCVA1 960226I901	-.0010	.9598	1.952			
17	QC_MCVB2 960221I901	.9851	.0019	-.0465			
18	QC SSTA 951208I902	.0237	.0921	.0356			
19	QC SSTMCV 951208I903	.0007	-.0024	.5113			
20	QC_SRM-1643d 108518	.0009	0.0715	.0007			
21	QC CCV1 960126H901	.0003	1.010	-.0010			
22	ICP1.0 960103F100	.0004	-.0008	-.0003			
23	96-2987	.0003	.0624	.0002			
24	96-2988 @5	-.0014	.0012	-.0047			
25	96-2988 @25	-.0016	-.0020	-.0043			
26	96-2988	-.0010	.0242	-.0023			
27	QC_MCVA1 960226I901	-.0036	1.009	2.065			
28	ICP1.0 960103F100	-.0013	-.0007	-.0001			
29	96-2617-BLK	.0010	.0038	.0030			
30	96-2617 @5 (F)	-.0017	-.0000	-.0008			
31	96-2617 (F)	.0013	.0184	.0189			
32	96-2614 PSA (F)	-.0007	.5030	.9787			
33	MCVA1 @2X	-.0019	.4985	.9852			
34	96-2617-DUP (F)	.0014	.0226	.0215			
35	96-2617-DUP PSB (F)	.4879	.0124	-.0222			
36	MCVB2 @2	.4960	-.0016	-.0327			
37	QC_MCVA1 960226I901	-.0023	.9828	1.990			
38	ICP1.0 960103F100	-.0014	-.0016	-.0026			
39	96-2618 (F)	.0014	.0228	.0188			
40	96-2618-DUP (F)	.0016	.0251	.0210			
41	SRM-2709	.0089	.0572	.0193			
42	96-3365 (F)	.0011	.0085	.0212			
43	96-3365-DUP (F)	.0022	.0086	.0215			
44	96-3366 (F)	.0018	.0128	.0300			
45	96-3366-DUP (F)	.0024	.0129	.0349			
46	QC_MCVA1 960226I901	-.0023	.9911	1.986			
47	ICP1.0 960103F100	-.0009	-.0012	-.0005			
48	96-3520 @5	-.0004	.0018	-.0013			
49	96-3520	.0009	.0138	.0017			
50	96-3521	-.0001	.0763	-.0006			
51	BLANK FOR 3522	-.0025	.0003	-.0044			
52	BLANK SPIKE	-.0026	4.729	-.0038			
53	BLANK SPIKE @10	-.0002	.4868	-.0008			
54	96-3522 @5	-.0008	.0370	-.0018			
55	96-3522	-.0027	.1717	-.0046			
56	96-3522-DUP	-.0028	.1666	-.0031			
57	QC_MCVA1 960226I901	-.0012	.9960	1.982			
58	QC_MCVB2 960221I901	.9725	.0039	-.0576			
59	QC SSTA 951208I902	.0217	.0960	.0090			
60	QC SSTMCV 951208I903	-.0006	-.0017	.5051			
61	QC_ SRM-1643d 108518	-.0008	0.0743	-.0021			
62	QC CCV1 960126H901	-.0016	1.041	-.0040			
63	ICP1.0 960103F100	-.0004	-.0006	-.0011			



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ICP-325-405-1
3/8/96 DRS

Analysis Report Fri 03-08-96 09:03:21 AM page 1

Method: ICP1A Sample Name: SPC-BLK 108448 Operator: DRS
Run Time: 03/08/96 09:02:03
Comment: SPC-BLK FOR Mn/Cu RATIO
Mode: INT Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Avge	7414	2311	1739	1354	350	197	1586
SDev	15	4	6	8	1	1	13
%RSD	.2002	.1749	.3696	.5639	.1651	.2926	.8327
#1	7430	2315	1742	1361	350	197	1583
#2	7401	2307	1732	1356	350	197	1574
#3	7410	2310	1744	1346	349	198	1600

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Avge	1383	612	7082	1624	507	556	2143
SDev	3	26	12	12	11	3	6
%RSD	.1913	4.286	.1765	.7345	2.218	.5396	.2851
#1	1381	616	7095	1634	504	559	2150
#2	1382	636	7082	1628	497	556	2142
#3	1386	584	7070	1611	519	553	2138

Elem	Eu	Fe	K	La	Li	Mg	Mn
Avge	381	641	2254	1112	437	2678	218
SDev	1	2	5	2	1	13	1
%RSD	.1514	.3246	.2000	.1871	.2288	.4854	.5305
#1	382	643	2259	1114	438	2671	219
#2	381	639	2250	1113	436	2693	217
#3	381	642	2254	1110	437	2670	217

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Avge	895	457	4122	546	1399	15190	16640
SDev	4	0	7	5	16	43	62
%RSD	.4029	.0000	.1651	.8393	1.140	.2862	.3752
#1	892	457	4130	541	1388	15200	16700
#2	894	457	4117	550	1417	15230	16620
#3	899	457	4120	547	1391	15140	16580

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Avge	16790	4739	2845	1574	4280	7594	163
SDev	44	22	1	6	9	7	1
%RSD	.2623	.4547	.0406	.3612	.2171	.0877	.3535
#1	16830	4747	2846	1579	4276	7601	164
#2	16740	4756	2844	1576	4274	7588	163
#3	16790	4715	2846	1568	4291	7592	163

Elem	Te	Th	Ti	Tl	U	V	W
Avge	11290	2599	719	418	18870	1086	350
SDev	48	16	2	4	29	3	3
%RSD	.4214	.6299	.2897	.8395	.1532	.2762	.9897
#1	11330	2603	721	418	18900	1089	352
#2	11240	2613	718	415	18850	1083	352
#3	11300	2581	717	422	18870	1086	346

Elem	Y	Zn	Zr
Avge	276	386	876
SDev	1	9	1
%RSD	.2089	2.409	.1142
#1	277	390	877
#2	276	392	875
#3	276	375	876

Analysis Report Fri 03-08-96 09:06:50 AM page 1

Method: ICP1A Sample Name: SPC-BLK 108448 Operator: DRS
Run Time: 03/08/96 09:02:03
Comment: SPC-BLK FOR Mn/Cu RATIO
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0025	.0067	-.0112	.0100	-.0007	.0001	-.0021
SDev	.0004	.0028	.0029	.0009	.0001	.0000	.0058
%RSD	16.57	42.02	26.11	9.091	11.72	46.89	277.0
#1	.0029	.0091	-.0101	.0108	-.0006	.0000	-.0033
#2	.0021	.0036	-.0145	.0103	-.0006	.0001	-.0072
#3	.0024	.0073	-.0089	.0090	-.0007	.0001	.0042

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0071	-.0031	.0189	.0067	.0003	.0027	.0016
SDev	.0009	.0029	.0029	.0014	.0019	.0014	.0007
%RSD	12.71	95.15	15.17	20.33	659.6	53.27	43.55
#1	.0063	-.0026	.0217	.0078	-.0002	.0041	.0024
#2	.0069	-.0004	.0191	.0071	-.0013	.0028	.0015
#3	.0081	-.0062	.0160	.0052	.0023	.0012	.0010

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	-.0042	.6785	.0043	.0014	-.0013	-.0002
SDev	.0001	.0005	.1020	.0008	.0005	.0089	.0002
%RSD	17.62	12.68	15.03	17.84	33.33	703.9	83.13
#1	.0007	-.0038	.7841	.0048	.0019	-.0069	-.0000
#2	.0006	-.0048	.5805	.0046	.0010	.0090	-.0003
#3	.0005	-.0040	.6710	.0034	.0014	-.0058	-.0003

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0455	.0166	.0062	.0059	.0068	.0542
SDev	.0006	.0001	.0024	.0016	.0130	.0037	.0158
%RSD	80.58	.1295	14.15	25.57	220.9	54.50	29.21
#1	.0003	.0455	.0193	.0044	-.0030	.0072	.0724
#2	.0006	.0454	.0148	.0075	.0208	.0102	.0466
#3	.0015	.0455	.0158	.0065	-.0002	.0029	.0436

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0239	.0042	.0099	.0017	-.0018	.0684	.0001
SDev	.0052	.0032	.0003	.0036	.0028	.0044	.0001
%RSD	21.62	76.95	3.381	208.0	159.6	6.465	101.6
#1	.0291	.0052	.0101	.0046	-.0037	.0732	.0001
#2	.0187	.0067	.0095	.0028	-.0031	.0645	.0000
#3	.0239	.0006	.0101	-.0023	.0015	.0676	.0000

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0190	-.0058	.0011	-.0028	.2714	.0021	.0025
SDev	.0050	.0081	.0003	.0060	.0330	.0005	.0061

%RSD	26.35	140.6	26.58	217.8	12.16	23.69	246.5
#1	.0230	-.0059	.0014	-.0035	.3057	.0026	.0059
#2	.0134	.0024	.0010	-.0084	.2399	.0016	.0061
#3	.0207	-.0138	.0008	.0036	.2685	.0021	-.0046

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0007	.0001	.0011
SDev	.0002	.0007	.0007
%RSD	24.22	1353.	62.65
#1	.0009	.0004	.0013
#2	.0006	.0005	.0004
#3	.0006	-.0007	.0017

Analysis Report Fri 03-08-96 09:08:42 AM page 1

Method: ICP1A Sample Name: SPC-STD 960103I100 Operator: DRS
Run Time: 03/08/96 09:07:24
Comment: SPC-STD FOR Mn/Cu RATIO
Mode: INT Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Avge	7464	2345	1815	1374	351	198	1844
SDev	13	6	3	33	1	1	23
%RSD	.1802	.2374	.1458	2.405	.3287	.2911	1.249
#1	7468	2340	1818	1412	352	198	1822
#2	7449	2344	1814	1352	350	198	1868
#3	7475	2351	1813	1358	352	199	1843

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Avge	1764	643	7043	1591	524	20990	2353
SDev	3	97	16	5	7	145	6
%RSD	.1964	15.04	.2256	.3143	1.406	.6905	.2366
#1	1760	543	7034	1591	516	21030	2348
#2	1766	736	7033	1586	530	21110	2352
#3	1766	649	7061	1596	527	20830	2359

Elem	Eu	Fe	K	La	Li	Mg	Mn
Avge	382	695	2248	1111	21640	2766	66190
SDev	1	3	8	4	124	21	412
%RSD	.3020	.4984	.3705	.3639	.5731	.7448	.6226
#1	381	697	2245	1110	21700	2744	66290
#2	383	691	2241	1107	21720	2768	66540
#3	383	697	2257	1115	21500	2785	65730

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Avge	931	460	4130	549	1553	136200	16610
SDev	1	2	14	5	2	407	44
%RSD	.0620	.3318	.3358	.8347	.1115	.2990	.2650
#1	931	459	4126	544	1554	136400	16600
#2	930	460	4118	550	1554	136400	16570
#3	931	462	4145	553	1551	135700	16650

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Avge	16780	4768	2933	1615	4371	7697	166
SDev	70	26	18	17	14	8	0
%RSD	.4160	.5406	.6187	1.055	.3095	.1058	.0000
#1	16800	4740	2914	1595	4357	7693	166
#2	16700	4772	2936	1624	4372	7691	166
#3	16840	4791	2950	1625	4384	7706	166

Elem	Te	Th	Ti	Tl	U	V	W
Avge	11990	2620	722	441	18840	1090	365
SDev	38	13	2	3	75	2	7
%RSD	.3160	.4834	.3200	.5999	.3987	.1835	1.980
#1	11950	2615	723	438	18840	1090	370
#2	12000	2610	719	443	18770	1088	357
#3	12030	2634	723	442	18920	1092	369

Elem	Y	Zn	Zr
Avge	276	136000	874
SDev	1	471	3
%RSD	.2089	.3461	.3432
#1	276	136500	874
#2	276	136100	871
#3	277	135500	877

Analysis Report Fri 03-08-96 09:09:55 AM page 1

Method: ICP1A Sample Name: SPC-STD 960103I100 Operator: DRS
Run Time: 03/08/96 09:07:24
Comment: SPC-STD FOR Mn/Cu RATIO
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0044	.0125	.0244	.0125	-.0004	.0001	.0140
SDev	.0002	.0032	.0014	.0040	.0002	.0000	.0098
%RSD	4.784	25.76	5.880	32.37	35.42	18.25	70.33
#1	.0046	.0088	.0259	.0171	-.0003	.0001	.0041
#2	.0042	.0140	.0241	.0098	-.0006	.0001	.0238
#3	.0045	.0147	.0231	.0104	-.0003	.0002	.0142

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1246	-.0001	.0097	.0028	.0032	10.24	.0056
SDev	.0011	.0107	.0033	.0005	.0012	.07	.0007
%RSD	.9070	11450.	33.79	18.47	38.05	.7100	12.55
#1	.1233	-.0111	.0077	.0028	.0018	10.26	.0050
#2	.1256	.0102	.0080	.0023	.0042	10.30	.0055
#3	.1248	.0006	.0135	.0033	.0037	10.16	.0064

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	-.0049	.5277	.0035	10.13	-.0064	10.49
SDev	.0002	.0009	.1883	.0014	.06	.0113	.07
%RSD	28.29	18.99	35.69	38.72	.5848	177.1	.6250
#1	.0005	-.0044	.4674	.0033	10.16	-.0193	10.51
#2	.0009	-.0060	.3769	.0023	10.17	-.0018	10.55
#3	.0009	-.0044	.7388	.0050	10.06	.0019	10.42

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0030	.0638	.0195	.0072	-.0177	10.27	.0398
SDev	.0001	.0084	.0047	.0016	.0006	.03	.0088
%RSD	3.337	13.14	24.16	21.87	3.480	.3400	22.05
#1	.0030	.0565	.0182	.0055	-.0173	10.29	.0393
#2	.0029	.0620	.0156	.0075	-.0174	10.29	.0312
#3	.0030	.0730	.0248	.0086	-.0184	10.23	.0487

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0233	.0085	.0377	.0276	.0231	.1071	.0004
SDev	.0078	.0037	.0057	.0111	.0034	.0047	.0000
%RSD	33.60	43.68	15.19	40.15	14.78	4.425	.1473
#1	.0261	.0044	.0316	.0148	.0192	.1032	.0004
#2	.0144	.0094	.0386	.0338	.0253	.1056	.0004
#3	.0293	.0117	.0430	.0342	.0250	.1124	.0004

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0480	.0059	.0015	.0334	.2300	.0028	.0295
SDev	.0038	.0016	.0003	.0049	.0838	.0002	.0127

%RSD	7.886	27.22	18.53	14.54	36.42	7.932	42.93
#1	.0440	.0041	.0017	.0280	.2263	.0028	.0378
#2	.0483	.0063	.0012	.0375	.1482	.0026	.0149
#3	.0515	.0073	.0016	.0346	.3156	.0030	.0359

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0007	9.888	-.0001
SDev	.0001	.034	.0005
%RSD	19.99	.3469	360.4
#1	.0006	9.920	-.0000
#2	.0007	9.893	-.0007
#3	.0009	9.852	.0003

Standardization Rpt. Fri 03-08-96 09:15:46 AM page 1

Method: ICP1A Standard: ICP1.0

Elem	Ag	Al	As	B	Ba	Be	Bi
Avge	.7421	.2315	.1773	.1316	.0355	.0198	.1600
SDev	.0007	.0003	.0030	.0007	.0001	.0001	.0025
%RSD	.0897	.1143	1.715	.4983	.2817	.2921	1.583
#1	.7423	.2313	.1793	.1309	.0356	.0198	.1609
#2	.7427	.2318	.1738	.1317	.0354	.0198	.1571
#3	.7414	.2314	.1788	.1322	.0355	.0197	.1619

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Avge	.1382	.0651	.7067	.1584	.0506	.0565	.2148
SDev	.0002	.0089	.0013	.0004	.0003	.0003	.0004
%RSD	.1506	13.63	.1797	.2629	.6349	.4683	.1862
#1	.1380	.0603	.7052	.1585	.0505	.0563	.2144
#2	.1383	.0596	.7074	.1587	.0510	.0568	.2152
#3	.1384	.0753	.7074	.1579	.0504	.0564	.2148

Elem	Eu	Fe	K	La	Li	Mg	Mn
Avge	.0381	.0643	.2253	.1113	.0447	.2677	.0236
SDev	.0001	.0001	.0003	.0002	.0004	.0001	.0001
%RSD	.1514	.2374	.1117	.1556	.8476	.0571	.4900
#1	.0381	.0642	.2251	.1112	.0444	.2675	.0235
#2	.0382	.0645	.2253	.1115	.0445	.2678	.0237
#3	.0381	.0643	.2256	.1112	.0451	.2677	.0235

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Avge	.0891	.0451	.4131	.0541	.1410	1.524	1.663
SDev	.0009	.0006	.0010	.0005	.0022	.010	.001
%RSD	1.010	1.330	.2351	.8471	1.561	.6750	.0342
#1	.0891	.0445	.4120	.0542	.1409	1.533	1.663
#2	.0882	.0457	.4139	.0536	.1388	1.527	1.663
#3	.0900	.0451	.4133	.0545	.1432	1.513	1.664

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Avge	1.678	.4779	.2880	.1567	.4258	.7622	.0164
SDev	.004	.0018	.0038	.0018	.0005	.0024	.0001
%RSD	.2290	.3702	1.319	1.134	.1158	.3084	.3528
#1	1.675	.4760	.2837	.1581	.4256	.7598	.0163
#2	1.682	.4782	.2908	.1547	.4264	.7645	.0164
#3	1.677	.4795	.2896	.1573	.4255	.7622	.0164

Elem	Te	Th	Ti	Tl	U	V	W
Avge	1.126	.2610	.0719	.0418	1.888	.1088	.0353
SDev	.003	.0013	.0001	.0004	.005	.0003	.0003
%RSD	.2491	.5000	.2124	.9968	.2736	.3227	.7122
#1	1.123	.2600	.0718	.0419	1.885	.1088	.0356
#2	1.127	.2625	.0719	.0413	1.894	.1092	.0351
#3	1.128	.2606	.0721	.0421	1.885	.1085	.0353

Elem	Y	Zn	Zr
Avge	.0277	.0426	.0875
SDev	.0001	.0008	.0001

%RSD	.5508	1.779	.1319
#1	.0276	.0417	.0874
#2	.0279	.0431	.0876
#3	.0277	.0429	.0876

Standardization Rpt. Fri 03-08-96 09:17:30 AM page 1

Method: ICP1A Standard: ICP1.1B

Elem	Ba	Co	Cr	Cu	Fe	Mg	Mo
Avge	.7802	1.942	1.267	.4628	7.366	4.666	1.271
SDev	.0046	.008	.004	.0033	.037	.018	.007
%RSD	.5891	.4184	.3481	.7069	.5016	.3933	.5418
#1	.7854	1.951	1.269	.4663	7.408	4.686	1.277
#2	.7766	1.937	1.271	.4598	7.338	4.649	1.264
#3	.7787	1.938	1.262	.4624	7.352	4.663	1.273

Elem	Na	Ni	Pb	Sr	Ti	Zn	Zr
Avge	.4934	.6514	7.661	.8392	1.447	2.805	2.552
SDev	.0029	.0011	.024	.0054	.007	.012	.013
%RSD	.5882	.1730	.3191	.6495	.5175	.4171	.5272
#1	.4966	.6527	7.689	.8452	1.456	2.818	2.566
#2	.4909	.6507	7.648	.8346	1.441	2.799	2.540
#3	.4928	.6508	7.645	.8377	1.445	2.797	2.548

Standardization Rpt. Fri 03-08-96 09:21:28 AM page 1

Method: ICP1A Standard: ICP1.1A

Elem	Ba	Co	Cr	Cu	Fe	Mg	Mo
Avge	7.390	17.01	11.64	4.015	68.35	40.02	11.38
SDev	.031	.06	.05	.014	.24	.14	.04
%RSD	.4140	.3401	.4134	.3454	.3504	.3440	.3581
#1	7.415	17.06	11.66	4.024	68.57	40.14	11.41
#2	7.356	16.94	11.58	3.999	68.10	39.87	11.34
#3	7.399	17.02	11.67	4.023	68.39	40.05	11.40

Elem	Na	Ni	Pb	Sr	Ti	Zn	Zr
Avge	4.466	5.655	59.25	8.121	13.68	26.24	23.94
SDev	.016	.019	.18	.032	.06	.10	.10
%RSD	.3555	.3321	.2984	.3956	.4051	.3844	.4115
#1	4.478	5.670	59.41	8.142	13.72	26.33	24.03
#2	4.448	5.634	59.06	8.084	13.62	26.13	23.83
#3	4.472	5.661	59.26	8.137	13.70	26.27	23.95

Standardization Rpt. Fri 03-08-96 09:25:36 AM page 1

Method: ICP1A Standard: ICP1.2

Elem	Al	B	Ca	Cd	K	Li	Mn
Avge	62.56	41.04	81.91	9.200	2.467	10.60	6.387
SDev	.11	.06	.16	.041	.004	.02	.011
%RSD	.1728	.1370	.1993	.4442	.1767	.1486	.1724
#1	62.64	41.06	82.03	9.220	2.470	10.61	6.396
#2	62.60	41.09	81.98	9.227	2.469	10.60	6.390
#3	62.44	40.98	81.73	9.153	2.462	10.58	6.374

Elem	P
Avge	12.48
SDev	.04
%RSD	.3079
#1	12.52
#2	12.49
#3	12.44

Standardization Rpt. Fri 03-08-96 09:29:32 AM page 1

Method: ICP1A Standard: ICP1.3

Elem	Dy	Eu	La	Nd	Ru	Th
Avge	40.73	9.924	5.247	13.79	34.33	11.27
SDev	.27	.058	.027	.08	.15	.05
%RSD	.6615	.5883	.5120	.5644	.4391	.4428
#1	41.04	9.989	5.275	13.87	34.46	11.32
#2	40.53	9.876	5.221	13.72	34.17	11.22
#3	40.63	9.908	5.244	13.77	34.37	11.27

Standardization Rpt. Fri 03-08-96 09:33:16 AM page 1

Method: ICP1A Standard: ICP1.4

Elem	As	Ce	Sb	V	Y
Avge	21.24	21.30	25.38	11.29	2.923
SDev	.13	.09	.14	.05	.015
%RSD	.5928	.4308	.5631	.4856	.5065
#1	21.21	21.30	25.35	11.28	2.920
#2	21.12	21.20	25.25	11.23	2.911
#3	21.37	21.38	25.53	11.34	2.940

Standardization Rpt. Fri 03-08-96 09:37:04 AM page 1

Method: ICP1A Standard: ICP1.5

Elem	U
Avge	45.13
SDev	.11
%RSD	.2516
#1	45.09
#2	45.25
#3	45.03

Standardization Rpt. Fri 03-08-96 09:41:05 AM page 1

Method: ICP1A Standard: ICP1.6

Elem	Be	Si	Te
Avge	1.729	73.22	48.93
SDev	.002	.12	.09
%RSD	.0928	.1618	.1840
#1	1.727	73.09	48.83
#2	1.729	73.25	48.96
#3	1.731	73.32	49.01

Standardization Rpt. Fri 03-08-96 09:45:24 AM page 1

Method: ICP1A Standard: ICP1.7

Elem	Ag	Bi	Se	Tl
Avge	28.24	23.15	3.229	1.236
SDev	.23	.17	.039	.011
%RSD	.8086	.7404	1.205	.8689
#1	28.14	23.07	3.207	1.230
#2	28.09	23.04	3.205	1.230
#3	28.51	23.35	3.274	1.248

Standardization Rpt. Fri 03-08-96 09:49:04 AM page 1

Method: ICP1A Standard: ICP1.8

Elem	Pd	Rh	Sn	W
Avge	18.27	42.39	7.435	2.896
SDev	.17	.41	.059	.033
%RSD	.9116	.9717	.7890	1.141
#1	18.14	42.06	7.396	2.873
#2	18.21	42.26	7.407	2.882
#3	18.46	42.85	7.502	2.934

Standardization Report Fri 03-08-96 09:49:32 AM page 1

Method: ICP1A Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Ag	328.068	ICP1.7	ICP1.0	.363614	-.269850	03/08/96 09:47:47
Al	308.215	ICP1.2	ICP1.0	8.02178	-1.85704	03/08/96 09:47:47
As	193.600	ICP1.4	ICP1.0	4.74880	-.841963	03/08/96 09:47:47
B	249.600	ICP1.2	ICP1.0	1.22225	-.160848	03/08/96 09:47:47
Ba	493.400	Multiple	Standards	1.35126	-.048026	03/08/96 09:20:10
Be	313.042	ICP1.6	ICP1.0	.585080	-.011565	03/08/96 09:47:47
Bi	223.061	ICP1.7	ICP1.0	4.34955	-.695783	03/08/96 09:47:47
Ca	317.900	ICP1.2	ICP1.0	3.05711	-.422594	03/08/96 09:47:47
Cd	228.800	ICP1.2	ICP1.0	1.09472	-.071230	03/08/96 09:47:47
Ce	418.659	ICP1.4	ICP1.0	2.42842	-1.71608	03/08/96 09:47:47
Co	228.600	Multiple	Standards	1.15349	-.183185	03/08/96 09:20:10
Cr	205.500	Multiple	Standards	1.68427	-.085718	03/08/96 09:20:10
Cu	324.700	Multiple	Standards	4.98659	-.281976	03/08/96 09:20:10
Dy	353.170	ICP1.3	ICP1.0	1.23400	-.265064	03/08/96 09:47:47
Eu	381.900	ICP1.3	ICP1.0	2.02300	-.077144	03/08/96 09:47:47
Fe	259.900	Multiple	Standards	2.83118	-.188137	03/08/96 09:20:10
K	766.500	ICP1.2	ICP1.0	223.055	-50.2617	03/08/96 09:47:47
La	398.852	ICP1.3	ICP1.0	3.89443	-.433451	03/08/96 09:47:47
Li	670.700	ICP1.2	ICP1.0	4.73829	-.211644	03/08/96 09:47:47
Mg	279.078	Multiple	Standards	5.97276	-1.61005	03/08/96 09:20:10
Mn	257.600	ICP1.2	ICP1.0	1.57158	-.037037	03/08/96 09:47:47
Mo	202.000	Multiple	Standards	1.73074	-.154619	03/08/96 09:20:10
Na	588.900	Multiple	Standards	56.1542	-2.53412	03/08/96 09:20:10
Nd	406.106	ICP1.3	ICP1.0	3.73826	-1.54415	03/08/96 09:47:47
Ni	231.600	Multiple	Standards	3.45662	-.187580	03/08/96 09:20:10
P	214.900	ICP1.2	ICP1.0	8.10303	-1.14226	03/08/96 09:47:47
Pb	220.300	Multiple	Standards	.839864	-1.28160	03/08/96 09:20:10
Pd	360.959	ICP1.8	ICP1.0	3.01071	-5.00782	03/08/96 09:47:47
Rh	343.489	ICP1.8	ICP1.0	1.22817	-2.06107	03/08/96 09:47:47
Ru	240.271	ICP1.3	ICP1.0	1.47689	-.705806	03/08/96 09:47:47
Sb	206.838	ICP1.4	ICP1.0	3.18861	-.918427	03/08/96 09:47:47
Se	196.026	ICP1.7	ICP1.0	6.51042	-1.02018	03/08/96 09:47:47
Si	288.100	ICP1.6	ICP1.0	2.74745	-1.16995	03/08/96 09:47:47
Sn	242.950	ICP1.8	ICP1.0	8.51011	-6.48612	03/08/96 09:47:47
Sr	421.500	Multiple	Standards	1.22461	-.020111	03/08/96 09:20:10
Te	214.275	ICP1.6	ICP1.0	1.04585	-1.17756	03/08/96 09:47:47
Th	283.730	ICP1.3	ICP1.0	4.54212	-1.18565	03/08/96 09:47:47
Ti	334.900	Multiple	Standards	1.46207	-.105268	03/08/96 09:20:10
Tl	190.864	ICP1.7	ICP1.0	16.7486	-.699531	03/08/96 09:47:47
U	378.280	ICP1.5	ICP1.0	11.5641	-21.8381	03/08/96 09:47:47
V	292.402	ICP1.4	ICP1.0	1.78936	-.194742	03/08/96 09:47:47
W	224.875	ICP1.8	ICP1.0	17.7207	-.626130	03/08/96 09:47:47
Y	371.030	ICP1.4	ICP1.0	3.45348	-.095776	03/08/96 09:47:47
Zn	213.800	Multiple	Standards	.743279	-.032112	03/08/96 09:20:10
Zr	339.100	Multiple	Standards	2.06240	-.181260	03/08/96 09:20:10

Standardization Report Fri 03-08-96 09:49:58 AM page 1

Method: ICP1A Slope = IR/Conc(SIR)

Element	Wavelen	High std	Low std	Slope	BEC	Date Standardized
Ag	328.068	ICP1.7	ICP1.0	2.75017	.269850	03/08/96 09:47:47
Al	308.215	ICP1.2	ICP1.0	.124661	1.85704	03/08/96 09:47:47
As	193.600	ICP1.4	ICP1.0	.210579	.841963	03/08/96 09:47:47
B	249.600	ICP1.2	ICP1.0	.818165	.160848	03/08/96 09:47:47
Ba	493.400	Multiple	Standards	.740052	.048026	03/08/96 09:20:10
Be	313.042	ICP1.6	ICP1.0	1.70917	.011565	03/08/96 09:47:47
Bi	223.061	ICP1.7	ICP1.0	.229909	.695783	03/08/96 09:47:47
Ca	317.900	ICP1.2	ICP1.0	.327107	.422594	03/08/96 09:47:47
Cd	228.800	ICP1.2	ICP1.0	.913473	.071230	03/08/96 09:47:47
Ce	418.659	ICP1.4	ICP1.0	.411791	1.71608	03/08/96 09:47:47
Co	228.600	Multiple	Standards	.866935	.183185	03/08/96 09:20:10
Cr	205.500	Multiple	Standards	.593729	.085718	03/08/96 09:20:10
Cu	324.700	Multiple	Standards	.200538	.281976	03/08/96 09:20:10
Dy	353.170	ICP1.3	ICP1.0	.810371	.265064	03/08/96 09:47:47
Eu	381.900	ICP1.3	ICP1.0	.494315	.077144	03/08/96 09:47:47
Fe	259.900	Multiple	Standards	.353209	.188137	03/08/96 09:20:10
K	766.500	ICP1.2	ICP1.0	.004483	50.2617	03/08/96 09:47:47
La	398.852	ICP1.3	ICP1.0	.256777	.433451	03/08/96 09:47:47
Li	670.700	ICP1.2	ICP1.0	.211047	.211644	03/08/96 09:47:47
Mg	279.078	Multiple	Standards	.167427	1.61005	03/08/96 09:20:10
Mn	257.600	ICP1.2	ICP1.0	.636303	.037037	03/08/96 09:47:47
Mo	202.000	Multiple	Standards	.577787	.154619	03/08/96 09:20:10
Na	588.900	Multiple	Standards	.017808	2.53412	03/08/96 09:20:10
Nd	406.106	ICP1.3	ICP1.0	.267504	1.54415	03/08/96 09:47:47
Ni	231.600	Multiple	Standards	.289300	.187580	03/08/96 09:20:10
P	214.900	ICP1.2	ICP1.0	.123411	1.14226	03/08/96 09:47:47
Pb	220.300	Multiple	Standards	1.19067	1.28160	03/08/96 09:20:10
Pd	360.959	ICP1.8	ICP1.0	.332147	5.00782	03/08/96 09:47:47
Rh	343.489	ICP1.8	ICP1.0	.814220	2.06107	03/08/96 09:47:47
Ru	240.271	ICP1.3	ICP1.0	.677099	.705806	03/08/96 09:47:47
Sb	206.838	ICP1.4	ICP1.0	.313616	.918427	03/08/96 09:47:47
Se	196.026	ICP1.7	ICP1.0	.153600	1.02018	03/08/96 09:47:47
Si	288.100	ICP1.6	ICP1.0	.363974	1.16995	03/08/96 09:47:47
Sn	242.950	ICP1.8	ICP1.0	.117507	6.48612	03/08/96 09:47:47
Sr	421.500	Multiple	Standards	.816590	.020111	03/08/96 09:20:10
Te	214.275	ICP1.6	ICP1.0	.956161	1.17756	03/08/96 09:47:47
Th	283.730	ICP1.3	ICP1.0	.220161	1.18565	03/08/96 09:47:47
Ti	334.900	Multiple	Standards	.683963	.105268	03/08/96 09:20:10
Tl	190.864	ICP1.7	ICP1.0	.059707	.699531	03/08/96 09:47:47
U	378.280	ICP1.5	ICP1.0	.086474	21.8381	03/08/96 09:47:47
V	292.402	ICP1.4	ICP1.0	.558860	.194742	03/08/96 09:47:47
W	224.875	ICP1.8	ICP1.0	.056431	.626130	03/08/96 09:47:47
Y	371.030	ICP1.4	ICP1.0	.289563	.095776	03/08/96 09:47:47
Zn	213.800	Multiple	Standards	1.34539	.032112	03/08/96 09:20:10
Zr	339.100	Multiple	Standards	.484872	.181260	03/08/96 09:20:10

Standardization Readback Report Fri 03-08-96 09:51:04 AM page 1

Method: ICP1A

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ag	328.068	ICP1.0	.000000	.000000	-.000000
		ICP1.7	10.0000	10.0000	.000000
Al	308.215	ICP1.0	.000000	-.000000	.000000
		ICP1.2	500.000	500.000	.000031
As	193.600	ICP1.0	.000000	.000000	-.000000
		ICP1.4	100.000	100.000	.000000
B	249.600	ICP1.0	.000000	.000000	-.000000
		ICP1.2	50.0000	50.0000	-.000004
Ba	493.400	ICP1.0	.000000	-.000056	.000056
		ICP1.1B	1.00000	1.00627	-.006269
		ICP1.1A	10.0000	9.93731	.062692
CorCoef:	1.00000				
Be	313.042	ICP1.0	.000000	-.000000	.000000
		ICP1.6	1.00000	1.00000	.000000
Bi	223.061	ICP1.0	.000000	-.000000	.000000
		ICP1.7	100.000	100.0000	.000008
Ca	317.900	ICP1.0	.000000	-.000000	.000000
		ICP1.2	250.000	250.000	.000000
Cd	228.800	ICP1.0	.000000	.000000	-.000000
		ICP1.2	10.0000	10.0000	.000000
Ce	418.659	ICP1.0	.000000	-.000000	.000000
		ICP1.4	50.0000	50.0000	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Co	228.600	ICP1.0	.000000	-.000510	.000510
		ICP1.1B	2.00000	2.05670	-.056699
		ICP1.1A	20.0000	19.4330	.566990
CorCoef:	0.99998				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cr	205.500	ICP1.0	.000000	-.000438	.000438
		ICP1.1B	2.00000	2.04864	-.048644
		ICP1.1A	20.0000	19.5136	.486441
CorCoef:	0.99999				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cu	324.700	ICP1.0	.000000	-.000234	.000234
		ICP1.1B	2.00000	2.02598	-.025983
		ICP1.1A	20.0000	19.7402	.259829
CorCoef:	1.00000				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Dy	353.170	ICP1.0	.000000	.000000	-.000000
		ICP1.3	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Eu	381.900	ICP1.0	.000000	.000000	-.000000
		ICP1.3	20.0000	20.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Fe	259.900	ICP1.0	.000000	-.005998	.005998
		ICP1.1B	20.0000	20.6664	-.666445
		ICP1.1A	200.000	193.336	6.66446
CorCoef:	0.99998				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
K	766.500	ICP1.0	.000000	-.000001	.000001
		ICP1.2	500.000	500.000	.000031
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
La	398.852	ICP1.0	.000000	-.000000	.000000
		ICP1.3	20.0000	20.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Li	670.700	ICP1.0	.000000	.000000	-.000000
		ICP1.2	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mg	279.078	ICP1.0	.000000	-.011337	.011337
		ICP1.1B	25.0000	26.2596	-1.25965
		ICP1.1A	250.000	237.403	12.5965
CorCoef:	0.99995				

Standardization Readback Report Fri 03-08-96 09:51:04 AM page 3

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mn	257.600	ICP1.0	.000000	.000000	-.000000
		ICP1.2	10.0000	10.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mo	202.000	ICP1.0	.000000	-.000410	.000410
		ICP1.1B	2.00000	2.04556	-.045556
		ICP1.1A	20.0000	19.5444	.455561
CorCoef:	0.99999				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Na	588.900	ICP1.0	.000000	-.001568	.001568
		ICP1.1B	25.0000	25.1742	-.174213
		ICP1.1A	250.000	248.258	1.74214
CorCoef:	1.00000				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Nd	406.106	ICP1.0	.000000	-.000000	.000000
		ICP1.3	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ni	231.600	ICP1.0	.000000	-.000577	.000577
		ICP1.1B	2.00000	2.06406	-.064062
		ICP1.1A	20.0000	19.3594	.640623
CorCoef:	0.99998				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
P	214.900	ICP1.0	.000000	.000000	-.000000
		ICP1.2	100.000	100.000	-.000008
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb	220.300	ICP1.0	.000000	-.001371	.001371
		ICP1.1B	5.00000	5.15237	-.152370
		ICP1.1A	50.0000	48.4763	1.52369
CorCoef:	0.99998				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pd	360.959	ICP1.0	.000000	.000000	-.000000
		ICP1.8	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Rh	343.489	ICP1.0	.000000	-.000000	.000000
		ICP1.8	50.0000	50.0000	.000004
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ru	240.271	ICP1.0	.000000	-.000000	.000000
		ICP1.3	50.0000	50.0000	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sb	206.838	ICP1.0	.000000	.000000	-.000000
		ICP1.4	80.0000	80.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Se	196.026	ICP1.0	.000000	.000000	-.000000
		ICP1.7	20.0000	20.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Si	288.100	ICP1.0	.000000	-.000000	.000000
		ICP1.6	200.000	200.000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sn	242.950	ICP1.0	.000000	.000000	-.000000
		ICP1.8	50.0000	56.7845	-6.78455
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sr	421.500	ICP1.0	.000000	-.000068	.000068
		ICP1.1B	1.00000	1.00754	-.007537
		ICP1.1A	10.0000	9.92462	.075376
CorCoef:	1.00000				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Te	214.275	ICP1.0	.000000	-.000000	.000000
		ICP1.6	50.0000	50.0000	-.000004
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Th	283.730	ICP1.0	.000000	-.000000	.000000
		ICP1.3	50.0000	50.0000	-.000004
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ti	334.900	ICP1.0	.000000	-.000096	.000096
		ICP1.1B	2.00000	2.01069	-.010686
		ICP1.1A	20.0000	19.8931	.106859
CorCoef:	1.00000				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Tl	190.864	ICP1.0	.000000	-.000000	.000000
		ICP1.7	20.0000	20.0000	-.000002
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
U	378.280	ICP1.0	.000000	-.000000	.000000
		ICP1.5	500.000	500.000	.000031
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
V	292.402	ICP1.0	.000000	.000000	-.000000
		ICP1.4	20.0000	20.0000	.000000

Standardization Readback Report Fri 03-08-96 09:51:04 AM page 5

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
W	224.875	ICP1.0	.000000	-.000000	.000000
		ICP1.B	50.0000	50.6947	-.694698
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Y	371.030	ICP1.0	.000000	-.000000	.000000
		ICP1.4	10.0000	10.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Zn	213.800	ICP1.0	.000000	-.000473	.000473
		ICP1.1B	2.00000	2.05251	-.052513
		ICP1.1A	20.0000	19.4749	.525131
CorCoef:	0.99999				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Zr	339.100	ICP1.0	.000000	-.000731	.000731
		ICP1.1B	5.00000	5.08123	-.081229
		ICP1.1A	50.0000	49.1877	.812286
CorCoef:	0.99999				

Analysis Report Fri 03-08-96 09:56:28 AM

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 03/08/96 09:55:09
Comment: (FIELD BLANKS BX104 CORE 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0015	.0079	.0084	.0018	-.0003	.0001	.0162
SDev	.0005	.0027	.0110	.0017	.0001	.0000	.0060
%RSD	33.33	34.88	130.4	94.87	27.70	37.40	36.96
#1	.0016	.0089	-.0036	-.0002	-.0003	.0001	.0175
#2	.0009	.0048	.0179	.0028	-.0003	.0001	.0097
#3	.0019	.0100	.0110	.0028	-.0002	.0001	.0214

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0098	.0171	.0057	-.0004	.0002	-.0009	.0001
SDev	.0004	.0205	.0008	.0002	.0006	.0006	.0005
%RSD	3.922	119.8	13.38	53.70	255.7	62.07	394.5
#1	.0102	.0094	.0057	-.0002	.0008	-.0003	.0001
#2	.0096	.0016	.0065	-.0006	.0002	-.0012	-.0004
#3	.0095	.0403	.0050	-.0005	-.0003	-.0013	.0007

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	-.0067	-.0372	.0012	-.0021	-.0035	-.0023
SDev	.0002	.0005	.0929	.0006	.0011	.0070	.0003
%RSD	46.67	8.174	249.8	46.74	53.29	200.3	11.57
#1	.0003	-.0072	.0372	.0019	-.0027	-.0047	-.0022
#2	.0004	-.0067	-.1413	.0008	-.0027	-.0098	-.0026
#3	.0007	-.0061	-.0074	.0011	-.0008	.0040	-.0022

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0015	.0059	.0020	.0005	-.0054	.0042	.0394
SDev	.0008	.0141	.0072	.0021	.0036	.0070	.0036
%RSD	50.27	239.4	355.9	449.8	65.74	164.6	9.039
#1	.0008	.0040	.0038	.0005	-.0095	.0005	.0380
#2	.0015	-.0072	-.0059	.0025	-.0029	-.0001	.0368
#3	.0023	.0209	.0082	-.0016	-.0038	.0123	.0435

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0222	.0005	-.0028	.0163	.0788	.0249	.0002
SDev	.0041	.0025	.0052	.0076	.0059	.0075	.0001
%RSD	18.41	457.3	185.8	46.61	7.425	30.20	39.51
#1	.0269	.0033	-.0008	.0178	.0854	.0298	.0002
#2	.0192	-.0004	-.0088	.0081	.0765	.0288	.0001
#3	.0205	-.0013	.0011	.0231	.0744	.0163	.0002

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0162	.0007	.0001	.0071	.0168	.0001	.0256
SDev	.0052	.0024	.0003	.0053	.0140	.0003	.0031

%RSD	31.93	338.2	209.1	74.45	83.23	448.0	11.97
#1	.0132	.0029	.0001	.0092	.0106	-.0001	.0273
#2	.0132	-.0019	-.0001	.0109	.0070	-.0001	.0275
#3	.0221	.0011	.0004	.0011	.0327	.0004	.0221

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0000	-.0021	-.0012
SDev	.0002	.0006	.0004
%RSD	1096.	29.58	31.38
#1	-.0001	-.0028	-.0016
#2	-.0001	-.0017	-.0011
#3	.0002	-.0018	-.0009

Analysis Report QC Standard Fri 03-08-96 09:59:18 AM page 1

Method: ICP1A Sample Name: QC_MCVA1 960226I901 Operator: DRS
Run Time: 03/08/96 09:57:59
Comment: (FIELD BLANKS BX104 CORE 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

PASS DRS 3/8/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4780	9.725	2.501	2.042	.4909	.0945	23.85
SDev	.0014	.026	.020	.008	.0015	.0003	.07
%RSD	.2979	.2641	.8102	.3909	.3028	.3341	.2825
#1	.4763	9.699	2.512	2.032	.4894	.0941	23.80
#2	.4787	9.750	2.513	2.047	.4923	.0947	23.92
#3	.4789	9.725	2.477	2.046	.4909	.0945	23.81
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.63	.4991	-.0168	.9822	.9829	.9413	-.0062
SDev	.07	.0146	.0099	.0038	.0044	.0039	.0007
%RSD	.2705	2.936	58.87	.3875	.4510	.4153	11.15
#1	24.55	.5039	-.0171	.9780	.9789	.9369	-.0058
#2	24.66	.4827	-.0266	.9834	.9876	.9444	-.0070
#3	24.67	.5108	-.0068	.9853	.9821	.9426	-.0059
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	19.96	23.80	-.0052	1.959	31.88	.5009
SDev	.0002	.05	.13	.0007	.006	.10	.0011
%RSD	60.45	.2448	.5492	12.59	.3293	.3045	.2228
#1	.0002	19.91	23.70	-.0054	1.954	31.78	.5001
#2	.0002	20.00	23.75	-.0058	1.966	31.92	.5022
#3	.0006	19.97	23.95	-.0045	1.957	31.96	.5004
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9894	36.07	-.0295	.9782	4.768	2.411	-.1172
SDev	.0028	.18	.0057	.0061	.038	.009	.0107
%RSD	.2871	.4914	19.46	.6248	.7982	.3681	9.139
#1	.9866	35.87	-.0288	.9727	4.773	2.401	-.1129
#2	.9922	36.19	-.0356	.9848	4.803	2.413	-.1294
#3	.9893	36.16	-.0242	.9772	4.728	2.419	-.1093
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Analysis Report QC Standard Fri 03-08-96 09:59:18 AM page 2

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0441	-.0083	2.521	2.492	18.25	.1348	.4995
SDev	.0063	.0043	.027	.026	.07	.0062	.0020
%RSD	14.37	51.68	1.055	1.063	.3756	4.572	.4046
#1	-.0420	-.0078	2.497	2.462	18.17	.1409	.4975
#2	-.0512	-.0129	2.550	2.511	18.30	.1285	.5016
#3	-.0391	-.0043	2.515	2.504	18.28	.1351	.4995
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0342	.0427	.9761	2.420	-.4551	.9888	.0355
SDev	.0062	.0048	.0032	.031	.0520	.0028	.0030
%RSD	18.22	11.27	.3271	1.277	11.43	.2837	8.507
#1	.0345	.0453	.9731	2.384	-.4556	.9856	.0320
#2	.0278	.0371	.9795	2.434	-.5068	.9909	.0373
#3	.0403	.0456	.9756	2.441	-.4028	.9900	.0372
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0010	.9598	1.952
SDev	.0002	.0047	.006
%RSD	16.91	.4918	.2867
#1	-.0011	.9584	1.946
#2	-.0010	.9651	1.957
#3	-.0008	.9560	1.951
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report QC Standard Fri 03-08-96 10:02:54 AM page 1

Method: ICP1A Sample Name: QC_MCVB2 960221I901 Operator: DRS
Run Time: 03/08/96 10:01:35
Comment: (FIELD BLANKS BX104 CORE 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

PASS
3/8/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0068	-.0960	.2983	.1678	.0002	.0008	.0982
SDev	.0009	.0043	.0043	.0020	.0001	.0000	.0060
%RSD	13.45	4.515	1.441	1.200	46.22	.9918	6.143
#1	-.0065	-.0945	.2991	.1659	.0001	.0008	.0952
#2	-.0078	-.1009	.2937	.1700	.0002	.0008	.0942
#3	-.0060	-.0927	.3022	.1676	.0002	.0008	.1051
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0380	.0351	1.997	-.0006	.0084	.0394	1.994
SDev	.0032	.0120	.012	.0005	.0004	.0023	.009
%RSD	8.496	34.11	.5860	81.16	4.870	5.922	.4704
#1	.0416	.0432	1.983	-.0001	.0089	.0415	1.983
#2	.0367	.0213	2.003	-.0007	.0082	.0399	2.000
#3	.0356	.0407	2.004	-.0010	.0082	.0369	1.999
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			2.000				2.000
Range			10.00				10.00

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.010	.0276	-1.703	.9915	-.0035	-.1319	-.0015
SDev	.009	.0022	.045	.0046	.0005	.0087	.0001
%RSD	.4671	8.167	2.620	.4599	15.75	6.568	8.296
#1	1.999	.0301	-1.658	.9863	-.0041	-.1220	-.0014
#2	2.016	.0270	-1.747	.9947	-.0032	-.1384	-.0016
#3	2.015	.0257	-1.703	.9935	-.0032	-.1351	-.0015
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK
Value	2.000			1.000			
Range	10.00			10.00			

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0100	.2082	1.965	.0271	.1046	.2385	1.814
SDev	.0013	.0171	.007	.0009	.0109	.0036	.019
%RSD	12.72	8.190	.3649	3.380	10.47	1.519	1.073
#1	.0085	.2253	1.960	.0260	.1002	.2382	1.798
#2	.0109	.2082	1.961	.0278	.0965	.2351	1.808
#3	.0104	.1912	1.973	.0274	.1170	.2423	1.836
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value			2.000				

Range			10.00				
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.982	2.031	.0856	.0840	7.587	2.100	.0026
SDev	.010	.012	.0065	.0027	.384	.026	.0001
%RSD	.5023	.5746	7.580	3.161	5.062	1.256	2.511
#1	1.970	2.019	.0781	.0871	7.178	2.069	.0029
#2	1.985	2.034	.0892	.0830	7.642	2.117	.0028
#3	1.989	2.041	.0895	.0821	7.939	2.113	.0028
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value	2.000	2.000				2.000	
Range	10.00	10.00				10.00	

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.922	9.892	.0041	.0114	23.93	.0009	1.999
SDev	.008	.058	.0002	.0022	.06	.0003	.016
%RSD	.4117	.5834	3.899	19.29	.2691	39.12	.7906
#1	1.921	9.827	.0041	.0134	23.86	.0011	1.984
#2	1.931	9.915	.0041	.0090	23.98	.0005	1.999
#3	1.915	9.935	.0039	.0117	23.94	.0010	2.015
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	QC Pass
Value	2.000	10.00			25.00		2.000
Range	10.00	10.00			10.00		10.00

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.9851	.0019	-.0465
SDev	.0033	.0003	.0022
%RSD	.3366	18.30	4.668
#1	.9813	.0021	-.0449
#2	.9870	.0021	-.0456
#3	.9870	.0015	-.0489
Errors	QC Pass	NOCHECK	NOCHECK
Value	1.000		
Range	10.00		

Analysis Report Fri 03-08-96 10:06:28 AM page 1

Method: ICP1A Sample Name: QC SSTA 951208I902 Operator: DRS
Run Time: 03/08/96 10:05:09
Comment: (FIELD BLANKS BX104 CORE 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0110	251.9	.4040	.0557	.0098	-.0012	198.3
SDev	.0028	2.0	.0172	.0023	.0001	.0001	1.4
%RSD	25.27	.7790	4.264	4.079	.7991	9.168	.7216
#1	-.0137	251.6	.3848	.0582	.0097	-.0013	197.9
#2	-.0111	254.0	.4087	.0537	.0098	-.0012	199.9
#3	-.0082	250.1	.4183	.0552	.0098	-.0011	197.1

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	251.5	.0656	.2096	.0115	.2353	-.1045	.0347
SDev	1.6	.0063	.0113	.0008	.0073	.0034	.0010
%RSD	.6402	9.633	5.372	7.442	3.112	3.212	2.809
#1	251.0	.0625	.1967	.0107	.2322	-.1037	.0336
#2	253.2	.0729	.2176	.0113	.2437	-.1081	.0354
#3	250.1	.0615	.2145	.0124	.2300	-.1015	.0351

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0928	198.4	101.8	50.89	.0327	-.8936	.0178
SDev	.0010	1.4	.8	.38	.0003	.0222	.0003
%RSD	1.082	.7203	.7925	.7564	.8368	2.486	1.839
#1	.0923	198.1	101.3	50.81	.0324	-.9099	.0174
#2	.0939	199.9	102.7	51.30	.0329	-.9026	.0180
#3	.0920	197.1	101.4	50.55	.0329	-.8683	.0180

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1068	.9254	.2241	192.9	201.7	1.000	1.233
SDev	.0006	.0425	.0100	1.3	1.5	.015	.020
%RSD	.5578	4.591	4.481	.6654	.7643	1.545	1.611
#1	.1072	.8768	.2143	192.4	201.4	.9832	1.210
#2	.1071	.9554	.2234	194.3	203.4	1.013	1.242
#3	.1061	.9440	.2344	191.9	200.3	1.004	1.246

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2666	.1752	.4590	1.569	-.1482	3.865	.0204
SDev	.0146	.0059	.0186	.024	.0183	.083	.0003
%RSD	5.471	3.393	4.047	1.509	12.36	2.138	1.204
#1	.2498	.1722	.4376	1.544	-.1293	3.789	.0204
#2	.2743	.1713	.4711	1.590	-.1495	3.854	.0206
#3	.2757	.1820	.4682	1.573	-.1658	3.953	.0202

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6969	.1832	.0050	.3618	200.5	.0486	.5934
SDev	.0209	.0221	.0007	.0036	1.8	.0019	.0078

Analysis Report Fri 03-08-96 10:06:28 AM page 2

%RSD	2.995	12.05	14.71	.9949	.8926	3.939	1.312
#1	.6728	.1613	.0044	.3583	200.4	.0465	.5973
#2	.7085	.1829	.0049	.3655	202.4	.0493	.5844
#3	.7094	.2055	.0059	.3616	198.8	.0501	.5984

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0237	.0921	.0356
SDev	.0005	.0015	.0016
%RSD	2.239	1.613	4.501
#1	.0231	.0904	.0364
#2	.0241	.0933	.0367
#3	.0240	.0926	.0338

Analysis Report Fri 03-08-96 10:10:20 AM

Method: ICP1A Sample Name: QC SSTMCV 9512081903 Operator: DRS
Run Time: 03/08/96 10:09:01
Comment: (FIELD BLANKS BX104 CORE 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5129	5.319	2.175	-.0008	.1026	.1006	1.832
SDev	.0009	.045	.017	.0026	.0007	.0004	.027
%RSD	.1792	.8436	.7794	320.8	.6583	.3855	1.493
#1	.5128	5.371	2.175	.0009	.1026	.1011	1.863
#2	.5120	5.291	2.158	.0005	.1020	.1003	1.813
#3	.5139	5.296	2.192	-.0038	.1033	.1006	1.820

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.340	.2136	.0189	-.0010	.3172	-.0012	.0009
SDev	.034	.0081	.0058	.0009	.0004	.0008	.0007
%RSD	2.521	3.817	30.68	85.87	.1403	70.37	71.92
#1	1.375	.2102	.0233	-.0014	.3168	-.0002	.0008
#2	1.337	.2230	.0210	-.0000	.3177	-.0014	.0016
#3	1.308	.2078	.0123	-.0015	.3170	-.0018	.0004

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0084	.7717	50.34	.0643	-.0003	-.0973	.1042
SDev	.0000	.0252	.04	.0058	.0013	.0023	.0001
%RSD	.0858	3.269	.0886	8.980	396.9	2.410	.1025
#1	.0084	.7969	50.34	.0692	-.0013	-.1000	.1043
#2	.0084	.7716	50.29	.0656	.0011	-.0955	.1041
#3	.0084	.7465	50.38	.0579	-.0008	-.0965	.1042

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0067	5.189	.0091	.8456	4.300	3.114	.0623
SDev	.0010	.018	.0023	.0266	.053	.013	.0153
%RSD	14.28	.3473	25.21	3.148	1.243	.4087	24.54
#1	.0061	5.209	.0065	.8722	4.329	3.099	.0643
#2	.0063	5.181	.0109	.8456	4.333	3.119	.0764
#3	.0079	5.176	.0098	.8190	4.239	3.123	.0461

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0136	.0054	2.180	2.640	2.964	.0979	.0018
SDev	.0043	.0044	.008	.028	.008	.0199	.0001
%RSD	31.32	81.46	.3868	1.045	.2701	20.37	3.984
#1	.0162	.0066	2.188	2.664	2.973	.0800	.0017
#2	.0160	.0089	2.171	2.647	2.958	.1194	.0018
#3	.0087	.0005	2.181	2.610	2.961	.0944	.0018

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0228	.0302	.0000	.0106	20.33	.5237	.0301
SDev	.0018	.0078	.0000	.0065	.05	.0013	.0084

%RSD	7.699	26.03	364.6	61.57	.2386	.2559	27.84
#1	.0216	.0299	.0000	.0031	20.29	.5252	.0236
#2	.0219	.0224	-.0000	.0140	20.39	.5230	.0396
#3	.0248	.0381	.0000	.0147	20.32	.5229	.0272

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0007	-.0024	.5113
SDev	.0003	.0001	.0014
%RSD	48.14	3.301	.2789
#1	.0007	-.0024	.5124
#2	.0010	-.0023	.5118
#3	.0003	-.0023	.5097

Analysis Report QC Standard Fri 03-08-96 10:14:02 AM page 1

Method: ICP1A Sample Name: QC_SRM-1643d 108518 Operator: DRS
Run Time: 03/08/96 10:12:43
Comment: (FIELD BLANKS BX104 CORE 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	0.0034	0.1929	0.0601	.1464	.5136	0.0124	.0857
SDev	.0002	.0063	.0024	.0018	.0019	.0001	.0026
%RSD	6.766	3.248	4.084	1.239	.3686	.5119	3.086
#1	0.0035	0.1979	0.0609	.1444	.5130	0.0124	.0870
#2	0.0031	0.1949	0.0620	.1468	.5157	0.0124	.0874
#3	0.0035	0.1859	0.0573	.1479	.5121	0.0123	.0826
Errors	QC Fail	QC Fail	QC Fail	QC Pass	QC Pass	QC Fail	NOCHECK
Value	.0013	.1276	.0560	.1448	.5065	.0125	
Range	.0570	3.500	.7300	5.200	8.900	.2800	

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	031.65	0.0141	.0085	0.0272	0.0212	0.0164	.0005
SDev	.11	.0006	.0046	.0010	.0006	.0002	.0006
%RSD	.3484	4.586	54.84	3.723	2.787	1.285	119.3
#1	031.66	0.0146	.0138	0.0283	0.0218	0.0162	.0011
#2	031.75	0.0142	.0057	0.0263	0.0211	0.0165	-.0001
#3	031.53	0.0134	.0059	0.0270	0.0206	0.0165	.0006
Errors	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail	NOCHECK
Value	31.04	.0065		.0250	.0185	.0205	
Range	.6400	.3700		.5900	.2000	3.800	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0018	0.1373	02.238	.0192	0.0163	08.581	0.0381
SDev	.0003	.0036	.101	.0016	.0008	.050	.0003
%RSD	16.73	2.599	4.494	8.381	5.045	.5774	.8287
#1	.0021	0.1410	02.335	.0211	0.0158	08.599	0.0381
#2	.0015	0.1370	02.134	.0182	0.0158	08.619	0.0384
#3	.0017	0.1339	02.245	.0185	0.0172	08.525	.0378
Errors	NOCHECK	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail
Value		.0912	2.356		.0165	7.989	.0377
Range		3.900	.0350		.5500	.0350	.8300

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1139	21.93	.0173	0.1660	.0658	0.0349	.0321
SDev	.0017	.10	.0049	.0045	.0109	.0050	.0092
%RSD	1.530	.4369	28.07	2.707	16.50	14.44	28.66
#1	.1126	021.90	.0228	0.1705	.0640	0.0327	.0421
#2	.1133	22.04	.0152	0.1660	.0560	0.0313	.0239
#3	0.1159	021.85	.0138	0.1615	.0775	0.0406	.0303
Errors	QC Pass	QC Pass	NOCHECK	QC Fail	NOCHECK	QC Fail	NOCHECK
Value	.1129	22.07		.0581		.0181	

Analysis Report QC Standard Fri 03-08-96 10:14:02 AM page 2

Range	1.700	.6400		2.700		.6400	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0136	.0007	0.0589	0.0400	2.754	.0218	.2997
SDev	.0086	.0029	.0055	.0085	.013	.0117	.0013
%RSD	63.35	389.7	9.275	21.23	.4799	53.54	.4482
#1	.0219	-.0015	0.0598	0.0428	2.764	.0313	.2993
#2	.0047	-.0003	0.0640	0.0468	2.759	.0088	.3012
#3	.0142	.0040	0.0531	0.0305	2.739	.0254	.2987
Errors	NOCHECK	NOCHECK	QC Fail	QC Fail	NOCHECK	NOCHECK	QC Pass
Value			.0541	.0114			.2948
Range			1.100	.1700			3.400

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0107	-.0109	.0007	0.0192	.4027	0.0366	-.0016
SDev	.0083	.0057	.0002	.0066	.0792	.0009	.0019
%RSD	77.16	52.51	33.29	34.12	19.66	2.378	120.8
#1	.0193	-.0087	.0008	0.0268	.4938	0.0375	.0006
#2	.0029	-.0174	.0004	0.0154	.3634	0.0357	-.0026
#3	.0099	-.0066	.0009	0.0154	.3508	0.0366	-.0028
Errors	NOCHECK	NOCHECK	NOCHECK	QC Fail	NOCHECK	QC Fail	NOCHECK
Value				.0073		.0351	
Range				.2500		1.400	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0009	0.0715	.0007
SDev	.0002	.0005	.0006
%RSD	20.18	.7427	74.82
#1	.0010	0.0720	.0012
#2	.0007	0.0709	.0009
#3	.0011	0.0717	.0001
Errors	NOCHECK	QC Fail	NOCHECK
Value		.0725	
Range		.6500	

Analysis Report Fri 03-08-96 10:17:56 AM page 1

Method: ICP1A Sample Name: QC CCV1 960126H901 Operator: DRS
Run Time: 03/08/96 10:16:37
Comment: (FIELD BLANKS BX104 CORE 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0040	1.966	2.085	2.041	.9813	.9932	1.981
SDev	.0001	.006	.004	.008	.0067	.0063	.019
%RSD	1.591	.2957	.2139	.3827	.6850	.6351	.9753
#1	.0040	1.965	2.082	2.043	.9806	.9940	2.002
#2	.0039	1.962	2.082	2.033	.9750	.9866	1.979
#3	.0040	1.973	2.090	2.048	.9884	.9991	1.963

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.099	1.014	.0022	1.020	.5054	1.984	.0009
SDev	.009	.004	.0043	.004	.0072	.014	.0007
%RSD	.4528	.3756	195.3	.4019	1.414	.6811	75.24
#1	2.103	1.017	.0010	1.021	.5106	1.980	.0008
#2	2.088	1.009	.0070	1.015	.5084	1.973	.0017
#3	2.105	1.014	-.0014	1.023	.4973	1.999	.0003

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	2.039	4.677	.0040	1.944	2.103	1.032
SDev	.0003	.013	.136	.0007	.014	.009	.007
%RSD	35.39	.6264	2.901	18.15	.7104	.4303	.6784
#1	.0009	2.042	4.744	.0038	1.940	2.110	1.032
#2	.0011	2.025	4.766	.0049	1.933	2.093	1.025
#3	.0005	2.050	4.521	.0035	1.959	2.106	1.039

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.972	8.349	.0085	2.088	4.861	2.038	.0347
SDev	.013	.012	.0041	.005	.018	.009	.0044
%RSD	.6772	.1396	48.52	.2387	.3695	.4499	12.56
#1	1.969	8.353	.0055	2.090	4.868	2.049	.0350
#2	1.961	8.336	.0132	2.082	4.840	2.031	.0389
#3	1.987	8.358	.0068	2.090	4.873	2.035	.0302

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0107	.0070	.0170	2.020	4.855	.0695	1.980
SDev	.0061	.0012	.0022	.016	.033	.0061	.014
%RSD	56.70	16.66	13.22	.8154	.6855	8.815	.6885
#1	.0119	.0057	.0183	2.019	4.857	.0754	1.979
#2	.0161	.0079	.0184	2.038	4.821	.0701	1.967
#3	.0041	.0075	.0144	2.005	4.887	.0632	1.994

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0404	.0100	.0005	1.967	.1252	.9824	.0185
SDev	.0051	.0027	.0006	.004	.0398	.0052	.0151

%RSD	12.68	26.86	107.6	.2058	31.78	.5288	81.81
#1	.0346	.0070	.0002	1.963	.1257	.9832	.0244
#2	.0444	.0108	.0012	1.966	.1647	.9768	.0013
#3	.0423	.0122	.0002	1.971	.0851	.9871	.0298

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0003	1.010	-.0010
SDev	.0005	.006	.0008
%RSD	188.0	.5853	76.86
#1	.0002	1.014	-.0002
#2	.0008	1.003	-.0011
#3	-.0002	1.013	-.0018

Analysis Report Fri 03-08-96 10:22:04 AM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 03/08/96 10:20:45
Comment: (FIELD BLANKS BX104 CORE 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0054	.0196	.0042	.0001	.0020	.0011	.0227
SDev	.0008	.0066	.0052	.0015	.0003	.0000	.0050
%RSD	14.25	33.88	124.5	1619.	13.72	3.417	22.18
#1	.0047	.0152	.0094	.0018	.0017	.0011	.0275
#2	.0053	.0164	-.0011	-.0010	.0020	.0010	.0232
#3	.0062	.0273	.0043	-.0005	.0022	.0010	.0175

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0169	.0204	.0123	.0022	.0018	.0022	.0017
SDev	.0004	.0135	.0115	.0003	.0022	.0008	.0005
%RSD	2.254	66.34	93.47	11.27	120.8	37.33	26.93
#1	.0173	.0356	.0098	.0020	.0012	.0027	.0013
#2	.0170	.0098	.0022	.0025	.0000	.0013	.0016
#3	.0165	.0157	.0248	.0022	.0042	.0027	.0022

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	-.0015	.0818	.0033	.0000	.0033	-.0012
SDev	.0002	.0009	.0972	.0019	.0015	.0019	.0001
%RSD	21.67	59.28	118.9	56.53	123e6	57.71	6.551
#1	.0009	-.0005	.0372	.0054	-.0017	.0023	-.0013
#2	.0009	-.0016	.0149	.0019	.0006	.0055	-.0013
#3	.0013	-.0022	.1933	.0026	.0011	.0021	-.0011

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0061	.0582	.0118	.0440	.0203	.0171	.0572
SDev	.0006	.0234	.0028	.0018	.0103	.0015	.0132
%RSD	9.866	40.25	23.53	4.156	50.95	8.578	23.15
#1	.0061	.0770	.0091	.0447	.0088	.0175	.0576
#2	.0054	.0658	.0115	.0454	.0289	.0155	.0438
#3	.0066	.0319	.0147	.0419	.0231	.0183	.0703

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0212	.0056	.0040	.0169	.0363	.0622	.0022
SDev	.0088	.0034	.0045	.0099	.0010	.0218	.0002
%RSD	41.45	59.66	114.3	58.65	2.777	35.04	8.453
#1	.0128	.0048	.0026	.0115	.0360	.0651	.0024
#2	.0205	.0028	.0090	.0108	.0375	.0391	.0022
#3	.0304	.0093	.0003	.0283	.0356	.0823	.0021

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0182	-.0008	.0007	.0103	.2162	.0022	.0095
SDev	.0076	.0072	.0001	.0077	.0172	.0005	.0062

%RSD	41.98	856.5	11.01	74.61	7.942	22.85	65.73
#1	.0223	-.0086	.0007	.0100	.2204	.0018	.0026
#2	.0094	.0005	.0006	.0180	.1973	.0021	.0113
#3	.0228	.0056	.0007	.0027	.2309	.0028	.0146

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0004	-.0008	-.0003
SDev	.0003	.0002	.0005
%RSD	75.24	26.49	211.0
#1	.0004	-.0008	.0003
#2	.0001	-.0006	-.0008
#3	.0007	-.0011	-.0002

Analysis Report Fri 03-08-96 10:24:33 AM page 1

Method: ICP1A Sample Name: 96-2987 Operator: DRS
Run Time: 03/08/96 10:23:14
Comment: FLD-BLANK.D (FIELD BLANKS BX104 CORE 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0015	.1216	.0106	1.887	.0022	.0004	.0221
SDev	.0002	.0050	.0057	.010	.0002	.0000	.0014
%RSD	16.38	4.143	53.23	.5142	9.598	10.70	6.326
#1	.0017	.1179	.0155	1.897	.0024	.0004	.0231
#2	.0012	.1273	.0044	1.887	.0021	.0004	.0205
#3	.0016	.1195	.0120	1.877	.0020	.0003	.0226

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6825	-.0056	.0091	.0040	.0097	.0093	.0003
SDev	.0016	.0017	.0054	.0011	.0022	.0008	.0003
%RSD	.2318	29.80	59.21	28.28	22.41	8.228	101.3
#1	.6842	-.0043	.0044	.0043	.0088	.0090	.0006
#2	.6811	-.0049	.0079	.0049	.0081	.0102	-.0000
#3	.6821	-.0074	.0150	.0027	.0121	.0087	.0004

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	.0282	.0818	.0006	.1532	.2219	.0226
SDev	.0003	.0002	.1022	.0010	.0008	.0080	.0003
%RSD	45.94	.6813	125.0	181.1	.5357	3.585	1.152
#1	.0003	.0281	-.0297	-.0005	.1527	.2236	.0228
#2	.0007	.0281	.1041	.0007	.1542	.2133	.0226
#3	.0009	.0284	.1710	.0015	.1527	.2289	.0223

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0116	9.779	.0078	.0501	.5909	.0189	.0224
SDev	.0012	.009	.0037	.0017	.0075	.0115	.0117
%RSD	10.39	.0875	47.70	3.405	1.272	60.79	52.48
#1	.0130	9.786	.0048	.0509	.5994	.0110	.0207
#2	.0109	9.769	.0067	.0482	.5884	.0322	.0115
#3	.0109	9.780	.0120	.0513	.5850	.0137	.0348

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0120	.0042	.0055	.0354	1.986	.0146	.0046
SDev	.0074	.0034	.0065	.0169	.014	.0200	.0001
%RSD	61.26	82.60	118.9	47.75	.6993	137.7	1.540
#1	.0038	.0033	.0110	.0473	1.972	.0060	.0046
#2	.0145	.0012	-.0017	.0428	2.000	.0002	.0045
#3	.0179	.0079	.0072	.0160	1.986	.0375	.0046

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0083	.0045	.0008	.0084	.1254	.0006	.0127
SDev	.0028	.0035	.0003	.0080	.0780	.0006	.0055

%RSD	34.04	77.50	34.59	96.02	62.20	110.8	43.07
#1	.0053	.0018	.0011	-.0007	.0358	-.0000	.0188
#2	.0109	.0085	.0007	.0113	.1784	.0005	.0080
#3	.0086	.0033	.0006	.0145	.1620	.0012	.0115

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0003	.0624	.0002
SDev	.0005	.0015	.0003
%RSD	189.8	2.462	168.6
#1	-.0001	.0638	.0005
#2	.0001	.0627	-.0002
#3	.0008	.0608	.0002

Analysis Report Fri 03-08-96 10:29:41 AM page 1

Method: ICP1A Sample Name: 96-2988 @5 Operator: DRS
Run Time: 03/08/96 10:28:22
Comment: HYD-FLUID.D@5X DIL(FIELD BLANKS BX104 CORE 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0029	-.0049	-.0120	.3165	.0072	-.0001	.0015
SDev	.0009	.0052	.0099	.0028	.0003	.0000	.0097
%RSD	31.66	106.5	82.46	.8731	4.756	46.56	635.9
#1	-.0019	-.0028	-.0067	.3162	.0075	-.0001	-.0089
#2	-.0037	-.0108	-.0233	.3195	.0071	-.0001	.0102
#3	-.0031	-.0011	-.0058	.3140	.0068	-.0000	.0033

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2928	.0008	-.0399	-.0029	-.0004	-.0017	-.0047
SDev	.0015	.0025	.0023	.0007	.0008	.0005	.0004
%RSD	.5095	297.1	5.696	25.29	233.1	31.01	9.523
#1	.2914	.0030	-.0399	-.0030	-.0013	-.0011	-.0049
#2	.2925	.0014	-.0422	-.0035	.0002	-.0019	-.0050
#3	.2944	-.0019	-.0376	-.0021	.0000	-.0022	-.0042

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0014	-.0092	-1.190	-.0084	134.9	.0110	-.0025
SDev	.0002	.0007	.191	.0011	.6	.0032	.0002
%RSD	14.32	7.610	16.02	13.08	.4812	28.80	6.161
#1	-.0012	-.0099	-1.167	-.0080	134.5	.0080	-.0025
#2	-.0016	-.0094	-1.390	-.0097	135.6	.0107	-.0027
#3	-.0014	-.0085	-1.011	-.0076	134.6	.0143	-.0025

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0012	.9009	-.0338	.0221	-.0084	-.0166	-.0483
SDev	.0006	.0324	.0020	.0012	.0057	.0061	.0045
%RSD	51.93	3.597	5.790	5.484	67.89	36.70	9.249
#1	.0019	.9196	-.0328	.0233	-.0018	-.0178	-.0456
#2	.0010	.8634	-.0361	.0209	-.0117	-.0219	-.0535
#3	.0007	.9196	-.0326	.0222	-.0118	-.0100	-.0458

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0266	-.0127	-.0082	.0067	1.013	-.0994	.0020
SDev	.0032	.0009	.0083	.0042	.005	.0147	.0001
%RSD	12.09	7.290	101.3	62.83	.5066	14.84	3.492
#1	-.0261	-.0129	.0009	.0022	1.009	-.1060	.0021
#2	-.0301	-.0135	-.0102	.0074	1.012	-.1096	.0019
#3	-.0237	-.0117	-.0154	.0106	1.019	-.0825	.0021

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0168	.0061	-.0017	-.0073	-.4655	-.0033	-.0066
SDev	.0082	.0046	.0002	.0041	.0655	.0002	.0037

%RSD	49.00	75.42	14.42	55.95	14.08	6.081	56.53
#1	-.0100	.0085	-.0014	-.0066	-.4380	-.0032	-.0108
#2	-.0260	.0008	-.0017	-.0117	-.5403	-.0035	-.0053
#3	-.0144	.0090	-.0018	-.0036	-.4181	-.0032	-.0037

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0014	.0012	-.0047
SDev	.0004	.0005	.0003
%RSD	25.85	43.89	5.638
#1	-.0012	.0006	-.0047
#2	-.0018	.0013	-.0049
#3	-.0012	.0017	-.0044

Analysis Report Fri 03-08-96 10:33:37 AM page 1

Method: ICP1A Sample Name: 96-2988 @25 Operator: DRS
Run Time: 03/08/96 10:32:18
Comment: HYD-FLUID.D@25XDIL(FIELD BLANKS BX104 CORE 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0035	.0007	-.0102	.0568	.0012	-.0001	-.0059
SDev	.0004	.0029	.0071	.0039	.0003	.0000	.0088
%RSD	11.55	414.7	69.56	6.867	23.30	59.17	149.9
#1	-.0039	.0020	-.0077	.0595	.0014	-.0001	-.0024
#2	-.0031	.0028	-.0182	.0524	.0012	-.0000	-.0159
#3	-.0036	-.0026	-.0047	.0586	.0009	-.0000	.0007

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0901	.0031	-.0314	-.0033	-.0015	-.0050	-.0041
SDev	.0004	.0089	.0055	.0009	.0005	.0006	.0002
%RSD	.4850	288.9	17.54	27.57	33.33	11.52	3.727
#1	.0903	.0125	-.0269	-.0041	-.0010	-.0054	-.0041
#2	.0904	-.0051	-.0298	-.0033	-.0020	-.0044	-.0043
#3	.0896	.0018	-.0376	-.0023	-.0017	-.0053	-.0040

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0009	-.0080	-1.123	-.0059	27.53	.0038	-.0025
SDev	.0001	.0002	.089	.0010	.10	.0076	.0004
%RSD	11.81	2.051	7.947	16.41	.3652	200.7	14.71
#1	-.0010	-.0081	-1.033	-.0060	27.51	.0059	-.0030
#2	-.0008	-.0078	-1.123	-.0048	27.44	-.0047	-.0023
#3	-.0010	-.0080	-1.212	-.0067	27.64	.0102	-.0023

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	.2195	-.0211	.0217	.0029	-.0175	-.0404
SDev	.0017	.0277	.0026	.0019	.0121	.0031	.0050
%RSD	250.7	12.62	12.41	8.793	413.7	17.71	12.32
#1	-.0000	.2064	-.0241	.0236	.0120	-.0142	-.0393
#2	-.0005	.2008	-.0192	.0216	-.0109	-.0179	-.0360
#3	.0026	.2513	-.0201	.0198	.0077	-.0203	-.0458

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0263	-.0119	-.0128	.0003	.2169	-.1192	.0006
SDev	.0025	.0005	.0051	.0098	.0001	.0152	.0000
%RSD	9.460	4.469	40.21	3047.	.0585	12.73	.0544
#1	-.0259	-.0113	-.0169	-.0078	.2170	-.1269	.0006
#2	-.0241	-.0120	-.0070	.0112	.2168	-.1017	.0006
#3	-.0290	-.0123	-.0144	-.0024	.2169	-.1290	.0006

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0153	-.0018	-.0014	-.0125	-.3347	-.0030	.0041
SDev	.0087	.0024	.0001	.0043	.0228	.0002	.0102

%RSD	56.67	130.1	7.023	34.23	6.820	7.752	251.0
#1	-.0199	-.0020	-.0015	-.0114	-.3137	-.0031	.0159
#2	-.0053	-.0041	-.0015	-.0089	-.3313	-.0031	-.0019
#3	-.0207	.0006	-.0013	-.0172	-.3590	-.0027	-.0018

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0016	-.0020	-.0043
SDev	.0000	.0012	.0004
%RSD	1.099	60.16	10.25
#1	-.0016	-.0023	-.0041
#2	-.0016	-.0007	-.0041
#3	-.0016	-.0031	-.0048

Analysis Report Fri 03-08-96 10:37:22 AM page 1

Method: ICP1A Sample Name: 96-2988 Operator: DRS
Run Time: 03/08/96 10:36:03
Comment: HYD-FLUID.D (FIELD BLANKS BX104 CORE 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	.0625	.0170	1.559	.0371	.0000	.0424
SDev	.0008	.0037	.0118	.013	.0006	.0000	.0078
%RSD	105.3	5.846	69.04	.8643	1.587	122.5	18.31
#1	-.0001	.0618	.0066	1.573	.0368	.0000	.0379
#2	.0009	.0665	.0298	1.547	.0367	-.0000	.0514
#3	.0014	.0593	.0147	1.556	.0378	.0001	.0379

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.449	-.0007	-.0414	.0038	.0015	.0134	-.0006
SDev	.004	.0043	.0039	.0011	.0005	.0013	.0006
%RSD	.2952	643.0	9.369	28.85	33.05	9.476	104.7
#1	1.454	.0011	-.0455	.0043	.0020	.0131	-.0011
#2	1.446	-.0056	-.0378	.0045	.0015	.0148	.0001
#3	1.446	.0025	-.0409	.0025	.0010	.0123	-.0008

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0014	-.0051	-.9889	-.0072	600.0	.1339	-.0016
SDev	.0002	.0005	.1945	.0013	3.5	.0056	.0002
%RSD	14.43	9.613	19.66	18.47	.5802	4.184	10.25
#1	-.0016	-.0054	-1.212	-.0087	603.7	.1274	-.0017
#2	-.0014	-.0045	-.8997	-.0062	596.8	.1367	-.0014
#3	-.0012	-.0054	-.8550	-.0066	599.4	.1375	-.0017

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0178	4.483	-.0337	.0253	.0339	.0261	.0468
SDev	.0010	.012	.0013	.0030	.0029	.0053	.0136
%RSD	5.837	.2595	3.895	11.88	8.618	20.26	29.13
#1	.0167	4.480	-.0353	.0267	.0318	.0229	.0343
#2	.0188	4.496	-.0330	.0274	.0372	.0322	.0614
#3	.0179	4.474	-.0330	.0219	.0326	.0232	.0447

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0058	-.0044	.0197	.0420	4.929	.0138	.0108
SDev	.0065	.0046	.0100	.0059	.016	.0292	.0001
%RSD	111.9	104.2	50.67	13.95	.3306	211.5	.6542
#1	-.0013	-.0014	.0085	.0390	4.947	-.0181	.0108
#2	.0072	-.0021	.0276	.0382	4.915	.0393	.0108
#3	.0116	-.0097	.0231	.0487	4.925	.0202	.0109

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0249	.0128	.0002	.0200	-.3061	-.0006	-.0049
SDev	.0073	.0082	.0003	.0023	.0859	.0003	.0036

%RSD	29.50	63.81	146.8	11.32	28.05	43.12	75.01
#1	.0197	.0208	-.0001	.0181	-.4051	-.0008	-.0077
#2	.0333	.0044	.0005	.0225	-.2522	-.0007	-.0007
#3	.0217	.0132	.0002	.0194	-.2610	-.0003	-.0061

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0010	.0242	-.0023
SDev	.0001	.0003	.0009
%RSD	14.19	1.398	38.10
#1	-.0012	.0245	-.0030
#2	-.0009	.0243	-.0013
#3	-.0009	.0238	-.0026

Analysis Report QC Standard Fri 03-08-96 10:48:22 AM page 1

Method: ICP1A Sample Name: QC_MCVA1 960226I901 Operator: DRS
Run Time: 03/08/96 10:47:03
Comment: (FIELD BLANKS BX104 CORE 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4933	10.25	2.649	2.132	.5215	.0987	25.07
SDev	.0170	.45	.109	.092	.0269	.0043	1.04
%RSD	3.457	4.368	4.119	4.293	5.154	4.362	4.158
#1	.5116	10.74	Q2.768	Q2.232	Q.5511	.1034	26.22
#2	.4906	10.14	2.625	2.112	.5146	.0979	24.81
#3	.4778	9.861	2.554	2.052	.4987	.0949	24.19
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.61	.5005	-.0765	1.023	1.032	.9908	-.0132
SDev	.89	.0230	.0325	.035	.048	.0453	.0047
%RSD	3.494	4.595	42.49	3.422	4.605	4.573	35.74
#1	26.57	.5260	-.1120	1.061	1.083	1.041	-.0186
#2	25.47	.4941	-.0694	1.016	1.023	.9787	-.0113
#3	24.80	.4814	-.0482	.9916	.9893	.9528	-.0097
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0020	20.91	23.57	-.0163	2.053	33.30	.5241
SDev	.0014	.85	.24	.0082	.096	1.29	.0209
%RSD	71.37	4.061	1.024	50.45	4.684	3.861	3.986
#1	-.0036	21.83	23.77	-.0259	2.159	Q34.71	.5471
#2	-.0015	20.74	23.64	-.0120	2.027	33.01	.5191
#3	-.0009	20.16	23.30	-.0112	1.972	32.19	.5062
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.038	38.16	-.0782	1.060	4.925	2.481	-.2307
SDev	.039	1.81	.0250	.032	.166	.067	.0755
%RSD	3.712	4.753	32.01	3.063	3.378	2.697	32.71
#1	1.078	40.15	-.1065	1.091	5.090	2.551	-.3162
#2	1.034	37.74	-.0690	1.061	4.928	2.475	-.2027
#3	1.001	36.59	-.0590	1.027	4.757	2.418	-.1733
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Analysis Report QC Standard Fri 03-08-96 10:48:22 AM page 2

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.1009	-.0192	2.600	2.599	19.05	-.0526	.5317
SDev	.0327	.0143	.091	.104	.74	.0974	.0266
%RSD	32.44	74.34	3.512	4.004	3.890	185.2	5.007
#1	-.1380	-.0354	2.695	2.715	19.86	-.1638	0.5609
#2	-.0885	-.0132	2.593	2.569	18.89	-.0115	.5256
#3	-.0761	-.0089	2.513	2.513	18.40	.0176	.5087
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0048	.0452	1.030	2.505	-1.110	1.035	.0225
SDev	.0135	.0045	.047	.085	.454	.042	.0031
%RSD	279.5	9.983	4.575	3.378	40.84	4.056	13.98
#1	-.0204	.0487	1.082	2.596	-1.624	1.080	.0191
#2	.0021	.0469	1.018	2.493	-.9404	1.026	.0230
#3	.0038	.0401	.9902	2.428	-.7664	.9978	.0253
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0036	1.009	2.065
SDev	.0017	.044	.096
%RSD	46.28	4.343	4.629
#1	-.0055	1.056	2.171
#2	-.0031	1.002	2.042
#3	-.0022	.9688	1.984
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report Fri 03-08-96 10:52:16 AM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 03/08/96 10:50:57
Comment: HYD-FLUID.D (FIELD BLANKS BX104 CORE 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0027	.0130	.0117	.0022	-.0001	.0002	.0424
SDev	.0003	.0015	.0040	.0026	.0001	.0000	.0077
%RSD	10.11	11.41	34.07	118.6	239.5	6.229	18.14
#1	-.0030	.0113	.0163	.0051	-.0001	.0002	.0341
#2	-.0024	.0139	.0095	.0005	.0001	.0002	.0494
#3	-.0028	.0138	.0092	.0009	-.0002	.0002	.0437

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0497	-.0020	-.0229	-.0005	.0029	-.0026	-.0038
SDev	.0033	.0039	.0039	.0004	.0010	.0003	.0002
%RSD	6.592	197.7	17.26	78.51	32.99	10.22	4.281
#1	.0535	.0005	-.0273	-.0004	.0024	-.0024	-.0037
#2	.0481	.0000	-.0215	-.0002	.0024	-.0025	-.0039
#3	.0476	-.0064	-.0198	-.0010	.0041	-.0029	-.0040

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0007	.0310	-.9963	-.0049	.0049	.0484	-.0017
SDev	.0001	.0030	.0341	.0010	.0022	.0044	.0002
%RSD	16.72	9.804	3.420	19.95	44.35	9.177	8.854
#1	-.0006	.0343	-.9889	-.0059	.0073	.0491	-.0018
#2	-.0008	.0301	-.9666	-.0049	.0044	.0436	-.0016
#3	-.0008	.0285	-1.033	-.0040	.0030	.0524	-.0019

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0023	.0248	-.0207	.0098	.0127	-.0069	-.0371
SDev	.0007	.0227	.0025	.0000	.0163	.0045	.0109
%RSD	31.08	91.45	11.97	.0051	128.8	65.76	29.32
#1	.0031	-.0014	-.0235	.0098	.0076	-.0017	-.0323
#2	.0019	.0379	-.0198	.0098	-.0005	-.0099	-.0294
#3	.0019	.0378	-.0188	.0098	.0309	-.0090	-.0495

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0193	-.0078	-.0097	.0078	.0473	-.0925	.0009
SDev	.0072	.0022	.0042	.0029	.0033	.0112	.0001
%RSD	37.17	27.96	43.12	37.50	6.973	12.09	8.127
#1	-.0149	-.0101	-.0129	.0048	.0483	-.0804	.0010
#2	-.0155	-.0073	-.0113	.0106	.0501	-.0947	.0008
#3	-.0276	-.0058	-.0050	.0080	.0437	-.1024	.0008

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0161	-.0029	.0003	-.0011	-.2542	-.0007	-.0049
SDev	.0087	.0008	.0002	.0063	.1064	.0001	.0046

Analysis Report Fri 03-08-96 10:52:16 AM page 2

%RSD	54.19	28.44	49.43	578.4	41.86	21.13	92.52
#1	-.0115	-.0039	.0004	-.0055	-.1348	-.0007	-.0091
#2	-.0261	-.0025	.0004	-.0038	-.2887	-.0005	-.0056
#3	-.0106	-.0024	.0001	.0061	-.3391	-.0008	-.0001

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0013	-.0007	-.0001
SDev	.0004	.0003	.0005
%RSD	27.76	45.32	906.8
#1	-.0014	-.0009	.0005
#2	-.0016	-.0008	-.0001
#3	-.0009	-.0003	-.0005

Analysis Report Fri 03-08-96 10:56:08 AM page 1

Method: ICP1A Sample Name: 96-2617-BLK Operator: DRS
Run Time: 03/08/96 10:54:49
Comment: KOH/Ni FUSION PROCESS BLANK (BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0041	.1587	.0250	.0013	.0025	.0001	.0364
SDev	.0007	.0045	.0145	.0022	.0002	.0000	.0033
%RSD	17.60	2.829	58.09	164.0	9.321	2.927	8.948
#1	.0047	.1561	.0289	.0025	.0024	.0001	.0396
#2	.0033	.1561	.0089	-.0012	.0024	.0001	.0366
#3	.0043	.1638	.0372	.0027	.0028	.0001	.0331

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3916	-.0028	.0254	.0071	.0028	.0072	.0036
SDev	.0007	.0058	.0006	.0003	.0003	.0004	.0005
%RSD	.1776	203.5	2.415	4.130	9.150	5.862	14.83
#1	.3918	-.0053	.0254	.0069	.0025	.0068	.0030
#2	.3922	.0038	.0247	.0074	.0029	.0072	.0040
#3	.3909	-.0070	.0259	.0070	.0030	.0077	.0038

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	.0266	2431.	.0062	.0038	.0948	.0517
SDev	.0001	.0008	9.	.0019	.0018	.0082	.0005
%RSD	7.518	3.023	.3863	30.02	47.32	8.604	.9231
#1	.0015	.0272	2426.	.0054	.0030	.0909	.0513
#2	.0013	.0269	2441.	.0050	.0025	.0893	.0522
#3	.0015	.0257	2424.	.0084	.0058	.1042	.0516

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0083	1.076	.0216	.7585	.0484	.0311	.0716
SDev	.0011	.011	.0040	.0060	.0209	.0056	.0111
%RSD	12.72	1.045	18.66	.7906	43.26	18.06	15.47
#1	.0071	1.076	.0258	.7571	.0358	.0309	.0601
#2	.0088	1.065	.0177	.7651	.0725	.0256	.0725
#3	.0090	1.088	.0214	.7533	.0368	.0368	.0821

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0327	.0149	.0169	.0493	.3885	.1156	.0029
SDev	.0086	.0017	.0129	.0058	.0020	.0293	.0001
%RSD	26.11	11.46	76.18	11.84	.5198	25.32	2.450
#1	.0297	.0132	.0031	.0549	.3896	.0982	.0029
#2	.0261	.0166	.0190	.0433	.3862	.0991	.0028
#3	.0424	.0149	.0285	.0497	.3897	.1493	.0029

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0322	.0047	.0045	.0095	.3620	.0028	.0153
SDev	.0083	.0052	.0003	.0123	.0349	.0001	.0072

%RSD	25.89	110.1	6.222	129.5	9.645	2.554	46.94
#1	.0275	.0106	.0045	.0237	.3245	.0028	.0236
#2	.0272	.0008	.0042	.0024	.3680	.0029	.0113
#3	.0418	.0028	.0048	.0024	.3936	.0028	.0110

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0010	.0038	.0030
SDev	.0003	.0001	.0008
%RSD	32.28	1.578	26.25
#1	.0007	.0038	.0022
#2	.0010	.0039	.0029
#3	.0013	.0038	.0038

Analysis Report Fri 03-08-96 11:00:32 AM

Method: ICP1A Sample Name: 96-2617 @5 (F) Operator: DRS
Run Time: 03/08/96 10:59:13
Comment: 118.COMP.F @5X DIL (BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0041	1.160	-.0077	-.0076	.0020	-.0001	1.512
SDev	.0002	.004	.0076	.0013	.0000	.0000	.012
%RSD	4.581	.3816	99.01	16.67	.0000	3.797	.8236
#1	-.0043	1.165	-.0080	-.0062	.0020	-.0001	1.515
#2	-.0039	1.156	-.0152	-.0079	.0020	-.0001	1.523
#3	-.0041	1.158	.0001	-.0087	.0020	-.0001	1.499

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1037	-.0101	-.0222	-.0029	.1104	-.0053	-.0046
SDev	.0010	.0007	.0034	.0001	.0018	.0004	.0005
%RSD	.9242	6.818	15.40	4.986	1.588	8.308	10.32
#1	.1046	-.0104	-.0225	-.0028	.1124	-.0051	-.0048
#2	.1038	-.0105	-.0187	-.0031	.1090	-.0058	-.0049
#3	.1027	-.0093	-.0255	-.0029	.1098	-.0051	-.0040

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0010	.7720	494.8	-.0062	.0047	.0139	.0141
SDev	.0002	.0017	1.6	.0001	.0003	.0066	.0001
%RSD	19.55	.2225	.3221	1.693	5.773	47.40	.4886
#1	-.0010	.7738	496.6	-.0061	.0044	.0149	.0142
#2	-.0012	.7720	493.5	-.0063	.0049	.0200	.0140
#3	-.0008	.7704	494.1	-.0061	.0049	.0069	.0141

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0012	7.312	-.0247	.2165	1.686	-.0175	-.0585
SDev	.0000	.051	.0039	.0012	.052	.0063	.0040
%RSD	.9407	.6971	15.82	.5531	3.088	35.72	6.785
#1	.0011	7.349	-.0209	.2172	1.711	-.0226	-.0624
#2	.0012	7.254	-.0287	.2172	1.626	-.0105	-.0586
#3	.0012	7.332	-.0244	.2151	1.722	-.0195	-.0545

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0306	-.0116	-.0212	-.0065	.5775	-.1173	.0109
SDev	.0020	.0018	.0083	.0036	.0023	.0161	.0000
%RSD	6.644	15.86	39.15	55.71	.4052	13.74	.0044
#1	-.0293	-.0137	-.0306	-.0029	.5762	-.1335	.0109
#2	-.0330	-.0104	-.0149	-.0101	.5802	-.1013	.0109
#3	-.0295	-.0106	-.0181	-.0064	.5761	-.1172	.0109

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0162	-.0003	-.0007	-.0167	-.3055	-.0031	-.0071
SDev	.0008	.0048	.0002	.0120	.0611	.0005	.0108

%RSD	4.662	1722.	36.72	72.15	19.99	16.73	152.6
#1	-.0171	-.0009	-.0004	-.0270	-.2813	-.0036	-.0142
#2	-.0160	.0047	-.0007	-.0035	-.3749	-.0025	-.0124
#3	-.0156	-.0047	-.0008	-.0196	-.2602	-.0032	.0053

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0017	-.0000	-.0008
SDev	.0004	.0009	.0004
%RSD	22.31	3374.	45.79
#1	-.0013	-.0002	-.0005
#2	-.0019	-.0009	-.0012
#3	-.0020	.0010	-.0008

Analysis Report Fri 03-08-96 11:04:09 AM page 1

Method: ICP1A Sample Name: 96-2617 (F) Operator: DRS
Run Time: 03/08/96 11:02:50
Comment: 118.COMP.F (BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0044	5.688	.0245	.0065	.0078	.0001	7.532
SDev	.0011	.006	.0120	.0019	.0003	.0000	.035
%RSD	23.94	.1074	49.04	29.88	3.473	30.81	.4709
#1	.0038	5.682	.0376	.0055	.0081	.0001	7.492
#2	.0038	5.688	.0220	.0088	.0075	.0001	7.561
#3	.0056	5.694	.0139	.0053	.0078	.0001	7.542

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4608	-.0021	.0552	.0081	.5585	.0072	.0044
SDev	.0007	.0067	.0022	.0006	.0039	.0013	.0003
%RSD	.1525	319.0	3.929	6.870	.7032	17.48	7.729
#1	.4602	.0045	.0569	.0086	.5596	.0057	.0048
#2	.4608	-.0020	.0558	.0075	.5617	.0079	.0042
#3	.4616	-.0089	.0527	.0082	.5541	.0079	.0043

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0022	3.793	2369.	.0084	.0504	.1226	.0807
SDev	.0001	.006	3.	.0012	.0013	.0039	.0006
%RSD	5.631	.1452	.1229	14.45	2.488	3.197	.7066
#1	.0021	3.787	2366.	.0092	.0513	.1204	.0802
#2	.0023	3.794	2371.	.0070	.0490	.1203	.0807
#3	.0023	3.798	2371.	.0090	.0509	.1271	.0813

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0202	35.28	.0271	1.061	8.573	.0545	.0903
SDev	.0014	.05	.0048	.008	.037	.0023	.0031
%RSD	7.020	.1479	17.55	.7569	.4369	4.182	3.448
#1	.0205	35.22	.0296	1.064	8.549	.0548	.0881
#2	.0214	35.32	.0216	1.052	8.553	.0566	.0939
#3	.0186	35.30	.0301	1.068	8.616	.0520	.0890

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0456	.0200	.0271	.0631	2.874	.1773	.0532
SDev	.0035	.0016	.0102	.0076	.004	.0077	.0002
%RSD	7.731	7.765	37.67	12.06	.1396	4.333	.3517
#1	.0453	.0194	.0314	.0646	2.872	.1862	.0530
#2	.0422	.0189	.0154	.0699	2.871	.1737	.0531
#3	.0493	.0218	.0344	.0548	2.878	.1722	.0534

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0442	.0048	.0066	.0292	.8457	.0044	.0180
SDev	.0022	.0078	.0003	.0015	.0541	.0001	.0053

%RSD	4.880	161.8	3.886	5.050	6.397	3.310	29.35
#1	.0439	.0021	.0063	.0306	.8993	.0046	.0234
#2	.0422	-.0012	.0067	.0295	.8466	.0043	.0128
#3	.0465	.0136	.0066	.0276	.7911	.0044	.0179

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0013	.0184	.0189
SDev	.0002	.0010	.0006
%RSD	13.62	5.476	3.385
#1	.0014	.0178	.0188
#2	.0014	.0178	.0196
#3	.0011	.0196	.0183

Analysis Report Fri 03-08-96 11:07:56 AM page 1

Method: ICP1A Sample Name: 96-2614 PSA (F) Operator: DRS
Run Time: 03/08/96 11:06:37
Comment: 118.COMP.F POST SPIKE A (MCVA1(BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2182	7.700	1.311	1.014	.2441	.0472	15.67
SDev	.0032	.019	.011	.006	.0010	.0001	.03
%RSD	1.472	.2516	.8506	.5548	.3992	.1827	.1975
#1	.2145	7.684	1.305	1.007	.2430	.0471	15.68
#2	.2200	7.694	1.324	1.019	.2444	.0472	15.64
#3	.2201	7.721	1.304	1.015	.2449	.0473	15.70

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.55	.2383	.0008	.4928	.7644	.4731	-.0028
SDev	.03	.0015	.0057	.0017	.0051	.0021	.0003
%RSD	.2156	.6429	713.4	.3521	.6721	.4385	10.93
#1	12.52	.2378	.0054	.4928	.7696	.4714	-.0032
#2	12.56	.2400	.0025	.4911	.7593	.4724	-.0026
#3	12.57	.2370	-.0055	.4946	.7642	.4754	-.0028

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	11.81	1209.	-.0025	.9690	15.96	.2897
SDev	.0002	.03	3.	.0014	.0056	.06	.0010
%RSD	36.72	.2411	.2873	55.71	.5731	.3665	.3486
#1	.0008	11.78	1206.	-.0011	.9668	15.91	.2886
#2	.0008	11.80	1208.	-.0024	.9649	15.94	.2905
#3	.0004	11.84	1213.	-.0039	.9753	16.03	.2901

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5040	35.91	-.0146	1.021	6.614	1.231	-.0428
SDev	.0014	.23	.0020	.010	.081	.012	.0072
%RSD	.2767	.6382	13.51	1.026	1.221	.9841	16.75
#1	.5055	35.74	-.0155	1.015	6.593	1.229	-.0433
#2	.5027	35.82	-.0160	1.015	6.545	1.220	-.0354
#3	.5037	36.17	-.0124	1.033	6.703	1.244	-.0497

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0188	.0025	1.276	1.290	10.69	.0941	.2731
SDev	.0017	.0022	.010	.024	.02	.0238	.0009
%RSD	9.223	88.54	.7665	1.868	.2050	25.30	.3482
#1	-.0175	.0023	1.278	1.289	10.67	.1198	.2723
#2	-.0182	.0004	1.285	1.266	10.68	.0898	.2728
#3	-.0208	.0047	1.265	1.314	10.71	.0728	.2742

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0240	.0268	.4877	1.223	-.0004	.4912	.0225
SDev	.0056	.0029	.0013	.012	.0255	.0015	.0044

%RSD	23.18	10.64	.2751	.9441	6751.	.3089	19.39
#1	.0186	.0251	.4865	1.212	.0095	.4904	.0185
#2	.0297	.0252	.4875	1.222	.0187	.4902	.0218
#3	.0235	.0301	.4891	1.235	-.0293	.4930	.0271

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0007	.5030	.9787
SDev	.0003	.0023	.0039
%RSD	44.86	.4638	.3959
#1	-.0007	.5005	.9751
#2	-.0004	.5034	.9782
#3	-.0011	.5051	.9828

Analysis Report Fri 03-08-96 11:12:02 AM page 1

Method: ICP1A Sample Name: MCVA1 @2X Operator: DRS
Run Time: 03/08/96 11:10:43
Comment: MCVA1 960226I901 @2X DIL (BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2385	4.935	1.292	1.024	.2493	.0475	12.11
SDev	.0011	.027	.011	.007	.0009	.0003	.10
%RSD	.4637	.5404	.8246	.6556	.3527	.6266	.8057
#1	.2398	4.965	1.281	1.030	.2502	.0478	12.22
#2	.2381	4.925	1.293	1.016	.2493	.0475	12.07
#3	.2377	4.915	1.302	1.025	.2484	.0472	12.03

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.47	.2474	-.0465	.4982	.5000	.4651	-.0072
SDev	.06	.0018	.0058	.0021	.0074	.0015	.0012
%RSD	.4965	.7308	12.37	.4231	1.485	.3145	16.12
#1	12.54	.2459	-.0522	.4998	.5081	.4667	-.0080
#2	12.47	.2494	-.0466	.4989	.4934	.4648	-.0077
#3	12.41	.2468	-.0407	.4958	.4986	.4638	-.0059

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0010	10.13	12.23	-.0094	.9840	16.26	.2525
SDev	.0003	.06	.08	.0016	.0122	.08	.0013
%RSD	29.24	.5632	.6904	16.79	1.243	.5141	.5183
#1	-.0013	10.19	12.17	-.0097	.9980	16.35	.2540
#2	-.0007	10.12	12.33	-.0108	.9781	16.25	.2523
#3	-.0010	10.07	12.19	-.0077	.9758	16.18	.2514

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5000	18.49	-.0415	.5153	2.413	1.204	-.1222
SDev	.0020	.16	.0058	.0031	.021	.005	.0112
%RSD	.3977	.8508	13.96	.6084	.8651	.3987	9.177
#1	.5015	18.62	-.0474	.5140	2.414	1.207	-.1311
#2	.5007	18.54	-.0413	.5189	2.392	1.198	-.1258
#3	.4977	18.32	-.0358	.5130	2.434	1.206	-.1096

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0555	-.0125	1.266	1.264	9.315	-.0583	.2540
SDev	.0094	.0020	.012	.017	.046	.0320	.0019
%RSD	16.96	16.04	.9198	1.320	.4945	54.90	.7630
#1	-.0629	-.0125	1.275	1.277	9.362	-.0858	.2562
#2	-.0587	-.0105	1.270	1.245	9.314	-.0660	.2536
#3	-.0449	-.0146	1.253	1.270	9.270	-.0231	.2524

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0061	.0241	.4928	1.217	-.5777	.4966	.0067
SDev	.0095	.0028	.0033	.013	.1293	.0022	.0098

%RSD	154.9	11.49	.6722	1.056	22.39	.4504	146.4
#1	-.0047	.0269	.4960	1.208	-.7266	.4991	.0180
#2	-.0163	.0214	.4930	1.232	-.5128	.4951	.0020
#3	.0026	.0241	.4894	1.212	-.4936	.4954	.0001

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0019	.4985	.9852
SDev	.0005	.0049	.0056
%RSD	23.68	.9888	.5660
#1	-.0023	.5042	.9913
#2	-.0021	.4963	.9839
#3	-.0014	.4951	.9804

Analysis Report Fri 03-08-96 11:15:42 AM page 1

Method: ICP1A Sample Name: 96-2617-DUP (F) Operator: DRS
Run Time: 03/08/96 11:14:23
Comment: 118.COMP.F-DUPLICATE (BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0055	6.679	.0412	.0142	.0095	.0002	8.573
SDev	.0004	.039	.0085	.0013	.0002	.0000	.046
%RSD	6.866	.5893	20.71	8.820	1.644	13.94	.5333
#1	.0058	6.636	.0337	.0139	.0097	.0002	8.521
#2	.0057	6.687	.0504	.0155	.0094	.0002	8.589
#3	.0051	6.713	.0394	.0131	.0094	.0002	8.608

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5261	-.0016	.0579	.0126	.6377	.0130	.0049
SDev	.0018	.0077	.0069	.0004	.0033	.0006	.0010
%RSD	.3322	472.4	11.92	2.853	.5128	5.002	21.01
#1	.5245	.0067	.0621	.0125	.6339	.0135	.0050
#2	.5280	-.0029	.0617	.0130	.6393	.0133	.0059
#3	.5259	-.0086	.0499	.0123	.6398	.0123	.0038

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0025	4.283	2367.	.0092	.0570	.1648	.0893
SDev	.0002	.024	15.	.0019	.0017	.0052	.0009
%RSD	9.043	.5514	.6254	20.20	2.996	3.162	.9946
#1	.0027	4.257	2350.	.0108	.0565	.1684	.0883
#2	.0027	4.290	2372.	.0095	.0589	.1673	.0897
#3	.0023	4.303	2378.	.0072	.0556	.1588	.0899

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0220	40.27	.0342	1.101	9.801	.0660	.1096
SDev	.0006	.25	.0018	.010	.012	.0107	.0109
%RSD	2.934	.6209	5.167	.8782	.1247	16.28	9.921
#1	.0217	40.00	.0350	1.090	9.791	.0696	.1208
#2	.0215	40.35	.0355	1.104	9.796	.0539	.1088
#3	.0227	40.48	.0322	1.108	9.814	.0745	.0991

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0510	.0214	.0317	.0792	3.594	.1828	.0604
SDev	.0051	.0034	.0049	.0075	.022	.0198	.0003
%RSD	10.03	16.04	15.39	9.516	.6189	10.83	.4225
#1	.0558	.0237	.0359	.0872	3.569	.1837	.0601
#2	.0514	.0231	.0328	.0782	3.604	.2021	.0605
#3	.0456	.0174	.0264	.0723	3.610	.1625	.0606

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0470	.0028	.0097	.0299	.9422	.0064	.0250
SDev	.0074	.0010	.0003	.0036	.0622	.0002	.0048

%RSD	15.78	34.30	3.504	12.01	6.598	2.641	19.06
#1	.0549	.0038	.0101	.0338	1.014	.0062	.0231
#2	.0460	.0018	.0094	.0290	.9122	.0065	.0214
#3	.0401	.0030	.0096	.0268	.9007	.0064	.0304

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0014	.0226	.0215
SDev	.0002	.0008	.0004
%RSD	14.75	3.509	1.707
#1	.0013	.0232	.0219
#2	.0017	.0217	.0213
#3	.0014	.0230	.0213

Analysis Report Fri 03-08-96 11:19:33 AM page 1

Method: ICP1A Sample Name: 96-2617-DUP FSB (F) Operator: DRS
Run Time: 03/08/96 11:18:14
Comment: 118.COMP.F-DUP POST SPIKE B (BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0021	3.290	.1775	.0816	.0032	.0003	4.292
SDev	.0005	.010	.0089	.0015	.0001	.0001	.026
%RSD	24.79	.3031	5.003	1.880	2.414	16.12	.6146
#1	-.0027	3.279	.1832	.0826	.0033	.0004	4.265
#2	-.0018	3.295	.1673	.0798	.0032	.0003	4.293
#3	-.0018	3.297	.1820	.0823	.0032	.0003	4.318

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2696	-.0071	1.009	.0043	.3241	.0142	.9870
SDev	.0021	.0019	.004	.0006	.0019	.0011	.0032
%RSD	.7775	27.45	.4377	14.87	.5987	8.047	.3194
#1	.2672	-.0053	1.005	.0037	.3260	.0155	.9839
#2	.2707	-.0067	1.009	.0043	.3222	.0139	.9869
#3	.2709	-.0091	1.013	.0050	.3242	.0133	.9902

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9935	2.139	1190.	.4977	.0246	.0028	.0432
SDev	.0030	.007	3.	.0008	.0015	.0094	.0002
%RSD	.3014	.3222	.2891	.1619	6.182	338.4	.4579
#1	.9910	2.133	1186.	.4973	.0229	.0134	.0435
#2	.9927	2.137	1190.	.4971	.0257	-.0008	.0432
#3	.9968	2.146	1193.	.4986	.0253	-.0043	.0431

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0127	20.28	.9781	.5649	4.854	.1332	.9134
SDev	.0004	.12	.0076	.0057	.004	.0045	.0104
%RSD	3.420	.5744	.7729	1.011	.0865	3.366	1.139
#1	.0128	20.15	.9704	.5590	4.858	.1368	.9125
#2	.0131	20.30	.9855	.5704	4.853	.1346	.9035
#3	.0123	20.38	.9784	.5652	4.850	.1282	.9243

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9965	1.014	.0539	.0760	4.444	1.101	.0314
SDev	.0081	.003	.0073	.0073	.120	.023	.0002
%RSD	.8169	.2877	13.49	9.647	2.700	2.059	.5936
#1	.9884	1.012	.0455	.0729	4.323	1.091	.0312
#2	.9965	1.017	.0576	.0708	4.446	1.126	.0314
#3	1.005	1.013	.0585	.0844	4.563	1.084	.0316

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9911	4.956	.0052	.0187	11.90	.0011	1.013
SDev	.0023	.012	.0003	.0045	.14	.0001	.026

%RSD	.2304	.2472	5.399	24.26	1.186	12.63	2.600
#1	.9895	4.945	.0049	.0153	11.74	.0010	1.044
#2	.9900	4.969	.0055	.0170	11.94	.0011	1.001
#3	.9937	4.955	.0053	.0238	12.01	.0012	.9956

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.4879	.0124	-.0222
SDev	.0023	.0005	.0013
%RSD	.4777	4.049	5.719
#1	.4855	.0123	-.0226
#2	.4881	.0120	-.0232
#3	.4902	.0129	-.0207

Analysis Report Fri 03-08-96 11:23:22 AM page 1

Method: ICP1A Sample Name: MCVB2 @2 Operator: DRS
Run Time: 03/08/96 11:22:03
Comment: MCVB2 9602211901 @2X DIL (BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0071	-.0295	.1436	.0744	-.0002	.0003	.0319
SDev	.0006	.0022	.0119	.0037	.0001	.0000	.0087
%RSD	8.373	7.574	8.302	4.909	70.54	10.64	27.18
#1	-.0066	-.0286	.1330	.0702	-.0002	.0002	.0367
#2	-.0069	-.0321	.1565	.0756	-.0001	.0002	.0372
#3	-.0078	-.0279	.1414	.0772	-.0003	.0003	.0219

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	-.0049	.9888	-.0039	.0012	.0064	1.009
SDev	.0001	.0040	.0038	.0004	.0015	.0014	.004
%RSD	16.09	81.40	.3883	9.164	122.5	21.22	.3977
#1	.0006	-.0010	.9849	-.0035	.0025	.0072	1.004
#2	.0006	-.0090	.9926	-.0041	.0015	.0048	1.010
#3	.0008	-.0046	.9889	-.0042	-.0004	.0072	1.011

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.023	-.0014	-1.257	.5004	-.0073	-.0810	-.0027
SDev	.004	.0004	.112	.0031	.0017	.0054	.0003
%RSD	.3888	28.22	8.876	.6123	22.90	6.625	10.13
#1	1.018	-.0016	-1.145	.4969	-.0055	-.0754	-.0025
#2	1.023	-.0009	-1.257	.5024	-.0074	-.0813	-.0030
#3	1.026	-.0016	-1.368	.5019	-.0088	-.0862	-.0026

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0023	.0640	.9778	.0191	.0508	.1062	.8922
SDev	.0003	.0057	.0051	.0036	.0257	.0046	.0019
%RSD	10.97	8.864	.5239	18.86	50.66	4.308	.2162
#1	.0024	.0697	.9785	.0167	.0433	.1044	.8918
#2	.0021	.0639	.9724	.0174	.0296	.1114	.8905
#3	.0026	.0583	.9826	.0233	.0794	.1028	.8943

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9835	1.018	.0334	.0405	2.997	.9644	.0009
SDev	.0043	.004	.0076	.0109	.127	.0139	.0001
%RSD	.4351	.3773	22.61	26.95	4.223	1.445	7.782
#1	.9788	1.014	.0343	.0473	2.870	.9798	.0010
#2	.9872	1.021	.0254	.0463	2.997	.9528	.0010
#3	.9846	1.020	.0404	.0279	3.123	.9606	.0008

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9734	5.060	-.0003	-.0009	11.62	-.0042	.9973
SDev	.0042	.019	.0002	.0083	.08	.0006	.0160

%RSD	.4307	.3701	77.28	886.8	.6886	13.78	1.607
#1	.9775	5.039	-.0002	.0040	11.53	-.0036	1.014
#2	.9692	5.075	-.0005	.0037	11.63	-.0048	.9819
#3	.9736	5.065	-.0002	-.0105	11.69	-.0041	.9962

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.4960	-.0016	-.0327
SDev	.0018	.0003	.0009
%RSD	.3718	20.70	2.714
#1	.4942	-.0019	-.0334
#2	.4959	-.0016	-.0329
#3	.4979	-.0012	-.0317

Analysis Report QC Standard Fri 03-08-96 11:30:32 AM page 1

Method: ICP1A Sample Name: QC_MCVA1 960226I901 Operator: DRS
Run Time: 03/08/96 11:29:14
Comment: (BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

PASS 3/6/96 DM

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4806	9.898	2.555	2.059	.5001	.0947	24.17
SDev	.0003	.009	.008	.009	.0011	.0001	.06
%RSD	.0582	.0885	.3030	.4223	.2298	.0853	.2443
#1	.4807	9.908	2.561	2.059	.5014	.0948	24.17
#2	.4807	9.895	2.546	2.067	.4996	.0946	24.23
#3	.4802	9.891	2.557	2.050	.4992	.0947	24.12
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.80	.4810	-.0523	.9932	.9945	.9480	-.0094
SDev	.03	.0025	.0019	.0020	.0062	.0023	.0003
%RSD	.1090	.5165	3.551	.2058	.8200	.2397	2.657
#1	24.84	.4824	-.0504	.9956	.9984	.9478	-.0092
#2	24.79	.4824	-.0541	.9918	.9999	.9504	-.0097
#3	24.79	.4781	-.0526	.9923	.9851	.9458	-.0095
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	20.15	22.86	-.0098	1.967	32.17	.5054
SDev	.0001	.03	.07	.0008	.004	.06	.0006
%RSD	15.36	.1350	.3136	8.000	.1947	.1719	.1123
#1	-.0009	20.18	22.83	-.0095	1.971	32.23	.5060
#2	-.0007	20.13	22.94	-.0107	1.963	32.16	.5053
#3	-.0007	20.14	22.81	-.0092	1.968	32.12	.5049
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.001	37.12	-.0577	1.007	4.746	2.409	-.1700
SDev	.003	.06	.0011	.006	.056	.008	.0091
%RSD	.2936	.1664	1.928	.5669	1.183	.3439	5.336
#1	1.004	37.19	-.0576	1.001	4.789	2.400	-.1705
#2	.9981	37.09	-.0589	1.007	4.682	2.412	-.1606
#3	1.001	37.08	-.0566	1.012	4.766	2.416	-.1788
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0741	-.0094	2.534	2.510	18.47	-.0114	.5119
SDev	.0037	.0044	.013	.036	.02	.0370	.0008
%RSD	4.944	46.86	.4955	1.431	.1024	325.7	.1593
#1	-.0764	-.0048	2.547	2.528	18.49	-.0146	.5128
#2	-.0699	-.0098	2.522	2.469	18.47	.0272	.5114
#3	-.0761	-.0136	2.534	2.534	18.45	-.0467	.5115
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0046	.0444	.9916	2.441	-.8094	.9970	.0269
SDev	.0086	.0066	.0010	.005	.0178	.0022	.0146
%RSD	186.7	14.90	.1045	.1871	2.195	.2157	54.09
#1	-.0034	.0445	.9927	2.436	-.8298	.9991	.0393
#2	.0035	.0377	.9911	2.442	-.8012	.9948	.0109
#3	.0137	.0510	.9908	2.444	-.7972	.9970	.0305
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0023	.9828	1.990
SDev	.0002	.0069	.004
%RSD	8.650	.7077	.1950
#1	-.0022	.9905	1.994
#2	-.0025	.9770	1.988
#3	-.0022	.9808	1.987
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report Fri 03-08-96 11:34:39 AM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 03/08/96 11:33:20
Comment: MCVB2 960221I901 @2X DIL (BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0025	.0051	-.0039	-.0034	-.0005	.0001	.0121
SDev	.0005	.0035	.0159	.0010	.0002	.0000	.0078
%RSD	18.20	69.11	410.4	29.22	30.78	54.37	64.61
#1	-.0020	.0064	.0143	-.0036	-.0003	.0001	.0181
#2	-.0028	.0077	-.0113	-.0023	-.0006	.0001	.0032
#3	-.0028	.0011	-.0147	-.0043	-.0006	.0000	.0150

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0208	-.0119	-.0252	-.0016	.0026	-.0043	-.0034
SDev	.0025	.0009	.0077	.0003	.0004	.0013	.0004
%RSD	12.19	7.512	30.44	15.88	17.51	29.28	10.73
#1	.0224	-.0124	-.0180	-.0019	.0024	-.0035	-.0033
#2	.0220	-.0109	-.0243	-.0014	.0022	-.0037	-.0038
#3	.0179	-.0125	-.0332	-.0016	.0031	-.0058	-.0031

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0007	.0068	-1.294	-.0048	-.0046	.0047	-.0023
SDev	.0002	.0016	.127	.0013	.0013	.0086	.0001
%RSD	32.21	24.28	9.804	27.79	27.37	182.6	5.941
#1	-.0004	.0083	-1.190	-.0033	-.0032	.0141	-.0022
#2	-.0008	.0071	-1.257	-.0057	-.0051	.0031	-.0025
#3	-.0008	.0050	-1.435	-.0054	-.0055	-.0030	-.0023

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	.0080	-.0249	.0042	-.0121	-.0149	-.0420
SDev	.0013	.0065	.0072	.0020	.0224	.0034	.0125
%RSD	186.6	81.09	28.88	48.81	184.3	22.57	29.82
#1	.0003	.0154	-.0175	.0056	.0128	-.0132	-.0308
#2	-.0004	.0043	-.0318	.0050	-.0305	-.0126	-.0555
#3	.0022	.0042	-.0253	.0018	-.0187	-.0187	-.0397

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0242	-.0103	-.0173	-.0020	.0404	-.1085	.0003
SDev	.0030	.0024	.0122	.0036	.0053	.0145	.0001
%RSD	12.53	22.98	70.58	183.7	13.22	13.33	35.41
#1	-.0210	-.0094	-.0119	.0015	.0464	-.0919	.0005
#2	-.0247	-.0129	-.0314	-.0057	.0384	-.1149	.0002
#3	-.0270	-.0085	-.0087	-.0017	.0363	-.1186	.0003

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0115	.0035	-.0009	-.0120	-.3639	-.0023	-.0060
SDev	.0049	.0048	.0005	.0026	.0628	.0006	.0082

%RSD	42.70	136.7	53.15	21.58	17.25	25.36	135.8
#1	-.0063	.0023	-.0005	-.0135	-.2974	-.0021	-.0108
#2	-.0121	.0088	-.0008	-.0090	-.4220	-.0018	.0034
#3	-.0161	-.0005	-.0014	-.0134	-.3724	-.0029	-.0107

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0014	-.0016	-.0026
SDev	.0002	.0005	.0007
%RSD	18.03	28.64	25.35
#1	-.0016	-.0022	-.0021
#2	-.0012	-.0015	-.0033
#3	-.0012	-.0013	-.0023

Analysis Report Fri 03-08-96 11:38:12 AM page 1

Method: ICP1A Sample Name: 96-2618 (F) Operator: DRS
Run Time: 03/08/96 11:36:54
Comment: 119.COMP.F (BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0052	7.162	.0329	.0135	.0094	.0002	8.441
SDev	.0004	.050	.0059	.0013	.0002	.0000	.050
%RSD	8.409	.6964	18.06	9.738	2.185	2.285	.5949
#1	.0057	7.106	.0397	.0150	.0097	.0002	8.385
#2	.0048	7.182	.0295	.0127	.0094	.0002	8.483
#3	.0053	7.199	.0294	.0128	.0093	.0002	8.455

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5436	-.0069	.0645	.0129	.5452	.0123	.0047
SDev	.0026	.0022	.0038	.0003	.0052	.0023	.0008
%RSD	.4754	31.42	5.926	2.435	.9438	18.85	16.16
#1	.5408	-.0045	.0680	.0130	.5463	.0149	.0050
#2	.5440	-.0076	.0650	.0125	.5396	.0114	.0038
#3	.5460	-.0086	.0604	.0131	.5497	.0105	.0052

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0024	4.915	2342.	.0086	.0153	.1434	.0991
SDev	.0002	.033	17.	.0021	.0016	.0037	.0009
%RSD	9.041	.6792	.7149	24.23	10.71	2.555	.9264
#1	.0026	4.876	2323.	.0110	.0163	.1475	.0981
#2	.0023	4.935	2352.	.0076	.0134	.1404	.0997
#3	.0023	4.933	2352.	.0072	.0163	.1423	.0997

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0195	35.05	.0305	1.033	8.598	.0719	.1039
SDev	.0007	.28	.0054	.005	.063	.0065	.0054
%RSD	3.577	.7904	17.75	.4928	.7358	9.045	5.204
#1	.0189	34.73	.0367	1.031	8.525	.0753	.1089
#2	.0202	35.26	.0285	1.039	8.636	.0760	.1046
#3	.0193	35.15	.0264	1.030	8.633	.0644	.0981

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0481	.0251	.0319	.0786	3.854	.2092	.0602
SDev	.0062	.0020	.0038	.0060	.018	.0485	.0004
%RSD	12.92	7.960	11.83	7.660	.4750	23.20	.6553
#1	.0548	.0273	.0322	.0767	3.833	.2094	.0597
#2	.0470	.0234	.0356	.0853	3.862	.1606	.0603
#3	.0425	.0247	.0280	.0737	3.866	.2577	.0605

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0549	.0080	.0127	.0291	.8828	.0057	.0280
SDev	.0058	.0056	.0001	.0062	.0223	.0005	.0079

%RSD	10.52	69.77	.9834	21.45	2.524	8.575	28.22
#1	.0616	.0142	.0128	.0260	.9004	.0062	.0356
#2	.0520	.0033	.0127	.0362	.8902	.0057	.0286
#3	.0512	.0066	.0126	.0250	.8577	.0052	.0198

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0014	.0228	.0188
SDev	.0000	.0020	.0007
%RSD	1.466	8.676	3.871
#1	.0013	.0207	.0192
#2	.0014	.0229	.0192
#3	.0014	.0247	.0179

Analysis Report Fri 03-08-96 11:41:49 AM page 1

Method: ICP1A Sample Name: 96-2618-DUP (F) Operator: DRS
Run Time: 03/08/96 11:40:29
Comment: 119.COMP.F DUPLICATE (BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0055	8.186	.0400	.0138	.0102	.0002	9.746
SDev	.0010	.060	.0014	.0022	.0003	.0000	.079
%RSD	18.16	.7318	3.580	15.74	2.766	12.06	.8075
#1	.0044	8.254	.0389	.0163	.0099	.0002	9.830
#2	.0062	8.161	.0395	.0130	.0105	.0002	9.733
#3	.0059	8.142	.0416	.0122	.0101	.0002	9.675

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5676	-.0085	.0602	.0120	.6820	.0102	.0055
SDev	.0017	.0014	.0052	.0004	.0046	.0011	.0009
%RSD	.2985	16.11	8.624	3.791	.6726	11.11	16.44
#1	.5678	-.0098	.0547	.0116	.6873	.0091	.0044
#2	.5691	-.0071	.0650	.0118	.6797	.0103	.0059
#3	.5658	-.0085	.0608	.0125	.6790	.0113	.0061

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0027	6.051	2335.	.0090	.0182	.1422	.0977
SDev	.0003	.046	21.	.0020	.0017	.0063	.0003
%RSD	12.13	.7571	.8845	22.09	9.406	4.470	.3040
#1	.0023	6.103	2359.	.0067	.0177	.1349	.0981
#2	.0029	6.032	2327.	.0104	.0201	.1449	.0976
#3	.0028	6.017	2320.	.0100	.0167	.1467	.0976

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0230	43.06	.0335	.5492	10.74	.0689	.0999
SDev	.0011	.51	.0091	.0071	.12	.0082	.0248
%RSD	4.675	1.173	27.25	1.290	1.155	11.87	24.82
#1	.0217	43.64	.0232	.5563	10.87	.0642	.0713
#2	.0237	42.80	.0365	.5421	10.63	.0783	.1155
#3	.0235	42.74	.0407	.5494	10.71	.0642	.1129

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0514	.0278	.0340	.0921	4.320	.2337	.0738
SDev	.0177	.0044	.0066	.0049	.027	.0253	.0006
%RSD	34.37	15.90	19.29	5.262	.6292	10.84	.7618
#1	.0318	.0239	.0312	.0960	4.351	.2046	.0744
#2	.0660	.0326	.0293	.0867	4.310	.2456	.0737
#3	.0565	.0268	.0415	.0938	4.300	.2509	.0733

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0586	.0125	.0107	.0317	.9664	.0063	.0167
SDev	.0037	.0028	.0006	.0047	.0603	.0004	.0056

%RSD	6.330	22.50	5.234	14.71	6.237	5.756	33.38
#1	.0573	.0116	.0100	.0336	.8973	.0059	.0129
#2	.0557	.0103	.0111	.0352	1.008	.0065	.0141
#3	.0628	.0157	.0108	.0264	.9941	.0064	.0231

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0016	.0251	.0210
SDev	.0003	.0012	.0006
%RSD	18.66	4.707	2.962
#1	.0014	.0264	.0208
#2	.0016	.0240	.0216
#3	.0020	.0248	.0204

Analysis Report Fri 03-08-96 11:45:27 AM page 1

Method: ICP1A Sample Name: SRM-2709 Operator: DRS
Run Time: 03/08/96 11:44:08
Comment: LCS BX112/CORECOMP (BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0033	32.83	.0800	.0419	.4021	.0027	.0777
SDev	.0006	.40	.0028	.0014	.0047	.0000	.0065
%RSD	19.16	1.218	3.456	3.467	1.176	1.155	8.383
#1	.0040	32.38	.0811	.0435	.3967	.0027	.0849
#2	.0029	32.98	.0768	.0407	.4041	.0028	.0758
#3	.0030	33.14	.0820	.0415	.4055	.0027	.0723

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.032	-.0068	.0371	.0195	.0790	.0142	.0052
SDev	.083	.0016	.0066	.0007	.0034	.0026	.0013
%RSD	.9186	23.80	17.80	3.495	4.255	18.29	25.51
#1	8.937	-.0081	.0443	.0203	.0827	.0172	.0068
#2	9.071	-.0050	.0355	.0191	.0761	.0125	.0045
#3	9.089	-.0074	.0314	.0191	.0781	.0129	.0044

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0028	15.48	2363.	.0179	.0212	7.026	.3208
SDev	.0002	.17	29.	.0010	.0006	.077	.0035
%RSD	7.527	1.077	1.215	5.624	2.585	1.097	1.102
#1	.0030	15.29	2331.	.0191	.0215	6.938	.3168
#2	.0027	15.55	2373.	.0176	.0205	7.056	.3221
#3	.0027	15.60	2386.	.0172	.0215	7.083	.3235

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0132	6.425	.0331	2.492	.4182	.1412	.0729
SDev	.0005	.044	.0079	.033	.0432	.0076	.0195
%RSD	3.602	.6793	23.75	1.340	10.34	5.397	26.76
#1	.0131	6.377	.0417	2.454	.4095	.1496	.0954
#2	.0138	6.438	.0315	2.502	.4651	.1346	.0605
#3	.0128	6.461	.0262	2.519	.3799	.1395	.0628

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0388	.0299	.0683	.1840	124.4	.3228	.1041
SDev	.0077	.0034	.0115	.0033	1.3	.0336	.0013
%RSD	19.81	11.40	16.80	1.781	1.065	10.41	1.202
#1	.0468	.0311	.0746	.1848	122.9	.3569	.1027
#2	.0381	.0326	.0651	.1804	124.9	.3218	.1047
#3	.0315	.0261	.0753	.1869	125.3	.2898	.1050

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0928	.0260	1.378	.0646	.3502	.0545	.0394
SDev	.0106	.0089	.016	.0067	.1633	.0010	.0070

%RSD	11.42	34.45	1.175	10.39	46.65	1.819	17.76
#1	.0965	.0223	1.359	.0581	.5387	.0535	.0464
#2	.1011	.0362	1.384	.0715	.2509	.0546	.0324
#3	.0809	.0195	1.389	.0641	.2610	.0555	.0395

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0089	.0572	.0193
SDev	.0005	.0004	.0008
%RSD	5.496	.7030	4.373
#1	.0095	.0570	.0202
#2	.0086	.0569	.0186
#3	.0086	.0577	.0190

Analysis Report Fri 03-08-96 11:49:12 AM page 1

Method: ICP1A Sample Name: 96-3365 (F) Operator: DRS
Run Time: 03/08/96 11:47:53
Comment: 118.1A.F (BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0043	6.502	.0369	.0088	.0076	.0001	7.408
SDev	.0008	.011	.0104	.0006	.0001	.0000	.003
%RSD	18.60	.1765	28.10	6.712	1.026	27.02	.0340
#1	.0035	6.489	.0459	.0095	.0075	.0001	7.410
#2	.0043	6.504	.0393	.0086	.0076	.0001	7.410
#3	.0051	6.512	.0256	.0083	.0076	.0001	7.405

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5235	-.0095	.0536	.0106	.5829	.0089	.0043
SDev	.0014	.0015	.0016	.0005	.0029	.0010	.0006
%RSD	.2739	15.68	2.956	4.347	.4886	11.80	13.10
#1	.5232	-.0112	.0529	.0109	.5805	.0088	.0037
#2	.5250	-.0088	.0525	.0107	.5822	.0080	.0044
#3	.5222	-.0085	.0554	.0101	.5861	.0101	.0048

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0022	3.663	2327.	.0084	.0011	.1351	.0874
SDev	.0001	.008	4.	.0005	.0009	.0033	.0002
%RSD	5.254	.2164	.1694	5.652	85.71	2.438	.1916
#1	.0021	3.655	2323.	.0087	.0021	.1313	.0872
#2	.0023	3.671	2330.	.0085	.0011	.1371	.0876
#3	.0023	3.664	2329.	.0078	.0002	.1369	.0874

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0192	35.55	.0257	.6873	9.319	.0508	.0875
SDev	.0013	.08	.0012	.0064	.030	.0033	.0048
%RSD	6.611	.2229	4.837	.9316	.3210	6.488	5.478
#1	.0177	35.46	.0255	.6824	9.292	.0470	.0824
#2	.0196	35.56	.0270	.6849	9.314	.0528	.0882
#3	.0201	35.62	.0246	.6945	9.351	.0525	.0919

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0414	.0213	.0259	.0729	3.331	.1918	.0546
SDev	.0033	.0020	.0028	.0060	.007	.0197	.0001
%RSD	8.009	9.442	10.77	8.301	.2060	10.28	.2242
#1	.0377	.0235	.0284	.0759	3.331	.2143	.0545
#2	.0425	.0196	.0229	.0768	3.338	.1832	.0547
#3	.0440	.0207	.0263	.0659	3.324	.1778	.0546

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0472	.0067	.0087	.0324	.8305	.0045	.0175
SDev	.0027	.0029	.0001	.0098	.0706	.0004	.0186

%RSD	5.781	42.67	1.352	30.26	8.503	9.016	106.0
#1	.0499	.0034	.0089	.0305	.9092	.0046	-.0013
#2	.0473	.0082	.0087	.0238	.8096	.0040	.0358
#3	.0444	.0085	.0087	.0431	.7727	.0048	.0180

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0011	.0085	.0212
SDev	.0004	.0006	.0004
%RSD	35.49	7.150	1.753
#1	.0007	.0092	.0208
#2	.0014	.0080	.0216
#3	.0011	.0084	.0212

Analysis Report Fri 03-08-96 11:52:49 AM page 1

Method: ICP1A Sample Name: 96-3365-DUP (F) Operator: DRS
Run Time: 03/08/96 11:51:31
Comment: 118.1A.F DUPLICATE (BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0068	6.734	.0382	.0115	.0083	.0002	7.760
SDev	.0004	.019	.0092	.0024	.0001	.0000	.028
%RSD	6.252	.2754	24.20	21.08	1.624	19.41	.3629
#1	.0067	6.722	.0311	.0087	.0083	.0002	7.752
#2	.0064	6.755	.0349	.0125	.0085	.0001	7.791
#3	.0073	6.725	.0487	.0133	.0082	.0002	7.736

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4738	-.0081	.0753	.0127	.6093	.0115	.0074
SDev	.0006	.0015	.0036	.0006	.0043	.0001	.0001
%RSD	.1346	19.04	4.771	5.050	.7054	.5569	.8993
#1	.4731	-.0064	.0793	.0121	.6061	.0115	.0073
#2	.4742	-.0085	.0744	.0128	.6076	.0114	.0074
#3	.4741	-.0095	.0723	.0134	.6142	.0115	.0074

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0033	3.865	2264.	.0126	.0052	.1370	.0858
SDev	.0001	.008	4.	.0010	.0014	.0008	.0003
%RSD	3.370	.2197	.1633	8.036	26.24	.5593	.3748
#1	.0032	3.864	2263.	.0137	.0044	.1369	.0854
#2	.0032	3.874	2269.	.0117	.0068	.1379	.0860
#3	.0034	3.857	2262.	.0126	.0044	.1364	.0859

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0223	37.32	.0466	.5671	9.752	.0715	.1411
SDev	.0009	.10	.0019	.0052	.044	.0043	.0048
%RSD	3.931	.2650	4.052	.9172	.4508	6.005	3.400
#1	.0213	37.24	.0451	.5725	9.797	.0752	.1458
#2	.0225	37.43	.0459	.5666	9.749	.0668	.1362
#3	.0231	37.29	.0487	.5621	9.709	.0726	.1413

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0690	.0276	.0427	.0836	3.448	.2311	.0567
SDev	.0035	.0013	.0077	.0020	.005	.0165	.0002
%RSD	5.014	4.867	18.00	2.426	.1363	7.164	.3301
#1	.0668	.0265	.0435	.0859	3.451	.2381	.0567
#2	.0729	.0291	.0500	.0832	3.451	.2429	.0569
#3	.0672	.0273	.0347	.0819	3.443	.2122	.0565

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0645	.0054	.0097	.0327	1.147	.0065	.0282
SDev	.0021	.0117	.0002	.0064	.026	.0004	.0063

%RSD	3.287	214.6	1.608	19.48	2.267	5.530	22.51
#1	.0621	-.0080	.0095	.0302	1.156	.0062	.0212
#2	.0662	.0117	.0097	.0279	1.167	.0065	.0335
#3	.0650	.0126	.0099	.0399	1.117	.0069	.0300

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0022	.0086	.0215
SDev	.0003	.0004	.0007
%RSD	15.03	4.195	3.095
#1	.0025	.0089	.0222
#2	.0022	.0087	.0214
#3	.0019	.0082	.0209

Analysis Report Fri 03-08-96 11:56:48 AM page 1

Method: ICP1A Sample Name: 96-3366 (F) Operator: O
Run Time: 03/08/96 11:55:29
Comment: 118.1B.F (BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0056	7.341	.0458	.0113	.0089	.0002	8.847
SDev	.0003	.036	.0069	.0007	.0004	.0000	.019
%RSD	4.578	.4888	14.99	6.160	4.034	15.05	.2185
#1	.0058	7.300	.0408	.0108	.0086	.0002	8.825
#2	.0055	7.366	.0430	.0110	.0087	.0002	8.856
#3	.0053	7.358	.0536	.0121	.0093	.0002	8.860

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5039	-.0001	.0681	.0140	.4647	.0120	.0065
SDev	.0037	.0027	.0022	.0007	.0005	.0011	.0005
%RSD	.7254	3277.	3.208	4.942	.1049	9.262	8.108
#1	.5003	-.0031	.0674	.0134	.4650	.0130	.0060
#2	.5040	.0006	.0706	.0147	.4641	.0122	.0064
#3	.5076	.0022	.0664	.0137	.4650	.0108	.0070

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0028	5.811	2256.	.0129	.0024	.1438	.0934
SDev	.0000	.027	9.	.0014	.0012	.0058	.0008
%RSD	.3875	.4567	.3884	10.44	50.33	4.044	.8448
#1	.0028	5.780	2246.	.0136	.0035	.1379	.0927
#2	.0028	5.823	2262.	.0114	.0025	.1495	.0932
#3	.0028	5.829	2260.	.0138	.0011	.1440	.0942

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0200	39.09	.0415	1.395	8.103	.0712	.1297
SDev	.0011	.14	.0035	.013	.002	.0039	.0094
%RSD	5.688	.3455	8.412	.9145	.0195	5.465	7.229
#1	.0187	38.96	.0403	1.385	8.104	.0751	.1200
#2	.0203	39.23	.0454	1.391	8.101	.0711	.1303
#3	.0210	39.08	.0387	1.409	8.103	.0673	.1388

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0659	.0290	.0403	.0802	4.478	.2528	.0552
SDev	.0010	.0022	.0124	.0015	.025	.0139	.0002
%RSD	1.536	7.409	30.77	1.847	.5473	5.494	.3837
#1	.0657	.0270	.0349	.0819	4.450	.2395	.0550
#2	.0650	.0313	.0315	.0793	4.490	.2516	.0553
#3	.0670	.0288	.0545	.0793	4.495	.2672	.0553

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0542	.0035	.0115	.0221	1.016	.0081	.0342
SDev	.0021	.0059	.0001	.0019	.073	.0004	.0062

%RSD	3.795	169.1	1.099	8.691	7.180	5.204	18.15
#1	.0565	.0102	.0116	.0219	1.007	.0076	.0407
#2	.0535	-.0008	.0114	.0242	.9475	.0083	.0283
#3	.0525	.0011	.0115	.0203	1.093	.0084	.0336

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0018	.0128	.0300
SDev	.0002	.0008	.0006
%RSD	9.405	6.238	2.015
#1	.0020	.0119	.0293
#2	.0016	.0133	.0303
#3	.0019	.0133	.0303

Analysis Report Fri 03-08-96 12:00:48 PM page 1

Method: ICP1A Sample Name: 96-3366-DUP (F) Operator: DRS
Run Time: 03/08/96 11:59:29
Comment: 118.1B.F DUPLICATE (BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0073	8.001	.0382	.0057	.0130	.0002	9.557
SDev	.0004	.016	.0114	.0013	.0002	.0000	.041
%RSD	5.954	.1983	29.71	22.93	1.200	4.089	.4275
#1	.0078	8.018	.0428	.0054	.0129	.0002	9.604
#2	.0069	8.000	.0465	.0046	.0132	.0002	9.542
#3	.0073	7.986	.0253	.0071	.0129	.0002	9.526

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5386	-.0008	.0724	.0115	.4538	.0067	.0081
SDev	.0020	.0022	.0035	.0003	.0017	.0008	.0006
%RSD	.3646	269.0	4.828	2.715	.3665	11.20	6.790
#1	.5408	.0016	.0721	.0118	.4557	.0059	.0075
#2	.5380	-.0014	.0761	.0112	.4527	.0072	.0085
#3	.5370	-.0028	.0691	.0115	.4530	.0072	.0084

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0036	6.000	2196.	.0145	.0039	.1281	.1050
SDev	.0001	.024	6.	.0004	.0017	.0040	.0004
%RSD	3.164	.4043	.2922	2.608	43.27	3.149	.4247
#1	.0034	6.026	2202.	.0146	.0035	.1289	.1048
#2	.0036	5.995	2196.	.0141	.0025	.1317	.1055
#3	.0036	5.978	2189.	.0148	.0058	.1237	.1047

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0199	39.48	.0492	1.381	8.674	.0803	.1576
SDev	.0011	.11	.0026	.006	.023	.0061	.0071
%RSD	5.605	.2773	5.372	.4427	.2693	7.556	4.495
#1	.0191	39.58	.0475	1.388	8.701	.0757	.1497
#2	.0195	39.48	.0478	1.380	8.660	.0872	.1600
#3	.0212	39.37	.0522	1.376	8.661	.0780	.1632

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0743	.0345	.0358	.0948	4.001	.2860	.1274
SDev	.0027	.0031	.0044	.0029	.008	.0164	.0004
%RSD	3.600	9.070	12.20	3.016	.1901	5.746	.3093
#1	.0713	.0368	.0316	.0981	4.010	.2691	.1278
#2	.0753	.0358	.0355	.0935	3.997	.3020	.1272
#3	.0764	.0309	.0403	.0928	3.997	.2870	.1271

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0592	.0026	.0087	.0393	1.088	.0079	.0370
SDev	.0070	.0062	.0002	.0034	.059	.0004	.0018

%RSD	11.90	234.9	2.051	8.795	5.457	5.160	4.839
#1	.0671	.0097	.0085	.0427	1.021	.0074	.0370
#2	.0571	-.0015	.0087	.0358	1.113	.0082	.0388
#3	.0535	-.0003	.0089	.0393	1.131	.0080	.0352

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0024	.0129	.0349
SDev	.0002	.0012	.0004
%RSD	10.00	9.187	1.239
#1	.0026	.0138	.0344
#2	.0022	.0116	.0350
#3	.0022	.0134	.0353

Analysis Report QC Standard Fri 03-08-96 12:09:34 PM page 1

Method: ICP1A Sample Name: QC_MCVA1 960226I901 Operator: DRS
Run Time: 03/08/96 12:08:15
Comment: (BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

PASS*
K-N/A on Kolt fusions
DKS 3/8/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4771	9.832	2.534	2.045	.4954	.0942	24.00
SDev	.0026	.065	.020	.019	.0029	.0007	.19
%RSD	.5352	.6582	.7816	.9054	.5878	.7263	.7805
#1	.4741	9.775	2.513	2.029	.4923	.0935	23.79
#2	.4787	9.902	2.537	2.065	.4982	.0949	24.16
#3	.4784	9.818	2.552	2.039	.4956	.0942	24.03
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.68	.4933	-.0514	.9867	.9808	.9357	-.0093
SDev	.15	.0048	.0055	.0045	.0042	.0083	.0009
%RSD	.5892	.9718	10.79	.4571	.4259	.8920	10.11
#1	24.52	.4910	-.0467	.9819	.9774	.9266	-.0085
#2	24.81	.4988	-.0575	.9909	.9855	.9430	-.0103
#3	24.71	.4901	-.0499	.9875	.9796	.9373	-.0089
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	20.02	Q22.28	-.0105	1.944	31.94	.5037
SDev	.0001	.12	.11	.0009	.020	.15	.0023
%RSD	12.70	.5936	.5038	8.265	1.016	.4695	.4577
#1	-.0007	19.90	Q22.16	-.0106	1.923	31.79	.5013
#2	-.0009	20.13	Q22.30	-.0114	1.962	32.09	.5059
#3	-.0007	20.04	Q22.39	-.0096	1.946	31.96	.5038
Errors	NOCHECK	QC Pass	QC Fail	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9969	36.90	-.0585	.9956	4.740	2.389	-.1782
SDev	.0097	.36	.0065	.0039	.024	.003	.0106
%RSD	.9779	.9701	11.09	.3909	.4988	.1428	5.948
#1	.9873	36.52	-.0555	.9989	4.715	2.389	-.1695
#2	1.007	37.23	-.0660	.9913	4.763	2.393	-.1900
#3	.9967	36.97	-.0541	.9965	4.741	2.386	-.1749
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0747	-.0040	2.503	2.527	18.30	.0296	.5103
SDev	.0028	.0018	.012	.035	.10	.0060	.0036
%RSD	3.803	45.89	.4988	1.365	.5415	20.36	.7084
#1	-.0725	-.0056	2.498	2.488	18.20	.0300	.5066
#2	-.0779	-.0043	2.517	2.539	18.39	.0234	.5138
#3	-.0737	-.0020	2.494	2.554	18.32	.0354	.5104
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0034	.0424	.9868	2.437	-.7661	.9902	.0224
SDev	.0044	.0092	.0059	.011	.0944	.0059	.0054
%RSD	130.8	21.71	.5935	.4391	12.32	.5961	24.37
#1	-.0032	.0351	.9813	2.433	-.7155	.9839	.0237
#2	-.0079	.0528	.9929	2.428	-.8750	.9956	.0270
#3	.0010	.0395	.9862	2.449	-.7079	.9910	.0164
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0023	.9911	1.986
SDev	.0001	.0102	.012
%RSD	5.853	1.032	.6037
#1	-.0023	.9797	1.974
#2	-.0025	.9941	1.998
#3	-.0023	.9994	1.985
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report Fri 03-08-96 12:13:51 PM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 03/08/96 12:12:32
Comment: 118.1B.F DUPLICATE (BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	.0128	-.0070	-.0076	-.0010	.0000	.0184
SDev	.0009	.0058	.0047	.0011	.0001	.0000	.0064
%RSD	340.7	45.17	68.01	14.61	13.48	162.7	34.89
#1	.0005	.0192	-.0035	-.0067	-.0010	.0000	.0258
#2	-.0000	.0079	-.0050	-.0088	-.0009	.0000	.0141
#3	-.0012	.0113	-.0123	-.0072	-.0011	-.0000	.0154

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0186	-.0089	-.0043	-.0009	.0005	-.0022	-.0010
SDev	.0019	.0013	.0027	.0003	.0021	.0012	.0006
%RSD	10.38	14.87	62.31	30.26	406.0	51.57	57.78
#1	.0208	-.0090	-.0059	-.0012	.0025	-.0024	-.0010
#2	.0178	-.0076	-.0012	-.0008	.0007	-.0010	-.0004
#3	.0172	-.0102	-.0056	-.0007	-.0017	-.0033	-.0015

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	.0056	-1.071	-.0006	-.0038	.0139	-.0020
SDev	.0002	.0031	.149	.0021	.0015	.0053	.0002
%RSD	535.5	56.34	13.87	329.8	40.18	37.89	9.271
#1	-.0000	.0092	-1.145	-.0028	-.0027	.0177	-.0018
#2	.0002	.0037	-.8997	.0013	-.0055	.0161	-.0021
#3	-.0002	.0038	-1.167	-.0004	-.0032	.0079	-.0021

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	.0416	-.0105	.0009	-.0025	-.0089	-.0008
SDev	.0024	.0288	.0061	.0029	.0030	.0028	.0109
%RSD	217.2	69.30	58.50	318.7	117.5	30.99	1437.
#1	.0037	.0491	-.0078	.0043	-.0025	-.0057	-.0046
#2	.0005	.0659	-.0062	-.0002	-.0055	-.0105	.0116
#3	-.0009	.0097	-.0175	-.0013	.0004	-.0106	-.0092

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0040	-.0062	-.0011	.0110	.0284	-.0585	.0005
SDev	.0023	.0023	.0063	.0165	.0037	.0132	.0001
%RSD	57.43	37.37	563.3	149.7	13.00	22.58	13.95
#1	-.0014	-.0088	-.0076	-.0079	.0324	-.0644	.0006
#2	-.0051	-.0049	.0050	.0227	.0275	-.0434	.0005
#3	-.0056	-.0047	-.0007	.0183	.0252	-.0677	.0005

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0030	-.0005	-.0002	-.0022	-.1299	-.0007	.0024
SDev	.0029	.0071	.0002	.0086	.0310	.0006	.0062

%RSD	97.90	1560.	128.6	396.2	23.84	86.88	252.9
#1	-.0063	.0033	-.0000	-.0014	-.1466	-.0000	.0083
#2	-.0010	.0039	-.0001	-.0112	-.0942	-.0008	.0030
#3	-.0016	-.0086	-.0005	.0060	-.1490	-.0012	-.0040

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0009	-.0012	-.0005
SDev	.0002	.0011	.0005
%RSD	18.48	87.93	90.58
#1	-.0011	-.0006	-.0009
#2	-.0007	-.0025	-.0006
#3	-.0010	-.0006	-.0000

Analysis Report Fri 03-08-96 12:22:20 PM page 1

Method: ICP1A Sample Name: 96-3520 @5 Operator: DRS
Run Time: 03/08/96 12:21:01
Comment: DFA #8276 41V-4038 A/B @5X DIL M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	.0076	.0042	-.0014	-.0001	-.0000	.0096
SDev	.0006	.0029	.0073	.0021	.0002	.0000	.0054
%RSD	189.3	38.46	174.4	146.9	192.1	39.20	57.08
#1	.0001	.0103	-.0040	-.0024	-.0003	-.0000	.0078
#2	-.0001	.0079	.0102	-.0029	.0001	-.0000	.0052
#3	-.0010	.0045	.0064	.0010	-.0001	-.0000	.0157

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0266	.0156	-.0089	-.0005	.0126	.0032	-.0011
SDev	.0009	.0112	.0047	.0008	.0003	.0013	.0006
%RSD	3.362	72.15	52.73	158.9	2.695	39.03	52.24
#1	.0271	.0279	-.0141	.0000	.0126	.0021	-.0015
#2	.0272	.0132	-.0074	-.0001	.0129	.0046	-.0014
#3	.0256	.0058	-.0051	-.0014	.0122	.0030	-.0004

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	.0791	-.2150	-.0019	-.0009	.0391	.0895
SDev	.0000	.0012	.1097	.0008	.0008	.0055	.0006
%RSD	1.103	1.521	51.03	41.06	86.60	13.96	.6584
#1	-.0005	.0805	-.2669	-.0026	-.0000	.0451	.0889
#2	-.0005	.0785	-.0890	-.0011	-.0014	.0380	.0899
#3	-.0004	.0784	-.2892	-.0019	-.0014	.0343	.0898

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0026	.0732	-.0074	.0836	-.0178	-.0028	-.0102
SDev	.0004	.0212	.0016	.0020	.0100	.0038	.0146
%RSD	16.45	28.95	21.29	2.390	56.10	137.7	143.1
#1	.0031	.0639	-.0072	.0848	-.0135	-.0013	-.0030
#2	.0026	.0975	-.0060	.0813	-.0106	-.0072	-.0007
#3	.0022	.0583	-.0091	.0848	-.0291	.0001	-.0271

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0050	-.0020	-.0056	-.0006	.0426	-.0153	-.0002
SDev	.0011	.0029	.0044	.0002	.0023	.0145	.0000
%RSD	21.86	146.5	78.34	28.07	5.453	94.64	.1022
#1	-.0055	-.0018	-.0106	-.0007	.0451	-.0102	-.0002
#2	-.0037	.0009	-.0026	-.0006	.0422	-.0317	-.0002
#3	-.0057	-.0050	-.0035	-.0004	.0405	-.0041	-.0002

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0031	-.0018	.0007	.0064	-.0619	-.0001	-.0041
SDev	.0052	.0055	.0003	.0015	.0364	.0003	.0124

%RSD	170.3	299.1	37.93	23.22	58.81	206.9	305.6
#1	-.0005	.0028	.0009	.0075	-.1005	-.0000	.0083
#2	-.0091	-.0079	.0009	.0047	-.0572	.0001	-.0041
#3	.0004	-.0005	.0004	.0069	-.0281	-.0005	-.0164

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0004	.0018	-.0013
SDev	.0002	.0009	.0008
%RSD	48.25	50.09	61.60
#1	-.0005	.0016	-.0021
#2	-.0002	.0027	-.0005
#3	-.0005	.0010	-.0013

Analysis Report Fri 03-08-96 12:25:50 PM page 1

Method: ICP1A Sample Name: 96-3520 Operator: DRS
Run Time: 03/08/96 12:24:31
Comment: DFA #8276 41V-4038 A/B M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0030	.0272	.0016	-.0058	.0010	.0001	-.0037
SDev	.0010	.0076	.0060	.0016	.0002	.0000	.0031
%RSD	33.69	27.95	373.6	26.97	21.20	45.47	84.94
#1	.0041	.0352	-.0029	-.0049	.0012	.0001	-.0028
#2	.0022	.0202	-.0007	-.0049	.0010	.0001	-.0011
#3	.0027	.0261	.0083	-.0076	.0007	.0000	-.0072

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1977	.0225	.0223	.0061	.0661	.0204	.0033
SDev	.0013	.0121	.0032	.0005	.0029	.0024	.0007
%RSD	.6440	53.84	14.16	8.701	4.417	11.53	20.40
#1	.1964	.0330	.0245	.0059	.0678	.0215	.0041
#2	.1989	.0253	.0187	.0056	.0678	.0177	.0030
#3	.1978	.0092	.0237	.0067	.0628	.0220	.0028

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	.4209	.8453	.0064	.0032	.2559	.4086
SDev	.0003	.0119	.1459	.0010	.0014	.0046	.0050
%RSD	28.46	2.823	17.26	15.78	45.83	1.788	1.229
#1	.0013	.4081	1.001	.0070	.0047	.2612	.4028
#2	.0007	.4230	.7119	.0052	.0019	.2527	.4119
#3	.0011	.4316	.8231	.0070	.0028	.2539	.4110

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0186	.2695	.0203	.3558	-.0082	.0182	.0684
SDev	.0012	.0117	.0071	.0098	.0074	.0047	.0184
%RSD	6.242	4.344	34.90	2.744	90.23	26.10	26.89
#1	.0180	.2657	.0282	.3446	-.0021	.0217	.0860
#2	.0179	.2602	.0144	.3626	-.0165	.0128	.0493
#3	.0200	.2827	.0184	.3602	-.0062	.0201	.0698

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0282	.0077	-.0008	-.0102	.2061	.0799	.0005
SDev	.0088	.0044	.0041	.0089	.0048	.0066	.0001
%RSD	31.17	56.63	509.5	86.92	2.318	8.321	28.01
#1	.0380	.0128	-.0051	-.0061	.2116	.0846	.0007
#2	.0211	.0052	-.0003	-.0042	.2026	.0828	.0004
#3	.0255	.0052	.0030	-.0204	.2041	.0723	.0004

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0029	-.0069	.0065	.0090	.2891	.0037	-.0041
SDev	.0028	.0030	.0003	.0105	.0552	.0005	.0105

%RSD	94.70	43.34	4.977	116.9	19.11	12.83	257.2
#1	.0051	-.0062	.0068	.0009	.3189	.0042	-.0120
#2	.0039	-.0103	.0062	.0052	.2254	.0033	.0079
#3	-.0002	-.0044	.0065	.0208	.3231	.0035	-.0082

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0009	.0138	.0017
SDev	.0003	.0015	.0003
%RSD	33.40	10.63	18.20
#1	.0009	.0123	.0019
#2	.0006	.0152	.0019
#3	.0013	.0141	.0013

Analysis Report Fri 03-08-96 12:28:30 PM page 1

Method: ICP1A Sample Name: 96-3521 Operator: DRS
Run Time: 03/08/96 12:27:11
Comment: DFA #8276 41V-4037 A/B, & -4044 M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.1229	-.0050	.0147	.0001	-.0000	-.0068
SDev	.0005	.0044	.0016	.0030	.0002	.0000	.0030
%RSD	839.9	3.582	31.83	20.29	175.3	28.14	43.97
#1	-.0003	.1182	-.0057	.0117	-.0001	-.0000	-.0044
#2	.0006	.1236	-.0032	.0177	.0003	-.0001	-.0101
#3	-.0001	.1269	-.0061	.0145	.0001	-.0000	-.0057

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0912	.0329	.0038	-.0017	.0656	.0441	-.0006
SDev	.0035	.0004	.0053	.0014	.0064	.0001	.0009
%RSD	3.835	1.180	139.3	80.76	9.726	.2413	158.8
#1	.0946	.0326	-.0008	-.0028	.0724	.0441	-.0017
#2	.0913	.0329	.0095	-.0002	.0646	.0442	-.0000
#3	.0876	.0334	.0026	-.0022	.0598	.0440	-.0001

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.2740	.1483	.0011	.0256	.1348	.0930
SDev	.0005	.0234	.1514	.0007	.0013	.0021	.0098
%RSD	412.7	8.529	102.1	58.74	4.900	1.583	10.57
#1	-.0005	.3003	-.0222	.0010	.0242	.1334	.1040
#2	.0005	.2658	.2669	.0019	.0261	.1339	.0898
#3	.0003	.2558	.2002	.0005	.0265	.1373	.0852

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0186	101.9	.0024	.1003	.0017	.0033	.0161
SDev	.0004	.7	.0036	.0129	.0301	.0109	.0207
%RSD	2.343	.6602	149.0	12.87	1810.	327.0	128.6
#1	.0182	102.6	-.0007	.1145	-.0331	.0012	-.0046
#2	.0190	101.4	.0063	.0972	.0209	.0151	.0368
#3	.0185	101.6	.0016	.0893	.0171	-.0064	.0160

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0009	.0018	-.0017	-.0035	.5384	-.0063	.0003
SDev	.0073	.0028	.0047	.0066	.0029	.0061	.0001
%RSD	856.7	155.8	282.7	192.4	.5443	96.38	20.63
#1	-.0084	-.0000	-.0067	.0029	.5416	-.0088	.0003
#2	.0063	.0004	-.0011	-.0103	.5359	-.0107	.0004
#3	-.0005	.0051	.0028	-.0030	.5376	.0006	.0003

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0106	-.0048	.0179	-.0031	.1007	.0039	.0384
SDev	.0065	.0082	.0010	.0025	.0912	.0007	.0060

%RSD	61.07	171.1	5.873	80.12	90.59	19.10	15.71
#1	-.0174	.0044	.0191	-.0045	.0230	.0037	.0350
#2	-.0044	-.0113	.0178	-.0002	.2012	.0047	.0454
#3	-.0101	-.0075	.0170	-.0045	.0779	.0032	.0349

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0001	.0763	-.0006
SDev	.0005	.0012	.0013
%RSD	774.9	1.542	212.4
#1	-.0006	.0758	-.0019
#2	.0003	.0754	.0007
#3	.0001	.0776	-.0007

Analysis Report Fri 03-08-96 12:32:24 PM page 1

Method: ICP1A Sample Name: BLANK FOR 3522 Operator: DRS
Run Time: 03/08/96 12:31:05
Comment: EXT-A/HB-L (DFA #8276) M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0022	.1672	-.0089	2.459	.0016	-.0001	-.0003
SDev	.0008	.0017	.0089	.011	.0001	.0000	.0059
%RSD	37.08	1.035	99.70	.4381	8.667	42.29	1971.
#1	-.0030	.1688	-.0118	2.471	.0014	-.0001	-.0057
#2	-.0020	.1676	-.0160	2.450	.0016	-.0000	.0061
#3	-.0015	.1653	.0011	2.457	.0017	-.0001	-.0013

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0057	.0415	-.0509	-.0044	-.0014	.0093	-.0073
SDev	.0012	.0228	.0043	.0005	.0021	.0012	.0009
%RSD	21.16	54.86	8.477	12.18	147.2	13.36	12.85
#1	.0046	.0678	-.0554	-.0039	-.0006	.0103	-.0083
#2	.0070	.0264	-.0506	-.0043	-.0038	.0096	-.0066
#3	.0055	.0305	-.0468	-.0050	.0001	.0079	-.0068

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0024	.0063	-1.594	-.0127	-.0060	-.0194	.0006
SDev	.0001	.0048	.181	.0020	.0018	.0046	.0003
%RSD	3.748	75.78	11.36	15.93	29.89	23.59	48.66
#1	-.0025	.0118	-1.802	-.0150	-.0081	-.0246	.0010
#2	-.0024	.0034	-1.513	-.0113	-.0047	-.0178	.0004
#3	-.0024	.0036	-1.468	-.0118	-.0052	-.0159	.0004

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0017	2.828	-.0452	.0294	-.0428	-.0168	-.1252
SDev	.0014	.016	.0086	.0006	.0135	.0034	.0114
%RSD	80.78	.5740	18.97	2.035	31.58	20.02	9.073
#1	-.0033	2.837	-.0548	.0298	-.0584	-.0133	-.1364
#2	-.0014	2.809	-.0421	.0298	-.0355	-.0172	-.1137
#3	-.0005	2.837	-.0386	.0287	-.0345	-.0200	-.1255

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0560	-.0140	-.0157	-.0168	2.880	-.1170	-.0005
SDev	.0093	.0031	.0113	.0038	.007	.0269	.0001
%RSD	16.53	22.23	72.18	22.90	.2484	22.96	14.83
#1	-.0660	-.0172	-.0266	-.0209	2.883	-.1476	-.0006
#2	-.0477	-.0109	-.0164	-.0132	2.872	-.0976	-.0004
#3	-.0544	-.0140	-.0040	-.0164	2.885	-.1057	-.0004

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0191	.0167	.0004	.0048	-.6552	-.0038	-.0133
SDev	.0018	.0110	.0003	.0026	.0619	.0006	.0043

%RSD	9.694	65.86	66.55	54.64	9.455	15.01	32.49
#1	-.0190	.0059	.0001	.0045	-.7203	-.0044	-.0172
#2	-.0173	.0164	.0006	.0023	-.6483	-.0033	-.0087
#3	-.0210	.0278	.0004	.0075	-.5970	-.0036	-.0139

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0025	.0003	-.0044
SDev	.0000	.0015	.0005
%RSD	1.867	582.0	10.59
#1	-.0025	.0014	-.0040
#2	-.0025	.0008	-.0044
#3	-.0026	-.0014	-.0049

Analysis Report Fri 03-08-96 12:36:11 PM page 1

Method: ICP1A Sample Name: BLANK SPIKE Operator: DRS
Run Time: 03/08/96 12:34:52
Comment: EXT-A/HB-L SPIKE (DFA #8276) M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0014	.1238	4.803	1.973	106.8	.0001	.0076
SDev	.0008	.0053	.033	.012	.3	.0000	.0090
%RSD	52.53	4.302	.6770	.6126	.2477	5.725	119.4
#1	-.0021	.1178	4.840	1.976	106.9	.0001	.0011
#2	-.0016	.1255	4.791	1.959	106.5	.0001	.0037
#3	-.0006	.1280	4.779	1.983	107.0	.0001	.0179

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0042	.9374	-.0489	-.0123	4.618	4.740	-.0059
SDev	.0015	.0210	.0046	.0020	.010	.013	.0009
%RSD	36.28	2.244	9.328	16.47	.2236	.2798	15.95
#1	.0026	.9226	-.0538	-.0145	4.611	4.734	-.0070
#2	.0044	.9281	-.0447	-.0117	4.614	4.731	-.0053
#3	.0057	.9615	-.0481	-.0106	4.630	4.755	-.0054

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0017	.0086	-1.594	-.0109	-.0024	-.0233	.0003
SDev	.0002	.0013	.164	.0010	.0013	.0023	.0002
%RSD	13.09	15.49	10.29	9.380	52.91	10.03	59.08
#1	-.0020	.0071	-1.780	-.0121	-.0019	-.0241	.0003
#2	-.0016	.0096	-1.535	-.0102	-.0038	-.0251	.0001
#3	-.0016	.0091	-1.468	-.0105	-.0014	-.0207	.0004

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0084	2.311	-.0433	4.735	-.0344	4.546	-.1280
SDev	.0008	.017	.0048	.002	.0016	.018	.0168
%RSD	10.03	.7442	11.20	.0335	4.592	.4056	13.16
#1	-.0074	2.326	-.0481	4.736	-.0333	4.529	-.1462
#2	-.0090	2.293	-.0384	4.734	-.0338	4.542	-.1250
#3	-.0087	2.315	-.0433	4.737	-.0362	4.565	-.1129

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0535	-.0055	-.0028	.9118	2.378	-.1060	-.0004
SDev	.0081	.0030	.0141	.0176	.007	.0094	.0000
%RSD	15.11	54.83	496.8	1.936	.3147	8.905	.1377
#1	-.0625	-.0088	.0128	.9242	2.381	-.1095	-.0004
#2	-.0470	-.0029	-.0070	.9194	2.370	-.1131	-.0004
#3	-.0510	-.0047	-.0143	.8916	2.385	-.0953	-.0004

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0091	.0279	.0001	1.832	-.6332	-.0032	.0026
SDev	.0055	.0004	.0004	.011	.0043	.0006	.0102

%RSD	60.21	1.441	369.6	.5787	.6801	19.76	388.2
#1	-.0147	.0277	-.0003	1.842	-.6356	-.0039	-.0031
#2	-.0087	.0276	.0002	1.821	-.6282	-.0027	.0143
#3	-.0038	.0283	.0004	1.833	-.6357	-.0030	-.0034

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0026	4.729	-.0038
SDev	.0000	.002	.0008
%RSD	.4889	.0402	21.17
#1	-.0025	4.727	-.0047
#2	-.0026	4.731	-.0037
#3	-.0026	4.728	-.0031

Analysis Report Fri 03-08-96 12:40:32 PM

Method: ICP1A Sample Name: BLANK SPIKE @10 Operator: DRS
Run Time: 03/08/96 12:39:13
Comment: EXT-A/HB-L SPIKE @10X DIL (DFA #8276) M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0194	.4919	.1999	9.573	-.0000	.0075
SDev	.0005	.0029	.0205	.0036	.066	.0000	.0032
%RSD	467.5	14.96	4.178	1.778	.6919	1079.	43.09
#1	.0007	.0227	.5002	.1979	9.501	.0000	.0042
#2	-.0003	.0185	.4685	.2040	9.631	-.0000	.0077
#3	-.0000	.0171	.5070	.1978	9.587	-.0000	.0108

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0174	.1407	.0056	.0008	.4693	.4762	.0002
SDev	.0005	.0266	.0042	.0004	.0040	.0032	.0011
%RSD	2.968	18.93	73.58	49.04	.8512	.6689	496.0
#1	-.0168	.1372	.0104	.0012	.4670	.4738	.0014
#2	-.0177	.1160	.0030	.0006	.4739	.4798	-.0007
#3	-.0177	.1689	.0035	.0005	.4670	.4749	-.0000

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	-.0081	-.1335	.0005	-.0006	-.0107	.0002
SDev	.0002	.0011	.1239	.0008	.0014	.0032	.0002
%RSD	313.8	13.28	92.80	158.2	216.5	30.20	140.0
#1	.0003	-.0069	-.0222	.0014	.0009	-.0103	.0003
#2	-.0000	-.0089	-.2669	.0002	-.0014	-.0142	-.0001
#3	-.0001	-.0085	-.1112	-.0001	-.0014	-.0077	.0002

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0009	.2397	-.0007	.4844	-.0345	.4729	-.0015
SDev	.0007	.0130	.0065	.0036	.0129	.0114	.0068
%RSD	70.56	5.407	926.4	.7424	37.39	2.420	443.8
#1	-.0002	.2321	.0050	.4802	-.0455	.4620	.0020
#2	-.0012	.2323	-.0078	.4865	-.0376	.4720	-.0094
#3	-.0014	.2546	.0006	.4865	-.0203	.4848	.0028

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0039	.0034	-.0042	.0891	.2410	.0282	-.0001
SDev	.0032	.0029	.0045	.0134	.0006	.0303	.0001
%RSD	83.72	85.52	107.0	15.01	.2454	107.7	64.83
#1	.0067	.0063	.0010	.0881	.2405	.0627	-.0001
#2	.0004	.0004	-.0067	.1029	.2408	.0057	-.0002
#3	.0045	.0036	-.0069	.0762	.2416	.0162	-.0001

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0015	.0037	.0003	.1966	.0131	.0000	-.0054
SDev	.0037	.0009	.0004	.0037	.0808	.0004	.0072

%RSD	250.9	24.90	135.3	1.891	617.5	1333.	134.5
#1	-.0041	.0047	.0006	.2008	.0675	.0002	-.0131
#2	.0028	.0035	-.0001	.1936	-.0797	-.0004	.0012
#3	-.0031	.0029	.0003	.1954	.0515	.0003	-.0042

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0002	.4868	-.0008
SDev	.0003	.0016	.0003
%RSD	126.0	.3311	43.94
#1	-.0003	.4870	-.0005
#2	-.0005	.4883	-.0011
#3	.0001	.4851	-.0006

Analysis Report Fri 03-08-96 12:44:19 PM page 1

Method: ICP1A Sample Name: 96-3522 @5 Operator: DRS
Run Time: 03/08/96 12:43:00
Comment: DFA @8276 41V-4044 @5X DIL M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0023	.0413	-.0029	.4063	.0183	-.0000	-.0038
SDev	.0013	.0065	.0062	.0014	.0010	.0000	.0057
%RSD	55.16	15.60	209.6	.3409	5.247	130.2	152.1
#1	-.0020	.0411	-.0099	.4054	.0191	-.0000	-.0088
#2	-.0037	.0350	-.0009	.4079	.0184	-.0001	-.0049
#3	-.0012	.0479	.0020	.4057	.0172	-.0000	.0024

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0389	.0319	-.0086	-.0013	.0266	.0140	-.0022
SDev	.0011	.0055	.0033	.0007	.0032	.0011	.0004
%RSD	2.953	17.13	38.35	55.30	11.90	7.659	16.63
#1	.0377	.0280	-.0123	-.0018	.0272	.0130	-.0024
#2	.0392	.0381	-.0077	-.0017	.0294	.0137	-.0025
#3	.0399	.0294	-.0059	-.0005	.0232	.0151	-.0018

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0006	.5376	-.5858	-.0027	-.0019	.0325	.0994
SDev	.0002	.0012	.0842	.0009	.0014	.0042	.0005
%RSD	40.08	.2291	14.38	33.52	75.00	13.04	.4832
#1	-.0004	.5362	-.6229	-.0033	-.0019	.0296	.0989
#2	-.0008	.5386	-.6451	-.0031	-.0033	.0306	.0993
#3	-.0004	.5380	-.4894	-.0017	-.0005	.0374	.0999

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	1.095	-.0151	.1399	-.0140	-.0014	-.0400
SDev	.0012	.003	.0052	.0013	.0131	.0076	.0087
%RSD	427.9	.3000	34.43	.9359	93.62	522.5	21.87
#1	-.0011	1.091	-.0175	.1405	-.0233	.0036	-.0424
#2	.0012	1.097	-.0187	.1384	-.0197	-.0102	-.0472
#3	.0008	1.097	-.0092	.1408	.0010	.0022	-.0303

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0129	-.0022	-.0037	-.0085	.6467	-.0122	-.0001
SDev	.0029	.0021	.0029	.0114	.0079	.0301	.0001
%RSD	22.60	94.10	76.69	133.3	1.227	246.6	47.68
#1	-.0129	-.0021	-.0010	.0008	.6391	-.0144	-.0002
#2	-.0158	-.0044	-.0036	-.0212	.6461	-.0411	-.0002
#3	-.0100	-.0002	-.0067	-.0052	.6550	.0189	-.0001

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0105	.0032	.0043	.0102	-.1763	.0008	-.0003
SDev	.0023	.0021	.0001	.0094	.0337	.0004	.0105

%RSD	21.90	64.08	3.038	92.06	19.12	53.91	3472.
#1	-.0101	.0045	.0043	-.0004	-.1442	.0011	-.0003
#2	-.0129	.0043	.0042	.0136	-.2114	.0003	-.0108
#3	-.0084	.0008	.0045	.0175	-.1734	.0010	.0102

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0008	.0370	-.0018
SDev	.0000	.0002	.0004
%RSD	2.403	.6328	21.92
#1	-.0008	.0370	-.0013
#2	-.0008	.0373	-.0021
#3	-.0008	.0368	-.0019

Analysis Report Fri 03-08-96 12:47:53 PM page 1

Method: ICP1A Sample Name: 96-3522 Operator: DRS
Run Time: 03/08/96 12:46:34
Comment: DFA @8276 41V-4044 M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0055	.1932	-.0059	1.961	.0060	-.0001	-.0041
SDev	.0003	.0021	.0074	.009	.0001	.0000	.0086
%RSD	4.505	1.064	124.9	.4375	2.245	32.04	211.9
#1	-.0058	.1926	-.0137	1.971	.0061	-.0001	-.0110
#2	-.0054	.1954	.0011	1.957	.0059	-.0001	-.0067
#3	-.0054	.1914	-.0052	1.955	.0060	-.0002	.0055

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2441	.0551	-.0546	-.0034	.1145	.0648	-.0073
SDev	.0007	.0219	.0059	.0005	.0044	.0010	.0006
%RSD	.2856	39.76	10.90	14.43	3.814	1.503	7.998
#1	.2435	.0722	-.0595	-.0030	.1178	.0659	-.0080
#2	.2449	.0627	-.0561	-.0039	.1095	.0646	-.0068
#3	.2438	.0304	-.0480	-.0033	.1161	.0639	-.0071

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0025	2.638	-1.631	-.0124	-.0047	.2361	.4824
SDev	.0002	.009	.207	.0003	.0017	.0068	.0016
%RSD	8.759	.3555	12.67	2.341	36.06	2.887	.3235
#1	-.0027	2.643	-1.869	-.0127	-.0062	.2361	.4835
#2	-.0023	2.628	-1.535	-.0122	-.0028	.2429	.4806
#3	-.0024	2.644	-1.490	-.0123	-.0052	.2292	.4831

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0023	5.438	-.0496	.6723	-.0291	-.0011	-.1395
SDev	.0003	.020	.0088	.0021	.0102	.0016	.0106
%RSD	13.63	.3627	17.67	.3087	35.01	149.5	7.605
#1	.0025	5.458	-.0562	.6744	-.0392	-.0010	-.1517
#2	.0025	5.436	-.0530	.6702	-.0294	.0005	-.1341
#3	.0020	5.419	-.0397	.6723	-.0188	-.0028	-.1326

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0633	-.0145	-.0184	-.0261	3.129	-.1147	-.0001
SDev	.0060	.0037	.0064	.0030	.011	.0166	.0001
%RSD	9.392	25.66	34.59	11.37	.3585	14.47	68.67
#1	-.0694	-.0128	-.0131	-.0293	3.128	-.1334	-.0002
#2	-.0576	-.0187	-.0254	-.0235	3.118	-.1090	-.0001
#3	-.0631	-.0118	-.0166	-.0253	3.140	-.1018	-.0001

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0278	.0124	.0217	.0121	-.7442	.0029	-.0178
SDev	.0055	.0028	.0005	.0083	.0761	.0009	.0087

%RSD	19.81	22.78	2.471	68.21	10.22	29.81	49.23
#1	-.0335	.0095	.0214	.0093	-.8291	.0019	-.0135
#2	-.0272	.0125	.0223	.0057	-.7213	.0033	-.0119
#3	-.0226	.0151	.0214	.0215	-.6823	.0035	-.0278

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0027	.1717	-.0046
SDev	.0002	.0021	.0004
%RSD	7.363	1.208	8.556
#1	-.0028	.1731	-.0048
#2	-.0025	.1693	-.0041
#3	-.0029	.1726	-.0047

Analysis Report Fri 03-08-96 12:51:32 PM page 1

Method: ICP1A Sample Name: 96-3522-DUP Operator: DRS
Run Time: 03/08/96 12:50:13
Comment: DFA 98276 41V-4044 DUPLICATE M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0063	.2344	-.0064	2.514	.0043	-.0001	-.0049
SDev	.0001	.0045	.0026	.023	.0001	.0000	.0112
%RSD	2.281	1.917	39.99	.9046	1.793	24.26	226.8
#1	-.0061	.2315	-.0083	2.488	.0044	-.0001	.0037
#2	-.0063	.2322	-.0035	2.530	.0043	-.0001	-.0175
#3	-.0064	.2396	-.0075	2.525	.0044	-.0001	-.0010

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2552	.0298	-.0519	-.0030	.1247	.0632	-.0070
SDev	.0016	.0037	.0038	.0008	.0018	.0024	.0009
%RSD	.6457	12.42	7.350	25.65	1.432	3.783	13.46
#1	.2539	.0328	-.0496	-.0026	.1244	.0651	-.0075
#2	.2570	.0257	-.0563	-.0039	.1230	.0639	-.0076
#3	.2547	.0309	-.0498	-.0025	.1266	.0605	-.0059

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0022	2.994	-1.528	-.0124	-.0033	.2382	.4862
SDev	.0001	.018	.112	.0008	.0025	.0068	.0029
%RSD	5.228	.6126	7.330	6.111	75.59	2.841	.5947
#1	-.0022	2.975	-1.513	-.0132	-.0005	.2316	.4839
#2	-.0024	3.011	-1.646	-.0117	-.0052	.2451	.4894
#3	-.0022	2.996	-1.424	-.0124	-.0043	.2380	.4853

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0033	5.954	-.0474	.7360	-.0203	.0051	-.1324
SDev	.0020	.034	.0009	.0074	.0158	.0031	.0133
%RSD	59.38	.5764	1.871	1.001	77.84	61.08	10.04
#1	.0056	5.924	-.0464	.7346	-.0304	.0082	-.1346
#2	.0019	5.991	-.0478	.7439	-.0285	.0019	-.1445
#3	.0024	5.946	-.0480	.7294	-.0021	.0053	-.1182

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0637	-.0136	-.0212	-.0151	4.143	-.1022	.0001
SDev	.0020	.0015	.0030	.0085	.031	.0149	.0000
%RSD	3.092	11.10	14.05	56.34	.7511	14.61	.1772
#1	-.0637	-.0135	-.0213	-.0190	4.112	-.1048	.0001
#2	-.0656	-.0152	-.0241	-.0209	4.175	-.0861	.0001
#3	-.0617	-.0121	-.0182	-.0053	4.142	-.1157	.0001

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0235	.0081	.0228	.0037	-.6575	.0033	-.0100
SDev	.0023	.0076	.0005	.0104	.1032	.0001	.0061

%RSD	9.766	93.22	2.320	279.6	15.69	2.748	61.05
#1	-.0222	.0114	.0229	-.0001	-.6094	.0032	-.0030
#2	-.0262	.0134	.0232	-.0043	-.7760	.0032	-.0136
#3	-.0222	-.0005	.0222	.0155	-.5873	.0034	-.0136

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0028	.1666	-.0031
SDev	.0002	.0003	.0010
%RSD	6.158	.2110	30.43
#1	-.0029	.1662	-.0031
#2	-.0028	.1667	-.0041
#3	-.0026	.1669	-.0022

Analysis Report QC Standard Fri 03-08-96 01:02:34 PM page 1

Method: ICP1A Sample Name: QC_MCVA1 960226I901 Operator: DRS
Run Time: 03/08/96 13:01:15
Comment: (BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

PASS NFB 3/8/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4787	9.808	2.548	2.045	.5003	.0936	23.89
SDev	.0048	.092	.049	.027	.0058	.0009	.19
%RSD	1.011	.9341	1.939	1.336	1.155	.9361	.8060
#1	.4737	9.703	2.499	2.014	.4937	.0926	23.67
#2	.4791	9.844	2.547	2.057	.5029	.0938	23.97
#3	.4833	9.875	2.598	2.064	.5044	.0943	24.03
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.59	.5082	-.0352	.9890	.9786	.9478	-.0068
SDev	.20	.0106	.0088	.0089	.0115	.0085	.0010
%RSD	.7983	2.095	24.91	.9046	1.179	.8939	15.34
#1	24.38	.5040	-.0252	.9789	.9652	.9386	-.0058
#2	24.63	.5003	-.0415	.9922	.9853	.9498	-.0078
#3	24.77	.5203	-.0388	.9959	.9851	.9552	-.0069
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	19.94	23.04	-.0066	1.946	31.86	.5037
SDev	.0003	.18	.13	.0023	.027	.25	.0033
%RSD	107.5	.8932	.5490	34.63	1.385	.7831	.6472
#1	.0000	19.75	23.00	-.0040	1.916	31.58	.5003
#2	-.0005	20.00	22.94	-.0082	1.957	31.94	.5040
#3	-.0003	20.09	23.18	-.0077	1.966	32.05	.5068
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9953	37.02	-.0429	.9884	4.740	2.392	-.1506
SDev	.0079	.44	.0062	.0076	.075	.010	.0170
%RSD	.7966	1.180	14.47	.7664	1.585	.4246	11.29
#1	.9873	36.56	-.0357	.9801	4.675	2.380	-.1316
#2	.9954	37.06	-.0464	.9901	4.722	2.396	-.1644
#3	1.003	37.43	-.0465	.9950	4.822	2.399	-.1557
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0566	-.0029	2.501	2.486	18.25	.1010	.5089
SDev	.0107	.0005	.018	.032	.16	.0383	.0056
%RSD	18.90	17.87	.7142	1.292	.8723	37.90	1.106
#1	-.0442	-.0023	2.484	2.449	18.07	.1440	.5026
#2	-.0626	-.0031	2.500	2.509	18.31	.0880	.5108
#3	-.0629	-.0033	2.519	2.499	18.37	.0709	.5133
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0071	.0503	.9832	2.414	-.5640	.9873	.0191
SDev	.0051	.0022	.0103	.013	.1066	.0096	.0062
%RSD	71.42	4.454	1.050	.5184	18.89	.9702	32.65
#1	.0127	.0479	.9717	2.402	-.4418	.9768	.0251
#2	.0029	.0523	.9865	2.414	-.6376	.9897	.0126
#3	.0057	.0506	.9916	2.427	-.6126	.9955	.0195
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0012	.9960	1.982
SDev	.0003	.0063	.019
%RSD	26.99	.6300	.9606
#1	-.0008	.9891	1.961
#2	-.0014	1.001	1.988
#3	-.0014	.9973	1.997
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report QC Standard Fri 03-08-96 01:06:09 PM page 1

Method: ICP1A Sample Name: QC_MCVB2 9602211901 Operator: DRS
Run Time: 03/08/96 13:04:50
Comment: (BX-112 CORE 118/119)K.SILVERS
Mode: CONC Corr. Factor: 1

PASS DRS 3/8/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0114	-.0468	.3136	.1582	.0012	.0006	.0721
SDev	.0005	.0090	.0184	.0008	.0004	.0001	.0025
%RSD	4.727	19.27	5.881	.4966	30.99	7.884	3.458
#1	-.0116	-.0449	.3297	.1586	.0010	.0006	.0726
#2	-.0108	-.0388	.3177	.1573	.0016	.0006	.0744
#3	-.0118	-.0566	.2935	.1587	.0009	.0006	.0695
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0170	.0599	1.987	-.0044	.0028	.0255	2.007
SDev	.0027	.0243	.022	.0013	.0009	.0023	.022
%RSD	15.84	40.58	1.109	28.64	30.80	8.967	1.111
#1	.0201	.0466	1.967	-.0030	.0037	.0281	1.995
#2	.0154	.0451	1.983	-.0046	.0020	.0236	1.994
#3	.0154	.0879	2.011	-.0055	.0026	.0249	2.033
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			2.000				2.000
Range			10.00				10.00

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.027	.0264	-2.069	1.009	-.0049	-.1335	.0003
SDev	.023	.0042	.253	.012	.0003	.0117	.0003
%RSD	1.137	15.82	12.21	1.172	5.587	8.756	78.37
#1	2.013	.0311	-1.891	1.002	-.0047	-.1257	.0007
#2	2.015	.0246	-1.958	1.002	-.0047	-.1279	.0001
#3	2.054	.0233	-2.358	1.023	-.0052	-.1470	.0003
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK
Value	2.000			1.000			
Range	10.00			10.00			

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0066	.1903	1.963	.0240	.0581	.1961	1.873
SDev	.0008	.0201	.020	.0005	.0151	.0049	.024
%RSD	11.41	10.56	1.018	2.208	25.92	2.473	1.272
#1	.0065	.1961	1.948	.0239	.0598	.1983	1.860
#2	.0058	.1680	1.956	.0235	.0723	.1995	1.859
#3	.0073	.2069	1.986	.0246	.0423	.1906	1.900
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value			2.000				

Analysis Report QC Standard Fri 03-08-96 01:06:09 PM page 2

Range			10.00				
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.968	1.979	.0795	.0528	6.967	2.010	.0023
SDev	.014	.012	.0065	.0053	.423	.012	.0001
%RSD	.7204	.6160	8.135	10.13	6.069	.6038	5.509
#1	1.959	1.970	.0800	.0482	6.523	1.997	.0024
#2	1.961	1.974	.0857	.0586	7.014	2.011	.0023
#3	1.985	1.993	.0728	.0515	7.365	2.021	.0021
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value	2.000	2.000				2.000	
Range	10.00	10.00				10.00	

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.865	9.951	.0029	.0108	23.23	-.0028	1.962
SDev	.020	.093	.0001	.0093	.20	.0007	.029
%RSD	1.057	.9354	2.718	86.29	.8621	26.67	1.454
#1	1.852	9.895	.0030	.0001	23.04	-.0022	1.947
#2	1.856	9.899	.0028	.0167	23.19	-.0026	1.943
#3	1.888	10.06	.0028	.0155	23.44	-.0036	1.994
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	QC Pass
Value	2.000	10.00			25.00		2.000
Range	10.00	10.00			10.00		10.00

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.9725	.0039	-.0576
SDev	.0102	.0003	.0011
%RSD	1.051	7.843	1.887
#1	.9663	.0040	-.0582
#2	.9669	.0040	-.0582
#3	.9843	.0035	-.0563
Errors	QC Pass	NOCHECK	NOCHECK
Value	1.000		
Range	10.00		

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Document #: SD-WM-DP-171

Title/Desc:
FINAL REPORT FOR TANK 241-BX-104 PUSH MODE CORES 126 & 127 [SEC 5 OF 9]

Pages: 202

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

DOCUMENT NUMBER: SD-WM-DP-171 Rev. 1

SECTION 5 OF 9

TITLE: Final Report for Tank 241-BX-104 Push Mode Cores 126 and 127.

DATE: 4/25/96

ORIGINATOR: Wu, PA

CO: WHC

RECIPIENT:

CO:

REFERENCES: ECN- 629038

Analysis Report Fri 03-08-96 01:10:02 PM page 1

Method: ICP1A Sample Name: QC SSTA 9512081902 Operator: DRS
Run Time: 03/08/96 13:08:43
Comment: DFA @8276 41V-4044 DUPLICATE M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0189	254.9	.4037	.0459	.0106	-.0015	198.4
SDev	.0012	1.1	.0242	.0010	.0003	.0001	1.1
%RSD	6.192	.4345	5.995	2.119	3.218	5.492	.5392
#1	-.0180	255.7	.4010	.0461	.0106	-.0014	199.2
#2	-.0185	255.4	.4291	.0448	.0109	-.0015	198.8
#3	-.0202	253.7	.3810	.0467	.0102	-.0016	197.2

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	250.0	.0952	.1677	.0084	.2390	-.1117	.0322
SDev	1.3	.0019	.0115	.0018	.0062	.0029	.0027
%RSD	.5287	1.975	6.840	21.08	2.572	2.600	8.213
#1	251.1	.0935	.1762	.0104	.2450	-.1085	.0341
#2	250.5	.0949	.1722	.0075	.2391	-.1141	.0334
#3	248.5	.0972	.1546	.0073	.2328	-.1126	.0292

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0912	197.6	99.72	52.47	.0316	-.7931	.0190
SDev	.0009	1.1	.66	.30	.0024	.0287	.0004
%RSD	.9653	.5552	.6581	.5753	7.697	3.613	2.168
#1	.0920	198.5	100.2	52.71	.0336	-.7607	.0195
#2	.0914	198.1	99.99	52.56	.0322	-.8038	.0189
#3	.0903	196.4	98.97	52.13	.0289	-.8149	.0187

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1000	.9105	.2054	194.4	201.8	.9483	.8246
SDev	.0021	.0233	.0171	1.0	1.2	.0233	.0086
%RSD	2.068	2.558	8.321	.5032	.5956	2.454	1.048
#1	.1011	.9293	.2191	195.2	202.5	.9706	.8247
#2	.1013	.9177	.2110	194.7	202.4	.9500	.8332
#3	.0976	.8844	.1863	193.3	200.4	.9242	.8159

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2443	.2572	.4576	1.532	-.3146	3.628	.0201
SDev	.0202	.0117	.0125	.009	.0166	.038	.0002
%RSD	8.253	4.531	2.738	.5777	5.291	1.046	1.208
#1	.2636	.2518	.4692	1.542	-.2967	3.655	.0204
#2	.2460	.2705	.4593	1.530	-.3174	3.644	.0201
#3	.2234	.2491	.4443	1.524	-.3296	3.585	.0199

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6230	.4914	.0020	.3230	202.4	.0440	.5521
SDev	.0148	.0187	.0005	.0115	.9	.0019	.0125

%RSD	2.375	3.798	25.30	3.557	.4355	4.280	2.265
#1	.6383	.5097	.0024	.3159	203.1	.0454	.5601
#2	.6220	.4922	.0023	.3168	202.9	.0448	.5586
#3	.6088	.4724	.0015	.3362	201.4	.0419	.5377

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0217	.0960	.0090
SDev	.0014	.0030	.0003
%RSD	6.704	3.127	2.795
#1	.0229	.0985	.0088
#2	.0220	.0969	.0089
#3	.0201	.0927	.0093

Analysis Report Fri 03-08-96 01:13:50 PM page 1

Method: ICP1A Sample Name: QC SSTMCV 9512081903 Operator: DRS
Run Time: 03/08/96 13:12:31
Comment: DFA @8276 41V-4044 DUPLICATE M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5021	5.103	2.101	-.0032	.1024	.0969	1.652
SDev	.0030	.014	.008	.0014	.0005	.0006	.025
%RSD	.6044	.2822	.3873	43.65	.4993	.5774	1.501
#1	.4994	5.110	2.102	-.0016	.1020	.0965	1.652
#2	.5016	5.086	2.108	-.0036	.1021	.0967	1.677
#3	.5054	5.112	2.092	-.0043	.1030	.0975	1.628

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.132	.2390	.0059	-.0027	.3084	-.0026	-.0009
SDev	.022	.0090	.0018	.0009	.0028	.0008	.0013
%RSD	1.930	3.750	30.28	34.59	.9160	32.18	132.9
#1	1.155	.2385	.0062	-.0017	.3068	-.0024	-.0004
#2	1.131	.2303	.0076	-.0027	.3068	-.0035	-.0001
#3	1.111	.2482	.0040	-.0036	.3117	-.0018	-.0024

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0069	.6123	48.10	.0300	-.0009	-.0974	.1039
SDev	.0003	.0183	.10	.0058	.0026	.0092	.0007
%RSD	5.120	2.984	.2120	19.35	278.4	9.498	.6925
#1	.0071	.6310	48.01	.0345	-.0005	-.0923	.1031
#2	.0071	.6116	48.07	.0321	.0014	-.0918	.1040
#3	.0065	.5944	48.21	.0235	-.0038	-.1081	.1045

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0030	5.176	-.0090	.6982	4.038	2.990	-.0300
SDev	.0005	.039	.0033	.0182	.035	.014	.0221
%RSD	15.37	.7627	36.66	2.605	.8682	.4628	73.59
#1	.0032	5.139	-.0122	.7169	4.059	2.976	-.0172
#2	.0034	5.172	-.0056	.6972	4.057	3.003	-.0174
#3	.0025	5.217	-.0092	.6806	3.997	2.990	-.0555

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0100	-.0048	2.121	2.561	2.850	.0239	.0013
SDev	.0084	.0028	.016	.016	.008	.0141	.0001
%RSD	83.41	57.86	.7614	.6191	.2894	59.12	9.543
#1	-.0092	-.0017	2.106	2.543	2.848	.0215	.0013
#2	-.0021	-.0056	2.119	2.565	2.842	.0391	.0014
#3	-.0188	-.0070	2.138	2.574	2.859	.0111	.0012

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0042	.0464	-.0008	.0038	19.75	.5085	.0126
SDev	.0036	.0079	.0002	.0118	.02	.0014	.0027

%RSD	85.78	17.00	24.92	311.2	.1093	.2839	21.53
#1	-.0075	.0430	-.0009	.0038	19.74	.5080	.0122
#2	-.0004	.0408	-.0006	.0156	19.77	.5074	.0102
#3	-.0046	.0554	-.0010	-.0080	19.73	.5101	.0156

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0006	-.0017	.5051
SDev	.0007	.0004	.0026
%RSD	109.9	22.01	.5043
#1	-.0004	-.0016	.5031
#2	-.0001	-.0021	.5043
#3	-.0014	-.0013	.5080

Analysis Report QC Standard Fri 03-08-96 01:17:38 PM page 1

Method: ICP1A Sample Name: QC_ SRM-1643d 108518 Operator: DRS
Run Time: 03/08/96 13:16:20
Comment: (DFA #8276)M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	0-.0022	0.1144	0.0462	.1433	.5168	0.0118	.0182
SDev	.0002	.0084	.0103	.0016	.0003	.0000	.0024
%RSD	10.40	7.337	22.30	1.135	.0657	.3033	13.42
#1	0-.0025	0.1167	0.0360	.1417	.5172	0.0118	.0155
#2	0-.0020	0.1213	0.0566	.1449	.5165	0.0118	.0186
#3	0-.0022	0.1050	0.0459	.1433	.5168	0.0118	.0203
Errors	QC Fail	QC Fail	QC Fail	QC Pass	QC Pass	QC Fail	NOCHECK
Value	.0013	.1276	.0560	.1448	.5065	.0125	
Range	.0570	3.500	.7300	5.200	8.900	.2800	

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	30.94	0.0758	-.0132	0.0228	0.0181	0.0137	-.0027
SDev	.06	.0235	.0057	.0003	.0027	.0012	.0006
%RSD	.1902	30.98	43.01	1.392	15.07	8.519	21.84
#1	31.00	0.0812	-.0119	0.0229	0.0212	0.0149	-.0021
#2	30.92	0.0501	-.0083	0.0225	0.0165	0.0136	-.0033
#3	30.89	0.0962	-.0194	0.0231	0.0165	0.0126	-.0027
Errors	QC Pass	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail	NOCHECK
Value	31.04	.0065		.0250	.0185	.0205	
Range	.6400	.3700		.5900	.2000	3.800	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	0.0872	01.609	.0038	0.0160	08.409	0.0391
SDev	.0001	.0012	.046	.0009	.0021	.018	.0002
%RSD	130.8	1.409	2.878	23.93	13.39	.2099	.4436
#1	.0002	.0882	01.557	.0030	0.0180	08.423	0.0392
#2	.0002	0.0875	01.624	.0048	0.0161	08.389	0.0389
#3	-.0000	0.0858	01.646	.0037	0.0137	08.415	0.0392
Errors	NOCHECK	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail
Value		.0912	2.356		.0165	7.989	.0377
Range		3.900	.0350		.5500	.0350	.8300

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	0.1099	022.44	-.0063	0.1103	-.0231	0.0008	-.0437
SDev	.0009	.04	.0011	.0048	.0161	.0009	.0056
%RSD	.8413	.1665	17.61	4.312	69.82	120.6	12.80
#1	0.1088	022.39	-.0063	0.1093	-.0049	0.0018	-.0420
#2	0.1102	022.46	-.0052	0.1155	-.0356	0.0006	-.0392
#3	0.1106	022.46	-.0074	0.1062	-.0287	0-.0001	-.0500
Errors	QC Fail	QC Fail	NOCHECK	QC Fail	NOCHECK	QC Fail	NOCHECK
Value	.1129	22.07		.0581		.0181	

Range	1.700	.6400		2.700		.6400	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0222	-.0104	Q.0388	Q-.0022	2.670	-.0904	.3023
SDev	.0039	.0015	.0068	.0135	.009	.0240	.0003
%RSD	17.36	14.81	17.58	606.2	.3358	26.52	.1020
#1	-.0189	-.0120	Q.0375	Q-.0083	2.681	-.0997	.3023
#2	-.0212	-.0089	Q.0328	Q.0132	2.665	-.0632	.3019
#3	-.0264	-.0102	Q.0462	Q-.0116	2.665	-.1084	.3026
Errors	NOCHECK	NOCHECK	QC Fail	QC Fail	NOCHECK	NOCHECK	QC Pass
Value			.0541	.0114			.2948
Range			1.100	.1700			3.400

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0226	-.0069	-.0005	Q-.0009	-.0381	Q.0325	-.0056
SDev	.0044	.0044	.0001	.0009	.0446	.0007	.0062
%RSD	19.64	63.33	24.84	96.45	117.1	2.158	110.6
#1	-.0179	-.0078	-.0004	Q-.0018	.0134	Q.0326	-.0021
#2	-.0232	-.0021	-.0004	Q-.0011	-.0618	Q.0332	-.0127
#3	-.0267	-.0107	-.0006	Q.0000	-.0658	Q.0318	-.0020
Errors	NOCHECK	NOCHECK	NOCHECK	QC Fail	NOCHECK	QC Fail	NOCHECK
Value				.0073		.0351	
Range				.2500		1.400	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0008	Q.0743	-.0021
SDev	.0002	.0011	.0003
%RSD	22.66	1.481	13.16
#1	-.0006	Q.0731	-.0019
#2	-.0009	Q.0752	-.0020
#3	-.0009	Q.0746	-.0024
Errors	NOCHECK	QC Fail	NOCHECK
Value		.0725	
Range		.6500	

Analysis Report Fri 03-08-96 01:22:17 PM page 1

Method: ICP1A Sample Name: QC CCV1 960126H901 Operator: DRS
Run Time: 03/08/96 13:20:59
Comment: DFA @8276 41V-4044 DUPLICATE M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0035	1.954	2.085	2.058	1.004	.9810	1.937
SDev	.0005	.001	.003	.005	.002	.0019	.003
%RSD	13.71	.0529	.1654	.2326	.1945	.1934	.1744
#1	-.0029	1.953	2.088	2.053	1.003	.9801	1.941
#2	-.0037	1.953	2.086	2.063	1.007	.9832	1.936
#3	-.0038	1.955	2.082	2.059	1.004	.9797	1.934

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.028	1.059	-.0227	1.021	.5048	2.017	-.0030
SDev	.004	.018	.0033	.002	.0093	.007	.0002
%RSD	.2138	1.734	14.30	.2130	1.836	.3276	5.084
#1	2.027	1.074	-.0200	1.020	.4943	2.011	-.0031
#2	2.033	1.064	-.0263	1.023	.5118	2.024	-.0028
#3	2.024	1.038	-.0220	1.019	.5083	2.017	-.0031

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0009	2.016	4.004	-.0053	1.985	2.078	1.030
SDev	.0001	.006	.067	.0008	.005	.009	.002
%RSD	14.71	.2822	1.667	15.03	.2439	.4502	.1780
#1	-.0010	2.010	4.004	-.0045	1.987	2.075	1.028
#2	-.0010	2.020	4.071	-.0053	1.988	2.088	1.032
#3	-.0008	2.019	3.937	-.0061	1.979	2.070	1.029

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.983	8.640	-.0224	2.083	4.834	1.977	-.0586
SDev	.006	.049	.0069	.006	.049	.002	.0003
%RSD	.2993	.5620	30.99	.2650	1.012	.1066	.4278
#1	1.976	8.612	-.0182	2.081	4.891	1.976	-.0589
#2	1.987	8.696	-.0185	2.080	4.800	1.980	-.0585
#3	1.986	8.612	-.0303	2.090	4.813	1.976	-.0585

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0284	-.0063	-.0089	1.995	4.804	-.0486	2.033
SDev	.0051	.0022	.0072	.008	.020	.0038	.004
%RSD	18.07	35.10	80.89	.3969	.4121	7.839	.2199
#1	-.0274	-.0074	-.0053	1.993	4.785	-.0522	2.031
#2	-.0238	-.0037	-.0042	2.004	4.824	-.0446	2.038
#3	-.0340	-.0077	-.0172	1.989	4.802	-.0490	2.030

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0077	.0150	-.0010	1.952	-.3390	.9786	-.0102
SDev	.0036	.0036	.0002	.010	.0275	.0027	.0095

%RSD	47.37	24.07	20.35	.5209	8.098	.2766	93.11
#1	-.0100	.0134	-.0012	1.962	-.3367	.9784	-.0173
#2	-.0035	.0191	-.0011	1.942	-.3675	.9813	-.0138
#3	-.0096	.0124	-.0008	1.953	-.3128	.9759	.0006

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0016	1.041	-.0040
SDev	.0002	.001	.0003
%RSD	11.93	.1260	8.541
#1	-.0017	1.040	-.0041
#2	-.0017	1.042	-.0043
#3	-.0014	1.041	-.0036

Analysis Report Fri 03-08-96 01:26:20 PM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 03/08/96 13:25:01
Comment: DFA 98276 41V-4044 DUPLICATE M.EBY
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0013	-.0026	-.0037	-.0034	.0013	.0003	.0008
SDev	.0008	.0036	.0088	.0026	.0002	.0000	.0057
%RSD	59.75	136.2	239.4	77.88	18.16	10.94	749.0
#1	-.0005	-.0021	.0061	-.0056	.0016	.0003	.0061
#2	-.0020	-.0065	-.0110	-.0005	.0012	.0002	.0013
#3	-.0013	.0006	-.0061	-.0041	.0012	.0003	-.0052

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0119	.0225	-.0048	-.0017	-.0027	.0003	.0001
SDev	.0007	.0010	.0076	.0001	.0015	.0014	.0004
%RSD	5.640	4.271	159.7	3.625	54.26	506.0	745.4
#1	.0124	.0224	-.0004	-.0018	-.0011	-.0014	.0004
#2	.0111	.0216	-.0135	-.0017	-.0030	.0012	-.0004
#3	.0121	.0235	-.0004	-.0018	-.0040	.0010	.0002

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	-.0102	-.0222	-.0004	-.0005	-.0229	.0003
SDev	.0001	.0004	.1389	.0016	.0016	.0088	.0002
%RSD	87.62	3.513	624.5	422.1	346.4	38.60	51.82
#1	-.0001	-.0105	.0222	.0002	.0005	-.0139	.0003
#2	-.0003	-.0103	-.1780	-.0022	-.0024	-.0232	.0006
#3	-.0001	-.0098	.0890	.0009	.0005	-.0316	.0002

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0000	.0153	-.0029	.0298	-.0094	-.0115	.0001
SDev	.0006	.0227	.0034	.0003	.0150	.0050	.0106
%RSD	19020.	148.8	118.0	1.163	159.0	43.69	8954.
#1	-.0007	.0415	.0010	.0294	.0047	-.0093	.0095
#2	.0002	.0022	-.0055	.0301	-.0251	-.0172	-.0115
#3	.0005	.0021	-.0043	.0298	-.0079	-.0079	.0023

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0029	-.0038	-.0107	-.0094	-.0131	-.0375	.0005
SDev	.0038	.0010	.0006	.0037	.0065	.0186	.0001
%RSD	131.5	26.23	6.044	38.82	50.05	49.63	27.94
#1	-.0010	-.0049	-.0100	-.0136	-.0056	-.0251	.0007
#2	-.0073	-.0035	-.0109	-.0077	-.0180	-.0589	.0004
#3	-.0004	-.0030	-.0112	-.0069	-.0156	-.0285	.0004

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0184	-.0049	-.0002	-.0014	-.0690	-.0007	-.0147
SDev	.0039	.0048	.0002	.0104	.0424	.0006	.0128

%RSD	21.14	99.40	68.16	741.1	61.44	96.29	87.47
#1	-.0220	.0007	-.0001	-.0132	-.1056	-.0000	-.0112
#2	-.0190	-.0072	-.0004	.0065	-.0786	-.0013	-.0039
#3	-.0143	-.0081	-.0002	.0025	-.0226	-.0007	-.0289

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0004	-.0006	-.0011
SDev	.0004	.0009	.0007
%RSD	92.63	156.0	68.23
#1	-.0002	.0002	-.0011
#2	-.0009	-.0004	-.0018
#3	-.0002	-.0016	-.0003

DATE TO QC: 03/19/96

DATA QUALITY REVIEW

I have reviewed the following data for completeness and for compliance with project requirements.

Analyte - ICP - Drainable Liquid

Data Package/Report - BX-104

Project No. - 22762

ACL Numbers - 96-2989, 96-2990, 96-2992

PNL ACL Quality Representative

3/21/96
Date

File: c126fctr.wk3

For reporting Drainable Liquids in ug/ml

Calculation of sample dilution factors for 96-2989, 2990, and 2992

	Vial g	DIW g	Sample g	Acid g
96-2989	26.3804	37.9482	41.7531	43.0572
96-2990	26.1613	37.6083	41.4464	42.9196
96-2992	26.2463	37.7012	41.1658	41.8604

Density	
DIW	1.00
Acid	1.40
96-2989	1.28
96-2990	1.29
96-2992	1.15

	Net	Net	Net
96-2989	11.5678	3.8049	1.3041
96-2990	11.447	3.8381	1.4732
96-2992	11.4549	3.4646	0.6946

	DIW ml	Samp ml	Acid ml	Total ml
96-2989	11.568	2.973	0.932	15.472
96-2990	11.447	2.975	1.052	15.475
96-2992	11.455	2.686	0.496	14.637

96-2989	Dilution Factor:	5.205
96-2990	Dilution Factor:	5.201
96-2992	Dilution Factor:	5.450

3/14/96

Project: TWRS
Procedure: PNL-ALO-211

File: m030696a
Analyzed: 03/06/96
03/14/96

BX-104 Core 126

		126 Seg 1			126 Seg 2				
Sam Log#:		96-02989	96-02989		96-02990	96-02990		96-02989	
Split#:		126.1DL.D	126.1DL.D		126.2DL.D	126.2DL.D		Blank	
ICP Dil:		5.00	5.00		10.00	5.00		1.00	
Dil Fctr:		26.0	26.0		52.0	26.0		5.2	
									Post Spike Recoveries
Est. IDL	Analyte	Sample	Duplicate	RPD	Sample	Duplicate	RPD	Batch Blk	Spk "A"	Spk "B"
ug/mL		ug/ml	ug/ml		ug/ml	ug/ml		ug/ml		
0.015	Ag	ND	ND		ND	ND		ND	81.3%	
0.060	Al	2,805.7	2,809.6	0	2,825.6	2,914.7	3	(0.3)	n/a	
0.080	As	(7.7)	(7.8)		(9.7)	(9.3)		ND	90.1%	
0.050	B	25.1	25.4	1	30.9	32.1	4	(0.4)	71.9%	
0.010	Ba	(0.7)	(0.7)		(0.6)	(0.5)		(0.5)	80.7%	
0.015	Be	ND	ND		ND	ND		ND	111.6%	
0.100	Bi	(7.3)	(7.2)		(6.7)	(6.2)		ND	87.7%	
0.100	Ca	(25.9)	(25.2)		(12.9)	(12.3)		(1.1)	86.8%	
0.025	Cd	(2.2)	(1.8)		(2.0)	(0.7)		ND	81.3%	
0.100	Ce	ND	ND		ND	ND		ND		98.4%
0.050	Co	ND	ND		ND	ND		ND	96.7%	
0.020	Cr	2,629.0	2,597.4	1	3,375.5	3,292.0	3	ND	n/a	
0.075	Cu	(2.1)	(2.0)		ND	ND		ND	86.1%	
0.050	Dy	ND	ND		ND	ND		ND		90.5%
0.100	Eu	ND	ND		ND	ND		ND		92.5%
0.050	Fe	(2.0)	(2.2)		ND	(1.4)		(0.4)	85.7%	
2.000	K	1,923.3	1,937.1	1	2,051.7	2,112.2	3	ND		
0.050	La	ND	ND		ND	ND		ND		94.8%
0.025	Li	(0.8)	(1.1)		36.7	37.2	2	ND	89.3%	
0.100	Mg	ND	ND		ND	ND		ND	87.0%	
0.050	Mn	ND	ND		ND	ND		ND	95.7%	
0.030	Mo	31.8	31.2	2	34.3	34.3	0	ND	42.3%	
0.250	Na	139,419.7	138,550.9	1	140,601.4	141,864.9	1	(8.5)	n/a	
0.100	Nd	ND	ND		ND	ND		ND		94.4%
0.030	Ni	14.0	13.5	4	(4.2)	(3.8)		ND		
0.250	P	1,960.4	1,984.6	1	1,543.6	1,630.9	6	ND	n/a	
0.500	Pb	ND	ND		ND	ND		ND	165.1%	
0.500	Pd	ND	ND		ND	ND		ND		
0.150	Rh	(6.5)	(5.8)		(8.6)	(6.4)		ND		79.8%
0.100	Ru	(8.1)	(8.1)		(7.5)	(7.1)		ND		76.5%
0.500	Se	ND	ND		ND	ND		ND	172.1%	
0.500	Si	(53.2)	(52.9)		(114.9)	(108.4)		ND	103.6%	
1.000	Sn	ND	ND		ND	ND		ND		203.2%
0.015	Sr	ND	ND		ND	ND		ND	90.0%	
0.500	Te	ND	ND		ND	ND		ND		151.9%
0.025	Ti	ND	ND		ND	ND		ND	88.5%	
0.500	Tl	ND	ND		ND	ND		ND	104.2%	
2.000	U	ND	ND		ND	ND		ND		81.4%
0.075	V	ND	ND		ND	(2.1)		ND	109.8%	
1.000	W	(40.3)	(37.2)		ND	(32.0)		ND		45.1%
0.010	Y	ND	ND		ND	ND		ND		90.0%
0.020	Zn	(1.0)	(1.3)		(1.5)	(1.6)		(0.3)	92.6%	
0.050	Zr	ND	ND		ND	ND		ND	75.0%	

Note: 1) Estimated Quantitation Limit (EQL) = 10x IDL; "( )" results <EQL but =>IDL.
2) Above 5 times EQL, results reportable to 2 1/2 significant digits.
3) The process "blank" has not been subtracted from the "Sample & Duplicate" results.
4) Above 5 times EQL, precision is estimated at better than +/-20% and accuracy +/-25%.
5) "ND" = Not Detected; Estimated Sample Detection Limit (ug/mL) = (IDL in ug/mL) * (Dil Fctr)
6) If RPD flagged with "*", then RPD >20% and sample & duplicate results >EQL.
7) Spike recovery "n/a/" = spike concentration <25% of sample concentration.

Data, including calibration/QC, archived File ICP-325-405-1/96A0084

Analyzed Date: 03/06/96 03/14/96 File: m030696a
Project: TWRS Reported: 03/15/96
Procedure: PNL-ALO-211 Data Page 1 of 2
ICP Data Name: 96A0084
Tank ID: BX-104 Core 126

Segment ID:		126 Seg 1		126 Seg 2						
Sample Log#		Sample 96-02989	Duplicate 96-02989	Sample 96-02990	Duplicate 96-02990	96-02989	96-02989	96-02989	96-02989	96-02989
Prep Type		126.1DL.D Acidify	126.1DL.D Acidify	126.2DL.D Acidify	126.2DL.D Acidify	Blank Acidify	P.S. "A" Acidify	P.S. "B" Acidify	PS A Base Acidify	PS B Base Acidify
Sample Vol-mL		2.973	2.973	2.975	2.975	2.974	2.973	2.973	2.973	2.973
Makeup Vol-mL		15.472	15.472	15.475	15.475	15.474	15.472	15.472	15.472	15.472
Dil: Smpl-mL										
Dil: Vol-mL										
Prep Factor		5.204	5.204	5.202	5.202	5.203	5.204	5.204	5.204	5.204
Spike ID							9602261901	9602211901		
Spike PreDil'n							2.0	2.0	2.0	2.0
ICP Dilution		5.00	5.00	10.00	5.00	1.00	1.00	1.00	5.00	5.00
Dil Fctr		26.0	26.0	52.0	26.0	5.2	1.0	1.0	1.0	1.0
Run Time		11:52	12:22	12:36	12:41	11:47	12:06	12:15	11:52	11:52
(ug/mL)	Ag	0.20	0.17	0.36	0.17	-0.01	0.20	0.01	0.01	0.01
	Al	2805.69	2809.60	2825.64	2914.73	0.35	258.08	253.09	107.82	107.82
	As	7.71	7.77	9.69	9.34	0.14	1.87	0.80	0.30	0.30
	B	25.14	25.39	30.93	32.08	0.42	3.13	2.30	0.97	0.97
	Ba	0.74	0.72	0.61	0.54	0.47	0.27	0.06	0.03	0.03
	Be	0.16	0.16	0.20	0.19		0.06	0.01	0.01	0.01
	Bi	7.29	7.19	6.66	6.23	0.04	11.66	0.70	0.28	0.28
	Ca	25.88	25.24	12.91	12.27	1.13	13.33	2.28	0.99	0.99
	Cd	2.25	1.84	2.01	0.66	0.08	0.42	0.19	0.09	0.09
	Ce	1.56	1.23	2.73	1.26	-0.08	0.11	0.98	0.06	0.06
	Co	0.53	0.50	0.39	0.24	-0.01	0.48	0.06	0.02	0.02
	Cr	2629.02	2597.39	3375.47	3292.01	-0.00	188.87	188.72	101.04	101.04
	Cu	2.11	2.03	0.23	-0.01	0.02	0.63	0.21	0.08	0.08
	Dy	0.18	0.13	0.38	0.14	-0.01	0.01	0.90	0.01	0.01
	Eu	0.48	0.47	0.64	0.59	-0.00	0.04	0.93	0.02	0.02
	Fe	2.04	2.18	1.32	1.40	0.40	8.76	0.21	0.08	0.08
	K	1923.26	1937.13	2051.75	2112.17	-4.55	187.49	175.39	73.91	73.91
	La	0.44	0.35	0.71	0.20	-0.01	0.03	0.47	0.02	0.02
	Li	0.76	1.08	36.67	37.24	-0.00	0.97	0.06	0.03	0.03
	Mg	0.76	0.63	0.85	0.66	0.28	13.91	0.14	0.03	0.03
	Mn	0.21	0.21	0.22	0.22	0.00	0.24	0.02	0.01	0.01
	Mo	31.77	31.16	34.32	34.27	-0.00	3.26	2.84	1.22	1.22
	Na	139419.74	138550.90	140601.43	141864.92	8.51	7030.40	7029.02	2678.84	2678.84
	Nd	1.14	0.79	2.21	0.63	-0.06	0.06	0.94	0.04	0.04
	Ni	13.99	13.49	4.21	3.81	0.03	1.62	1.21	0.54	0.54
	P	1960.37	1984.60	1543.57	1630.94	0.07	178.60	176.68	75.34	75.34
	Pb	11.39	10.88	11.45	10.72	-0.05	2.06	1.08	0.44	0.44
	Pd	2.26	-1.27	5.62	-3.90	-0.07	-0.52	0.44	0.09	0.09
	Rh	6.47	5.81	8.57	6.43	-0.05	0.49	1.42	0.25	0.25
	Ru	8.11	8.05	7.53	7.09	-0.02	0.68	1.54	0.31	0.31
	Se	11.38	11.46	12.35	11.91	-0.02	2.15	0.99	0.44	0.44
	Si	53.21	52.89	114.87	108.39	0.29	15.47	37.49	2.05	2.05
	Sn	12.72	12.37	17.01	13.80	-0.32	1.11	2.03	0.49	0.49
	Sr	0.09	0.08	0.09	0.05	0.01	0.23	0.01	0.00	0.00
	Te	7.04	6.62	8.04	7.07	0.00	0.61	1.52	0.27	0.27
	Ti	0.11	0.10	0.20	0.12	-0.00	0.44	0.02	0.00	0.00
	Tl	3.03	2.81	3.92	3.46	0.01	1.30	0.26	0.12	0.12
	U	14.53	6.70	31.38	5.40	-0.79	0.26	10.32	0.56	0.56
	V	1.51	1.50	2.21	2.07	-0.01	0.55	0.13	0.06	0.06
	W	40.31	37.25	33.82	32.04	0.03	3.46	4.32	1.55	1.55
	Y	0.10	0.08	0.14	0.08	-0.01	0.01	0.45	0.00	0.00
	Zn	0.98	1.29	1.46	1.56	0.34	0.56	0.10	0.04	0.04
(ug/mL)	Zr	-0.11	-0.49	-0.15	-0.95	-0.01	0.75	-0.14	-0.00	-0.00

Template: TC-1w1-2 ICP RAW DATA -- IEC Corrected m030696a

Raw Data
Data Page 2 of 2

Analyzed: 03/06/96 03/14/96 BX-104 Core 126
Project: TWRS
Procedure: PNL-ALO-211
MT&E: JA ICP WB73520

Analyst: Danny Sanchez 3/27/96 Reviewer: M W Ullen 3-25-96

Notes: 2989 Na @50x times 10, Sample & Dup
2990 Na @50x time 5, Sample ~~& Dup~~ @50x times 10 Dup must 3/28/96
Samples, blank, post spikes analyszed 3/6/96
Duplicates analyzed on 3/14/96

Sample ID:		96-02989	96-02989	96-02990	96-02990	96-02989	96-02989	96-02989	PS Bases		Post Spikes	
Split ID:		126.1DL.D	126.1DL.D	126.2DL.D	126.2DL.D	Blank	P.S. "A"	P.S. "B"	"A"	"B"	"A"	"B"
Run Time:		11:52	12:22	12:36	12:41	11:47	12:06	12:15	11:52	11:52	ug/mL	ug/mL
(ug/mL)	Ag	0.008	0.006	0.007	0.006	-0.003	0.203	0.010	0.008	0.008	0.500	
	Al	107.825	107.975	54.322	112.069	0.067	258.079	253.090	107.825	107.825	10.000	
	As	0.296	0.298	0.186	0.359	0.026	1.867	0.800	0.296	0.296	2.500	
	B	0.966	0.976	0.595	1.233	0.080	3.134	2.301	0.966	0.966	2.000	
	Ba	0.028	0.028	0.012	0.021	0.090	0.272	0.064	0.028	0.028	0.500	
	Be	0.006	0.006	0.004	0.007		0.056	0.014	0.006	0.006	0.100	
	Bi	0.280	0.276	0.128	0.240	0.009	11.664	0.700	0.280	0.280	25.000	
	Ca	0.995	0.970	0.248	0.472	0.217	13.331	2.282	0.995	0.995	25.000	
	Cd	0.086	0.071	0.039	0.025	0.015	0.419	0.189	0.086	0.086	0.500	
	Ce	0.060	0.047	0.052	0.048	-0.016	0.108	0.984	0.060	0.060		2.000
	Co	0.020	0.019	0.008	0.009	-0.001	0.484	0.060	0.020	0.020	1.000	
	Cr	101.035	99.819	64.892	126.575	-0.000	188.871	188.716	101.035	101.035	1.000	
	Cu	0.081	0.078	0.004	-0.000	0.004	0.634	0.209	0.081	0.081	1.000	
	Dy	0.007	0.005	0.007	0.005	-0.002	0.008	0.905	0.007	0.007		2.000
	Eu	0.018	0.018	0.012	0.023	-0.000	0.041	0.925	0.018	0.018		2.000
	Fe	0.079	0.084	0.025	0.054	0.076	8.762	0.209	0.079	0.079	20.000	
	K	73.912	74.445	39.444	81.211	-0.875	187.487	175.387	73.912	73.912		
	La	0.017	0.013	0.014	0.008	-0.002	0.025	0.474	0.017	0.017		1.000
	Li	0.029	0.041	0.705	1.432	-0.000	0.966	0.062	0.029	0.029	2.000	
	Mg	0.029	0.024	0.016	0.025	0.053	13.914	0.136	0.029	0.029	32.000	
	Mn	0.008	0.008	0.004	0.008	0.001	0.239	0.018	0.008	0.008	0.500	
	Mo	1.221	1.197	0.650	1.318	-0.001	3.264	2.843	1.221	1.221	1.000	
	Na	5358.0	5324.610	2703.0	5454.580	1.635	7030.399	7029.023	2678.8	2678.8	36.700	
	Nd	0.044	0.030	0.042	0.024	-0.011	0.058	0.944	0.044	0.044		2.000
	Ni	0.538	0.519	0.081	0.146	0.006	1.621	1.206	0.538	0.538		
	P	75.339	76.270	29.674	62.708	0.014	178.601	176.675	75.339	75.339	5.000	
	Pb	0.438	0.418	0.220	0.412	-0.010	2.064	1.082	0.438	0.438	2.500	
	Pd	0.087	-0.049	0.108	-0.150	-0.013	-0.516	0.436	0.087	0.087		2.000
	Rh	0.249	0.223	0.165	0.247	-0.010	0.486	1.420	0.249	0.249		2.000
	Ru	0.312	0.309	0.145	0.273	-0.004	0.678	1.544	0.312	0.312		2.000
	Se	0.437	0.440	0.237	0.458	-0.003	2.151	0.995	0.437	0.437	2.500	
	Si	2.045	2.033	2.208	4.167	0.056	15.472	37.488	2.045	2.045	20.000	
	Sn	0.489	0.475	0.327	0.531	-0.061	1.109	2.032	0.489	0.489		2.000
	Sr	0.004	0.003	0.002	0.002	0.002	0.225	0.009	0.004	0.004	0.500	
	Te	0.271	0.254	0.155	0.272	0.001	0.610	1.519	0.271	0.271		2.000
	Ti	0.004	0.004	0.004	0.005	-0.000	0.442	0.023	0.004	0.004	1.000	
	Tl	0.117	0.108	0.075	0.133	0.002	1.303	0.262	0.117	0.117	2.500	
	U	0.559	0.257	0.601	0.208	-0.151	0.261	10.179	0.559	0.559		25.000
	V	0.058	0.058	0.043	0.080	-0.002	0.549	0.129	0.058	0.058	1.000	
	W	1.549	1.431	0.650	1.232	0.005	3.463	4.324	1.549	1.549		2.000
	Y	0.004	0.003	0.003	0.003	-0.001	0.007	0.450	0.004	0.004		1.000
	Zn	0.038	0.049	0.028	0.060	0.064	0.558	0.096	0.038	0.038	1.000	
(ug/mL)	Zr	-0.004	-0.019	-0.003	-0.037	-0.003	0.750	-0.140	-0.004	-0.004	2.000	

Project: TWRS
Procedure: PNL-ALO-211

File: m030696b
Analyzed: 03/06/96
03/14/96

BX-104 Core 127
Batched with 126.1DL.D and 126.2DL.D

127 Seg 2

Sam Log#:	96-02992	96-02992
Split#:	127.2DL.D	127.2DL.D
ICP Dil:	10.00	5.00
Dil Fctr:	54.5	27.2

Est. IDL ug/mL	Analyte	Sample ug/ml	Duplicate ug/ml	RPD
0.015	Ag	ND	ND	
0.060	Al	532.9	541.1	2
0.080	As	(4.5)	(4.2)	
0.050	B	37.0	37.7	2
0.010	Ba	(0.7)	(0.7)	
0.015	Be	ND	ND	
0.100	Bi	ND	(3.2)	
0.100	Ca	(7.0)	(6.8)	
0.025	Cd	ND	ND	
0.100	Ce	ND	ND	
0.050	Co	ND	ND	
0.020	Cr	1,789.1	1,767.6	1
0.075	Cu	ND	ND	
0.050	Dy	ND	ND	
0.100	Eu	ND	ND	
0.050	Fe	ND	ND	
2.000	K	(969.6)	991.9	
0.050	La	ND	ND	
0.025	Li	838.4	841.9	0
0.100	Mg	ND	ND	
0.050	Mn	ND	ND	
0.030	Mo	(16.2)	16.1	
0.250	Na	75,092.3	76,269.3	2
0.100	Nd	ND	ND	
0.030	Ni	(2.6)	(2.3)	
0.250	P	1,221.0	1,267.5	4
0.500	Pb	ND	ND	
0.500	Pd	ND	ND	
0.150	Rh	ND	ND	
0.100	Ru	ND	(3.8)	
0.500	Se	ND	ND	
0.500	Si	(81.9)	(80.2)	
1.000	Sn	ND	ND	
0.015	Sr	ND	ND	
0.500	Te	ND	ND	
0.025	Ti	ND	ND	
0.500	Tl	ND	ND	
2.000	U	ND	ND	
0.075	V	ND	ND	
1.000	W	ND	ND	
0.010	Y	ND	ND	
0.020	Zn	ND	ND	
0.050	Zr	ND	ND	

Note:
1) Estimated Quantitation Limit (EQL) = 10x IDL; "( )" results <EQL but =>IDL.
2) Above 5 times EQL, results reportable to 2 1/2 significant digits.
3) The process "blank" has not been subtracted from the "Sample & Duplicate" results.
4) Above 5 times EQL, precision is estimated at better than +/-20% and accuracy +/-25%.
5) "ND" = Not Detected; Estimated Sample Detection Limit (ug/mL) = (IDL in ug/mL) * (Dil Fctr)
6) If RPD flagged with "*", then RPD >20% and sample & duplicate results >EQL.

Data, including calibration/QC, archived File ICP-325-405-1/96A0084

File: m030696b
Reported: 03/15/96
Data Page 1 of 2

Analyzed Date:		03/06/96	03/14/96
Project:		TWRS	
Procedure:		PNL-ALO-211	
ICP Data Name:		96A0084	
Tank ID:		BX-104 Core 127	
Segment ID:		127 Seg 2	
		Sample	Duplicate
Sample Log#		96-02992	96-02992
		127.2DL.D	127.2DL.D
Prep Type		Acidify	Acidify
Sample Vol-mL		2.686	2.686
Makeup Vol-mL		14.637	14.637
Dil: Smpl-mL			
Dil: Vol-mL			
Prep Factor		5.449	5.449
Spike ID			
Spike PreDil'n			
ICP Dilution		10.00	5.00
Dil Fctr		54.5	27.2
Run Time		11:52	12:51
(ug/mL)	Ag	0.28	0.11
	Al	532.86	541.08
	As	4.48	4.17
	B	37.03	37.74
	Ba	0.70	0.65
	Be	0.10	0.10
	Bi	3.89	3.24
	Ca	7.03	6.85
	Cd	0.58	0.55
	Ce	1.38	0.64
	Co	0.25	0.11
	Cr	1789.10	1767.59
	Cu	0.19	0.08
	Dy	0.25	0.09
	Eu	0.35	0.31
	Fe	0.71	0.87
	K	969.55	991.94
	La	0.50	0.13
	Li	838.41	841.89
	Mg	0.88	0.27
	Mn	0.10	0.09
	Mo	16.22	16.11
	Na	75092.28	76269.34
	Nd	1.46	0.35
	Ni	2.58	2.33
	P	1221.03	1267.54
	Pb	3.59	3.09
	Pd	4.53	-1.04
	Rh	4.84	3.20
	Ru	4.19	3.84
	Se	4.45	3.65
	Si	81.02	83.02
	Sn	8.65	6.47
	Sr	0.05	0.03
	Te	3.21	2.43
	Ti	0.10	0.05
	Tl	2.19	1.62
	U	21.42	5.38
	V	1.48	1.41
	W	17.50	16.97
	Y	0.09	0.05
	Zn	0.20	0.22
(ug/mL)	Zr	-0.11	-0.39

Template: TC-1w1-2 ICP RAW DATA -- IEC Corrected

m030696b

Analyzed: 03/06/96 03/14/96 BX-104 Core 127

Raw Data
Data Page 2 of 2

Project: TWRS
Procedure: PNL-ALO-211
MT&E: JA ICP WB73520

Analyst: Nancy Sanders 3/21/96

Reviewer: MO Thu 3-25-96

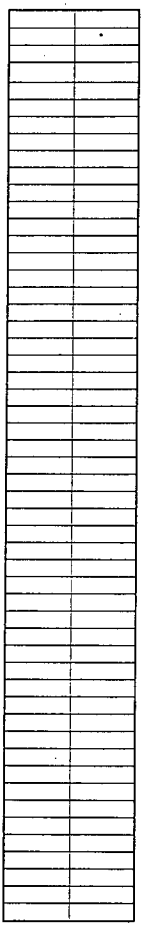
Notes: 2992 Na @50x times 5, Dup @50x times 10
Samples, blank, post spikes analyszed 3/6/96
Duplicates analyzed on 3/14/96

Sample ID:		96-02992	96-02992
Split ID:		127.2DL.D	127.2DL.D
Run Time:		11:52	12:51
(ug/mL)	Ag	0.005	0.004
	Al	9.778	19.858
	As	0.082	0.153
	B	0.680	1.385
	Ba	0.013	0.024
	Be	0.002	0.003
	Bi	0.071	0.119
	Ca	0.129	0.251
	Cd	0.018	0.020
	Ce	0.025	0.024
	Co	0.005	0.004
	Cr	32.831	64.873
	Cu	0.003	0.003
	Dy	0.005	0.003
	Eu	0.006	0.011
	Fe	0.013	0.032
	K	17.792	36.406
	La	0.009	0.005
	Li	15.385	30.899
	Mg	[illegible]	0.010
	Mn	0.002	0.003
	Mo	0.298	0.591
	Na	1378.0	2799.200
	Nd	0.027	0.013
	Ni	0.047	0.086
	P	22.407	46.520
	Pb	0.066	0.113
	Pd	0.083	-0.038
	Rh	0.089	0.117
	Ru	0.077	0.141
	Se	0.082	0.134
	Si	1.503	2.944
	Sn	0.159	0.238
	Sr	0.001	0.001
	Te	0.059	0.089
	Ti	0.002	0.002
	Tl	0.040	0.059
	U	0.393	0.197
	V	0.027	0.052
	W	0.321	0.623
	Y	0.002	0.002
	Zn	0.004	0.008
(ug/mL)	Zr	-0.002	-0.014

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC CCV1 96012	V1 960126H901
										A0084	A0084
										3/6/96	3/6/96
Statistical Summary for 'QC CCV1 960126H901'										09:59	13:10
(HPS:CCV-1)										CONC	CONC
	TRUE	***N***	***Average***	***S.Dev***	***%RSD***	***Bias***	***Bias***	***High***	***Low***	1335	1381
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)
Ag		2	0.003	0.002	62					0.004	0.001
Al	2.000	2	1.969	0.007	0	-0.031	-1.6			1.974	1.964
As	2.000	2	2.072	0.006	0	0.072	3.6			2.068	2.076
B	2.000	2	2.057	0.016	1	0.057	2.9			2.069	2.045
Ba	1.000	2	0.977	0.009	1	-0.023	-2.3			0.983	0.970
Be	1.000	2	0.985	0.020	2	-0.015	-1.5			0.999	0.971
Bi	2.000	2	1.959	0.003	0	-0.041	-2.0			1.961	1.957
Ca	2.000	2	2.069	0.020	1	0.069	3.5			2.083	2.055
Cd	1.000	2	1.014	0.021	2	0.014	1.4			1.029	0.999
Ce		2	-0.001	0.006	-863					-0.005	0.003
Co	1.000	2	1.015	0.010	1	0.015	1.5			1.022	1.008
Cr	0.500	2	0.500	0.004	1	0.000	0.0			0.503	0.498
Cu	2.000	2	1.972	0.034	2	-0.028	-1.4			1.996	1.948
Dy		2	0.001	0.001	104					0.000	0.002
Eu		2	0.001	0.000	56					0.000	0.001
Fe	2.000	2	2.014	0.024	1	0.014	0.7			2.031	1.997
K	5.000	2	4.440	0.213	5	-0.560	-11.2		-	4.591	4.290
La		2	0.003	0.003	92					0.001	0.005
Li	2.000	2	1.978	0.007	0	-0.022	-1.1			1.983	1.973
Mg	2.000	2	2.091	0.027	1	0.091	4.6			2.110	2.073
Mn	1.000	2	1.035	0.013	1	0.035	3.5			1.044	1.026
Mo	2.000	2	1.973	0.017	1	-0.027	-1.4			1.985	1.961
Na	8.100	2	8.496	0.094	1	0.306	3.8			8.340	8.473
Nd		2	0.004	0.008	182					-0.001	0.010
Ni	2.000	2	2.077	0.009	0	0.077	3.8			2.083	2.070
P	5.000	2	4.865	0.085	2	-0.135	-2.7			4.926	4.805
Pb	2.000	2	2.018	0.021	1	0.018	0.9			2.032	2.003
Pd		2	0.030	0.024	81					0.013	0.047
Rh		2	0.012	0.008	66					0.006	0.017
Ru		2	0.008	0.002	23					0.006	0.009
Sb		2	0.025	0.006	26					0.029	0.020
Se	2.000	2	1.996	0.011	1	-0.004	-0.2			2.004	1.989
Si	5.000	2	4.810	0.029	1	-0.190	-3.8			4.831	4.790
Sn		2	0.064	0.011	18					0.072	0.056
Sr	2.000	2	1.984	0.006	0	-0.016	-0.8			1.986	1.980
Te		2	0.028	0.012	41					0.036	0.020
Th		2	0.011	0.004	38					0.014	0.008
Ti		2	0.001	0.000	3					0.001	0.001
Tl	2.000	2	1.978	0.001	0	-0.022	-1.1			1.979	1.977
U		2	0.060	0.067	113					0.012	0.107
V	1.000	2	0.967	0.013	1	-0.033	-3.3			0.976	0.958
W		2	0.021	0.008	40					0.015	0.027
Y		2	0.000	0.000	-748					0.000	0.000
Zn	1.000	2	1.023	0.008	1	0.023	2.3			1.017	1.028
Zr		2	-0.001	0.001	-83					-0.002	-0.001
TIME		2	########	0.000	0					########	########

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC_MCVA1 960	VA1 960	VA1 960	VA1 960
										A0084	A0084	A0084	A0084
										3/6/96	3/6/96	3/6/96	3/6/96
Statistical Summary for 'QC_MCVA1 960226I901'										09:37	10:50	11:33	12:25
(QC-MCVA)										CONC	CONC	CONC	CONC
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	1795	1841	1887	1933
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)	(ug/mL)	(ug/mL)
Ag	0.500	5	0.479	0.007	1	-0.021	-4.2			0.484	0.479	0.479	0.468
Al	10.000	5	9.807	0.148	2	-0.193	-1.9			9.828	9.773	9.820	9.599
As	2.500	5	2.533	0.047	2	0.033	1.3			2.522	2.531	2.559	2.462
B	2.000	5	2.054	0.032	2	0.054	2.7			2.071	2.059	2.044	2.004
Ba	0.500	5	0.491	0.008	2	-0.009	-1.9			0.491	0.489	0.491	0.480
Be	0.100	5	0.095	0.002	2	-0.005	-5.5			0.096	0.095	0.095	0.091
Bi	25.000	5	23.838	0.343	1	-1.162	-4.6			23.936	23.791	23.841	23.334
Ca	25.000	5	24.749	0.391	2	-0.251	-1.0			24.918	24.799	24.845	24.081
Cd	0.500	5	0.491	0.008	2	-0.009	-1.8			0.496	0.482	0.493	0.483
Ce		5	-0.011	0.012	-107					-0.010	0.001	0.000	-0.021
Co	1.000	5	0.987	0.016	2	-0.013	-1.3			0.991	0.990	0.993	0.960
Cr	1.000	5	0.986	0.010	1	-0.014	-1.4			0.987	0.975	0.985	0.979
Cu	1.000	5	0.933	0.018	2	-0.067	-6.7			0.946	0.934	0.934	0.903
Dy		5	-0.003	0.001	-42					-0.003	-0.002	-0.002	-0.003
Eu		5	0.001	0.000	48					0.001	0.001	0.001	0.001
Fe	20.000	5	19.895	0.322	2	-0.105	-0.5			20.050	19.927	19.920	19.360
K	25.000	5	23.929	0.676	3	-1.071	-4.3			24.720	24.321	23.846	22.911
La		5	0.000	0.003	-36114					0.001	0.003	0.002	-0.001
Li	2.000	5	1.966	0.030	2	-0.034	-1.7			1.988	1.967	1.951	1.925
Mg	31.200	5	31.890	0.481	2	0.690	2.2			32.077	31.938	31.987	31.083
Mn	0.500	5	0.506	0.008	2	0.006	1.3			0.509	0.507	0.508	0.493
Mo	1.000	5	0.996	0.016	2	-0.004	-0.4			1.000	0.997	1.002	0.969
Na	36.700	5	36.393	0.553	2	-0.307	-0.8			36.122	36.052	36.057	36.369
Nd		5	-0.016	0.009	-57					-0.011	-0.010	-0.007	-0.022
Ni	1.000	5	0.996	0.019	2	-0.004	-0.4			0.985	1.011	1.004	0.968
P	5.000	5	4.807	0.093	2	-0.193	-3.9			4.819	4.858	4.880	4.647
Pb	2.500	5	2.433	0.046	2	-0.067	-2.7			2.458	2.448	2.454	2.351
Pd		5	-0.065	0.029	-44					-0.058	-0.041	-0.037	-0.084
Rh		5	-0.024	0.013	-52					-0.021	-0.013	-0.014	-0.031
Ru		5	0.009	0.006	67					0.002	0.013	0.017	0.008
Sb	2.500	5	2.512	0.044	2	0.012	0.5			2.515	2.509	2.534	2.442
Se	2.500	5	2.497	0.036	1	-0.003	-0.1			2.530	2.495	2.501	2.438
Si	20.000	5	18.280	0.207	1	-1.720	-8.6			18.289	18.188	18.231	18.070
Sn		5	0.173	0.058	34					0.198	0.226	0.216	0.118
Sr	0.500	5	0.501	0.008	2	0.001	0.3			0.501	0.499	0.501	0.491
Te		5	0.036	0.012	33					0.047	0.041	0.043	0.026
Th		5	0.038	0.004	12					0.035	0.039	0.032	0.043
Ti	1.000	5	0.976	0.015	2	-0.024	-2.4			0.978	0.976	0.979	0.952
Tl	2.500	5	2.441	0.048	2	-0.059	-2.4			2.434	2.433	2.466	2.372
U		5	-0.231	0.142	-61					-0.132	-0.098	-0.172	-0.316
V	1.000	5	0.979	0.016	2	-0.021	-2.1			0.987	0.982	0.982	0.951
W		5	0.045	0.008	19					0.048	0.051	0.052	0.035
Y		5	0.000	0.000	-131					0.000	0.000	0.000	-0.001
Zn	1.000	5	0.980	0.018	2	-0.020	-2.0			0.971	0.968	0.983	0.966
Zr	2.000	5	1.956	0.031	2	-0.044	-2.2			1.957	1.953	1.964	1.911
TIME		5	########	0.000	0					########	########	########	########

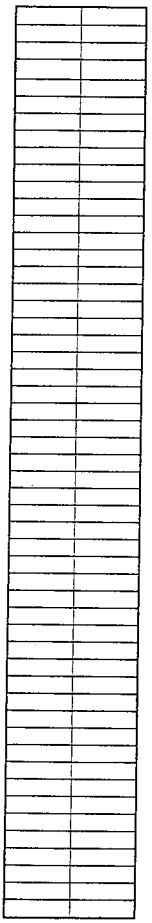
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

VA1 960226I901	
A0084	
3/6/96	
12:51	
CONC	
1979	
(ug/mL)	
0.484	
10.012	
2.589	
2.090	
0.502	
0.095	
24.289	
25.105	
0.502	
-0.025	
1.001	
1.001	
0.947	
-0.005	
0.000	
20.217	
23.846	
-0.004	
2.001	
32.367	
0.515	
1.010	
37.355	
-0.028	
1.012	
4.829	
2.452	
-0.104	
-0.043	
0.005	
2.560	
2.519	
18.622	
0.103	
0.514	
0.020	
0.041	
0.994	
2.500	
-0.435	
0.994	
0.036	
-0.001	
1.009	
1.996	
##########	

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC_MCVB2 960	VB2 9602211901
										A0084	A0084
										3/6/96	3/6/96
Statistical Summary for 'QC_MCVB2 9602211901'										09:42	12:55
(QC-MCVB)										CONC	CONC
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	2025	2071
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)
Ag		2	-0.003	0.001	-27					-0.002	-0.003
Al		2	0.012	0.077	634					-0.042	0.067
As		2	0.303	0.034	11					0.279	0.327
B		2	0.164	0.014	8					0.174	0.155
Ba		2	0.001	0.000	16					0.001	0.001
Be		2	0.001	0.000	5					0.001	0.001
Bi		2	0.114	0.060	53					0.072	0.157
Ca		2	0.035	0.010	28					0.028	0.042
Cd		2	0.013	0.002	16					0.012	0.014
Ce	2.000	2	1.981	0.024	1	-0.019	-0.9			1.998	1.964
Co		2	0.001	0.000	25					0.001	0.001
Cr		2	0.008	0.003	31					0.006	0.010
Cu		2	0.037	0.008	22					0.043	0.031
Dy	2.000	2	1.962	0.047	2	-0.038	-1.9			1.996	1.929
Eu	2.000	2	1.982	0.042	2	-0.018	-0.9			2.012	1.952
Fe		2	0.020	0.008	39					0.015	0.026
K		2	-1.538	0.331	-21					-1.304	-1.772
La	1.000	2	0.986	0.011	1	-0.014	-1.4			0.994	0.978
Li		2	0.002	0.001	47					0.001	0.003
Mg		2	-0.097	0.039	-41					-0.125	-0.069
Mn		2	0.001	0.000	9					0.001	0.001
Mo		2	0.009	0.000	2					0.009	0.009
Na		2	0.234	0.062	27					0.196	0.276
Nd	2.000	2	1.956	0.033	2	-0.044	-2.2			1.979	1.933
Ni		2	0.026	0.005	21					0.022	0.029
P		2	0.133	0.005	4					0.137	0.129
Pb		2	0.237	0.014	6					0.246	0.227
Pd	2.000	2	2.051	0.109	5	0.051	2.6			1.974	2.128
Rh	2.000	2	1.988	0.021	1	-0.012	-0.6			2.003	1.973
Ru	2.000	2	2.013	0.052	3	0.013	0.6			2.050	1.976
Sb		2	0.109	0.002	2					0.110	0.107
Se		2	0.072	0.003	4					0.074	0.070
Si		2	7.517	0.842	11					8.113	6.922
Sn	2.000	2	2.110	0.067	3	0.110	5.5			2.157	2.063
Sr		2	0.003	0.000	9					0.003	0.003
Te	2.000	2	1.924	0.044	2	-0.076	-3.8			1.955	1.893
Th	10.000	2	9.792	0.186	2	-0.208	-2.1			9.923	9.660
Ti		2	0.005	0.000	9					0.004	0.005
Tl		2	0.022	0.003	13					0.024	0.020
U	25.000	2	23.265	0.968	4	-1.735	-6.9			23.950	22.581
V		2	0.001	0.000	37					0.001	0.001
W	2.000	2	1.979	0.056	3	-0.021	-1.1			2.019	1.939
Y	1.000	2	0.958	0.035	4	-0.042	-4.2			0.983	0.934
Zn		2	0.005	0.000	9					0.005	0.005
Zr		2	-0.050	0.008	-16					-0.044	-0.056
TIME		2	########	0.000	0					########	########

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



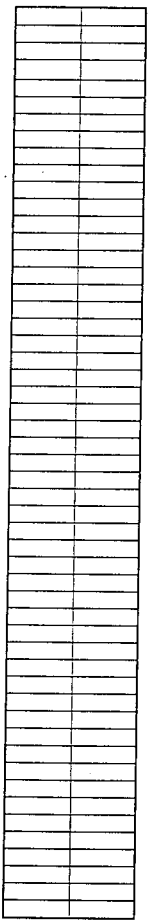
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

Statistical Summary for 'QC_SRM-1643d 108518'

(NIST:SRM1643d)

	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	QC_SRM-1643d	M-1643d 108518
										A0084	A0084
										3/6/96	3/6/96
										09:55	13:06
										CONC	CONC
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	2117	2163
										(ug/mL)	(ug/mL)
Ag	0.001	2	0.002	0.000	3	0.001	84.6	+		0.002	0.002
Al	0.128	2	0.153	0.012	8	0.025	19.7	+		0.144	0.162
As	0.056	2	0.067	0.001	2	0.011	18.8	+		0.066	0.067
B	0.145	2	0.146	0.006	4	0.001	0.6			0.150	0.141
Ba	0.507	2	0.509	0.005	1	0.003	0.5			0.513	0.506
Be	0.013	2	0.012	0.000	2	0.000	-2.6			0.012	0.012
Bi	0.013	2	0.045	0.003	7	0.032	246.2	+		0.043	0.047
Ca	31.050	2	31.457	0.319	1	0.407	1.3			31.682	31.231
Cd	0.006	2	0.018	0.014	75	0.012	179.4	+		0.009	0.028
Ce		2	0.005	0.007	137					0.000	0.010
Co	0.025	2	0.027	0.001	3	0.002	8.7	+		0.028	0.027
Cr	0.019	2	0.021	0.000	0	0.002	9.7	+		0.021	0.021
Cu	0.021	2	0.020	0.001	5	-0.001	-3.0			0.021	0.019
Dy		2	0.001	0.001	224					0.000	0.002
Eu		2	0.001	0.000	12					0.001	0.002
Fe	0.091	2	0.106	0.004	4	0.015	16.2	+		0.103	0.109
K	2.356	2	2.039	0.091	4	-0.317	-13.4		-	2.103	1.975
La		2	0.013	0.003	22					0.011	0.015
Li	0.017	2	0.021	0.000	2	0.005	28.8	+		0.021	0.022
Mg	7.989	2	8.515	0.100	1	0.526	6.6			8.586	8.444
Mn	0.038	2	0.040	0.001	2	0.002	6.4			0.041	0.040
Mo	0.113	2	0.112	0.002	2	0.000	-0.4			0.114	0.111
Na	22.070	2	21.948	0.056	0	-0.122	-0.6			21.909	21.988
Nd		2	0.018	0.005	28					0.014	0.022
Ni	0.058	2	0.140	0.000	0	0.082	140.8	+		0.140	0.140
P		2	0.045	0.009	20					0.036	0.051
Pb	0.018	2	0.016	0.002	10	-0.002	-12.6		-	0.015	0.017
Pd		2	0.037	0.012	33					0.028	0.046
Rh		2	0.012	0.006	52					0.008	0.017
Ru		2	0.003	0.002	60					0.002	0.004
Sb	0.054	2	0.075	0.002	2	0.021	39.0	+		0.074	0.076
Se	0.011	2	0.022	0.004	16	0.011	92.7	+		0.020	0.025
Si	2.700	2	2.724	0.031	1	0.024	0.9			2.746	2.702
Sn		2	0.001	0.016	1150					0.013	-0.010
Sr	0.295	2	0.299	0.001	0	0.005	1.6			0.300	0.299
Te	0.001	2	0.006	0.000	8	0.005	463.0	+		0.006	0.005
Th		2	-0.008	0.000	-2					-0.008	-0.008
Ti		2	0.001	0.000	17					0.001	0.001
Tl	0.007	2	0.011	0.004	31	0.004	55.5	+		0.014	0.009
U		2	0.311	0.067	21					0.264	0.358
V	0.035	2	0.035	0.000	1	0.000	-0.6			0.035	0.035
W		2	0.012	0.009	75					0.018	0.005
Y		2	0.000	0.000	56					0.000	0.001
Zn	0.072	2	0.076	0.000	0	0.004	5.4			0.076	0.076
Zr		2	0.000	0.001	-372					-0.001	0.000
TIME		2	########	0.000	0					########	########

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										ICP1.0 960103	.0 960103	.0 960103	.0 960103
										A0084	A0084	A0084	A0084
										3/6/96	3/6/96	3/6/96	3/6/96
										09:34	10:04	10:54	11:41
										CONC	CONC	CONC	CONC
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	829	875	921	967
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)	(ug/mL)	(ug/mL)
Ag		6	0.002	0.002	93					0.004	0.004	0.003	0.001
Al		6	0.017	0.008	45					0.016	0.006	0.029	0.019
As		6	0.006	0.009	164					-0.002	0.003	0.022	0.002
B		6	-0.003	0.004	-129					0.001	0.001	-0.001	-0.007
Ba		6	0.000	0.001	200					0.000	0.000	0.001	0.000
Be		6	0.000	0.000	97					0.000	0.001	0.000	0.000
Bi		6	0.013	0.010	73					0.009	0.005	0.016	0.031
Ca		6	0.007	0.003	44					0.003	0.005	0.011	0.010
Cd		6	0.009	0.014	162					0.031	0.000	0.005	0.005
Ce		6	0.005	0.011	212					0.009	-0.006	0.023	0.006
Co		6	0.002	0.001	56					0.002	0.002	0.004	0.001
Cr		6	0.001	0.001	66					0.000	0.001	0.001	0.002
Cu		6	0.005	0.002	34					0.005	0.006	0.006	0.003
Dy		6	0.001	0.001	108					0.001	-0.001	0.004	0.001
Eu		6	0.001	0.000	78					0.001	0.000	0.001	0.001
Fe		6	-0.003	0.003	-113					-0.005	-0.004	0.001	0.001
K		6	-0.199	0.334	-168					0.204	-0.241	0.226	-0.392
La		6	0.004	0.002	59					0.004	0.001	0.007	0.003
Li		6	0.002	0.001	39					0.003	0.002	0.003	0.003
Mg		6	0.005	0.007	136					0.002	-0.002	0.012	0.014
Mn		6	0.000	0.000	92					0.000	0.001	0.000	0.000
Mo		6	0.002	0.001	71					0.001	0.003	0.004	0.001
Na		6	0.053	0.059	112					0.020	-0.015	0.055	0.025
Nd		6	0.008	0.008	92					0.015	-0.001	0.020	0.006
Ni		6	0.020	0.021	104					0.002	0.049	0.015	0.005
P		6	0.016	0.012	75					0.009	0.017	0.034	0.022
Pb		6	0.006	0.007	123					0.016	0.003	0.013	0.001
Pd		6	0.047	0.023	49					0.057	0.022	0.088	0.040
Rh		6	0.017	0.012	72					0.022	0.007	0.040	0.015
Ru		6	0.006	0.005	85					0.010	0.003	0.014	0.006
Sb		6	0.013	0.008	61					0.019	0.015	0.024	0.013
Se		6	0.011	0.007	60					0.020	0.007	0.019	0.010
Si		6	0.044	0.038	86					0.046	0.027	0.048	0.020
Sn		6	0.026	0.046	173					0.061	0.016	0.099	0.016
Sr		6	0.001	0.001	75					0.000	0.002	0.001	0.000
Te		6	0.013	0.006	47					0.018	0.012	0.023	0.007
Th		6	-0.004	0.005	-125					-0.003	0.000	0.001	-0.005
Ti		6	0.001	0.001	89					0.001	0.000	0.001	0.001
Tl		6	0.008	0.006	69					0.008	0.007	0.013	0.017
U		6	0.133	0.127	96					0.231	-0.010	0.337	0.073
V		6	0.001	0.001	107					0.001	0.001	0.003	0.001
W		6	0.009	0.003	32					0.008	0.009	0.008	0.014
Y		6	0.000	0.000	390					0.000	0.000	0.001	0.000
Zn		6	0.001	0.000	52					0.000	0.001	0.000	0.000
Zr		6	0.000	0.001	-254					-0.001	-0.002	0.001	0.000
TIME		6	########	0.000	0					########	########	########	########

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

.0 960103	.0 960103
A0084	A0084
3/6/96	3/6/96
12:30	13:14
CONC	CONC
1013	1059
(ug/mL)	*(ug/mL)*
0.000	0.000
0.018	0.013
-0.001	0.009
-0.007	-0.008
0.000	0.001
0.000	0.001
0.007	0.011
0.008	0.005
0.020	-0.008
-0.005	0.004
0.001	0.001
0.002	0.000
0.003	0.004
0.001	0.001
0.000	0.000
-0.002	-0.006
-0.513	-0.475
0.003	0.003
0.001	0.003
0.007	-0.002
0.000	0.000
0.000	0.001
0.154	0.079
0.004	0.005
0.006	0.044
0.000	0.010
-0.002	0.003
0.033	0.044
0.009	0.009
0.001	0.002
0.005	0.003
0.003	0.009
0.114	0.007
-0.023	-0.010
0.000	0.002
0.008	0.011
-0.005	-0.011
0.000	0.000
0.001	0.005
0.061	0.106
0.000	0.001
0.006	0.007
0.000	0.000
0.000	0.001
-0.001	0.000
##########	##########

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

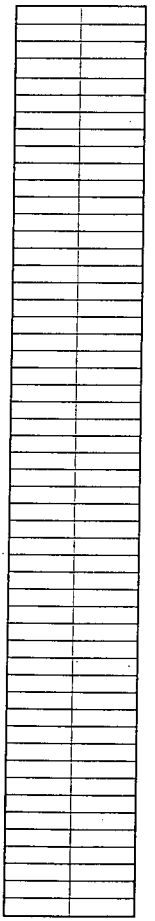
Statistical Summary for 'QC MCVA1 @2'

(MCVA @2 Post Digestion Spike)

	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)
Ag	0.250	2	0.246	0.006	2	-0.004	-1.6		
Al	5.000	2	5.036	0.090	2	0.036	0.7		
As	1.250	2	1.311	0.035	3	0.061	4.9		
B	1.000	2	1.052	0.035	3	0.052	5.2		
Ba	0.250	2	0.250	0.007	3	0.000	0.0		
Be	0.050	2	0.048	0.002	4	-0.002	-3.4		
Bi	12.500	2	12.231	0.322	3	-0.269	-2.2		
Ca	12.500	2	12.743	0.374	3	0.243	1.9		
Cd	0.250	2	0.253	0.012	5	0.003	1.4		
Ce		2	-0.001	0.000	-71				
Co	0.500	2	0.508	0.015	3	0.008	1.5		
Cr	0.500	2	0.534	0.029	5	0.034	6.9	*	
Cu	0.500	2	0.474	0.017	4	-0.026	-5.1		
Dy		2	-0.001	0.001	-96				
Eu		2	0.001	0.000	4				
Fe	10.000	2	10.195	0.322	3	0.195	1.9		
K	12.500	2	12.273	0.704	6	-0.227	-1.8		
La		2	0.001	0.000	9				
Li	1.000	2	1.000	0.018	2	0.000	0.0		
Mg	15.600	2	16.465	0.433	3	0.865	5.5		
Mn	0.250	2	0.260	0.008	3	0.010	3.9		
Mo	0.500	2	0.510	0.015	3	0.010	2.0		
Na	18.350	2	20.045	2.091	10	1.695	9.2	*	
Nd		2	-0.002	0.004	-190				
Ni	0.500	2	0.529	0.030	6	0.029	5.7		
P	2.500	2	2.491	0.063	3	-0.009	-0.4		
Pb	1.250	2	1.259	0.036	3	0.009	0.7		
Pd		2	-0.013	0.016	-123				
Rh		2	-0.003	0.000	-9				
Ru		2	0.007	0.000	4				
Sb	1.250	2	1.302	0.031	2	0.052	4.2		
Se	1.250	2	1.289	0.040	3	0.039	3.1		
Si	10.000	2	9.601	0.076	1	-0.399	-4.0		
Sn		2	0.122	0.027	22				
Sr	0.250	2	0.255	0.006	2	0.005	1.9		
Te		2	0.023	0.008	33				
Th		2	0.019	0.007	39				
Ti	0.500	2	0.497	0.015	3	-0.003	-0.6		
Tl	1.250	2	1.258	0.031	2	0.008	0.6		
U		2	-0.033	0.032	-96				
V	0.500	2	0.500	0.016	3	0.000	0.0		
W		2	0.029	0.005	17				
Y		2	0.000	0.000	-97				
Zn	0.500	2	0.506	0.006	1	0.006	1.2		
Zr	1.000	2	0.993	0.025	3	-0.007	-0.7		
TIME		2	########	0.000	0				

QC MCVA1	MCVA1 @2
A0084	A0084
3/6/96	3/6/96
10:32	12:12
CONC	CONC
1427	1473
(ug/mL)	(ug/mL)
0.250	0.242
5.100	4.973
1.335	1.286
1.077	1.028
0.255	0.245
0.050	0.047
12.458	12.004
13.007	12.479
0.262	0.245
0.000	-0.001
0.518	0.497
0.514	0.555
0.487	0.462
-0.001	0.000
0.001	0.001
10.422	9.967
12.771	11.776
0.001	0.001
1.013	0.987
16.771	16.159
0.265	0.254
0.520	0.500
18.566	21.524
-0.005	0.001
0.550	0.507
2.536	2.446
1.284	1.234
-0.024	-0.002
-0.003	-0.003
0.008	0.007
1.324	1.280
1.317	1.260
9.547	9.655
0.141	0.103
0.259	0.250
0.028	0.018
0.024	0.014
0.507	0.486
1.280	1.235
-0.056	-0.011
0.511	0.489
0.026	0.033
0.000	0.000
0.510	0.502
1.011	0.975
########	########

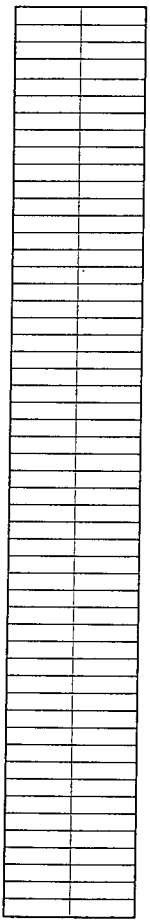
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC MCVB2	MCVB2 @2
										A0084	A0084
										3/6/96	3/6/96
Statistical Summary for 'QC MCVB2 @2'										10:41	12:19
(MCVB @2 Post Digestion Spike)										CONC	CONC
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	1519	1565
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)
Ag		2	-0.002	0.001	-34					-0.002	-0.003
Al		2	0.040	0.023	57					0.024	0.056
As		2	0.170	0.005	3					0.166	0.173
B		2	0.082	0.004	5					0.085	0.079
Ba		2	0.001	0.000	19					0.001	0.001
Be		2	0.000	0.000	10					0.000	0.000
Bi		2	0.062	0.024	38					0.045	0.079
Ca		2	0.031	0.021	66					0.046	0.017
Cd		2	0.006	0.008	122					0.001	0.012
Ce	1.000	2	1.030	0.013	1	0.030	3.0			1.039	1.020
Co		2	0.002	0.001	69					0.002	0.001
Cr		2	0.021	0.021	100					0.006	0.036
Cu		2	0.017	0.005	30					0.020	0.013
Dy	1.000	2	1.006	0.013	1	0.006	0.6			1.016	0.997
Eu	1.000	2	1.017	0.010	1	0.017	1.7			1.024	1.009
Fe		2	0.000	0.002	-1531					0.001	-0.001
K		2	-0.667	0.581	-87					-0.256	-1.078
La	0.500	2	0.510	0.006	1	0.010	2.1			0.514	0.506
Li		2	0.001	0.000	18					0.001	0.001
Mg		2	-0.064	0.004	-7					-0.061	-0.067
Mn		2	0.000	0.000	88					0.001	0.000
Mo		2	0.006	0.000	4					0.006	0.006
Na		2	0.860	1.071	124					0.103	1.618
Nd	1.000	2	1.014	0.015	1	0.014	1.4			1.025	1.004
Ni		2	0.029	0.019	65					0.042	0.016
P		2	0.084	0.026	31					0.066	0.102
Pb		2	0.127	0.008	6					0.133	0.122
Pd	1.000	2	1.073	0.022	2	0.073	7.3			1.057	1.089
Rh	1.000	2	1.036	0.008	1	0.036	3.6			1.042	1.030
Ru	1.000	2	1.049	0.026	2	0.049	4.9			1.068	1.031
Sb		2	0.065	0.003	5					0.067	0.063
Se		2	0.045	0.009	20					0.051	0.038
Si		2	3.615	0.714	20					3.110	4.120
Sn	1.000	2	1.124	0.070	6	0.124	12.4	+		1.173	1.074
Sr		2	0.002	0.000	9					0.002	0.001
Te	1.000	2	1.014	0.028	3	0.014	1.4			1.034	0.994
Th	5.000	2	5.047	0.055	1	0.047	0.9			5.086	5.008
Ti		2	0.002	0.000	12					0.003	0.002
Tl		2	0.013	0.011	83					0.020	0.005
U	12.500	2	12.069	0.328	3	-0.431	-3.4			12.301	11.837
V		2	0.001	0.001	83					0.001	0.000
W	1.000	2	1.015	0.009	1	0.015	1.5			1.022	1.008
Y	0.500	2	0.495	0.010	2	-0.005	-1.0			0.502	0.488
Zn		2	0.003	0.001	53					0.004	0.002
Zr		2	-0.029	0.001	-3					-0.028	-0.029
TIME		2	########	0.000	0					########	########

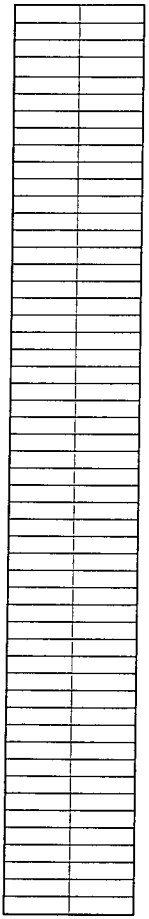
Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC SSTMCV 951	MCV 9512081903
										A0084	A0084
										3/6/96	3/6/96
Statistical Summary for 'QC SSTMCV 9512081903'										09:49	13:03
("QC-SSTMCV" SST Midrange Cal. Check Std.)										CONC	CONC
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	1703	1749
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)
Ag	0.500	2	0.512	0.006	1	0.012	2.5			0.517	0.508
Al	5.000	2	5.258	0.058	1	0.258	5.2			5.299	5.216
As	2.000	2	2.147	0.031	1	0.147	7.4			2.169	2.125
B		2	0.000	0.006	-3260					0.004	-0.005
Ba	0.100	2	0.102	0.000	0	0.002	2.0			0.102	0.102
Be	0.100	2	0.100	0.003	3	0.000	0.4			0.102	0.098
Bi	1.500	2	1.730	0.039	2	0.230	15.3	+		1.758	1.702
Ca	1.000	2	1.213	0.044	4	0.213	21.3	+		1.245	1.182
Cd	0.200	2	0.217	0.006	3	0.017	8.4	+		0.213	0.221
Ce		2	0.020	0.008	39					0.026	0.015
Co		2	0.001	0.001	96					0.002	0.000
Cr	0.300	2	0.319	0.008	3	0.019	6.5			0.325	0.313
Cu		2	0.004	0.003	77					0.007	0.002
Dy		2	0.003	0.000	15					0.003	0.003
Eu		2	0.008	0.000	4					0.009	0.008
Fe	0.500	2	0.659	0.028	4	0.159	31.7	+		0.679	0.639
K	50.000	2	50.451	1.589	3	0.451	0.9			51.574	49.328
La		2	0.040	0.006	14					0.044	0.036
Li		2	0.005	0.000	5					0.005	0.004
Mg		2	-0.085	0.012	-14					-0.093	-0.077
Mn	0.100	2	0.107	0.002	2	0.007	7.1			0.109	0.106
Mo		2	0.006	0.001	14					0.006	0.005
Na	5.000	2	5.211	0.013	0	0.211	4.2			5.220	5.202
Nd		2	0.015	0.005	33					0.018	0.011
Ni	0.500	2	0.745	0.030	4	0.245	49.1	+		0.766	0.725
P	4.000	2	4.207	0.166	4	0.207	5.2			4.325	4.089
Pb	3.000	2	3.125	0.059	2	0.125	4.2			3.167	3.082
Pd		2	0.059	0.025	42					0.077	0.042
Rh		2	0.027	0.006	24					0.031	0.022
Ru		2	0.010	0.005	50					0.014	0.007
Sb	2.000	2	2.174	0.038	2	0.174	8.7	+		2.201	2.147
Se	2.500	2	2.618	0.023	1	0.118	4.7			2.634	2.602
Si	3.000	2	2.960	0.065	2	-0.040	-1.3			3.006	2.914
Sn		2	0.130	0.074	57					0.183	0.078
Sr		2	0.002	0.000	0					0.002	0.002
Te		2	0.026	0.009	33					0.032	0.020
Th		2	0.040	0.010	26					0.033	0.047
Ti		2	0.001	0.000	59					0.001	0.000
Tl		2	0.014	0.008	62					0.020	0.008
U	20.000	2	20.173	0.418	2	0.173	0.9			20.468	19.877
V	0.500	2	0.518	0.010	2	0.018	3.7			0.526	0.511
W		2	0.036	0.002	5					0.037	0.035
Y		2	0.000	0.000	102					0.001	0.000
Zn		2	0.001	0.001	52					0.002	0.001
Zr	0.500	2	0.510	0.007	1	0.010	2.0			0.515	0.505
TIME	10000	2	########	0.000	0	0.000	0.0			########	########

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

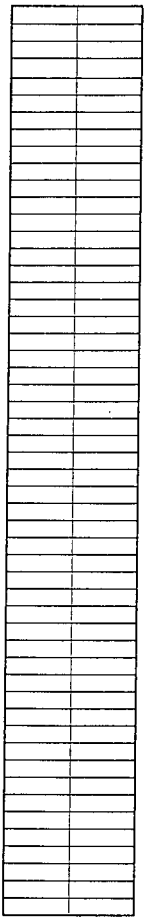


Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC SSTA 9512	STA 951208I902
										A0084	A0084
										3/6/96	3/6/96
Statistical Summary for 'QC SSTA 951208I902'										09:45	12:59
("QC-SSTA" Interference Check Std.)										CONC	CONC
	TRUE	***N***	***Average***	***S.Dev***	***%RSD***	***Bias***	***Bias***	***High***	***Low***	1611	1657
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)
Ag		2	-0.008	0.002	-20					-0.007	-0.009
Al	250.0	2	254.818	2.360	1	4.818	1.9			256.487	253.150
As		2	0.387	0.023	6					0.371	0.403
B		2	0.058	0.007	12					0.062	0.053
Ba		2	0.010	0.001	6					0.010	0.010
Be		2	-0.001	0.000	-1					-0.001	-0.001
Bi	200.0	2	198.745	2.255	1	-1.255	-0.6			200.339	197.151
Ca	250.0	2	253.416	3.586	1	3.416	1.4			255.952	250.880
Cd		2	0.078	0.002	2					0.077	0.080
Ce		2	0.171	0.020	12					0.186	0.157
Co		2	0.015	0.001	5					0.016	0.015
Cr		2	0.238	0.002	1					0.237	0.240
Cu		2	-0.102	0.007	-7					-0.096	-0.107
Dy		2	0.037	0.000	1					0.037	0.036
Eu		2	0.092	0.002	2					0.094	0.091
Fe	200.0	2	198.387	2.990	2	-1.613	-0.8			200.502	196.273
K	100.0	2	102.394	2.346	2	2.394	2.4			104.053	100.736
La	50.0	2	50.902	0.112	0	0.902	1.8			50.981	50.823
Li		2	0.038	0.001	1					0.038	0.039
Mg		2	-0.708	0.129	-18					-0.800	-0.617
Mn		2	0.022	0.000	1					0.022	0.021
Mo		2	0.106	0.002	2					0.108	0.105
Na		2	0.934	0.018	2					0.922	0.947
Nd		2	0.223	0.002	1					0.221	0.224
Ni	200.0	2	194.335	0.935	0	-5.665	-2.8			194.996	193.674
P	200.0	2	202.318	4.939	2	2.318	1.2			205.811	198.826
Pb		2	1.018	0.013	1					1.027	1.009
Pd		2	1.049	0.199	19					1.189	0.908
Rh		2	0.288	0.016	6					0.277	0.300
Ru		2	0.236	0.095	40					0.169	0.304
Sb		2	0.478	0.006	1					0.482	0.474
Se		2	1.541	0.018	1					1.554	1.529
Si		2	-0.044	0.164	-371					0.072	-0.160
Sn		2	3.869	0.067	2					3.917	3.822
Sr		2	0.020	0.000	1					0.020	0.020
Te		2	0.705	0.021	3					0.719	0.690
Th		2	0.341	0.138	41					0.243	0.439
Ti		2	0.006	0.000	6					0.006	0.006
Tl		2	0.354	0.007	2					0.358	0.349
U	200.0	2	199.768	2.731	1	-0.232	-0.1			201.699	197.837
V		2	0.050	0.002	4					0.048	0.051
W		2	0.588	0.024	4					0.604	0.571
Y		2	0.023	0.001	4					0.024	0.022
Zn		2	0.085	0.003	4					0.087	0.083
Zr		2	0.023	0.013	54					0.032	0.014
TIME		2	########	0.000	0					########	########

2-738

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Analysis Report Summary Wed 03-06-96 01:45:45 PM page 1

A##SQ
ICP-335-405-1
3/1/96 DRS

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	SPC-BLK 108448	A0084	ICP1A	03/06/96	08:16	DRS	S	INT
2	SPC-BLK 108448	A0084	ICP1A	03/06/96	08:16	DRS	S	CONC
3	SPC-STD 950103I100	A0084	ICP1A	03/06/96	08:21	DRS	S	INT
4	SPC-STD 950103I100	A0084	ICP1A	03/06/96	08:21	DRS	S	CONC
5	ICP1.0	A0084	ICP1A	03/06/96	08:46		X	IR
6	ICP1.1B	A0084	ICP1A	03/06/96	08:48		X	IR
7	ICP1.1A	A0084	ICP1A	03/06/96	08:52		X	IR
8	ICP1.2	A0084	ICP1A	03/06/96	08:56		X	IR
9	ICP1.3	A0084	ICP1A	03/06/96	09:00		X	IR
10	ICP1.4	A0084	ICP1A	03/06/96	09:04		X	IR
11	ICP1.5	A0084	ICP1A	03/06/96	09:08		X	IR
12	ICP1.6	A0084	ICP1A	03/06/96	09:12		X	IR
13	ICP1.7	A0084	ICP1A	03/06/96	09:17		X	IR
14	ICP1.8	A0084	ICP1A	03/06/96	09:21		X	IR
15	ICP1.0 960103F100	A0084	ICP1A	03/06/96	09:34	DRS	S	CONC
PASS 16	QC_MCVA1 9602261901	A0084	ICP1A	03/06/96	09:37	DRS	Q	CONC
PASS 17	QC_MCVB2 960221I901	A0084	ICP1A	03/06/96	09:42	DRS	Q	CONC
18	QC SSTA 951208I902	A0084	ICP1A	03/06/96	09:45	DRS	S	CONC
19	QC SSTMCV 9512081903	A0084	ICP1A	03/06/96	09:49	DRS	S	CONC
20	QC_SRM-1643d 108518	A0084	ICP1A	03/06/96	09:55	DRS	Q	CONC
21	QC CCV1 960126H901	A0084	ICP1A	03/06/96	09:59	DRS	S	CONC
22	ICP1.0 960103F100	A0084	ICP1A	03/06/96	10:04	DRS	S	CONC
23	96-2493-BLK	A0084	ICP1A	03/06/96	10:15	DRS	S	CONC
24	96-2493 @5	A0084	ICP1A	03/06/96	10:20	DRS	S	CONC
25	96-2493 3 for 3-12-96	A0084	ICP1A	03/06/96	10:25	DRS	S	CONC
26	96-2496 PSA	A0084	ICP1A	03/06/96	10:28	DRS	S	CONC
27	QC MCVA1 @2	A0084	ICP1A	03/06/96	10:32	DRS	S	CONC
28	96-2493 PSB	A0084	ICP1A	03/06/96	10:37	DRS	S	CONC
29	QC MCVB2 @2	A0084	ICP1A	03/06/96	10:41	DRS	S	CONC
30	96-2493 DUP	A0084	ICP1A	03/06/96	10:44	DRS	S	CONC
PASS 31	QC_MCVA1 9602261901	A0084	ICP1A	03/06/96	10:50	DRS	Q	CONC
32	ICP1.0 960103F100	A0084	ICP1A	03/06/96	10:54	DRS	S	CONC
33	96-2500	A0084	ICP1A	03/06/96	10:58	DRS	S	CONC
34	96-2501	A0084	ICP1A	03/06/96	11:02	DRS	S	CONC
35	96-2502	A0084	ICP1A	03/06/96	11:06	DRS	S	CONC
36	LCS #1	A0084	ICP1A	03/06/96	11:11	DRS	S	CONC
37	LCS#1 @5	A0084	ICP1A	03/06/96	11:17	DRS	S	CONC
38	LCS #2	A0084	ICP1A	03/06/96	11:21	DRS	S	CONC
39	LCS #2 @5	A0084	ICP1A	03/06/96	11:25	DRS	S	CONC
PASS 40	QC_MCVA1 9602261901	A0084	ICP1A	03/06/96	11:33	DRS	Q	CONC
41	ICP1.0 960103F100	A0084	ICP1A	03/06/96	11:41	DRS	S	CONC
42	96-2989-BLK	A0084	ICP1A	03/06/96	11:47	DRS	S	CONC
43	96-2989 @5	A0084	ICP1A	03/06/96	11:52	DRS	S	CONC
44	96-2989 @50	A0084	ICP1A	03/06/96	11:58	DRS	S	CONC
45	Na @1000 PPM	A0084	ICP1A	03/06/96	12:02	DRS	S	CONC
46	96-2989 PSA	A0084	ICP1A	03/06/96	12:06	DRS	S	CONC
47	QC MCVA1 @2	A0084	ICP1A	03/06/96	12:12	DRS	S	CONC
48	96-2989 PSB	A0084	ICP1A	03/06/96	12:15	DRS	S	CONC
49	QC MCVB2 @2	A0084	ICP1A	03/06/96	12:19	DRS	S	CONC
PASS 50	QC_MCVA1 9602261901	A0084	ICP1A	03/06/96	12:25	DRS	Q	CONC
51	ICP1.0 960103F100	A0084	ICP1A	03/06/96	12:30	DRS	S	CONC
52	96-2990 @50	A0084	ICP1A	03/06/96	12:32	DRS	S	CONC
53	96-2990 @10	A0084	ICP1A	03/06/96	12:36	DRS	S	CONC

Analysis Report Summary Wed 03-06-96 01:45:45 PM page 2

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	96-2992 @50	A0084	ICP1A	03/06/96	12:40	DRS	S	CONC
55	96-2992 @10	A0084	ICP1A	03/06/96	12:44	DRS	S	CONC
pass 56	QC_MCVA1 960226I901	A0084	ICP1A	03/06/96	12:51	DRS	Q	CONC
pass 57	QC_MCVB2 960221I901	A0084	ICP1A	03/06/96	12:55	DRS	Q	CONC
58	QC SSTA 951208I902	A0084	ICP1A	03/06/96	12:59	DRS	S	CONC
59	QC SSTMCV 951208I903	A0084	ICP1A	03/06/96	13:03	DRS	S	CONC
60	QC_SRM-1643d 108518	A0084	ICP1A	03/06/96	13:06	DRS	Q	CONC
61	QC CCV1 960126H901	A0084	ICP1A	03/06/96	13:10	DRS	S	CONC
62	ICP1.0 960103F100	A0084	ICP1A	03/06/96	13:14	DRS	S	CONC

Analysis Report Averages Wed 03-06-96 01:45:45 PM page 3

#	Sample Name	Ag	Al	As	B	Ba	Be
1	SPC-BLK 108448	7442.67	2326.67	1779.33	1316.67	354.667	197.333
2	SPC-BLK 108448	.0427	.2545	.1816	.0223	.0100	.0017
3	SPC-STD 950103I100	7335.33	2306.67	1770.67	1323.33	349.667	194.333
4	SPC-STD 950103I100	.0405	.2301	.1792	.0237	.0093	.0016
5	ICP1.0	.73186	.2293	.17606	.12703	.03539	.01953
6	ICP1.1B					.7914	
7	ICP1.1A					7.46296	
8	ICP1.2		62.2633		40.9604		
9	ICP1.3						
10	ICP1.4			21.4488			
11	ICP1.5						
12	ICP1.6						1.71543
13	ICP1.7	28.2582					
14	ICP1.8						
15	ICP1.0 960103F100	.0037	.0159	-.0021	.0009	-.0005	.0001
16	QC_MCVA1 960226I901	.4835	9.828	2.522	2.071	.4906	.0956
17	QC_MCVB2 960221I901	-.0023	-.0422	.2795	.1739	.0011	.0008
18	QC SSTA 951208I902	-.0066	256.5	.3707	.0625	.0096	-.0009
19	QC SSTMCV 951208I903	.5170	5.299	2.169	.0043	.1021	.1023
20	QC_SRM-1643d 108518	0.0024	0.1440	0.0657	.1502	.5125	0.0124
21	QC CCV1 960126H901	.0038	1.974	2.068	2.069	.9828	.9987
22	ICP1.0 960103F100	.0042	.0062	.0032	.0014	.0004	.0007
23	96-2493-BLK	.0075	.0970	.0494	.0850	.0008	.0002
24	96-2493 @5	-.0001	12.25	.0203	.0115	.0009	.0000
25	96-2493	.0055	60.44	.0937	.0766	.0078	.0002
26	96-2496 PSA	.2394	34.85	1.341	1.080	.2480	.0485
27	QC MCVA1 @2	.2503	5.100	1.335	1.077	.2547	.0497
28	96-2493 PSB	-.0003	29.83	.1851	.1207	.0053	.0005
29	QC MCVB2 @2	-.0016	.0238	.1662	.0852	.0009	.0005
30	96-2493 DUP	.0069	65.58	.0938	.1005	.0056	.0002
31	QC_MCVA1 960226I901	.4786	9.773	2.531	2.059	.4887	.0953
32	ICP1.0 960103F100	.0027	.0292	.0223	-.0007	.0014	.0002
33	96-2500	.0092	37.27	.0700	.0974	.0432	.0003
34	96-2501	.0081	29.92	.0817	.0977	.0425	.0002
35	96-2502	.0081	29.38	.0810	.0986	.0346	.0002
36	LCS #1	.0084	.2863	.0794	.1076	34.60	.0002
37	LCS#1 @5	.0016	.0586	.0124	.0169	7.078	.0000
38	LCS #2	.0071	.1819	.0766	.1015	34.67	.0002
39	LCS #2 @5	.0009	.0400	.0107	.0134	7.010	-.0000
40	QC_MCVA1 960226I901	.4792	9.820	2.559	2.044	.4913	.0951
41	ICP1.0 960103F100	.0008	.0193	.0022	-.0067	-.0004	.0001
42	96-2989-BLK	-.0026	.0670	.0261	.0804	.0896	.0000
43	96-2989 @5	.0078	107.8	.2962	.9660	.0283	.0062
44	96-2989 @50	-.0008	11.31	.0298	.0914	.0025	.0006
45	Na @1000 PPM	.0019	.0304	.0142	-.0085	.0004	.0000
46	96-2989 PSA	.2032	258.1	1.867	3.134	.2724	.0558
47	QC MCVA1 @2	.2416	4.973	1.286	1.028	.2454	.0470
48	96-2989 PSB	.0097	253.1	.8002	2.301	.0644	.0143
49	QC MCVB2 @2	-.0026	.0564	.1732	.0791	.0007	.0004
50	QC_MCVA1 960226I901	.4680	9.599	2.462	2.004	.4803	.0914
51	ICP1.0 960103F100	-.0000	.0182	-.0015	-.0073	.0005	.0001
52	96-2990 @50	.0034	11.25	.0340	.1195	.0030	.0008
53	96-2990 @10	.0069	54.32	.1862	.5947	.0117	.0038

Analysis Report Averages Wed 03-06-96 01:45:45 PM page 4

#	Sample Name	Ag	Al	As	B	Ba	Be
54	96-2992 @50	.0005	2.012	.0151	.1317	.0030	.0003
55	96-2992 @10	.0052	9.778	.0822	.6796	.0129	.0018
56	QC_MCVA1 9602261901	.4845	10.01	2.589	2.090	.5023	.0953
57	QC_MCVB2 9602211901	-.0034	.0665	.3270	.1546	.0009	.0009
58	QC SSTA 951208I902	-.0087	253.1	.4031	.0531	.0105	-.0008
59	QC SSTMCV 951208I903	.5079	5.216	2.125	-.0047	.1019	.0984
60	QC_SRM-1643d 108518	0.0023	0.1616	0.0674	.1412	.5060	0.0120
61	QC CCV1 960126H901	.0015	1.964	2.076	2.045	.9705	.9707
62	ICP1.0 960103F100	.0004	.0133	.0093	-.0079	.0007	.0006

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	SPC-BLK 108448	1605	1371.67	718.333	7094.33	1618	504
2	SPC-BLK 108448	.1517	.0777	.0295	.3265	.0466	.0184
3	SPC-STD 950103I100	1800	1735.67	745.667	6947	1552.33	516.333
4	SPC-STD 950103I100	.1431	.2109	.0328	.2916	.0381	.0208
5	ICP1.0	.15903	.1356	.06409	.69953	.15603	.0502
6	ICP1.1B					1.9402	1.27936
7	ICP1.1A					16.9685	11.6972
8	ICP1.2		81.2765	9.14496			
9	ICP1.3						
10	ICP1.4				21.633		
11	ICP1.5						
12	ICP1.6						
13	ICP1.7	23.1171					
14	ICP1.8						
15	ICP1.0 960103F100	.0086	.0032	.0305	.0090	.0018	.0005
16	QC_MCVA1 9602261901	23.94	24.92	.4957	-.0097	.9906	.9873
17	QC_MCVB2 9602211901	.0718	.0280	.0115	1.998	.0014	.0065
18	QC SSTA 951208I902	200.3	256.0	.0771	.1857	.0156	.2370
19	QC SSTMCV 951208I903	1.758	1.245	.2128	.0259	.0023	.3254
20	QC_SRM-1643d 108518	.0427	031.68	0.0085	.0002	0.0279	0.0209
21	QC CCV1 960126H901	1.961	2.083	1.029	-.0048	1.022	.5028
22	ICP1.0 960103F100	.0050	.0052	.0001	-.0064	.0019	.0009
23	96-2493-BLK	.0410	.2603	.0107	.0458	.0141	.0126
24	96-2493 @5	.6571	.1382	.0011	-.0099	.0019	.0128
25	96-2493	3.257	.6126	.0109	.0346	.0131	.0657
26	96-2496 PSA	13.66	12.94	.2588	.0103	.5058	.5322
27	QC MCVA1 @2	12.46	13.01	.2622	-.0003	.5183	.5138
28	96-2493 PSB	1.647	.3123	.0122	1.030	.0065	.0336
29	QC MCVB2 @2	.0454	.0457	.0009	1.039	.0025	.0063
30	96-2493 DUP	1.259	1.400	.0118	.0440	.0156	.0423
31	QC_MCVA1 960226I901	23.79	24.80	.4821	.0008	.9897	.9754
32	ICP1.0 960103F100	.0164	.0108	.0046	.0231	.0035	.0013
33	96-2500	8.294	.9968	.0178	.1461	.0205	.2303
34	96-2501	7.092	.9491	.0270	.1328	.0189	.2263
35	96-2502	8.305	.8655	.0280	.1263	.0175	.1869
36	LCS #1	17.25	37.03	.0192	.0644	.0192	.0563
37	LCS#1 @5	3.591	7.741	.0104	.0136	.0056	.0119
38	LCS #2	16.82	38.78	.0250	.0649	.0190	.0655
39	LCS #2 @5	3.435	7.992	.0180	.0105	.0046	.0141
40	QC_MCVA1 960226I901	23.84	24.84	.4930	.0000	.9928	.9846
41	ICP1.0 960103F100	.0313	.0099	.0047	.0059	.0010	.0022

Analysis Report Averages Wed 03-06-96 01:45:45 PM page 5

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
42	96-2989-BLK	.0085	.2169	.0147	-.0162	-.0011	-.0003
43	96-2989 @5	.2801	.9947	.0863	.0599	.0202	101.0
44	96-2989 @50	.0241	.0972	.0229	-.0069	.0012	11.00
45	Na @1000 PPM	.0101	.0058	.0278	.0227	.0024	.0134
46	96-2989 PSA	11.66	13.33	.4190	.1075	.4835	188.9
47	QC MCVA1 @2	12.00	12.48	.2447	-.0009	.4970	.5552
48	96-2989 PSB	.7001	2.282	.1886	.9843	.0601	188.7
49	QC MCVB2 @2	.0787	.0167	.0120	1.020	.0009	.0362
50	QC_MCVA1 960226I901	23.33	24.08	.4830	-.0213	.9597	.9793
51	ICP1.0 960103F100	.0072	.0079	.0199	-.0049	.0011	.0024
52	96-2990 @50	.0348	.0501	.0211	.0300	.0044	13.75
53	96-2990 @10	.1280	.2483	.0386	.0524	.0075	64.89
54	96-2992 @50	.0122	.0194	.0249	-.0027	-.0005	6.755
55	96-2992 @10	.0715	.1290	.0181	.0253	.0046	32.83
56	QC_MCVA1 960226I901	24.29	25.10	.5019	-.0246	1.001	1.001
57	QC_MCVB2 960221I901	.1571	.0415	.0144	1.964	.0010	.0101
58	QC SSTA 951208I902	197.2	250.9	.0795	.1569	.0145	.2400
59	QC SSTMCV 951208I903	1.702	1.182	.2209	.0147	.0004	.3134
60	QC_SRM-1643d 108518	.0473	31.23	Q.0277	.0101	Q.0265	Q.0208
61	QC CCV1 960126H901	1.957	2.055	.9992	.0031	1.008	.4976
62	ICP1.0 960103F100	.0110	.0049	-.0078	.0036	.0011	.0005

#	Sample Name	Cu	Dy	Eu	Fe	K	La
1	SPC-BLK 108448	553	2160.67	383.667	643.667	2258	1118
2	SPC-BLK 108448	.0394	.0484	.0152	.0224	8.320	.0828
3	SPC-STD 950103I100	20647.3	2315.33	376.333	684.333	2213.67	1091.67
4	SPC-STD 950103I100	10.64	.0455	.0137	.0188	7.289	.0726
5	ICP1.0	.05486	.21269	.03779	.06326	.22243	.10996
6	ICP1.1B	.46083			7.35676		
7	ICP1.1A	3.97753			68.1062		
8	ICP1.2					2.43316	
9	ICP1.3		41.169	10.0505			5.30609
10	ICP1.4						
11	ICP1.5						
12	ICP1.6						
13	ICP1.7						
14	ICP1.8						
15	ICP1.0 960103F100	.0055	.0013	.0008	-.0051	.2036	.0041
16	QC_MCVA1 960226I901	.9458	-.0031	.0010	20.05	24.72	.0008
17	QC_MCVB2 960221I901	.0434	1.996	2.012	.0148	-1.304	.9936
18	QC SSTA 951208I902	-.0964	.0369	.0936	200.5	104.1	50.98
19	QC SSTMCV 951208I903	.0068	.0035	.0087	.6786	51.57	.0443
20	QC_SRM-1643d 108518	.0206	-.0004	.0014	Q.1029	Q2.103	.0109
21	QC CCV1 960126H901	1.996	.0004	.0003	2.031	4.591	.0011
22	ICP1.0 960103F100	.0064	-.0007	.0001	-.0043	-.2412	.0012
23	96-2493-BLK	.0441	.0075	.0026	.1081	2118.	.0141
24	96-2493 @5	.0052	-.0010	.0001	.7866	359.6	.0010
25	96-2493	.0204	.0051	.0025	3.907	1751.	.0109
26	96-2496 PSA	.4920	.0007	.0016	12.01	884.0	.0056
27	QC MCVA1 @2	.4867	-.0011	.0008	10.42	12.77	.0013
28	96-2493 PSB	.0298	1.011	1.013	1.940	869.4	.5141
29	QC MCVB2 @2	.0205	1.016	1.024	.0011	-.2563	.5145

Analysis Report Averages Wed 03-06-96 01:45:45 PM page 6

#	Sample Name	Cu	Dy	Eu	Fe	K	La
30	96-2493 DUP	.0156	.0080	.0035	.9188	1703.	.0153
31	QC_MCVA1 9602261901	.9342	-.0018	.0015	19.93	24.32	.0029
32	ICP1.0 960103F100	.0063	.0036	.0015	.0007	.2262	.0073
33	96-2500	.0404	.0101	.0063	12.29	1806.	.0280
34	96-2501	.0343	.0091	.0062	12.31	1788.	.0283
35	96-2502	.0298	.0090	.0058	10.50	1836.	.0255
36	LCS #1	.0043	.0104	.0073	62.45	2384.	.0217
37	LCS#1 @5	.0015	.0020	.0017	13.05	497.8	.0057
38	LCS #2	-.0197	.0097	.0078	78.55	1742.	.0209
39	LCS #2 @5	-.0036	.0015	.0016	16.26	359.5	.0050
40	QC_MCVA1 9602261901	.9340	-.0020	.0014	19.92	23.85	.0020
41	ICP1.0 960103F100	.0027	.0011	.0005	.0008	-.3920	.0029
42	96-2989-BLK	.0042	-.0016	-.0004	.0764	-.8745	-.0022
43	96-2989 @5	.0811	.0071	.0183	.0785	73.91	.0171
44	96-2989 @50	.0087	-.0005	.0016	.0001	6.830	.0016
45	Na @1000 PPM	.0034	.0032	.0011	-.0059	-.0754	.0067
46	96-2989 PSA	.6335	.0065	.0408	8.762	187.5	.0254
47	QC MCVA1 @2	.4622	-.0002	.0009	9.967	11.78	.0015
48	96-2989 PSB	.2095	.9045	.9253	.2094	175.4	.4738
49	QC MCVB2 @2	.0133	.9969	1.009	-.0014	-1.078	.5063
50	QC_MCVA1 9602261901	.9034	-.0033	.0010	19.36	22.91	-.0014
51	ICP1.0 960103F100	.0032	.0009	.0005	-.0018	-.5127	.0026
52	96-2990 @50	.0055	.0042	.0036	.0030	8.029	.0080
53	96-2990 @10	.0045	.0072	.0124	.0254	39.44	.0136
54	96-2992 @50	.0002	.0008	.0014	-.0039	3.174	.0036
55	96-2992 @10	.0034	.0045	.0064	.0130	17.79	.0092
56	QC_MCVA1 9602261901	.9467	-.0049	.0002	20.22	23.85	-.0043
57	QC_MCVB2 9602211901	.0315	1.929	1.952	.0260	-1.772	.9775
58	QC SSTA 9512081902	-.1069	.0362	.0906	196.3	100.7	50.82
59	QC SSTMCV 9512081903	.0020	.0028	.0081	.6387	49.33	.0364
60	QC_SRM-1643d 108518	Q.0191	.0016	.0016	Q.1091	Q1.975	.0148
61	QC CCV1 960126H901	1.948	.0023	.0008	1.997	4.290	.0053
62	ICP1.0 960103F100	.0041	.0014	.0003	-.0061	-.4750	.0031

#	Sample Name	Li	Mg	Mn	Mo	Na	Nd
1	SPC-BLK 108448	442.333	2683	219.667	894.667	458.667	4132.67
2	SPC-BLK 108448	.0351	.1643	.0033	.0377	.5330	.2885
3	SPC-STD 950103I100	21540.7	2722.67	65010.7	903.333	450.333	4047
4	SPC-STD 950103I100	10.37	.1491	11.65	.0350	.4864	.2577
5	ICP1.0	.0434	.26416	.02183	.08879	.04483	.40736
6	ICP1.1B		4.65216		1.26603	.50169	
7	ICP1.1A		39.8621		11.3357	4.51726	
8	ICP1.2	10.5071		6.308			
9	ICP1.3						13.9591
10	ICP1.4						
11	ICP1.5						
12	ICP1.6						
13	ICP1.7						
14	ICP1.8						
15	ICP1.0 960103F100	.0027	.0016	.0002	.0015	.0196	.0149
16	QC_MCVA1 9602261901	1.988	32.08	.5091	1.000	36.12	-.0107
17	QC_MCVB2 9602211901	.0013	-.1247	.0013	.0090	.1905	1.979

Analysis Report Averages Wed 03-06-96 01:45:45 PM page 7

#	Sample Name	Li	Mg	Mn	Mo	Na	Nd
18	QC SSTA 9512081902	.0381	-.7997	.0219	.1076	.9217	.2212
19	QC SSTMCV 9512081903	.0048	-.0931	.1087	.0065	5.220	.0181
20	QC_SRM-1643d 108518	0.0210	08.586	0.0406	.1140	021.91	.0144
21	QC CCV1 960126H901	1.983	2.110	1.044	1.985	8.340	-.0013
22	ICP1.0 960103F100	.0021	-.0020	.0008	.0029	-.0154	-.0008
23	96-2493-BLK	.0070	.0342	.0752	.0090	1.007	.0473
24	96-2493 @5	.0014	.0094	.1635	.0021	.9506	-.0028
25	96-2493	.0053	.0694	.8120	.0111	4.960	.0381
26	96-2496 PSA	.9705	16.28	.6569	.5115	20.56	.0084
27	QC MCVA1 @2	1.013	16.77	.2654	.5203	18.57	-.0053
28	96-2493 PSB	.0008	-.0231	.4014	.0094	2.550	1.018
29	QC MCVB2 @2	.0011	-.0607	.0007	.0061	.1034	1.025
30	96-2493 DUP	.0061	.0535	.4359	.0113	1.973	.0491
31	QC_MCVA1 960226I901	1.967	31.94	.5069	.9974	36.06	-.0099
32	ICP1.0 960103F100	.0030	.0121	.0005	.0039	.0545	.0201
33	96-2500	.0092	.3398	4.848	.0154	12.04	.0981
34	96-2501	.0083	.3739	4.783	.0142	11.18	.0952
35	96-2502	.0086	.3066	3.804	.0115	9.082	.0908
36	LCS #1	.0135	.6209	.1716	.0169	1.528	.0822
37	LCS#1 @5	.0019	.1285	.0354	.0044	.3401	.0198
38	LCS #2	.0127	.6667	.1898	.0187	407.9	.0787
39	LCS #2 @5	.0025	.1386	.0387	.0032	85.10	.0140
40	QC_MCVA1 960226I901	1.951	31.99	.5084	1.002	36.06	-.0074
41	ICP1.0 960103F100	.0025	.0141	.0001	.0013	.0252	.0064
42	96-2989-BLK	-.0005	.0533	.0009	-.0007	1.635	-.0107
43	96-2989 @5	.0291	.0294	.0082	1.221	4316.	.0439
44	96-2989 @50	.0040	-.0057	.0006	.1267	535.8	-.0066
45	Na @1000 PPM	.0059	.0033	.0001	.0017	939.4	.0229
46	96-2989 PSA	.9660	13.91	.2391	3.264	7030.	.0579
47	QC MCVA1 @2	.9872	16.16	.2541	.4996	21.52	.0008
48	96-2989 PSB	.0618	.1364	.0184	2.843	7029.	.9444
49	QC MCVB2 @2	.0014	-.0666	.0002	.0058	1.618	1.004
50	QC_MCVA1 960226I901	1.925	31.08	.4929	.9687	36.37	-.0217
51	ICP1.0 960103F100	.0006	.0069	.0000	.0003	.1543	.0040
52	96-2990 @50	.1484	.0149	.0011	.1399	540.6	.0281
53	96-2990 @10	.7050	.0163	.0042	.6597	2451.	.0425
54	96-2992 @50	3.182	-.0111	-.0001	.0590	275.6	.0050
55	96-2992 @10	15.39	.0162	.0018	.2977	1301.	.0268
56	QC_MCVA1 960226I901	2.001	32.37	.5148	1.010	37.35	-.0282
57	QC_MCVB2 960221I901	.0025	-.0692	.0012	.0088	.2784	1.933
58	QC SSTA 9512081902	.0389	-.6171	.0214	.1046	.9469	.2243
59	QC SSTMCV 9512081903	.0045	-.0767	.1055	.0053	5.202	.0112
60	QC_SRM-1643d 108518	0.0215	08.444	0.0395	0.1108	21.99	.0215
61	QC CCV1 960126H901	1.973	2.073	1.026	1.961	8.473	.0100
62	ICP1.0 960103F100	.0030	-.0019	.0003	.0013	.0787	.0054

#	Sample Name	Ni	P	Pb	Pd	Rh	Ru
1	SPC-BLK 108448	539.333	1392.33	15285.7	16674.7	16843	4742
2	SPC-BLK 108448	.0281	.2721	.3006	.7892	.3883	.1541
3	SPC-STD 950103I100	526	1510.67	133317	16325	16486.3	4667
4	SPC-STD 950103I100	.0228	.2330	11.87	.7039	.3474	.1430
5	ICP1.0	.05263	.13913	1.50793	1.64183	1.65723	.47056

Analysis Report Averages Wed 03-06-96 01:45:45 PM page 8

#	Sample Name	Ni	P	Pb	Pd	Rh	Ru
6	ICP1.1B	.65329		7.57023			
7	ICP1.1A	5.67933		58.778			
8	ICP1.2		12.2983				
9	ICP1.3						34.2468
10	ICP1.4						
11	ICP1.5						
12	ICP1.6						
13	ICP1.7						
14	ICP1.8				18.3137	42.7307	
15	ICP1.0 960103F100	.0017	.0091	.0155	.0567	.0217	.0097
16	QC_MCVA1 960226I901	.9854	4.819	2.458	-.0580	-.0206	.0021
17	QC_MCVB2 960221I901	.0218	.1368	.2464	1.974	2.003	2.050
18	QC SSTA 951208I902	195.0	205.8	1.027	1.189	.2769	.1692
19	QC SSTMCV 951208I903	.7663	4.325	3.167	.0771	.0311	.0139
20	QC_SRM-1643d 108518	0.1397	.0384	0.0147	.0283	.0077	.0018
21	QC CCV1 960126H901	2.083	4.926	2.032	.0128	.0064	.0063
22	ICP1.0 960103F100	.0490	.0174	.0029	.0220	.0074	.0031
23	96-2493-BLK	.1817	.0655	.0494	.1510	.0754	.0329
24	96-2493 @5	.0589	.0670	.0376	.0115	.0035	.0025
25	96-2493	.1865	.3945	.2323	.1129	.0483	.0288
26	96-2496 PSA	.6136	2.657	1.359	.0119	.0115	.0167
27	QC MCVA1 @2	.5498	2.536	1.284	-.0243	-.0030	.0075
28	96-2493 PSB	.1227	.2585	.2302	1.037	1.035	1.054
29	QC MCVB2 @2	.0420	.0659	.1328	1.057	1.042	1.068
30	96-2493 DUP	.2403	.2755	.2182	.1530	.0687	.0304
31	QC_MCVA1 960226I901	1.011	4.858	2.448	-.0406	-.0134	.0134
32	ICP1.0 960103F100	.0148	.0337	.0131	.0879	.0396	.0142
33	96-2500	1.536	.4866	.3005	.1970	.0881	.0527
34	96-2501	1.544	.4347	.2627	.1880	.0815	.0478
35	96-2502	.4742	.4007	.2250	.1770	.0773	.0479
36	LCS #1	2.648	28.04	.0895	.1740	.0900	.0797
37	LCS#1 @5	.5596	5.665	.0185	.0564	.0241	.0176
38	LCS #2	2.816	32.84	.0925	.1641	.0859	.0926
39	LCS #2 @5	.5839	6.547	.0146	.0377	.0134	.0159
40	QC_MCVA1 960226I901	1.004	4.880	2.454	-.0373	-.0140	.0173
41	ICP1.0 960103F100	.0054	.0221	.0014	.0401	.0148	.0062
42	96-2989-BLK	.0058	.0136	-.0096	-.0129	-.0100	-.0038
43	96-2989 @5	.5378	75.34	.4377	.0867	.2486	.3117
44	96-2989 @50	.0570	7.575	.0309	.0021	.0176	.0298
45	Na @1000 PPM	.0054	.0211	.0059	.0697	.0268	.0084
46	96-2989 PSA	1.621	178.6	2.064	-.5159	.4857	.6782
47	QC MCVA1 @2	.5075	2.446	1.234	-.0017	-.0034	.0071
48	96-2989 PSB	1.206	176.7	1.082	.4355	1.420	1.544
49	QC MCVB2 @2	.0157	.1021	.1216	1.089	1.030	1.031
50	QC_MCVA1 960226I901	.9682	4.647	2.351	-.0843	-.0309	.0083
51	ICP1.0 960103F100	.0057	.0004	-.0020	.0330	.0093	.0014
52	96-2990 @50	.0200	6.065	.0524	.0858	.0579	.0390
53	96-2990 @10	.0810	29.67	.2201	.1081	.1647	.1448
54	96-2992 @50	.0098	4.487	.0000	.0378	.0197	.0137
55	96-2992 @10	.0474	22.41	.0659	.0831	.0889	.0769
56	QC_MCVA1 960226I901	1.012	4.829	2.452	-.1041	-.0431	.0051
57	QC_MCVB2 960221I901	.0293	.1290	.2270	2.128	1.973	1.976
58	QC SSTA 951208I902	193.7	198.8	1.009	.9076	.2997	.3036
59	QC SSTMCV 951208I903	.7246	4.089	3.082	.0415	.0220	.0066

Analysis Report Averages Wed 03-06-96 01:45:45 PM page 9

#	Sample Name	Ni	P	Pb	Pd	Rh	Ru
60	QC_SRM-1643d 108518	0.1401	.0511	0.0170	.0458	.0166	.0044
61	QC CCV1 960126H901	2.070	4.805	2.003	.0473	.0175	.0087
62	ICP1.0 960103F100	.0439	.0104	.0032	.0445	.0089	.0016

#	Sample Name	Sb	Se	Si	Sn	Sr	Te
1	SPC-BLK 108448	2841.67	1576.67	4432	7623	164.333	11278.7
2	SPC-BLK 108448	.2093	.2584	-.3921	1.374	.0038	.2829
3	SPC-STD 950103I100	2852.67	1575.67	4406.33	7516	164	11632.7
4	SPC-STD 950103I100	.2134	.2578	-.3899	1.238	.0038	.2756
5	ICP1.0	.28139	.15713	.42686	.75033	.0162	1.11046
6	ICP1.1B					.84916	
7	ICP1.1A					8.17833	
8	ICP1.2						
9	ICP1.3						
10	ICP1.4	25.4789					
11	ICP1.5						
12	ICP1.6			73.1221			48.6326
13	ICP1.7		3.2481				
14	ICP1.8				7.43249		
15	ICP1.0 960103F100	.0193	.0200	.0459	.0607	.0002	.0179
16	QC_MCVA1 960226I901	2.515	2.530	18.29	.1985	.5005	.0474
17	QC_MCVB2 960221I901	.1099	.0738	8.113	2.157	.0027	1.955
18	QC SSTA 951208I902	.4825	1.554	.0717	3.917	.0205	.7193
19	QC SSTMCV 951208I903	2.201	2.634	3.006	.1826	.0018	.0321
20	QC_SRM-1643d 108518	0.0740	0.0195	2.746	.0125	.3001	.0060
21	QC CCV1 960126H901	.0292	2.004	4.831	.0717	1.988	.0365
22	ICP1.0 960103F100	.0151	.0070	.0270	.0164	.0016	.0119
23	96-2493-BLK	.0454	.0492	.1300	.2292	.0018	.0528
24	96-2493 @5	.0197	.0380	.3882	.0072	.0162	.0297
25	96-2493	.0571	.2447	1.925	.2262	.0802	.1240
26	96-2496 PSA	1.318	1.410	10.36	.2013	.2894	.0804
27	QC MCVA1 @2	1.324	1.317	9.547	.1406	.2589	.0285
28	96-2493 PSB	.0921	.1636	3.732	1.212	.0411	1.070
29	QC MCVB2 @2	.0672	.0512	3.110	1.173	.0016	1.034
30	96-2493 DUP	.0731	.2514	.8215	.2325	.0396	.1485
31	QC_MCVA1 9602261901	2.509	2.495	18.19	.2281	.4992	.0408
32	ICP1.0 960103F100	.0244	.0186	.0477	.0992	.0006	.0235
33	96-2500	.0801	.2045	8.977	.4627	.4937	.1326
34	96-2501	.0653	.1759	8.401	.4226	.4924	.1086
35	96-2502	.0613	.1790	6.832	.3979	.4002	.1055
36	LCS #1	.0757	.1445	.6593	1.045	.1116	.1141
37	LCS#1 @5	.0287	.0393	.1371	.2241	.0237	.0224
38	LCS #2	.0723	.1611	.5817	1.237	.1128	.1142
39	LCS #2 @5	.0226	.0421	.1163	.2274	.0236	.0191
40	QC_MCVA1 960226I901	2.534	2.501	18.23	.2161	.5012	.0431
41	ICP1.0 960103F100	.0131	.0097	.0202	.0162	.0004	.0072
42	96-2989-BLK	.0049	-.0030	.0556	-.0606	.0018	.0006
43	96-2989 @5	.2443	.4373	2.045	.4887	.0035	.2706
44	96-2989 @50	.0233	.0256	.2238	-.0335	.0004	.0164
45	Na @1000 PPM	.0142	.0033	.0172	.0374	.0005	.0091
46	96-2989 PSA	2.298	2.151	15.47	1.109	.2251	.6096
47	QC MCVA1 @2	1.280	1.260	9.655	.1031	.2504	.0178

Analysis Report Averages Wed 03-06-96 01:45:45 PM page 10

#	Sample Name	Sb	Se	Si	Sn	Sr	Te
48	96-2989 PSB	1.192	.9945	37.49	2.032	.0086	1.519
49	QC MCVB2 @2	.0628	.0383	4.120	1.074	.0014	.9942
50	QC_MCVA1 9602261901	2.442	2.438	18.07	.1179	.4913	.0262
51	ICP1.0 960103F100	.0053	.0028	.1139	-.0235	.0004	.0080
52	96-2990 @50	.0426	.0701	.5276	.1058	.0008	.0454
53	96-2990 @10	.1566	.2374	2.208	.3271	.0017	.1546
54	96-2992 @50	.0192	.0094	.3687	.0001	.0004	.0040
55	96-2992 @10	.0747	.0817	1.503	.1587	.0010	.0589
56	QC_MCVA1 9602261901	2.560	2.519	18.62	.1028	.5141	.0202
57	QC_MCVB2 9602211901	.1075	.0701	6.922	2.063	.0030	1.893
58	QC SSTA 9512081902	.4739	1.529	-.1601	3.822	.0201	.6900
59	QC SSTMCV 9512081903	2.147	2.602	2.914	.0777	.0018	.0201
60	QC_SRM-1643d 108518	0.0764	0.0245	2.702	-.0098	.2987	.0053
61	QC CCV1 960126H901	.0200	1.989	4.790	.0558	1.980	.0200
62	ICP1.0 960103F100	.0029	.0093	.0073	-.0102	.0015	.0111

#	Sample Name	Th	Ti	Tl	U	V	W
1	SPC-BLK 108448	2618	721.333	429.333	18965	1087.67	354.667
2	SPC-BLK 108448	.0032	.0189	.1499	4.428	.0384	.1346
3	SPC-STD 950103I100	2564.67	709.667	442.667	18495	1069.33	359
4	SPC-STD 950103I100	.0091	.0175	.1763	3.865	.0354	.1440
5	ICP1.0	.25763	.0709	.04196	1.86296	.10719	.03483
6	ICP1.1B		1.45113				
7	ICP1.1A		13.6788				
8	ICP1.2						
9	ICP1.3	11.3349					
10	ICP1.4					11.3422	
11	ICP1.5				45.4563		
12	ICP1.6						
13	ICP1.7			1.2534			
14	ICP1.8						2.90003
15	ICP1.0 960103F100	-.0026	.0009	.0080	.2305	.0012	.0078
16	QC_MCVA1 9602261901	.0354	.9781	2.434	-.1323	.9872	.0484
17	QC_MCVB2 9602211901	9.923	.0044	.0236	23.95	.0011	2.019
18	QC SSTA 9512081902	.2433	.0062	.3583	201.7	.0483	.6045
19	QC SSTMCV 9512081903	.0328	.0009	.0197	20.47	.5256	.0373
20	QC_SRM-1643d 108518	-.0082	.0006	0.0138	.2644	.0351	.0180
21	QC CCV1 960126H901	.0140	.0005	1.979	.0120	.9760	.0150
22	ICP1.0 960103F100	.0004	-.0001	.0067	-.0098	.0005	.0085
23	96-2493-BLK	-.0003	.0053	.0338	.7769	.0065	.0316
24	96-2493 @5	-.0025	.0020	.0111	.1984	.0002	.0182
25	96-2493	.0011	.0116	.0517	1.530	.0064	.0409
26	96-2496 PSA	.0237	.4970	1.257	.6300	.4980	.0417
27	QC MCVA1 @2	.0241	.5071	1.280	-.0555	.5110	.0260
28	96-2493 PSB	5.072	.0079	.0331	12.61	.0035	1.026
29	QC MCVB2 @2	5.086	.0026	.0205	12.30	.0014	1.022
30	96-2493 DUP	.0023	.0094	.0514	1.118	.0064	.0388
31	QC_MCVA1 9602261901	.0391	.9757	2.433	-.0977	.9822	.0514
32	ICP1.0 960103F100	.0011	.0014	.0127	.3372	.0027	.0082
33	96-2500	.0227	.0268	.0705	7.050	.0109	.0561
34	96-2501	.0235	.0229	.0616	6.923	.0094	.0562
35	96-2502	.0242	.0191	.0619	5.538	.0104	.0457

Analysis Report Averages Wed 03-06-96 01:45:45 PM page 11

#	Sample Name	Th	Ti	Tl	U	V	W
36	LCS #1	.0463	.0187	.0856	1.115	.0162	.0897
37	LCS#1 @5	.0090	.0039	.0197	.2556	.0032	.0238
38	LCS #2	.0526	.0175	.1015	1.109	.0182	.0940
39	LCS #2 @5	.0127	.0036	.0179	.1351	.0030	.0216
40	QC_MCVA1 960226I901	.0318	.9786	2.466	-.1715	.9823	.0520
41	ICP1.0 960103F100	-.0046	.0006	.0168	.0734	.0005	.0139
42	96-2989-BLK	-.0018	-.0003	.0016	-.1513	-.0016	.0050
43	96-2989 @5	.2924	.0044	.1166	.5585	.0581	1.549
44	96-2989 @50	.0272	-.0002	.0069	-.1158	.0046	.1673
45	Na @1000 PPM	-.0088	.0011	.0088	.3429	.0013	.0096
46	96-2989 PSA	2.042	.4423	1.303	.2607	.5489	3.463
47	QC MCVA1 @2	.0136	.4864	1.235	-.0107	.4889	.0329
48	96-2989 PSB	6.516	.0234	.2619	10.18	.1294	4.324
49	QC MCVB2 @2	5.008	.0022	.0053	11.84	.0004	1.008
50	QC_MCVA1 960226I901	.0426	.9522	2.372	-.3164	.9514	.0352
51	ICP1.0 960103F100	-.0046	.0005	.0007	.0608	-.0000	.0064
52	96-2990 @50	.0274	.0018	.0169	.3509	.0103	.1500
53	96-2990 @10	.1638	.0039	.0753	.6033	.0426	.6502
54	96-2992 @50	.0074	.0002	.0029	.0428	.0045	.0646
55	96-2992 @10	.0840	.0019	.0402	.3931	.0273	.3211
56	QC_MCVA1 960226I901	.0411	.9942	2.500	-.4354	.9938	.0356
57	QC_MCVB2 960221I901	9.660	.0050	.0196	22.58	.0006	1.939
58	QC SSTA 951208I902	.4391	.0057	.3488	197.8	.0510	.5706
59	QC SSTMCV 951208I903	.0474	.0004	.0078	19.88	.5111	.0349
60	QC_SRM-1643d 108518	-.0084	.0007	0.0088	.3585	.0348	.0055
61	QC CCV1 960126H901	.0081	.0006	1.977	.1074	.9581	.0268
62	ICP1.0 960103F100	-.0115	.0002	.0050	.1057	.0005	.0069

#	Sample Name	Y	Zn	Zr
1	SPC-BLK 108448	277	394.667	880
2	SPC-BLK 108448	.0171	.0031	.0336
3	SPC-STD 950103I100	271.333	137234	858.667
4	SPC-STD 950103I100	.0153	11.17	.0288
5	ICP1.0	.02736	.03783	.08673
6	ICP1.1B		2.84773	2.57063
7	ICP1.1A		26.7423	24.0361
8	ICP1.2			
9	ICP1.3			
10	ICP1.4	2.94883		
11	ICP1.5			
12	ICP1.6			
13	ICP1.7			
14	ICP1.8			
15	ICP1.0 960103F100	.0001	.0005	-.0007
16	QC_MCVA1 960226I901	-.0003	.9715	1.957
17	QC_MCVB2 960221I901	.9827	.0048	-.0445
18	QC SSTA 951208I902	.0237	.0871	.0321
19	QC SSTMCV 951208I903	.0008	.0018	.5152
20	QC_SRM-1643d 108518	.0003	0.0765	-.0011
21	QC CCV1 960126H901	-.0002	1.017	-.0022
22	ICP1.0 960103F100	.0000	.0009	-.0017
23	96-2493-BLK	.0023	.0798	.0046

Analysis Report Averages Wed 03-06-96 01:45:45 PM page 12

#	Sample Name	Y	Zn	Zr			
24	96-2493 @5	.0000	.0215	-.0008			
25	96-2493	.0023	.0997	.0057			
26	96-2496 PSA	.0012	.5437	.9919			
27	QC MCVA1 @2	-.0000	.5097	1.011			
28	96-2493 PSB	.5034	.0526	-.0261			
29	QC MCVB2 @2	.5018	.0038	-.0282			
30	96-2493 DUP	.0029	.0889	.0045			
31	QC_MCVA1 960226I901	.0001	.9680	1.953			
32	ICP1.0 960103F100	.0007	.0005	.0010			
33	96-2500	.0089	.1152	.0667			
34	96-2501	.0086	.1064	.0736			
35	96-2502	.0078	.1006	.0482			
36	LCS #1	.0046	.0921	.0057			
37	LCS#1 @5	.0006	.0243	.0002			
38	LCS #2	.0046	.0995	.0038			
39	LCS #2 @5	.0005	.0218	-.0010			
40	QC_MCVA1 960226I901	.0001	.9829	1.964			
41	ICP1.0 960103F100	-.0001	.0003	.0002			
42	96-2989-BLK	-.0010	.0644	-.0026			
43	96-2989 @5	.0038	.0378	-.0044			
44	96-2989 @50	-.0006	.0030	-.0027			
45	Na @1000 PPM	.0007	-.0004	.0014			
46	96-2989 PSA	.0073	.5576	.7504			
47	QC MCVA1 @2	-.0002	.5019	.9753			
48	96-2989 PSB	.4500	.0957	-.1396			
49	QC MCVB2 @2	.4883	.0017	-.0293			
50	QC_MCVA1 960226I901	-.0007	.9662	1.911			
51	ICP1.0 960103F100	-.0003	.0003	-.0005			
52	96-2990 @50	.0009	.0061	.0008			
53	96-2990 @10	.0027	.0281	-.0029			
54	96-2992 @50	-.0001	.0002	-.0008			
55	96-2992 @10	.0017	.0037	-.0021			
56	QC_MCVA1 960226I901	-.0010	1.009	1.996			
57	QC_MCVB2 960221I901	.9337	.0055	-.0558			
58	QC SSTA 951208I902	.0223	.0827	.0144			
59	QC SSTMCV 951208I903	.0001	.0008	.5049			
60	QC_SRM-1643d 108518	.0007	0.0763	.0005			
61	QC CCV1 960126H901	.0001	1.028	-.0006			
62	ICP1.0 960103F100	.0000	.0010	-.0005			

Analysis Report Wed 03-06-96 08:17:54 AM page 1

Method: ICP1A Sample Name: SPC-BLK 108448 Operator: DRS
Run Time: 03/06/96 08:16:36 A#884
Comment: SPC-BLK FOR Mn/Cu RATIO ICP-325-405-1
Mode: INT Corr. Factor: 1 3/6/96 DWS

Elem	Ag	Al	As	B	Ba	Be	Bi
Avge	7443	2327	1779	1317	355	197	1605
SDev	10	9	14	10	2	1	23
%RSD	.1411	.3994	.7875	.7219	.4307	.5852	1.403
#1	7432	2316	1765	1307	355	198	1579
#2	7443	2333	1780	1326	356	198	1618
#3	7453	2331	1793	1317	353	196	1618

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Avge	1372	718	7094	1618	504	553	2161
SDev	5	30	22	15	4	4	6
%RSD	.3367	4.154	.3153	.9146	.7154	.7882	.2712
#1	1369	733	7070	1611	507	548	2154
#2	1369	738	7099	1635	500	556	2165
#3	1377	684	7114	1608	505	555	2163

Elem	Eu	Fe	K	La	Li	Mg	Mn
Avge	384	644	2258	1118	442	2683	220
SDev	2	5	11	5	4	8	1
%RSD	.3981	.7006	.5030	.4099	.9137	.2911	.5257
#1	382	639	2245	1113	440	2674	219
#2	384	648	2263	1119	440	2688	219
#3	385	644	2266	1122	447	2687	221

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Avge	895	459	4133	539	1392	15290	16670
SDev	6	4	12	5	30	85	40
%RSD	.6156	.8254	.2784	.9515	2.133	.5550	.2369
#1	895	456	4121	535	1416	15190	16630
#2	900	463	4144	538	1359	15340	16690
#3	889	457	4133	545	1402	15330	16710

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Avge	16840	4742	2842	1577	4432	7623	164
SDev	56	12	12	6	8	23	1
%RSD	.3325	.2432	.4400	.3493	.1791	.3026	.3513
#1	16780	4743	2836	1577	4426	7597	164
#2	16880	4753	2856	1582	4441	7641	164
#3	16870	4730	2833	1571	4429	7631	165

Elem	Te	Th	Ti	Tl	U	V	W
Avge	11280	2618	721	429	18970	1088	355
SDev	4	5	5	4	100	1	9
%RSD	.0336	.1985	.6251	.9413	.5281	.1062	2.620
#1	11280	2615	717	430	18850	1087	347
#2	11280	2615	726	425	19030	1089	365
#3	11280	2624	721	433	19010	1087	352

Analysis Report Wed 03-06-96 08:17:54 AM page 2

Elem	Y	Zn	Zr
Avge	277	395	880
SDev	2	11	2
%RSD	.6253	2.791	.1968
#1	275	402	878
#2	278	382	881
#3	278	400	881

Analysis Report Wed 03-06-96 08:21:20 AM page 1

Method: ICP1A Sample Name: SPC-BLK 106448 Operator: DRS
Run Time: 03/06/96 08:16:36
Comment: SPC-BLK FOR Mn/Cu RATIO
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0427	.2545	.1816	.0224	.0100	.0017	.1517
SDev	.0002	.0049	.0075	.0012	.0002	.0001	.0105
%RSD	.5666	1.930	4.130	5.323	2.181	5.019	6.926
#1	.0428	.2489	.1741	.0212	.0100	.0018	.1395
#2	.0424	.2581	.1816	.0235	.0102	.0018	.1577
#3	.0429	.2564	.1891	.0224	.0098	.0016	.1577

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0777	.0295	.3265	.0467	.0184	.0394	.0484
SDev	.0015	.0037	.0052	.0019	.0007	.0020	.0006
%RSD	1.976	12.47	1.588	4.161	3.846	5.110	1.291
#1	.0774	.0314	.3210	.0458	.0190	.0371	.0477
#2	.0763	.0319	.3271	.0489	.0176	.0408	.0489
#3	.0793	.0253	.3313	.0453	.0186	.0403	.0487

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0152	.0224	8.320	.0828	.0351	.1643	.0033
SDev	.0003	.0013	.264	.0017	.0020	.0002	.0002
%RSD	2.137	5.634	3.173	2.091	5.639	.1403	6.030
#1	.0148	.0211	8.017	.0809	.0339	.1641	.0032
#2	.0152	.0236	8.436	.0830	.0339	.1641	.0031
#3	.0154	.0224	8.505	.0844	.0374	.1645	.0035

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0377	.5330	.2885	.0281	.2721	.3006	.7892
SDev	.0011	.0213	.0040	.0020	.0297	.0077	.0097
%RSD	2.930	3.989	1.377	7.279	10.92	2.559	1.230
#1	.0378	.5180	.2846	.0264	.2958	.2917	.7781
#2	.0388	.5574	.2926	.0275	.2387	.3055	.7939
#3	.0366	.5237	.2884	.0303	.2817	.3045	.7957

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3883	.1541	.2093	.2584	-.3921	1.374	.0038
SDev	.0063	.0020	.0044	.0042	.0015	.017	.0001
%RSD	1.618	1.299	2.125	1.623	.3944	1.231	2.013
#1	.3811	.1547	.2073	.2588	-.3910	1.355	.0037
#2	.3928	.1557	.2144	.2623	-.3914	1.387	.0037
#3	.3909	.1518	.2062	.2540	-.3939	1.381	.0039

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2829	.0032	.0189	.1499	4.428	.0384	.1346
SDev	.0006	.0066	.0006	.0087	.123	.0002	.0186

%RSD	.2016	210.3	3.430	5.796	2.781	.5199	13.83
#1	.2829	.0099	.0183	.1521	4.287	.0384	.1193
#2	.2824	-.0033	.0196	.1403	4.513	.0385	.1553
#3	.2835	.0029	.0188	.1572	4.485	.0381	.1292

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0171	.0031	.0336
SDev	.0006	.0009	.0008
%RSD	3.492	28.67	2.246
#1	.0164	.0038	.0328
#2	.0175	.0021	.0343
#3	.0175	.0036	.0338

Analysis Report Wed 03-06-96 08:23:15 AM page 1

Method: ICP1A Sample Name: SPC-STD 9501031100 Operator: DRS
Run Time: 03/06/96 08:21:57
Comment: SPC-STD FOR Mn/Cu RATIO
Mode: INT Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Avge	7335	2307	1771	1323	350	194	1800
SDev	24	10	29	6	1	1	16
%RSD	.3204	.4512	1.639	.4617	.1651	.2971	.8731
#1	7335	2310	1772	1330	350	194	1811
#2	7359	2315	1741	1322	350	195	1782
#3	7312	2295	1799	1318	349	194	1807

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Avge	1736	746	6947	1552	516	20650	2315
SDev	6	63	20	6	12	13	4
%RSD	.3173	8.406	.2810	.3548	2.343	.0643	.1517
#1	1732	689	6946	1552	512	20630	2315
#2	1742	813	6967	1558	530	20660	2319
#3	1733	735	6928	1547	507	20660	2312

Elem	Eu	Fe	K	La	Li	Mg	Mn
Avge	376	684	2214	1092	21540	2723	65010
SDev	1	2	11	6	77	22	91
%RSD	.3068	.2232	.4830	.5045	.3587	.8216	.1405
#1	377	686	2216	1092	21480	2718	64950
#2	377	683	2223	1097	21520	2747	65120
#3	375	684	2202	1086	21630	2703	64970

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Avge	903	450	4047	526	1511	133300	16320
SDev	3	6	15	14	4	537	58
%RSD	.3559	1.301	.3739	2.695	.2675	.4028	.3565
#1	901	457	4042	510	1507	132900	16350
#2	902	448	4064	531	1515	133900	16370
#3	907	446	4035	537	1510	133100	16260

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Avge	16490	4667	2853	1576	4406	7516	164
SDev	79	17	15	19	9	36	1
%RSD	.4805	.3566	.5108	1.198	.2059	.4747	.6098
#1	16490	4655	2841	1592	4410	7499	164
#2	16560	4686	2848	1580	4413	7557	165
#3	16400	4660	2869	1555	4396	7492	163

Elem	Te	Th	Ti	Tl	U	V	W
Avge	11630	2565	710	443	18490	1069	359
SDev	60	19	4	5	61	5	4
%RSD	.5119	.7246	.5695	1.114	.3271	.4217	1.004
#1	11690	2556	712	437	18490	1069	358
#2	11640	2586	712	446	18560	1074	363
#3	11570	2552	705	445	18430	1065	356

Elem	Y	Zn	Zr
Avge	271	137200	859
SDev	1	217	7
%RSD	.2128	.1583	.7754
#1	271	137000	862
#2	272	137400	863
#3	271	137300	851

Analysis Report Wed 03-06-96 08:25:27 AM page 1

Method: ICP1A Sample Name: SPC-STD 950103I100 Operator: DRS
Run Time: 03/06/96 08:21:57
Comment: SPC-STD FOR Mn/Cu RATIO
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0405	.2301	.1792	.0237	.0093	.0016	.1431
SDev	.0006	.0064	.0167	.0008	.0001	.0000	.0074
%RSD	1.549	2.770	9.338	3.473	.8876	1.892	5.187
#1	.0405	.2335	.1799	.0247	.0093	.0016	.1483
#2	.0412	.2341	.1621	.0235	.0093	.0017	.1346
#3	.0399	.2228	.1956	.0231	.0092	.0016	.1464

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2109	.0328	.2916	.0381	.0208	10.64	.0455
SDev	.0017	.0077	.0046	.0007	.0024	.01	.0003
%RSD	.8038	23.47	1.582	1.804	11.35	.0657	.7069
#1	.2096	.0260	.2913	.0381	.0200	10.64	.0455
#2	.2128	.0412	.2964	.0388	.0235	10.65	.0458
#3	.2103	.0314	.2872	.0374	.0190	10.65	.0452

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0137	.0188	7.289	.0726	10.37	.1491	11.65
SDev	.0002	.0006	.248	.0022	.04	.0118	.02
%RSD	1.750	3.026	3.409	2.990	.3650	7.930	.1407
#1	.0138	.0194	7.343	.0728	10.33	.1460	11.64
#2	.0138	.0182	7.506	.0747	10.35	.1621	11.67
#3	.0134	.0188	7.018	.0704	10.41	.1390	11.64

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0350	.4864	.2577	.0228	.2330	11.87	.7039
SDev	.0006	.0330	.0056	.0056	.0037	.05	.0142
%RSD	1.867	6.778	2.178	24.77	1.565	.4408	2.013
#1	.0346	.5239	.2557	.0164	.2297	11.83	.7142
#2	.0347	.4732	.2640	.0248	.2369	11.93	.7097
#3	.0358	.4620	.2533	.0272	.2326	11.84	.6878

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3474	.1430	.2134	.2578	-.3899	1.238	.0038
SDev	.0094	.0027	.0052	.0147	.0014	.030	.0001
%RSD	2.714	1.889	2.450	5.694	.3679	2.453	3.505
#1	.3483	.1410	.2092	.2705	-.3888	1.223	.0038
#2	.3563	.1461	.2117	.2611	-.3895	1.273	.0039
#3	.3375	.1420	.2192	.2417	-.3915	1.219	.0036

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2756	.0091	.0175	.1763	3.865	.0354	.1440
SDev	.0072	.0058	.0006	.0095	.070	.0008	.0071

%RSD	2.598	63.84	3.466	5.384	1.821	2.261	4.927
#1	.2825	.0047	.0179	.1654	3.865	.0354	.1420
#2	.2761	.0158	.0178	.1823	3.935	.0363	.1519
#3	.2682	.0070	.0168	.1813	3.794	.0347	.1381

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0153	11.17	.0288
SDev	.0002	.02	.0014
%RSD	1.201	.1586	4.695
#1	.0152	11.15	.0299
#2	.0155	11.19	.0293
#3	.0152	11.18	.0273

Standardization Rpt. Wed 03-06-96 08:47:41 AM page 1

Method: ICP1A Standard: ICP1.0

Elem	Ag	Al	As	B	Ba	Be	Bi
Avge	.7319	.2293	.1761	.1270	.0354	.0195	.1590
SDev	.0018	.0005	.0013	.0018	.0002	.0001	.0010
%RSD	.2483	.1999	.7101	1.413	.4893	.2956	.6453
#1	.7313	.2289	.1775	.1250	.0356	.0195	.1599
#2	.7339	.2292	.1752	.1277	.0353	.0195	.1579
#3	.7304	.2298	.1755	.1284	.0353	.0196	.1593

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Avge	.1356	.0641	.6995	.1560	.0502	.0549	.2127
SDev	.0001	.0033	.0021	.0001	.0004	.0001	.0003
%RSD	.0737	5.148	.3000	.0740	.8683	.2105	.1244
#1	.1356	.0674	.6979	.1561	.0504	.0548	.2130
#2	.1357	.0608	.7019	.1561	.0505	.0548	.2125
#3	.1355	.0641	.6988	.1559	.0497	.0550	.2126

Elem	Eu	Fe	K	La	Li	Mg	Mn
Avge	.0378	.0633	.2224	.1100	.0434	.2642	.0218
SDev	.0001	.0003	.0003	.0003	.0003	.0013	.0001
%RSD	.2645	.3978	.1131	.2289	.6096	.4941	.5289
#1	.0378	.0635	.2222	.1097	.0435	.2652	.0219
#2	.0379	.0633	.2227	.1102	.0436	.2627	.0217
#3	.0377	.0630	.2224	.1100	.0431	.2646	.0219

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Avge	.0888	.0448	.4074	.0526	.1391	1.508	1.642
SDev	.0004	.0004	.0013	.0004	.0006	.006	.001
%RSD	.4060	.9014	.3069	.7678	.4150	.3872	.0883
#1	.0884	.0449	.4061	.0527	.1388	1.512	1.642
#2	.0889	.0452	.4074	.0522	.1398	1.511	1.643
#3	.0891	.0444	.4086	.0530	.1388	1.501	1.640

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Avge	1.657	.4706	.2814	.1571	.4269	.7503	.0162
SDev	.005	.0006	.0006	.0005	.0017	.0024	.0000
%RSD	.3226	.1170	.1979	.3266	.3992	.3257	.0000
#1	1.658	.4711	.2815	.1567	.4285	.7530	.0162
#2	1.662	.4700	.2808	.1577	.4251	.7498	.0162
#3	1.651	.4706	.2819	.1570	.4270	.7482	.0162

Elem	Te	Th	Ti	Tl	U	V	W
Avge	1.110	.2576	.0709	.0420	1.863	.1072	.0348
SDev	.003	.0011	.0001	.0004	.004	.0002	.0008
%RSD	.3026	.4187	.1410	.9921	.2202	.1866	2.230
#1	1.113	.2584	.0708	.0415	1.863	.1072	.0342
#2	1.107	.2564	.0710	.0423	1.867	.1074	.0346
#3	1.111	.2581	.0709	.0421	1.859	.1070	.0357

Elem	Y	Zn	Zr
Avge	.0274	.0378	.0867
SDev	.0001	.0006	.0003

%RSD	.2110	1.549	.2902
#1	.0274	.0385	.0867
#2	.0274	.0374	.0870
#3	.0273	.0376	.0865

Standardization Rpt. Wed 03-06-96 08:49:23 AM page 1

Method: ICP1A Standard: ICP1.1B

Elem	Ba	Co	Cr	Cu	Fe	Mg	Mo
Avge	.7914	1.940	1.279	.4608	7.357	4.652	1.266
SDev	.0095	.017	.011	.0047	.067	.040	.008
%RSD	1.199	.8914	.8707	1.013	.9147	.8566	.6636
#1	.7885	1.936	1.272	.4586	7.339	4.638	1.262
#2	.7837	1.926	1.274	.4577	7.300	4.621	1.260
#3	.8020	1.959	1.292	.4662	7.431	4.697	1.276

Elem	Na	Ni	Pb	Sr	Ti	Zn	Zr
Avge	.5017	.6533	7.570	.8492	1.451	2.848	2.571
SDev	.0049	.0040	.030	.0101	.014	.024	.027
%RSD	.9722	.6174	.4029	1.187	.9882	.8548	1.065
#1	.5007	.6527	7.561	.8458	1.447	2.843	2.562
#2	.4974	.6496	7.545	.8412	1.439	2.826	2.548
#3	.5070	.6576	7.604	.8605	1.467	2.874	2.601

Standardization Rpt. Wed 03-06-96 08:53:30 AM page 1

Method: ICP1A Standard: ICP1.1A

Elem	Ba	Co	Cr	Cu	Fe	Mg	Mo
Avge	7.463	16.97	11.70	3.978	68.11	39.86	11.34
SDev	.055	.11	.08	.029	.46	.24	.06
%RSD	.7422	.6224	.6832	.7290	.6728	.6127	.5568
#1	7.455	16.95	11.69	3.970	68.07	39.83	11.32
#2	7.522	17.08	11.78	4.009	68.58	40.12	11.40
#3	7.412	16.87	11.62	3.953	67.66	39.63	11.28

Elem	Na	Ni	Pb	Sr	Ti	Zn	Zr
Avge	4.517	5.679	58.78	8.178	13.68	26.74	24.04
SDev	.029	.033	.31	.059	.10	.16	.17
%RSD	.6475	.5779	.5250	.7196	.7113	.6087	.7079
#1	4.517	5.673	58.67	8.163	13.66	26.72	24.03
#2	4.547	5.715	59.13	8.243	13.78	26.91	24.21
#3	4.488	5.650	58.54	8.129	13.59	26.59	23.87

Standardization Rpt. Wed 03-06-96 08:57:19 AM page 1

Method: ICP1A Standard: ICP1.2

Elem	Al	B	Ca	Cd	K	Li	Mn
Avge	62.26	40.96	81.28	9.145	2.433	10.51	6.308
SDev	.52	.35	.54	.072	.019	.11	.046
%RSD	.8408	.8629	.6668	.7884	.7928	1.024	.7220
#1	62.71	41.26	81.75	9.217	2.449	10.61	6.347
#2	61.69	40.57	80.69	9.073	2.412	10.40	6.258
#3	62.39	41.06	81.39	9.146	2.438	10.51	6.319

Elem	P
Avge	12.30
SDev	.08
%RSD	.6529
#1	12.37
#2	12.21
#3	12.31

Standardization Rpt. Wed 03-06-96 09:01:28 AM page 1

Method: ICP1A Standard: ICP1.3

Elem	Dy	Eu	La	Nd	Ru	Th
Avge	41.17	10.05	5.306	13.96	34.25	11.33
SDev	.27	.06	.031	.08	.18	.06
%RSD	.6480	.6389	.5754	.6083	.5240	.5425
#1	41.29	10.07	5.315	13.99	34.29	11.34
#2	40.86	9.979	5.272	13.86	34.05	11.27
#3	41.35	10.10	5.331	14.03	34.40	11.39

Standardization Rpt. Wed 03-06-96 09:05:29 AM page 1

Method: ICP1A Standard: ICP1.4

Elem	As	Ca	Sb	V	Y
Avge	21.45	21.63	25.48	11.34	2.949
SDev	.07	.13	.10	.05	.017
%RSD	.3110	.5844	.3845	.4208	.5609
#1	21.38	21.49	25.37	11.29	2.930
#2	21.51	21.73	25.55	11.38	2.961
#3	21.46	21.67	25.52	11.35	2.955

Standardization Rpt. Wed 03-06-96 09:09:30 AM page 1

Method: ICP1A Standard: ICP1.5

Elem	U
Avge	45.46
SDev	.06
%RSD	.1404
#1	45.51
#2	45.39
#3	45.47

Standardization Rpt. Wed 03-06-96 09:14:11 AM page 1

Method: ICP1A Standard: ICP1.6

Elem	Be	Si	Te
Avge	1.715	73.12	48.63
SDev	.003	.10	.07
%RSD	.2003	.1406	.1387
#1	1.719	73.23	48.71
#2	1.714	73.03	48.59
#3	1.713	73.11	48.60

Standardization Rpt. Wed 03-06-96 09:18:36 AM page 1

Method: ICP1A Standard: ICP1.7

Elem	Ag	Bi	Se	Tl
Avge	28.26	23.12	3.248	1.253
SDev	.07	.05	.007	.003
%RSD	.2333	.2276	.2106	.2349
#1	28.19	23.06	3.242	1.252
#2	28.27	23.13	3.256	1.257
#3	28.32	23.16	3.247	1.252

Standardization Rpt. Wed 03-06-96 09:22:49 AM page 1

Method: ICP1A Standard: ICP1.8

Elem	Pd	Rh	Sn	W
Avge	18.31	42.73	7.432	2.900
SDev	.08	.21	.003	.009
%RSD	.4490	.4862	.0435	.3092
#1	18.32	42.79	7.436	2.899
#2	18.23	42.50	7.430	2.891
#3	18.39	42.90	7.431	2.909

Standardization Report Wed 03-06-96 09:23:09 AM page 1

Method: ICP1A Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Ag	328.068	ICP1.7	ICP1.0	.363288	-.265878	03/06/96 09:21:31
Al	308.215	ICP1.2	ICP1.0	8.06010	-1.84818	03/06/96 09:21:31
As	193.600	ICP1.4	ICP1.0	4.70085	-.827662	03/06/96 09:21:31
B	249.600	ICP1.2	ICP1.0	1.22449	-.155551	03/06/96 09:21:31
Ba	493.400	Multiple	Standards	1.33450	-.047320	03/06/96 08:56:01
Be	313.042	ICP1.6	ICP1.0	.589657	-.011518	03/06/96 09:21:31
Bi	223.061	ICP1.7	ICP1.0	4.35577	-.692712	03/06/96 09:21:31
Ca	317.900	ICP1.2	ICP1.0	3.08106	-.417792	03/06/96 09:21:31
Cd	228.800	ICP1.2	ICP1.0	1.10122	-.070588	03/06/96 09:21:31
Ce	418.659	ICP1.4	ICP1.0	2.38852	-1.67085	03/06/96 09:21:31
Co	228.600	Multiple	Standards	1.15443	-.180662	03/06/96 08:56:01
Cr	205.500	Multiple	Standards	1.67116	-.084375	03/06/96 08:56:01
Cu	324.700	Multiple	Standards	5.01149	-.275271	03/06/96 08:56:01
Dy	353.170	ICP1.3	ICP1.0	1.22081	-.259667	03/06/96 09:21:31
Eu	381.900	ICP1.3	ICP1.0	1.99747	-.075504	03/06/96 09:21:31
Fe	259.900	Multiple	Standards	2.83781	-.185761	03/06/96 08:56:01
K	766.500	ICP1.2	ICP1.0	226.169	-50.3076	03/06/96 09:21:31
La	398.852	ICP1.3	ICP1.0	3.84902	-.423263	03/06/96 09:21:31
Li	670.700	ICP1.2	ICP1.0	4.77842	-.207384	03/06/96 09:21:31
Mg	279.078	Multiple	Standards	5.99112	-1.59415	03/06/96 08:56:01
Mn	257.600	ICP1.2	ICP1.0	1.59079	-.034732	03/06/96 09:21:31
Mo	202.000	Multiple	Standards	1.73787	-.154732	03/06/96 08:56:01
Na	588.900	Multiple	Standards	55.3059	-2.48193	03/06/96 08:56:01
Nd	406.106	ICP1.3	ICP1.0	3.68957	-1.50301	03/06/96 09:21:31
Ni	231.600	Multiple	Standards	3.43894	-.181588	03/06/96 08:56:01
P	214.900	ICP1.2	ICP1.0	8.22427	-1.14427	03/06/96 09:21:31
Pb	220.300	Multiple	Standards	.848346	-1.28052	03/06/96 08:56:01
Pd	360.959	ICP1.8	ICP1.0	2.99907	-4.92397	03/06/96 09:21:31
Rh	343.489	ICP1.8	ICP1.0	1.21733	-2.01740	03/06/96 09:21:31
Ru	240.271	ICP1.3	ICP1.0	1.48033	-.696594	03/06/96 09:21:31
Sb	206.838	ICP1.4	ICP1.0	3.17492	-.893423	03/06/96 09:21:31
Se	196.026	ICP1.7	ICP1.0	6.47047	-1.01673	03/06/96 09:21:31
Si	288.100	ICP1.6	ICP1.0	2.75121	-1.17440	03/06/96 09:21:31
Sn	242.950	ICP1.8	ICP1.0	8.49792	-6.37628	03/06/96 09:21:31
Sr	421.500	Multiple	Standards	1.21278	-.019738	03/06/96 08:56:01
Te	214.275	ICP1.6	ICP1.0	1.05214	-1.16837	03/06/96 09:21:31
Th	283.730	ICP1.3	ICP1.0	4.51374	-1.16289	03/06/96 09:21:31
Ti	334.900	Multiple	Standards	1.45936	-.103596	03/06/96 08:56:01
Tl	190.864	ICP1.7	ICP1.0	16.5094	-.692843	03/06/96 09:21:31
U	378.280	ICP1.5	ICP1.0	11.4696	-21.3675	03/06/96 09:21:31
V	292.402	ICP1.4	ICP1.0	1.78016	-.190833	03/06/96 09:21:31
W	224.875	ICP1.8	ICP1.0	17.6932	-.616315	03/06/96 09:21:31
Y	371.030	ICP1.4	ICP1.0	3.42294	-.093674	03/06/96 09:21:31
Zn	213.800	Multiple	Standards	.729972	-.028073	03/06/96 08:56:01
Zr	339.100	Multiple	Standards	2.04985	-.178608	03/06/96 08:56:01

Standardization Report Wed 03-06-96 09:23:33 AM page 1

Method: ICP1A Slope = IR/Conc(SIR)

Element	Wavelen	High std	Low std	Slope	BEC	Date Standardized
Ag	328.068	ICP1.7	ICP1.0	2.75264	.265878	03/06/96 09:21:31
Al	308.215	ICP1.2	ICP1.0	.124068	1.84818	03/06/96 09:21:31
As	193.600	ICP1.4	ICP1.0	.212728	.827662	03/06/96 09:21:31
B	249.600	ICP1.2	ICP1.0	.816667	.155551	03/06/96 09:21:31
Ba	493.400	Multiple	Standards	.749346	.047320	03/06/96 08:56:01
Be	313.042	ICP1.6	ICP1.0	1.69590	.011518	03/06/96 09:21:31
Bi	223.061	ICP1.7	ICP1.0	.229581	.692712	03/06/96 09:21:31
Ca	317.900	ICP1.2	ICP1.0	.324563	.417792	03/06/96 09:21:31
Cd	228.800	ICP1.2	ICP1.0	.908087	.070588	03/06/96 09:21:31
Ce	418.659	ICP1.4	ICP1.0	.418670	1.67085	03/06/96 09:21:31
Co	228.600	Multiple	Standards	.866227	.180662	03/06/96 08:56:01
Cr	205.500	Multiple	Standards	.598388	.084375	03/06/96 08:56:01
Cu	324.700	Multiple	Standards	.199541	.275271	03/06/96 08:56:01
Dy	353.170	ICP1.3	ICP1.0	.819126	.259667	03/06/96 09:21:31
Eu	381.900	ICP1.3	ICP1.0	.500633	.075504	03/06/96 09:21:31
Fe	259.900	Multiple	Standards	.352385	.185761	03/06/96 08:56:01
K	766.500	ICP1.2	ICP1.0	.004421	50.3076	03/06/96 09:21:31
La	398.852	ICP1.3	ICP1.0	.259807	.423263	03/06/96 09:21:31
Li	670.700	ICP1.2	ICP1.0	.209274	.207384	03/06/96 09:21:31
Mg	279.078	Multiple	Standards	.166914	1.59415	03/06/96 08:56:01
Mn	257.600	ICP1.2	ICP1.0	.628617	.034732	03/06/96 09:21:31
Mo	202.000	Multiple	Standards	.575416	.154732	03/06/96 08:56:01
Na	588.900	Multiple	Standards	.018081	2.48193	03/06/96 08:56:01
Nd	406.106	ICP1.3	ICP1.0	.271034	1.50301	03/06/96 09:21:31
Ni	231.600	Multiple	Standards	.290787	.181588	03/06/96 08:56:01
P	214.900	ICP1.2	ICP1.0	.121591	1.14427	03/06/96 09:21:31
Pb	220.300	Multiple	Standards	1.17876	1.28052	03/06/96 08:56:01
Pd	360.959	ICP1.8	ICP1.0	.333437	4.92397	03/06/96 09:21:31
Rh	343.489	ICP1.8	ICP1.0	.621469	2.01740	03/06/96 09:21:31
Ru	240.271	ICP1.3	ICP1.0	.675525	.696594	03/06/96 09:21:31
Sb	206.838	ICP1.4	ICP1.0	.314968	.893423	03/06/96 09:21:31
Se	196.026	ICP1.7	ICP1.0	.154548	1.01673	03/06/96 09:21:31
Si	288.100	ICP1.6	ICP1.0	.363476	1.17440	03/06/96 09:21:31
Sn	242.950	ICP1.8	ICP1.0	.117676	6.37628	03/06/96 09:21:31
Sr	421.500	Multiple	Standards	.824549	.019738	03/06/96 08:56:01
Te	214.275	ICP1.6	ICP1.0	.950443	1.16837	03/06/96 09:21:31
Th	283.730	ICP1.3	ICP1.0	.221546	1.16289	03/06/96 09:21:31
Ti	334.900	Multiple	Standards	.685233	.103596	03/06/96 08:56:01
Tl	190.864	ICP1.7	ICP1.0	.060572	.692843	03/06/96 09:21:31
U	378.280	ICP1.5	ICP1.0	.087187	21.3675	03/06/96 09:21:31
V	292.402	ICP1.4	ICP1.0	.561748	.190833	03/06/96 09:21:31
W	224.875	ICP1.8	ICP1.0	.056519	.616315	03/06/96 09:21:31
Y	371.030	ICP1.4	ICP1.0	.292147	.093674	03/06/96 09:21:31
Zn	213.800	Multiple	Standards	1.36992	.028073	03/06/96 08:56:01
Zr	339.100	Multiple	Standards	.487840	.178608	03/06/96 08:56:01

Standardization Readback Report Wed 03-06-96 09:25:26 AM page 1

Method: ICP1A

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ag	328.068	ICP1.0	.000000	-.000000	.000000
		ICP1.7	10.0000	10.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Al	308.215	ICP1.0	.000000	-.000000	.000000
		ICP1.2	500.000	500.000	-.000031
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
As	193.600	ICP1.0	.000000	-.000000	.000000
		ICP1.4	100.000	100.000	-.000008
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
B	249.600	ICP1.0	.000000	-.000000	.000000
		ICP1.2	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ba	493.400	ICP1.0	.000000	-.000079	.000079
		ICP1.1B	1.00000	1.00880	-.008801
		ICP1.1A	10.0000	9.91199	.088009
CorCoef:	1.00000				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Be	313.042	ICP1.0	.000000	.000000	-.000000
		ICP1.6	1.00000	1.00000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Bi	223.061	ICP1.0	.000000	-.000000	.000000
		ICP1.7	100.000	100.000	-.000008
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ca	317.900	ICP1.0	.000000	-.000000	.000000
		ICP1.2	250.000	250.000	-.000015
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cd	228.800	ICP1.0	.000000	.000000	-.000000
		ICP1.2	10.0000	10.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ce	418.659	ICP1.0	.000000	-.000000	.000000
		ICP1.4	50.0000	50.0000	.000000

Standardization Readback Report Wed 03-06-96 09:25:26 AM page 2

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Co	228.600	ICP1.0	.000000	-.000532	.000532
		ICP1.1B	2.00000	2.05917	-.059165
		ICP1.1A	20.0000	19.4083	.591656
CorCoef:	0.99998				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cr	205.500	ICP1.0	.000000	-.000483	.000483
		ICP1.1B	2.00000	2.05365	-.053647
		ICP1.1A	20.0000	19.4635	.536469
CorCoef:	0.99999				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cu	324.700	ICP1.0	.000000	-.000308	.000308
		ICP1.1B	2.00000	2.03419	-.034190
		ICP1.1A	20.0000	19.6581	.341904
CorCoef:	0.99999				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Dy	353.170	ICP1.0	.000000	-.000000	.000000
		ICP1.3	50.0000	50.0000	.000004
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Eu	381.900	ICP1.0	.000000	-.000000	.000000
		ICP1.3	20.0000	20.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Fe	259.900	ICP1.0	.000000	-.006222	.006222
		ICP1.1B	20.0000	20.6913	-.691338
		ICP1.1A	200.000	193.087	6.91338
CorCoef:	0.99998				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
K	766.500	ICP1.0	.000000	-.000001	.000001
		ICP1.2	500.000	500.000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
La	398.852	ICP1.0	.000000	-.000000	.000000
		ICP1.3	20.0000	20.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Li	670.700	ICP1.0	.000000	-.000000	.000000
		ICP1.2	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mg	279.078	ICP1.0	.000000	-.011498	.011498
		ICP1.1B	25.0000	26.2775	-1.27753
		ICP1.1A	250.000	237.225	12.7754
CorCoef:	0.99995				

Standardization Readback Report Wed 03-06-96 09:25:26 AM page 3

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mn	257.600	ICP1.0	.000000	-.000000	.000000
		ICP1.2	10.0000	10.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mo	202.000	ICP1.0	.000000	-.000409	.000409
		ICP1.1B	2.00000	2.04547	-.045473
		ICP1.1A	20.0000	19.5453	.454725
CorCoef:	0.99999				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Na	588.900	ICP1.0	.000000	-.002385	.002385
		ICP1.1B	25.0000	25.2650	-.265039
		ICP1.1A	250.000	247.350	2.65039
CorCoef:	1.00000				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Nd	406.106	ICP1.0	.000000	.000000	-.000000
		ICP1.3	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ni	231.600	ICP1.0	.000000	-.000586	.000586
		ICP1.1B	2.00000	2.06507	-.065071
		ICP1.1A	20.0000	19.3493	.650705
CorCoef:	0.99998				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
P	214.900	ICP1.0	.000000	.000000	-.000000
		ICP1.2	100.000	100.000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb	220.300	ICP1.0	.000000	-.001275	.001275
		ICP1.1B	5.00000	5.14165	-.141650
		ICP1.1A	50.0000	48.5835	1.41650
CorCoef:	0.99998				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pd	360.959	ICP1.0	.000000	.000000	-.000000
		ICP1.8	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Rh	343.489	ICP1.0	.000000	-.000000	.000000
		ICP1.8	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ru	240.271	ICP1.0	.000000	-.000000	.000000
		ICP1.3	50.0000	50.0000	.000000

Standardization Readback Report Wed 03-06-96 09:25:26 AM page 4

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sb	206.838	ICP1.0	.000000	.000000	-.000000
		ICP1.4	80.0000	80.0000	.000000
Se	196.026	ICP1.0	.000000	.000000	-.000000
		ICP1.7	20.0000	20.0000	.000000
Si	288.100	ICP1.0	.000000	-.000000	.000000
		ICP1.6	200.000	200.000	.000000
Sn	242.950	ICP1.0	.000000	.000000	-.000000
		ICP1.8	50.0000	56.7845	-6.78455
Sr	421.500	ICP1.0	.000000	-.000091	.000091
		ICP1.1B	1.00000	1.01012	-.010118
		ICP1.1A	10.0000	9.89882	.101181
CorCoef:	1.00000				
Te	214.275	ICP1.0	.000000	-.000000	.000000
		ICP1.6	50.0000	50.0000	.000000
Th	283.730	ICP1.0	.000000	.000000	-.000000
		ICP1.3	50.0000	50.0000	.000000
Ti	334.900	ICP1.0	.000000	-.000127	.000127
		ICP1.1B	2.00000	2.01413	-.014128
		ICP1.1A	20.0000	19.8587	.141277
CorCoef:	1.00000				
Tl	190.864	ICP1.0	.000000	.000000	-.000000
		ICP1.7	20.0000	20.0000	.000002
U	378.280	ICP1.0	.000000	-.000000	.000000
		ICP1.5	500.000	500.000	.000000
V	292.402	ICP1.0	.000000	.000000	-.000000
		ICP1.4	20.0000	20.0000	.000000

Standardization Readback Report Wed 03-06-96 09:25:26 AM page 5

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
W	224.875	ICP1.0	.000000	.000000	-.000000
		ICP1.8	50.0000	50.6947	-.694698

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Y	371.030	ICP1.0	.000000	-.000000	.000000
		ICP1.4	10.0000	10.0000	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Zn	213.800	ICP1.0	.000000	-.000456	.000456
		ICP1.1B	2.00000	2.05069	-.050692
		ICP1.1A	20.0000	19.4931	.506920

CorCoef: 0.99999

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Zr	339.100	ICP1.0	.000000	-.000817	.000817
		ICP1.1B	5.00000	5.09081	-.090813
		ICP1.1A	50.0000	49.0919	.908134

CorCoef: 0.99999

Analysis Report Wed 03-06-96 09:36:18 AM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 03/06/96 09:34:59
Comment: (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0037	.0159	-.0021	.0009	-.0005	.0001	.0086
SDev	.0015	.0059	.0056	.0019	.0004	.0001	.0035
%RSD	40.92	37.24	264.5	220.7	83.48	53.49	40.54
#1	.0023	.0130	-.0086	-.0013	-.0009	.0001	.0055
#2	.0035	.0120	.0013	.0015	-.0005	.0001	.0124
#3	.0054	.0228	.0009	.0024	-.0001	.0002	.0080

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0032	.0305	.0090	.0018	.0005	.0055	.0013
SDev	.0020	.0054	.0111	.0016	.0021	.0022	.0011
%RSD	62.09	17.71	122.7	91.87	453.2	39.67	83.36
#1	.0009	.0368	-.0007	.0001	.0010	.0030	.0008
#2	.0041	.0273	.0067	.0019	.0022	.0063	.0005
#3	.0045	.0275	.0211	.0034	-.0018	.0071	.0025

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	-.0051	.2036	.0041	.0027	.0016	.0002
SDev	.0004	.0009	.2265	.0014	.0024	.0025	.0001
%RSD	49.10	17.72	111.3	34.54	88.82	157.1	87.14
#1	.0004	-.0058	-.0528	.0025	.0024	-.0009	.0002
#2	.0008	-.0054	.2865	.0046	.0005	.0015	.0000
#3	.0011	-.0041	.3769	.0052	.0053	.0042	.0003

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0015	.0196	.0149	.0017	.0091	.0155	.0567
SDev	.0018	.0085	.0096	.0027	.0118	.0102	.0204
%RSD	124.1	43.41	64.46	160.2	129.8	65.58	35.89
#1	.0001	.0179	.0053	.0038	-.0023	.0039	.0352
#2	.0008	.0288	.0148	-.0014	.0083	.0200	.0592
#3	.0035	.0121	.0245	.0027	.0213	.0227	.0757

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0217	.0097	.0193	.0200	.0459	.0607	.0002
SDev	.0067	.0073	.0091	.0039	.0010	.0183	.0001
%RSD	30.79	75.28	47.01	19.37	2.259	30.09	60.31
#1	.0160	.0023	.0136	.0158	.0449	.0664	.0002
#2	.0201	.0098	.0145	.0234	.0457	.0403	.0001
#3	.0290	.0169	.0297	.0208	.0470	.0755	.0004

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0179	-.0026	.0009	.0080	.2305	.0012	.0078
SDev	.0076	.0020	.0006	.0096	.0746	.0010	.0029

%RSD	42.40	77.01	66.27	120.2	32.36	80.83	37.75
#1	.0112	-.0040	.0003	-.0016	.1491	.0003	.0044
#2	.0163	-.0003	.0008	.0079	.2469	.0010	.0096
#3	.0261	-.0035	.0015	.0177	.2956	.0022	.0094

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0001	.0005	-.0007
SDev	.0003	.0011	.0007
%RSD	454.6	230.2	106.2
#1	-.0003	-.0008	-.0013
#2	.0003	.0011	-.0009
#3	.0002	.0012	.0001

Analysis Report QC Standard Wed 03-06-96 09:39:10 AM page 1

Method: ICP1A Sample Name: QC_MCVA1 9602261901 Operator: DRS
Run Time: 03/06/96 09:37:52
Comment: (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

PASS DRS 3/6/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4835	9.828	2.522	2.071	.4906	.0956	23.94
SDev	.0008	.018	.010	.008	.0007	.0001	.04
%RSD	.1675	.1823	.4158	.3674	.1413	.1547	.1508
#1	.4840	9.810	2.531	2.068	.4902	.0956	23.89
#2	.4826	9.830	2.524	2.066	.4902	.0955	23.96
#3	.4841	9.845	2.510	2.080	.4914	.0958	23.96
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.92	.4957	-.0097	.9906	.9873	.9458	-.0031
SDev	.05	.0031	.0082	.0027	.0076	.0016	.0006
%RSD	.1908	.6279	84.17	.2704	.7655	.1688	18.80
#1	24.87	.4950	-.0191	.9880	.9791	.9441	-.0037
#2	24.93	.4991	-.0037	.9904	.9940	.9463	-.0026
#3	24.96	.4929	-.0064	.9933	.9890	.9472	-.0030
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	20.05	24.72	.0008	1.988	32.08	.5091
SDev	.0002	.04	.07	.0006	.011	.06	.0017
%RSD	18.59	.1898	.2641	78.05	.5508	.1844	.3300
#1	.0008	20.01	24.64	.0001	2.000	32.05	.5073
#2	.0012	20.05	24.76	.0013	1.978	32.04	.5106
#3	.0010	20.09	24.76	.0009	1.985	32.14	.5095
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.000	36.12	-.0107	.9854	4.819	2.458	-.0580
SDev	.005	.11	.0027	.0036	.054	.010	.0044
%RSD	.5267	.3143	25.01	.3689	1.121	.4119	7.515
#1	.9941	36.25	-.0126	.9813	4.758	2.446	-.0623
#2	1.004	36.03	-.0076	.9868	4.860	2.463	-.0536
#3	1.002	36.09	-.0117	.9882	4.840	2.465	-.0580
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0206	.0021	2.515	2.530	18.29	.1985	.5005
SDev	.0056	.0006	.025	.018	.04	.0224	.0009
%RSD	27.13	27.58	.9805	.7098	.1947	11.29	.1753
#1	-.0257	.0015	2.487	2.510	18.25	.2202	.5001
#2	-.0147	.0027	2.534	2.540	18.29	.1998	.4999
#3	-.0213	.0021	2.524	2.541	18.32	.1754	.5015
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0474	.0354	.9781	2.434	-.1323	.9872	.0484
SDev	.0070	.0054	.0014	.015	.0651	.0014	.0037
%RSD	14.88	15.38	.1429	.6032	49.22	.1431	7.725
#1	.0462	.0326	.9770	2.417	-.2071	.9858	.0526
#2	.0550	.0417	.9776	2.445	-.1011	.9871	.0454
#3	.0410	.0320	.9797	2.439	-.0886	.9887	.0472
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0003	.9715	1.957
SDev	.0002	.0049	.002
%RSD	70.59	.5051	.1225
#1	-.0003	.9740	1.956
#2	-.0004	.9658	1.955
#3	-.0001	.9747	1.960
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report QC Standard Wed 03-06-96 09:43:37 AM page 1

Method: ICP1A Sample Name: QC_MCVB2 9602211901 Operator: DRS
Run Time: 03/06/96 09:42:18
Comment: (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

PASS DRS 3/6/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0023	-.0422	.2795	.1739	.0011	.0008	.0718
SDev	.0018	.0043	.0050	.0044	.0001	.0001	.0088
%RSD	77.31	10.18	1.777	2.544	11.90	6.078	12.22
#1	-.0005	-.0404	.2744	.1701	.0011	.0008	.0779
#2	-.0041	-.0471	.2798	.1787	.0010	.0008	.0618
#3	-.0024	-.0391	.2843	.1727	.0013	.0009	.0758
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0280	.0115	1.998	.0014	.0065	.0434	1.996
SDev	.0013	.0040	.009	.0006	.0008	.0009	.016
%RSD	4.759	34.70	.4645	44.21	11.53	2.092	.8097
#1	.0294	.0115	2.003	.0008	.0069	.0425	2.002
#2	.0268	.0075	2.004	.0015	.0069	.0443	2.008
#3	.0278	.0155	1.988	.0021	.0056	.0433	1.978
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			2.000				2.000
Range			10.00				10.00

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.012	.0149	-1.304	.9936	.0013	-.1247	.0013
SDev	.016	.0006	.227	.0069	.0007	.0032	.0004
%RSD	.7749	3.927	17.37	.6981	57.28	2.553	29.58
#1	2.018	.0155	-1.478	.9947	.0005	-.1283	.0014
#2	2.023	.0146	-1.387	1.0000	.0014	-.1226	.0009
#3	1.994	.0144	-1.048	.9862	.0019	-.1231	.0017
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK
Value	2.000			1.000			
Range	10.00			10.00			

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0090	.1905	1.979	.0218	.1368	.2464	1.974
SDev	.0012	.0290	.014	.0026	.0360	.0069	.015
%RSD	12.90	15.25	.6912	12.06	26.29	2.815	.7471
#1	.0092	.1794	1.985	.0189	.1514	.2391	1.976
#2	.0078	.2234	1.988	.0241	.0958	.2529	1.988
#3	.0101	.1685	1.963	.0223	.1631	.2472	1.959
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value			2.000				

Range			10.00				
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.003	2.050	.1099	.0738	8.113	2.157	.0027
SDev	.008	.012	.0109	.0035	.392	.021	.0001
%RSD	.4166	.5951	9.901	4.704	4.834	.9844	2.660
#1	2.005	2.047	.1033	.0704	7.691	2.153	.0026
#2	2.010	2.063	.1039	.0773	8.180	2.137	.0027
#3	1.994	2.039	.1225	.0737	8.467	2.180	.0027
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value	2.000	2.000				2.000	
Range	10.00	10.00				10.00	

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.955	9.923	.0044	.0236	23.95	.0011	2.019
SDev	.011	.050	.0006	.0086	.12	.0008	.008
%RSD	.5520	.5060	12.58	36.67	.5173	69.40	.3820
#1	1.945	9.943	.0038	.0326	24.00	.0003	2.013
#2	1.953	9.961	.0047	.0153	24.04	.0017	2.028
#3	1.966	9.866	.0047	.0229	23.81	.0013	2.015
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	QC Pass
Value	2.000	10.00			25.00		2.000
Range	10.00	10.00			10.00		10.00

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.9827	.0048	-.0445
SDev	.0079	.0010	.0015
%RSD	.8030	20.50	3.450
#1	.9858	.0038	-.0445
#2	.9885	.0051	-.0429
#3	.9737	.0057	-.0459
Errors	QC Pass	NOCHECK	NOCHECK
Value	1.000		
Range	10.00		

Analysis Report Wed 03-06-96 09:46:23 AM page 1

Method: ICP1A Sample Name: QC SSTA 9512081902 Operator: DRS
Run Time: 03/06/96 09:45:04
Comment: (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0066	256.5	.3707	.0625	.0096	-.0009	200.3
SDev	.0019	2.4	.0109	.0067	.0002	.0001	1.5
%RSD	28.70	.9336	2.954	10.77	2.129	16.17	.7728
#1	-.0044	253.8	.3710	.0701	.0098	-.0007	198.6
#2	-.0079	257.1	.3596	.0600	.0094	-.0009	200.8
#3	-.0074	258.5	.3815	.0574	.0095	-.0010	201.6

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	256.0	.0771	.1857	.0156	.2370	-.0964	.0369
SDev	1.6	.0014	.0122	.0024	.0029	.0038	.0018
%RSD	.6431	1.760	6.584	15.67	1.246	3.991	4.745
#1	254.1	.0763	.1985	.0184	.2342	-.0922	.0389
#2	256.4	.0764	.1844	.0137	.2366	-.0997	.0360
#3	257.3	.0787	.1741	.0148	.2401	-.0974	.0357

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0936	200.5	104.1	50.98	.0381	-.7997	.0219
SDev	.0001	1.4	.8	.48	.0019	.0175	.0000
%RSD	.1572	.6999	.7400	.9327	5.073	2.187	.1170
#1	.0935	198.9	103.3	50.44	.0401	-.7805	.0219
#2	.0936	200.9	104.1	51.15	.0363	-.8041	.0219
#3	.0938	201.6	104.8	51.35	.0377	-.8146	.0219

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1076	.9217	.2212	195.0	205.8	1.027	1.189
SDev	.0018	.0337	.0124	1.4	1.7	.009	.013
%RSD	1.690	3.658	5.605	.7061	.8050	.8331	1.056
#1	.1067	.8996	.2347	193.5	204.0	1.036	1.191
#2	.1097	.9051	.2186	195.3	206.2	1.027	1.176
#3	.1065	.9605	.2103	196.2	207.2	1.019	1.201

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2769	.1692	.4825	1.554	.0717	3.917	.0205
SDev	.0121	.0045	.0089	.009	.0846	.037	.0001
%RSD	4.372	2.663	1.848	.5892	117.9	.9468	.6901
#1	.2909	.1710	.4907	1.546	.1638	3.955	.0204
#2	.2703	.1725	.4730	1.553	.0540	3.881	.0204
#3	.2696	.1640	.4837	1.564	-.0026	3.915	.0206

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.7193	.2433	.0062	.3583	201.7	.0483	.6045
SDev	.0134	.0337	.0012	.0095	2.2	.0019	.0128

%RSD	1.867	13.84	18.96	2.639	1.097	3.903	2.123
#1	.7342	.2820	.0075	.3489	199.3	.0505	.6006
#2	.7155	.2209	.0054	.3679	202.3	.0469	.6188
#3	.7082	.2270	.0056	.3582	203.6	.0477	.5940

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0237	.0871	.0321
SDev	.0005	.0025	.0009
%RSD	2.194	2.867	2.926
#1	.0241	.0897	.0310
#2	.0238	.0848	.0327
#3	.0231	.0867	.0325

Analysis Report Wed 03-06-96 09:51:00 AM page 1

Method: ICP1A Sample Name: QC SSTMCV 951208I903 Operator: DRS
Run Time: 03/06/96 09:49:41
Comment: (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5170	5.299	2.169	.0043	.1021	.1023	1.758
SDev	.0025	.028	.009	.0016	.0005	.0008	.014
%RSD	.4814	.5191	.3995	38.24	.5282	.7359	.8124
#1	.5170	5.312	2.176	.0059	.1024	.1025	1.771
#2	.5145	5.267	2.173	.0026	.1015	.1015	1.743
#3	.5195	5.317	2.160	.0044	.1024	.1030	1.760

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.245	.2128	.0259	.0023	.3254	.0068	.0035
SDev	.014	.0043	.0042	.0006	.0051	.0010	.0004
%RSD	1.161	2.025	16.36	28.88	1.559	15.02	11.70
#1	1.261	.2135	.0306	.0030	.3222	.0076	.0034
#2	1.238	.2081	.0224	.0017	.3227	.0070	.0039
#3	1.235	.2167	.0248	.0021	.3312	.0056	.0031

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0087	.6786	51.57	.0443	.0048	-.0931	.1087
SDev	.0001	.0125	.25	.0041	.0014	.0142	.0009
%RSD	1.263	1.838	.4850	9.148	30.00	15.25	.8583
#1	.0087	.6920	51.60	.0481	.0048	-.0781	.1085
#2	.0087	.6764	51.31	.0450	.0062	-.0948	.1078
#3	.0085	.6673	51.81	.0400	.0033	-.1063	.1096

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0065	5.220	.0181	.7663	4.325	3.167	.0771
SDev	.0008	.014	.0022	.0147	.076	.018	.0099
%RSD	12.09	.2674	11.95	1.917	1.762	.5639	12.89
#1	.0072	5.222	.0202	.7830	4.334	3.172	.0717
#2	.0056	5.233	.0181	.7603	4.244	3.147	.0886
#3	.0066	5.205	.0159	.7555	4.396	3.181	.0711

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0311	.0139	2.201	2.634	3.006	.1826	.0018
SDev	.0014	.0030	.022	.013	.017	.0155	.0000
%RSD	4.418	21.95	.9971	.4800	.5545	8.471	.0143
#1	.0301	.0111	2.211	2.622	3.008	.1992	.0018
#2	.0326	.0135	2.175	2.635	2.989	.1686	.0018
#3	.0305	.0171	2.215	2.647	3.022	.1798	.0018

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0321	.0328	.0009	.0197	20.47	.5256	.0373
SDev	.0071	.0077	.0001	.0117	.10	.0038	.0054

%RSD	22.12	23.44	17.63	59.22	.4678	.7252	14.51
#1	.0364	.0265	.0007	.0081	20.53	.5242	.0373
#2	.0360	.0305	.0008	.0197	20.36	.5227	.0427
#3	.0239	.0414	.0010	.0314	20.51	.5299	.0318

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0008	.0018	.5152
SDev	.0002	.0005	.0030
%RSD	23.18	29.72	.5774
#1	.0006	.0016	.5163
#2	.0008	.0023	.5118
#3	.0010	.0013	.5174

Analysis Report QC Standard Wed 03-06-96 09:56:26 AM page 1

Method: ICP1A Sample Name: QC_SRM-1643d 108518 Operator: DRS
Run Time: 03/06/96 09:55:07
Comment: (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	0.0024	0.1440	0.0657	.1502	.5125	0.0124	.0427
SDev	.0002	.0076	.0111	.0025	.0004	.0000	.0035
%RSD	6.460	5.282	16.95	1.648	.0837	.3102	8.162
#1	0.0022	0.1505	0.0754	.1519	.5124	0.0123	.0414
#2	0.0024	0.1459	0.0536	.1474	.5130	0.0124	.0467
#3	0.0026	0.1356	0.0681	.1515	.5122	0.0123	.0401
Errors	QC Fail	QC Fail	QC Fail	QC Pass	QC Pass	QC Fail	NOCHECK
Value	.0013	.1276	.0560	.1448	.5065	.0125	
Range	.0570	3.500	.7300	5.200	8.900	.2800	

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	031.68	0.0085	.0002	0.0279	0.0209	.0206	-.0004
SDev	.01	.0008	.0053	.0007	.0017	.0014	.0006
%RSD	.0289	9.492	3006.	2.603	8.213	6.582	156.1
#1	031.68	0.0084	.0020	0.0270	0.0195	0.0215	-.0003
#2	031.67	0.0094	-.0058	0.0281	0.0228	0.0191	-.0010
#3	031.69	0.0078	.0043	0.0284	0.0205	0.0214	.0002
Errors	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Pass	NOCHECK
Value	31.04	.0065		.0250	.0185	.0205	
Range	.6400	.3700		.5900	.2000	3.800	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	0.1029	02.103	.0109	0.0210	08.586	0.0406
SDev	.0000	.0009	.026	.0018	.0010	.006	.0001
%RSD	.3555	.8792	1.242	16.37	4.545	.0677	.2136
#1	.0014	0.1039	02.073	.0094	0.0220	08.585	0.0407
#2	.0013	0.1026	02.118	.0103	0.0210	08.592	0.0406
#3	.0014	0.1022	02.118	.0128	0.0201	08.581	0.0406
Errors	NOCHECK	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail
Value		.0912	2.356		.0165	7.989	.0377
Range		3.900	.0350		.5500	.0350	.8300

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1140	021.91	.0144	0.1397	.0384	0.0147	.0283
SDev	.0010	.15	.0015	.0010	.0070	.0028	.0056
%RSD	.8401	.6690	10.63	.7113	18.15	19.14	19.94
#1	.1129	021.74	.0139	0.1403	.0416	0.0173	.0245
#2	.1145	22.01	.0161	0.1403	.0304	0.0117	.0256
#3	.1147	21.97	.0131	0.1385	.0433	0.0153	.0348
Errors	QC Pass	QC Fail	NOCHECK	QC Fail	NOCHECK	QC Fail	NOCHECK
Value	.1129	22.07		.0581		.0181	

Analysis Report QC Standard Wed 03-06-96 09:56:26 AM page 2

Range	1.700	.6400		2.700		.6400	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0077	.0018	0.0740	0.0195	2.746	.0125	.3002
SDev	.0037	.0023	.0012	.0165	.001	.0268	.0002
%RSD	48.54	130.9	1.642	84.39	.0537	214.6	.0617
#1	.0094	.0025	0.0732	0.0376	2.745	.0385	.2999
#2	.0034	.0037	0.0734	0.0054	2.747	-.0152	.3002
#3	.0103	-.0008	0.0754	0.0156	2.745	.0142	.3003
Errors	NOCHECK	NOCHECK	QC Fail	QC Fail	NOCHECK	NOCHECK	QC Pass
Value			.0541	.0114			.2948
Range			1.100	.1700			3.400

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0060	-.0082	.0006	0.0138	.2644	.0351	.0180
SDev	.0022	.0007	.0002	.0028	.0386	.0002	.0071
%RSD	36.44	8.704	31.17	20.49	14.59	.4589	39.48
#1	.0070	-.0074	.0004	0.0142	.2781	.0350	.0221
#2	.0074	-.0083	.0007	0.0165	.2208	.0352	.0098
#3	.0035	-.0089	.0007	0.0109	.2942	.0349	.0221
Errors	NOCHECK	NOCHECK	NOCHECK	QC Fail	NOCHECK	QC Pass	NOCHECK
Value				.0073		.0351	
Range				.2500		1.400	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0003	0.0765	-.0011
SDev	.0000	.0014	.0001
%RSD	9.252	1.898	8.437
#1	.0003	0.0749	-.0011
#2	.0003	0.0777	-.0012
#3	.0003	0.0768	-.0010
Errors	NOCHECK	QC Fail	NOCHECK
Value		.0725	
Range		.6500	

Analysis Report Wed 03-06-96 10:01:15 AM page 1

Method: ICP1A Sample Name: QC CCV1 960126H901 Operator: DRS
Run Time: 03/06/96 09:59:56
Comment: (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0038	1.974	2.068	2.069	.9828	.9987	1.961
SDev	.0008	.010	.021	.005	.0062	.0058	.021
%RSD	21.99	.4915	1.012	.2483	.6329	.5834	1.091
#1	.0036	1.981	2.060	2.067	.9840	1.000	1.955
#2	.0031	1.978	2.092	2.075	.9884	1.003	1.985
#3	.0047	1.963	2.052	2.065	.9761	.9922	1.943

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.083	1.029	-.0048	1.022	.5028	1.996	.0004
SDev	.012	.013	.0010	.004	.0046	.012	.0009
%RSD	.5965	1.226	20.71	.4283	.9245	.5985	267.6
#1	2.088	1.036	-.0037	1.023	.4989	1.995	.0000
#2	2.092	1.038	-.0051	1.025	.5079	2.008	-.0004
#3	2.069	1.015	-.0056	1.017	.5014	1.984	.0014

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	2.031	4.591	.0011	1.983	2.110	1.044
SDev	.0002	.009	.159	.0011	.024	.013	.004
%RSD	65.72	.4255	3.460	95.92	1.202	.6010	.4135
#1	.0002	2.034	4.606	.0007	1.995	2.107	1.046
#2	.0002	2.037	4.425	.0004	1.999	2.124	1.047
#3	.0006	2.021	4.742	.0024	1.956	2.099	1.039

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.985	8.340	-.0013	2.083	4.926	2.032	.0128
SDev	.011	.060	.0043	.013	.075	.006	.0152
%RSD	.5426	.7170	341.7	.6034	1.530	.3157	119.2
#1	1.982	8.323	.0001	2.094	4.982	2.026	.0068
#2	1.997	8.406	-.0061	2.085	4.955	2.038	.0014
#3	1.976	8.290	.0022	2.069	4.840	2.033	.0301

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0064	.0063	.0292	2.004	4.831	.0717	1.988
SDev	.0074	.0011	.0039	.020	.022	.0111	.013
%RSD	115.9	17.59	13.47	.9941	.4551	15.50	.6537
#1	.0024	.0056	.0293	2.010	4.843	.0765	1.990
#2	.0018	.0057	.0331	2.020	4.845	.0590	2.000
#3	.0149	.0076	.0252	1.982	4.806	.0797	1.974

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0365	.0140	.0005	1.979	.0120	.9760	.0150
SDev	.0055	.0012	.0004	.035	.0711	.0045	.0037

%RSD	15.01	8.324	72.63	1.763	593.5	.4581	24.73
#1	.0316	.0154	.0005	1.983	-.0130	.9771	.0192
#2	.0353	.0136	.0002	2.012	-.0432	.9798	.0121
#3	.0424	.0132	.0010	1.942	.0922	.9711	.0137

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0002	1.017	-.0022
SDev	.0006	.004	.0008
%RSD	245.1	.3729	35.64
#1	.0001	1.015	-.0025
#2	-.0009	1.021	-.0029
#3	.0001	1.015	-.0014

Analysis Report Wed 03-06-96 10:05:22 AM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 03/06/96 10:04:03
Comment: (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0042	.0062	.0032	.0014	.0004	.0007	.0050
SDev	.0004	.0062	.0168	.0016	.0001	.0001	.0004
%RSD	9.498	99.55	527.9	114.9	42.15	12.09	9.057
#1	.0046	.0093	-.0116	.0033	.0005	.0009	.0045
#2	.0039	.0102	-.0004	.0004	.0005	.0007	.0050
#3	.0039	-.0009	.0215	.0006	.0002	.0007	.0055

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0052	.0001	-.0064	.0019	.0009	.0064	-.0007
SDev	.0011	.0006	.0038	.0008	.0006	.0012	.0007
%RSD	21.82	534.1	59.52	41.74	70.82	18.83	107.5
#1	.0062	-.0003	-.0021	.0028	.0003	.0072	.0001
#2	.0054	.0008	-.0079	.0015	.0007	.0069	-.0007
#3	.0039	-.0001	-.0093	.0014	.0015	.0050	-.0014

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	-.0043	-.2412	.0012	.0021	-.0020	.0008
SDev	.0002	.0008	.1246	.0022	.0018	.0041	.0002
%RSD	169.8	18.56	51.63	186.4	87.37	208.2	21.37
#1	.0004	-.0034	-.1206	.0019	.0033	-.0010	.0009
#2	-.0000	-.0049	-.2337	.0029	.0029	.0015	.0009
#3	.0000	-.0046	-.3694	-.0013	-.0000	-.0065	.0006

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0029	-.0154	-.0008	.0490	.0174	.0029	.0220
SDev	.0006	.0241	.0046	.0007	.0027	.0012	.0102
%RSD	18.96	156.8	569.3	1.461	15.71	41.10	46.53
#1	.0036	.0011	-.0006	.0485	.0205	.0043	.0335
#2	.0025	-.0430	.0036	.0498	.0152	.0023	.0186
#3	.0027	-.0042	-.0055	.0488	.0166	.0021	.0139

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0074	.0031	.0151	.0070	.0270	.0164	.0016
SDev	.0049	.0063	.0056	.0098	.0044	.0183	.0003
%RSD	66.33	206.2	37.12	141.1	16.22	111.7	16.10
#1	.0123	.0098	.0215	-.0044	.0248	.0072	.0018
#2	.0074	.0020	.0123	.0120	.0321	.0375	.0015
#3	.0025	-.0027	.0114	.0132	.0242	.0045	.0014

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0119	.0004	-.0001	.0067	-.0098	.0005	.0085
SDev	.0052	.0061	.0003	.0071	.0675	.0009	.0083

%RSD	43.27	1377.	407.4	105.3	688.1	168.3	97.50
#1	.0179	-.0064	.0003	-.0003	.0673	.0015	.0149
#2	.0097	.0053	-.0002	.0138	-.0385	.0004	-.0009
#3	.0083	.0024	-.0002	.0067	-.0582	-.0003	.0116

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0000	.0009	-.0017
SDev	.0002	.0003	.0007
%RSD	1144.	35.37	43.04
#1	.0001	.0012	-.0009
#2	.0001	.0006	-.0023
#3	-.0002	.0008	-.0020

Analysis Report Wed 03-06-96 10:17:04 AM page 1

Method: ICP1A Sample Name: 96-2493-BLK Operator: DRS
Run Time: 03/06/96 10:15:45
Comment: KOH/Ni PROCESS BLANK (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0075	.0970	.0494	.0850	.0008	.0002	.0410
SDev	.0006	.0034	.0074	.0035	.0001	.0000	.0073
%RSD	8.366	3.553	14.90	4.092	9.507	1.458	17.81
#1	.0071	.0946	.0465	.0868	.0009	.0002	.0346
#2	.0071	.0953	.0578	.0810	.0007	.0002	.0394
#3	.0082	.1009	.0440	.0871	.0009	.0002	.0489

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2603	.0107	.0458	.0141	.0126	.0441	.0075
SDev	.0010	.0046	.0024	.0004	.0014	.0003	.0003
%RSD	.4049	43.16	5.146	2.893	11.32	.5975	3.627
#1	.2592	.0056	.0485	.0139	.0112	.0439	.0073
#2	.2605	.0119	.0445	.0138	.0125	.0439	.0073
#3	.2612	.0147	.0443	.0146	.0140	.0444	.0078

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0026	.1081	2118.	.0141	.0070	.0342	.0752
SDev	.0000	.0005	2.	.0006	.0015	.0016	.0005
%RSD	.3725	.4311	.1005	4.079	21.92	4.682	.6402
#1	.0027	.1082	2116.	.0135	.0053	.0343	.0747
#2	.0026	.1085	2118.	.0143	.0076	.0325	.0757
#3	.0026	.1076	2120.	.0146	.0081	.0357	.0752

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0090	1.007	.0473	.1817	.0655	.0494	.1510
SDev	.0009	.010	.0031	.0023	.0157	.0034	.0093
%RSD	10.30	.9547	6.612	1.288	23.93	6.774	6.175
#1	.0093	1.018	.0439	.1809	.0536	.0488	.1417
#2	.0097	1.002	.0499	.1798	.0832	.0530	.1509
#3	.0079	1.002	.0483	.1843	.0596	.0464	.1604

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0754	.0329	.0454	.0492	.1300	.2292	.0018
SDev	.0032	.0021	.0054	.0096	.0015	.0083	.0000
%RSD	4.173	6.224	11.85	19.51	1.120	3.599	.0207
#1	.0790	.0306	.0400	.0579	.1309	.2379	.0018
#2	.0732	.0344	.0454	.0508	.1307	.2280	.0018
#3	.0741	.0338	.0507	.0389	.1283	.2216	.0018

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0528	-.0003	.0053	.0338	.7769	.0065	.0316
SDev	.0033	.0049	.0003	.0130	.0215	.0004	.0107

%RSD	6.202	1943.	6.666	38.37	2.767	6.853	34.01
#1	.0539	-.0027	.0051	.0357	.7842	.0060	.0263
#2	.0491	.0054	.0057	.0458	.7527	.0066	.0246
#3	.0553	-.0034	.0050	.0200	.7938	.0069	.0440

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0023	.0798	.0046
SDev	.0000	.0015	.0003
%RSD	.5146	1.915	5.559
#1	.0023	.0797	.0043
#2	.0023	.0784	.0047
#3	.0023	.0814	.0048

Analysis Report Wed 03-06-96 10:22:13 AM page 1

Method: ICP1A Sample Name: 96-2493 @5 Operator: DRS
Run Time: 03/06/96 10:20:55
Comment: U110-9 @5X DIL (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	12.25	.0203	.0115	.0009	.0000	.6571
SDev	.0005	.06	.0082	.0009	.0003	.0000	.0072
%RSD	528.5	.4535	40.41	7.586	31.22	19.61	1.094
#1	.0004	12.19	.0297	.0105	.0011	.0000	.6645
#2	.0000	12.30	.0145	.0119	.0006	.0000	.6566
#3	-.0007	12.26	.0167	.0121	.0009	.0000	.6501

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1382	.0011	-.0099	.0019	.0128	.0052	-.0010
SDev	.0012	.0022	.0006	.0008	.0008	.0013	.0007
%RSD	.8928	198.1	6.349	43.17	6.444	24.39	70.21
#1	.1386	.0035	-.0102	.0027	.0122	.0063	-.0002
#2	.1391	.0004	-.0091	.0018	.0137	.0055	-.0013
#3	.1368	-.0006	-.0102	.0011	.0124	.0038	-.0014

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.7866	359.6	.0010	.0014	.0094	.1635
SDev	.0001	.0026	1.5	.0004	.0019	.0075	.0012
%RSD	77.05	.3306	.4182	40.48	133.3	79.86	.7227
#1	.0002	.7839	358.0	.0014	.0014	.0084	.1621
#2	.0002	.7891	361.0	.0008	.0033	.0173	.1644
#3	.0000	.7867	359.8	.0007	-.0005	.0024	.1639

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0021	.9506	-.0028	.0589	.0670	.0376	.0115
SDev	.0010	.0032	.0048	.0029	.0101	.0009	.0113
%RSD	46.63	.3370	172.2	4.964	15.00	2.366	98.06
#1	.0032	.9525	.0028	.0619	.0762	.0375	.0225
#2	.0014	.9469	-.0059	.0560	.0563	.0385	.0121
#3	.0016	.9525	-.0053	.0588	.0686	.0368	-.0001

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0035	.0025	.0197	.0380	.3882	.0072	.0162
SDev	.0080	.0010	.0063	.0019	.0014	.0109	.0001
%RSD	227.4	41.67	31.80	5.099	.3666	151.7	.4348
#1	.0116	.0031	.0197	.0396	.3888	-.0053	.0162
#2	-.0043	.0032	.0134	.0358	.3893	.0126	.0163
#3	.0032	.0013	.0259	.0384	.3866	.0142	.0163

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0297	-.0025	.0020	.0111	.1984	.0002	.0182
SDev	.0052	.0076	.0006	.0077	.0259	.0002	.0044

%RSD	17.45	302.1	30.57	69.28	13.05	116.2	24.16
#1	.0356	-.0046	.0017	.0045	.2208	.0004	.0187
#2	.0258	-.0089	.0015	.0196	.1701	-.0000	.0136
#3	.0278	.0059	.0026	.0092	.2044	.0002	.0224

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0000	.0215	-.0008
SDev	.0000	.0013	.0010
%RSD	106.7	5.856	123.0
#1	-.0000	.0228	-.0003
#2	.0000	.0212	-.0001
#3	.0000	.0204	-.0019

Analysis Report Wed 03-06-96 10:26:27 AM page 1

Method: ICP1A Sample Name: 96-2493 Operator: DRS
Run Time: 03/06/96 10:25:09
Comment: U110-9 (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0055	60.44	.0937	.0766	.0078	.0002	3.257
SDev	.0002	.38	.0202	.0016	.0002	.0000	.037
%RSD	3.877	.6369	21.60	2.053	2.966	15.77	1.149
#1	.0057	60.00	.1156	.0759	.0075	.0002	3.225
#2	.0052	60.63	.0756	.0784	.0079	.0003	3.248
#3	.0055	60.70	.0900	.0755	.0079	.0002	3.298

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6126	.0109	.0346	.0131	.0657	.0204	.0051
SDev	.0027	.0023	.0075	.0005	.0031	.0001	.0004
%RSD	.4491	21.40	21.72	3.957	4.775	.6055	7.668
#1	.6094	.0136	.0433	.0136	.0621	.0203	.0055
#2	.6145	.0092	.0295	.0130	.0682	.0206	.0052
#3	.6138	.0100	.0311	.0126	.0667	.0204	.0047

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0025	3.907	1751.	.0109	.0053	.0694	.8120
SDev	.0003	.021	10.	.0005	.0013	.0033	.0041
%RSD	11.59	.5401	.5934	4.379	24.05	4.767	.4997
#1	.0029	3.883	1739.	.0115	.0067	.0697	.8073
#2	.0023	3.917	1755.	.0105	.0043	.0726	.8142
#3	.0025	3.922	1758.	.0108	.0048	.0660	.8145

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0111	4.960	.0381	.1865	.3945	.2323	.1129
SDev	.0011	.047	.0053	.0017	.0246	.0108	.0072
%RSD	10.24	.9490	13.88	.9278	6.239	4.655	6.398
#1	.0123	4.912	.0433	.1881	.3828	.2399	.1212
#2	.0108	4.961	.0382	.1867	.4228	.2371	.1092
#3	.0101	5.006	.0327	.1846	.3780	.2199	.1082

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0483	.0288	.0571	.2447	1.925	.2262	.0802
SDev	.0067	.0024	.0025	.0139	.008	.0163	.0005
%RSD	13.84	8.445	4.364	5.689	.4167	7.216	.6600
#1	.0559	.0315	.0595	.2545	1.916	.2404	.0796
#2	.0433	.0267	.0573	.2287	1.927	.2084	.0804
#3	.0456	.0283	.0545	.2507	1.931	.2298	.0806

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1240	.0011	.0116	.0517	1.530	.0064	.0409
SDev	.0046	.0067	.0002	.0044	.048	.0005	.0035

%RSD	3.748	633.3	1.930	8.534	3.158	8.419	8.601
#1	.1206	.0088	.0119	.0518	1.568	.0069	.0408
#2	.1220	-.0028	.0115	.0561	1.476	.0058	.0375
#3	.1293	-.0028	.0115	.0473	1.547	.0064	.0445

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0023	.0997	.0057
SDev	.0000	.0025	.0001
%RSD	1.571	2.535	2.201
#1	.0022	.0969	.0057
#2	.0023	.1004	.0058
#3	.0023	.1018	.0056

Analysis Report Wed 03-06-96 10:30:11 AM page 1

Method: ICP1A Sample Name: 96-2496 PSA Operator: DRS
Run Time: 03/06/96 10:28:52
Comment: U110-9 POST SPIKE A (MCVA)/ (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2394	34.85	1.341	1.080	.2480	.0485	13.66
SDev	.0007	.23	.021	.006	.0021	.0003	.11
%RSD	.3095	.6604	1.577	.5404	.8650	.5625	.7843
#1	.2388	34.76	1.335	1.084	.2471	.0484	13.62
#2	.2391	34.67	1.324	1.083	.2464	.0483	13.58
#3	.2402	35.11	1.364	1.074	.2504	.0488	13.79

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.94	.2588	.0103	.5058	.5322	.4920	.0007
SDev	.07	.0037	.0055	.0020	.0029	.0013	.0005
%RSD	.5252	1.416	53.48	.4002	.5440	.2697	72.09
#1	12.90	.2584	.0041	.5049	.5290	.4909	.0005
#2	12.89	.2627	.0145	.5044	.5328	.4916	.0014
#3	13.01	.2554	.0122	.5081	.5347	.4935	.0004

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0016	12.01	884.0	.0056	.9705	16.28	.6569
SDev	.0001	.07	5.8	.0013	.0081	.08	.0038
%RSD	6.080	.5589	.6547	22.83	.8399	.5041	.5750
#1	.0016	11.98	882.2	.0041	.9681	16.24	.6539
#2	.0018	11.96	879.4	.0066	.9638	16.24	.6557
#3	.0016	12.08	890.5	.0061	.9796	16.38	.6611

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5115	20.56	.0085	.6136	2.657	1.359	.0119
SDev	.0038	.14	.0052	.0047	.031	.008	.0112
%RSD	.7373	.6946	61.53	.7649	1.151	.6040	94.38
#1	.5100	20.49	.0042	.6082	2.673	1.351	.0080
#2	.5087	20.46	.0143	.6168	2.622	1.359	.0246
#3	.5158	20.72	.0069	.6158	2.676	1.367	.0032

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0115	.0167	1.318	1.410	10.36	.2013	.2894
SDev	.0054	.0023	.006	.013	.05	.0138	.0020
%RSD	47.37	13.99	.4196	.9075	.5033	6.865	.6918
#1	.0078	.0169	1.313	1.397	10.34	.1960	.2888
#2	.0177	.0189	1.317	1.422	10.33	.2170	.2877
#3	.0089	.0143	1.324	1.410	10.42	.1909	.2916

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0804	.0237	.4970	1.257	.6300	.4980	.0417
SDev	.0092	.0032	.0026	.010	.0747	.0031	.0133

%RSD	11.41	13.57	.5272	.8031	11.86	.6285	31.89
#1	.0889	.0272	.4963	1.247	.5438	.4965	.0293
#2	.0815	.0229	.4947	1.256	.6755	.4959	.0557
#3	.0707	.0209	.4998	1.267	.6706	.5016	.0399

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0012	.5437	.9919
SDev	.0003	.0053	.0070
%RSD	29.53	.9746	.7087
#1	.0012	.5377	.9890
#2	.0015	.5479	.9869
#3	.0008	.5454	1.0000

Analysis Report Wed 03-06-96 10:33:55 AM page 1

Method: ICP1A Sample Name: QC MCVA1 @2 Operator: DRS
Run Time: 03/06/96 10:32:36
Comment: MCVA1 960226I901 @2X DIL (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2503	5.100	1.335	1.077	.2547	.0497	12.46
SDev	.0017	.022	.010	.001	.0015	.0002	.08
%RSD	.6752	.4308	.7759	.1383	.6050	.4660	.6775
#1	.2489	5.075	1.326	1.075	.2529	.0494	12.37
#2	.2498	5.110	1.346	1.078	.2556	.0497	12.53
#3	.2521	5.115	1.334	1.077	.2556	.0499	12.48

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.01	.2622	-.0003	.5183	.5138	.4867	-.0011
SDev	.06	.0018	.0026	.0021	.0085	.0041	.0007
%RSD	.4780	.7036	807.2	.4003	1.650	.8463	62.69
#1	12.94	.2642	-.0031	.5159	.5044	.4821	-.0003
#2	13.03	.2618	.0020	.5198	.5210	.4878	-.0014
#3	13.06	.2606	.0001	.5192	.5159	.4901	-.0016

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	10.42	12.77	.0013	1.013	16.77	.2654
SDev	.0000	.05	.05	.0015	.007	.08	.0010
%RSD	.2445	.4683	.3542	118.7	.7044	.4995	.3973
#1	.0008	10.37	12.82	.0025	1.005	16.68	.2643
#2	.0008	10.44	12.73	-.0004	1.018	16.78	.2656
#3	.0008	10.46	12.77	.0018	1.016	16.85	.2664

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5203	18.57	-.0053	.5498	2.536	1.284	-.0243
SDev	.0049	.15	.0006	.0037	.004	.009	.0104
%RSD	.9500	.8099	11.97	.6770	.1742	.6733	42.83
#1	.5146	18.44	-.0046	.5529	2.541	1.288	-.0158
#2	.5238	18.53	-.0059	.5508	2.532	1.274	-.0360
#3	.5224	18.73	-.0053	.5456	2.534	1.290	-.0212

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0030	.0075	1.324	1.317	9.547	.1406	.2589
SDev	.0033	.0021	.006	.013	.044	.0188	.0014
%RSD	108.6	27.89	.4269	1.011	.4651	13.39	.5327
#1	-.0029	.0077	1.331	1.318	9.496	.1619	.2574
#2	-.0063	.0096	1.323	1.330	9.567	.1338	.2593
#3	.0002	.0054	1.320	1.303	9.577	.1261	.2601

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0285	.0241	.5071	1.280	-.0555	.5110	.0260
SDev	.0039	.0094	.0020	.025	.0641	.0027	.0083

%RSD	13.60	39.00	.3994	1.971	115.5	.5308	32.03
#1	.0329	.0134	.5049	1.255	.0146	.5079	.0166
#2	.0264	.0278	.5075	1.305	-.1111	.5126	.0325
#3	.0261	.0310	.5089	1.279	-.0701	.5125	.0288

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0000	.5097	1.011
SDev	.0002	.0015	.004
%RSD	619.2	.2968	.4048
#1	-.0002	.5107	1.007
#2	-.0001	.5104	1.011
#3	.0002	.5080	1.015

Analysis Report Wed 03-06-96 10:38:57 AM page 1

Method: ICP1A Sample Name: 96-2493 PSB Operator: DRS
Run Time: 03/06/96 10:37:38
Comment: U110-9 POST SPIKE B (MCVB2) (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	29.83	.1851	.1207	.0053	.0005	1.647
SDev	.0006	.16	.0087	.0018	.0002	.0001	.015
%RSD	168.1	.5208	4.696	1.467	4.395	12.63	.9089
#1	-.0008	29.99	.1755	.1205	.0054	.0005	1.663
#2	-.0006	29.81	.1925	.1190	.0050	.0006	1.644
#3	.0003	29.68	.1872	.1226	.0054	.0005	1.633

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3123	.0122	1.030	.0065	.0336	.0298	1.011
SDev	.0016	.0015	.002	.0011	.0018	.0008	.007
%RSD	.5238	12.58	.1512	16.87	5.335	2.782	.6998
#1	.3141	.0140	1.028	.0058	.0357	.0289	1.019
#2	.3120	.0111	1.031	.0059	.0328	.0299	1.010
#3	.3108	.0115	1.029	.0077	.0323	.0306	1.005

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.013	1.940	869.4	.5141	.0008	-.0231	.4014
SDev	.006	.011	4.8	.0013	.0012	.0061	.0013
%RSD	.6004	.5696	.5467	.2610	151.0	26.34	.3145
#1	1.019	1.950	874.3	.5156	-.0005	-.0287	.4028
#2	1.013	1.942	869.2	.5137	.0010	-.0241	.4009
#3	1.007	1.928	864.8	.5131	.0019	-.0166	.4004

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0094	2.550	1.018	.1227	.2585	.2302	1.037
SDev	.0004	.018	.004	.0028	.0130	.0048	.014
%RSD	4.485	.6981	.4381	2.295	5.038	2.102	1.351
#1	.0091	2.542	1.023	.1252	.2497	.2246	1.029
#2	.0099	2.570	1.016	.1234	.2523	.2331	1.027
#3	.0093	2.537	1.015	.1197	.2735	.2329	1.053

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.035	1.054	.0921	.1636	3.732	1.212	.0411
SDev	.003	.007	.0062	.0036	.079	.022	.0002
%RSD	.3323	.6205	6.738	2.213	2.109	1.817	.4497
#1	1.032	1.062	.0983	.1677	3.654	1.192	.0413
#2	1.034	1.052	.0859	.1620	3.729	1.208	.0411
#3	1.039	1.049	.0920	.1611	3.812	1.236	.0409

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.070	5.072	.0079	.0331	12.61	.0035	1.026
SDev	.006	.024	.0002	.0041	.02	.0008	.011

%RSD	.5363	.4790	2.270	12.42	.1424	23.41	1.048
#1	1.063	5.086	.0078	.0352	12.59	.0026	1.024
#2	1.071	5.085	.0078	.0358	12.63	.0041	1.017
#3	1.075	5.044	.0081	.0284	12.62	.0037	1.038

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.5034	.0526	-.0261
SDev	.0031	.0005	.0008
%RSD	.6106	.9758	2.931
#1	.5064	.0520	-.0253
#2	.5037	.0529	-.0268
#3	.5003	.0529	-.0263

Analysis Report Wed 03-06-96 10:43:04 AM page 1

Method: ICP1A Sample Name: QC MCVB2 @2 Operator: DRS
Run Time: 03/06/96 10:41:45
Comment: MCVB2 9602211901 @2X DIL (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0016	.0238	.1662	.0852	.0009	.0005	.0454
SDev	.0013	.0018	.0053	.0001	.0005	.0000	.0101
%RSD	80.44	7.530	3.199	.1534	57.14	7.267	22.38
#1	-.0011	.0221	.1712	.0853	.0009	.0005	.0471
#2	-.0030	.0257	.1606	.0851	.0005	.0004	.0344
#3	-.0006	.0237	.1667	.0853	.0015	.0005	.0545

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0457	.0009	1.039	.0025	.0063	.0205	1.016
SDev	.0009	.0014	.007	.0005	.0013	.0005	.008
%RSD	2.033	154.3	.6950	19.67	21.20	2.489	.7865
#1	.0456	.0000	1.031	.0020	.0049	.0211	1.015
#2	.0448	.0002	1.044	.0023	.0076	.0202	1.024
#3	.0467	.0025	1.042	.0030	.0063	.0202	1.008

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.024	.0011	-.2563	.5145	.0011	-.0607	.0007
SDev	.008	.0003	.1708	.0026	.0015	.0074	.0002
%RSD	.7662	24.97	66.62	.4976	137.8	12.16	30.17
#1	1.023	.0014	-.2789	.5131	-.0000	-.0563	.0006
#2	1.032	.0012	-.4146	.5174	.0005	-.0692	.0005
#3	1.017	.0008	-.0754	.5129	.0029	-.0566	.0009

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0061	.1034	1.025	.0421	.0659	.1328	1.057
SDev	.0001	.0453	.005	.0022	.0097	.0049	.006
%RSD	1.467	43.86	.4504	5.320	14.76	3.684	.5703
#1	.0061	.1421	1.026	.0399	.0688	.1319	1.056
#2	.0061	.0535	1.029	.0443	.0550	.1284	1.052
#3	.0060	.1146	1.020	.0419	.0738	.1381	1.064

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.042	1.068	.0672	.0512	3.110	1.173	.0016
SDev	.006	.007	.0049	.0028	.127	.034	.0000
%RSD	.5815	.6277	7.318	5.420	4.076	2.858	.0351
#1	1.037	1.068	.0622	.0525	2.971	1.137	.0016
#2	1.049	1.074	.0675	.0530	3.141	1.181	.0016
#3	1.040	1.061	.0720	.0480	3.219	1.203	.0016

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.034	5.086	.0026	.0205	12.30	.0014	1.022
SDev	.004	.037	.0001	.0150	.05	.0008	.011

%RSD	.4280	.7292	5.487	73.32	.3756	52.39	1.051
#1	1.038	5.073	.0027	.0032	12.28	.0007	1.017
#2	1.029	5.128	.0025	.0286	12.35	.0013	1.034
#3	1.034	5.057	.0027	.0297	12.27	.0022	1.015

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.5018	.0038	-.0282
SDev	.0039	.0005	.0008
%RSD	.7771	13.91	3.003
#1	.5021	.0044	-.0279
#2	.5055	.0034	-.0291
#3	.4977	.0037	-.0275

Analysis Report Wed 03-06-96 10:46:08 AM page 1

Method: ICP1A Sample Name: 96-2493 DUP Operator: DRS
Run Time: 03/06/96 10:44:49
Comment: U110-9 DUPLICATE (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0069	65.58	.0938	.1005	.0057	.0002	1.259
SDev	.0006	.04	.0089	.0034	.0001	.0000	.011
%RSD	9.319	.0624	9.511	3.363	2.358	15.83	.9138
#1	.0073	65.54	.0984	.1025	.0055	.0002	1.272
#2	.0073	65.58	.0835	.0966	.0057	.0002	1.254
#3	.0062	65.62	.0994	.1023	.0058	.0002	1.250

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.400	.0118	.0440	.0156	.0423	.0156	.0080
SDev	.002	.0054	.0034	.0003	.0025	.0013	.0007
%RSD	.1310	45.95	7.726	2.159	5.858	8.087	8.481
#1	1.401	.0171	.0452	.0159	.0444	.0169	.0086
#2	1.400	.0062	.0466	.0153	.0429	.0154	.0082
#3	1.398	.0122	.0401	.0155	.0396	.0144	.0073

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0035	.9188	1703.	.0153	.0061	.0535	.4359
SDev	.0002	.0022	1.	.0014	.0010	.0051	.0007
%RSD	6.703	.2337	.0656	9.298	16.43	9.598	.1646
#1	.0036	.9167	1702.	.0156	.0057	.0539	.4352
#2	.0037	.9210	1703.	.0165	.0072	.0584	.4359
#3	.0032	.9186	1704.	.0137	.0053	.0481	.4367

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0113	1.973	.0491	.2403	.2755	.2182	.1530
SDev	.0010	.008	.0037	.0027	.0337	.0038	.0125
%RSD	8.677	.4273	7.553	1.136	12.24	1.739	8.145
#1	.0102	1.975	.0518	.2393	.3089	.2226	.1427
#2	.0116	1.981	.0449	.2434	.2761	.2160	.1669
#3	.0121	1.964	.0506	.2383	.2414	.2162	.1494

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0687	.0304	.0731	.2514	.8215	.2325	.0396
SDev	.0052	.0012	.0028	.0101	.0126	.0140	.0000
%RSD	7.503	4.029	3.828	4.014	1.533	6.007	.0011
#1	.0702	.0315	.0757	.2409	.8356	.2477	.0396
#2	.0729	.0305	.0734	.2525	.8174	.2297	.0396
#3	.0629	.0291	.0702	.2610	.8114	.2202	.0396

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1485	.0023	.0094	.0514	1.118	.0064	.0388
SDev	.0069	.0030	.0002	.0035	.016	.0002	.0047

%RSD	4.657	133.4	1.939	6.758	1.471	3.469	12.03
#1	.1510	.0055	.0093	.0485	1.121	.0063	.0441
#2	.1539	.0017	.0096	.0505	1.101	.0066	.0352
#3	.1407	-.0005	.0093	.0552	1.134	.0063	.0371

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0029	.0889	.0045
SDev	.0002	.0021	.0003
%RSD	6.605	2.300	5.709
#1	.0031	.0898	.0042
#2	.0028	.0905	.0047
#3	.0028	.0866	.0045

Analysis Report QC Standard Wed 03-06-96 10:52:14 AM page 1

Method: ICP1A Sample Name: QC_MCVA1 960226I901 Operator: DRS
Run Time: 03/06/96 10:50:56
Comment: (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

PASS DRS 3/6/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4786	9.773	2.531	2.059	.4887	.0933	23.79
SDev	.0019	.024	.019	.010	.0013	.0002	.08
%RSD	.3904	.2487	.7636	.5067	.2581	.1808	.3544
#1	.4764	9.757	2.551	2.053	.4882	.0952	23.76
#2	.4797	9.761	2.512	2.054	.4877	.0951	23.73
#3	.4796	9.801	2.529	2.071	.4901	.0955	23.89
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.80	.4821	.0008	.9897	.9754	.9342	-.0018
SDev	.05	.0079	.0024	.0036	.0066	.0020	.0002
%RSD	.1910	1.637	302.6	.3622	.6776	.2102	12.84
#1	24.77	.4905	-.0006	.9874	.9677	.9338	-.0021
#2	24.78	.4749	.0036	.9878	.9791	.9324	-.0017
#3	24.85	.4808	-.0006	.9938	.9793	.9363	-.0017
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0015	19.93	24.32	.0029	1.967	31.94	.5069
SDev	.0003	.05	.12	.0006	.006	.08	.0017
%RSD	19.93	.2633	.4772	21.91	.3286	.2354	.3410
#1	.0012	19.89	24.19	.0030	1.961	31.88	.5055
#2	.0018	19.90	24.42	.0035	1.968	31.91	.5064
#3	.0014	19.99	24.35	.0022	1.973	32.02	.5088
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9974	36.06	-.0099	1.011	4.858	2.448	-.0406
SDev	.0008	.09	.0023	.003	.036	.016	.0076
%RSD	.0775	.2465	23.70	.3239	.7318	.6622	18.81
#1	.9974	36.00	-.0112	1.014	4.839	2.435	-.0395
#2	.9967	36.03	-.0072	1.011	4.836	2.466	-.0337
#3	.9982	36.16	-.0112	1.007	4.899	2.442	-.0488
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Analysis Report QC Standard Wed 03-06-96 10:52:14 AM page 2

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0134	.0134	2.509	2.495	18.19	.2281	.4992
SDev	.0004	.0024	.007	.021	.04	.0179	.0013
%RSD	3.050	18.16	.2851	.8601	.2138	7.825	.2621
#1	-.0135	.0110	2.503	2.515	18.16	.2306	.4986
#2	-.0129	.0159	2.517	2.497	18.17	.2091	.4982
#3	-.0137	.0135	2.506	2.472	18.23	.2446	.5007
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0408	.0391	.9757	2.433	-.0977	.9822	.0514
SDev	.0079	.0064	.0010	.011	.0403	.0023	.0087
%RSD	19.41	16.27	.1055	.4537	41.27	.2341	16.86
#1	.0329	.0324	.9753	2.424	-.0512	.9803	.0457
#2	.0487	.0397	.9750	2.430	-.1234	.9816	.0614
#3	.0407	.0451	.9769	2.445	-.1184	.9848	.0473
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0001	.9680	1.953
SDev	.0002	.0097	.004
%RSD	360.7	1.003	.2022
#1	-.0001	.9647	1.950
#2	.0003	.9604	1.950
#3	-.0000	.9790	1.957
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report Wed 03-06-96 10:56:12 AM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 03/06/96 10:54:53
Comment: U110-9 DUPLICATE (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0027	.0292	.0223	-.0007	.0014	.0002	.0164
SDev	.0009	.0023	.0116	.0027	.0006	.0000	.0085
%RSD	34.11	7.842	52.24	404.7	41.99	13.10	51.60
#1	.0034	.0319	.0249	-.0000	.0009	.0002	.0071
#2	.0017	.0280	.0095	.0016	.0014	.0002	.0185
#3	.0030	.0278	.0323	-.0036	.0021	.0002	.0237

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0108	.0046	.0231	.0035	.0013	.0063	.0036
SDev	.0005	.0022	.0072	.0005	.0018	.0014	.0006
%RSD	5.004	47.55	31.24	13.43	132.4	21.54	17.01
#1	.0103	.0070	.0296	.0032	-.0000	.0079	.0042
#2	.0114	.0039	.0243	.0041	.0033	.0055	.0035
#3	.0107	.0028	.0154	.0033	.0007	.0056	.0030

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0015	.0007	.2262	.0073	.0030	.0121	.0005
SDev	.0001	.0005	.1116	.0021	.0006	.0050	.0004
%RSD	7.443	78.98	49.33	29.24	18.23	40.97	94.34
#1	.0015	.0006	.3543	.0085	.0033	.0132	.0001
#2	.0015	.0012	.1508	.0086	.0033	.0164	.0009
#3	.0013	.0002	.1734	.0048	.0024	.0067	.0003

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0039	.0545	.0201	.0148	.0337	.0131	.0879
SDev	.0009	.0115	.0019	.0030	.0127	.0054	.0073
%RSD	24.13	21.13	9.683	20.30	37.72	41.24	8.356
#1	.0044	.0453	.0215	.0113	.0367	.0193	.0953
#2	.0046	.0674	.0209	.0161	.0446	.0105	.0878
#3	.0029	.0508	.0179	.0168	.0197	.0094	.0806

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0396	.0142	.0244	.0186	.0477	.0992	.0006
SDev	.0062	.0018	.0071	.0098	.0035	.0016	.0000
%RSD	15.71	12.32	29.26	52.94	7.394	1.574	.0375
#1	.0451	.0157	.0306	.0239	.0439	.0992	.0006
#2	.0410	.0146	.0166	.0072	.0509	.0977	.0006
#3	.0328	.0123	.0259	.0246	.0483	.1008	.0006

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0235	.0011	.0014	.0127	.3372	.0027	.0082
SDev	.0073	.0016	.0003	.0118	.0425	.0004	.0071

%RSD	30.98	147.0	21.80	92.39	12.60	16.61	86.92
#1	.0306	.0002	.0016	-.0008	.3754	.0029	.0145
#2	.0238	.0001	.0010	.0197	.3446	.0030	.0005
#3	.0161	.0029	.0015	.0194	.2915	.0022	.0094

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0007	.0005	.0010
SDev	.0002	.0004	.0002
%RSD	28.95	77.67	22.20
#1	.0005	.0005	.0008
#2	.0009	.0008	.0012
#3	.0006	.0001	.0011

Analysis Report Wed 03-06-96 11:00:09 AM page 1

Method: ICP1A Sample Name: 96-2500 Operator: DRS
Run Time: 03/06/96 10:58:50
Comment: U110-9I ~~DUPLICATE~~ DRS 3/6/96 (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0092	37.27	.0700	.0974	.0432	.0003	8.294
SDev	.0010	.09	.0159	.0009	.0005	.0000	.011
%RSD	10.61	.2498	22.68	.8889	1.168	1.625	.1313
#1	.0098	37.36	.0884	.0965	.0430	.0003	8.289
#2	.0096	37.18	.0608	.0977	.0438	.0003	8.306
#3	.0081	37.29	.0610	.0981	.0429	.0003	8.286

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9968	.0178	.1461	.0205	.2303	.0404	.0101
SDev	.0014	.0016	.0036	.0003	.0023	.0014	.0003
%RSD	.1358	9.178	2.478	1.298	1.018	3.522	2.576
#1	.9984	.0186	.1481	.0208	.2304	.0413	.0104
#2	.9961	.0189	.1482	.0203	.2279	.0411	.0099
#3	.9960	.0159	.1419	.0204	.2325	.0387	.0099

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0063	12.29	1806.	.0280	.0092	.3398	4.848
SDev	.0001	.03	5.	.0009	.0012	.0042	.011
%RSD	1.845	.2095	.2900	3.136	13.02	1.226	.2367
#1	.0065	12.32	1812.	.0286	.0081	.3413	4.862
#2	.0063	12.27	1801.	.0284	.0105	.3429	4.841
#3	.0063	12.28	1805.	.0270	.0091	.3350	4.843

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0154	12.04	.0981	1.536	.4866	.3005	.1970
SDev	.0009	.02	.0009	.005	.0239	.0012	.0070
%RSD	5.955	.1587	.9113	.3514	4.917	.4053	3.556
#1	.0158	12.06	.0975	1.542	.4857	.2993	.2046
#2	.0159	12.03	.0978	1.532	.4631	.3006	.1908
#3	.0143	12.03	.0991	1.534	.5110	.3017	.1956

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0881	.0527	.0801	.2045	8.977	.4627	.4937
SDev	.0018	.0029	.0092	.0129	.017	.0036	.0010
%RSD	2.010	5.403	11.44	6.290	.1851	.7834	.2011
#1	.0861	.0558	.0851	.2069	8.996	.4660	.4948
#2	.0896	.0522	.0695	.2160	8.963	.4631	.4929
#3	.0886	.0502	.0856	.1906	8.973	.4588	.4935

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1326	.0227	.0268	.0705	7.050	.0109	.0561
SDev	.0028	.0032	.0002	.0059	.047	.0003	.0094

%RSD	2.086	14.20	.7421	8.324	.6676	2.380	16.75
#1	.1297	.0258	.0270	.0757	7.006	.0112	.0490
#2	.1331	.0231	.0267	.0642	7.100	.0107	.0525
#3	.1351	.0193	.0267	.0716	7.045	.0108	.0668

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0089	.1152	.0667
SDev	.0003	.0017	.0003
%RSD	3.563	1.450	.5274
#1	.0086	.1169	.0667
#2	.0092	.1136	.0671
#3	.0089	.1149	.0664

Analysis Report Wed 03-06-96 11:03:46 AM page 1

Method: ICP1A Sample Name: 96-2501 Operator: DRS
Run Time: 03/06/96 11:02:27
Comment: U110-9J (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0081	29.92	.0817	.0977	.0425	.0002	7.092
SDev	.0013	.29	.0098	.0027	.0001	.0000	.019
%RSD	16.25	.9672	11.98	2.777	.3141	14.50	.2720
#1	.0066	30.19	.0905	.0959	.0424	.0002	7.104
#2	.0090	29.61	.0711	.1008	.0426	.0002	7.070
#3	.0086	29.96	.0833	.0963	.0425	.0002	7.102

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9491	.0270	.1328	.0189	.2263	.0343	.0091
SDev	.0042	.0043	.0040	.0013	.0009	.0010	.0017
%RSD	.4467	16.06	2.995	7.044	.3801	3.020	18.67
#1	.9538	.0319	.1312	.0174	.2272	.0340	.0076
#2	.9456	.0235	.1373	.0193	.2260	.0355	.0109
#3	.9479	.0257	.1299	.0199	.2255	.0335	.0087

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0062	12.31	1788.	.0283	.0083	.3739	4.783
SDev	.0004	.10	17.	.0007	.0019	.0024	.038
%RSD	6.205	.8220	.9777	2.622	23.32	.6343	.7924
#1	.0059	12.41	1805.	.0277	.0072	.3756	4.822
#2	.0067	12.20	1770.	.0292	.0105	.3712	4.746
#3	.0061	12.31	1790.	.0281	.0072	.3750	4.781

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0142	11.18	.0952	1.544	.4347	.2627	.1880
SDev	.0014	.10	.0096	.006	.0131	.0086	.0217
%RSD	10.19	.9160	10.13	.4089	3.011	3.281	11.56
#1	.0127	11.24	.0895	1.552	.4241	.2655	.1696
#2	.0143	11.06	.1063	1.540	.4307	.2695	.2120
#3	.0156	11.23	.0898	1.542	.4493	.2530	.1825

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0815	.0478	.0653	.1759	8.401	.4226	.4924
SDev	.0104	.0044	.0081	.0158	.056	.0467	.0052
%RSD	12.82	9.289	12.35	8.962	.6678	11.05	1.054
#1	.0775	.0446	.0579	.1928	8.457	.4069	.4973
#2	.0934	.0528	.0739	.1732	8.345	.4752	.4869
#3	.0736	.0458	.0640	.1616	8.401	.3859	.4931

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1086	.0235	.0229	.0616	6.923	.0094	.0562
SDev	.0040	.0067	.0005	.0012	.012	.0012	.0046

%RSD	3.673	28.52	2.165	1.970	.1671	12.46	8.084
#1	.1080	.0248	.0224	.0609	6.912	.0085	.0511
#2	.1129	.0294	.0234	.0630	6.935	.0107	.0596
#3	.1050	.0162	.0229	.0609	6.921	.0090	.0581

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0086	.1064	.0736
SDev	.0006	.0004	.0005
%RSD	6.638	.3703	.7028
#1	.0083	.1066	.0735
#2	.0093	.1067	.0731
#3	.0083	.1060	.0741

Analysis Report Wed 03-06-96 11:07:48 AM page 1

Method: ICP1A Sample Name: 96-2502 Operator: DRS
Run Time: 03/06/96 11:06:30
Comment: U110-9K (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0081	29.38	.0810	.0986	.0346	.0002	8.305
SDev	.0006	.10	.0040	.0007	.0001	.0000	.041
%RSD	7.988	.3354	4.999	.6690	.2229	13.03	.4995
#1	.0076	29.49	.0818	.0978	.0346	.0002	8.349
#2	.0088	29.30	.0766	.0990	.0345	.0002	8.300
#3	.0078	29.35	.0846	.0989	.0346	.0002	8.267

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.8655	.0280	.1263	.0175	.1869	.0298	.0090
SDev	.0021	.0028	.0046	.0008	.0033	.0016	.0002
%RSD	.2467	9.842	3.605	4.780	1.782	5.258	1.756
#1	.8679	.0311	.1226	.0172	.1888	.0312	.0089
#2	.8644	.0258	.1314	.0184	.1831	.0300	.0092
#3	.8640	.0272	.1250	.0168	.1889	.0281	.0089

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0058	10.50	1836.	.0255	.0086	.3066	3.804
SDev	.0001	.04	5.	.0017	.0010	.0114	.013
%RSD	1.789	.3366	.2948	6.641	11.11	3.704	.3495
#1	.0057	10.54	1842.	.0246	.0076	.3196	3.819
#2	.0059	10.48	1832.	.0274	.0086	.3017	3.799
#3	.0057	10.49	1834.	.0244	.0096	.2986	3.794

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0115	9.082	.0908	.4742	.4007	.2250	.1770
SDev	.0003	.059	.0040	.0039	.0165	.0012	.0141
%RSD	2.312	.6445	4.364	.8238	4.114	.5440	7.981
#1	.0114	9.091	.0876	.4787	.4197	.2236	.1624
#2	.0113	9.019	.0952	.4714	.3923	.2260	.1907
#3	.0118	9.135	.0895	.4725	.3901	.2254	.1780

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0773	.0479	.0613	.1790	6.832	.3979	.4002
SDev	.0024	.0046	.0075	.0054	.024	.0230	.0012
%RSD	3.133	9.506	12.15	3.044	.3452	5.771	.3097
#1	.0746	.0474	.0562	.1817	6.858	.4145	.4016
#2	.0790	.0437	.0699	.1728	6.813	.4076	.3993
#3	.0784	.0528	.0579	.1826	6.824	.3717	.3996

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1055	.0242	.0191	.0619	5.538	.0104	.0457
SDev	.0023	.0031	.0004	.0058	.052	.0004	.0180

%RSD	2.213	12.85	2.037	9.409	.9323	3.656	39.39
#1	.1047	.0275	.0189	.0553	5.482	.0100	.0652
#2	.1036	.0213	.0196	.0665	5.585	.0108	.0421
#3	.1081	.0239	.0189	.0638	5.546	.0105	.0298

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0078	.1006	.0482
SDev	.0002	.0008	.0004
%RSD	2.146	.8172	.8109
#1	.0077	.0996	.0478
#2	.0080	.1011	.0486
#3	.0077	.1010	.0482

Analysis Report Wed 03-06-96 11:12:47 AM page 1

Method: ICP1A Sample Name: LCS #1 Operator: DRS
Run Time: 03/06/96 11:11:29
Comment: (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0084	.2863	.0794	.1076	34.60	.0002	17.25
SDev	.0006	.0050	.0048	.0026	.12	.0000	.05
%RSD	7.114	1.752	6.027	2.373	.3418	2.951	.3017
#1	.0090	.2830	.0849	.1073	34.51	.0002	17.20
#2	.0078	.2920	.0767	.1102	34.74	.0002	17.31
#3	.0085	.2838	.0765	.1052	34.56	.0002	17.24

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	37.03	.0192	.0644	.0192	.0563	.0043	.0104
SDev	.10	.0029	.0019	.0011	.0020	.0006	.0006
%RSD	.2632	14.84	2.953	5.801	3.599	13.73	6.084
#1	36.95	.0186	.0649	.0202	.0551	.0039	.0111
#2	37.14	.0223	.0623	.0180	.0551	.0049	.0099
#3	36.99	.0166	.0661	.0195	.0586	.0039	.0101

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0073	62.45	2384.	.0217	.0135	.6209	.1716
SDev	.0001	.17	8.	.0000	.0017	.0050	.0009
%RSD	1.453	.2751	.3342	.0460	12.39	.8077	.5243
#1	.0073	62.34	2378.	.0217	.0153	.6157	.1717
#2	.0071	62.65	2393.	.0217	.0134	.6213	.1724
#3	.0073	62.38	2381.	.0217	.0119	.6258	.1706

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0169	1.528	.0822	2.648	28.04	.0895	.1740
SDev	.0007	.033	.0050	.008	.10	.0076	.0055
%RSD	4.177	2.186	6.143	.3174	.3642	8.513	3.160
#1	.0162	1.531	.0879	2.641	27.95	.0978	.1802
#2	.0168	1.559	.0784	2.658	28.15	.0879	.1720
#3	.0176	1.493	.0803	2.647	28.02	.0828	.1697

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0900	.0797	.0757	.1445	.6393	1.045	.1116
SDev	.0017	.0030	.0066	.0046	.0047	.035	.0004
%RSD	1.888	3.736	8.769	3.214	.7139	3.309	.3767
#1	.0918	.0795	.0833	.1399	.6647	1.071	.1114
#2	.0885	.0769	.0722	.1492	.6571	1.057	.1121
#3	.0895	.0828	.0715	.1446	.6560	1.006	.1114

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1141	.0463	.0187	.0856	1.115	.0162	.0897
SDev	.0025	.0063	.0003	.0057	.044	.0007	.0106

%RSD	2.179	13.60	1.810	6.720	3.948	4.409	11.77
#1	.1165	.0466	.0186	.0790	1.152	.0169	.1003
#2	.1142	.0399	.0191	.0884	1.066	.0160	.0792
#3	.1115	.0525	.0184	.0894	1.126	.0155	.0897

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0046	.0921	.0057
SDev	.0002	.0011	.0004
%RSD	4.251	1.193	7.186
#1	.0044	.0929	.0056
#2	.0045	.0908	.0062
#3	.0048	.0925	.0054

Analysis Report Wed 03-06-96 11:18:40 AM page 1

Method: ICP1A Sample Name: LCS#1 @5 Operator: DRS
Run Time: 03/06/96 11:17:21
Comment: LCS #1 @5X DIL (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0016	.0586	.0124	.0169	7.078	.0000	3.591
SDev	.0004	.0009	.0024	.0008	.037	.0000	.025
%RSD	27.61	1.535	19.44	4.514	.5226	108.5	.6907
#1	.0015	.0581	.0129	.0162	7.117	.0001	3.604
#2	.0013	.0596	.0098	.0177	7.073	-.0000	3.606
#3	.0021	.0581	.0145	.0168	7.043	.0000	3.562

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.741	.0104	.0136	.0056	.0119	.0015	.0020
SDev	.029	.0058	.0059	.0009	.0004	.0024	.0007
%RSD	.3733	55.76	43.61	17.15	3.502	165.8	35.32
#1	7.771	.0165	.0170	.0047	.0124	.0034	.0023
#2	7.739	.0096	.0068	.0054	.0115	-.0013	.0012
#3	7.714	.0050	.0171	.0066	.0119	.0023	.0026

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0017	13.05	497.8	.0057	.0019	.1285	.0354
SDev	.0001	.05	2.4	.0006	.0014	.0024	.0001
%RSD	7.124	.3888	.4739	11.13	75.00	1.895	.2675
#1	.0018	13.10	500.3	.0064	.0033	.1286	.0355
#2	.0015	13.04	497.6	.0055	.0005	.1261	.0355
#3	.0017	13.00	495.6	.0052	.0019	.1309	.0353

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0044	.3401	.0198	.5596	5.665	.0185	.0564
SDev	.0006	.0273	.0049	.0037	.022	.0010	.0185
%RSD	12.49	8.021	24.72	.6569	.3804	5.531	32.74
#1	.0040	.3217	.0145	.5554	5.670	.0189	.0361
#2	.0042	.3272	.0208	.5615	5.683	.0173	.0608
#3	.0051	.3714	.0242	.5619	5.641	.0193	.0722

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0241	.0176	.0287	.0393	.1371	.2241	.0237
SDev	.0009	.0020	.0054	.0104	.0053	.0399	.0001
%RSD	3.794	11.15	18.81	26.44	3.829	17.81	.2973
#1	.0241	.0158	.0342	.0318	.1414	.2201	.0238
#2	.0232	.0197	.0234	.0511	.1387	.2659	.0237
#3	.0250	.0175	.0284	.0349	.1312	.1864	.0237

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0224	.0090	.0039	.0197	.2556	.0032	.0238
SDev	.0070	.0045	.0004	.0020	.0451	.0002	.0018

%RSD	31.50	49.49	10.01	9.958	17.66	6.582	7.552
#1	.0168	.0115	.0041	.0186	.2061	.0032	.0255
#2	.0303	.0117	.0041	.0186	.2945	.0030	.0238
#3	.0201	.0039	.0034	.0220	.2661	.0034	.0219

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0006	.0243	.0002
SDev	.0006	.0007	.0007
%RSD	93.63	2.878	284.7
#1	.0003	.0244	-.0005
#2	.0003	.0250	.0004
#3	.0013	.0236	.0008

Analysis Report Wed 03-06-96 11:22:26 AM page 1

Method: ICP1A Sample Name: LCS #2 Operator: DRS
Run Time: 03/06/96 11:21:08
Comment: LCS #2 (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0071	.1819	.0766	.1015	34.67	.0002	16.82
SDev	.0010	.0029	.0119	.0009	.21	.0000	.12
%RSD	14.50	1.614	15.52	.8857	.6030	14.53	.7070
#1	.0082	.1847	.0903	.1006	34.44	.0002	16.68
#2	.0070	.1788	.0688	.1024	34.74	.0002	16.88
#3	.0062	.1821	.0707	.1016	34.84	.0002	16.90

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	38.78	.0250	.0649	.0190	.0655	-.0197	.0097
SDev	.20	.0036	.0019	.0001	.0040	.0013	.0006
%RSD	.5282	14.24	2.964	.6412	6.123	6.398	6.077
#1	38.55	.0291	.0671	.0190	.0630	-.0193	.0103
#2	38.86	.0227	.0636	.0191	.0701	-.0211	.0096
#3	38.94	.0233	.0639	.0189	.0635	-.0187	.0092

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0078	78.55	1742.	.0209	.0127	.6667	.1898
SDev	.0001	.39	10.	.0016	.0012	.0068	.0009
%RSD	1.285	.4987	.5798	7.572	9.437	1.016	.4832
#1	.0077	78.11	1731.	.0217	.0129	.6709	.1887
#2	.0079	78.69	1746.	.0218	.0139	.6704	.1905
#3	.0078	78.86	1750.	.0190	.0115	.6589	.1900

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0187	407.9	.0787	2.816	32.84	.0926	.1641
SDev	.0009	2.8	.0050	.020	.17	.0013	.0092
%RSD	4.851	.6746	6.349	.7126	.5175	1.403	5.589
#1	.0183	404.8	.0773	2.793	32.65	.0911	.1740
#2	.0197	408.7	.0842	2.828	32.86	.0928	.1625
#3	.0180	410.1	.0745	2.827	32.99	.0937	.1559

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0859	.0926	.0723	.1611	.5817	1.237	.1128
SDev	.0042	.0017	.0041	.0143	.0040	.014	.0006
%RSD	4.858	1.879	5.695	8.851	.6843	1.097	.5689
#1	.0896	.0942	.0733	.1774	.5805	1.252	.1121
#2	.0814	.0928	.0678	.1550	.5862	1.228	.1131
#3	.0866	.0908	.0759	.1509	.5785	1.230	.1133

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1142	.0526	.0175	.1015	1.109	.0182	.0940
SDev	.0017	.0097	.0003	.0034	.026	.0002	.0144

%RSD	1.467	18.41	1.669	3.398	2.314	.9565	15.28
#1	.1135	.0498	.0177	.0989	1.135	.0184	.1004
#2	.1129	.0634	.0172	.1001	1.083	.0181	.0775
#3	.1161	.0447	.0176	.1054	1.107	.0181	.1040

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0046	.0995	.0038
SDev	.0005	.0009	.0009
%RSD	11.06	.9565	24.22
#1	.0051	.0994	.0043
#2	.0041	.0985	.0027
#3	.0045	.1004	.0043

Analysis Report Wed 03-06-96 11:27:16 AM page 1

Method: ICP1A Sample Name: LCS #2 @5 Operator: DRS
Run Time: 03/06/96 11:25:57
Comment: LCS #2 @5X DIL (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	.0400	.0107	.0134	7.010	-.0000	3.435
SDev	.0005	.0032	.0075	.0027	.035	.0000	.014
%RSD	59.81	7.888	70.46	19.85	.4978	289.5	.4110
#1	.0012	.0407	.0054	.0149	7.032	.0000	3.440
#2	.0011	.0427	.0193	.0151	7.028	.0000	3.446
#3	.0003	.0365	.0073	.0104	6.970	-.0000	3.419

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.992	.0180	.0105	.0046	.0141	-.0036	.0015
SDev	.042	.0057	.0020	.0003	.0005	.0026	.0001
%RSD	.5274	31.46	18.69	5.590	3.813	71.91	6.410
#1	8.010	.0245	.0125	.0048	.0137	-.0016	.0015
#2	8.021	.0155	.0086	.0043	.0147	-.0027	.0014
#3	7.943	.0140	.0103	.0046	.0139	-.0065	.0015

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0016	16.26	359.5	.0050	.0025	.1386	.0387
SDev	.0000	.09	1.5	.0003	.0019	.0054	.0002
%RSD	.8777	.5611	.4293	6.066	75.78	3.904	.4581
#1	.0015	16.31	360.3	.0051	.0029	.1445	.0389
#2	.0016	16.31	360.6	.0047	.0005	.1340	.0388
#3	.0016	16.16	357.8	.0052	.0043	.1373	.0385

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0032	85.10	.0140	.5839	6.547	.0146	.0377
SDev	.0007	.47	.0043	.0022	.035	.0056	.0119
%RSD	21.99	.5497	30.86	.3862	.5362	37.96	31.62
#1	.0025	85.37	.0180	.5860	6.513	.0178	.0490
#2	.0039	85.38	.0148	.5842	6.583	.0179	.0389
#3	.0032	84.56	.0094	.5815	6.546	.0082	.0252

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0134	.0159	.0226	.0421	.1163	.2274	.0236
SDev	.0039	.0040	.0056	.0106	.0016	.0267	.0001
%RSD	28.76	24.94	24.82	25.03	1.350	11.75	.5914
#1	.0095	.0115	.0253	.0538	.1157	.2518	.0237
#2	.0172	.0192	.0262	.0394	.1181	.2315	.0237
#3	.0136	.0172	.0161	.0332	.1151	.1988	.0234

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0191	.0127	.0036	.0179	.1351	.0030	.0216
SDev	.0042	.0053	.0002	.0030	.0274	.0006	.0147

%RSD	21.75	41.44	4.992	16.98	20.28	19.78	68.03
#1	.0171	.0188	.0038	.0209	.1110	.0036	.0169
#2	.0239	.0097	.0035	.0148	.1649	.0027	.0380
#3	.0163	.0096	.0035	.0179	.1295	.0026	.0098

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0005	.0218	-.0010
SDev	.0002	.0005	.0004
%RSD	43.38	2.172	39.83
#1	.0004	.0222	-.0014
#2	.0003	.0219	-.0008
#3	.0007	.0213	-.0007

Analysis Report QC Standard Wed 03-06-96 11:34:47 AM page 1

Method: ICP1A Sample Name: QC_MCVA1 960226I901 Operator: DRS
Run Time: 03/06/96 11:33:28
Comment: (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

PASS DRS 3/6/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4792	9.820	2.559	2.044	.4913	.0951	23.84
SDev	.0025	.060	.036	.016	.0029	.0005	.09
%RSD	.5297	.6071	1.391	.7962	.5853	.5071	.3875
#1	.4764	9.756	2.519	2.026	.4883	.0946	23.74
#2	.4811	9.874	2.572	2.058	.4941	.0956	23.93
#3	.4803	9.829	2.587	2.047	.4915	.0952	23.86
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.84	.4930	.0000	.9928	.9846	.9340	-.0020
SDev	.14	.0030	.0027	.0065	.0081	.0065	.0010
%RSD	.5792	.6054	55070.	.6500	.8273	.6931	50.45
#1	24.68	.4895	-.0010	.9855	.9754	.9266	-.0022
#2	24.96	.4945	-.0020	.9978	.9910	.9380	-.0028
#3	24.89	.4949	.0031	.9950	.9874	.9376	-.0009
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	19.92	23.85	.0020	1.951	31.99	.5084
SDev	.0001	.11	.16	.0010	.014	.18	.0030
%RSD	8.278	.5772	.6861	51.99	.7024	.5629	.5816
#1	.0014	19.79	23.74	.0017	1.938	31.78	.5055
#2	.0012	20.02	23.76	.0012	1.965	32.12	.5114
#3	.0014	19.94	24.03	.0031	1.949	32.05	.5084
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.002	36.06	-.0074	1.004	4.880	2.454	-.0373
SDev	.006	.26	.0018	.017	.067	.018	.0195
%RSD	.5505	.7275	24.58	1.672	1.373	.7394	52.24
#1	.9956	35.78	-.0083	.9851	4.842	2.433	-.0420
#2	1.007	36.30	-.0086	1.016	4.958	2.463	-.0539
#3	1.003	36.10	-.0053	1.012	4.842	2.466	-.0159
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0140	.0173	2.534	2.501	18.23	.2161	.5012
SDev	.0029	.0020	.010	.024	.10	.0092	.0033
%RSD	20.67	11.74	.3973	.9616	.5498	4.276	.6535
#1	-.0146	.0188	2.522	2.481	18.12	.2233	.4979
#2	-.0165	.0150	2.541	2.493	18.30	.2057	.5044
#3	-.0109	.0182	2.538	2.528	18.28	.2192	.5013
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0431	.0318	.9786	2.466	-.1715	.9823	.0520
SDev	.0073	.0016	.0059	.031	.0565	.0058	.0072
%RSD	17.07	5.050	.6033	1.266	32.96	.5884	13.91
#1	.0512	.0336	.9724	2.431	-.1063	.9760	.0439
#2	.0368	.0304	.9841	2.475	-.2059	.9872	.0578
#3	.0412	.0314	.9793	2.491	-.2024	.9838	.0543
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0001	.9829	1.964
SDev	.0002	.0030	.014
%RSD	219.0	.3035	.6921
#1	-.0000	.9794	1.951
#2	.0000	.9848	1.978
#3	.0003	.9844	1.963
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report Wed 03-06-96 11:42:21 AM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 03/06/96 11:41:02
Comment: LCS #2 @5X DIL (U-110 SAMPLES)G.LUMETTA
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	.0193	.0022	-.0067	-.0004	.0001	.0313
SDev	.0004	.0025	.0032	.0016	.0001	.0001	.0108
%RSD	58.30	12.77	148.6	23.12	19.73	59.01	34.49
#1	.0013	.0219	-.0011	-.0049	-.0003	.0001	.0390
#2	.0004	.0188	.0053	-.0076	-.0005	.0000	.0190
#3	.0006	.0170	.0024	-.0077	-.0003	.0001	.0360

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0099	.0047	.0059	.0010	.0022	.0027	.0011
SDev	.0011	.0036	.0048	.0008	.0028	.0012	.0003
%RSD	11.26	76.03	80.90	86.90	126.3	45.77	23.63
#1	.0111	.0021	.0112	.0003	.0035	.0041	.0009
#2	.0097	.0089	.0048	.0008	.0040	.0023	.0009
#3	.0089	.0033	.0018	.0019	-.0010	.0017	.0014

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	.0008	-.3920	.0029	.0025	.0141	.0001
SDev	.0001	.0005	.1708	.0011	.0006	.0099	.0001
%RSD	21.65	58.19	43.56	38.59	21.65	70.05	61.81
#1	.0006	.0010	-.2337	.0022	.0029	.0246	.0002
#2	.0004	.0012	-.3694	.0024	.0019	.0127	.0001
#3	.0006	.0003	-.5730	.0042	.0029	.0050	.0001

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0013	.0252	.0064	.0054	.0221	.0014	.0401
SDev	.0010	.0178	.0018	.0002	.0255	.0040	.0136
%RSD	80.79	70.78	27.65	3.689	114.9	286.7	34.03
#1	.0025	.0455	.0061	.0055	.0238	.0059	.0557
#2	.0006	.0178	.0048	.0051	.0467	-.0004	.0342
#3	.0008	.0122	.0083	.0055	-.0041	-.0014	.0304

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0148	.0062	.0131	.0097	.0202	.0162	.0004
SDev	.0026	.0014	.0080	.0124	.0021	.0137	.0001
%RSD	17.61	23.30	60.89	128.2	10.21	84.90	16.15
#1	.0162	.0045	.0205	.0060	.0201	.0175	.0005
#2	.0118	.0069	.0046	.0234	.0183	.0292	.0004
#3	.0165	.0071	.0142	-.0004	.0224	.0018	.0004

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0072	-.0046	.0006	.0168	.0734	.0005	.0139
SDev	.0045	.0022	.0003	.0041	.0513	.0004	.0027

%RSD	62.39	47.27	45.33	24.70	69.90	84.08	19.80
#1	.0111	-.0070	.0008	.0212	.1280	.0010	.0115
#2	.0023	-.0028	.0003	.0162	.0262	.0003	.0169
#3	.0080	-.0040	.0007	.0130	.0659	.0002	.0133

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0001	.0003	.0002
SDev	.0002	.0003	.0009
%RSD	315.4	95.00	423.1
#1	.0000	.0001	.0012
#2	-.0003	.0002	-.0005
#3	.0001	.0007	-.0000

Analysis Report Wed 03-06-96 11:48:22 AM page 1

Method: ICP1A Sample Name: 96-2989-BLK Operator: DRS
Run Time: 03/06/96 11:47:03
Comment: ACIDIFICATION PROCESS BLANK (BX104 CORE126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0026	.0670	.0261	.0804	.0896	.0000	.0085
SDev	.0009	.0027	.0061	.0008	.0003	.0001	.0111
%RSD	37.01	3.962	23.49	.9684	.3750	742.1	130.2
#1	-.0017	.0674	.0193	.0808	.0892	.0000	-.0010
#2	-.0036	.0642	.0278	.0809	.0899	-.0000	.0207
#3	-.0025	.0694	.0313	.0795	.0896	.0001	.0059

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2169	.0147	-.0162	-.0011	-.0003	.0042	-.0016
SDev	.0002	.0096	.0045	.0006	.0003	.0009	.0004
%RSD	.0822	65.52	28.01	59.07	110.6	22.01	28.63
#1	.2171	.0253	-.0162	-.0016	-.0003	.0032	-.0017
#2	.2168	.0066	-.0207	-.0013	.0000	.0043	-.0019
#3	.2168	.0121	-.0116	-.0004	-.0006	.0051	-.0011

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	.0764	-.8745	-.0022	-.0005	.0533	.0009
SDev	.0001	.0005	.1045	.0011	.0010	.0039	.0002
%RSD	26.14	.6551	11.95	48.60	200.0	7.372	21.10
#1	-.0006	.0765	-.9348	-.0024	-.0005	.0523	.0008
#2	-.0004	.0759	-.9348	-.0032	-.0014	.0576	.0011
#3	-.0004	.0769	-.7539	-.0011	.0005	.0500	.0008

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0007	1.635	-.0107	.0058	.0136	-.0096	-.0129
SDev	.0009	.038	.0022	.0019	.0128	.0007	.0078
%RSD	130.9	2.302	20.22	32.80	94.32	7.717	60.89
#1	.0001	1.605	-.0116	.0062	.0198	-.0088	-.0213
#2	-.0017	1.677	-.0122	.0038	-.0012	-.0102	-.0059
#3	-.0005	1.622	-.0082	.0076	.0221	-.0099	-.0114

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0100	-.0038	.0049	-.0030	.0556	-.0606	.0018
SDev	.0065	.0011	.0117	.0054	.0008	.0267	.0001
%RSD	65.57	29.01	237.4	179.0	1.345	44.08	3.859
#1	-.0107	-.0045	-.0002	-.0085	.0548	-.0427	.0019
#2	-.0161	-.0026	.0183	.0023	.0562	-.0913	.0017
#3	-.0031	-.0045	-.0033	-.0028	.0559	-.0478	.0019

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	-.0018	-.0003	.0016	-.1513	-.0016	.0050
SDev	.0043	.0016	.0002	.0011	.0424	.0005	.0072

%RSD	765.8	89.32	59.43	69.16	28.04	31.08	143.8
#1	-.0003	-.0007	-.0006	.0025	-.1697	-.0021	-.0021
#2	-.0033	-.0037	-.0003	.0018	-.1814	-.0015	.0122
#3	.0053	-.0010	-.0002	.0004	-.1028	-.0011	.0049

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0010	.0645	-.0026
SDev	.0002	.0021	.0003
%RSD	21.37	3.286	13.11
#1	-.0011	.0660	-.0023
#2	-.0008	.0653	-.0025
#3	-.0012	.0620	-.0030

Analysis Report Wed 03-06-96 11:54:18 AM page 1

Method: ICP1A Sample Name: 96-2989 @5 Operator: DRS
Run Time: 03/06/96 11:52:59
Comment: 126.1DL.D @5X DIL (BX104 CORE126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0078	107.8	.2962	.9660	.0283	.0062	.2801
SDev	.0010	.6	.0057	.0040	.0001	.0000	.0104
%RSD	12.80	.5574	1.911	.4109	.2722	.1622	3.704
#1	.0067	108.5	.2996	.9699	.0283	.0062	.2769
#2	.0078	107.7	.2896	.9661	.0283	.0062	.2917
#3	.0087	107.3	.2992	.9619	.0282	.0062	.2716

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9947	.0863	.0599	.0202	101.0	.0811	.0071
SDev	.0025	.0037	.0062	.0008	.4	.0016	.0007
%RSD	.2525	4.259	10.37	3.800	.4389	1.930	10.47
#1	.9976	.0870	.0546	.0200	101.5	.0793	.0064
#2	.9932	.0896	.0584	.0211	100.9	.0818	.0071
#3	.9933	.0824	.0667	.0197	100.6	.0822	.0079

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0183	.0785	73.91	.0171	.0291	.0294	.0082
SDev	.0003	.0003	.25	.0010	.0017	.0027	.0003
%RSD	1.533	.4484	.3384	5.662	5.679	9.188	4.288
#1	.0181	.0782	74.18	.0166	.0301	.0313	.0085
#2	.0182	.0784	73.88	.0165	.0272	.0263	.0083
#3	.0186	.0789	73.68	.0182	.0301	.0306	.0078

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.221	4316.	.0439	.5378	75.34	.4377	.0867
SDev	.004	20.	.0079	.0024	.35	.0062	.0196
%RSD	.2959	.4675	17.90	.4432	.4600	1.405	22.63
#1	1.223	4336.	.0378	.5392	75.73	.4311	.0708
#2	1.217	4316.	.0412	.5351	75.22	.4432	.1087
#3	1.223	4296.	.0528	.5392	75.07	.4387	.0807

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2486	.3117	.2443	.4373	2.045	.4887	.0035
SDev	.0044	.0025	.0125	.0076	.009	.0159	.0001
%RSD	1.782	.8068	5.135	1.748	.4203	3.258	1.981
#1	.2455	.3089	.2305	.4386	2.043	.4729	.0034
#2	.2465	.3137	.2471	.4291	2.038	.4885	.0035
#3	.2536	.3125	.2552	.4442	2.055	.5048	.0035

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2706	.2924	.0044	.1166	.5585	.0581	1.549
SDev	.0057	.0170	.0007	.0055	.0514	.0008	.013

%RSD	2.095	5.803	16.92	4.705	9.201	1.288	.8610
#1	.2657	.2886	.0036	.1135	.5026	.0573	1.537
#2	.2693	.2777	.0045	.1134	.5694	.0585	1.563
#3	.2768	.3110	.0051	.1229	.6037	.0587	1.547

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0038	.0378	-.0044
SDev	.0006	.0019	.0009
%RSD	16.95	5.056	20.30
#1	.0031	.0356	-.0049
#2	.0038	.0392	-.0034
#3	.0044	.0387	-.0049

Analysis Report Wed 03-06-96 11:59:38 AM page 1

Method: ICP1A Sample Name: 96-2989 @50 Operator: DRS
Run Time: 03/06/96 11:58:19
Comment: 126.1DL.D @50X DIL (BX104 CORE126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0008	11.31	.0298	.0914	.0025	.0006	.0241
SDev	.0004	.04	.0084	.0027	.0003	.0000	.0100
%RSD	47.17	.3332	28.35	2.993	10.87	5.975	41.30
#1	-.0006	11.32	.0201	.0946	.0022	.0006	.0191
#2	-.0013	11.34	.0347	.0900	.0025	.0006	.0356
#3	-.0006	11.26	.0347	.0897	.0027	.0006	.0177

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0972	.0229	-.0069	.0012	11.00	.0087	-.0005
SDev	.0007	.0075	.0026	.0001	.00	.0019	.0004
%RSD	.7451	32.67	38.13	5.922	.0369	22.04	74.31
#1	.0973	.0147	-.0071	.0012	11.00	.0074	-.0005
#2	.0964	.0246	-.0094	.0012	11.00	.0077	-.0009
#3	.0978	.0294	-.0041	.0013	11.00	.0109	-.0001

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0016	.0001	6.830	.0016	.0040	-.0057	.0006
SDev	.0002	.0002	.147	.0009	.0020	.0035	.0002
%RSD	11.69	152.5	2.154	59.45	49.96	61.25	29.97
#1	.0014	.0003	6.687	.0022	.0033	-.0025	.0005
#2	.0016	-.0001	6.823	.0005	.0024	-.0094	.0005
#3	.0018	.0003	6.981	.0021	.0062	-.0052	.0009

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1267	535.8	-.0066	.0570	7.575	.0309	.0021
SDev	.0006	1.9	.0054	.0031	.051	.0042	.0140
%RSD	.4808	.3604	82.03	5.479	.6751	13.65	660.0
#1	.1266	536.8	-.0077	.0605	7.607	.0268	-.0092
#2	.1273	537.0	-.0113	.0547	7.603	.0308	-.0023
#3	.1261	533.5	-.0007	.0557	7.516	.0352	.0178

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0176	.0298	.0233	.0256	.2238	-.0335	.0004
SDev	.0074	.0020	.0067	.0079	.0080	.0162	.0001
%RSD	41.94	6.591	28.82	30.87	3.575	48.34	32.15
#1	.0102	.0283	.0200	.0170	.2250	-.0458	.0003
#2	.0178	.0290	.0188	.0273	.2153	-.0151	.0005
#3	.0249	.0320	.0310	.0325	.2311	-.0397	.0005

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0164	.0272	-.0002	.0069	-.1158	.0046	.1673
SDev	.0056	.0046	.0002	.0099	.0349	.0002	.0036

%RSD	34.26	16.78	118.1	142.9	30.17	3.584	2.178
#1	.0228	.0222	-.0004	.0029	-.1371	.0045	.1709
#2	.0122	.0283	-.0002	-.0003	-.0755	.0045	.1673
#3	.0142	.0311	.0000	.0182	-.1349	.0048	.1636

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0006	.0030	-.0027
SDev	.0004	.0003	.0002
%RSD	65.65	9.211	8.814
#1	-.0008	.0028	-.0027
#2	-.0008	.0029	-.0028
#3	-.0001	.0034	-.0024

Analysis Report Wed 03-06-96 12:04:17 PM page 1

Method: ICP1A Sample Name: Na @1000 PPM Operator: DRS
Run Time: 03/06/96 12:02:58
Comment: Na IEC 9506221124 @5X DIL (BX104 CORE126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0019	.0304	.0142	-.0085	.0004	.0000	.0101
SDev	.0004	.0045	.0053	.0014	.0003	.0000	.0029
%RSD	21.19	14.87	37.53	16.44	67.74	261.7	28.30
#1	.0021	.0300	.0171	-.0091	.0002	.0000	.0129
#2	.0014	.0351	.0081	-.0069	.0007	.0000	.0072
#3	.0022	.0261	.0175	-.0095	.0003	-.0000	.0102

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0058	.0278	.0227	.0024	.0134	.0034	.0032
SDev	.0007	.0117	.0039	.0002	.0014	.0008	.0005
%RSD	11.30	42.07	17.25	9.542	10.56	23.10	16.68
#1	.0051	.0207	.0185	.0022	.0120	.0038	.0026
#2	.0063	.0413	.0263	.0027	.0149	.0025	.0035
#3	.0061	.0214	.0233	.0024	.0134	.0039	.0035

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	-.0059	-.0754	.0067	.0059	.0033	.0001
SDev	.0003	.0007	.2394	.0013	.0018	.0089	.0003
%RSD	27.79	12.05	317.5	19.59	30.70	271.6	190.6
#1	.0007	-.0066	-.3468	.0057	.0038	-.0058	.0000
#2	.0013	-.0059	.1055	.0082	.0067	.0121	-.0000
#3	.0011	-.0051	.0151	.0062	.0072	.0035	.0004

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0017	939.4	.0229	.0054	.0211	.0059	.0697
SDev	.0009	4.7	.0051	.0025	.0230	.0067	.0075
%RSD	57.15	.5005	22.42	46.32	109.0	112.8	10.80
#1	.0007	944.8	.0177	.0041	.0011	-.0016	.0618
#2	.0016	936.5	.0230	.0038	.0159	.0111	.0768
#3	.0026	936.8	.0280	.0082	.0462	.0083	.0706

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0268	.0084	.0142	.0033	.0172	.0374	.0005
SDev	.0067	.0021	.0042	.0162	.0049	.0281	.0000
%RSD	25.07	24.55	29.41	485.7	28.52	75.07	.1225
#1	.0218	.0062	.0190	-.0153	.0118	.0050	.0005
#2	.0345	.0102	.0123	.0116	.0213	.0550	.0005
#3	.0241	.0087	.0114	.0137	.0186	.0523	.0005

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0091	-.0088	.0011	.0088	.3429	.0013	.0096
SDev	.0064	.0043	.0003	.0065	.0850	.0009	.0123

%RSD	70.21	48.34	23.78	73.46	24.80	70.46	128.8
#1	.0109	-.0044	.0008	.0067	.2490	.0003	.0008
#2	.0020	-.0092	.0013	.0037	.3650	.0021	.0236
#3	.0143	-.0129	.0013	.0161	.4147	.0014	.0043

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0007	-.0004	.0014
SDev	.0007	.0008	.0008
%RSD	97.83	213.7	59.38
#1	-.0001	-.0013	.0004
#2	.0009	-.0001	.0019
#3	.0012	.0003	.0017

Analysis Report Wed 03-06-96 12:08:03 PM page 1

Method: ICP1A Sample Name: 96-2989 PSA Operator: DRS
Run Time: 03/06/96 12:06:44
Comment: 126.1DL.D POST SPIKE A (MCVA1) (BX104 CORE126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2032	258.1	1.867	3.134	.2724	.0558	11.66
SDev	.0009	1.1	.031	.014	.0011	.0002	.08
%RSD	.4655	.4223	1.685	.4582	.3888	.3308	.7249
#1	.2030	257.9	1.846	3.129	.2720	.0557	11.62
#2	.2042	257.1	1.851	3.123	.2716	.0557	11.61
#3	.2024	259.2	1.903	3.150	.2736	.0560	11.76

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	13.33	.4190	.1075	.4835	188.9	.6335	.0085
SDev	.04	.0027	.0079	.0037	.1	.0043	.0012
%RSD	.3220	.6344	7.327	.7548	.0632	.6804	13.63
#1	13.30	.4196	.1004	.4802	188.7	.6330	.0075
#2	13.32	.4213	.1160	.4828	188.9	.6295	.0097
#3	13.38	.4161	.1062	.4874	188.9	.6381	.0082

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0408	8.762	187.5	.0254	.9660	13.91	.2391
SDev	.0002	.031	.6	.0022	.0055	.03	.0009
%RSD	.5332	.3496	.3284	8.746	.5733	.2274	.3946
#1	.0406	8.745	187.2	.0237	.9652	13.91	.2381
#2	.0409	8.744	187.0	.0279	.9609	13.88	.2393
#3	.0410	8.798	188.2	.0245	.9719	13.95	.2400

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.264	7030.	.0579	1.621	178.6	2.064	-.5159
SDev	.012	1.	.0061	.003	.8	.005	.0222
%RSD	.3813	.0116	10.54	.1698	.4566	.2618	4.307
#1	3.253	7031.	.0530	1.619	178.1	2.058	-.5091
#2	3.263	7030.	.0648	1.621	178.1	2.067	-.4979
#3	3.277	7030.	.0560	1.624	179.5	2.067	-.5408

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4857	.6782	2.298	2.151	15.47	1.109	.2251
SDev	.0077	.0050	.022	.020	.23	.017	.0008
%RSD	1.587	.7356	.9581	.9141	1.467	1.548	.3535
#1	.4839	.6725	2.305	2.143	15.26	1.093	.2250
#2	.4941	.6813	2.273	2.137	15.45	1.127	.2244
#3	.4790	.6809	2.315	2.174	15.71	1.106	.2260

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6096	2.042	.4423	1.303	.2607	.5489	3.463
SDev	.0148	.024	.0018	.012	.0803	.0009	.030

%RSD	2.427	1.163	.4052	.9519	30.79	.1724	.8687
#1	.5930	2.018	.4425	1.289	.1824	.5481	3.471
#2	.6141	2.043	.4404	1.311	.3428	.5488	3.430
#3	.6215	2.065	.4440	1.308	.2570	.5499	3.489

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0073	.5576	.7504
SDev	.0003	.0065	.0028
%RSD	4.684	1.161	.3739
#1	.0071	.5506	.7509
#2	.0077	.5634	.7474
#3	.0071	.5589	.7530

Analysis Report Wed 03-06-96 12:13:30 PM page 1

Method: ICP1A Sample Name: QC MCVA1 @2 Operator: DRS
Run Time: 03/06/96 12:12:11
Comment: MCVA1 9602261901 @2 (BX104 CORE126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2416	4.973	1.286	1.028	.2454	.0470	12.00
SDev	.0005	.023	.017	.010	.0010	.0003	.05
%RSD	.1961	.4709	1.321	.9861	.4154	.5485	.3775
#1	.2417	5.000	1.304	1.037	.2463	.0473	12.02
#2	.2420	4.961	1.285	1.029	.2456	.0470	12.03
#3	.2411	4.958	1.270	1.017	.2443	.0467	11.95

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.48	.2447	-.0009	.4970	.5552	.4622	-.0002
SDev	.06	.0024	.0040	.0020	.0117	.0031	.0003
%RSD	.4415	.9880	425.8	.3972	2.099	.6599	163.9
#1	12.53	.2422	-.0041	.4982	.5686	.4657	-.0005
#2	12.49	.2471	-.0023	.4981	.5492	.4602	-.0003
#3	12.42	.2447	.0036	.4947	.5477	.4607	.0002

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	9.967	11.78	.0015	.9872	16.16	.2541
SDev	.0001	.039	.06	.0008	.0062	.06	.0008
%RSD	13.33	.3930	.5081	53.35	.6292	.3524	.3115
#1	.0008	10.00	11.71	.0012	.9910	16.20	.2545
#2	.0008	9.970	11.80	.0024	.9906	16.18	.2546
#3	.0010	9.926	11.82	.0009	.9801	16.09	.2532

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4996	21.52	.0008	.5075	2.446	1.234	-.0017
SDev	.0025	.61	.0015	.0033	.025	.009	.0065
%RSD	.5092	2.839	195.7	.6470	1.023	.7184	377.8
#1	.5010	22.23	.0023	.5071	2.474	1.236	.0023
#2	.5012	21.21	-.0008	.5044	2.428	1.224	-.0092
#3	.4967	21.13	.0009	.5109	2.435	1.241	.0017

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0034	.0071	1.280	1.260	9.655	.1031	.2504
SDev	.0015	.0013	.003	.020	.011	.0053	.0014
%RSD	43.39	18.81	.2078	1.586	.1091	5.163	.5614
#1	-.0050	.0071	1.281	1.238	9.666	.0978	.2517
#2	-.0021	.0057	1.277	1.275	9.653	.1084	.2506
#3	-.0031	.0084	1.282	1.268	9.645	.1030	.2489

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0178	.0136	.4864	1.235	-.0107	.4889	.0329
SDev	.0095	.0026	.0024	.008	.0235	.0024	.0047

%RSD	53.44	19.04	.4973	.6684	220.5	.4975	14.31
#1	.0101	.0136	.4884	1.243	-.0352	.4915	.0365
#2	.0149	.0161	.4871	1.237	-.0085	.4886	.0276
#3	.0285	.0110	.4837	1.226	.0117	.4867	.0347

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0002	.5019	.9753
SDev	.0000	.0010	.0047
%RSD	9.669	.1957	.4857
#1	-.0002	.5025	.9800
#2	-.0002	.5024	.9755
#3	-.0002	.5007	.9705

Analysis Report Wed 03-06-96 12:16:31 PM page 1

Method: ICP1A Sample Name: 96-2989 PSB Operator: DRS
Run Time: 03/06/96 12:15:12
Comment: 126.1DL.D POST SPIKE B (MCVB2) (BX104 CORE126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0097	253.1	.8002	2.301	.0644	.0143	.7001
SDev	.0017	1.3	.0050	.005	.0001	.0000	.0127
%RSD	17.49	.4991	.6304	.2281	.2073	.2308	1.809
#1	.0094	253.2	.8060	2.303	.0642	.0143	.6873
#2	.0083	254.3	.7978	2.305	.0645	.0143	.7126
#3	.0116	251.8	.7968	2.295	.0644	.0142	.7005

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.282	.1886	.9843	.0601	188.7	.2095	.9045
SDev	.003	.0053	.0126	.0017	.1	.0016	.0037
%RSD	.1492	2.788	1.282	2.877	.0519	.7742	.4057
#1	2.280	.1873	.9712	.0582	188.6	.2113	.9043
#2	2.286	.1842	.9853	.0616	188.8	.2082	.9083
#3	2.280	.1944	.9964	.0605	188.7	.2090	.9010

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9253	.2094	175.4	.4738	.0618	.1364	.0184
SDev	.0043	.0016	.4	.0012	.0022	.0039	.0001
%RSD	.4642	.7662	.2204	.2588	3.487	2.834	.3311
#1	.9254	.2099	175.4	.4726	.0616	.1367	.0184
#2	.9296	.2108	175.7	.4737	.0597	.1401	.0185
#3	.9210	.2077	175.0	.4751	.0640	.1324	.0183

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.843	7029.	.9444	1.206	176.7	1.082	.4355
SDev	.013	16.	.0053	.006	.8	.009	.0108
%RSD	.4570	.2267	.5601	.4944	.4508	.7938	2.485
#1	2.836	7029.	.9383	1.202	176.5	1.073	.4247
#2	2.858	7045.	.9475	1.213	177.6	1.084	.4355
#3	2.835	7013.	.9475	1.203	176.0	1.090	.4463

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.420	1.544	1.192	.9945	37.49	2.032	.0086
SDev	.009	.004	.008	.0221	1.04	.028	.0001
%RSD	.6432	.2339	.6815	2.221	2.763	1.402	.8137
#1	1.415	1.540	1.188	.9690	36.39	2.000	.0085
#2	1.413	1.544	1.187	1.007	37.62	2.055	.0085
#3	1.430	1.548	1.201	1.007	38.45	2.040	.0086

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.519	6.516	.0234	.2619	10.18	.1294	4.324
SDev	.005	.037	.0002	.0174	.09	.0005	.039

%RSD	.3081	.5709	.9345	6.660	.9023	.3737	.9122
#1	1.524	6.512	.0233	.2423	10.07	.1292	4.356
#2	1.514	6.555	.0237	.2757	10.23	.1290	4.335
#3	1.520	6.481	.0233	.2677	10.23	.1300	4.280

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.4500	.0957	-.1396
SDev	.0039	.0005	.0013
%RSD	.8575	.5129	.9194
#1	.4484	.0957	-.1395
#2	.4544	.0962	-.1409
#3	.4472	.0952	-.1383

Analysis Report Wed 03-06-96 12:20:37 PM page 1

Method: ICP1A Sample Name: QC MCVB2 @2 Operator: DRS
Run Time: 03/06/96 12:19:18
Comment: MCVB2 960221I901 @2X DIL (BX104 CORE126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0026	.0564	.1732	.0791	.0007	.0004	.0787
SDev	.0012	.0041	.0166	.0035	.0001	.0001	.0040
%RSD	47.51	7.294	9.561	4.412	18.50	17.12	5.126
#1	-.0012	.0606	.1688	.0781	.0007	.0005	.0765
#2	-.0036	.0524	.1593	.0830	.0009	.0003	.0834
#3	-.0029	.0563	.1915	.0762	.0006	.0004	.0763

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0167	.0120	1.020	.0009	.0362	.0133	.9969
SDev	.0012	.0028	.003	.0013	.0035	.0011	.0072
%RSD	7.195	23.56	.3373	150.5	9.693	8.571	.7264
#1	.0174	.0134	1.016	.0022	.0329	.0135	.9886
#2	.0153	.0088	1.021	-.0003	.0359	.0143	1.000
#3	.0174	.0139	1.023	.0007	.0399	.0120	1.002

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.009	-.0014	-1.078	.5063	.0014	-.0666	.0002
SDev	.009	.0003	.181	.0029	.0017	.0075	.0004
%RSD	.8785	24.28	16.83	.5790	120.2	11.29	239.8
#1	.9992	-.0010	-.8896	.5029	.0019	-.0586	.0006
#2	1.012	-.0016	-1.251	.5081	-.0005	-.0677	.0002
#3	1.016	-.0015	-1.093	.5079	.0029	-.0735	-.0002

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0058	1.618	1.004	.0157	.1021	.1216	1.089
SDev	.0014	.142	.004	.0025	.0019	.0059	.011
%RSD	23.94	8.773	.4176	16.14	1.911	4.806	1.038
#1	.0058	1.498	1.000	.0186	.1038	.1248	1.091
#2	.0044	1.774	1.003	.0148	.1000	.1252	1.076
#3	.0071	1.581	1.009	.0137	.1026	.1149	1.099

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.030	1.031	.0628	.0383	4.120	1.074	.0014
SDev	.004	.007	.0124	.0043	.376	.006	.0001
%RSD	.4288	.6496	19.81	11.13	9.124	.5212	5.015
#1	1.027	1.026	.0570	.0385	3.788	1.080	.0015
#2	1.036	1.029	.0544	.0339	4.046	1.069	.0014
#3	1.029	1.039	.0771	.0424	4.528	1.074	.0014

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9942	5.008	.0022	.0053	11.84	.0004	1.008
SDev	.0069	.032	.0003	.0039	.15	.0006	.034

%RSD	.6919	.6406	14.20	73.66	1.254	162.3	3.389
#1	.9866	4.971	.0025	.0008	11.68	.0007	.9813
#2	.9999	5.028	.0019	.0080	11.87	-.0003	.9972
#3	.9961	5.024	.0022	.0071	11.97	.0008	1.047

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.4883	.0017	-.0293
SDev	.0041	.0009	.0013
%RSD	.8427	52.03	4.345
#1	.4837	.0007	-.0300
#2	.4894	.0025	-.0300
#3	.4917	.0020	-.0278

Analysis Report QC Standard Wed 03-06-96 12:26:31 PM page 1

Method: ICP1A Sample Name: QC_MCVA1 960226I901 Operator: DRS
Run Time: 03/06/96 12:25:12
Comment: (BX104 CORE 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4680	9.599	2.462	2.004	.4803	.0914	23.33
SDev	.0016	.040	.023	.007	.0021	.0003	.08
%RSD	.3384	.4137	.9345	.3467	.4308	.3320	.3316
#1	.4669	9.572	2.481	1.997	.4794	.0914	23.32
#2	.4673	9.581	2.436	2.011	.4787	.0911	23.26
#3	.4698	9.645	2.469	2.004	.4826	.0917	23.42
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.08	.4830	-.0213	.9597	.9793	.9034	-.0033
SDev	.10	.0008	.0070	.0049	.0044	.0049	.0001
%RSD	.3947	.1751	32.78	.5105	.4544	.5373	2.843
#1	24.03	.4830	-.0225	.9569	.9746	.9003	-.0034
#2	24.02	.4839	-.0138	.9568	.9798	.9008	-.0032
#3	24.19	.4822	-.0275	.9653	.9835	.9090	-.0033
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	19.36	22.91	-.0014	1.925	31.08	.4929
SDev	.0001	.09	.33	.0015	.014	.12	.0017
%RSD	11.47	.4582	1.428	105.5	.7327	.3707	.3431
#1	.0011	19.32	22.75	.0003	1.925	31.03	.4926
#2	.0011	19.30	22.70	-.0025	1.910	31.01	.4914
#3	.0009	19.46	23.29	-.0020	1.939	31.22	.4948
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9687	36.37	-.0217	.9682	4.647	2.351	-.0843
SDev	.0046	.20	.0006	.0035	.047	.008	.0022
%RSD	.4705	.5566	2.892	.3623	1.021	.3457	2.560
#1	.9695	36.35	-.0222	.9697	4.694	2.345	-.0864
#2	.9638	36.18	-.0210	.9642	4.599	2.348	-.0820
#3	.9728	36.58	-.0219	.9707	4.647	2.360	-.0844
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Analysis Report QC Standard Wed 03-06-96 12:26:31 PM page 2

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0309	.0083	2.442	2.438	18.07	.1179	.4913
SDev	.0041	.0032	.006	.003	.07	.0184	.0020
%RSD	13.26	38.08	.2617	.1365	.3861	15.60	.4063
#1	-.0327	.0106	2.449	2.438	18.05	.1289	.4901
#2	-.0262	.0096	2.443	2.435	18.01	.1281	.4902
#3	-.0339	.0047	2.436	2.442	18.15	.0966	.4936
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0262	.0426	.9522	2.372	-.3164	.9514	.0352
SDev	.0051	.0042	.0034	.012	.0490	.0054	.0062
%RSD	19.62	9.931	.3532	.5163	15.48	.5697	17.51
#1	.0321	.0475	.9510	2.363	-.3670	.9481	.0288
#2	.0235	.0406	.9497	2.366	-.3128	.9485	.0410
#3	.0229	.0398	.9560	2.386	-.2693	.9577	.0357
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0007	.9662	1.911
SDev	.0005	.0068	.009
%RSD	78.22	.7070	.4505
#1	-.0005	.9603	1.906
#2	-.0002	.9647	1.906
#3	-.0013	.9737	1.921
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report Wed 03-06-96 12:31:19 PM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 03/06/96 12:30:00
Comment: MCVB2 9602211901 @2X DIL (BX104 CORE126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0000	.0182	-.0015	-.0073	.0005	.0001	.0072
SDev	.0001	.0012	.0053	.0008	.0002	.0001	.0114
%RSD	638.9	6.478	364.7	10.99	40.84	60.66	157.5
#1	.0001	.0169	-.0065	-.0078	.0005	.0000	-.0058
#2	-.0000	.0184	-.0020	-.0064	.0003	.0001	.0151
#3	-.0002	.0193	.0041	-.0077	.0007	.0001	.0124

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0079	.0199	-.0049	.0011	.0024	.0032	.0009
SDev	.0013	.0047	.0008	.0005	.0016	.0018	.0007
%RSD	16.54	23.65	17.30	46.79	67.53	55.54	76.24
#1	.0070	.0201	-.0052	.0016	.0015	.0012	.0006
#2	.0072	.0246	-.0056	.0007	.0014	.0044	.0004
#3	.0094	.0151	-.0040	.0009	.0042	.0041	.0017

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	-.0018	-.5127	.0026	.0006	.0069	.0000
SDev	.0001	.0005	.0856	.0013	.0003	.0057	.0002
%RSD	25.12	27.23	16.70	52.47	43.30	83.06	754.8
#1	.0004	-.0020	-.4146	.0011	.0005	.0018	.0001
#2	.0004	-.0021	-.5503	.0029	.0010	.0131	-.0002
#3	.0006	-.0012	-.5730	.0037	.0005	.0058	.0002

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.1543	.0040	.0057	.0004	-.0020	.0330
SDev	.0017	.0223	.0035	.0025	.0179	.0024	.0077
%RSD	623.8	14.48	86.29	44.35	4265.	119.1	23.41
#1	-.0013	.1340	.0071	.0038	-.0031	-.0027	.0348
#2	.0020	.1506	.0003	.0086	.0198	-.0041	.0246
#3	.0001	.1782	.0047	.0048	-.0155	.0007	.0397

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0093	.0014	.0053	.0028	.1139	-.0235	.0004
SDev	.0044	.0015	.0042	.0062	.0047	.0215	.0000
%RSD	47.41	111.5	79.88	216.1	4.159	91.41	.1100
#1	.0095	-.0004	.0018	.0035	.1153	-.0476	.0004
#2	.0049	.0025	.0040	-.0036	.1177	-.0065	.0004
#3	.0137	.0019	.0100	.0086	.1086	-.0164	.0004

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0080	-.0046	.0005	.0007	.0608	-.0000	.0064
SDev	.0073	.0051	.0002	.0083	.0765	.0003	.0001

%RSD	92.07	110.5	45.51	1250.	125.7	1067.	.9264
#1	-.0005	-.0072	.0002	-.0082	.0885	-.0003	.0063
#2	.0118	.0013	.0005	.0019	-.0256	-.0002	.0064
#3	.0126	-.0078	.0007	.0083	.1195	.0004	.0063

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0003	.0003	-.0005
SDev	.0000	.0010	.0006
%RSD	18.07	337.7	119.0
#1	-.0003	.0002	-.0008
#2	-.0002	-.0007	-.0010
#3	-.0003	.0013	.0002

Analysis Report Wed 03-06-96 12:34:12 PM page 1

Method: ICP1A Sample Name: 96-2990 @50 Operator: DRS
Run Time: 03/06/96 12:32:52
Comment: 126.2DL.D @50X DIL (BX104 CORE126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0034	11.25	.0340	.1195	.0030	.0008	.0348
SDev	.0020	.15	.0168	.0043	.0005	.0001	.0061
%RSD	59.20	1.351	49.41	3.570	15.46	7.700	17.50
#1	.0019	11.08	.0279	.1158	.0027	.0007	.0292
#2	.0025	11.32	.0212	.1185	.0027	.0008	.0339
#3	.0056	11.36	.0531	.1241	.0035	.0009	.0412

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0501	.0211	.0300	.0044	13.75	.0055	.0042
SDev	.0037	.0024	.0145	.0020	.26	.0016	.0026
%RSD	7.296	11.39	48.32	46.22	1.919	30.10	60.43
#1	.0475	.0221	.0211	.0025	13.48	.0043	.0025
#2	.0485	.0228	.0222	.0041	13.75	.0048	.0030
#3	.0542	.0183	.0468	.0065	14.01	.0073	.0071

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0036	.0030	8.029	.0080	.1484	.0149	.0011
SDev	.0008	.0010	.385	.0039	.0045	.0080	.0003
%RSD	20.93	33.77	4.800	48.59	3.059	53.69	27.71
#1	.0029	.0027	7.795	.0056	.1438	.0065	.0009
#2	.0035	.0022	7.818	.0060	.1486	.0157	.0009
#3	.0045	.0042	8.474	.0125	.1529	.0224	.0014

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1399	540.6	.0281	.0200	6.065	.0524	.0858
SDev	.0057	5.7	.0150	.0015	.141	.0109	.0327
%RSD	4.081	1.063	53.22	7.722	2.332	20.79	38.10
#1	.1343	534.0	.0176	.0186	5.913	.0432	.0659
#2	.1396	544.7	.0215	.0199	6.089	.0496	.0680
#3	.1457	543.0	.0453	.0216	6.193	.0644	.1236

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0579	.0390	.0426	.0701	.5276	.1058	.0008
SDev	.0177	.0096	.0192	.0162	.0206	.0665	.0001
%RSD	30.64	24.53	45.05	23.15	3.910	62.85	16.55
#1	.0499	.0326	.0277	.0644	.5073	.0633	.0008
#2	.0455	.0344	.0359	.0575	.5268	.0717	.0008
#3	.0782	.0500	.0643	.0884	.5486	.1824	.0010

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0454	.0274	.0018	.0169	.3509	.0103	.1500
SDev	.0183	.0051	.0010	.0105	.1850	.0020	.0224

%RSD	40.19	18.77	57.51	62.07	52.70	19.77	14.94
#1	.0295	.0216	.0010	.0048	.2653	.0088	.1242
#2	.0414	.0293	.0014	.0240	.2243	.0094	.1650
#3	.0654	.0313	.0029	.0218	.5632	.0126	.1608

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0009	.0061	.0008
SDev	.0010	.0007	.0016
%RSD	119.3	11.86	214.4
#1	.0003	.0053	-.0004
#2	.0003	.0061	.0001
#3	.0021	.0068	.0027

Analysis Report Wed 03-06-96 12:37:54 PM page 1

Method: ICP1A Sample Name: 96-2990 @10 Operator: DRS
Run Time: 03/06/96 12:36:35
Comment: 126.2DL.D @10X DIL (BX104 CORE126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0069	54.32	.1862	.5947	.0117	.0038	.1280
SDev	.0005	.18	.0207	.0038	.0002	.0000	.0056
%RSD	7.309	.3368	11.13	.6403	1.741	1.061	4.387
#1	.0063	54.45	.1649	.5925	.0119	.0038	.1217
#2	.0073	54.40	.1874	.5991	.0117	.0038	.1296
#3	.0070	54.11	.2063	.5924	.0115	.0038	.1326

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2483	.0386	.0524	.0075	64.89	.0045	.0072
SDev	.0010	.0012	.0005	.0004	.24	.0003	.0002
%RSD	.3895	3.066	.8917	6.024	.3743	7.228	2.528
#1	.2485	.0383	.0523	.0071	65.09	.0047	.0071
#2	.2491	.0399	.0529	.0074	64.97	.0045	.0072
#3	.2472	.0376	.0520	.0080	64.62	.0041	.0074

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0124	.0254	39.44	.0136	.7050	.0163	.0042
SDev	.0001	.0010	.14	.0012	.0019	.0069	.0003
%RSD	.9899	3.925	.3641	8.490	.2739	42.46	6.224
#1	.0125	.0254	39.53	.0135	.7067	.0235	.0044
#2	.0122	.0244	39.53	.0126	.7053	.0097	.0042
#3	.0124	.0264	39.28	.0149	.7029	.0157	.0039

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6597	2451.	.0425	.0810	29.67	.2201	.1081
SDev	.0007	8.	.0045	.0026	.14	.0111	.0004
%RSD	.1110	.3429	10.69	3.242	.4594	5.047	.3975
#1	.6596	2455.	.0373	.0787	29.77	.2272	.1084
#2	.6591	2457.	.0449	.0839	29.74	.2258	.1076
#3	.6605	2442.	.0453	.0804	29.52	.2073	.1082

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1647	.1448	.1566	.2374	2.208	.3271	.0017
SDev	.0024	.0031	.0090	.0138	.022	.0098	.0000
%RSD	1.486	2.145	5.758	5.796	.9774	2.988	.0322
#1	.1655	.1470	.1478	.2527	2.185	.3357	.0017
#2	.1619	.1412	.1658	.2334	2.213	.3292	.0017
#3	.1666	.1461	.1562	.2261	2.227	.3164	.0017

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1546	.1638	.0039	.0753	.6033	.0426	.6502
SDev	.0096	.0027	.0004	.0087	.0539	.0001	.0097

Analysis Report Wed 03-06-96 12:37:54 PM page 2

%RSD	6.227	1.629	9.237	11.59	8.938	.2628	1.494
#1	.1450	.1624	.0038	.0730	.5412	.0425	.6497
#2	.1643	.1620	.0036	.0849	.6376	.0425	.6408
#3	.1546	.1668	.0043	.0679	.6313	.0427	.6602

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0027	.0281	-.0029
SDev	.0000	.0008	.0003
%RSD	1.236	2.670	8.690
#1	.0028	.0282	-.0026
#2	.0027	.0273	-.0031
#3	.0027	.0287	-.0031

Analysis Report Wed 03-06-96 12:42:00 PM page 1

Method: ICP1A Sample Name: 96-2992 @50 Operator: DRS
Run Time: 03/06/96 12:40:41
Comment: 127.2DL.D @50X DIL (BX104 CORE126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	2.012	.0151	.1317	.0030	.0003	.0122
SDev	.0008	.006	.0076	.0033	.0001	.0000	.0062
%RSD	179.6	.2876	50.79	2.494	5.078	1.493	50.55
#1	.0003	2.018	.0148	.1316	.0029	.0003	.0084
#2	.0014	2.009	.0228	.1350	.0031	.0003	.0193
#3	-.0003	2.008	.0075	.1284	.0031	.0003	.0089

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0194	.0249	-.0027	-.0005	6.755	.0002	.0008
SDev	.0009	.0018	.0041	.0009	.021	.0006	.0006
%RSD	4.729	7.252	149.7	159.1	.3067	269.9	68.73
#1	.0191	.0258	-.0061	-.0015	6.772	-.0005	.0007
#2	.0204	.0261	.0018	.0003	6.732	.0004	.0014
#3	.0187	.0228	-.0039	-.0005	6.762	.0007	.0003

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	-.0039	3.174	.0036	3.182	-.0111	-.0002
SDev	.0000	.0007	.176	.0009	.015	.0044	.0003
%RSD	.7015	17.12	5.535	25.34	.4596	39.35	156.6
#1	.0014	-.0037	2.978	.0027	3.198	-.0162	-.0004
#2	.0014	-.0046	3.317	.0045	3.169	-.0087	-.0001
#3	.0014	-.0033	3.227	.0036	3.181	-.0085	.0001

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0590	275.6	.0050	.0098	4.487	.0000	.0378
SDev	.0007	1.4	.0031	.0011	.018	.0060	.0044
%RSD	1.233	.5242	62.22	11.23	.3958	128400.	11.67
#1	.0590	277.3	.0017	.0107	4.468	-.0049	.0353
#2	.0596	274.6	.0052	.0103	4.490	.0066	.0429
#3	.0582	275.0	.0079	.0086	4.503	-.0017	.0352

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0197	.0137	.0192	.0094	.3687	.0001	.0004
SDev	.0029	.0012	.0075	.0126	.0041	.0176	.0001
%RSD	14.97	8.914	39.11	133.6	1.123	12840.	19.74
#1	.0163	.0143	.0216	.0068	.3657	-.0033	.0003
#2	.0209	.0123	.0108	.0231	.3734	.0192	.0004
#3	.0218	.0145	.0252	-.0017	.3670	-.0156	.0004

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0040	.0074	.0002	.0029	.0428	.0045	.0646
SDev	.0047	.0080	.0001	.0051	.0452	.0002	.0081

%RSD	119.8	108.3	40.52	173.2	105.5	5.140	12.62
#1	.0002	.0045	.0001	.0001	.0496	.0043	.0664
#2	.0093	.0165	.0003	.0088	.0842	.0044	.0557
#3	.0025	.0013	.0003	-.0001	-.0054	.0047	.0717

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0001	.0002	-.0008
SDev	.0002	.0008	.0004
%RSD	122.2	423.2	49.53
#1	-.0003	.0011	-.0005
#2	.0001	-.0002	-.0012
#3	-.0002	-.0003	-.0006

Analysis Report Wed 03-06-96 12:45:50 PM page 1

Method: ICP1A Sample Name: 96-2992 @10 Operator: DRS
Run Time: 03/06/96 12:44:31
Comment: 127.2DL.D @10X DIL (BX104 CORE126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0052	9.778	.0822	.6796	.0129	.0018	.0715
SDev	.0005	.063	.0063	.0054	.0002	.0001	.0089
%RSD	10.30	.6472	7.632	.7927	1.579	4.101	12.48
#1	.0046	9.723	.0894	.6802	.0129	.0017	.0628
#2	.0057	9.765	.0776	.6739	.0131	.0018	.0806
#3	.0052	9.847	.0797	.6846	.0127	.0019	.0710

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1290	.0181	.0253	.0046	32.83	.0034	.0045
SDev	.0002	.0010	.0076	.0009	.19	.0015	.0007
%RSD	.1372	5.713	30.06	20.10	.5691	44.15	15.99
#1	.1291	.0169	.0303	.0056	32.67	.0043	.0050
#2	.1291	.0189	.0289	.0042	32.79	.0043	.0048
#3	.1288	.0184	.0165	.0039	33.04	.0017	.0037

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0064	.0130	17.79	.0092	15.39	.0162	.0018
SDev	.0001	.0001	.12	.0016	.10	.0033	.0001
%RSD	1.751	.8820	.6605	16.95	.6606	20.28	6.621
#1	.0065	.0130	17.86	.0095	15.31	.0160	.0016
#2	.0065	.0130	17.86	.0107	15.34	.0196	.0018
#3	.0063	.0128	17.66	.0076	15.50	.0130	.0019

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2977	1301.	.0268	.0474	22.41	.0659	.0831
SDev	.0025	7.	.0024	.0016	.11	.0043	.0303
%RSD	.8476	.5376	8.851	3.319	.4792	6.483	36.45
#1	.2951	1295.	.0296	.0492	22.40	.0672	.0955
#2	.2978	1299.	.0251	.0461	22.30	.0612	.1051
#3	.3001	1308.	.0258	.0471	22.52	.0694	.0485

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0889	.0769	.0747	.0817	1.503	.1587	.0010
SDev	.0072	.0030	.0075	.0134	.008	.0088	.0001
%RSD	8.089	3.951	10.08	16.45	.5609	5.559	6.721
#1	.0943	.0789	.0663	.0936	1.495	.1585	.0011
#2	.0916	.0783	.0772	.0843	1.503	.1676	.0010
#3	.0807	.0734	.0808	.0671	1.512	.1500	.0010

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0589	.0840	.0019	.0402	.3931	.0273	.3211
SDev	.0065	.0132	.0005	.0062	.1234	.0004	.0097

%RSD	10.98	15.72	24.27	15.29	31.40	1.530	3.035
#1	.0515	.0820	.0022	.0473	.4659	.0276	.3110
#2	.0638	.0720	.0022	.0364	.4627	.0274	.3305
#3	.0612	.0982	.0014	.0370	.2506	.0268	.3218

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0017	.0037	-.0021
SDev	.0003	.0003	.0018
%RSD	18.97	8.871	85.21
#1	.0018	.0037	-.0016
#2	.0018	.0041	-.0006
#3	.0013	.0034	-.0040

Analysis Report QC Standard Wed 03-06-96 12:53:06 PM page 1

Method: ICP1A Sample Name: QC_MCVA1 9602261901 Operator: DRS
Run Time: 03/06/96 12:51:48
Comment: (BX104 CORE 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

PASS
RPS
3/6/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4845	10.01	2.589	2.090	.5023	.0953	24.29
SDev	.0039	.10	.039	.019	.0059	.0010	.20
%RSD	.7989	.9923	1.505	.8887	1.177	1.073	.8343
#1	.4837	9.996	2.560	2.081	.5010	.0951	24.22
#2	.4886	10.12	2.633	2.112	.5088	.0964	24.52
#3	.4810	9.922	2.575	2.078	.4972	.0944	24.13
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.10	.5019	-.0246	1.001	1.001	.9467	-.0049
SDev	.20	.0080	.0066	.008	.009	.0112	.0012
%RSD	.8131	1.587	26.64	.7803	.9430	1.183	24.04
#1	25.07	.4931	-.0241	.9990	1.001	.9433	-.0042
#2	25.32	.5085	-.0314	1.009	1.011	.9593	-.0063
#3	24.92	.5041	-.0183	.9940	.9916	.9377	-.0043
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	20.22	23.85	-.0043	2.001	32.37	.5148
SDev	.0003	.19	.07	.0024	.027	.28	.0051
%RSD	126.2	.9529	.3049	55.52	1.327	.8722	.9861
#1	.0003	20.17	23.88	-.0024	1.992	32.32	.5132
#2	-.0001	20.43	23.90	-.0070	2.031	32.67	.5205
#3	.0005	20.05	23.76	-.0036	1.981	32.11	.5107
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.010	37.35	-.0282	1.012	4.829	2.452	-.1041
SDev	.010	.39	.0080	.010	.010	.017	.0303
%RSD	.9523	1.038	28.28	1.026	.2118	.6993	29.06
#1	1.006	37.20	-.0267	1.003	4.821	2.465	-.0910
#2	1.021	37.80	-.0368	1.024	4.841	2.458	-.1387
#3	1.003	37.07	-.0210	1.009	4.825	2.433	-.0826
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0431	.0051	2.560	2.519	18.62	.1028	.5141
SDev	.0115	.0055	.017	.039	.17	.0449	.0061
%RSD	26.59	106.0	.6635	1.567	.9248	43.65	1.178
#1	-.0389	.0076	2.575	2.499	18.59	.1146	.5124
#2	-.0561	-.0011	2.565	2.564	18.81	.0532	.5208
#3	-.0343	.0090	2.542	2.493	18.47	.1405	.5090
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0202	.0411	.9942	2.500	-.4354	.9938	.0356
SDev	.0064	.0076	.0105	.025	.1322	.0089	.0073
%RSD	31.94	18.56	1.053	1.019	30.35	.8927	20.59
#1	.0266	.0493	.9918	2.513	-.4379	.9921	.0439
#2	.0137	.0395	1.006	2.517	-.5663	1.003	.0332
#3	.0201	.0343	.9852	2.471	-.3020	.9860	.0298
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0010	1.009	1.996
SDev	.0004	.009	.021
%RSD	45.37	.9293	1.056
#1	-.0009	1.011	1.990
#2	-.0015	1.017	2.019
#3	-.0006	.9989	1.978
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report QC Standard Wed 03-06-96 12:56:56 PM page 1

Method: ICP1A Sample Name: QC_MCVB2 9602211901 Operator: DRS
Run Time: 03/06/96 12:55:37
Comment: (BX104 CORE 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0034	.0665	.3270	.1546	.0009	.0009	.1571
SDev	.0001	.0028	.0131	.0017	.0001	.0000	.0132
%RSD	3.201	4.222	3.998	1.108	8.566	3.761	8.388
#1	-.0035	.0659	.3246	.1565	.0009	.0009	.1675
#2	-.0033	.0640	.3412	.1531	.0010	.0008	.1614
#3	-.0034	.0696	.3154	.1541	.0009	.0009	.1423
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0416	.0144	1.964	.0010	.0101	.0315	1.929
SDev	.0042	.0025	.010	.0008	.0014	.0010	.007
%RSD	10.17	17.15	.4922	80.29	13.88	3.277	.3628
#1	.0463	.0170	1.958	.0007	.0117	.0326	1.931
#2	.0399	.0121	1.959	.0019	.0092	.0313	1.921
#3	.0384	.0141	1.975	.0004	.0093	.0306	1.935
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			2.000				2.000
Range			10.00				10.00

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.952	.0260	-1.772	.9775	.0025	-.0692	.0012
SDev	.007	.0027	.126	.0036	.0015	.0022	.0004
%RSD	.3616	10.37	7.108	.3692	60.27	3.121	30.20
#1	1.954	.0290	-1.907	.9790	.0019	-.0667	.0016
#2	1.944	.0254	-1.659	.9734	.0043	-.0709	.0010
#3	1.958	.0237	-1.749	.9801	.0014	-.0699	.0010
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK
Value	2.000			1.000			
Range	10.00			10.00			

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0088	.2784	1.933	.0293	.1290	.2270	2.128
SDev	.0008	.0179	.004	.0033	.0070	.0023	.024
%RSD	8.965	6.418	.2154	11.26	5.446	1.003	1.147
#1	.0086	.2915	1.930	.0258	.1371	.2266	2.136
#2	.0081	.2658	1.931	.0323	.1247	.2250	2.101
#3	.0096	.2581	1.938	.0299	.1252	.2295	2.148
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value			2.000				

Range			10.00				
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.973	1.976	.1075	.0701	6.922	2.063	.0030
SDev	.005	.006	.0152	.0100	.371	.039	.0001
%RSD	.2750	.3129	14.14	14.22	5.354	1.910	2.328
#1	1.973	1.969	.1121	.0659	6.545	2.019	.0031
#2	1.968	1.978	.1198	.0630	6.936	2.074	.0031
#3	1.979	1.981	.0905	.0815	7.286	2.096	.0029
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value	2.000	2.000				2.000	
Range	10.00	10.00				10.00	

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.893	9.660	.0050	.0196	22.58	.0006	1.939
SDev	.004	.025	.0004	.0086	.04	.0004	.010
%RSD	.2304	.2551	7.373	43.67	.1700	60.32	.5183
#1	1.889	9.642	.0048	.0294	22.62	.0004	1.950
#2	1.892	9.649	.0054	.0140	22.55	.0011	1.931
#3	1.897	9.688	.0048	.0153	22.57	.0004	1.936
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	QC Pass
Value	2.000	10.00			25.00		2.000
Range	10.00	10.00			10.00		10.00

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.9337	.0055	-.0558
SDev	.0029	.0006	.0021
%RSD	.3163	11.57	3.836
#1	.9345	.0059	-.0535
#2	.9304	.0047	-.0578
#3	.9362	.0057	-.0559
Errors	QC Pass	NOCHECK	NOCHECK
Value	1.000		
Range	10.00		

Analysis Report Wed 03-06-96 01:00:36 PM page 1

Method: ICP1A Sample Name: QC SSTA 9512081902 Operator: DRS
Run Time: 03/06/96 12:59:16
Comment: 127.2DL.D @10X DIL (BX104 CORE126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0087	253.1	.4031	.0531	.0105	-.0008	197.2
SDev	.0012	1.2	.0122	.0026	.0001	.0001	.9
%RSD	13.42	.4844	3.023	4.874	1.275	8.988	.4471
#1	-.0085	253.5	.4074	.0557	.0106	-.0008	197.3
#2	-.0077	251.8	.4125	.0529	.0103	-.0008	196.2
#3	-.0100	254.1	.3893	.0506	.0105	-.0009	198.0

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	250.9	.0795	.1569	.0145	.2400	-.1069	.0362
SDev	.9	.0106	.0073	.0015	.0035	.0018	.0013
%RSD	.3470	13.35	4.642	10.50	1.460	1.673	3.515
#1	251.3	.0861	.1634	.0159	.2435	-.1053	.0371
#2	249.9	.0852	.1584	.0148	.2401	-.1065	.0368
#3	251.5	.0673	.1490	.0129	.2365	-.1089	.0348

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0906	196.3	100.7	50.82	.0389	-.6171	.0214
SDev	.0002	.8	.4	.26	.0012	.0092	.0006
%RSD	.2123	.4045	.3566	.5085	3.094	1.489	2.713
#1	.0908	196.6	101.0	50.92	.0377	-.6146	.0214
#2	.0906	195.4	100.3	50.53	.0401	-.6095	.0220
#3	.0904	196.8	100.9	51.02	.0387	-.6273	.0209

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1046	.9469	.2243	193.7	198.8	1.009	.9076
SDev	.0011	.0147	.0028	.8	.6	.003	.0075
%RSD	1.094	1.556	1.243	.3956	.3163	.2817	.8286
#1	.1059	.9636	.2258	193.9	199.2	1.010	.9149
#2	.1040	.9357	.2259	192.8	198.1	1.011	.8999
#3	.1040	.9414	.2211	194.3	199.1	1.006	.9079

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2997	.3037	.4739	1.529	-.1601	3.822	.0201
SDev	.0079	.0065	.0074	.004	.0266	.036	.0000
%RSD	2.638	2.139	1.555	.2594	16.61	.9385	.0017
#1	.2989	.2981	.4674	1.531	-.1382	3.794	.0201
#2	.3079	.3108	.4819	1.524	-.1524	3.863	.0201
#3	.2922	.3022	.4724	1.530	-.1897	3.810	.0201

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6900	.4391	.0057	.3488	197.8	.0510	.5706
SDev	.0163	.0138	.0003	.0200	1.0	.0008	.0250

%RSD	2.358	3.149	4.654	5.740	.4932	1.491	4.386
#1	.6712	.4329	.0057	.3705	198.1	.0519	.5441
#2	.6999	.4549	.0059	.3310	196.8	.0505	.5740
#3	.6988	.4293	.0054	.3448	198.7	.0507	.5938

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0223	.0827	.0144
SDev	.0004	.0005	.0009
%RSD	1.744	.5816	5.973
#1	.0224	.0821	.0154
#2	.0225	.0831	.0140
#3	.0218	.0827	.0138

Analysis Report Wed 03-06-96 01:04:25 PM page 1

Method: ICP1A Sample Name: QC SSTMCV 951208I903 Operator: DRS
Run Time: 03/06/96 13:03:05
Comment: 127.2DL.D @10X DIL (BX104 CORE126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5079	5.216	2.125	-.0047	.1019	.0984	1.702
SDev	.0023	.047	.008	.0003	.0010	.0008	.029
%RSD	.4545	.8967	.3871	6.393	.9446	.8332	1.701
#1	.5105	5.265	2.128	-.0049	.1029	.0993	1.719
#2	.5064	5.211	2.131	-.0048	.1016	.0983	1.719
#3	.5067	5.172	2.116	-.0044	.1011	.0976	1.669

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.182	.2209	.0147	.0004	.3134	.0020	.0028
SDev	.021	.0055	.0083	.0017	.0008	.0016	.0014
%RSD	1.819	2.472	56.67	399.8	.2642	79.85	47.45
#1	1.204	.2147	.0078	-.0012	.3144	.0010	.0017
#2	1.180	.2230	.0123	.0002	.3130	.0012	.0024
#3	1.161	.2250	.0240	.0023	.3129	.0038	.0043

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0082	.6387	49.33	.0364	.0045	-.0767	.1055
SDev	.0005	.0136	.21	.0012	.0007	.0187	.0008
%RSD	6.188	2.130	.4358	3.305	16.37	24.35	.7958
#1	.0078	.6529	49.55	.0373	.0038	-.0917	.1061
#2	.0080	.6373	49.32	.0368	.0053	-.0827	.1059
#3	.0087	.6258	49.12	.0350	.0043	-.0558	.1046

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0053	5.202	.0112	.7246	4.089	3.082	.0415
SDev	.0012	.045	.0076	.0174	.042	.017	.0278
%RSD	22.91	.8607	67.83	2.400	1.030	.5441	66.98
#1	.0048	5.250	.0058	.7424	4.135	3.102	.0203
#2	.0045	5.194	.0079	.7235	4.052	3.074	.0312
#3	.0067	5.161	.0199	.7077	4.082	3.072	.0730

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0220	.0066	2.147	2.602	2.914	.0777	.0018
SDev	.0105	.0042	.012	.030	.007	.0373	.0001
%RSD	47.97	62.72	.5506	1.143	.2500	47.92	6.516
#1	.0112	.0018	2.159	2.628	2.920	.0605	.0017
#2	.0225	.0092	2.146	2.608	2.917	.0522	.0018
#3	.0322	.0088	2.136	2.569	2.906	.1205	.0020

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0201	.0474	.0004	.0078	19.88	.5111	.0349
SDev	.0060	.0008	.0005	.0030	.29	.0031	.0071

%RSD	30.08	1.620	145.6	38.99	1.451	.5996	20.35
#1	.0180	.0465	-.0002	.0059	20.17	.5146	.0272
#2	.0153	.0477	.0004	.0061	19.87	.5097	.0361
#3	.0269	.0479	.0009	.0112	19.59	.5090	.0413

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0001	.0008	.5049
SDev	.0006	.0005	.0034
%RSD	476.8	59.55	.6808
#1	-.0001	.0009	.5085
#2	-.0003	.0013	.5046
#3	.0008	.0003	.5017

Analysis Report QC Standard Wed 03-06-96 01:08:09 PM page 1

Method: ICP1A Sample Name: QC_SRM-1643d 108518 Operator: DRS
Run Time: 03/06/96 13:06:49
Comment: (BX104 CORE 126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	0.0023	0.1616	0.0674	.1412	.5060	0.0120	.0473
SDev	.0007	.0047	.0095	.0031	.0027	.0000	.0059
%RSD	31.31	2.903	14.07	2.199	.5381	.0833	12.38
#1	0.0022	0.1670	0.0614	.1446	.5066	0.0120	.0406
#2	0.0016	0.1595	0.0784	.1386	.5084	0.0120	.0498
#3	0.0031	0.1583	0.0625	.1402	.5030	0.0120	.0515
Errors	QC Fail	QC Fail	QC Fail	QC Pass	QC Pass	QC Fail	NOCHECK
Value	.0013	.1276	.0560	.1448	.5065	.0125	
Range	.0570	3.500	.7300	5.200	8.900	.2800	

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	31.23	0.0277	.0101	0.0265	0.0208	0.0191	.0016
SDev	.10	.0115	.0071	.0003	.0013	.0004	.0010
%RSD	.3146	41.43	70.00	1.268	6.251	2.378	59.97
#1	031.27	0.0399	.0046	0.0262	0.0201	0.0189	.0017
#2	031.31	0.0258	.0077	0.0265	0.0200	0.0189	.0006
#3	31.12	0.0172	.0181	0.0268	0.0223	0.0196	.0025
Errors	QC Pass	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail	NOCHECK
Value	31.04	.0065		.0250	.0185	.0205	
Range	.6400	.3700		.5900	.2000	3.800	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0016	0.1091	01.975	.0148	0.0215	08.444	0.0395
SDev	.0001	.0028	.107	.0010	.0014	.032	.0002
%RSD	6.189	2.560	5.411	7.048	6.667	.3777	.4909
#1	.0015	0.1118	01.892	.0156	0.0215	08.477	0.0398
#2	.0015	0.1092	01.938	.0136	0.0229	08.443	0.0394
#3	.0017	0.1062	02.096	.0152	0.0201	08.413	0.0394
Errors	NOCHECK	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail
Value		.0912	2.356		.0165	7.989	.0377
Range		3.900	.0350		.5500	.0350	.8300

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	0.1108	21.99	.0215	0.1401	.0511	0.0170	.0458
SDev	.0009	.13	.0055	.0014	.0129	.0007	.0135
%RSD	.7747	.6045	25.56	1.022	25.31	4.238	29.45
#1	0.1108	22.00	.0200	0.1413	.0414	0.0162	.0353
#2	0.1100	22.12	.0169	0.1385	.0462	0.0173	.0411
#3	.1117	021.85	.0276	0.1406	.0658	0.0175	.0610
Errors	QC Fail	QC Pass	NOCHECK	QC Fail	NOCHECK	QC Fail	NOCHECK
Value	.1129	22.07		.0581		.0181	

Range	1.700	.6400		2.700		.6400	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0166	.0044	0.0764	0.0245	2.702	-.0098	.2987
SDev	.0057	.0021	.0109	.0098	.014	.0121	.0012
%RSD	34.23	48.40	14.33	39.97	.5062	124.0	.4001
#1	.0172	.0046	0.0652	0.0331	2.698	-.0076	.2991
#2	.0107	.0022	0.0770	0.0139	2.717	-.0228	.2997
#3	.0220	.0064	0.0870	0.0266	2.691	.0011	.2974
Errors	NOCHECK	NOCHECK	QC Fail	QC Fail	NOCHECK	NOCHECK	QC Pass
Value			.0541	.0114			.2948
Range			1.100	.1700			3.400

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0053	-.0084	.0007	0.0088	.3585	.0348	.0055
SDev	.0130	.0095	.0004	.0037	.0552	.0007	.0079
%RSD	244.8	113.0	49.37	42.29	15.39	2.103	144.4
#1	-.0003	.0010	.0009	0.0063	.3110	.0347	.0131
#2	-.0039	-.0180	.0003	0.0070	.3455	0.0340	-.0027
#3	.0202	-.0083	.0010	0.0131	.4190	.0355	.0060
Errors	NOCHECK	NOCHECK	NOCHECK	QC Fail	NOCHECK	QC Pass	NOCHECK
Value				.0073		.0351	
Range				.2500		1.400	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0007	0.0763	.0005
SDev	.0002	.0005	.0010
%RSD	22.83	.7019	215.9
#1	.0006	0.0769	-.0007
#2	.0006	0.0761	.0011
#3	.0009	0.0758	.0011
Errors	NOCHECK	QC Fail	NOCHECK
Value		.0725	
Range		.6500	

Analysis Report Wed 03-06-96 01:12:02 PM page 1

Method: ICP1A Sample Name: QC CCV1 960126H901 Operator: DRS
Run Time: 03/06/96 13:10:43
Comment: 127.2DL.D @10X DIL (BX104 CORE126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0015	1.964	2.076	2.045	.9705	.9707	1.957
SDev	.0009	.009	.019	.008	.0032	.0033	.014
%RSD	59.74	.4429	.9004	.3955	.3301	.3367	.7295
#1	.0015	1.973	2.096	2.045	.9740	.9744	1.973
#2	.0006	1.956	2.072	2.054	.9677	.9683	1.946
#3	.0024	1.963	2.060	2.037	.9697	.9694	1.952

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.055	.9992	.0031	1.008	.4976	1.948	.0023
SDev	.006	.0116	.0009	.004	.0035	.008	.0009
%RSD	.2921	1.163	29.32	.4087	.6974	.3892	38.93
#1	2.062	1.011	.0022	1.012	.5016	1.955	.0017
#2	2.051	.9882	.0030	1.007	.4958	1.940	.0019
#3	2.053	.9982	.0041	1.004	.4955	1.947	.0033

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	1.997	4.290	.0053	1.973	2.073	1.026
SDev	.0003	.004	.120	.0011	.006	.004	.001
%RSD	43.49	.2209	2.790	20.85	.2838	.1824	.1134
#1	.0004	2.002	4.199	.0044	1.980	2.072	1.027
#2	.0010	1.993	4.244	.0051	1.971	2.069	1.025
#3	.0010	1.997	4.425	.0065	1.969	2.077	1.025

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.961	8.473	.0100	2.070	4.805	2.003	.0473
SDev	.006	.017	.0039	.006	.019	.007	.0067
%RSD	.3180	.1968	38.77	.2792	.3906	.3718	14.28
#1	1.966	8.473	.0055	2.077	4.788	1.996	.0437
#2	1.954	8.456	.0121	2.066	4.826	2.002	.0430
#3	1.963	8.489	.0123	2.068	4.802	2.011	.0550

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0175	.0087	.0200	1.989	4.790	.0558	1.980
SDev	.0043	.0050	.0167	.011	.017	.0152	.007
%RSD	24.48	57.33	83.14	.5378	.3586	27.25	.3451
#1	.0150	.0104	.0234	1.998	4.808	.0384	1.987
#2	.0150	.0127	.0348	1.991	4.774	.0628	1.975
#3	.0224	.0031	.0020	1.977	4.788	.0663	1.976

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0200	.0081	.0006	1.977	.1074	.9581	.0268
SDev	.0056	.0063	.0001	.010	.0216	.0045	.0067

%RSD	28.26	76.95	15.54	.5243	20.13	.4716	24.91
#1	.0136	.0019	.0005	1.987	.0853	.9633	.0191
#2	.0222	.0080	.0006	1.980	.1086	.9552	.0298
#3	.0242	.0145	.0005	1.966	.1285	.9557	.0314

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0002	1.028	-.0006
SDev	.0002	.006	.0002
%RSD	130.0	.5532	28.06
#1	.0001	1.033	-.0005
#2	.0004	1.022	-.0008
#3	.0000	1.030	-.0005

Analysis Report Wed 03-06-96 01:16:03 PM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 03/06/96 13:14:45
Comment: 127.2DL.D @10X DIL (BX104 CORE126/127)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	.0133	.0093	-.0079	.0007	.0006	.0110
SDev	.0006	.0032	.0057	.0016	.0002	.0000	.0092
%RSD	156.1	24.07	61.79	20.02	32.04	4.184	83.39
#1	.0009	.0117	.0112	-.0097	.0009	.0007	.0181
#2	.0005	.0170	.0138	-.0067	.0009	.0006	.0142
#3	-.0002	.0112	.0028	-.0074	.0005	.0006	.0007

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0049	-.0078	.0036	.0011	.0005	.0041	.0014
SDev	.0014	.0010	.0027	.0007	.0009	.0006	.0003
%RSD	28.23	12.22	73.15	63.84	187.5	13.34	22.18
#1	.0064	-.0070	.0056	.0019	-.0005	.0035	.0018
#2	.0044	-.0076	.0006	.0008	.0012	.0043	.0012
#3	.0038	-.0088	.0047	.0006	.0007	.0046	.0013

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	-.0061	-.4750	.0031	.0030	-.0019	.0003
SDev	.0001	.0004	.1506	.0005	.0015	.0049	.0003
%RSD	37.08	6.774	31.71	14.74	48.24	259.4	93.45
#1	.0004	-.0064	-.3016	.0033	.0043	.0030	.0002
#2	.0002	-.0056	-.5730	.0035	.0014	-.0019	.0006
#3	.0004	-.0063	-.5503	.0026	.0033	-.0067	.0001

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0013	.0787	.0054	.0439	.0104	.0032	.0445
SDev	.0005	.0111	.0042	.0020	.0116	.0079	.0126
%RSD	39.30	14.09	77.91	4.590	111.8	243.0	28.28
#1	.0018	.0676	.0094	.0447	.0225	.0123	.0590
#2	.0013	.0898	.0058	.0416	.0095	-.0003	.0374
#3	.0008	.0787	.0010	.0454	-.0007	-.0022	.0371

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0089	.0016	.0029	.0093	.0073	-.0102	.0015
SDev	.0073	.0018	.0049	.0027	.0015	.0211	.0002
%RSD	81.30	115.2	170.7	28.62	20.78	205.8	12.11
#1	.0088	.0022	.0028	.0066	.0066	.0131	.0017
#2	.0017	-.0005	-.0020	.0119	.0091	-.0160	.0015
#3	.0162	.0030	.0079	.0092	.0064	-.0279	.0014

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0111	-.0115	.0002	.0050	.1057	.0005	.0069
SDev	.0031	.0051	.0003	.0158	.0513	.0008	.0061

%RSD	28.20	44.53	111.3	318.2	48.53	150.3	88.43
#1	.0080	-.0133	.0005	-.0132	.1469	.0014	.0063
#2	.0142	-.0057	-.0000	.0152	.0483	.0001	.0011
#3	.0110	-.0154	.0002	.0129	.1219	.0000	.0133

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0000	.0010	-.0005
SDev	.0003	.0005	.0009
%RSD	710.5	51.65	194.3
#1	.0004	.0016	.0002
#2	-.0003	.0006	-.0015
#3	.0000	.0009	-.0001

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FOR REPORTS FOR FOLLOWING DATA SEE

INITIAL RUNS FOR 96-2987, 96-2988, 96-2989, 96-2990,

AND 96-2992

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DATE TO QC: 03/19/96

DATA QUALITY REVIEW

I have reviewed the following data for completeness and for compliance with project requirements.

Analyte - ICP - Field Blank, Drainable Liquid, Hydrostatic Fluid

Data Package/Report - BX-112 & BX-104

Project No. - 22762

ACL Numbers - 96-2619, 96-2620, 96-2848, 96-2850, 96-2987
96-2988, 96-2989, 96-2990, 96-2992

PNL ACL Quality Representative

3/28/96
Date

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										QC CCV1 96012	V1 960126H901
										A0088	A0088
										3/14/96	3/14/96
Statistical Summary for 'QC CCV1 960126H901'										10:36	13:27
(HPS:CCV-1)										CONC	CONC
	TRUE	***N***	***Average***	***S.Dev***	***%RSD***	***Bias***	***Bias***	*High*	*Low*	1335	1381
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)
Ag		2	0.002	0.004	237					0.005	-0.001
Al	2.000	2	1.997	0.006	0	-0.003	-0.1			1.993	2.001
As	2.000	2	2.113	0.016	1	0.113	5.7			2.102	2.124
B	2.000	2	2.087	0.013	1	0.087	4.3			2.078	2.096
Ba	1.000	2	0.978	0.004	0	-0.022	-2.2			0.975	0.980
Be	1.000	2	0.987	0.001	0	-0.013	-1.3			0.987	0.988
Bi	2.000	2	1.974	0.004	0	-0.026	-1.3			1.977	1.971
Ca	2.000	2	2.078	0.011	1	0.078	3.9			2.070	2.086
Cd	1.000	2	1.028	0.001	0	0.028	2.8			1.028	1.029
Ce		2	-0.009	0.016	-175					0.002	-0.020
Co	1.000	2	1.016	0.009	1	0.016	1.6			1.009	1.022
Cr	0.500	2	0.501	0.001	0	0.001	0.2			0.502	0.500
Cu	2.000	2	1.980	0.019	1	-0.020	-1.0			1.967	1.994
Dy		2	0.000	0.001	1040					0.001	-0.001
Eu		2	0.000	0.001	391					0.001	0.000
Fe	2.000	2	2.016	0.010	0	0.016	0.8			2.009	2.022
K	5.000	2	4.509	0.443	10	-0.491	-9.8		-	4.823	4.196
La		2	0.000	0.002	-23617					0.002	-0.002
Li	2.000	2	2.000	0.000	0	0.000	0.0			2.000	2.000
Mg	2.000	2	2.079	0.005	0	0.079	4.0			2.075	2.083
Mn	1.000	2	1.043	0.010	1	0.043	4.3			1.036	1.050
Mo	2.000	2	1.973	0.017	1	-0.027	-1.4			1.961	1.985
Na	8.100	2	8.420	0.122	1	0.320	3.9			8.333	8.506
Nd		2	-0.001	0.014	-1016					0.008	-0.011
Ni	2.000	2	2.068	0.028	1	0.068	3.4			2.049	2.088
P	5.000	2	4.923	0.037	1	-0.077	-1.5			4.897	4.949
Pb	2.000	2	2.003	0.002	0	0.003	0.1			2.001	2.004
Pd		2	0.003	0.043	1383					0.034	-0.027
Rh		2	-0.003	0.016	-540					0.008	-0.014
Ru		2	0.004	0.003	68					0.006	0.002
Sb		2	0.019	0.005	28					0.022	0.015
Se	2.000	2	2.009	0.037	2	0.009	0.5			1.983	2.035
Si	5.000	2	4.822	0.006	0	-0.178	-3.6			4.826	4.819
Sn		2	0.051	0.040	78					0.079	0.023
Sr	2.000	2	1.984	0.024	1	-0.016	-0.8			1.967	2.001
Te		2	0.016	0.006	36					0.020	0.012
Th		2	0.010	0.002	19					0.011	0.008
Ti		2	0.000	0.001	-1296					0.000	-0.001
Tl	2.000	2	1.991	0.015	1	-0.009	-0.5			1.980	2.001
U		2	-0.078	0.178	-229					0.048	-0.204
V	1.000	2	0.987	0.002	0	-0.013	-1.3			0.986	0.988
W		2	0.009	0.009	98					0.015	0.003
Y		2	-0.001	0.001	-109					0.000	-0.001
Zn	1.000	2	1.016	0.029	3	0.016	1.6			0.995	1.037
Zr		2	-0.002	0.000	-7					-0.002	-0.002
TIME		2	########	0.000	0					########	########

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Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										QC_MCVA1 960	VA1 960	VA1 960	VA1 960
										A0088	A0088	A0088	A0088
										3/14/96	3/14/96	3/14/96	3/14/96
										10:16	11:27	12:12	13:06
(QC-MCVA)										CONC	CONC	CONC	CONC
	TRUE	N	Average	S.Dev	%RSD	Bias	Bias	High	Low	1611	1657	1703	1749
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)	(ug/mL)	(ug/mL)
Ag	0.500	4	0.477	0.004	1	-0.023	-4.6			0.472	0.482	0.479	0.475
Al	10.000	4	9.934	0.145	1	-0.066	-0.7			9.720	10.032	10.011	9.974
As	2.500	4	2.558	0.047	2	0.058	2.3			2.487	2.579	2.584	2.581
B	2.000	4	2.076	0.027	1	0.076	3.8			2.036	2.084	2.096	2.089
Ba	0.500	4	0.489	0.007	2	-0.011	-2.3			0.477	0.494	0.492	0.492
Be	0.100	4	0.094	0.001	1	-0.006	-6.1			0.092	0.095	0.095	0.094
Bi	25.000	4	23.873	0.313	1	-1.127	-4.5			23.436	24.125	24.069	23.862
Ca	25.000	4	24.910	0.338	1	-0.090	-0.4			24.420	25.099	25.162	24.959
Cd	0.500	4	0.483	0.012	3	-0.017	-3.4			0.485	0.499	0.478	0.470
Ce		4	-0.027	0.022	-80					-0.002	-0.023	-0.030	-0.055
Co	1.000	4	0.979	0.016	2	-0.021	-2.1			0.956	0.987	0.990	0.982
Cr	1.000	4	0.982	0.014	1	-0.018	-1.8			0.964	0.990	0.994	0.979
Cu	1.000	4	0.930	0.015	2	-0.070	-7.0			0.910	0.928	0.947	0.933
Dy		4	-0.006	0.002	-35					-0.003	-0.005	-0.006	-0.008
Eu		4	0.000	0.001	12213					0.001	0.000	0.000	-0.001
Fe	20.000	4	19.806	0.281	1	-0.194	-1.0			19.389	19.954	19.991	19.889
K	25.000	4	24.081	0.494	2	-0.919	-3.7			24.291	24.437	24.247	23.350
La		4	-0.005	0.004	-80					-0.001	-0.003	-0.005	-0.010
Li	2.000	4	2.002	0.041	2	0.002	0.1			1.954	1.988	2.050	2.015
Mg	31.200	4	31.706	0.395	1	0.506	1.6			31.138	31.970	31.977	31.737
Mn	0.500	4	0.506	0.010	2	0.006	1.2			0.492	0.506	0.515	0.510
Mo	1.000	4	0.987	0.017	2	-0.013	-1.3			0.962	0.995	0.999	0.993
Na	36.700	4	36.577	0.898	2	-0.123	-0.3			35.271	37.284	36.736	37.015
Nd		4	-0.031	0.019	-60					-0.012	-0.024	-0.034	-0.055
Ni	1.000	4	0.987	0.024	2	-0.013	-1.3			0.953	1.007	1.000	0.987
P	5.000	4	4.863	0.076	2	-0.137	-2.7			4.770	4.901	4.945	4.837
Pb	2.500	4	2.397	0.025	1	-0.103	-4.1			2.367	2.413	2.421	2.386
Pd		4	-0.117	0.051	-43					-0.061	-0.097	-0.132	-0.180
Rh		4	-0.047	0.021	-44					-0.024	-0.042	-0.050	-0.073
Ru		4	0.010	0.003	36					0.005	0.012	0.013	0.008
Sb	2.500	4	2.554	0.044	2	0.054	2.2			2.500	2.584	2.594	2.536
Se	2.500	4	2.494	0.051	2	-0.006	-0.2			2.421	2.528	2.530	2.497
Si	20.000	4	18.356	0.211	1	-1.644	-8.2			18.057	18.524	18.484	18.357
Sn		4	0.144	0.066	46					0.218	0.170	0.128	0.061
Sr	0.500	4	0.499	0.010	2	-0.001	-0.1			0.485	0.504	0.504	0.505
Te		4	0.024	0.012	52					0.041	0.023	0.021	0.011
Th		4	0.049	0.002	5					0.048	0.051	0.045	0.050
Ti	1.000	4	0.972	0.016	2	-0.028	-2.8			0.949	0.981	0.980	0.977
Tl	2.500	4	2.443	0.045	2	-0.057	-2.3			2.384	2.493	2.455	2.438
U		4	-0.479	0.213	-44					-0.248	-0.417	-0.492	-0.760
V	1.000	4	0.996	0.014	1	-0.004	-0.4			0.975	1.007	1.004	0.998
W		4	0.033	0.011	33					0.046	0.034	0.032	0.019
Y		4	-0.001	0.001	-93					0.000	-0.001	-0.001	-0.002
Zn	1.000	4	0.972	0.028	3	-0.028	-2.8			0.931	0.977	0.993	0.989
Zr	2.000	4	1.949	0.036	2	-0.051	-2.6			1.896	1.965	1.969	1.966
TIME		4	########	0.000	0					########	########	########	########

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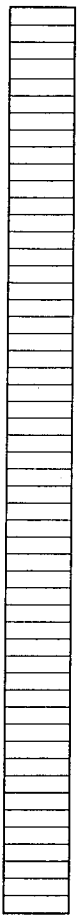
										QC_MCVB2 960	VB2 960221I901
										A0088	A0088
										3/14/96	3/14/96
			Statistical Summary for 'QC_MCVB2 960221I901'							10:19	13:11
(QC-MCVB)										CONC	CONC
	TRUE	***N***	***Average***	***S.Dev***	***%RSD***	***Bias***	***Bias***	***High***	***Low***	1795	1841
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)
Ag		2	-0.007	0.001	-16					-0.006	-0.008
Al		2	-0.064	0.043	-67					-0.095	-0.034
As		2	0.273	0.024	9					0.257	0.290
B		2	0.166	0.000	0					0.166	0.166
Ba		2	0.000	0.001	191					0.001	0.000
Be		2	0.001	0.000	7					0.001	0.001
Bi		2	0.078	0.018	24					0.091	0.065
Ca		2	0.009	0.017	198					0.021	-0.003
Cd		2	0.005	0.015	288					0.016	-0.005
Ce	2.000	2	2.004	0.017	1	0.004	0.2			1.992	2.016
Co		2	-0.002	0.001	-76					-0.001	-0.003
Cr		2	0.005	0.002	46					0.006	0.003
Cu		2	0.023	0.007	29					0.028	0.019
Dy	2.000	2	2.065	0.027	1	0.065	3.2			2.046	2.084
Eu	2.000	2	2.083	0.034	2	0.083	4.1			2.059	2.106
Fe		2	0.019	0.011	60					0.027	0.011
K		2	-1.825	0.478	-26					-1.488	-2.163
La	1.000	2	1.030	0.026	3	0.030	3.0			1.012	1.049
Li		2	-0.007	0.002	-30					-0.008	-0.005
Mg		2	-0.131	0.003	-2					-0.133	-0.129
Mn		2	-0.003	0.006	-165					-0.008	0.001
Mo		2	0.006	0.001	11					0.007	0.006
Na		2	0.171	0.044	26					0.202	0.139
Nd	2.000	2	2.035	0.019	1	0.035	1.7			2.021	2.048
Ni		2	0.028	0.000	0					0.028	0.028
P		2	0.093	0.018	19					0.106	0.081
Pb		2	0.212	0.008	4					0.218	0.206
Pd	2.000	2	1.927	0.062	3	-0.073	-3.6			1.883	1.971
Rh	2.000	2	2.012	0.017	1	0.012	0.6			2.000	2.024
Ru	2.000	2	2.060	0.014	1	0.060	3.0			2.050	2.070
Sb		2	0.092	0.000	0					0.091	0.092
Se		2	0.062	0.006	10					0.058	0.067
Si		2	7.303	0.029	0					7.324	7.283
Sn	2.000	2	2.132	0.022	1	0.132	6.6			2.148	2.116
Sr		2	0.002	0.001	25					0.003	0.002
Te	2.000	2	1.901	0.015	1	-0.099	-5.0			1.890	1.911
Th	10.000	2	10.271	0.198	2	0.271	2.7			10.131	10.411
Ti		2	0.003	0.001	37					0.004	0.002
Tl		2	0.010	0.012	121					0.019	0.001
U	25.000	2	23.226	0.218	1	-1.774	-7.1			23.380	23.071
V		2	-0.002	0.003	-157					0.000	-0.003
W	2.000	2	2.014	0.002	0	0.014	0.7			2.016	2.013
Y	1.000	2	0.986	0.002	0	-0.014	-1.4			0.985	0.987
Zn		2	0.000	0.005	9707					-0.004	0.004
Zr		2	-0.085	0.013	-15					-0.075	-0.094
TIME		2	########	0.000	0					#########	#########

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES



Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

									QC_SRM-1643d	M-1643d 108518		
									A0088	A0088		
									3/14/96	3/14/96		
Statistical Summary for 'QC_SRM-1643d 108518'									10:32	13:23		
(NIST:SRM1643d)									CONC	CONC		
	TRUE	***N***	***Average***	***S.Dev***	***%RSD***	***Bias***	***Bias***	***High***	***Low***	1887	1933	
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)	
Ag	0.001	2	0.002	0.003	178	0.001	53.5	+	-	0.004	-0.001	
Al	0.128	2	0.151	0.019	12	0.023	18.3	+		0.164	0.138	
As	0.056	2	0.062	0.008	12	0.006	11.2	+		0.068	0.057	
B	0.145	2	0.148	0.002	1	0.003	2.1			0.146	0.149	
Ba	0.507	2	0.504	0.002	0	-0.002	-0.4			0.503	0.506	
Be	0.013	2	0.012	0.000	0	0.000	-3.6			0.012	0.012	
Bi	0.013	2	0.041	0.012	29	0.028	213.4	+		0.049	0.032	
Ca	31.050	2	31.650	0.259	1	0.600	1.9			31.467	31.834	
Cd	0.006	2	0.009	0.008	89	0.002	36.4	+	-	0.014	0.003	
Ce		2	0.001	0.012	2119					0.009	-0.008	
Co	0.025	2	0.026	0.001	6	0.001	4.0			0.027	0.025	
Cr	0.019	2	0.020	0.002	10	0.001	7.5	+		0.022	0.019	
Cu	0.021	2	0.012	0.008	63	-0.009	-41.5		-	0.007	0.017	
Dy		2	0.000	0.002	16829					0.001	-0.001	
Eu		2	0.001	0.001	67					0.002	0.001	
Fe	0.091	2	0.107	0.009	8	0.016	17.1	+		0.113	0.101	
K	2.356	2	2.197	0.612	28	-0.159	-6.7	+	-	2.630	1.764	
La		2	0.012	0.005	39					0.016	0.009	
Li	0.017	2	0.014	0.004	27	-0.003	-17.7		-	0.011	0.016	
Mg	7.989	2	8.438	0.044	1	0.449	5.6			8.407	8.470	
Mn	0.038	2	0.036	0.006	18	-0.001	-3.9		-	0.032	0.041	
Mo	0.113	2	0.111	0.000	0	-0.002	-1.4			0.111	0.111	
Na	22.070	2	21.858	0.343	2	-0.212	-1.0			21.616	22.101	
Nd		2	0.012	0.015	118					0.023	0.002	
Ni	0.058	2	0.122	0.011	9	0.064	109.4	+		0.129	0.114	
P		2	0.027	0.025	92					0.045	0.010	
Pb	0.018	2	0.014	0.003	22	-0.004	-23.7		-	0.016	0.012	
Pd		2	0.012	0.048	413					0.046	-0.022	
Rh		2	0.000	0.016	-4980					0.011	-0.012	
Ru		2	-0.001	0.005	-1020					0.003	-0.004	
Sb	0.054	2	0.065	0.009	13	0.011	20.0	+		0.059	0.071	
Se	0.011	2	0.018	0.000	2	0.007	60.8	+		0.019	0.018	
Si	2.700	2	2.691	0.010	0	-0.009	-0.3			2.698	2.683	
Sn		2	0.004	0.050	1290					0.039	-0.032	
Sr	0.295	2	0.296	0.004	1	0.001	0.5			0.293	0.299	
Te	0.001	2	0.002	0.007	381	0.001	88.0	+	-	0.007	-0.003	
Th		2	-0.011	0.000	0					-0.011	-0.011	
Ti		2	0.000	0.001	222					0.001	0.000	
Tl	0.007	2	0.015	0.005	35	0.007	99.4	+		0.018	0.011	
U		2	0.273	0.204	75					0.418	0.129	
V	0.035	2	0.035	0.001	4	0.000	0.1			0.036	0.034	
W		2	0.008	0.005	62					0.011	0.004	
Y		2	0.000	0.001	165					0.001	0.000	
Zn	0.072	2	0.072	0.009	12	-0.001	-0.8			0.066	0.078	
Zr		2	0.000	0.001	-394					0.000	-0.001	
TIME		2	########	0.000	0					#########	#########	

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

										ICP1.0 960103	.0 960103	.0 960103	.0 960103
										A0088	A0088	A0088	A0088
										3/14/96	3/14/96	3/14/96	3/14/96
Statistical Summary for 'ICP1.0 960103F100'										10:12	10:41	11:32	12:16
(ICP1.0 "Blank")										CONC	CONC	CONC	CONC
	TRUE	***N***	***Average***	***S.Dev***	***%RSD***	***Bias***	***Bias***	***High***	***Low***	1013	1059	1105	1151
	(ug/mL)		(ug/mL)	(ug/mL)	(%)	(ug/mL)	(%)	(>110%)	(<90%)	(ug/mL)	(ug/mL)	(ug/mL)	(ug/mL)
Ag		5	0.002	0.003	167					0.003	0.006	0.001	-0.001
Al		5	0.012	0.007	53					0.020	0.016	0.014	0.007
As		5	-0.002	0.007	-365					0.002	-0.007	0.005	-0.012
B		5	0.001	0.003	469					0.004	0.000	-0.003	0.003
Ba		5	0.000	0.000	108					0.001	0.001	0.000	0.000
Be		5	0.000	0.000	119					0.000	0.001	0.000	0.000
Bi		5	0.006	0.004	69					0.001	0.006	0.004	0.012
Ca		5	0.003	0.007	219					0.001	0.002	0.007	0.013
Cd		5	0.004	0.005	133					0.011	0.004	0.008	0.000
Ce		5	0.002	0.010	451					0.016	0.004	0.007	-0.004
Co		5	0.000	0.000	80					0.001	0.001	0.001	0.000
Cr		5	0.000	0.001	236					0.001	0.001	0.000	-0.001
Cu		5	-0.005	0.004	-99					-0.007	-0.007	-0.009	0.000
Dy		5	0.001	0.002	174					0.002	0.002	0.002	-0.001
Eu		5	0.000	0.001	170					0.001	0.001	0.001	0.000
Fe		5	-0.003	0.004	-146					-0.007	-0.006	0.000	0.003
K		5	0.049	0.427	872					0.483	0.322	0.238	-0.276
La		5	0.001	0.003	196					0.004	0.003	0.002	-0.001
Li		5	-0.002	0.007	-369					-0.006	-0.007	-0.005	0.010
Mg		5	-0.001	0.009	-623					-0.006	-0.010	0.005	0.012
Mn		5	-0.005	0.005	-98					-0.008	-0.008	-0.008	0.000
Mo		5	0.001	0.001	262					-0.001	0.002	0.001	-0.001
Na		5	0.030	0.055	179					0.032	0.019	0.122	-0.003
Nd		5	0.006	0.013	216					0.021	0.011	0.012	-0.005
Ni		5	0.013	0.016	125					0.001	0.033	0.007	-0.004
P		5	-0.004	0.017	-407					-0.002	0.001	0.020	-0.017
Pb		5	-0.006	0.003	-44					-0.005	-0.003	-0.005	-0.009
Pd		5	0.031	0.041	134					0.077	0.054	0.047	-0.009
Rh		5	0.011	0.016	150					0.033	0.016	0.016	-0.003
Ru		5	0.003	0.004	120					0.006	0.007	0.004	-0.001
Sb		5	0.008	0.006	74					0.012	0.008	0.016	0.002
Se		5	0.012	0.008	66					0.004	0.004	0.013	0.019
Si		5	0.027	0.042	156					0.095	0.023	0.033	0.000
Sn		5	0.028	0.042	150					0.075	0.057	0.040	-0.025
Sr		5	0.001	0.000	78					0.000	0.001	0.000	0.000
Te		5	0.008	0.009	103					0.011	0.020	0.011	-0.003
Th		5	-0.004	0.002	-51					-0.007	-0.003	-0.004	-0.001
Ti		5	0.000	0.001	262					0.001	0.001	0.001	0.000
Tl		5	0.008	0.003	41					0.011	0.011	0.007	0.003
U		5	0.065	0.168	259					0.234	0.168	0.155	-0.093
V		5	0.000	0.001	261					0.001	0.001	0.001	0.000
W		5	0.006	0.014	225					0.027	0.012	0.009	-0.009
Y		5	0.000	0.001	-311					0.000	0.000	0.000	-0.001
Zn		5	-0.006	0.005	-83					-0.009	-0.009	-0.008	0.000
Zr		5	0.000	0.001	-154					0.000	0.000	0.000	0.000
TIME		5	########	0.000	0					########	########	########	########

Battelle PNNL/ACL/Inorganic Analysis Group ... ICPAES

.0 960103
A0088
3/14/96
13:32
CONC
1197
(ug/mL)
-0.001
0.004
0.002
-0.001
0.000
0.001
0.006
-0.006
-0.002
-0.011
0.000
0.000
0.001
-0.001
0.000
-0.006
-0.522
-0.002
-0.002
-0.007
0.001
0.001
-0.017
-0.009
0.028
-0.023
-0.008
-0.016
-0.007
-0.001
0.003
0.021
-0.016
-0.006
0.001
0.003
-0.004
-0.001
0.006
-0.138
-0.001
-0.007
-0.001
-0.001
-0.001
##########

Analysis Report Summary Thu 03-14-96 01:40:00 PM page 1

A 6/98 ECP-333-WM-1 3/14/96 RHS

	#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
	1	SPC-BLK 108448	A0088	ICP1A	03/14/96	09:25	DRS	S	INT
	2	SPC-BLK 108448	A0088	ICP1A	03/14/96	09:25	DRS	S	CONC
	3	SPC-STD 10601031100	A0088	ICP1A	03/14/96	09:27	DRS	S	INT
	4	SPC-STD 10601031100	A0088	ICP1A	03/14/96	09:27	DRS	S	CONC
	5	ICP1.0	A0088	ICP1A	03/14/96	09:32		X	IR
	6	ICP1.1B	A0088	ICP1A	03/14/96	09:34		X	IR
	7	ICP1.1A - Ignore RHS 3/14/96	A0088	ICP1A	03/14/96	09:37		X	IR
	8	ICP1.1A	A0088	ICP1A	03/14/96	09:39		X	IR
	9	ICP1.2	A0088	ICP1A	03/14/96	09:43		X	IR
	10	ICP1.3	A0088	ICP1A	03/14/96	09:46		X	IR
	11	ICP1.4	A0088	ICP1A	03/14/96	09:50		X	IR
	12	ICP1.5	A0088	ICP1A	03/14/96	09:54		X	IR
	13	ICP1.6	A0088	ICP1A	03/14/96	09:57		X	IR
	14	ICP1.7	A0088	ICP1A	03/14/96	10:01		X	IR
	15	ICP1.8	A0088	ICP1A	03/14/96	10:06		X	IR
	16	ICP1.0 960103F100	A0088	ICP1A	03/14/96	10:12	DRS	S	CONC
PASS	17	QC_MCVA1 960226I901	A0088	ICP1A	03/14/96	10:16	DRS	Q	CONC
PASS	18	QC_MCVB2 960221I901	A0088	ICP1A	03/14/96	10:19	DRS	Q	CONC
	19	QC SSTA 951208I902	A0088	ICP1A	03/14/96	10:23	DRS	S	CONC
	20	QC SSTMCV 951208I903	A0088	ICP1A	03/14/96	10:28	DRS	S	CONC
	21	QC_SRM-1643d 108518	A0088	ICP1A	03/14/96	10:32	DRS	Q	CONC
	22	QC CCV1 960126H901	A0088	ICP1A	03/14/96	10:36	DRS	S	CONC
	23	ICP1.0 960103F100	A0088	ICP1A	03/14/96	10:41	DRS	S	CONC
	24	96-2619	A0088	ICP1A	03/14/96	10:43	DRS	S	CONC
	25	96-2620 @5	A0088	ICP1A	03/14/96	10:47	DRS	S	CONC
	26	96-2620 @50	A0088	ICP1A	03/14/96	10:51	DRS	S	CONC
	27	96-2620	A0088	ICP1A	03/14/96	10:55	DRS	S	CONC
	28	96-2848-BLK	A0088	ICP1A	03/14/96	11:02	DRS	S	CONC
	29	96-2848 @5	A0088	ICP1A	03/14/96	11:06	DRS	S	CONC
	30	96-2848 @50	A0088	ICP1A	03/14/96	11:11	DRS	S	CONC
481	31	Na @500 PPM Ignore 3/14/96	A0088	ICP1A	03/14/96	11:15	DRS	S	CONC
	32	96-~~2648 @2~~ 96-002845@2	A0088	ICP1A	03/14/96	11:20	DRS	S	CONC
PASS	33	QC_MCVA1 960226I901	A0088	ICP1A	03/14/96	11:27	DRS	Q	CONC
	34	ICP1.0 960103F100	A0088	ICP1A	03/14/96	11:32	DRS	S	CONC
	35	96-2850 @50X DIL	A0088	ICP1A	03/14/96	11:38	DRS	S	CONC
	36	96-2850 @10	A0088	ICP1A	03/14/96	11:42	DRS	S	CONC
	37	96-2850 @3	A0088	ICP1A	03/14/96	11:46	DRS	S	CONC
	38	96-2987	A0088	ICP1A	03/14/96	11:53	DRS	S	CONC
	39	96-2988 @5	A0088	ICP1A	03/14/96	11:56	DRS	S	CONC
RHS 3/14/96	40	96-2988 @25	A0088	ICP1A	03/14/96	12:01	DRS	S	CONC
	41	96-2988	A0088	ICP1A	03/14/96	12:04	DRS	S	CONC
PASS	42	QC_MCVA1 960226I901	A0088	ICP1A	03/14/96	12:12	DRS	Q	CONC
	43	ICP1.0 960103F100	A0088	ICP1A	03/14/96	12:16	DRS	S	CONC
	44	96-2989-BLK	A0088	ICP1A	03/14/96	12:18	DRS	S	CONC
	45	96-2989 @5	A0088	ICP1A	03/14/96	12:22	DRS	S	CONC
	46	96-2989 @50	A0088	ICP1A	03/14/96	12:28	DRS	S	CONC
	47	96-2990 @50	A0088	ICP1A	03/14/96	12:37	DRS	S	CONC
	48	96-2990 @5	A0088	ICP1A	03/14/96	12:41	DRS	S	CONC
	49	96-2992 @50	A0088	ICP1A	03/14/96	12:46	DRS	S	CONC
	50	96-2992 @5	A0088	ICP1A	03/14/96	12:51	DRS	S	CONC
993	51	Na @1000 PPM	A0088	ICP1A	03/14/96	12:56	DRS	S	CONC
PASS	52	QC_MCVA1 960226I901	A0088	ICP1A	03/14/96	13:06	DRS	Q	CONC
PASS	53	QC_MCVB2 960221I901	A0088	ICP1A	03/14/96	13:11	DRS	Q	CONC

Analysis Report Summary Thu 03-14-96 01:40:00 PM page 2

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	QC SSTA 951208I902	A0088	ICP1A	03/14/96	13:14	DRS	S	CONC
55	QC SSTMCV 951208I903	A0088	ICP1A	03/14/96	13:19	DRS	S	CONC
56	QC_SRM-1643d 108518	A0088	ICP1A	03/14/96	13:23	DRS	Q	CONC
57	QC CCV1 960126H901	A0088	ICP1A	03/14/96	13:27	DRS	S	CONC
58	ICP1.0 960103F100	A0088	ICP1A	03/14/96	13:32	DRS	S	CONC

Analysis Report Averages Thu 03-14-96 01:40:00 PM page 3

#	Sample Name	Ag	Al	As	B	Ba	Be
1	SPC-BLK 108448	7099	2218	1669.33	1197.33	330	191
2	SPC-BLK 108448	-.0056	-.0390	-.0413	-.0039	-.0017	-.0001
3	SPC-STD 1060103I100	7157.33	2262.33	1707.67	1234	329.333	191.333
4	SPC-STD 1060103I100	-.0034	-.0246	-.0230	.0007	-.0018	-.0001
5	ICP1.0	.71076	.22263	.16993	.12009	.03303	.01913
6	ICP1.1B					.78046	
7	ICP1.1A					.03396	
8	ICP1.1A					7.31906	
9	ICP1.2		60.9955		39.9819		
10	ICP1.3						
11	ICP1.4			20.4868			
12	ICP1.5						
13	ICP1.6						1.68323
14	ICP1.7	27.8818					
15	ICP1.8						
16	ICP1.0 960103F100	.0030	.0198	.0023	.0043	.0006	.0000
17	QC_MCVA1 960226I901	.4720	9.720	2.487	2.036	.4775	.0920
18	QC_MCVB2 960221I901	-.0060	-.0949	.2566	.1658	.0010	.0008
19	QC SSTA 951208I902	-.0112	257.6	.4102	.0536	.0096	-.0011
20	QC SSTMCV 951208I903	.5135	5.228	2.163	.0001	.1013	.0996
21	QC_SRM-1643d 108518	0.0044	0.1643	0.0678	.1465	.5027	0.0121
22	QC CCV1 960126H901	.0045	1.993	2.102	2.078	.9749	.9865
23	ICP1.0 960103F100	.0057	.0164	-.0067	-.0004	.0011	.0005
24	96-2619	.0012	.1675	-.0026	1.714	.0032	.0002
25	96-2620 @5	.0033	.4633	.0446	.5383	.0006	.0001
26	96-2620 @50	-.0006	.0454	.0016	.0509	-.0001	-.0000
27	96-2620	.0154	2.165	.1596	2.469	.0025	.0006
28	96-2848-BLK	-.0012	.0361	-.0007	.4948	.0003	-.0000
29	96-2848 @5	.0104	1.981	.0801	.4443	.0023	.0006
30	96-2848 @50	.0002	.2062	.0081	.0408	.0002	.0000
31	Na @500 PPM	.0007	.0091	-.0049	-.0046	.0001	-.0000
32	96-2648 @2	.0162	4.733	.1324	1.072	.0039	.0013
33	QC_MCVA1 960226I901	.4822	10.03	2.579	2.084	.4936	.0947
34	ICP1.0 960103F100	.0014	.0142	.0049	-.0032	.0003	.0001
35	96-2850 @50X DIL	-.0002	.1793	.0001	.0632	-.0002	.0000
36	96-2850 @10	.0032	.9148	.0249	.3009	.0012	.0004
37	96-2850 @3	.0083	2.904	.1145	.9554	.0029	.0014
38	96-2987	-.0001	.1615	-.0135	2.581	.0017	-.0000
39	96-2988 @5	-.0028	.0116	-.0211	.5607	.0071	-.0001
40	96-2688 @25	-.0017	.0003	-.0127	.1143	.0011	-.0000
41	96-2988	.0039	.1329	.0265	2.734	.0384	.0000
42	QC_MCVA1 960226I901	.4787	10.01	2.584	2.096	.4917	.0946
43	ICP1.0 960103F100	-.0005	.0071	-.0116	.0034	-.0000	.0000
44	96-2989-BLK	-.0031	.0639	.0129	.0922	.0894	-.0001
45	96-2989 @5	.0064	108.0	.2985	.9758	.0275	.0061
46	96-2989 @50	-.0018	11.37	.0115	.1035	.0025	.0006
47	96-2990 @50	-.0010	11.45	.0243	.1231	.0016	.0007
48	96-2990 @5	.0065	112.1	.3590	1.233	.0209	.0074
49	96-2992 @50	-.0024	2.070	-.0015	.1379	.0017	.0002
50	96-2992 @5	.0042	19.86	.1530	1.385	.0239	.0035
51	Na @1000 PPM	.0001	.0174	.0100	-.0010	.0001	.0000
52	QC_MCVA1 960226I901	.4752	9.974	2.581	2.089	.4916	.0944
53	QC_MCVB2 960221I901	-.0075	-.0340	.2904	.1656	-.0001	.0007

Analysis Report Averages Thu 03-14-96 01:40:00 PM page 4

#	Sample Name	Ag	Al	As	B	Ba	Be
54	QC SSTA 951208I902	-.0174	265.0	.3996	.0495	.0088	-.0013
55	QC SSTMCV 951208I903	.5173	5.354	2.213	-.0027	.1027	.1014
56	QC_SRM-1643d 108518	0-.0005	0.1377	0.0569	.1493	.5059	0.0121
57	QC CCV1 960126H901	-.0011	2.001	2.124	2.096	.9802	.9885
58	ICP1.0 960103F100	-.0012	.0041	.0017	-.0008	.0001	.0005

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
1	SPC-BLK 108448	1557.67	1399.33	574	6774.67	1543.67	479.333
2	SPC-BLK 108448	-.0133	.0019	.0060	-.0419	-.0019	-.0050
3	SPC-STD 10601031100	1787	1694.67	596	6777.33	1526.33	499.667
4	SPC-STD 10601031100	-.0094	.0948	.0083	-.0411	-.0039	-.0015
5	ICP1.0	.15569	.13946	.05206	.67876	.15146	.04839
6	ICP1.1B					1.90703	1.2501
7	ICP1.1A					.15296	.05016
8	ICP1.1A					16.6265	11.3927
9	ICP1.2		78.479	8.90596			
10	ICP1.3						
11	ICP1.4				21.0315		
12	ICP1.5						
13	ICP1.6						
14	ICP1.7	22.7037					
15	ICP1.8						
16	ICP1.0 960103F100	.0013	.0005	.0108	.0160	.0006	.0006
17	QC_MCVA1 9602261901	23.44	24.42	.4854	-.0016	.9561	.9638
18	QC_MCVB2 9602211901	.0907	.0209	.0156	1.992	-.0009	.0065
19	QC SSTA 951208I902	199.2	254.8	.0726	.1999	.0125	.2373
20	QC SSTMCV 951208I903	1.689	1.154	.2181	.0240	-.0004	.3172
21	QC_SRM-1643d 108518	.0491	031.47	0.0144	.0087	0.0271	0.0219
22	QC CCV1 960126H901	1.977	2.070	1.028	.0021	1.009	.5017
23	ICP1.0 960103F100	.0056	.0019	.0041	.0036	.0009	.0010
24	96-2619	.3278	.2499	.0083	.0025	.0029	.1292
25	96-2620 @5	.0520	.0989	.0079	.0095	.0064	2.325
26	96-2620 @50	-.0004	-.0236	.0098	-.0144	-.0017	.2411
27	96-2620	.2125	.5585	.0116	.0414	.0302	10.66
28	96-2848-BLK	-.0142	-.0031	.0077	-.0173	-.0021	.0003
29	96-2848 @5	4.804	.0672	.0160	.0965	.0107	10.99
30	96-2848 @50	.4941	-.0290	.0080	.0110	-.0002	1.130
31	Na @500 PPM	-.0027	-.0360	.0087	-.0020	-.0004	.0017
32	96-2648 @2	11.56	.1882	.0143	.1895	.0189	25.81
33	QC_MCVA1 9602261901	24.13	25.10	.4989	-.0228	.9873	.9901
34	ICP1.0 960103F100	.0039	.0071	.0077	.0070	.0008	.0002
35	96-2850 @50X DIL	.3110	.0097	-.0035	-.0012	-.0006	1.776
36	96-2850 @10	1.568	.0168	-.0043	.0533	.0053	8.722
37	96-2850 @3	4.988	.1314	.0063	.1576	.0136	27.53
38	96-2987	.0074	.6646	-.0090	-.0002	.0016	.0095
39	96-2988 @5	.0015	.3363	-.0048	-.0325	-.0029	-.0027
40	96-2688 @25	-.0094	.0433	.0008	-.0163	-.0023	-.0014
41	96-2988	.0445	1.485	-.0014	-.0164	.0055	.0028
42	QC_MCVA1 9602261901	24.07	25.16	.4777	-.0301	.9904	.9941
43	ICP1.0 960103F100	.0120	.0131	-.0001	-.0038	.0002	-.0006
44	96-2989-BLK	-.0038	.2040	-.0044	-.0279	-.0034	.0006
45	96-2989 @5	.2764	.9698	.0706	.0474	.0190	99.82

Analysis Report Averages Thu 03-14-96 01:40:00 PM page 5

#	Sample Name	Bi	Ca	Cd	Ce	Co	Cr
46	96-2989 @50	.0319	.0655	.0013	-.0148	-.0008	10.95
47	96-2990 @50	.0243	.0115	.0007	-.0083	-.0013	13.70
48	96-2990 @5	.2395	.4719	.0253	.0483	.0092	126.6
49	96-2992 @50	.0062	-.0129	-.0002	-.0242	-.0026	6.863
50	96-2992 @5	.1190	.2513	.0201	.0235	.0040	64.87
51	Na @1000 PPM	-.0003	-.0114	-.0001	.0002	.0006	.0216
52	QC_MCVA1 960226I901	23.86	24.96	.4701	-.0549	.9820	.9792
53	QC_MCVB2 960221I901	.0648	-.0035	-.0053	2.016	-.0029	.0033
54	QC SSTA 951208I902	202.5	260.9	.0643	.1437	.0085	.2451
55	QC SSTMCV 951208I903	1.686	1.157	.2058	-.0087	-.0026	.3164
56	QC_SRM-1643d 108518	.0323	Q31.83	Q.0033	-.0076	.0250	Q.0189
57	QC CCV1 960126H901	1.971	2.086	1.029	-.0200	1.022	.5005
58	ICP1.0 960103F100	.0058	-.0061	-.0023	-.0113	-.0000	.0000

#	Sample Name	Cu	Dy	Eu	Fe	K	La
1	SPC-BLK 108448	532	2061.33	366	614	2168.67	1067.67
2	SPC-BLK 108448	-.0173	-.0069	-.0021	-.0112	-1.192	-.0109
3	SPC-STD 1060103I100	20639	2264	366.333	666.667	2168	1070.33
4	SPC-STD 1060103I100	10.28	-.0029	-.0020	-.0118	-1.207	-.0100
5	ICP1.0	.05593	.2063	.03663	.06129	.21709	.10716
6	ICP1.1B	.46163			7.23956		
7	ICP1.1A	.05463			.07026		
8	ICP1.1A	3.96876			66.6393		
9	ICP1.2					2.39073	
10	ICP1.3		39.1752	9.54793			5.05156
11	ICP1.4						
12	ICP1.5						
13	ICP1.6						
14	ICP1.7						
15	ICP1.8						
16	ICP1.0 960103F100	-.0071	.0022	.0012	-.0068	.4831	.0042
17	QC_MCVA1 960226I901	.9100	-.0034	.0010	19.39	24.29	-.0009
18	QC_MCVB2 960221I901	.0280	2.046	2.059	.0267	-1.488	1.012
19	QC SSTA 951208I902	-.1237	.0408	.0940	197.1	104.3	52.54
20	QC SSTMCV 951208I903	-.0098	.0036	.0084	.6192	51.33	.0339
21	QC_SRM-1643d 108518	Q.0066	.0012	.0015	Q.1129	Q2.630	.0156
22	QC CCV1 960126H901	1.967	.0012	.0008	2.009	4.823	.0017
23	ICP1.0 960103F100	-.0074	.0023	.0008	-.0057	.3220	.0034
24	96-2619	.0100	-.0002	.0003	.2149	.5674	.0009
25	96-2620 @5	.0274	.0038	.0044	.0358	10.84	.0037
26	96-2620 @50	-.0087	-.0013	.0003	-.0051	.7668	-.0032
27	96-2620	.1633	.0172	.0186	.1921	52.44	.0183
28	96-2848-BLK	-.0111	-.0018	-.0005	.0122	-.6211	-.0050
29	96-2848 @5	.0176	.0082	.0104	.9150	24.61	.0167
30	96-2848 @50	-.0085	.0004	.0012	.0850	2.277	.0009
31	Na @500 PPM	-.0109	.0001	.0004	-.0082	-.1840	.0003
32	96-2648 @2	.0513	.0128	.0220	2.166	58.47	.0276
33	QC_MCVA1 960226I901	.9277	-.0050	.0004	19.95	24.44	-.0032
34	ICP1.0 960103F100	-.0087	.0018	.0007	-.0003	.2377	.0017
35	96-2850 @50X DIL	.0012	-.0003	.0011	.3018	3.275	-.0004
36	96-2850 @10	.0049	.0048	.0075	1.510	17.08	.0108
37	96-2850 @3	.0177	.0125	.0227	4.792	54.94	.0282

Analysis Report Averages Thu 03-14-96 01:40:00 PM page 6

#	Sample Name	Cu	Dy	Eu	Fe	K	La
38	96-2987	.0086	-.0003	-.0001	.0283	.1994	.0005
39	96-2988 @5	.0003	-.0035	-.0015	-.0072	-.8361	-.0083
40	96-2688 @25	-.0014	-.0017	-.0007	-.0078	-.5830	-.0044
41	96-2988	.0164	.0041	-.0003	.0042	.1611	-.0014
42	QC_MCVA1 960226I901	.9474	-.0062	-.0002	19.99	24.25	-.0050
43	ICP1.0 960103F100	.0000	-.0008	-.0002	.0034	-.2761	-.0009
44	96-2989-BLK	.0035	-.0037	-.0012	.0933	-.6674	-.0069
45	96-2989 @5	.0782	.0052	.0181	.0837	74.45	.0133
46	96-2989 @50	.0066	-.0016	.0011	.0008	7.188	-.0027
47	96-2990 @50	-.0022	-.0014	.0015	-.0024	7.663	-.0027
48	96-2990 @5	-.0003	.0053	.0226	.0538	81.21	.0079
49	96-2992 @50	-.0031	-.0031	-.0001	-.0053	2.884	-.0050
50	96-2992 @5	.0031	.0031	.0114	.0318	36.41	.0046
51	Na @1000 PPM	.0020	.0011	.0003	-.0066	-.1918	.0012
52	QC_MCVA1 960226I901	.9330	-.0080	-.0012	19.89	23.35	-.0098
53	QC_MCVB2 960221I901	.0186	2.084	2.106	.0108	-2.163	1.049
54	QC SSTA 951208I902	-.1254	.0383	.0943	201.9	105.1	55.28
55	QC SSTMCV 951208I903	-.0037	-.0011	.0070	.6146	51.06	.0239
56	QC_SRM-1643d 108518	@.0173	-.0012	.0006	@.1008	@1.764	.0089
57	QC CCV1 960126H901	1.994	-.0009	-.0004	2.022	4.196	-.0017
58	ICP1.0 960103F100	.0007	-.0009	-.0005	-.0061	-.5216	-.0017

#	Sample Name	Li	Mg	Mn	Mo	Na	Nd
1	SPC-BLK 108448	419.333	2571	210.333	858.333	435.333	3949.33
2	SPC-BLK 108448	-.0109	-.0292	-.0066	-.0052	-.0852	-.0424
3	SPC-STD 10601031100	21594	2659.33	64462.7	894.333	439.667	3953.67
4	SPC-STD 10601031100	10.28	-.0331	10.42	-.0028	-.0612	-.0407
5	ICP1.0	.0441	.25726	.02633	.0859	.0434	.3954
6	ICP1.1B		4.59709		1.24773	.50326	
7	ICP1.1A		.26339		.08783	.04406	
8	ICP1.1A		39.1724		11.1225	4.5204	
9	ICP1.2	10.3551		6.14233			
10	ICP1.3						13.2944
11	ICP1.4						
12	ICP1.5						
13	ICP1.6						
14	ICP1.7						
15	ICP1.8						
16	ICP1.0 960103F100	-.0058	-.0062	-.0082	-.0007	.0318	.0207
17	QC_MCVA1 960226I901	1.954	31.14	.4923	.9621	35.27	-.0115
18	QC_MCVB2 960221I901	-.0084	-.1334	-.0075	.0068	.2018	2.021
19	QC SSTA 951208I902	.0272	-.8890	.0135	.1027	.9060	.2564
20	QC SSTMCV 951208I903	-.0052	-.1089	.0997	.0053	5.121	.0200
21	QC_SRM-1643d 108518	@.0110	@8.407	@.0317	.1114	@21.62	.0229
22	QC CCV1 960126H901	2.000	2.075	1.036	1.961	8.333	.0084
23	ICP1.0 960103F100	-.0066	-.0102	-.0078	.0022	.0189	.0113
24	96-2619	.1130	.0880	-.0015	.0136	39.99	.0043
25	96-2620 @5	314.9	-.0242	-.0076	.5683	1102.	.0075
26	96-2620 @50	33.53	-.0202	-.0085	.0566	117.2	-.0037
27	96-2620	773.8	-.0745	-.0044	2.595	4110.	.0295
28	96-2848-BLK	.0141	-.0138	-.0081	-.0013	.9172	-.0111
29	96-2848 @5	14.36	-.0458	.0010	.9616	2437.	.0569

Analysis Report Averages Thu 03-14-96 01:40:00 PM page 7

#	Sample Name	Li	Mg	Mn	Mo	Na	Nd
30	96-2848 @50	1.496	-.0174	-.0076	.0968	268.4	.0057
31	Na @500 PPM	.0002	-.0167	-.0087	.0001	481.3	.0068
32	96-2648 @2	34.98	-.1044	.0131	2.271	4841.	.0834
33	QC_MCVA1 960226I901	1.988	31.97	.5065	.9947	37.28	-.0237
34	ICP1.0 960103F100	-.0052	.0047	-.0081	.0009	.1218	.0115
35	96-2850 @50X DIL	.1519	-.0170	.0026	.1652	357.1	.0025
36	96-2850 @10	.7452	-.0175	.0127	.8200	1680.	.0297
37	96-2850 @3	2.392	-.0511	.0399	2.594	4614.	.0749
38	96-2987	.1568	.2202	.0248	.0070	10.76	.0010
39	96-2988 @5	139.3	.0069	-.0003	.0003	1.281	-.0309
40	96-2688 @25	28.40	-.0048	-.0001	-.0014	.2235	-.0149
41	96-2988	611.3	.1472	.0012	.0180	5.743	-.0148
42	QC_MCVA1 960226I901	2.050	31.98	.5150	.9989	36.74	-.0340
43	ICP1.0 960103F100	.0100	.0117	.0001	-.0010	-.0028	-.0050
44	96-2989-BLK	.0026	.0595	.0026	-.0019	1.608	-.0261
45	96-2989 @5	.0414	.0243	.0082	1.197	4286.	.0302
46	96-2989 @50	.0039	-.0178	.0006	.1280	532.5	-.0127
47	96-2990 @50	.1459	-.0177	.0006	.1349	545.5	-.0117
48	96-2990 @5	1.432	.0255	.0084	1.318	4472.	.0242
49	96-2992 @50	3.237	-.0142	-.0001	.0581	279.9	-.0220
50	96-2992 @5	30.90	.0099	.0033	.5913	2507.	.0129
51	Na @1000 PPM	.0113	-.0070	.0002	-.0002	992.9	.0056
52	QC_MCVA1 960226I901	2.015	31.74	.5100	.9928	37.02	-.0555
53	QC_MCVB2 960221I901	-.0055	-.1293	.0006	.0058	.1394	2.048
54	QC SSTA 9512081902	.0325	-.7613	.0213	.1017	.8503	.2407
55	QC SSTMCV 951208I903	-.0034	-.0906	.1097	.0035	5.297	-.0145
56	QC_SRM-1643d 108518	0.0162	88.470	0.0407	.1113	22.10	.0021
57	QC CCV1 960126H901	2.000	2.083	1.050	1.985	8.506	-.0111
58	ICP1.0 960103F100	-.0018	-.0075	.0005	.0012	-.0175	-.0094

#	Sample Name	Ni	P	Pb	Pd	Rh	Ru
1	SPC-BLK 108448	522.333	1332.67	14538.3	15935.3	16099.7	4540.33
2	SPC-BLK 108448	-.0034	-.0495	-.0462	-.0989	-.0476	-.0213
3	SPC-STD 1060103I100	526.667	1499.33	131188	15955	16094.7	4564.33
4	SPC-STD 1060103I100	-.0018	-.0596	10.11	-.0985	-.0483	-.0176
5	ICP1.0	.05226	.1357	1.46646	1.59436	1.61039	.45543
6	ICP1.1B	.64273		7.40656			
7	ICP1.1A	.05286		1.47296			
8	ICP1.1A	5.56566		57.347			
9	ICP1.2		11.8777				
10	ICP1.3						32.474
11	ICP1.4						
12	ICP1.5						
13	ICP1.6						
14	ICP1.7						
15	ICP1.8				17.694	41.2572	
16	ICP1.0 960103F100	.0011	-.0016	-.0048	.0768	.0325	.0062
17	QC_MCVA1 960226I901	.9533	4.770	2.367	-.0608	-.0235	.0054
18	QC_MCVB2 960221I901	.0277	.1059	.2179	1.883	2.000	2.050
19	QC SSTA 9512081902	192.1	204.8	.9920	1.092	.2789	.3016
20	QC SSTMCV 951208I903	.6845	4.203	3.091	.0615	.0191	.0104
21	QC_SRM-1643d 108518	0.1295	.0449	0.0160	.0458	.0113	.0032

Analysis Report Averages Thu 03-14-96 01:40:00 PM page 8

#	Sample Name	Ni	P	Pb	Pd	Rh	Ru
22	QC CCV1 960126H901	2.049	4.897	2.001	.0337	.0083	.0060
23	ICP1.0 960103F100	.0335	.0011	-.0032	.0543	.0159	.0068
24	96-2619	.0420	3.908	-.0019	.0263	.0016	.0028
25	96-2620 @5	.0413	32.30	.0160	.1045	.0825	.0756
26	96-2620 @50	.0208	3.202	-.0204	.0087	-.0025	.0055
27	96-2620	.1102	156.4	.1094	.4086	.3682	.3322
28	96-2848-BLK	.0220	-.0158	-.0251	-.0136	-.0140	-.0044
29	96-2848 @5	.0658	212.5	.1852	.1509	.1629	.1379
30	96-2848 @50	.0159	20.94	-.0009	.0288	.0178	.0107
31	Na @500 PPM	.0094	.0003	-.0088	.0259	.0042	.0035
32	96-2648 @2	.1235	516.0	.4132	.1776	.3307	.3020
33	QC_MCVA1 960226I901	1.007	4.901	2.413	-.0966	-.0417	.0122
34	ICP1.0 960103F100	.0072	.0199	-.0045	.0474	.0162	.0041
35	96-2850 @50X DIL	.0047	21.71	-.0027	.0104	.0208	.0237
36	96-2850 @10	.0293	109.8	.0230	.1085	.1331	.1417
37	96-2850 @3	.1021	361.2	.0545	.2599	.3942	.4377
38	96-2987	.0045	.6004	-.0061	.0075	.0001	-.0014
39	96-2988 @5	-.0068	-.0145	-.0231	-.0506	-.0309	-.0096
40	96-2688 @25	-.0061	-.0130	-.0159	-.0287	-.0167	-.0058
41	96-2988	.0001	.0293	.0409	.1041	.0346	.0117
42	QC_MCVA1 960226I901	.9996	4.945	2.421	-.1325	-.0495	.0126
43	ICP1.0 960103F100	-.0036	-.0174	-.0093	-.0093	-.0030	-.0006
44	96-2989-BLK	-.0050	-.0123	-.0160	-.0599	-.0285	-.0078
45	96-2989 @5	.5186	76.27	.4181	-.0487	.2235	.3094
46	96-2989 @50	.0495	7.766	.0247	-.0399	.0049	.0246
47	96-2990 @50	.0047	6.164	.0290	-.0435	.0125	.0232
48	96-2990 @5	.1463	62.71	.4123	-.1498	.2473	.2726
49	96-2992 @50	-.0001	4.630	-.0096	-.0587	-.0179	.0050
50	96-2992 @5	.0856	46.52	.1134	-.0382	.1173	.1409
51	Na @1000 PPM	-.0069	.0134	-.0032	.0191	.0046	.0062
52	QC_MCVA1 960226I901	.9868	4.837	2.386	-.1801	-.0734	.0082
53	QC_MCVB2 960221I901	.0276	.0807	.2059	1.971	2.024	2.070
54	QC SSTA 951208I902	199.5	210.4	.9810	.6823	.2670	.4064
55	QC SSTMCV 951208I903	.6814	4.238	3.119	-.0751	-.0132	-.0030
56	QC_SRM-1643d 108518	0.1138	.0096	0.0117	-.0224	-.0120	-.0042
57	QC CCV1 960126H901	2.088	4.949	2.004	-.0275	-.0142	.0021
58	ICP1.0 960103F100	.0277	-.0226	-.0084	-.0158	-.0075	-.0010

#	Sample Name	Sb	Se	Si	Sn	Sr	Te
1	SPC-BLK 108448	2718.67	1510.67	4114.33	7252.67	156.667	10815
2	SPC-BLK 108448	-.0326	-.0263	-.0115	-.1651	-.0006	-.0271
3	SPC-STD 1060103I100	2815	1540.67	4222	7308.33	159.333	11409.7
4	SPC-STD 1060103I100	-.0012	-.0067	.0184	-.1661	-.0003	-.0095
5	ICP1.0	.2727	.1517	.40946	.72403	.01569	1.07373
6	ICP1.1B					.84513	
7	ICP1.1A					.01673	
8	ICP1.1A					8.08236	
9	ICP1.2						
10	ICP1.3						
11	ICP1.4	24.5941					
12	ICP1.5						
13	ICP1.6			71.9636			47.6799

Analysis Report Averages Thu 03-14-96 01:40:00 PM page 9

#	Sample Name	Sb	Se	Si	Sn	Sr	Te
14	ICP1.7		3.13476				
15	ICP1.8				7.17496		
16	ICP1.0 960103F100	.0115	.0042	.0951	.0754	.0003	.0109
17	QC_MCVA1 960226I901	2.500	2.421	18.06	.2175	.4846	.0407
18	QC_MCVB2 960221I901	.0914	.0578	7.324	2.148	.0028	1.890
19	QC SSTA 951208I902	.4838	1.572	-.1966	3.992	.0201	.6525
20	QC SSTMCV 951208I903	2.213	2.610	2.930	.1586	.0017	.0201
21	QC_SRM-1643d 108518	Q.0588	Q.0187	2.698	.0393	.2933	.0070
22	QC CCV1 960126H901	.0223	1.983	4.826	.0789	1.967	.0199
23	ICP1.0 960103F100	.0082	.0037	.0234	.0569	.0013	.0201
24	96-2619	.0083	-.0053	2.966	-.0014	.0024	.0045
25	96-2620 @5	.0471	.0527	1.851	.1767	.0042	.0368
26	96-2620 @50	.0054	-.0039	.1345	-.0317	.0004	-.0098
27	96-2620	.2065	.2434	24.66	.6610	.0177	.1642
28	96-2848-BLK	-.0035	-.0037	.2933	-.0125	.0001	-.0051
29	96-2848 @5	.0796	.0961	1.477	.3711	.0096	.0999
30	96-2848 @50	.0107	.0012	.1865	.0340	.0011	.0105
31	Na @500 PPM	.0055	-.0033	.0432	-.0020	.0001	.0080
32	96-2648 @2	.1464	.1903	3.429	.5974	.0221	.2150
33	QC_MCVA1 960226I901	2.584	2.528	18.52	.1696	.5041	.0232
34	ICP1.0 960103F100	.0160	.0132	.0331	.0397	.0004	.0112
35	96-2850 @50X DIL	.0070	.0250	.1569	.0266	.0009	.0033
36	96-2850 @10	.0614	.0826	.8364	.2097	.0050	.0615
37	96-2850 @3	.1533	.1944	2.762	.5932	.0156	.1676
38	96-2987	.0145	.0167	2.719	.0169	.0037	.0052
39	96-2988 @5	-.0017	.0070	1.081	-.0790	.0020	-.0110
40	96-2688 @25	.0096	.0128	.2121	-.0340	.0002	-.0063
41	96-2988	.0404	.0532	5.377	.1324	.0110	.0440
42	QC_MCVA1 960226I901	2.594	2.530	18.48	.1281	.5038	.0207
43	ICP1.0 960103F100	.0018	.0191	.0005	-.0250	.0001	-.0029
44	96-2989-BLK	-.0089	.0063	.0581	-.0785	.0014	-.0063
45	96-2989 @5	.2691	.4402	2.033	.4755	.0031	.2543
46	96-2989 @50	.0276	.0462	.2016	.0044	.0000	.0127
47	96-2990 @50	.0269	.0567	.3899	.0077	-.0000	.0176
48	96-2990 @5	.3502	.4579	4.167	.5308	.0021	.2720
49	96-2992 @50	.0137	.0113	.3176	-.0603	-.0003	-.0084
50	96-2992 @5	.1501	.1341	2.944	.2376	.0009	.0894
51	Na @1000 PPM	.0110	.0205	.0109	.0258	.0000	.0024
52	QC_MCVA1 960226I901	2.536	2.497	18.36	.0613	.5048	.0107
53	QC_MCVB2 960221I901	.0919	.0665	7.283	2.116	.0020	1.911
54	QC SSTA 951208I902	.4799	1.581	-.3083	3.975	.0200	.6186
55	QC SSTMCV 951208I903	2.220	2.687	2.934	.0399	.0012	.0040
56	QC_SRM-1643d 108518	Q.0711	Q.0181	2.683	-.0315	.2991	-.0032
57	QC CCV1 960126H901	.0148	2.035	4.819	.0229	2.001	.0118
58	ICP1.0 960103F100	.0027	.0207	-.0156	-.0058	.0009	.0030

#	Sample Name	Th	Ti	Tl	U	V	W
1	SPC-BLK 108448	2487.33	691.667	402.667	18113.7	1042	342.667
2	SPC-BLK 108448	-.0079	-.0023	-.0319	-.5611	-.0046	-.0134
3	SPC-STD 1060103I100	2503.67	695	424.333	18097.7	1046	351.333
4	SPC-STD 1060103I100	.0010	-.0018	.0031	-.5846	-.0038	.0020
5	ICP1.0	.24969	.06899	.03996	1.81243	.10423	.03393

Analysis Report Averages Thu 03-14-96 01:40:00 PM page 10

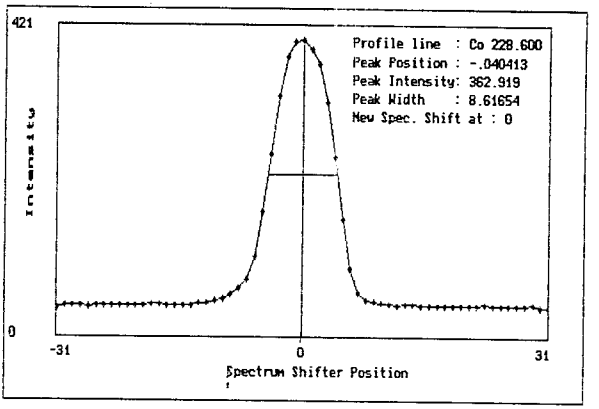
#	Sample Name	Th	Ti	Tl	U	V	W
6	ICP1.1B		1.44166				
7	ICP1.1A		.07056				
8	ICP1.1A		13.5094				
9	ICP1.2						
10	ICP1.3	10.7504					
11	ICP1.4					10.9724	
12	ICP1.5				44.8116		
13	ICP1.6						
14	ICP1.7			1.19836			
15	ICP1.8						2.77489
16	ICP1.0 960103F100	-.0068	.0009	.0110	.2337	.0010	.0265
17	QC_MCVA1 960226I901	.0483	.9486	2.384	-.2478	.9754	.0456
18	QC_MCVB2 960221I901	10.13	.0042	.0188	23.38	.0002	2.016
19	QC SSTA 951208I902	.6563	.0030	.3472	201.2	.0498	.5946
20	QC SSTMCV 951208I903	.0721	.0004	.0129	20.18	.5273	.0367
21	QC_SRM-1643d 108518	-.0109	.0011	0.0181	.4178	0.0360	.0113
22	QC CCV1 960126H901	.0108	.0005	1.980	.0483	.9857	.0152
23	ICP1.0 960103F100	-.0030	.0007	.0106	.1676	.0013	.0118
24	96-2619	.0025	.0019	.0088	.0483	.0001	.0110
25	96-2620 @5	.0532	.0012	.0219	9.415	.0043	.0838
26	96-2620 @50	.0047	-.0006	.0069	.8077	-.0011	.0099
27	96-2620	.2041	.0055	.0874	42.59	.0204	.3363
28	96-2848-BLK	.0034	.0002	.0021	-.2345	-.0017	-.0010
29	96-2848 @5	.1102	.0036	.0438	17.19	.0148	.1125
30	96-2848 @50	.0113	.0000	.0038	1.763	.0005	.0059
31	Na @500 PPM	.0054	.0000	.0054	.0033	-.0001	.0061
32	96-2648 @2	.2879	.0049	.0661	39.86	.0301	.2461
33	QC_MCVA1 960226I901	.0506	.9810	2.493	-.4174	1.007	.0342
34	ICP1.0 960103F100	-.0042	.0009	.0073	.1548	.0011	.0090
35	96-2850 @50X DIL	.0102	-.0002	-.0003	2.620	.0002	.0028
36	96-2850 @10	.0883	.0017	.0240	13.17	.0068	.0825
37	96-2850 @3	.3090	.0046	.0675	40.82	.0200	.2593
38	96-2987	-.0032	.0016	.0047	-.0452	-.0001	.0049
39	96-2988 @5	-.0046	-.0012	-.0049	-.3924	-.0030	-.0173
40	96-2688 @25	-.0039	-.0009	-.0034	-.2725	-.0014	-.0157
41	96-2988	.0058	.0024	.0246	.0508	.0023	.0049
42	QC_MCVA1 960226I901	.0452	.9804	2.455	-.4919	1.004	.0320
43	ICP1.0 960103F100	-.0014	-.0002	.0034	-.0931	-.0005	-.0086
44	96-2989-BLK	-.0029	-.0005	-.0031	-.3435	-.0025	-.0106
45	96-2989 @5	.4669	.0040	.1079	.2575	.0576	1.431
46	96-2989 @50	.0445	-.0008	.0093	-.1909	.0041	.1400
47	96-2990 @50	.0580	-.0008	.0079	-.1719	.0066	.1164
48	96-2990 @5	.6752	.0046	.1329	.2077	.0797	1.232
49	96-2992 @50	.0272	-.0014	-.0032	-.3800	.0029	.0577
50	96-2992 @5	.2821	.0018	.0594	.1973	.0517	.6228
51	Na @1000 PPM	-.0035	-.0001	.0037	.0742	.0004	.0030
52	QC_MCVA1 960226I901	.0501	.9773	2.438	-.7598	.9978	.0189
53	QC_MCVB2 960221I901	10.41	.0025	.0015	23.07	-.0034	2.013
54	QC SSTA 951208I902	1.000	.0005	.3343	206.7	.0478	.5699
55	QC SSTMCV 951208I903	.1112	-.0015	-.0006	20.33	.5340	.0222
56	QC_SRM-1643d 108518	-.0109	-.0002	0.0109	.1287	0.0343	.0044
57	QC CCV1 960126H901	.0082	-.0006	2.001	-.2038	.9884	.0028
58	ICP1.0 960103F100	-.0036	-.0008	.0063	-.1384	-.0009	-.0066

Analysis Report Averages Thu 03-14-96 01:40:00 PM page 11

#	Sample Name	Y	Zn	Zr			
1	SPC-BLK 108448	265.333	371.667	840.333			
2	SPC-BLK 108448	-.0025	-.0077	-.0051			
3	SPC-STD 1060103I100	265.667	136148	840			
4	SPC-STD 1060103I100	-.0024	9.969	-.0058			
5	ICP1.0	.02666	.04763	.0841			
6	ICP1.1B		2.82006	2.55303			
7	ICP1.1A		.043	.0869			
8	ICP1.1A		26.2313	23.7169			
9	ICP1.2						
10	ICP1.3						
11	ICP1.4	2.86226					
12	ICP1.5						
13	ICP1.6						
14	ICP1.7						
15	ICP1.8						
16	ICP1.0 960103F100	.0003	-.0091	.0002			
17	QC_MCVA1 960226I901	.0001	.9309	1.896			
18	QC_MCVB2 960221I901	.9848	-.0037	-.0754			
19	QC SSTA 951208I902	.0239	.0682	-.0028			
20	QC SSTMCV 951208I903	.0002	-.0090	.5016			
21	QC_SRM-1643d 108518	.0008	0.0658	.0003			
22	QC CCV1 960126H901	-.0001	.9951	-.0020			
23	ICP1.0 960103F100	.0004	-.0090	-.0004			
24	96-2619	-.0003	.1683	.0031			
25	96-2620 @5	.0003	.0074	-.0034			
26	96-2620 @50	-.0008	-.0097	-.0026			
27	96-2620	.0033	.0709	-.0053			
28	96-2848-BLK	-.0009	.0083	-.0033			
29	96-2848 @5	.0022	.0268	.0726			
30	96-2848 @50	-.0001	-.0068	.0057			
31	Na @500 PPM	-.0002	-.0103	-.0017			
32	96-2648 @2	.0039	.0791	.1701			
33	QC_MCVA1 960226I901	-.0006	.9772	1.965			
34	ICP1.0 960103F100	.0000	-.0084	.0001			
35	96-2850 @50X DIL	-.0003	.0042	.0244			
36	96-2850 @10	.0018	.0273	.1247			
37	96-2850 @3	.0040	.0913	.3944			
38	96-2987	-.0003	.0663	.0003			
39	96-2988 @5	-.0014	.0183	-.0030			
40	96-2688 @25	-.0010	.0209	-.0022			
41	96-2988	.0002	.0323	.0011			
42	QC_MCVA1 960226I901	-.0012	.9926	1.969			
43	ICP1.0 960103F100	-.0006	-.0004	-.0004			
44	96-2989-BLK	-.0015	.0686	-.0031			
45	96-2989 @5	.0032	.0495	-.0189			
46	96-2989 @50	-.0009	.0040	-.0040			
47	96-2990 @50	-.0005	.0051	-.0051			
48	96-2990 @5	.0032	.0599	-.0366			
49	96-2992 @50	-.0012	-.0011	-.0045			
50	96-2992 @5	.0017	.0080	-.0144			
51	Na @1000 PPM	.0002	-.0012	-.0001			
52	QC_MCVA1 960226I901	-.0020	.9891	1.966			
53	QC_MCVB2 960221I901	.9872	.0038	-.0937			

Analysis Report Averages Thu 03-14-96 01:40:00 PM page 12

#	Sample Name	Y	Zn	Zr			
54	QC SSTA 951208I902	.0226	.0783	-.0318			
55	QC SSTMCV 951208I903	-.0011	-.0003	.5137			
56	QC_SRM-1643d 108518	-.0001	0.0781	-.0007			
57	QC CCV1 960126H901	-.0012	1.037	-.0022			
58	ICP1.0 960103F100	-.0010	-.0007	-.0012			



A44 58
ICP-325-405-1
3/14/96 DKS

Analysis Report Thu 03-14-96 09:26:31 AM page 1

Method: ICP1A Sample Name: SPC-BLK 108448 Operator: DRS
Run Time: 03/14/96 09:25:13
Comment: SPC-BLK FOR Mn/Cu RATIO
Mode: INT Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Avge	7099	2218	1669	1197	330	191	1558
SDev	10	2	8	13	1	1	7
%RSD	.1344	.0902	.4496	1.112	.3030	.5236	.4370
#1	7108	2220	1669	1204	331	192	1550
#2	7089	2216	1677	1206	329	191	1563
#3	7100	2218	1662	1182	330	190	1560

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Avge	1399	574	6775	1544	479	532	2061
SDev	4	15	2	6	14	1	3
%RSD	.2888	2.566	.0307	.3740	2.923	.1880	.1482
#1	1400	561	6777	1547	468	532	2062
#2	1395	590	6773	1537	495	533	2058
#3	1403	571	6774	1547	475	531	2064

Elem	Eu	Fe	K	La	Li	Mg	Mn
Avge	366	614	2169	1068	419	2571	210
SDev	0	4	4	5	1	6	1
%RSD	.0000	.5872	.1619	.4806	.2754	.2166	.2745
#1	366	617	2172	1072	418	2572	210
#2	366	610	2165	1062	420	2565	211
#3	366	615	2169	1069	420	2576	210

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Avge	858	435	3949	522	1333	14540	15940
SDev	4	3	4	2	12	46	47
%RSD	.4708	.7384	.0959	.2924	.9382	.3176	.2972
#1	863	439	3952	522	1345	14540	15940
#2	856	434	3945	524	1333	14580	15890
#3	856	433	3951	521	1320	14490	15980

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Avge	16100	4540	2719	1511	4114	7253	157
SDev	18	22	6	4	23	19	1
%RSD	.1091	.4857	.2155	.2675	.5702	.2610	.3685
#1	16080	4559	2721	1506	4122	7266	157
#2	16100	4516	2712	1513	4088	7261	156
#3	16120	4546	2723	1513	4133	7231	157

Elem	Te	Th	Ti	Tl	U	V	W
Avge	10820	2487	692	403	18110	1042	343
SDev	81	6	3	1	32	2	4
%RSD	.7528	.2214	.3638	.1434	.1757	.1919	1.179
#1	10860	2490	694	403	18130	1042	345
#2	10720	2481	689	402	18080	1040	345
#3	10860	2491	692	403	18130	1044	338

Elem	Y	Zn	Zr
Avge	265	372	840
SDev	1	12	3
%RSD	.2176	3.118	.2995
#1	265	361	840
#2	265	384	838
#3	266	370	843

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Document #: SD-WM-DP-171

Title/Desc:
FINAL REPORT FOR TANK 241-BX-104 PUSH MODE CORES 126 & 127 [SEC 6 OF 9]

Pages: 203

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

DOCUMENT NUMBER: SD-WM-DP-171 Rev. 1

SECTION 1 OF 9

TITLE: Final Report for Tank 241-BX-104 Push Mode Cores 126 and 127.

DATE: 4/25/96

ORIGINATOR: Wu, PA

CO: WHC

RECIPIENT:

CO:

REFERENCES: ECN- 629038

Analysis Report Thu 03-14-96 09:27:14 AM page 1

Method: ICP1A Sample Name: SPC-BLK 108448 Operator: DRS
Run Time: 03/14/96 09:25:13
Comment: SPC-BLK FOR Mn/Cu RATIO
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0056	-.0390	-.0413	-.0039	-.0017	-.0001	-.0133
SDev	.0003	.0008	.0037	.0017	.0001	.0001	.0030
%RSD	4.587	2.142	8.997	43.02	8.276	40.71	22.62
#1	-.0053	-.0380	-.0416	-.0031	-.0015	-.0001	-.0167
#2	-.0058	-.0393	-.0375	-.0028	-.0018	-.0001	-.0109
#3	-.0056	-.0396	-.0449	-.0058	-.0017	-.0002	-.0122

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0019	.0060	-.0419	-.0019	-.0050	-.0173	-.0069
SDev	.0011	.0016	.0004	.0007	.0024	.0006	.0003
%RSD	60.76	26.88	.9067	35.84	48.13	3.421	4.981
#1	.0020	.0046	-.0415	-.0015	-.0070	-.0174	-.0069
#2	.0007	.0078	-.0420	-.0026	-.0023	-.0167	-.0073
#3	.0029	.0057	-.0422	-.0015	-.0058	-.0179	-.0066

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0021	-.0112	-1.192	-.0109	-.0109	-.0292	-.0066
SDev	.0000	.0010	.081	.0019	.0006	.0021	.0001
%RSD	.1932	8.794	6.754	17.81	5.170	7.296	1.601
#1	-.0021	-.0104	-1.116	-.0093	-.0115	-.0295	-.0067
#2	-.0021	-.0123	-1.276	-.0131	-.0105	-.0312	-.0065
#3	-.0021	-.0110	-1.184	-.0104	-.0105	-.0269	-.0067

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0052	-.0852	-.0424	-.0034	-.0495	-.0462	-.0989
SDev	.0007	.0179	.0013	.0005	.0104	.0041	.0123
%RSD	13.87	20.98	2.990	15.93	21.00	8.926	12.46
#1	-.0044	-.0648	-.0415	-.0035	-.0392	-.0459	-.0976
#2	-.0056	-.0926	-.0438	-.0028	-.0493	-.0422	-.1119
#3	-.0056	-.0983	-.0418	-.0038	-.0599	-.0505	-.0874

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0476	-.0213	-.0326	-.0263	-.0115	-.1651	-.0006
SDev	.0022	.0033	.0019	.0027	.0060	.0160	.0001
%RSD	4.518	15.25	5.979	10.26	52.37	9.709	11.68
#1	-.0498	-.0185	-.0318	-.0294	-.0099	-.1545	-.0006
#2	-.0474	-.0249	-.0348	-.0247	-.0182	-.1572	-.0007
#3	-.0455	-.0205	-.0311	-.0247	-.0065	-.1835	-.0006

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0271	-.0079	-.0023	-.0319	-.5611	-.0046	-.0134
SDev	.0086	.0006	.0003	.0011	.0356	.0003	.0072

%RSD	31.78	7.939	15.01	3.485	6.346	6.993	54.19
#1	-.0220	-.0079	-.0020	-.0316	-.5382	-.0046	-.0092
#2	-.0371	-.0085	-.0027	-.0331	-.6021	-.0049	-.0092
#3	-.0223	-.0072	-.0023	-.0310	-.5429	-.0042	-.0217

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0025	-.0077	-.0051
SDev	.0002	.0009	.0005
%RSD	7.704	11.02	8.928
#1	-.0027	-.0085	-.0052
#2	-.0026	-.0068	-.0055
#3	-.0023	-.0078	-.0046

Analysis Report Thu 03-14-96 09:29:12 AM page 1

Method: ICP1A Sample Name: SPC-STD 1060103I100 Operator: DRS
Run Time: 03/14/96 09:27:54
Comment: SPC-STD FOR Mn/Cu RATIO
Mode: INT Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Avge	7157	2262	1708	1234	329	191	1787
SDev	22	7	10	3	1	1	32
%RSD	.3065	.2943	.5981	.2431	.1753	.3018	1.767
#1	7140	2259	1715	1234	329	191	1810
#2	7182	2270	1712	1237	330	192	1751
#3	7150	2258	1696	1231	329	191	1800

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Avge	1695	596	6777	1526	500	20640	2264
SDev	3	3	24	4	9	27	7
%RSD	.1485	.5034	.3597	.2301	1.805	.1312	.3185
#1	1692	593	6768	1530	499	20670	2258
#2	1697	599	6805	1523	509	20620	2272
#3	1695	596	6759	1526	491	20630	2262

Elem	Eu	Fe	K	La	Li	Mg	Mn
Avge	366	667	2168	1070	21590	2659	64460
SDev	1	5	3	1	76	5	7
%RSD	.3152	.6764	.1384	.1079	.3517	.1930	.0110
#1	365	662	2168	1071	21650	2658	64460
#2	367	671	2171	1069	21510	2665	64470
#3	367	667	2165	1071	21630	2655	64460

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Avge	894	440	3954	527	1499	131200	15960
SDev	3	1	9	10	17	270	32
%RSD	.3416	.1313	.2295	1.824	1.148	.2055	.2011
#1	891	440	3947	537	1513	130900	15920
#2	897	440	3964	525	1505	131500	15980
#3	895	439	3950	518	1480	131200	15960

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Avge	16090	4564	2815	1541	4222	7308	159
SDev	51	6	7	9	2	11	1
%RSD	.3165	.1284	.2562	.5890	.0410	.1507	.3624
#1	16060	4560	2807	1531	4223	7297	159
#2	16150	4562	2821	1549	4220	7319	160
#3	16070	4571	2817	1542	4223	7309	159

Elem	Te	Th	Ti	Tl	U	V	W
Avge	11410	2504	695	424	18100	1046	351
SDev	57	6	1	6	55	2	6
%RSD	.5011	.2271	.1439	1.440	.3033	.1912	1.618
#1	11350	2502	696	431	18070	1044	356
#2	11420	2499	695	423	18160	1048	345
#3	11460	2510	694	419	18060	1046	353

Elem	Y	Zn	Zr
Avge	266	136100	840
SDev	1	270	1
%RSD	.2173	.1986	.1190
#1	265	135900	840
#2	266	136200	841
#3	266	136400	839

Analysis Report Thu 03-14-96 09:30:08 AM page 1

Method: ICP1A Sample Name: SPC-STD 1060103I100 Operator: DRS
Run Time: 03/14/96 09:27:54
Comment: SPC-STD FOR Mn/Cu RATIO
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0034	-.0246	-.0230	.0007	-.0018	-.0001	-.0094
SDev	.0006	.0043	.0049	.0003	.0001	.0000	.0138
%RSD	17.25	17.30	21.05	48.86	4.528	19.73	147.6
#1	-.0039	-.0265	-.0193	.0007	-.0018	-.0001	.0006
#2	-.0028	-.0198	-.0213	.0010	-.0017	-.0001	-.0251
#3	-.0036	-.0277	-.0285	.0003	-.0018	-.0001	-.0036

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0948	.0083	-.0411	-.0039	-.0015	10.28	-.0029
SDev	.0006	.0003	.0055	.0004	.0016	.01	.0008
%RSD	.6478	4.237	13.32	10.98	101.9	.1357	28.23
#1	.0941	.0079	-.0431	-.0035	-.0016	10.30	-.0036
#2	.0953	.0086	-.0349	-.0043	.0001	10.27	-.0020
#3	.0951	.0084	-.0453	-.0039	-.0030	10.28	-.0031

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0020	-.0118	-1.207	-.0100	10.28	-.0331	10.42
SDev	.0002	.0012	.069	.0006	.04	.0009	.00
%RSD	11.57	10.39	5.696	5.776	.3590	2.788	.0109
#1	-.0023	-.0131	-1.207	-.0096	10.31	-.0325	10.42
#2	-.0019	-.0106	-1.138	-.0106	10.24	-.0327	10.42
#3	-.0019	-.0116	-1.276	-.0096	10.30	-.0342	10.42

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0028	-.0612	-.0407	-.0018	-.0596	10.11	-.0985
SDev	.0005	.0032	.0031	.0034	.0144	.02	.0090
%RSD	18.64	5.293	7.726	182.5	24.23	.2304	9.144
#1	-.0034	-.0593	-.0430	.0018	-.0485	10.09	-.1077
#2	-.0024	-.0593	-.0371	-.0024	-.0544	10.14	-.0897
#3	-.0027	-.0649	-.0419	-.0049	-.0759	10.11	-.0981

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0483	-.0176	-.0012	-.0067	.0184	-.1661	-.0003
SDev	.0058	.0010	.0023	.0060	.0013	.0083	.0001
%RSD	12.00	5.641	190.1	90.09	7.258	5.018	25.33
#1	-.0524	-.0181	-.0038	-.0131	.0190	-.1750	-.0003
#2	-.0417	-.0182	.0007	-.0011	.0168	-.1586	-.0002
#3	-.0509	-.0164	-.0005	-.0058	.0192	-.1646	-.0003

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0095	.0010	-.0018	.0031	-.5846	-.0038	.0020
SDev	.0059	.0060	.0002	.0099	.0625	.0003	.0103

%RSD	62.74	625.2	8.603	318.7	10.68	7.710	505.4
#1	-.0160	.0021	-.0016	.0138	-.6175	-.0041	.0104
#2	-.0082	-.0055	-.0019	.0013	-.5125	-.0036	-.0094
#3	-.0043	.0063	-.0019	-.0058	-.6236	-.0038	.0051

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0024	9.969	-.0058
SDev	.0002	.020	.0006
%RSD	7.759	.1998	10.29
#1	-.0026	9.948	-.0059
#2	-.0024	9.970	-.0052
#3	-.0023	9.988	-.0064

Standardization Rpt. Thu 03-14-96 09:33:46 AM page 1

Method: ICP1A Standard: ICP1.0

Elem	Ag	Al	As	B	Ba	Be	Bi
Avge	.7108	.2226	.1699	.1201	.0330	.0191	.1557
SDev	.0016	.0007	.0036	.0008	.0002	.0001	.0023
%RSD	.2322	.3311	2.107	.7114	.6302	.6035	1.469
#1	.7126	.2232	.1721	.1192	.0332	.0192	.1566
#2	.7103	.2229	.1658	.1209	.0331	.0192	.1531
#3	.7094	.2218	.1719	.1202	.0328	.0190	.1574

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Avge	.1395	.0521	.6788	.1515	.0484	.0559	.2063
SDev	.0010	.0019	.0022	.0004	.0007	.0003	.0003
%RSD	.7182	3.706	.3282	.2749	1.446	.5161	.1454
#1	.1405	.0536	.6802	.1516	.0487	.0561	.2063
#2	.1394	.0499	.6799	.1518	.0489	.0561	.2066
#3	.1385	.0527	.6762	.1510	.0476	.0556	.2060

Elem	Eu	Fe	K	La	Li	Mg	Mn
Avge	.0366	.0613	.2171	.1072	.0441	.2573	.0263
SDev	.0001	.0001	.0005	.0003	.0000	.0008	.0006
%RSD	.1576	.1631	.2393	.2851	.0000	.3019	2.091
#1	.0367	.0614	.2174	.1071	.0441	.2564	.0269
#2	.0366	.0613	.2174	.1075	.0441	.2579	.0263
#3	.0366	.0612	.2165	.1069	.0441	.2575	.0258

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Avge	.0859	.0434	.3954	.0523	.1357	1.466	1.594
SDev	.0000	.0004	.0008	.0004	.0019	.010	.003
%RSD	.0000	.8308	.1909	.7966	1.423	.6884	.1648
#1	.0859	.0438	.3961	.0518	.1374	1.478	1.595
#2	.0859	.0431	.3955	.0526	.1361	1.461	1.596
#3	.0859	.0433	.3946	.0524	.1336	1.460	1.591

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Avge	1.610	.4554	.2727	.1517	.4095	.7240	.0157
SDev	.004	.0014	.0026	.0013	.0015	.0017	.0000
%RSD	.2318	.3116	.9364	.8645	.3674	.2353	.0000
#1	1.614	.4539	.2721	.1531	.4096	.7230	.0157
#2	1.611	.4557	.2755	.1515	.4109	.7260	.0157
#3	1.606	.4567	.2705	.1505	.4079	.7231	.0157

Elem	Te	Th	Ti	Tl	U	V	W
Avge	1.074	.2497	.0690	.0400	1.812	.1042	.0339
SDev	.001	.0010	.0003	.0001	.004	.0002	.0005
%RSD	.0919	.4005	.3834	.2889	.2266	.2216	1.512
#1	1.074	.2507	.0692	.0401	1.816	.1045	.0338
#2	1.073	.2497	.0691	.0399	1.813	.1041	.0335
#3	1.074	.2487	.0687	.0399	1.808	.1041	.0345

Elem	Y	Zn	Zr
Avge	.0267	.0496	.0841
SDev	.0001	.0027	.0000

%RSD	.2165	5.355	.0000
#1	.0267	.0527	.0841
#2	.0267	.0480	.0841
#3	.0266	.0482	.0841

Standardization Rpt. Ignore, uptake in 2% HNO3 Thu 03-14-96 09:35:18 AM page 1

Method: ICP1A Standard: ICP1.1B 3/14/96 DLS

Elem	Ba	Co	Cr	Cu	Fe	Mg	Mo
Avge	.7805	1.907	1.250	.4616	7.240	4.597	1.248
SDev	.0011	.002	.003	.0009	.015	.002	.004
%RSD	.1479	.1276	.2633	.1868	.2109	.0335	.3106
#1	.7798	1.904	1.248	.4607	7.228	4.595	1.245
#2	.7798	1.908	1.248	.4618	7.234	4.597	1.246
#3	.7818	1.909	1.254	.4624	7.257	4.598	1.252

Elem	Na	Ni	Pb	Sr	Ti	Zn	Zr
Avge	.5033	.6427	7.407	.8451	1.442	2.820	2.553
SDev	.0011	.0012	.014	.0014	.002	.015	.004
%RSD	.2216	.1869	.1849	.1615	.1044	.5481	.1627
#1	.5037	.6415	7.401	.8439	1.441	2.810	2.550
#2	.5020	.6428	7.397	.8449	1.441	2.812	2.551
#3	.5041	.6439	7.422	.8466	1.443	2.838	2.558

Standardization Rpt. Thu 03-14-96 09:38:49 AM page 1

Method: ICP1A Standard: ICP1.1A

Elem	Ba	Co	Cr	Cu	Fe	Mg	Mo
Avge	.0340	.1530	.0502	.0546	.0703	.2634	.0878
SDev	.0001	.0006	.0011	.0003	.0008	.0021	.0009
%RSD	.4497	.3831	2.113	.5592	1.159	.7790	1.020
#1	.0341	.1534	.0513	.0547	.0712	.2635	.0884
#2	.0338	.1523	.0500	.0543	.0699	.2613	.0868
#3	.0340	.1532	.0492	.0549	.0697	.2654	.0883

Elem	Na	Ni	Pb	Sr	Ti	Zn	Zr
Avge	.0441	.0529	1.473	.0167	.0706	.0430	.0869
SDev	.0007	.0010	.008	.0001	.0001	.0010	.0003
%RSD	1.594	1.837	.5474	.3450	.2165	2.450	.3045
#1	.0440	.0531	1.482	.0168	.0706	.0441	.0872
#2	.0434	.0518	1.466	.0167	.0704	.0429	.0867
#3	.0448	.0537	1.471	.0167	.0707	.0420	.0868

Standardization Rpt. Thu 03-14-96 09:40:42 AM page 1

Method: ICP1A Standard: ICP1.1A

Elem	Ba	Co	Cr	Cu	Fe	Mg	Mo
Avge	7.319	16.63	11.39	3.969	66.64	39.17	11.12
SDev	.032	.05	.06	.017	.21	.10	.05
%RSD	.4371	.3091	.4983	.4220	.3077	.2673	.4603
#1	7.286	16.57	11.33	3.951	66.41	39.05	11.07
#2	7.321	16.63	11.43	3.972	66.72	39.21	11.12
#3	7.350	16.67	11.42	3.983	66.79	39.25	11.17

Elem	Na	Ni	Pb	Sr	Ti	Zn	Zr
Avge	4.520	5.566	57.35	8.082	13.51	26.23	23.72
SDev	.021	.026	.16	.041	.05	.12	.08
%RSD	.4642	.4749	.2753	.5030	.3866	.4648	.3295
#1	4.502	5.536	57.17	8.039	13.45	26.10	23.63
#2	4.516	5.574	57.40	8.089	13.52	26.24	23.73
#3	4.543	5.587	57.47	8.119	13.55	26.35	23.79

Standardization Rpt. Thu 03-14-96 09:44:32 AM page 1

Method: ICP1A Standard: ICP1.2

Elem	Al	B	Ca	Cd	K	Li	Mn
Avge	61.00	39.98	78.48	8.906	2.391	10.36	6.142
SDev	.13	.09	.15	.023	.006	.03	.014
%RSD	.2153	.2161	.1917	.2571	.2720	.2541	.2206
#1	61.13	40.05	78.58	8.931	2.396	10.37	6.152
#2	60.86	39.89	78.31	8.887	2.383	10.33	6.127
#3	61.00	40.00	78.55	8.899	2.393	10.37	6.148

Elem	P
Avge	11.88
SDev	.01
%RSD	.0655
#1	11.89
#2	11.87
#3	11.88

Standardization Rpt. Thu 03-14-96 09:48:05 AM page 1

Method: ICP1A Standard: ICP1.3

Elem	Dy	Eu	La	Nd	Ru	Th
Avge	39.18	9.548	5.052	13.29	32.47	10.75
SDev	.29	.070	.031	.09	.17	.07
%RSD	.7310	.7359	.6095	.6933	.5122	.6105
#1	38.97	9.488	5.029	13.22	32.38	10.71
#2	39.50	9.625	5.087	13.40	32.67	10.83
#3	39.06	9.530	5.039	13.27	32.37	10.72

Standardization Rpt. Thu 03-14-96 09:51:40 AM page 1

Method: ICP1A Standard: ICP1.4

Elem	As	Ce	Sb	V	Y
Avge	20.49	21.03	24.59	10.97	2.862
SDev	.10	.12	.14	.06	.018
%RSD	.5009	.5911	.5781	.5537	.6121
#1	20.43	20.97	24.50	10.95	2.856
#2	20.61	21.17	24.76	11.04	2.882
#3	20.43	20.95	24.53	10.93	2.849

Standardization Rpt. Thu 03-14-96 09:55:21 AM page 1

Method: ICP1A Standard: ICP1.5

Elem	U
Avge	44.81
SDev	.40
%RSD	.9015
#1	44.48
#2	44.70
#3	45.26

Standardization Rpt. Thu 03-14-96 09:59:15 AM page 1

Method: ICP1A Standard: ICP1.6

Elem	Be	Si	Te
Avge	1.683	71.96	47.68
SDev	.008	.26	.27
%RSD	.4878	.3626	.5559
#1	1.681	71.88	47.66
#2	1.692	72.26	47.96
#3	1.676	71.76	47.43

Standardization Rpt. Thu 03-14-96 10:03:13 AM page 1

Method: ICP1A Standard: ICP1.7

Elem	Ag	Bi	Se	Tl
Avge	27.88	22.70	3.135	1.198
SDev	.05	.05	.010	.008
%RSD	.1757	.2315	.3077	.6520
#1	27.84	22.66	3.124	1.190
#2	27.87	22.69	3.139	1.200
#3	27.94	22.76	3.141	1.205

Standardization Rpt. Thu 03-14-96 10:07:28 AM page 1

Method: ICP1A Standard: ICP1.8

Elem	Pd	Rh	Sn	W
Avge	17.69	41.26	7.175	2.775
SDev	.13	.38	.045	.025
%RSD	.7519	.9198	.6336	.9065
#1	17.83	41.66	7.215	2.802
#2	17.69	41.20	7.184	2.772
#3	17.56	40.91	7.126	2.751

Standardization Report Thu 03-14-96 10:08:02 AM page 1

Method: ICP1A Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Ag	328.068	ICP1.7	ICP1.0	.368039	-.261590	03/14/96 10:06:10
Al	308.215	ICP1.2	ICP1.0	8.22736	-1.83168	03/14/96 10:06:10
As	193.600	ICP1.4	ICP1.0	4.92201	-.836414	03/14/96 10:06:10
B	249.600	ICP1.2	ICP1.0	1.25433	-.150645	03/14/96 10:06:10
Ba	493.400	Multiple	Standards	1.35507	-.044877	03/14/96 09:39:24
Be	313.042	ICP1.6	ICP1.0	.600925	-.011498	03/14/96 10:06:10
Bi	223.061	ICP1.7	ICP1.0	4.43498	-.690527	03/14/96 10:06:10
Ca	317.900	ICP1.2	ICP1.0	3.19124	-.445071	03/14/96 10:06:10
Cd	228.800	ICP1.2	ICP1.0	1.12945	-.058806	03/14/96 10:06:10
Ce	418.659	ICP1.4	ICP1.0	2.45667	-1.66751	03/14/96 10:06:10
Co	228.600	Multiple	Standards	1.17559	-.178633	03/14/96 09:39:24
Cr	205.500	Multiple	Standards	1.71248	-.083400	03/14/96 09:39:24
Cu	324.700	Multiple	Standards	5.01937	-.281075	03/14/96 09:39:24
Dy	353.170	ICP1.3	ICP1.0	1.28308	-.264699	03/14/96 10:06:10
Eu	381.900	ICP1.3	ICP1.0	2.10276	-.077031	03/14/96 10:06:10
Fe	259.900	Multiple	Standards	2.89153	-.183996	03/14/96 09:39:24
K	766.500	ICP1.2	ICP1.0	230.030	-49.9394	03/14/96 10:06:10
La	398.852	ICP1.3	ICP1.0	4.04498	-.433487	03/14/96 10:06:10
Li	670.700	ICP1.2	ICP1.0	4.84917	-.213849	03/14/96 10:06:10
Mg	279.078	Multiple	Standards	6.07597	-1.57535	03/14/96 09:39:24
Mn	257.600	ICP1.2	ICP1.0	1.63506	-.043056	03/14/96 10:06:10
Mo	202.000	Multiple	Standards	1.76584	-.152146	03/14/96 09:39:24
Na	588.900	Multiple	Standards	55.0960	-2.39417	03/14/96 09:39:24
Nd	406.106	ICP1.3	ICP1.0	3.87626	-1.53267	03/14/96 10:06:10
Ni	231.600	Multiple	Standards	3.50381	-.183747	03/14/96 09:39:24
P	214.900	ICP1.2	ICP1.0	8.51646	-1.15568	03/14/96 10:06:10
Pb	220.300	Multiple	Standards	.867572	-1.27363	03/14/96 09:39:24
Pd	360.959	ICP1.8	ICP1.0	3.10567	-4.95157	03/14/96 10:06:10
Rh	343.489	ICP1.8	ICP1.0	1.26114	-2.03093	03/14/96 10:06:10
Ru	240.271	ICP1.3	ICP1.0	1.56159	-.711202	03/14/96 10:06:10
Sb	206.838	ICP1.4	ICP1.0	3.28928	-.896988	03/14/96 10:06:10
Se	196.026	ICP1.7	ICP1.0	6.70451	-1.01707	03/14/96 10:06:10
Si	288.100	ICP1.6	ICP1.0	2.79509	-1.14449	03/14/96 10:06:10
Sn	242.950	ICP1.8	ICP1.0	8.80253	-6.37333	03/14/96 10:06:10
Sr	421.500	Multiple	Standards	1.22250	-.019318	03/14/96 09:39:24
Te	214.275	ICP1.6	ICP1.0	1.07282	-1.15192	03/14/96 10:06:10
Th	283.730	ICP1.3	ICP1.0	4.76160	-1.18897	03/14/96 10:06:10
Ti	334.900	Multiple	Standards	1.47245	-.101788	03/14/96 09:39:24
Tl	190.864	ICP1.7	ICP1.0	17.2652	-.690032	03/14/96 10:06:10
U	378.280	ICP1.5	ICP1.0	11.6281	-21.0752	03/14/96 10:06:10
V	292.402	ICP1.4	ICP1.0	1.84024	-.191814	03/14/96 10:06:10
W	224.875	ICP1.8	ICP1.0	18.4952	-.627603	03/14/96 10:06:10
Y	371.030	ICP1.4	ICP1.0	3.52659	-.094042	03/14/96 10:06:10
Zn	213.800	Multiple	Standards	.742412	-.037355	03/14/96 09:39:24
Zr	339.100	Multiple	Standards	2.06967	-.175039	03/14/96 09:39:24

Standardization Report Thu 03-14-96 10:08:29 AM page 1

Method: ICP1A Slope = IR/Conc(SIR)

Element	Wavelen	High std	Low std	Slope	BEC	Date Standardized
Ag	328.068	ICP1.7	ICP1.0	2.71710	.261590	03/14/96 10:06:10
Al	308.215	ICP1.2	ICP1.0	.121546	1.83168	03/14/96 10:06:10
As	193.600	ICP1.4	ICP1.0	.203169	.836414	03/14/96 10:06:10
B	249.600	ICP1.2	ICP1.0	.797237	.150645	03/14/96 10:06:10
Ba	493.400	Multiple	Standards	.737972	.044877	03/14/96 09:39:24
Be	313.042	ICP1.6	ICP1.0	1.66410	.011498	03/14/96 10:06:10
Bi	223.061	ICP1.7	ICP1.0	.225480	.690527	03/14/96 10:06:10
Ca	317.900	ICP1.2	ICP1.0	.313358	.445071	03/14/96 10:06:10
Cd	228.800	ICP1.2	ICP1.0	.885390	.058806	03/14/96 10:06:10
Ce	418.659	ICP1.4	ICP1.0	.407055	1.66751	03/14/96 10:06:10
Co	228.600	Multiple	Standards	.850633	.178633	03/14/96 09:39:24
Cr	205.500	Multiple	Standards	.583949	.083400	03/14/96 09:39:24
Cu	324.700	Multiple	Standards	.199228	.281075	03/14/96 09:39:24
Dy	353.170	ICP1.3	ICP1.0	.779377	.264699	03/14/96 10:06:10
Eu	381.900	ICP1.3	ICP1.0	.475565	.077031	03/14/96 10:06:10
Fe	259.900	Multiple	Standards	.345837	.183996	03/14/96 09:39:24
K	766.500	ICP1.2	ICP1.0	.004347	49.9394	03/14/96 10:06:10
La	398.852	ICP1.3	ICP1.0	.247220	.433487	03/14/96 10:06:10
Li	670.700	ICP1.2	ICP1.0	.206221	.213849	03/14/96 10:06:10
Mg	279.078	Multiple	Standards	.164583	1.57535	03/14/96 09:39:24
Mn	257.600	ICP1.2	ICP1.0	.611600	.043056	03/14/96 10:06:10
Mo	202.000	Multiple	Standards	.566302	.152146	03/14/96 09:39:24
Na	588.900	Multiple	Standards	.018150	2.39417	03/14/96 09:39:24
Nd	406.106	ICP1.3	ICP1.0	.257981	1.53267	03/14/96 10:06:10
Ni	231.600	Multiple	Standards	.285403	.183747	03/14/96 09:39:24
P	214.900	ICP1.2	ICP1.0	.117420	1.15568	03/14/96 10:06:10
Pb	220.300	Multiple	Standards	1.15264	1.27363	03/14/96 09:39:24
Pd	360.959	ICP1.8	ICP1.0	.321992	4.95157	03/14/96 10:06:10
Rh	343.489	ICP1.8	ICP1.0	.792935	2.03093	03/14/96 10:06:10
Ru	240.271	ICP1.3	ICP1.0	.640371	.711202	03/14/96 10:06:10
Sb	206.838	ICP1.4	ICP1.0	.304017	.896988	03/14/96 10:06:10
Se	196.026	ICP1.7	ICP1.0	.149153	1.01707	03/14/96 10:06:10
Si	288.100	ICP1.6	ICP1.0	.357771	1.14449	03/14/96 10:06:10
Sn	242.950	ICP1.8	ICP1.0	.113604	6.37333	03/14/96 10:06:10
Sr	421.500	Multiple	Standards	.817994	.019318	03/14/96 09:39:24
Te	214.275	ICP1.6	ICP1.0	.932124	1.15192	03/14/96 10:06:10
Th	283.730	ICP1.3	ICP1.0	.210013	1.18897	03/14/96 10:06:10
Ti	334.900	Multiple	Standards	.679142	.101788	03/14/96 09:39:24
Tl	190.864	ICP1.7	ICP1.0	.057920	.690032	03/14/96 10:06:10
U	378.280	ICP1.5	ICP1.0	.085998	21.0752	03/14/96 10:06:10
V	292.402	ICP1.4	ICP1.0	.543408	.191814	03/14/96 10:06:10
W	224.875	ICP1.8	ICP1.0	.054068	.627603	03/14/96 10:06:10
Y	371.030	ICP1.4	ICP1.0	.283560	.094042	03/14/96 10:06:10
Zn	213.800	Multiple	Standards	1.34696	.037355	03/14/96 09:39:24
Zr	339.100	Multiple	Standards	.483170	.175039	03/14/96 09:39:24

Standardization Readback Report Thu 03-14-96 10:08:53 AM page 1

Method: ICP1A

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ag	328.068	ICP1.0	.000000	.000000	-.000000
		ICP1.7	10.0000	10.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Al	308.215	ICP1.0	.000000	.000000	-.000000
		ICP1.2	500.000	500.000	.000031
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
As	193.600	ICP1.0	.000000	-.000000	.000000
		ICP1.4	100.000	100.000	-.000008
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
B	249.600	ICP1.0	.000000	.000000	-.000000
		ICP1.2	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ba	493.400	ICP1.0	.000000	-.000114	.000114
		ICP1.1B	1.00000	1.01271	-.012707
		ICP1.1A	10.0000	9.87294	.127065
CorCoef:	1.00000				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Be	313.042	ICP1.0	.000000	.000000	-.000000
		ICP1.6	1.00000	1.000000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Bi	223.061	ICP1.0	.000000	.000000	-.000000
		ICP1.7	100.000	100.000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ca	317.900	ICP1.0	.000000	.000000	-.000000
		ICP1.2	250.000	250.000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cd	228.800	ICP1.0	.000000	.000000	-.000000
		ICP1.2	10.0000	10.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ce	418.659	ICP1.0	.000000	-.000000	.000000
		ICP1.4	50.0000	50.0000	.000000

Standardization Readback Report Thu 03-14-96 10:08:53 AM page 2

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Co	228.600	ICP1.0	.000000	-.000569	.000569
		ICP1.1B	2.00000	2.06327	-.063265
		ICP1.1A	20.0000	19.3673	.632650
CorCoef:	0.99998				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cr	205.500	ICP1.0	.000000	-.000516	.000516
		ICP1.1B	2.00000	2.05737	-.057370
		ICP1.1A	20.0000	19.4263	.573698
CorCoef:	0.99998				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Cu	324.700	ICP1.0	.000000	-.000324	.000324
		ICP1.1B	2.00000	2.03604	-.036036
		ICP1.1A	20.0000	19.6396	.360353
CorCoef:	0.99999				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Dy	353.170	ICP1.0	.000000	-.000000	.000000
		ICP1.3	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Eu	381.900	ICP1.0	.000000	-.000000	.000000
		ICP1.3	20.0000	20.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Fe	259.900	ICP1.0	.000000	-.006745	.006745
		ICP1.1B	20.0000	20.7494	-.749437
		ICP1.1A	200.000	192.506	7.49437
CorCoef:	0.99997				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
K	766.500	ICP1.0	.000000	-.000001	.000001
		ICP1.2	500.000	500.000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
La	398.852	ICP1.0	.000000	-.000000	.000000
		ICP1.3	20.0000	20.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Li	670.700	ICP1.0	.000000	-.000000	.000000
		ICP1.2	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mg	279.078	ICP1.0	.000000	-.012208	.012208
		ICP1.1B	25.0000	26.3565	-1.35651
		ICP1.1A	250.000	236.435	13.5650
CorCoef:	0.99994				

Standardization Readback Report Thu 03-14-96 10:08:53 AM page 3

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mn	257.600	ICP1.0	.000000	.000000	-.000000
		ICP1.2	10.0000	10.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Mo	202.000	ICP1.0	.000000	-.000460	.000460
		ICP1.1B	2.00000	2.05115	-.051152
		ICP1.1A	20.0000	19.4885	.511522
CorCoef:	0.99999				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Na	588.900	ICP1.0	.000000	-.003004	.003004
		ICP1.1B	25.0000	25.3338	-.333817
		ICP1.1A	250.000	246.662	3.33815
CorCoef:	1.00000				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Nd	406.106	ICP1.0	.000000	.000000	-.000000
		ICP1.3	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ni	231.600	ICP1.0	.000000	-.000614	.000614
		ICP1.1B	2.00000	2.06827	-.068270
		ICP1.1A	20.0000	19.3173	.682697
CorCoef:	0.99998				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
P	214.900	ICP1.0	.000000	-.000000	.000000
		ICP1.2	100.000	100.000	-.000008
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pb	220.300	ICP1.0	.000000	-.001369	.001369
		ICP1.1B	5.00000	5.15210	-.152095
		ICP1.1A	50.0000	48.4790	1.52095
CorCoef:	0.99998				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Pd	360.959	ICP1.0	.000000	.000000	-.000000
		ICP1.8	50.0000	50.0000	-.000004
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Rh	343.489	ICP1.0	.000000	-.000000	.000000
		ICP1.8	50.0000	50.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ru	240.271	ICP1.0	.000000	.000000	-.000000
		ICP1.3	50.0000	50.0000	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sb	206.838	ICP1.0	.000000	-.000000	.000000
		ICP1.4	80.0000	80.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Se	196.026	ICP1.0	.000000	.000000	-.000000
		ICP1.7	20.0000	20.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Si	288.100	ICP1.0	.000000	-.000000	.000000
		ICP1.6	200.000	200.000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sn	242.950	ICP1.0	.000000	.000000	-.000000
		ICP1.8	50.0000	56.7845	-6.78455
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Sr	421.500	ICP1.0	.000000	-.000125	.000125
		ICP1.1B	1.00000	1.01386	-.013860
		ICP1.1A	10.0000	9.86140	.138600
CorCoef:	1.00000				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Te	214.275	ICP1.0	.000000	-.000000	.000000
		ICP1.6	50.0000	50.0000	-.000004
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Th	283.730	ICP1.0	.000000	-.000000	.000000
		ICP1.3	50.0000	50.0000	-.000004
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Ti	334.900	ICP1.0	.000000	-.000189	.000189
		ICP1.1B	2.00000	2.02099	-.020988
		ICP1.1A	20.0000	19.7901	.209883
CorCoef:	1.00000				
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Tl	190.864	ICP1.0	.000000	-.000000	.000000
		ICP1.7	20.0000	20.0000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
U	378.280	ICP1.0	.000000	-.000001	.000001
		ICP1.5	500.000	500.000	.000000
Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
V	292.402	ICP1.0	.000000	.000000	-.000000
		ICP1.4	20.0000	20.0000	.000000

Standardization Readback Report Thu 03-14-96 10:08:53 AM page 5

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
W	224.875	ICP1.0	.000000	-.000000	.000000
		ICP1.8	50.0000	50.6947	-.694698

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Y	371.030	ICP1.0	.000000	-.000000	.000000
		ICP1.4	10.0000	10.0000	.000000

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Zn	213.800	ICP1.0	.000000	-.000507	.000507
		ICP1.1B	2.00000	2.05630	-.056296
		ICP1.1A	20.0000	19.4370	.562956

CorCoef: 0.99998

Element	Wavelength	Standard	Known Concentration	Measured Concentration	Residual Concentration
Zr	339.100	ICP1.0	.000000	-.000980	.000980
		ICP1.1B	5.00000	5.10889	-.108889
		ICP1.1A	50.0000	48.9111	1.08889

CorCoef: 0.99999

Analysis Report Thu 03-14-96 10:14:03 AM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 03/14/96 10:12:43
Comment: (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0030	.0198	.0023	.0043	.0006	.0000	.0013
SDev	.0006	.0010	.0143	.0027	.0002	.0000	.0074
%RSD	20.74	5.255	634.1	62.23	25.72	136.5	557.9
#1	.0025	.0202	-.0138	.0064	.0005	.0000	-.0066
#2	.0028	.0186	.0137	.0052	.0005	.0000	.0080
#3	.0037	.0206	.0069	.0013	.0008	.0001	.0026

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0005	.0108	.0160	.0006	.0006	-.0071	.0022
SDev	.0008	.0036	.0048	.0005	.0011	.0014	.0008
%RSD	149.4	33.63	29.99	84.99	176.8	19.09	38.40
#1	.0005	.0147	.0109	.0006	-.0000	-.0081	.0012
#2	.0013	.0104	.0167	.0012	.0019	-.0076	.0027
#3	-.0003	.0074	.0204	.0001	-.0000	-.0055	.0026

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0012	-.0068	.4831	.0042	-.0058	-.0062	-.0082
SDev	.0002	.0004	.0797	.0015	.0000	.0062	.0003
%RSD	19.36	5.438	16.50	36.68	.0000	99.70	3.063
#1	.0009	-.0072	.3910	.0024	-.0058	-.0131	-.0082
#2	.0013	-.0066	.5291	.0053	-.0058	-.0043	-.0085
#3	.0013	-.0065	.5291	.0049	-.0058	-.0012	-.0080

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0007	.0318	.0207	.0011	-.0016	-.0048	.0768
SDev	.0009	.0115	.0038	.0025	.0299	.0009	.0066
%RSD	137.8	36.11	18.43	216.5	1841.	18.23	8.547
#1	-.0010	.0354	.0166	.0037	.0103	-.0053	.0766
#2	-.0014	.0410	.0213	.0009	-.0357	-.0038	.0834
#3	.0004	.0189	.0241	-.0012	.0205	-.0052	.0703

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0325	.0062	.0115	.0042	.0951	.0754	.0003
SDev	.0044	.0014	.0131	.0084	.0041	.0126	.0001
%RSD	13.65	22.14	113.9	200.0	4.358	16.65	25.06
#1	.0309	.0077	.0075	.0109	.0993	.0622	.0002
#2	.0291	.0049	.0262	.0068	.0949	.0768	.0002
#3	.0376	.0061	.0009	-.0052	.0910	.0871	.0004

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0109	-.0068	.0009	.0110	.2337	.0010	.0265
SDev	.0080	.0063	.0002	.0075	.0217	.0002	.0001

%RSD	73.48	93.65	16.91	68.34	9.269	16.95	.3269
#1	.0057	-.0141	.0008	.0161	.2560	.0010	.0266
#2	.0201	-.0037	.0009	.0144	.2321	.0012	.0266
#3	.0069	-.0025	.0011	.0024	.2128	.0009	.0264

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0003	-.0091	.0002
SDev	.0000	.0012	.0004
%RSD	1.022	13.40	224.5
#1	.0003	-.0105	.0005
#2	.0003	-.0085	-.0003
#3	.0003	-.0082	.0004

Analysis Report QC Standard Thu 03-14-96 10:17:19 AM page 1

Method: ICP1A Sample Name: QC_MCVA1 9602261901 Operator: DRS
Run Time: 03/14/96 10:16:00
Comment: (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

PASS
QA
3/14/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4720	9.720	2.487	2.036	.4775	.0920	23.44
SDev	.0014	.015	.017	.005	.0004	.0001	.02
%RSD	.3070	.1502	.6718	.2679	.0819	.1460	.0890
#1	.4734	9.730	2.475	2.031	.4772	.0921	23.43
#2	.4705	9.704	2.506	2.035	.4772	.0919	23.42
#3	.4720	9.728	2.481	2.042	.4779	.0921	23.46
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.42	.4854	-.0016	.9561	.9638	.9100	-.0034
SDev	.03	.0008	.0036	.0008	.0048	.0039	.0005
%RSD	.1185	.1592	218.3	.0827	.4994	.4255	15.39
#1	24.42	.4855	-.0017	.9565	.9583	.9112	-.0033
#2	24.39	.4861	-.0052	.9552	.9662	.9056	-.0028
#3	24.45	.4846	.0020	.9566	.9670	.9131	-.0039
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0010	19.39	24.29	-.0009	1.954	31.14	.4923
SDev	.0000	.01	.08	.0016	.008	.09	.0015
%RSD	.9503	.0766	.3414	177.5	.4126	.2804	.2969
#1	.0010	19.39	24.20	.0002	1.953	31.14	.4909
#2	.0010	19.37	24.36	-.0002	1.946	31.05	.4922
#3	.0010	19.40	24.31	-.0027	1.962	31.22	.4938
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9621	35.27	-.0115	.9533	4.770	2.367	-.0608
SDev	.0013	.15	.0031	.0071	.028	.001	.0017
%RSD	.1388	.4139	26.68	.7437	.5877	.0582	2.760
#1	.9606	35.27	-.0084	.9451	4.750	2.367	-.0592
#2	.9630	35.12	-.0117	.9570	4.758	2.365	-.0626
#3	.9627	35.42	-.0145	.9577	4.802	2.368	-.0605
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0235	.0054	2.500	2.421	18.06	.2175	.4846
SDev	.0032	.0020	.006	.015	.02	.0180	.0007
%RSD	13.50	36.05	.2404	.6220	.1112	8.291	.1514
#1	-.0235	.0070	2.494	2.437	18.05	.1994	.4846
#2	-.0204	.0033	2.501	2.418	18.04	.2177	.4839
#3	-.0267	.0060	2.506	2.408	18.08	.2355	.4853
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0407	.0483	.9486	2.384	-.2478	.9754	.0456
SDev	.0039	.0074	.0014	.015	.0337	.0010	.0067
%RSD	9.559	15.33	.1484	.6246	13.59	.1070	14.76
#1	.0394	.0512	.9481	2.376	-.2851	.9757	.0381
#2	.0376	.0539	.9476	2.401	-.2387	.9742	.0474
#3	.0451	.0399	.9502	2.375	-.2196	.9762	.0512
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0001	.9309	1.896
SDev	.0000	.0076	.003
%RSD	27.14	.8117	.1564
#1	.0001	.9260	1.896
#2	.0001	.9396	1.892
#3	.0000	.9271	1.898
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report QC Standard Thu 03-14-96 10:21:11 AM page 1

Method: ICP1A Sample Name: QC_MCVB2 960221I901 Operator: DRS
Run Time: 03/14/96 10:19:51
Comment: (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

PASS DRS 3/14/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0060	-.0949	.2566	.1658	.0010	.0008	.0907
SDev	.0005	.0098	.0083	.0017	.0003	.0001	.0046
%RSD	8.603	10.35	3.225	1.029	27.79	6.651	5.123
#1	-.0062	-.0912	.2623	.1660	.0009	.0008	.0945
#2	-.0054	-.0875	.2603	.1640	.0013	.0008	.0855
#3	-.0063	-.1060	.2471	.1674	.0008	.0007	.0921
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0209	.0156	1.992	-.0009	.0065	.0280	2.046
SDev	.0051	.0053	.022	.0001	.0006	.0022	.023
%RSD	24.43	34.02	1.114	15.76	8.890	7.719	1.131
#1	.0265	.0206	1.979	-.0009	.0071	.0280	2.036
#2	.0199	.0163	1.980	-.0008	.0063	.0302	2.029
#3	.0164	.0100	2.018	-.0010	.0060	.0259	2.072
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			2.000				2.000
Range			10.00				10.00

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.059	.0267	-1.488	1.012	-.0084	-.1334	-.0075
SDev	.024	.0042	.212	.013	.0007	.0144	.0002
%RSD	1.145	15.77	14.29	1.320	8.813	10.77	2.967
#1	2.050	.0309	-1.610	1.006	-.0082	-.1176	-.0074
#2	2.041	.0267	-1.242	1.002	-.0092	-.1457	-.0074
#3	2.086	.0225	-1.610	1.027	-.0078	-.1369	-.0078
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK
Value	2.000			1.000			
Range	10.00			10.00			

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0068	.2018	2.021	.0277	.1059	.2179	1.883
SDev	.0011	.0242	.022	.0034	.0012	.0065	.016
%RSD	17.00	11.98	1.070	12.18	1.165	2.960	.8273
#1	.0081	.1855	2.016	.0240	.1070	.2105	1.865
#2	.0064	.2296	2.003	.0282	.1062	.2209	1.893
#3	.0059	.1904	2.045	.0307	.1045	.2224	1.891
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value			2.000				

Range			10.00				
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.000	2.050	.0914	.0578	7.324	2.148	.0028
SDev	.023	.020	.0092	.0079	.382	.027	.0001
%RSD	1.145	.9852	10.11	13.67	5.221	1.255	5.045
#1	1.990	2.040	.0864	.0506	6.927	2.128	.0029
#2	1.983	2.038	.0858	.0663	7.353	2.138	.0029
#3	2.026	2.074	.1021	.0567	7.690	2.179	.0027
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value	2.000	2.000				2.000	
Range	10.00	10.00				10.00	

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.890	10.13	.0042	.0188	23.38	.0002	2.016
SDev	.030	.12	.0004	.0084	.21	.0009	.023
%RSD	1.609	1.139	8.903	44.77	.9063	474.7	1.161
#1	1.863	10.07	.0042	.0185	23.27	-.0000	1.990
#2	1.884	10.06	.0046	.0274	23.24	.0012	2.021
#3	1.923	10.26	.0039	.0106	23.62	-.0006	2.036
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	QC Pass
Value	2.000	10.00			25.00		2.000
Range	10.00	10.00			10.00		10.00

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.9848	-.0037	-.0754
SDev	.0104	.0006	.0019
%RSD	1.054	15.49	2.585
#1	.9811	-.0044	-.0736
#2	.9769	-.0033	-.0753
#3	.9966	-.0035	-.0775
Errors	QC Pass	NOCHECK	NOCHECK
Value	1.000		
Range	10.00		

Analysis Report Thu 03-14-96 10:25:13 AM page 1

Method: ICP1A Sample Name: QC SSTA 9512081902 Operator: DRS
Run Time: 03/14/96 10:23:53
Comment: (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0112	257.6	.4102	.0536	.0096	-.0011	199.2
SDev	.0015	1.2	.0115	.0036	.0002	.0000	.5
%RSD	13.23	.4548	2.816	6.729	1.623	4.059	.2520
#1	-.0101	256.3	.4168	.0572	.0097	-.0010	198.6
#2	-.0105	257.8	.4170	.0535	.0097	-.0011	199.3
#3	-.0128	258.6	.3969	.0500	.0095	-.0011	199.6

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	254.8	.0726	.1999	.0125	.2373	-.1237	.0408
SDev	.5	.0006	.0101	.0002	.0029	.0042	.0012
%RSD	.2104	.7677	5.049	1.332	1.241	3.364	2.870
#1	254.2	.0732	.2051	.0125	.2407	-.1192	.0410
#2	255.0	.0723	.2063	.0126	.2352	-.1243	.0419
#3	255.1	.0722	.1883	.0123	.2361	-.1274	.0395

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0940	197.1	104.3	52.54	.0272	-.8890	.0135
SDev	.0003	.5	.5	.12	.0019	.0076	.0005
%RSD	.3751	.2304	.5009	.2259	7.143	.8529	3.506
#1	.0937	196.6	103.8	52.41	.0272	-.8806	.0140
#2	.0944	197.3	104.4	52.59	.0291	-.8952	.0131
#3	.0938	197.5	104.8	52.63	.0252	-.8912	.0135

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1027	.9060	.2564	192.1	204.8	.9920	1.092
SDev	.0008	.0191	.0073	.5	.7	.0113	.031
%RSD	.8106	2.103	2.852	.2484	.3332	1.136	2.879
#1	.1023	.9169	.2603	191.5	204.1	.9960	1.112
#2	.1020	.9170	.2609	192.2	204.9	1.001	1.108
#3	.1036	.8840	.2479	192.5	205.5	.9793	1.056

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2789	.3016	.4838	1.572	-.1966	3.992	.0201
SDev	.0040	.0039	.0052	.009	.0258	.054	.0001
%RSD	1.421	1.308	1.072	.5856	13.14	1.353	.6069
#1	.2831	.3061	.4845	1.569	-.1687	3.942	.0200
#2	.2786	.2991	.4783	1.582	-.2013	4.050	.0203
#3	.2752	.2995	.4886	1.564	-.2197	3.985	.0201

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6525	.6563	.0030	.3472	201.2	.0498	.5946
SDev	.0073	.0387	.0003	.0146	1.0	.0010	.0134

%RSD	1.111	5.901	8.668	4.204	.4930	1.927	2.248
#1	.6591	.6151	.0031	.3530	200.2	.0506	.5859
#2	.6535	.6616	.0032	.3580	201.4	.0500	.6100
#3	.6447	.6920	.0027	.3306	202.1	.0487	.5880

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0239	.0682	-.0028
SDev	.0006	.0059	.0037
%RSD	2.648	8.591	131.4
#1	.0242	.0684	.0009
#2	.0243	.0623	-.0029
#3	.0231	.0740	-.0064

Analysis Report Thu 03-14-96 10:29:50 AM page 1

Method: ICP1A Sample Name: QC SSTMCV 951208I903 Operator: DRS
Run Time: 03/14/96 10:28:31
Comment: (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5135	5.228	2.163	.0001	.1013	.0996	1.689
SDev	.0011	.004	.045	.0012	.0001	.0000	.016
%RSD	.2240	.0788	2.072	1343.	.1337	.0379	.9640
#1	.5144	5.232	2.136	-.0002	.1015	.0996	1.707
#2	.5139	5.229	2.215	.0014	.1012	.0996	1.676
#3	.5122	5.224	2.138	-.0009	.1013	.0996	1.684

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.154	.2181	.0240	-.0004	.3172	-.0098	.0036
SDev	.007	.0023	.0046	.0014	.0034	.0004	.0004
%RSD	.6067	1.042	19.11	302.5	1.062	4.388	12.47
#1	1.160	.2189	.0293	.0003	.3134	-.0095	.0034
#2	1.156	.2156	.0220	.0004	.3185	-.0096	.0041
#3	1.146	.2200	.0208	-.0020	.3197	-.0103	.0033

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0084	.6192	51.33	.0339	-.0052	-.1089	.0997
SDev	.0002	.0056	.06	.0022	.0006	.0050	.0005
%RSD	2.742	.9052	.1128	6.635	10.83	4.604	.5011
#1	.0083	.6238	51.39	.0356	-.0048	-.1042	.0999
#2	.0087	.6208	51.27	.0347	-.0048	-.1084	.1001
#3	.0083	.6129	51.32	.0313	-.0058	-.1142	.0991

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0053	5.121	.0200	.6845	4.203	3.091	.0615
SDev	.0009	.044	.0039	.0067	.006	.010	.0090
%RSD	16.80	.8536	19.70	.9763	.1441	.3081	14.63
#1	.0063	5.170	.0187	.6887	4.196	3.090	.0705
#2	.0045	5.104	.0244	.6880	4.208	3.101	.0525
#3	.0052	5.088	.0168	.6768	4.205	3.082	.0616

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0191	.0104	2.213	2.610	2.930	.1586	.0017
SDev	.0040	.0034	.009	.008	.011	.0176	.0001
%RSD	20.96	33.35	.3904	.3140	.3655	11.09	4.217
#1	.0188	.0109	2.210	2.617	2.920	.1750	.0017
#2	.0232	.0135	2.222	2.601	2.941	.1608	.0017
#3	.0153	.0067	2.206	2.612	2.928	.1401	.0016

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0201	.0721	.0004	.0129	20.18	.5273	.0367
SDev	.0056	.0100	.0005	.0065	.06	.0014	.0080

%RSD	28.07	13.79	108.2	50.26	.3008	.2657	21.86
#1	.0183	.0632	.0005	.0193	20.19	.5269	.0459
#2	.0265	.0828	.0009	.0130	20.23	.5288	.0329
#3	.0156	.0703	-.0001	.0064	20.11	.5261	.0312

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0002	-.0090	.5016
SDev	.0003	.0007	.0010
%RSD	186.5	8.308	.2004
#1	.0005	-.0097	.5027
#2	.0001	-.0082	.5012
#3	-.0001	-.0090	.5008

Analysis Report QC Standard Thu 03-14-96 10:33:26 AM page 1

Method: ICP1A Sample Name: QC_SRM-1643d 108518 Operator: DRS
Run Time: 03/14/96 10:32:07
Comment: (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	0.0044	0.1643	0.0678	.1465	.5027	0.0121	.0491
SDev	.0005	.0088	.0112	.0012	.0014	.0000	.0031
%RSD	11.39	5.372	16.54	.8298	.2853	.0273	6.309
#1	0.0048	0.1741	0.0554	.1464	.5016	0.0121	.0527
#2	0.0046	0.1569	0.0772	.1453	.5022	0.0121	.0469
#3	0.0038	0.1619	0.0708	.1477	.5043	0.0121	.0478
Errors	QC Fail	QC Fail	QC Fail	QC Pass	QC Pass	QC Fail	NOCHECK
Value	.0013	.1276	.0560	.1448	.5065	.0125	
Range	.0570	3.500	.7300	5.200	8.900	.2800	

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	31.47	0.0144	.0087	0.0271	0.0219	0.0066	.0012
SDev	.07	.0033	.0029	.0006	.0012	.0008	.0001
%RSD	.2094	23.22	32.91	2.029	5.491	12.06	10.97
#1	31.42	0.0107	.0110	0.0277	0.0208	0.0068	.0013
#2	31.44	0.0153	.0097	0.0266	0.0232	0.0058	.0011
#3	31.54	0.0172	.0055	0.0269	0.0218	0.0073	.0012
Errors	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail	NOCHECK
Value	31.04	.0065		.0250	.0185	.0205	
Range	.6400	.3700		.5900	.2000	3.800	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0015	0.1129	82.630	.0156	0.0110	88.407	0.0317
SDev	.0000	.0026	.048	.0025	.0011	.022	.0002
%RSD	.5925	2.317	1.821	15.82	10.19	.2672	.7670
#1	.0015	0.1153	82.645	.0180	0.0116	88.396	0.0315
#2	.0016	0.1132	82.668	.0130	0.0097	88.392	0.0320
#3	.0015	0.1101	82.576	.0158	0.0116	88.433	0.0317
Errors	NOCHECK	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail
Value		.0912	2.356		.0165	7.989	.0377
Range		3.900	.0350		.5500	.0350	.8300

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1114	821.62	.0229	0.1295	.0449	0.0160	.0458
SDev	.0010	.13	.0029	.0043	.0199	.0027	.0024
%RSD	.8680	.5880	12.67	3.281	44.36	16.79	5.205
#1	.1118	821.49	.0237	0.1340	.0273	0.0154	.0481
#2	0.1103	821.60	.0196	0.1256	.0665	0.0137	.0458
#3	.1120	821.75	.0253	0.1288	.0409	0.0190	.0434
Errors	QC Pass	QC Fail	NOCHECK	QC Fail	NOCHECK	QC Fail	NOCHECK
Value	.1129	22.07		.0581		.0181	

Range	1.700	.6400		2.700		.6400	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0113	.0032	0.0588	0.0187	2.698	.0393	.2933
SDev	.0049	.0018	.0083	.0026	.004	.0214	.0010
%RSD	43.09	54.84	14.18	13.67	.1484	54.42	.3368
#1	.0146	.0049	0.0656	0.0205	2.694	.0355	.2924
#2	.0136	.0034	0.0495	0.0158	2.699	.0623	.2932
#3	.0057	.0014	0.0613	0.0198	2.701	.0200	.2944
Errors	NOCHECK	NOCHECK	QC Fail	QC Fail	NOCHECK	NOCHECK	QC Pass
Value			.0541	.0114			.2948
Range			1.100	.1700			3.400

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0070	-.0109	.0011	0.0181	.4178	0.0360	.0113
SDev	.0095	.0043	.0003	.0054	.0213	.0005	.0027
%RSD	136.5	39.67	24.02	29.76	5.103	1.336	24.34
#1	-.0031	-.0060	.0014	0.0135	.4078	0.0366	.0118
#2	.0158	-.0143	.0009	0.0168	.4423	0.0358	.0137
#3	.0082	-.0122	.0009	0.0241	.4033	0.0357	.0083
Errors	NOCHECK	NOCHECK	NOCHECK	QC Fail	NOCHECK	QC Fail	NOCHECK
Value				.0073		.0351	
Range				.2500		1.400	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0008	0.0658	.0003
SDev	.0002	.0016	.0008
%RSD	24.63	2.456	236.8
#1	.0009	0.0668	-.0006
#2	.0009	0.0639	.0009
#3	.0006	0.0666	.0007
Errors	NOCHECK	QC Fail	NOCHECK
Value		.0725	
Range		.6500	

Analysis Report Thu 03-14-96 10:37:59 AM

Method: ICP1A Sample Name: QC CCV1 960126H901 Operator: DRS
Run Time: 03/14/96 10:36:40
Comment: (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0045	1.993	2.102	2.078	.9749	.9865	1.977
SDev	.0006	.004	.015	.002	.0037	.0036	.017
%RSD	12.40	.1886	.7029	.0885	.3760	.3687	.8765
#1	.0050	1.989	2.092	2.080	.9747	.9859	1.989
#2	.0047	1.997	2.095	2.077	.9714	.9832	1.957
#3	.0039	1.994	2.119	2.076	.9787	.9904	1.984

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.070	1.028	.0021	1.009	.5017	1.967	.0012
SDev	.003	.002	.0070	.001	.0046	.007	.0007
%RSD	.1664	.2045	331.8	.0748	.9243	.3586	56.40
#1	2.071	1.025	.0027	1.008	.4973	1.965	.0010
#2	2.066	1.027	.0088	1.009	.5065	1.961	.0019
#3	2.073	1.030	-.0052	1.010	.5012	1.975	.0006

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	2.009	4.823	.0017	2.000	2.075	1.036
SDev	.0001	.005	.035	.0016	.006	.009	.002
%RSD	14.04	.2324	.7285	95.86	.3207	.4364	.2242
#1	.0008	2.005	4.854	.0012	2.005	2.076	1.034
#2	.0009	2.008	4.831	.0034	1.993	2.066	1.036
#3	.0007	2.014	4.785	.0004	2.003	2.084	1.039

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.961	8.333	.0084	2.049	4.897	2.001	.0337
SDev	.008	.027	.0027	.007	.027	.004	.0112
%RSD	.4321	.3263	32.77	.3443	.5516	.2116	33.25
#1	1.952	8.315	.0055	2.042	4.866	1.998	.0326
#2	1.962	8.365	.0109	2.048	4.918	2.000	.0455
#3	1.968	8.321	.0086	2.056	4.905	2.006	.0231

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0083	.0060	.0223	1.983	4.826	.0789	1.967
SDev	.0073	.0010	.0039	.016	.014	.0177	.008
%RSD	87.63	16.18	17.42	.8139	.2857	22.45	.3870
#1	.0129	.0050	.0179	1.992	4.824	.0792	1.965
#2	.0121	.0063	.0238	1.964	4.814	.0610	1.961
#3	-.0001	.0069	.0252	1.993	4.841	.0964	1.975

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0199	.0108	.0005	1.980	.0483	.9857	.0152
SDev	.0023	.0003	.0001	.026	.0447	.0034	.0012

%RSD	11.71	2.718	23.22	1.311	92.53	.3436	7.851
#1	.0211	.0106	.0005	1.956	.0252	.9854	.0145
#2	.0213	.0111	.0006	2.008	.0998	.9825	.0145
#3	.0172	.0107	.0004	1.977	.0199	.9893	.0166

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0002	.9951	-.0020
SDev	.0002	.0094	.0003
%RSD	145.9	.9432	17.46
#1	-.0003	.9889	-.0016
#2	-.0003	.9905	-.0021
#3	.0001	1.006	-.0022

Analysis Report Thu 03-14-96 10:42:35 AM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 03/14/96 10:41:16
Comment: (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0057	.0164	-.0067	-.0004	.0011	.0005	.0057
SDev	.0008	.0043	.0052	.0010	.0002	.0000	.0052
%RSD	14.65	26.12	76.98	234.3	18.73	6.413	91.35
#1	.0063	.0193	-.0125	.0005	.0011	.0006	.0036
#2	.0048	.0115	-.0049	-.0003	.0009	.0005	.0018
#3	.0061	.0185	-.0027	-.0014	.0013	.0005	.0115

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0019	.0041	.0036	.0009	.0010	-.0074	.0023
SDev	.0004	.0021	.0054	.0007	.0010	.0017	.0006
%RSD	23.46	49.96	148.5	82.30	104.8	22.38	26.23
#1	.0021	.0051	.0037	.0016	.0014	-.0065	.0028
#2	.0014	.0055	-.0018	.0002	.0017	-.0093	.0017
#3	.0022	.0018	.0090	.0008	-.0002	-.0064	.0023

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0008	-.0057	.3220	.0034	-.0066	-.0102	-.0078
SDev	.0001	.0006	.0398	.0001	.0012	.0084	.0003
%RSD	13.03	10.54	12.37	2.127	18.41	82.26	4.196
#1	.0007	-.0059	.3450	.0033	-.0078	-.0063	-.0075
#2	.0007	-.0061	.2760	.0035	-.0068	-.0198	-.0078
#3	.0009	-.0050	.3450	.0034	-.0053	-.0044	-.0081

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0022	.0189	.0113	.0335	.0011	-.0032	.0543
SDev	.0011	.0198	.0055	.0010	.0101	.0056	.0056
%RSD	53.28	105.0	48.59	3.141	909.6	178.0	10.30
#1	.0011	-.0031	.0099	.0335	.0069	.0027	.0480
#2	.0020	.0244	.0067	.0345	-.0106	-.0036	.0584
#3	.0034	.0354	.0174	.0324	.0070	-.0086	.0566

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0159	.0068	.0082	.0037	.0234	.0569	.0013
SDev	.0027	.0013	.0048	.0040	.0014	.0111	.0001
%RSD	16.78	19.40	57.86	107.1	6.091	19.48	5.617
#1	.0178	.0053	.0130	.0012	.0224	.0461	.0013
#2	.0128	.0071	.0035	.0016	.0228	.0683	.0012
#3	.0170	.0079	.0081	.0083	.0250	.0564	.0012

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0201	-.0030	.0007	.0106	.1676	.0013	.0118
SDev	.0036	.0060	.0001	.0044	.0251	.0004	.0130

%RSD	18.11	197.3	9.995	41.73	14.98	28.84	109.6
#1	.0183	.0009	.0007	.0107	.1944	.0011	-.0030
#2	.0177	-.0099	.0006	.0150	.1446	.0010	.0175
#3	.0243	-.0001	.0007	.0061	.1639	.0017	.0211

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0004	-.0090	-.0004
SDev	.0003	.0001	.0001
%RSD	94.08	.9336	17.02
#1	.0003	-.0091	-.0004
#2	.0000	-.0089	-.0004
#3	.0007	-.0090	-.0005

Analysis Report Thu 03-14-96 10:45:05 AM page 1

Method: ICP1A Sample Name: 96-2619 Operator: DRS
Run Time: 03/14/96 10:43:47
Comment: FIELD BLANK (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0012	.1675	-.0026	1.714	.0032	.0002	.3278
SDev	.0008	.0024	.0072	.016	.0002	.0001	.0069
%RSD	64.60	1.424	279.9	.9243	7.271	23.55	2.100
#1	.0020	.1700	.0036	1.697	.0034	.0003	.3227
#2	.0010	.1652	-.0008	1.728	.0034	.0002	.3356
#3	.0005	.1672	-.0106	1.717	.0030	.0002	.3250

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2499	.0083	.0025	.0029	.1292	.0100	-.0002
SDev	.0003	.0021	.0025	.0012	.0032	.0004	.0005
%RSD	.1347	25.44	99.92	41.44	2.519	3.946	246.0
#1	.2497	.0079	.0051	.0043	.1291	.0105	.0003
#2	.2502	.0065	.0001	.0023	.1260	.0098	-.0003
#3	.2496	.0107	.0024	.0022	.1325	.0098	-.0007

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	.2149	.5674	.0009	.1130	.0880	-.0015
SDev	.0004	.0011	.0739	.0012	.0010	.0037	.0001
%RSD	105.5	.4968	13.03	133.9	.8584	4.255	4.434
#1	.0007	.2145	.6211	.0024	.1120	.0837	-.0014
#2	.0001	.2162	.4831	.0002	.1140	.0908	-.0015
#3	.0001	.2142	.5981	.0002	.1130	.0894	-.0015

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0136	39.99	.0043	.0420	3.908	-.0019	.0263
SDev	.0008	.22	.0028	.0019	.003	.0069	.0117
%RSD	5.628	.5519	65.08	4.591	.0677	367.9	44.30
#1	.0131	39.75	.0075	.0433	3.908	.0020	.0396
#2	.0133	40.19	.0023	.0429	3.910	-.0099	.0176
#3	.0145	40.04	.0031	.0398	3.905	.0023	.0218

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0016	.0028	.0083	-.0053	2.966	-.0014	.0024
SDev	.0072	.0023	.0135	.0160	.029	.0283	.0001
%RSD	439.9	82.89	163.4	298.9	.9772	1952.	2.934
#1	.0100	.0051	.0238	.0125	2.934	.0246	.0024
#2	-.0019	.0030	-.0004	-.0183	2.972	-.0315	.0024
#3	-.0031	.0004	.0014	-.0103	2.991	.0025	.0023

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0045	.0025	.0019	.0088	.0483	.0001	.0110
SDev	.0041	.0045	.0008	.0054	.0797	.0004	.0012

%RSD	92.18	179.1	43.01	61.34	165.2	321.0	10.52
#1	.0074	-.0019	.0029	.0029	.1394	.0006	.0102
#2	.0063	.0070	.0014	.0135	.0138	-.0001	.0105
#3	-.0002	.0024	.0015	.0099	-.0084	-.0001	.0123

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0003	.1683	.0031
SDev	.0004	.0023	.0006
%RSD	134.5	1.348	21.08
#1	-.0003	.1705	.0038
#2	-.0006	.1659	.0028
#3	.0001	.1685	.0026

Analysis Report Thu 03-14-96 10:48:46 AM page 1

Method: ICP1A Sample Name: 96-2620 @5 Operator: DRS
Run Time: 03/14/96 10:47:27
Comment: HYD.FLUID @5X DIL (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0033	.4633	.0446	.5383	.0006	.0001	.0520
SDev	.0014	.0012	.0050	.0039	.0003	.0000	.0103
%RSD	41.09	.2577	11.25	.7273	46.37	1.726	19.73
#1	.0049	.4645	.0443	.5353	.0009	.0001	.0630
#2	.0023	.4622	.0497	.5369	.0005	.0001	.0426
#3	.0028	.4632	.0397	.5427	.0004	.0001	.0506

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0989	.0079	.0095	.0064	2.325	.0274	.0038
SDev	.0005	.0012	.0053	.0005	.022	.0001	.0014
%RSD	.5283	14.96	56.41	8.267	.9502	.3881	35.94
#1	.0991	.0083	.0153	.0068	2.300	.0275	.0053
#2	.0983	.0066	.0082	.0066	2.332	.0275	.0029
#3	.0993	.0088	.0049	.0058	2.343	.0273	.0031

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0044	.0358	10.84	.0037	314.9	-.0242	-.0076
SDev	.0001	.0004	.13	.0011	2.1	.0175	.0002
%RSD	2.496	1.197	1.169	30.02	.6671	72.35	2.113
#1	.0045	.0361	10.97	.0047	312.6	-.0061	-.0078
#2	.0043	.0360	10.83	.0038	315.1	-.0254	-.0075
#3	.0043	.0353	10.72	.0025	316.8	-.0410	-.0077

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5683	1102.	.0075	.0413	32.30	.0160	.1045
SDev	.0044	7.	.0042	.0017	.27	.0033	.0062
%RSD	.7784	.6376	55.38	4.007	.8436	20.81	5.950
#1	.5679	1095.	.0119	.0419	32.15	.0136	.1105
#2	.5642	1103.	.0070	.0426	32.14	.0198	.1048
#3	.5730	1109.	.0036	.0394	32.62	.0145	.0981

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0825	.0756	.0471	.0527	1.851	.1767	.0042
SDev	.0090	.0029	.0052	.0050	.091	.0132	.0000
%RSD	10.92	3.884	10.99	9.566	4.912	7.466	.0122
#1	.0915	.0789	.0449	.0497	1.756	.1880	.0042
#2	.0824	.0747	.0434	.0499	1.860	.1800	.0042
#3	.0735	.0732	.0530	.0585	1.938	.1622	.0042

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0368	.0532	.0012	.0219	9.415	.0043	.0838
SDev	.0092	.0074	.0002	.0073	.057	.0008	.0056

%RSD	25.01	13.91	14.31	33.07	.6091	18.60	6.633
#1	.0403	.0610	.0013	.0154	9.363	.0052	.0885
#2	.0438	.0522	.0014	.0298	9.406	.0041	.0776
#3	.0264	.0463	.0011	.0206	9.477	.0037	.0851

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0003	.0074	-.0034
SDev	.0002	.0003	.0004
%RSD	73.36	4.509	12.49
#1	.0004	.0071	-.0037
#2	.0004	.0077	-.0035
#3	.0000	.0074	-.0029

Analysis Report Thu 03-14-96 10:52:38 AM page 1

Method: ICP1A Sample Name: 96-2620 @50 Operator: DRS
Run Time: 03/14/96 10:51:19
Comment: HYD.FLUID @50X DIL (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0006	.0454	.0016	.0509	-.0001	-.0000	-.0004
SDev	.0004	.0031	.0045	.0019	.0001	.0000	.0058
%RSD	62.22	6.734	287.1	3.684	68.41	11.95	1592.
#1	-.0005	.0473	.0039	.0504	-.0000	-.0000	.0049
#2	-.0003	.0419	.0045	.0529	-.0002	-.0000	-.0066
#3	-.0010	.0470	-.0036	.0492	-.0002	-.0000	.0005

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0236	.0098	-.0144	-.0017	.2411	-.0087	-.0013
SDev	.0005	.0065	.0025	.0009	.0051	.0003	.0003
%RSD	2.159	66.21	17.70	51.10	2.115	2.885	26.79
#1	-.0237	.0027	-.0115	-.0015	.2353	-.0085	-.0009
#2	-.0240	.0113	-.0155	-.0009	.2438	-.0090	-.0013
#3	-.0230	.0154	-.0162	-.0026	.2443	-.0087	-.0016

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	-.0051	.7668	-.0032	33.53	-.0202	-.0085
SDev	.0002	.0008	.0479	.0013	.09	.0065	.0003
%RSD	78.08	14.84	6.245	40.01	.2639	32.36	3.249
#1	.0006	-.0046	.7821	-.0018	33.43	-.0131	-.0088
#2	.0002	-.0046	.8051	-.0034	33.59	-.0216	-.0084
#3	.0002	-.0059	.7131	-.0044	33.57	-.0260	-.0084

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0566	117.2	-.0037	.0208	3.202	-.0204	.0087
SDev	.0009	.3	.0048	.0024	.087	.0074	.0045
%RSD	1.539	.2699	131.3	11.49	2.715	36.15	52.39
#1	.0572	116.8	.0018	.0226	3.104	-.0163	.0039
#2	.0556	117.2	-.0056	.0181	3.230	-.0290	.0129
#3	.0570	117.5	-.0071	.0216	3.271	-.0161	.0092

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0025	.0055	.0054	-.0039	.1345	-.0317	.0004
SDev	.0020	.0011	.0088	.0100	.0018	.0256	.0001
%RSD	79.76	20.97	162.1	254.7	1.349	80.91	17.27
#1	-.0008	.0065	.0006	-.0116	.1324	-.0025	.0005
#2	-.0048	.0042	.0001	-.0076	.1355	-.0507	.0004
#3	-.0020	.0057	.0156	.0074	.1356	-.0418	.0004

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0098	.0047	-.0006	.0069	.8077	-.0011	.0099
SDev	.0037	.0072	.0002	.0059	.0494	.0001	.0108

%RSD	37.83	152.1	29.79	84.99	6.111	5.529	109.0
#1	-.0057	.0130	-.0004	.0031	.7697	-.0011	.0179
#2	-.0129	.0001	-.0007	.0136	.7898	-.0010	.0143
#3	-.0109	.0010	-.0008	.0039	.8634	-.0012	-.0024

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0008	-.0097	-.0026
SDev	.0004	.0004	.0006
%RSD	53.32	3.962	23.64
#1	-.0003	-.0099	-.0032
#2	-.0010	-.0099	-.0027
#3	-.0010	-.0092	-.0020

Analysis Report Thu 03-14-96 10:56:28 AM page 1

Method: ICP1A Sample Name: 96-2620 Operator: DRS
Run Time: 03/14/96 10:55:09
Comment: HYD.FLUID (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0154	2.165	.1596	2.469	.0025	.0006	.2125
SDev	.0023	.009	.0155	.010	.0002	.0000	.0043
%RSD	15.01	.4048	9.699	.4060	8.262	3.634	2.011
#1	.0130	2.155	.1419	2.480	.0023	.0006	.2133
#2	.0176	2.168	.1660	2.460	.0026	.0007	.2079
#3	.0156	2.172	.1708	2.467	.0027	.0006	.2164

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5585	.0116	.0414	.0302	10.66	.1633	.0172
SDev	.0014	.0024	.0079	.0005	.02	.0020	.0003
%RSD	.2533	20.43	19.02	1.603	.1634	1.204	1.895
#1	.5592	.0134	.0345	.0297	10.64	.1613	.0169
#2	.5568	.0125	.0397	.0303	10.66	.1652	.0171
#3	.5594	.0089	.0499	.0307	10.67	.1634	.0175

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0186	.1921	52.44	.0183	773.8	-.0745	-.0044
SDev	.0002	.0014	.01	.0006	.2	.0097	.0004
%RSD	1.107	.7287	.0253	3.147	.0199	13.06	9.209
#1	.0183	.1906	52.42	.0181	773.9	-.0833	-.0048
#2	.0188	.1933	52.45	.0189	773.7	-.0640	-.0040
#3	.0186	.1924	52.45	.0178	773.7	-.0762	-.0044

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.595	4110.	.0295	.1102	156.4	.1094	.4086
SDev	.003	7.	.0016	.0040	.1	.0060	.0136
%RSD	.1323	.1686	5.381	3.667	.0580	5.437	3.326
#1	2.594	4118.	.0279	.1063	156.4	.1033	.3951
#2	2.599	4109.	.0310	.1098	156.3	.1099	.4083
#3	2.593	4104.	.0296	.1144	156.5	.1151	.4223

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3682	.3322	.2065	.2434	24.66	.6610	.0177
SDev	.0054	.0018	.0053	.0036	.90	.0401	.0000
%RSD	1.461	.5280	2.565	1.461	3.669	6.062	.0011
#1	.3633	.3331	.2111	.2408	23.66	.6153	.0177
#2	.3673	.3302	.2007	.2421	24.88	.6774	.0177
#3	.3740	.3334	.2076	.2475	25.43	.6901	.0177

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1642	.2041	.0055	.0874	42.59	.0204	.3363
SDev	.0063	.0135	.0003	.0083	.24	.0007	.0058

%RSD	3.825	6.631	6.377	9.510	.5522	3.569	1.716
#1	.1591	.1957	.0051	.0784	42.75	.0197	.3414
#2	.1623	.2197	.0057	.0947	42.32	.0211	.3374
#3	.1713	.1970	.0057	.0893	42.70	.0204	.3300

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0033	.0709	-.0053
SDev	.0002	.0003	.0005
%RSD	5.573	.4320	8.787
#1	.0031	.0709	-.0050
#2	.0033	.0713	-.0058
#3	.0034	.0707	-.0051

Analysis Report Thu 03-14-96 11:03:43 AM page 1

Method: ICP1A Sample Name: 96-2848-BLK Operator: DRS
Run Time: 03/14/96 11:02:24
Comment: ACIDIFICATION PROCESS BLANK (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0012	.0361	-.0007	.4948	.0003	-.0000	-.0142
SDev	.0002	.0056	.0103	.0035	.0002	.0001	.0014
%RSD	14.86	15.62	1461.	.6992	46.38	126.1	10.01
#1	-.0011	.0392	.0093	.4908	.0002	.0000	-.0132
#2	-.0015	.0296	-.0114	.4969	.0005	-.0001	-.0136
#3	-.0011	.0395	-.0001	.4967	.0002	-.0000	-.0158

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0031	.0077	-.0173	-.0021	.0003	-.0111	-.0018
SDev	.0007	.0039	.0039	.0008	.0024	.0013	.0006
%RSD	22.90	50.74	22.63	39.20	825.7	11.73	30.59
#1	-.0026	.0101	-.0130	-.0012	.0031	-.0111	-.0012
#2	-.0039	.0099	-.0206	-.0027	-.0008	-.0124	-.0022
#3	-.0027	.0032	-.0183	-.0026	-.0014	-.0098	-.0020

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	.0122	-.6211	-.0050	.0141	-.0138	-.0081
SDev	.0002	.0001	.0609	.0018	.0021	.0021	.0001
%RSD	45.67	.9758	9.799	35.43	15.03	15.22	.8785
#1	-.0003	.0121	-.5751	-.0036	.0150	-.0162	-.0080
#2	-.0004	.0122	-.5981	-.0070	.0155	-.0123	-.0081
#3	-.0007	.0123	-.6901	-.0045	.0116	-.0129	-.0081

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0013	.9172	-.0111	.0220	-.0158	-.0251	-.0136
SDev	.0006	.0191	.0045	.0009	.0076	.0065	.0109
%RSD	42.86	2.081	40.25	4.000	48.51	26.03	80.72
#1	-.0019	.9282	-.0077	.0219	-.0076	-.0176	-.0099
#2	-.0008	.9282	-.0162	.0230	-.0170	-.0285	-.0259
#3	-.0012	.8952	-.0094	.0212	-.0227	-.0293	-.0049

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0140	-.0044	-.0035	-.0037	.2933	-.0125	.0001
SDev	.0061	.0026	.0016	.0121	.0157	.0396	.0000
%RSD	43.60	59.27	46.33	322.5	5.341	317.3	.4511
#1	-.0071	-.0019	-.0018	.0101	.2873	.0310	.0001
#2	-.0165	-.0071	-.0050	-.0120	.2816	-.0466	.0001
#3	-.0185	-.0041	-.0037	-.0093	.3111	-.0219	.0001

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0051	.0034	.0002	.0021	-.2345	-.0017	-.0010
SDev	.0092	.0038	.0001	.0104	.0688	.0001	.0065

%RSD	180.6	109.9	47.31	496.0	29.32	8.941	664.7
#1	.0005	-.0002	.0004	.0060	-.1587	-.0017	-.0005
#2	-.0157	.0074	.0002	-.0097	-.2521	-.0015	.0052
#3	-.0001	.0031	.0002	.0100	-.2928	-.0018	-.0077

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0009	.0083	-.0033
SDev	.0002	.0007	.0006
%RSD	27.77	8.223	16.96
#1	-.0012	.0084	-.0027
#2	-.0008	.0076	-.0038
#3	-.0007	.0089	-.0034

Analysis Report Thu 03-14-96 11:07:26 AM page 1

Method: ICP1A Sample Name: 96-2848 @5 Operator: DRS
Run Time: 03/14/96 11:06:07
Comment: 118.1ADL.D @5X DIL (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0104	1.981	.0801	.4443	.0023	.0006	4.804
SDev	.0022	.009	.0109	.0032	.0001	.0000	.021
%RSD	21.30	.4352	13.57	.7231	5.944	6.834	.4382
#1	.0099	1.973	.0721	.4406	.0023	.0006	4.815
#2	.0128	1.980	.0925	.4456	.0024	.0006	4.780
#3	.0084	1.990	.0758	.4466	.0021	.0006	4.818

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0672	.0160	.0965	.0107	10.99	.0176	.0082
SDev	.0008	.0022	.0063	.0005	.06	.0020	.0010
%RSD	1.262	13.96	6.519	4.948	.5046	11.54	12.85
#1	.0673	.0157	.1016	.0101	10.98	.0181	.0092
#2	.0680	.0184	.0984	.0109	10.94	.0193	.0082
#3	.0663	.0140	.0895	.0111	11.05	.0154	.0071

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0104	.9150	24.61	.0167	14.36	-.0458	.0010
SDev	.0001	.0060	.22	.0014	.11	.0137	.0004
%RSD	.9591	.6607	.9013	8.599	.7736	29.92	38.21
#1	.0105	.9112	24.77	.0177	14.28	-.0327	.0014
#2	.0105	.9119	24.71	.0174	14.31	-.0446	.0008
#3	.0103	.9220	24.36	.0151	14.49	-.0600	.0007

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9616	2437.	.0569	.0658	212.5	.1852	.1509
SDev	.0043	17.	.0069	.0017	1.5	.0085	.0173
%RSD	.4481	.6964	12.07	2.514	.7192	4.613	11.45
#1	.9580	2426.	.0606	.0640	211.5	.1754	.1703
#2	.9604	2428.	.0611	.0664	211.6	.1914	.1372
#3	.9664	2456.	.0490	.0671	214.2	.1888	.1452

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1629	.1379	.0796	.0961	1.477	.3711	.0096
SDev	.0086	.0039	.0093	.0077	.012	.0396	.0000
%RSD	5.273	2.814	11.65	8.024	.8201	10.66	.0087
#1	.1700	.1413	.0870	.1028	1.466	.3998	.0096
#2	.1653	.1386	.0826	.0876	1.475	.3876	.0096
#3	.1533	.1337	.0692	.0978	1.490	.3260	.0096

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0999	.1102	.0036	.0438	17.19	.0148	.1125
SDev	.0027	.0108	.0003	.0043	.10	.0004	.0140

%RSD	2.660	9.776	8.103	9.789	.5589	3.047	12.45
#1	.1013	.0988	.0038	.0437	17.19	.0152	.1279
#2	.1015	.1201	.0037	.0481	17.10	.0149	.1093
#3	.0968	.1117	.0033	.0396	17.29	.0143	.1004

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0022	.0268	.0726
SDev	.0004	.0014	.0011
%RSD	17.84	5.202	1.496
#1	.0022	.0259	.0738
#2	.0026	.0261	.0717
#3	.0018	.0284	.0724

Analysis Report Thu 03-14-96 11:12:51 AM page 1

Method: ICP1A Sample Name: 96-2848 @50 Operator: DRS
Run Time: 03/14/96 11:11:32
Comment: 118.1ADL.D @50X DIL (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	.2062	.0082	.0408	.0002	.0000	.4941
SDev	.0003	.0008	.0044	.0027	.0001	.0000	.0089
%RSD	120.0	.3929	54.52	6.578	38.76	29.56	1.794
#1	.0001	.2060	.0067	.0429	.0002	.0000	.4932
#2	.0005	.2071	.0131	.0417	.0001	.0000	.5033
#3	.0000	.2055	.0046	.0378	.0002	.0000	.4857

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0290	.0080	.0110	-.0002	1.130	-.0085	.0004
SDev	.0005	.0007	.0050	.0005	.002	.0002	.0003
%RSD	1.640	8.581	45.79	221.5	.1692	2.697	90.25
#1	-.0285	.0085	.0127	-.0007	1.130	-.0083	-.0000
#2	-.0294	.0072	.0150	.0003	1.128	-.0087	.0005
#3	-.0290	.0082	.0054	-.0002	1.131	-.0086	.0006

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0012	.0850	2.277	.0009	1.496	-.0174	-.0076
SDev	.0000	.0004	.069	.0007	.003	.0039	.0001
%RSD	.3591	.5277	3.030	77.91	.2084	22.58	1.418
#1	.0012	.0855	2.277	.0009	1.498	-.0176	-.0077
#2	.0012	.0847	2.346	.0002	1.497	-.0212	-.0076
#3	.0012	.0848	2.208	.0015	1.493	-.0133	-.0075

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0968	268.4	.0057	.0159	20.94	-.0009	.0288
SDev	.0004	.7	.0013	.0036	.12	.0024	.0037
%RSD	.3843	.2553	23.42	22.68	.5689	277.3	12.87
#1	.0965	269.1	.0069	.0198	21.01	-.0034	.0263
#2	.0972	268.1	.0043	.0149	20.99	.0015	.0330
#3	.0967	267.8	.0059	.0128	20.80	-.0008	.0271

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0178	.0107	.0107	.0012	.1865	.0341	.0011
SDev	.0035	.0032	.0118	.0057	.0022	.0185	.0001
%RSD	19.75	29.78	109.5	480.7	1.193	54.45	6.217
#1	.0169	.0086	.0232	.0052	.1889	.0402	.0011
#2	.0217	.0144	-.0001	.0037	.1844	.0487	.0012
#3	.0149	.0092	.0091	-.0053	.1862	.0132	.0011

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0105	.0113	.0000	.0038	1.763	.0005	.0059
SDev	.0017	.0114	.0002	.0063	.058	.0007	.0175

%RSD	15.92	100.7	602.2	166.5	3.268	141.4	296.6
#1	.0088	.0078	-.0002	-.0003	1.803	-.0002	.0065
#2	.0122	.0021	.0003	.0006	1.789	.0011	.0231
#3	.0106	.0240	.0000	.0111	1.697	.0005	-.0119

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0001	-.0068	.0057
SDev	.0002	.0003	.0011
%RSD	261.5	4.326	18.98
#1	-.0002	-.0068	.0064
#2	.0001	-.0065	.0062
#3	-.0001	-.0071	.0045

Analysis Report Thu 03-14-96 11:16:59 AM page 1

Method: ICP1A Sample Name: Na @500 PPM Operator: DRS
Run Time: 03/14/96 11:15:41
Comment: Na IEC 9506221124 @10X DIL (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	.0091	-.0049	-.0046	.0001	-.0000	-.0027
SDev	.0023	.0122	.0030	.0049	.0006	.0001	.0036
%RSD	345.2	134.3	60.87	105.9	825.8	336.9	132.7
#1	.0021	.0176	-.0080	-.0015	.0004	.0000	-.0022
#2	.0019	.0147	-.0021	-.0021	.0004	.0000	-.0066
#3	-.0020	-.0049	-.0045	-.0103	-.0006	-.0001	.0006

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0360	.0087	-.0020	-.0004	.0017	-.0109	.0001
SDev	.0030	.0017	.0209	.0019	.0024	.0021	.0026
%RSD	8.398	19.55	1069.	513.5	141.7	19.63	2379.
#1	-.0344	.0100	.0122	.0007	-.0002	-.0094	.0013
#2	-.0341	.0093	.0079	.0008	.0044	-.0099	.0019
#3	-.0395	.0068	-.0259	-.0025	.0009	-.0133	-.0029

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	-.0082	-.1840	.0003	.0002	-.0167	-.0087
SDev	.0009	.0011	.5976	.0063	.0018	.0061	.0004
%RSD	226.4	13.72	324.8	2338.	1136.	36.66	4.809
#1	.0009	-.0078	.1610	.0027	.0015	-.0100	-.0083
#2	.0009	-.0073	.1610	.0050	.0010	-.0221	-.0086
#3	-.0006	-.0094	-.8741	-.0069	-.0019	-.0179	-.0091

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	481.3	.0068	.0094	.0003	-.0088	.0259
SDev	.0010	16.8	.0216	.0027	.0093	.0130	.0410
%RSD	864.0	3.481	316.4	28.11	3345.	148.1	158.3
#1	-.0005	471.2	.0172	.0083	-.0078	-.0029	.0480
#2	.0013	472.1	.0214	.0125	.0104	.0002	.0511
#3	-.0004	500.7	-.0180	.0076	-.0017	-.0237	-.0214

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0042	.0035	.0055	-.0033	.0432	-.0020	.0002
SDev	.0212	.0058	.0102	.0148	.0066	.0538	.0003
%RSD	509.4	164.4	183.8	453.3	15.31	2732.	157.8
#1	.0157	.0053	.0088	.0078	.0486	.0338	.0004
#2	.0170	.0083	.0137	.0025	.0453	.0241	.0002
#3	-.0203	-.0029	-.0059	-.0201	.0358	-.0638	-.0001

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0080	.0054	.0000	.0054	.0033	-.0001	.0061
SDev	.0100	.0052	.0012	.0028	.2385	.0019	.0062

%RSD	125.4	95.67	2458.	51.29	7317.	1367.	102.2
#1	.0077	.0078	.0006	.0068	.1358	.0010	.0083
#2	.0182	.0090	.0009	.0073	.1461	.0010	-.0009
#3	-.0018	-.0005	-.0013	.0022	-.2721	-.0024	.0109

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0002	-.0103	-.0017
SDev	.0010	.0001	.0014
%RSD	435.0	1.090	81.75
#1	.0004	-.0102	-.0011
#2	.0004	-.0104	-.0008
#3	-.0014	-.0104	-.0034

Analysis Report Thu 03-14-96 11:21:47 AM page 1

Method: ICP1A Sample Name: 96-2648 @2 Operator: DRS
Run Time: 03/14/96 11:20:28
Comment: 118.1IDL.D @2X DIL (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0162	4.733	.1324	1.072	.0039	.0013	11.56
SDev	.0006	.012	.0065	.002	.0001	.0001	.05
%RSD	3.430	.2462	4.936	.2198	3.469	5.542	.4274
#1	.0156	4.744	.1323	1.069	.0038	.0012	11.61
#2	.0162	4.721	.1390	1.074	.0039	.0013	11.51
#3	.0167	4.735	.1259	1.072	.0040	.0013	11.55

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1882	.0143	.1895	.0189	25.81	.0513	.0128
SDev	.0008	.0033	.0023	.0007	.06	.0026	.0010
%RSD	.4057	22.96	1.220	3.898	.2365	5.035	7.892
#1	.1876	.0180	.1873	.0192	25.87	.0492	.0119
#2	.1880	.0131	.1892	.0181	25.75	.0506	.0126
#3	.1890	.0117	.1919	.0195	25.81	.0542	.0139

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0220	2.166	58.47	.0276	34.98	-.1044	.0131
SDev	.0001	.006	.14	.0019	.15	.0114	.0001
%RSD	.4885	.2917	.2393	6.790	.4309	10.90	.5150
#1	.0220	2.173	58.54	.0272	35.16	-.1174	.0130
#2	.0220	2.160	58.31	.0260	34.93	-.0962	.0132
#3	.0222	2.166	58.57	.0297	34.87	-.0996	.0131

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.271	4841.	.0834	.1235	516.0	.4132	.1776
SDev	.003	15.	.0045	.0022	1.5	.0023	.0145
%RSD	.1149	.3106	5.359	1.772	.2895	.5481	8.177
#1	2.273	4858.	.0817	.1211	517.7	.4108	.1717
#2	2.268	4831.	.0800	.1242	515.2	.4153	.1669
#3	2.273	4834.	.0885	.1253	515.1	.4134	.1941

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3307	.3020	.1464	.1903	3.429	.5974	.0221
SDev	.0076	.0030	.0152	.0134	.008	.0332	.0001
%RSD	2.292	.9963	10.40	7.057	.2204	5.562	.3181
#1	.3229	.2993	.1538	.1767	3.428	.5640	.0221
#2	.3311	.3052	.1566	.2036	3.421	.5978	.0220
#3	.3380	.3014	.1289	.1907	3.436	.6304	.0221

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2150	.2879	.0049	.0661	39.86	.0301	.2461
SDev	.0019	.0074	.0004	.0130	.19	.0006	.0012

%RSD	.8881	2.582	7.910	19.65	.4832	1.992	.4814
#1	.2169	.2850	.0048	.0582	40.06	.0295	.2475
#2	.2148	.2963	.0047	.0590	39.68	.0302	.2455
#3	.2131	.2822	.0054	.0811	39.86	.0307	.2454

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0039	.0791	.1701
SDev	.0005	.0003	.0007
%RSD	13.24	.3507	.4222
#1	.0036	.0794	.1706
#2	.0035	.0788	.1693
#3	.0044	.0790	.1703

Analysis Report QC Standard Thu 03-14-96 11:28:58 AM page 1

Method: ICP1A Sample Name: QC_MCVA1 9602261901 Operator: DRS
Run Time: 03/14/96 11:27:40
Comment: (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

PASS
BJB
3/14/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4822	10.03	2.579	2.084	.4936	.0947	24.13
SDev	.0021	.05	.010	.023	.0027	.0005	.12
%RSD	.4328	.4568	.4007	1.101	.5511	.5009	.4942
#1	.4825	10.05	2.586	2.098	.4955	.0948	24.20
#2	.4841	10.07	2.584	2.097	.4948	.0951	24.19
#3	.4799	9.981	2.567	2.058	.4905	.0942	23.99
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.10	.4989	-.0228	.9873	.9901	.9277	-.0050
SDev	.10	.0031	.0072	.0033	.0052	.0047	.0012
%RSD	.4044	.6109	31.49	.3319	.5258	.5028	24.00
#1	25.13	.4966	-.0265	.9884	.9936	.9266	-.0061
#2	25.18	.5024	-.0272	.9899	.9927	.9328	-.0051
#3	24.99	.4978	-.0145	.9836	.9841	.9237	-.0037
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0004	19.95	24.44	-.0032	1.988	31.97	.5065
SDev	.0002	.09	.22	.0011	.010	.13	.0021
%RSD	65.46	.4713	.8897	34.52	.5014	.3963	.4069
#1	.0002	19.99	24.68	-.0044	1.994	32.06	.5074
#2	.0002	20.02	24.36	-.0022	1.993	32.03	.5079
#3	.0006	19.85	24.27	-.0031	1.976	31.82	.5041
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9947	37.28	-.0237	1.007	4.901	2.413	-.0966
SDev	.0086	.41	.0033	.007	.024	.005	.0034
%RSD	.8640	1.088	13.83	.6982	.4894	.1919	3.516
#1	.9999	37.64	-.0254	1.006	4.884	2.416	-.0930
#2	.9994	37.37	-.0259	1.014	4.929	2.408	-.0997
#3	.9848	36.84	-.0200	1.000	4.891	2.416	-.0970
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0417	.0122	2.584	2.528	18.52	.1696	.5041
SDev	.0071	.0007	.037	.030	.08	.0190	.0029
%RSD	16.95	5.858	1.425	1.196	.4269	11.17	.5843
#1	-.0474	.0129	2.608	2.563	18.56	.1574	.5055
#2	-.0440	.0121	2.603	2.510	18.58	.1599	.5061
#3	-.0338	.0115	2.542	2.510	18.43	.1914	.5007
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0232	.0506	.9810	2.493	-.4174	1.007	.0342
SDev	.0040	.0107	.0055	.021	.0814	.005	.0073
%RSD	17.29	21.17	.5591	.8374	19.51	.5283	21.47
#1	.0248	.0386	.9819	2.498	-.3675	1.008	.0268
#2	.0186	.0538	.9859	2.511	-.5113	1.011	.0415
#3	.0261	.0593	.9751	2.470	-.3732	1.001	.0342
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0006	.9772	1.965
SDev	.0004	.0045	.011
%RSD	58.52	.4584	.5362
#1	-.0009	.9821	1.970
#2	-.0008	.9762	1.972
#3	-.0002	.9732	1.953
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report Thu 03-14-96 11:33:28 AM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 03/14/96 11:32:09
Comment: 118.1IDL.D @2X DIL (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0014	.0142	.0049	-.0032	.0003	.0001	.0039
SDev	.0006	.0048	.0068	.0006	.0001	.0000	.0086
%RSD	45.57	34.02	139.3	19.44	26.78	6.416	219.7
#1	.0016	.0151	.0038	-.0032	.0002	.0001	.0067
#2	.0019	.0185	.0121	-.0026	.0004	.0001	.0107
#3	.0007	.0090	-.0013	-.0039	.0002	.0001	-.0057

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0071	.0077	.0070	.0008	.0002	-.0087	.0018
SDev	.0018	.0021	.0068	.0011	.0011	.0018	.0005
%RSD	25.34	27.24	98.10	128.4	502.3	20.98	30.71
#1	.0088	.0054	.0052	.0014	-.0010	-.0105	.0019
#2	.0071	.0081	.0145	.0015	.0010	-.0089	.0022
#3	.0053	.0095	.0012	-.0004	.0007	-.0068	.0012

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0007	-.0003	.2377	.0017	-.0052	.0047	-.0081
SDev	.0002	.0008	.0703	.0015	.0012	.0052	.0003
%RSD	24.31	333.4	29.56	91.93	23.59	110.2	3.895
#1	.0007	.0005	.2530	.0005	-.0053	.0105	-.0078
#2	.0009	-.0000	.2990	.0034	-.0039	.0003	-.0081
#3	.0006	-.0012	.1610	.0011	-.0063	.0034	-.0084

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0009	.1218	.0115	.0072	.0199	-.0045	.0474
SDev	.0011	.0193	.0101	.0018	.0087	.0108	.0130
%RSD	122.6	15.85	87.48	25.23	43.61	238.7	27.40
#1	.0018	.1236	.0119	.0083	.0261	-.0114	.0499
#2	.0011	.1401	.0214	.0083	.0236	.0079	.0589
#3	-.0003	.1017	.0013	.0051	.0100	-.0100	.0333

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0162	.0041	.0160	.0132	.0331	.0397	.0004
SDev	.0079	.0029	.0065	.0116	.0071	.0099	.0001
%RSD	48.80	70.36	40.20	88.22	21.59	25.02	15.64
#1	.0128	.0057	.0091	.0265	.0313	.0304	.0005
#2	.0252	.0058	.0219	.0071	.0409	.0502	.0005
#3	.0105	.0008	.0171	.0058	.0269	.0384	.0004

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0112	-.0042	.0009	.0073	.1548	.0011	.0090
SDev	.0063	.0040	.0001	.0083	.0284	.0005	.0011

%RSD	56.11	93.38	14.54	112.5	18.31	47.27	12.36
#1	.0134	-.0039	.0010	-.0020	.1875	.0013	.0102
#2	.0160	-.0005	.0009	.0137	.1363	.0014	.0082
#3	.0041	-.0083	.0007	.0103	.1408	.0005	.0085

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0000	-.0084	.0001
SDev	.0003	.0002	.0003
%RSD	3313.	2.292	373.9
#1	-.0000	-.0083	-.0002
#2	.0004	-.0086	.0001
#3	-.0003	-.0082	.0003

Analysis Report Thu 03-14-96 11:39:34 AM page 1

Method: ICP1A Sample Name: 96-2850 @50X DIL Operator: DRS
Run Time: 03/14/96 11:38:15
Comment: 118.3DL.D @50X DIL (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.1793	.0001	.0632	-.0002	.0000	.3110
SDev	.0004	.0048	.0091	.0013	.0002	.0000	.0023
%RSD	213.7	2.669	6272.	2.101	63.08	60.18	.7325
#1	-.0007	.1759	-.0055	.0622	-.0003	.0000	.3104
#2	-.0002	.1772	-.0047	.0626	-.0003	.0000	.3136
#3	.0002	.1848	.0106	.0647	-.0001	.0000	.3091

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0097	-.0035	-.0012	-.0006	1.776	.0012	-.0003
SDev	.0004	.0015	.0022	.0004	.007	.0010	.0006
%RSD	4.042	43.00	186.4	64.50	.3810	83.82	181.5
#1	.0100	-.0052	-.0030	-.0009	1.772	.0024	-.0006
#2	.0098	-.0028	-.0018	-.0008	1.784	.0008	-.0007
#3	.0092	-.0024	.0013	-.0002	1.773	.0005	.0003

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	.3018	3.275	-.0004	.1519	-.0170	.0026
SDev	.0002	.0007	.096	.0007	.0013	.0049	.0001
%RSD	18.12	.2450	2.925	162.2	.8444	28.65	5.558
#1	.0009	.3021	3.199	-.0010	.1529	-.0225	.0026
#2	.0011	.3023	3.245	-.0007	.1524	-.0149	.0024
#3	.0013	.3009	3.383	.0003	.1505	-.0135	.0027

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1652	357.1	.0025	.0047	21.71	-.0027	.0104
SDev	.0017	1.7	.0027	.0019	.11	.0015	.0131
%RSD	1.010	.4627	107.9	41.24	.5068	55.63	125.5
#1	.1639	357.9	-.0003	.0034	21.76	-.0010	.0108
#2	.1646	358.2	.0027	.0038	21.78	-.0032	-.0029
#3	.1671	355.2	.0052	.0069	21.58	-.0038	.0232

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0208	.0237	.0070	.0250	.1569	.0266	.0009
SDev	.0060	.0005	.0005	.0153	.0021	.0045	.0001
%RSD	29.06	2.150	6.718	61.32	1.324	16.85	7.850
#1	.0166	.0236	.0072	.0299	.1558	.0309	.0008
#2	.0180	.0232	.0073	.0078	.1593	.0220	.0009
#3	.0277	.0242	.0065	.0372	.1557	.0270	.0009

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0033	.0102	-.0002	-.0003	2.620	.0002	.0028
SDev	.0057	.0061	.0004	.0045	.085	.0002	.0010

%RSD	169.9	60.00	189.5	1746.	3.238	111.1	35.70
#1	.0056	.0090	-.0005	.0039	2.556	-.0000	.0017
#2	-.0031	.0167	-.0005	.0003	2.588	.0004	.0035
#3	.0075	.0047	.0003	-.0051	2.716	.0003	.0033

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0003	.0042	.0244
SDev	.0004	.0005	.0006
%RSD	117.6	13.05	2.628
#1	-.0005	.0048	.0240
#2	-.0005	.0040	.0242
#3	.0001	.0037	.0252

Analysis Report Thu 03-14-96 11:43:35 AM

Method: ICP1A Sample Name: 96-2850 @10 Operator: DRS
Run Time: 03/14/96 11:42:16
Comment: 118.3DL.D @10X DIL (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0032	.9148	.0249	.3009	.0012	.0004	1.568
SDev	.0001	.0025	.0114	.0043	.0001	.0000	.002
%RSD	2.397	.2750	45.75	1.438	11.76	8.881	.1364
#1	.0033	.9128	.0365	.2995	.0013	.0005	1.570
#2	.0032	.9176	.0245	.3057	.0012	.0004	1.565
#3	.0032	.9139	.0137	.2974	.0010	.0004	1.567

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0168	-.0043	.0533	.0053	8.722	.0049	.0048
SDev	.0009	.0002	.0026	.0004	.018	.0007	.0008
%RSD	5.156	5.123	4.898	7.189	.2094	13.90	16.29
#1	.0173	-.0041	.0503	.0058	8.703	.0044	.0056
#2	.0172	-.0045	.0548	.0053	8.722	.0047	.0045
#3	.0158	-.0044	.0548	.0050	8.740	.0057	.0043

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0075	1.510	17.08	.0108	.7452	-.0175	.0127
SDev	.0002	.005	.04	.0026	.0061	.0125	.0001
%RSD	3.163	.3443	.2334	23.97	.8135	71.60	.6751
#1	.0078	1.504	17.12	.0131	.7410	-.0075	.0127
#2	.0074	1.514	17.05	.0113	.7425	-.0134	.0127
#3	.0074	1.513	17.05	.0080	.7522	-.0316	.0128

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.8200	1680.	.0297	.0293	109.8	.0230	.1085
SDev	.0016	6.	.0047	.0010	.1	.0083	.0098
%RSD	.2009	.3648	15.75	3.463	.1133	36.02	9.041
#1	.8181	1673.	.0321	.0305	109.7	.0208	.1188
#2	.8205	1684.	.0326	.0287	109.9	.0322	.0992
#3	.8212	1682.	.0243	.0287	109.9	.0160	.1075

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1331	.1417	.0614	.0826	.8364	.2097	.0050
SDev	.0033	.0037	.0080	.0094	.0022	.0143	.0001
%RSD	2.485	2.623	13.10	11.42	.2678	6.810	1.404
#1	.1364	.1441	.0524	.0930	.8365	.2019	.0051
#2	.1331	.1436	.0639	.0745	.8385	.2262	.0050
#3	.1298	.1374	.0679	.0805	.8341	.2010	.0050

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0615	.0883	.0017	.0241	13.17	.0068	.0825
SDev	.0080	.0030	.0002	.0077	.05	.0007	.0118

%RSD	13.05	3.364	12.16	31.94	.3761	10.53	14.37
#1	.0706	.0910	.0017	.0154	13.12	.0076	.0960
#2	.0581	.0888	.0015	.0302	13.19	.0062	.0738
#3	.0557	.0851	.0019	.0265	13.22	.0066	.0776

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0018	.0273	.1247
SDev	.0004	.0009	.0006
%RSD	24.49	3.294	.4375
#1	.0023	.0276	.1253
#2	.0015	.0280	.1245
#3	.0015	.0263	.1242

Analysis Report Thu 03-14-96 11:47:54 AM page 1

Method: ICP1A Sample Name: 96-2850 @3 Operator: DRS
Run Time: 03/14/96 11:46:35
Comment: 118.3DL.D @3X DIL (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0083	2.904	.1145	.9554	.0029	.0014	4.988
SDev	.0006	.011	.0162	.0047	.0001	.0000	.029
%RSD	7.764	.3643	14.10	.4910	2.727	1.193	.5831
#1	.0087	2.895	.1133	.9516	.0029	.0014	4.955
#2	.0075	2.903	.0990	.9539	.0028	.0013	5.000
#3	.0086	2.916	.1313	.9607	.0029	.0014	5.009

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1314	.0063	.1576	.0136	27.53	.0177	.0125
SDev	.0006	.0013	.0074	.0009	.12	.0016	.0008
%RSD	.4393	21.18	4.717	6.776	.4342	8.800	6.393
#1	.1314	.0049	.1662	.0145	27.40	.0189	.0135
#2	.1320	.0075	.1536	.0127	27.54	.0159	.0122
#3	.1308	.0064	.1531	.0136	27.64	.0182	.0120

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0227	4.792	54.94	.0282	2.392	-.0511	.0399
SDev	.0002	.017	.18	.0017	.011	.0081	.0001
%RSD	.9909	.3640	.3360	6.043	.4448	15.77	.1900
#1	.0229	4.774	54.75	.0301	2.379	-.0429	.0400
#2	.0225	4.793	55.11	.0269	2.398	-.0590	.0399
#3	.0225	4.808	54.95	.0275	2.398	-.0512	.0399

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.594	4614.	.0749	.1021	361.2	.0545	.2599
SDev	.013	15.	.0069	.0016	1.2	.0048	.0123
%RSD	.5180	.3154	9.245	1.553	.3314	8.880	4.753
#1	2.580	4599.	.0824	.1036	359.9	.0601	.2722
#2	2.597	4617.	.0737	.1022	361.5	.0522	.2601
#3	2.606	4627.	.0687	.1005	362.3	.0513	.2475

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3942	.4377	.1533	.1944	2.762	.5932	.0156
SDev	.0094	.0024	.0086	.0045	.009	.0147	.0000
%RSD	2.389	.5549	5.581	2.328	.3403	2.486	.0054
#1	.4049	.4356	.1600	.1996	2.755	.6090	.0156
#2	.3872	.4404	.1436	.1922	2.757	.5798	.0156
#3	.3905	.4372	.1561	.1914	2.772	.5909	.0156

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1676	.3090	.0046	.0675	40.82	.0201	.2593
SDev	.0037	.0032	.0005	.0018	.19	.0008	.0113

%RSD	2.229	1.030	11.68	2.642	.4722	3.729	4.346
#1	.1651	.3054	.0051	.0685	40.61	.0209	.2474
#2	.1719	.3109	.0040	.0654	40.98	.0196	.2606
#3	.1658	.3109	.0047	.0685	40.87	.0196	.2698

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0040	.0913	.3944
SDev	.0005	.0012	.0014
%RSD	12.46	1.284	.3626
#1	.0046	.0905	.3927
#2	.0037	.0926	.3949
#3	.0038	.0908	.3954

Analysis Report Thu 03-14-96 11:54:28 AM page 1

Method: ICP1A Sample Name: 96-2987 Operator: DRS
Run Time: 03/14/96 11:53:09
Comment: FIELD BLANK (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	.1615	-.0135	2.581	.0017	-.0000	.0074
SDev	.0009	.0054	.0086	.043	.0003	.0000	.0023
%RSD	1286.	3.370	64.08	1.681	16.00	136.6	31.16
#1	-.0011	.1553	-.0115	2.630	.0014	-.0000	.0048
#2	.0004	.1633	-.0229	2.568	.0017	.0000	.0092
#3	.0005	.1657	-.0060	2.546	.0020	-.0000	.0083

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6646	-.0090	-.0002	.0016	.0095	.0086	-.0003
SDev	.0071	.0011	.0080	.0009	.0012	.0010	.0011
%RSD	1.064	11.74	3195.	57.60	12.66	11.67	332.0
#1	.6727	-.0099	-.0093	.0005	.0095	.0080	-.0017
#2	.6617	-.0078	.0029	.0022	.0107	.0098	.0002
#3	.6595	-.0092	.0056	.0021	.0083	.0081	.0004

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	.0283	.1994	.0005	.1568	.2202	.0248
SDev	.0004	.0005	.2126	.0036	.0041	.0030	.0004
%RSD	279.3	1.643	106.6	670.5	2.642	1.360	1.459
#1	-.0005	.0280	-.0460	-.0033	.1611	.2237	.0252
#2	-.0002	.0281	.3222	.0011	.1563	.2189	.0248
#3	.0003	.0288	.3222	.0038	.1529	.2181	.0244

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0070	10.76	.0010	.0045	.6004	-.0061	.0075
SDev	.0008	.19	.0076	.0029	.0136	.0063	.0231
%RSD	10.67	1.785	770.0	64.55	2.263	103.7	307.9
#1	.0079	10.97	-.0078	.0013	.6133	-.0104	-.0143
#2	.0064	10.71	.0053	.0069	.5862	-.0089	.0051
#3	.0068	10.60	.0054	.0052	.6015	.0011	.0318

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0002	-.0014	.0145	.0167	2.719	.0169	.0037
SDev	.0110	.0014	.0117	.0030	.021	.0177	.0000
%RSD	7230.	104.9	80.32	17.79	.7857	104.9	.0246
#1	-.0100	-.0028	.0058	.0139	2.743	.0157	.0037
#2	-.0015	-.0014	.0278	.0198	2.711	-.0002	.0037
#3	.0119	.0001	.0100	.0163	2.703	.0352	.0037

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0052	-.0032	.0016	.0047	-.0452	-.0001	.0049
SDev	.0064	.0036	.0005	.0026	.0866	.0014	.0091

%RSD	124.2	112.3	31.20	54.46	191.5	1179.	185.0
#1	-.0022	.0003	.0010	.0029	-.1356	-.0016	-.0035
#2	.0083	-.0031	.0018	.0076	-.0369	.0001	.0037
#3	.0094	-.0069	.0019	.0035	.0369	.0011	.0146

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0003	.0663	.0003
SDev	.0002	.0032	.0008
%RSD	48.70	4.766	252.3
#1	-.0004	.0690	-.0006
#2	-.0005	.0670	.0006
#3	-.0002	.0628	.0010

Analysis Report Thu 03-14-96 11:58:02 AM page 1

Method: ICP1A Sample Name: 96-2988 @5 Operator: DRS
Run Time: 03/14/96 11:56:43
Comment: HYD.FLUID @5X DIL (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0028	.0116	-.0211	.5607	.0071	-.0001	.0015
SDev	.0004	.0052	.0052	.0036	.0001	.0001	.0092
%RSD	14.27	44.84	24.49	.6378	1.107	45.43	595.7
#1	-.0031	.0165	-.0204	.5578	.0071	-.0001	-.0021
#2	-.0023	.0061	-.0163	.5647	.0070	-.0002	-.0053
#3	-.0030	.0121	-.0266	.5596	.0071	-.0001	.0120

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.3363	-.0048	-.0325	-.0029	-.0027	.0003	-.0035
SDev	.0009	.0049	.0045	.0007	.0002	.0010	.0003
%RSD	.2607	101.6	13.89	23.30	6.539	314.4	9.695
#1	.3355	-.0078	-.0349	-.0035	-.0027	-.0008	-.0032
#2	.3362	-.0074	-.0352	-.0029	-.0025	.0007	-.0039
#3	.3373	.0008	-.0273	-.0022	-.0028	.0010	-.0034

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0015	-.0072	-.8361	-.0083	139.3	.0069	-.0003
SDev	.0000	.0002	.0133	.0011	.8	.0068	.0004
%RSD	.5293	2.139	1.589	13.70	.5751	98.81	131.6
#1	-.0015	-.0071	-.8515	-.0075	139.1	.0056	-.0000
#2	-.0015	-.0074	-.8284	-.0096	140.1	.0143	-.0007
#3	-.0015	-.0072	-.8284	-.0077	138.6	.0008	-.0001

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	1.281	-.0309	-.0068	-.0145	-.0231	-.0506
SDev	.0010	.020	.0026	.0013	.0254	.0100	.0043
%RSD	351.0	1.551	8.310	18.67	175.2	43.37	8.520
#1	.0015	1.259	-.0285	-.0078	.0066	-.0304	-.0473
#2	-.0005	1.297	-.0336	-.0054	-.0427	-.0271	-.0555
#3	-.0001	1.286	-.0306	-.0071	-.0074	-.0117	-.0491

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0309	-.0096	-.0017	.0070	1.081	-.0790	.0020
SDev	.0035	.0023	.0083	.0125	.004	.0119	.0001
%RSD	11.29	24.27	490.8	176.9	.4049	15.08	3.601
#1	-.0310	-.0118	-.0086	.0202	1.076	-.0888	.0019
#2	-.0343	-.0099	.0075	-.0045	1.085	-.0657	.0019
#3	-.0274	-.0071	-.0040	.0054	1.081	-.0824	.0020

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0110	-.0046	-.0012	-.0049	-.3924	-.0030	-.0173
SDev	.0036	.0009	.0002	.0062	.0624	.0003	.0042

%RSD	32.96	18.81	16.75	127.8	15.90	9.531	24.46
#1	-.0138	-.0055	-.0012	-.0093	-.4336	-.0027	-.0198
#2	-.0123	-.0038	-.0010	-.0076	-.4230	-.0033	-.0198
#3	-.0069	-.0045	-.0013	.0023	-.3206	-.0030	-.0124

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0014	.0183	-.0030
SDev	.0002	.0010	.0003
%RSD	13.76	5.423	11.40
#1	-.0012	.0195	-.0034
#2	-.0016	.0177	-.0029
#3	-.0013	.0178	-.0027

Analysis Report Thu 03-14-96 12:02:23 PM page 1

Method: ICP1A Sample Name: 96-2688 @25 Operator: DRS
Run Time: 03/14/96 12:01:05
Comment: HYD.FLUID @25X DIL DB 3/14/96 (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0017	.0003	-.0127	.1143	.0011	-.0000	-.0094
SDev	.0008	.0027	.0065	.0018	.0002	.0000	.0064
%RSD	48.65	988.3	51.28	1.568	14.13	45.64	67.68
#1	-.0015	.0029	-.0095	.1150	.0010	-.0000	-.0022
#2	-.0027	-.0026	-.0084	.1156	.0010	-.0000	-.0141
#3	-.0010	.0005	-.0203	.1122	.0013	-.0000	-.0119

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0433	.0008	-.0163	-.0023	-.0014	-.0014	-.0017
SDev	.0011	.0051	.0073	.0003	.0006	.0006	.0007
%RSD	2.648	645.4	44.91	15.04	39.10	46.42	39.17
#1	.0442	.0064	-.0078	-.0024	-.0016	-.0011	-.0025
#2	.0420	-.0034	-.0205	-.0019	-.0018	-.0021	-.0016
#3	.0437	-.0006	-.0205	-.0026	-.0008	-.0009	-.0011

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0007	-.0078	-.5830	-.0044	28.40	-.0048	-.0001
SDev	.0000	.0003	.1957	.0015	.22	.0079	.0000
%RSD	1.120	3.702	33.57	34.65	.7640	166.7	25.34
#1	-.0007	-.0075	-.5753	-.0046	28.40	-.0069	-.0001
#2	-.0007	-.0081	-.7824	-.0058	28.62	-.0114	-.0001
#3	-.0007	-.0078	-.3912	-.0028	28.18	.0040	-.0001

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0014	.2235	-.0149	-.0061	-.0130	-.0159	-.0287
SDev	.0005	.0249	.0026	.0030	.0249	.0028	.0222
%RSD	37.27	11.15	17.43	49.36	191.1	17.46	77.20
#1	-.0009	.2493	-.0127	-.0089	-.0358	-.0173	-.0422
#2	-.0019	.1996	-.0178	-.0064	.0135	-.0177	-.0409
#3	-.0016	.2216	-.0141	-.0029	-.0168	-.0127	-.0031

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0167	-.0058	.0096	.0128	.2121	-.0340	.0002
SDev	.0074	.0027	.0060	.0104	.0057	.0348	.0001
%RSD	44.67	47.29	62.39	81.88	2.702	102.6	42.86
#1	-.0150	-.0089	.0052	.0195	.2185	-.0445	.0002
#2	-.0248	-.0048	.0164	.0007	.2077	-.0623	.0001
#3	-.0102	-.0037	.0072	.0180	.2099	.0049	.0002

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0063	-.0039	-.0009	-.0034	-.2725	-.0014	-.0157
SDev	.0063	.0090	.0003	.0080	.0787	.0004	.0012

%RSD	99.98	234.2	37.15	235.3	28.88	25.14	7.656
#1	-.0066	.0063	-.0008	-.0079	-.3172	-.0014	-.0164
#2	-.0124	-.0070	-.0013	.0058	-.3187	-.0018	-.0143
#3	.0002	-.0109	-.0007	-.0081	-.1816	-.0010	-.0165

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0010	.0209	-.0022
SDev	.0000	.0012	.0004
%RSD	4.325	5.554	18.35
#1	-.0010	.0198	-.0021
#2	-.0010	.0221	-.0026
#3	-.0010	.0207	-.0018

Analysis Report Thu 03-14-96 12:06:15 PM

Method: ICP1A Sample Name: 96-2988 Operator: DRS
Run Time: 03/14/96 12:04:56
Comment: HYD.FLUID (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0039	.1329	.0265	2.734	.0384	.0000	.0445
SDev	.0009	.0011	.0095	.015	.0002	.0000	.0041
%RSD	23.47	.8227	35.78	.5357	.5394	124.0	9.268
#1	.0029	.1316	.0182	2.739	.0386	.0000	.0433
#2	.0046	.1334	.0245	2.746	.0382	-.0000	.0491
#3	.0042	.1336	.0369	2.718	.0384	.0000	.0411

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.485	-.0014	-.0164	.0055	.0028	.0164	.0041
SDev	.005	.0018	.0060	.0004	.0017	.0016	.0003
%RSD	.3165	127.0	36.72	6.894	60.46	10.01	8.549
#1	1.484	-.0001	-.0147	.0051	.0047	.0157	.0043
#2	1.491	-.0007	-.0231	.0058	.0023	.0152	.0037
#3	1.482	-.0035	-.0114	.0057	.0014	.0183	.0043

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0003	.0042	.1611	-.0015	611.3	.1472	.0012
SDev	.0002	.0003	.0830	.0009	2.3	.0007	.0001
%RSD	67.46	7.282	51.51	64.62	.3704	.4669	8.178
#1	-.0005	.0042	.1381	-.0009	611.9	.1469	.0011
#2	-.0003	.0039	.0921	-.0025	613.2	.1467	.0012
#3	-.0001	.0046	.2531	-.0009	608.8	.1480	.0012

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0180	5.743	-.0148	.0001	.0293	.0409	.1041
SDev	.0016	.031	.0024	.0023	.0284	.0043	.0085
%RSD	9.121	.5351	16.42	2016.	97.20	10.49	8.146
#1	.0161	5.738	-.0154	.0002	-.0032	.0401	.0958
#2	.0189	5.716	-.0169	-.0022	.0414	.0372	.1127
#3	.0189	5.776	-.0121	.0023	.0496	.0456	.1037

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0346	.0117	.0404	.0532	5.377	.1324	.0110
SDev	.0074	.0032	.0083	.0071	.014	.0251	.0001
%RSD	21.32	27.44	20.44	13.38	.2544	18.98	.6385
#1	.0261	.0085	.0325	.0450	5.371	.1357	.0110
#2	.0393	.0149	.0397	.0569	5.393	.1058	.0111
#3	.0384	.0118	.0490	.0577	5.368	.1557	.0111

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0440	.0058	.0024	.0246	.0508	.0023	.0049
SDev	.0068	.0080	.0004	.0050	.0163	.0001	.0080

%RSD	15.53	139.4	15.66	20.11	31.98	4.423	163.9
#1	.0513	.0039	.0020	.0282	.0649	.0023	.0013
#2	.0378	-.0012	.0025	.0190	.0546	.0022	.0140
#3	.0429	.0145	.0028	.0266	.0330	.0023	-.0007

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0002	.0323	.0011
SDev	.0000	.0016	.0006
%RSD	3.783	5.104	49.99
#1	.0002	.0340	.0008
#2	.0002	.0322	.0018
#3	.0002	.0307	.0008

Analysis Report QC Standard Thu 03-14-96 12:13:31 PM page 1

Method: ICP1A Sample Name: QC_MCVA1 9602261901 Operator: DRS
Run Time: 03/14/96 12:12:12
Comment: (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

PASS DRS 3/14/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4787	10.01	2.584	2.096	.4917	.0946	24.07
SDev	.0010	.02	.006	.003	.0010	.0001	.09
%RSD	.2035	.1794	.2365	.1647	.2081	.1595	.3622
#1	.4776	9.990	2.585	2.094	.4906	.0945	24.00
#2	.4794	10.02	2.578	2.094	.4926	.0948	24.03
#3	.4790	10.02	2.590	2.100	.4918	.0946	24.17
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.16	.4777	-.0301	.9904	.9941	.9474	-.0062
SDev	.02	.0025	.0005	.0014	.0024	.0019	.0002
%RSD	.0828	.5291	1.744	.1411	.2422	.2044	3.853
#1	25.14	.4749	-.0297	.9892	.9915	.9452	-.0061
#2	25.17	.4784	-.0300	.9919	.9963	.9488	-.0065
#3	25.17	.4798	-.0307	.9901	.9943	.9483	-.0060
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	19.99	24.25	-.0050	2.050	31.98	.5150
SDev	.0001	.03	.21	.0008	.006	.05	.0003
%RSD	70.12	.1254	.8612	15.64	.2995	.1688	.0655
#1	-.0000	19.96	24.09	-.0050	2.052	31.92	.5147
#2	-.0002	20.01	24.49	-.0058	2.055	32.02	.5149
#3	-.0003	20.01	24.16	-.0042	2.043	31.99	.5154
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9989	36.74	-.0340	.9996	4.945	2.421	-.1325
SDev	.0018	.16	.0020	.0040	.031	.007	.0069
%RSD	.1833	.4377	5.986	.4000	.6229	.2839	5.203
#1	.9969	36.55	-.0342	.9963	4.966	2.429	-.1247
#2	.9995	36.85	-.0359	1.004	4.909	2.417	-.1351
#3	1.000	36.81	-.0319	.9984	4.959	2.417	-.1377
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Analysis Report QC Standard Thu 03-14-96 12:13:31 PM page 2

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0495	.0126	2.594	2.530	18.48	.1281	.5038
SDev	.0056	.0017	.015	.011	.01	.0031	.0011
%RSD	11.24	13.70	.5805	.4489	.0756	2.449	.2242
#1	-.0433	.0143	2.579	2.526	18.47	.1310	.5025
#2	-.0512	.0127	2.609	2.520	18.49	.1248	.5045
#3	-.0541	.0108	2.595	2.542	18.49	.1286	.5045
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0207	.0452	.9804	2.455	-.4919	1.004	.0320
SDev	.0072	.0059	.0013	.016	.0278	.001	.0119
%RSD	34.61	12.99	.1305	.6583	5.659	.0670	37.26
#1	.0280	.0497	.9792	2.441	-.4759	1.004	.0369
#2	.0138	.0474	.9817	2.472	-.5240	1.005	.0184
#3	.0202	.0386	.9802	2.452	-.4758	1.004	.0407
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0012	.9926	1.969
SDev	.0002	.0017	.003
%RSD	15.93	.1742	.1533
#1	-.0011	.9933	1.966
#2	-.0014	.9938	1.972
#3	-.0011	.9906	1.970
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report Thu 03-14-96 12:17:38 PM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 03/14/96 12:16:19
Comment: HYD.FLUID (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	.0071	-.0116	.0034	-.0000	-.0000	.0120
SDev	.0009	.0016	.0105	.0012	.0002	.0000	.0039
%RSD	171.6	23.00	90.80	34.59	704.9	431.7	32.69
#1	-.0008	.0070	-.0024	.0042	.0001	.0000	.0134
#2	.0005	.0055	-.0230	.0041	.0001	.0000	.0151
#3	-.0011	.0088	-.0093	.0021	-.0002	-.0000	.0076

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0131	-.0001	-.0038	.0002	-.0006	.0000	-.0008
SDev	.0023	.0022	.0047	.0006	.0018	.0016	.0006
%RSD	17.54	2269.	124.9	357.9	312.1	5312.	83.57
#1	.0150	-.0005	-.0067	.0003	.0014	-.0016	-.0015
#2	.0138	-.0020	.0017	.0007	-.0013	.0017	-.0002
#3	.0106	.0022	-.0063	-.0005	-.0018	-.0000	-.0006

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	.0034	-.2761	-.0009	.0100	.0117	.0001
SDev	.0002	.0016	.1281	.0011	.0029	.0067	.0003
%RSD	119.1	47.59	46.40	121.8	29.17	57.57	267.4
#1	-.0003	.0037	-.3912	-.0008	.0103	.0160	-.0002
#2	.0001	.0049	-.1381	.0002	.0128	.0150	.0001
#3	-.0003	.0017	-.2992	-.0020	.0069	.0039	.0003

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0010	-.0028	-.0050	-.0036	-.0174	-.0093	-.0093
SDev	.0003	.0159	.0035	.0014	.0106	.0075	.0169
%RSD	29.17	570.5	69.82	38.75	61.04	80.75	181.8
#1	-.0009	.0064	-.0071	-.0050	-.0127	-.0101	-.0057
#2	-.0009	.0064	-.0010	-.0022	-.0296	-.0014	.0055
#3	-.0014	-.0212	-.0070	-.0036	-.0100	-.0164	-.0276

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0030	-.0006	.0018	.0191	.0005	-.0250	.0001
SDev	.0041	.0016	.0043	.0028	.0033	.0317	.0001
%RSD	139.4	274.1	244.9	14.86	728.3	126.7	57.50
#1	-.0073	-.0019	-.0031	.0207	-.0018	-.0408	.0001
#2	.0009	.0012	.0052	.0158	.0043	.0115	.0002
#3	-.0025	-.0011	.0032	.0208	-.0010	-.0457	.0001

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0029	-.0014	-.0002	.0034	-.0931	-.0005	-.0086
SDev	.0016	.0053	.0002	.0049	.0681	.0004	.0090

%RSD	55.85	370.1	118.8	142.4	73.19	81.50	105.5
#1	-.0036	-.0069	-.0002	.0089	-.1212	-.0008	-.0128
#2	-.0010	-.0010	.0000	-.0006	-.0154	-.0000	.0018
#3	-.0040	.0037	-.0005	.0021	-.1426	-.0006	-.0147

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0006	-.0004	-.0004
SDev	.0004	.0003	.0005
%RSD	60.68	82.26	122.4
#1	-.0011	-.0007	-.0001
#2	-.0005	-.0004	-.0002
#3	-.0004	-.0001	-.0011

Analysis Report Thu 03-14-96 12:19:53 PM page 1

Method: ICP1A Sample Name: 96-2989-BLK Operator: DRS
Run Time: 03/14/96 12:18:34
Comment: PROCESS BLANK (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0031	.0639	.0129	.0922	.0894	-.0001	-.0038
SDev	.0011	.0089	.0090	.0006	.0005	.0001	.0144
%RSD	34.26	13.84	69.82	.6759	.5322	79.11	377.3
#1	-.0028	.0714	.0100	.0920	.0890	-.0000	.0062
#2	-.0022	.0662	.0057	.0929	.0894	-.0001	.0027
#3	-.0042	.0541	.0229	.0917	.0899	-.0001	-.0204

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2040	-.0044	-.0279	-.0034	.0006	.0035	-.0037
SDev	.0018	.0008	.0031	.0007	.0017	.0004	.0008
%RSD	.8558	17.97	11.27	19.60	286.3	12.69	22.17
#1	.2047	-.0050	-.0264	-.0041	.0006	.0034	-.0034
#2	.2052	-.0035	-.0257	-.0034	.0023	.0040	-.0031
#3	.2020	-.0046	-.0315	-.0028	-.0011	.0031	-.0047

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0012	.0933	-.6674	-.0069	.0026	.0595	.0026
SDev	.0003	.0012	.1827	.0008	.0010	.0048	.0001
%RSD	25.49	1.321	27.37	11.81	37.50	8.030	2.981
#1	-.0011	.0919	-.5293	-.0072	.0036	.0559	.0027
#2	-.0009	.0940	-.5983	-.0059	.0016	.0649	.0027
#3	-.0015	.0941	-.8745	-.0074	.0026	.0578	.0025

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0019	1.608	-.0261	-.0050	-.0123	-.0160	-.0599
SDev	.0003	.031	.0066	.0014	.0060	.0071	.0122
%RSD	16.56	1.954	25.14	27.97	48.63	44.39	20.33
#1	-.0021	1.634	-.0241	-.0050	-.0190	-.0085	-.0521
#2	-.0021	1.573	-.0207	-.0036	-.0100	-.0168	-.0537
#3	-.0016	1.617	-.0334	-.0064	-.0078	-.0227	-.0739

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0285	-.0078	-.0089	.0063	.0581	-.0785	.0014
SDev	.0080	.0033	.0070	.0118	.0038	.0280	.0001
%RSD	27.90	41.67	78.13	185.8	6.612	35.70	8.518
#1	-.0226	-.0112	-.0009	-.0073	.0571	-.0598	.0016
#2	-.0254	-.0046	-.0121	.0127	.0624	-.0650	.0014
#3	-.0375	-.0076	-.0137	.0136	.0549	-.1107	.0013

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0063	-.0029	-.0005	-.0031	-.3435	-.0025	-.0106
SDev	.0022	.0057	.0003	.0017	.0417	.0007	.0080

%RSD	34.33	197.0	56.28	56.96	12.12	27.11	75.88
#1	-.0088	-.0027	-.0002	-.0011	-.3012	-.0020	-.0162
#2	-.0056	.0027	-.0006	-.0035	-.3450	-.0023	-.0014
#3	-.0046	-.0087	-.0007	-.0045	-.3845	-.0033	-.0141

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0015	.0686	-.0031
SDev	.0004	.0023	.0001
%RSD	24.97	3.321	2.070
#1	-.0013	.0662	-.0031
#2	-.0013	.0687	-.0031
#3	-.0020	.0708	-.0032

Analysis Report Thu 03-14-96 12:23:36 PM page 1

Method: ICP1A Sample Name: 96-2989 @5 Operator: DRS
Run Time: 03/14/96 12:22:17
Comment: 126.1DL.D @5X DIL (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0064	108.0	.2985	.9758	.0275	.0061	.2764
SDev	.0002	.2	.0184	.0048	.0002	.0000	.0086
%RSD	3.318	.2315	6.151	.4930	.5683	.5559	3.122
#1	.0064	107.7	.3091	.9725	.0274	.0061	.2811
#2	.0062	108.1	.3090	.9814	.0274	.0061	.2816
#3	.0066	108.1	.2773	.9736	.0277	.0061	.2664

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9698	.0706	.0474	.0190	99.82	.0782	.0052
SDev	.0036	.0043	.0031	.0011	.17	.0011	.0003
%RSD	.3700	6.102	6.538	6.042	.1707	1.472	6.787
#1	.9657	.0679	.0438	.0204	99.63	.0789	.0048
#2	.9723	.0756	.0490	.0182	99.87	.0769	.0053
#3	.9715	.0684	.0494	.0185	99.96	.0789	.0054

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0181	.0837	74.45	.0133	.0414	.0243	.0082
SDev	.0001	.0006	.31	.0010	.0005	.0032	.0002
%RSD	.6169	.6981	.4162	7.461	1.172	13.23	2.929
#1	.0180	.0841	74.15	.0143	.0409	.0280	.0082
#2	.0180	.0839	74.42	.0123	.0419	.0224	.0079
#3	.0182	.0830	74.77	.0135	.0414	.0226	.0084

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.197	4286.	.0302	.5186	76.27	.4181	-.0487
SDev	.006	11.	.0039	.0005	.17	.0038	.0091
%RSD	.5143	.2506	12.79	.1036	.2214	.9037	18.60
#1	1.191	4274.	.0298	.5187	76.11	.4151	-.0456
#2	1.198	4290.	.0265	.5191	76.25	.4224	-.0589
#3	1.203	4295.	.0342	.5180	76.45	.4169	-.0416

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2235	.3094	.2691	.4402	2.033	.4755	.0031
SDev	.0037	.0034	.0195	.0016	.025	.0153	.0001
%RSD	1.661	1.094	7.250	.3732	1.214	3.217	2.299
#1	.2218	.3061	.2667	.4383	2.006	.4578	.0030
#2	.2277	.3129	.2509	.4410	2.037	.4848	.0030
#3	.2209	.3094	.2897	.4413	2.055	.4838	.0031

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2543	.4669	.0040	.1079	.2575	.0576	1.431
SDev	.0095	.0095	.0007	.0031	.0329	.0004	.021

%RSD	3.743	2.029	17.78	2.882	12.78	.6987	1.499
#1	.2591	.4580	.0048	.1044	.2935	.0572	1.417
#2	.2433	.4769	.0039	.1088	.2291	.0577	1.421
#3	.2604	.4659	.0034	.1104	.2499	.0579	1.456

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0032	.0495	-.0189
SDev	.0004	.0020	.0005
%RSD	11.32	4.099	2.648
#1	.0028	.0502	-.0189
#2	.0032	.0472	-.0194
#3	.0035	.0511	-.0184

Analysis Report Thu 03-14-96 12:30:00 PM page 1

Method: ICP1A Sample Name: 96-2989 @50 Operator: DRS
Run Time: 03/14/96 12:28:41
Comment: 126.1DL.D @50X DIL (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0018	11.37	.0115	.1035	.0025	.0006	.0319
SDev	.0006	.04	.0081	.0010	.0001	.0000	.0120
%RSD	31.00	.3850	70.57	.9954	3.178	5.714	37.66
#1	-.0012	11.32	.0067	.1046	.0024	.0006	.0334
#2	-.0020	11.39	.0070	.1026	.0025	.0006	.0192
#3	-.0023	11.41	.0210	.1032	.0025	.0005	.0431

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0655	.0013	-.0148	-.0008	10.95	.0066	-.0016
SDev	.0010	.0008	.0046	.0006	.02	.0018	.0004
%RSD	1.595	63.76	31.10	84.77	.2275	26.65	22.28
#1	.0643	.0021	-.0107	-.0004	10.92	.0084	-.0013
#2	.0660	.0004	-.0198	-.0004	10.95	.0049	-.0020
#3	.0662	.0014	-.0139	-.0015	10.97	.0064	-.0016

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0011	.0008	7.188	-.0027	.0039	-.0178	.0006
SDev	.0003	.0008	.066	.0009	.0012	.0042	.0001
%RSD	30.02	93.30	.9243	32.26	31.46	23.75	14.72
#1	.0012	.0006	7.226	-.0030	.0050	-.0143	.0007
#2	.0007	.0017	7.226	-.0033	.0040	-.0167	.0006
#3	.0014	.0002	7.111	-.0017	.0026	-.0225	.0006

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1280	532.5	-.0127	.0495	7.766	.0247	-.0399
SDev	.0004	1.8	.0030	.0027	.109	.0076	.0039
%RSD	.3323	.3474	23.58	5.551	1.400	30.70	9.786
#1	.1283	530.3	-.0106	.0527	7.674	.0330	-.0408
#2	.1275	533.5	-.0113	.0477	7.886	.0227	-.0433
#3	.1281	533.6	-.0161	.0481	7.738	.0183	-.0357

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0049	.0246	.0276	.0462	.2016	.0044	.0000
SDev	.0015	.0031	.0087	.0047	.0005	.0132	.0001
%RSD	30.29	12.49	31.44	10.15	.2441	297.2	169.4
#1	.0042	.0272	.0188	.0416	.2019	.0043	.0001
#2	.0039	.0254	.0280	.0509	.2019	.0176	.0001
#3	.0066	.0212	.0362	.0461	.2011	-.0087	-.0000

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0127	.0445	-.0008	.0093	-.1909	.0041	.1400
SDev	.0060	.0119	.0002	.0082	.0109	.0005	.0102

%RSD	47.45	26.74	21.58	88.86	5.687	12.88	7.280
#1	.0183	.0580	-.0009	.0085	-.1917	.0044	.1332
#2	.0063	.0402	-.0006	.0014	-.2013	.0044	.1351
#3	.0135	.0354	-.0009	.0178	-.1796	.0035	.1517

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0009	.0040	-.0040
SDev	.0002	.0004	.0005
%RSD	21.54	9.719	11.82
#1	-.0007	.0036	-.0046
#2	-.0010	.0043	-.0036
#3	-.0010	.0040	-.0039

Analysis Report Thu 03-14-96 12:39:02 PM page 1

Method: ICP1A Sample Name: 96-2990 @50 Operator: DRS
Run Time: 03/14/96 12:37:43
Comment: 126.2DL.D @50X DIL (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0010	11.45	.0243	.1231	.0016	.0007	.0243
SDev	.0004	.06	.0108	.0014	.0001	.0000	.0124
%RSD	43.07	.5352	44.66	1.117	4.878	1.821	51.01
#1	-.0006	11.42	.0168	.1232	.0017	.0007	.0322
#2	-.0010	11.41	.0367	.1217	.0016	.0006	.0308
#3	-.0014	11.52	.0193	.1245	.0016	.0007	.0100

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0115	.0007	-.0083	-.0013	13.70	-.0022	-.0014
SDev	.0013	.0010	.0082	.0009	.05	.0015	.0002
%RSD	11.36	140.9	98.73	72.77	.3739	69.15	10.66
#1	.0123	.0018	-.0000	-.0005	13.65	-.0014	-.0013
#2	.0121	-.0001	-.0085	-.0011	13.70	-.0012	-.0015
#3	.0100	.0004	-.0164	-.0023	13.76	-.0039	-.0016

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0015	-.0024	7.663	-.0027	.1459	-.0177	.0006
SDev	.0003	.0007	.151	.0020	.0025	.0083	.0000
%RSD	19.80	29.50	1.969	73.30	1.705	46.96	5.777
#1	.0016	-.0018	7.686	-.0021	.1466	-.0088	.0006
#2	.0018	-.0022	7.801	-.0011	.1480	-.0193	.0005
#3	.0012	-.0031	7.502	-.0049	.1432	-.0252	.0006

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1349	545.5	-.0117	.0047	6.164	.0290	-.0435
SDev	.0019	3.4	.0072	.0030	.033	.0037	.0185
%RSD	1.396	.6274	61.65	63.66	.5318	12.82	42.56
#1	.1342	543.4	-.0110	.0076	6.196	.0282	-.0354
#2	.1334	543.6	-.0049	.0048	6.130	.0331	-.0304
#3	.1370	549.4	-.0193	.0017	6.165	.0258	-.0647

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0125	.0232	.0269	.0567	.3899	.0077	-.0000
SDev	.0011	.0038	.0109	.0112	.0060	.0185	.0000
%RSD	8.784	16.45	40.38	19.73	1.532	238.4	2.200
#1	.0136	.0214	.0386	.0599	.3877	.0011	-.0000
#2	.0124	.0276	.0172	.0443	.3854	.0286	-.0000
#3	.0114	.0206	.0247	.0659	.3967	-.0065	-.0000

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0176	.0580	-.0008	.0079	-.1719	.0066	.1164
SDev	.0065	.0064	.0003	.0050	.0817	.0006	.0111

%RSD	37.12	11.10	39.79	63.37	47.55	8.282	9.550
#1	.0247	.0616	-.0006	.0045	-.2004	.0066	.1053
#2	.0162	.0506	-.0007	.0136	-.0797	.0072	.1275
#3	.0119	.0620	-.0011	.0055	-.2356	.0061	.1165

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0005	.0051	-.0051
SDev	.0005	.0008	.0008
%RSD	103.7	16.45	15.11
#1	-.0003	.0042	-.0052
#2	-.0001	.0053	-.0043
#3	-.0010	.0059	-.0058

Analysis Report Thu 03-14-96 12:43:14 PM

Method: ICP1A Sample Name: 96-2990 @5 Operator: DRS
Run Time: 03/14/96 12:41:55
Comment: 126.2DL.D @5X DIL (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0065	112.1	.3590	1.233	.0209	.0074	.2395
SDev	.0000	.4	.0076	.008	.0002	.0001	.0011
%RSD	.4964	.3490	2.112	.6281	.7490	.8429	.4527
#1	.0065	111.7	.3664	1.226	.0208	.0074	.2383
#2	.0065	112.1	.3593	1.241	.0211	.0075	.2397
#3	.0065	112.4	.3513	1.233	.0208	.0075	.2405

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4719	.0253	.0483	.0092	126.6	-.0003	.0053
SDev	.0032	.0013	.0048	.0005	.4	.0006	.0001
%RSD	.6859	5.125	10.00	5.091	.3352	215.3	2.288
#1	.4694	.0243	.0449	.0097	126.1	-.0003	.0054
#2	.4707	.0267	.0462	.0089	126.7	.0004	.0051
#3	.4755	.0248	.0538	.0089	126.9	-.0008	.0052

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0226	.0538	81.21	.0079	1.432	.0255	.0084
SDev	.0001	.0014	.24	.0005	.003	.0081	.0007
%RSD	.5125	2.667	.2985	6.023	.1865	31.98	8.693
#1	.0225	.0531	80.96	.0080	1.432	.0344	.0077
#2	.0227	.0529	81.23	.0082	1.429	.0235	.0091
#3	.0227	.0555	81.44	.0073	1.434	.0185	.0083

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.318	4472.	.0242	.1463	62.71	.4123	-.1498
SDev	.008	11.	.0047	.0015	.21	.0036	.0111
%RSD	.6361	.2530	19.65	1.001	.3411	.8674	7.376
#1	1.309	4459.	.0215	.1459	62.47	.4082	-.1558
#2	1.319	4477.	.0297	.1452	62.76	.4139	-.1371
#3	1.325	4480.	.0214	.1480	62.89	.4148	-.1566

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2473	.2726	.3502	.4579	4.167	.5308	.0021
SDev	.0012	.0013	.0052	.0112	.056	.0150	.0001
%RSD	.4813	.4664	1.478	2.450	1.351	2.819	3.416
#1	.2485	.2721	.3500	.4453	4.109	.5149	.0022
#2	.2473	.2716	.3554	.4667	4.173	.5330	.0020
#3	.2462	.2740	.3451	.4617	4.221	.5445	.0020

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2720	.6752	.0046	.1329	.2077	.0797	1.232
SDev	.0007	.0112	.0003	.0135	.0581	.0004	.021

%RSD	.2618	1.657	6.023	10.14	27.97	.5219	1.707
#1	.2717	.6760	.0048	.1307	.1421	.0797	1.223
#2	.2728	.6637	.0043	.1474	.2284	.0801	1.217
#3	.2714	.6860	.0046	.1206	.2526	.0793	1.256

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0032	.0599	-.0366
SDev	.0000	.0015	.0006
%RSD	1.161	2.493	1.766
#1	.0033	.0582	-.0368
#2	.0032	.0605	-.0359
#3	.0032	.0609	-.0372

Analysis Report Thu 03-14-96 12:47:58 PM page 1

Method: ICP1A Sample Name: 96-2992 @50 Operator: DRS
Run Time: 03/14/96 12:46:39
Comment: 127.2DL.D @50X DIL (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0024	2.070	-.0015	.1379	.0017	.0002	.0062
SDev	.0005	.018	.0086	.0054	.0000	.0000	.0102
%RSD	21.81	.8817	568.4	3.894	.0000	15.28	165.2
#1	-.0018	2.061	.0074	.1327	.0017	.0002	-.0014
#2	-.0026	2.091	-.0023	.1378	.0017	.0002	.0177
#3	-.0028	2.059	-.0096	.1434	.0017	.0003	.0022

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0129	-.0002	-.0242	-.0026	6.863	-.0031	-.0031
SDev	.0002	.0023	.0052	.0006	.040	.0007	.0004
%RSD	1.543	938.0	21.55	23.33	.5763	23.71	14.15
#1	-.0127	-.0009	-.0188	-.0022	6.824	-.0023	-.0027
#2	-.0129	-.0022	-.0292	-.0033	6.903	-.0031	-.0036
#3	-.0131	.0023	-.0245	-.0022	6.862	-.0038	-.0032

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0001	-.0053	2.884	-.0050	3.237	-.0142	-.0001
SDev	.0002	.0005	.127	.0008	.029	.0024	.0001
%RSD	274.9	9.663	4.394	16.09	.9039	17.10	119.2
#1	.0001	-.0058	2.969	-.0041	3.205	-.0168	.0000
#2	-.0003	-.0048	2.738	-.0051	3.262	-.0138	-.0001
#3	-.0001	-.0054	2.946	-.0057	3.244	-.0120	-.0001

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0581	279.9	-.0220	-.0001	4.630	-.0096	-.0587
SDev	.0007	2.2	.0065	.0037	.039	.0067	.0061
%RSD	1.188	.7736	29.74	3334.	.8505	69.86	10.46
#1	.0574	277.8	-.0200	.0024	4.638	-.0072	-.0519
#2	.0583	282.1	-.0293	-.0043	4.665	-.0171	-.0602
#3	.0587	279.9	-.0167	.0016	4.588	-.0044	-.0639

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0179	.0050	.0137	.0113	.3176	-.0603	-.0003
SDev	.0083	.0045	.0044	.0068	.0002	.0217	.0001
%RSD	46.12	89.08	31.94	60.07	.0659	35.90	21.54
#1	-.0098	.0093	.0099	.0120	.3178	-.0800	-.0003
#2	-.0263	.0003	.0128	.0042	.3174	-.0640	-.0004
#3	-.0177	.0055	.0185	.0177	.3175	-.0371	-.0003

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0084	.0272	-.0014	-.0032	-.3800	.0029	.0577
SDev	.0042	.0036	.0002	.0029	.0442	.0004	.0132

%RSD	50.04	13.26	14.32	91.12	11.62	13.42	22.90
#1	-.0096	.0246	-.0012	-.0022	-.3351	.0033	.0724
#2	-.0118	.0255	-.0016	-.0064	-.4234	.0025	.0542
#3	-.0037	.0313	-.0015	-.0009	-.3813	.0030	.0466

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0012	-.0011	-.0045
SDev	.0004	.0004	.0002
%RSD	32.78	39.20	4.818
#1	-.0010	-.0007	-.0044
#2	-.0016	-.0009	-.0047
#3	-.0009	-.0016	-.0044

Analysis Report Thu 03-14-96 12:53:10 PM page 1

Method: ICP1A Sample Name: 96-2992 @5 Operator: DRS
Run Time: 03/14/96 12:51:51
Comment: 127.2DL.D @5X DIL (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0042	19.86	.1530	1.385	.0239	.0035	.1190
SDev	.0002	.07	.0089	.011	.0001	.0000	.0099
%RSD	4.011	.3446	5.809	.8111	.5666	1.019	8.293
#1	.0041	19.82	.1588	1.389	.0239	.0035	.1109
#2	.0041	19.94	.1427	1.395	.0241	.0035	.1300
#3	.0043	19.82	.1574	1.373	.0238	.0035	.1162

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2513	.0201	.0235	.0040	64.87	.0031	.0031
SDev	.0007	.0067	.0009	.0008	.22	.0013	.0005
%RSD	.2905	33.25	3.710	20.01	.3369	40.31	14.77
#1	.2505	.0136	.0234	.0033	64.67	.0031	.0026
#2	.2520	.0197	.0227	.0039	65.11	.0019	.0032
#3	.2515	.0270	.0245	.0049	64.84	.0044	.0035

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0114	.0318	36.41	.0046	30.90	.0099	.0033
SDev	.0001	.0004	.02	.0003	.11	.0051	.0001
%RSD	.9006	1.170	.0632	6.826	.3502	51.68	2.776
#1	.0113	.0321	36.38	.0048	30.86	.0059	.0034
#2	.0115	.0314	36.41	.0048	31.02	.0081	.0032
#3	.0115	.0319	36.43	.0043	30.81	.0156	.0033

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5913	2507.	.0129	.0836	46.52	.1134	-.0382
SDev	.0026	7.	.0067	.0033	.22	.0055	.0063
%RSD	.4408	.2682	52.27	3.907	.4692	4.853	16.47
#1	.5889	2505.	.0056	.0889	46.38	.1077	-.0426
#2	.5941	2515.	.0142	.0857	46.77	.1140	-.0310
#3	.5910	2502.	.0188	.0822	46.41	.1186	-.0410

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1173	.1409	.1501	.1341	2.944	.2376	.0009
SDev	.0029	.0034	.0196	.0179	.010	.0289	.0000
%RSD	2.516	2.423	13.03	13.34	.3432	12.18	.0879
#1	.1148	.1373	.1727	.1154	2.933	.2447	.0009
#2	.1166	.1413	.1388	.1510	2.951	.2058	.0009
#3	.1206	.1441	.1389	.1360	2.949	.2623	.0009

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0894	.2821	.0018	.0594	.1973	.0517	.6228
SDev	.0052	.0155	.0004	.0059	.0411	.0003	.0157

%RSD	5.864	5.508	21.86	9.942	20.82	.6551	2.521
#1	.0895	.2944	.0019	.0526	.1501	.0517	.6235
#2	.0945	.2646	.0014	.0634	.2174	.0514	.6068
#3	.0840	.2872	.0022	.0621	.2246	.0521	.6382

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0017	.0080	-.0144
SDev	.0002	.0011	.0014
%RSD	12.48	13.48	9.705
#1	.0019	.0090	-.0157
#2	.0015	.0069	-.0129
#3	.0018	.0080	-.0146

Analysis Report Thu 03-14-96 12:58:02 PM page 1

Method: ICP1A Sample Name: Na @1000 PPM Operator: DRS
Run Time: 03/14/96 12:56:43
Comment: Na IEC 950622I124 @5X DIL (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0001	.0174	.0100	-.0010	.0001	-.0000	-.0003
SDev	.0007	.0020	.0048	.0046	.0000	.0000	.0041
%RSD	475.4	11.26	48.33	451.6	.0000	39.09	1284.
#1	-.0006	.0164	.0155	-.0049	.0001	-.0000	-.0049
#2	.0008	.0197	.0080	-.0023	.0001	-.0000	.0009
#3	.0002	.0162	.0064	.0041	.0001	-.0000	.0031

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0114	-.0001	.0002	.0006	.0216	.0020	.0011
SDev	.0004	.0024	.0045	.0005	.0030	.0009	.0005
%RSD	3.805	3244.	1876.	84.70	13.97	42.78	43.64
#1	-.0115	-.0010	-.0028	.0002	.0218	.0010	.0008
#2	-.0118	.0027	-.0018	.0005	.0244	.0025	.0016
#3	-.0109	-.0019	.0054	.0012	.0184	.0025	.0008

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0003	-.0066	-.1918	.0012	.0113	-.0070	.0002
SDev	.0002	.0006	.0286	.0007	.0013	.0056	.0003
%RSD	77.55	8.832	13.86	56.22	11.34	79.46	118.0
#1	.0001	-.0071	-.2071	.0004	.0099	-.0056	.0001
#2	.0003	-.0068	-.2071	.0017	.0118	-.0132	.0006
#3	.0005	-.0059	-.1611	.0016	.0123	-.0023	.0001

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0002	992.9	.0056	-.0069	.0134	-.0032	.0191
SDev	.0013	.7	.0027	.0017	.0114	.0066	.0046
%RSD	595.2	.0717	47.17	24.05	84.87	204.9	23.99
#1	.0008	993.6	.0045	-.0075	.0128	-.0002	.0236
#2	.0001	992.2	.0037	-.0050	.0024	.0014	.0145
#3	-.0016	992.9	.0086	-.0082	.0251	-.0108	.0192

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0046	.0062	.0110	.0205	.0109	.0258	-.0000
SDev	.0061	.0020	.0133	.0084	.0025	.0169	.0001
%RSD	131.4	32.58	121.0	41.22	23.15	65.54	4585.
#1	.0033	.0083	-.0042	.0117	.0104	.0067	-.0000
#2	-.0007	.0043	.0208	.0211	.0087	.0319	-.0000
#3	.0113	.0060	.0163	.0286	.0137	.0388	.0001

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0024	-.0035	-.0001	.0037	.0742	.0004	.0030
SDev	.0076	.0054	.0003	.0068	.0140	.0005	.0044

%RSD	317.3	155.0	280.6	181.2	18.85	119.4	144.7
#1	-.0020	-.0097	-.0003	.0077	.0710	-.0001	.0055
#2	.0111	-.0011	-.0002	.0077	.0620	.0006	.0055
#3	-.0020	.0003	.0002	-.0041	.0895	.0007	-.0020

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0002	-.0012	-.0001
SDev	.0000	.0009	.0001
%RSD	7.249	74.56	81.51
#1	.0002	-.0006	-.0000
#2	.0002	-.0023	-.0001
#3	.0002	-.0009	-.0002

Analysis Report QC Standard Thu 03-14-96 01:07:53 PM page 1

Method: ICP1A Sample Name: QC_MCVA1 960226I901 Operator: DRS
Run Time: 03/14/96 13:06:34
Comment: (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

PASS DRS 3/14/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.4752	9.974	2.581	2.089	.4916	.0944	23.86
SDev	.0020	.046	.029	.005	.0026	.0004	.11
%RSD	.4261	.4576	1.112	.2295	.5212	.4488	.4679
#1	.4761	10.00	2.614	2.090	.4936	.0947	23.98
#2	.4729	9.921	2.566	2.083	.4887	.0939	23.76
#3	.4767	9.999	2.562	2.093	.4925	.0945	23.85
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.5000	10.00	2.500	2.000	.5000	.1000	25.00
Range	.0500	1.000	.2500	.2000	.0500	.0100	2.500

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	24.96	.4701	-.0549	.9820	.9792	.9330	-.0080
SDev	.07	.0013	.0134	.0038	.0058	.0023	.0013
%RSD	.2848	.2690	24.43	.3857	.5878	.2490	15.85
#1	25.01	.4707	-.0661	.9818	.9775	.9344	-.0088
#2	24.88	.4687	-.0400	.9783	.9744	.9303	-.0066
#3	24.99	.4710	-.0586	.9859	.9856	.9343	-.0087
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK
Value	25.00	.5000		1.000	1.000	1.000	
Range	2.500	.0500		.1000	.1000	.1000	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0012	19.89	23.35	-.0098	2.015	31.74	.5100
SDev	.0001	.08	.09	.0010	.016	.10	.0017
%RSD	9.282	.3845	.3731	10.21	.7923	.3015	.3332
#1	-.0012	19.95	23.29	-.0107	2.023	31.81	.5114
#2	-.0010	19.80	23.45	-.0099	1.996	31.63	.5081
#3	-.0012	19.91	23.31	-.0087	2.024	31.77	.5104
Errors	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	QC Pass	QC Pass
Value		20.00	25.00		2.000	31.20	.5000
Range		2.000	2.500		.2000	3.120	.0500

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.9928	37.02	-.0555	.9868	4.837	2.386	-.1801
SDev	.0071	.27	.0058	.0034	.011	.009	.0172
%RSD	.7160	.7352	10.52	.3394	.2231	.3921	9.568
#1	.9982	37.12	-.0617	.9865	4.844	2.383	-.1985
#2	.9848	36.71	-.0502	.9837	4.825	2.396	-.1642
#3	.9955	37.22	-.0546	.9903	4.843	2.378	-.1777
Errors	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK	QC Pass	NOCHECK
Value	1.000	36.70		1.000		2.500	

Range	.1000	3.670		.1000		.2500	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0734	.0082	2.536	2.497	18.36	.0613	.5048
SDev	.0053	.0043	.013	.016	.05	.0119	.0027
%RSD	7.250	52.09	.5304	.6524	.2763	19.38	.5452
#1	-.0792	.0035	2.546	2.485	18.39	.0546	.5068
#2	-.0688	.0118	2.521	2.491	18.30	.0750	.5017
#3	-.0721	.0093	2.542	2.516	18.38	.0543	.5060
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	NOCHECK	QC Pass
Value			2.500	2.500	20.00		.5000
Range			.2500	.2500	2.000		.0500

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0108	.0501	.9773	2.438	-.7598	.9978	.0189
SDev	.0077	.0075	.0047	.007	.0459	.0040	.0167
%RSD	71.82	14.89	.4829	.2743	6.043	.3994	88.03
#1	.0036	.0586	.9803	2.441	-.8081	.9996	.0023
#2	.0189	.0458	.9719	2.431	-.7167	.9933	.0356
#3	.0098	.0448	.9797	2.444	-.7546	1.001	.0188
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	QC Pass	NOCHECK
Value			1.000	2.500		1.000	
Range			.1000	.2500		.1000	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0020	.9891	1.966
SDev	.0002	.0020	.009
%RSD	8.225	.2050	.4541
#1	-.0022	.9910	1.972
#2	-.0020	.9893	1.956
#3	-.0019	.9870	1.971
Errors	NOCHECK	QC Pass	QC Pass
Value		1.000	2.000
Range		.1000	.2000

Analysis Report QC Standard Thu 03-14-96 01:12:30 PM page 1

Method: ICP1A Sample Name: QC_MCVB2 960221I901 Operator: DRS
Run Time: 03/14/96 13:11:11
Comment: (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

PASS DRS 3/14/96

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0075	-.0340	.2904	.1656	-.0002	.0007	.0648
SDev	.0004	.0014	.0057	.0023	.0001	.0000	.0079
%RSD	5.363	4.007	1.962	1.397	49.61	1.048	12.21
#1	-.0079	-.0355	.2966	.1670	-.0002	.0007	.0710
#2	-.0075	-.0336	.2855	.1630	-.0001	.0007	.0674
#3	-.0071	-.0329	.2891	.1670	-.0002	.0007	.0559
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0035	-.0053	2.016	-.0029	.0033	.0186	2.084
SDev	.0016	.0010	.006	.0005	.0016	.0004	.005
%RSD	46.97	18.70	.3189	18.47	50.37	2.145	.2596
#1	-.0017	-.0053	2.012	-.0025	.0030	.0183	2.080
#2	-.0049	-.0063	2.023	-.0035	.0050	.0191	2.083
#3	-.0039	-.0043	2.013	-.0027	.0018	.0185	2.090
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value			2.000				2.000
Range			10.00				10.00

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.106	.0108	-2.163	1.049	-.0055	-.1293	.0006
SDev	.005	.0008	.023	.003	.0012	.0113	.0002
%RSD	.2343	7.587	1.064	.2986	22.21	8.706	27.44
#1	2.102	.0115	-2.163	1.045	-.0057	-.1398	.0004
#2	2.105	.0099	-2.140	1.050	-.0042	-.1308	.0007
#3	2.112	.0108	-2.186	1.051	-.0066	-.1174	.0007
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK
Value	2.000			1.000			
Range	10.00			10.00			

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0058	.1394	2.048	.0276	.0807	.2059	1.971
SDev	.0011	.0054	.003	.0032	.0070	.0038	.006
%RSD	19.59	3.892	.1381	11.44	8.627	1.836	.3029
#1	.0050	.1341	2.049	.0256	.0826	.2023	1.966
#2	.0053	.1449	2.045	.0259	.0865	.2099	1.969
#3	.0071	.1393	2.050	.0312	.0730	.2055	1.977
Errors	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value			2.000				

Range			10.00				
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.024	2.070	.0919	.0665	7.283	2.116	.0020
SDev	.002	.007	.0073	.0080	.382	.033	.0001
%RSD	.0991	.3235	7.985	12.09	5.251	1.547	3.529
#1	2.022	2.063	.0980	.0626	6.886	2.081	.0020
#2	2.024	2.073	.0837	.0612	7.313	2.146	.0019
#3	2.026	2.076	.0939	.0758	7.649	2.122	.0020
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value	2.000	2.000				2.000	
Range	10.00	10.00				10.00	

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.911	10.41	.0025	.0015	23.07	-.0034	2.013
SDev	.010	.02	.0002	.0051	.05	.0001	.012
%RSD	.5311	.2398	9.088	341.6	.2231	3.160	.5956
#1	1.909	10.40	.0025	-.0001	23.02	-.0036	2.002
#2	1.902	10.40	.0023	-.0026	23.12	-.0033	2.013
#3	1.922	10.44	.0027	.0072	23.08	-.0034	2.026
Errors	QC Pass	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	QC Pass
Value	2.000	10.00			25.00		2.000
Range	10.00	10.00			10.00		10.00

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.9872	.0038	-.0937
SDev	.0030	.0006	.0009
%RSD	.3040	16.75	1.007
#1	.9844	.0046	-.0936
#2	.9868	.0036	-.0928
#3	.9903	.0033	-.0947
Errors	QC Pass	NOCHECK	NOCHECK
Value	1.000		
Range	10.00		

Analysis Report Thu 03-14-96 01:16:01 PM page 1

Method: ICP1A Sample Name: QC SSTA 9512081902 Operator: DRS
Run Time: 03/14/96 13:14:41
Comment: 127.2DL.D (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0174	265.0	.3996	.0495	.0088	-.0013	202.5
SDev	.0011	1.5	.0095	.0025	.0001	.0000	1.1
%RSD	6.196	.5667	2.366	5.109	.8905	2.779	.5633
#1	-.0181	266.3	.3992	.0508	.0087	-.0013	203.5
#2	-.0161	263.4	.3904	.0511	.0089	-.0013	201.3
#3	-.0178	265.3	.4093	.0466	.0087	-.0012	202.8

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	260.9	.0643	.1437	.0085	.2451	-.1254	.0383
SDev	1.1	.0020	.0069	.0021	.0010	.0024	.0012
%RSD	.4289	3.120	4.800	24.30	.4282	1.896	3.128
#1	261.8	.0650	.1385	.0068	.2463	-.1282	.0375
#2	259.7	.0659	.1412	.0079	.2442	-.1244	.0378
#3	261.3	.0620	.1515	.0108	.2449	-.1237	.0397

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0943	201.9	105.1	55.28	.0325	-.7613	.0213
SDev	.0006	1.0	.5	.33	.0007	.0226	.0004
%RSD	.5921	.4746	.4826	.5900	2.280	2.964	2.078
#1	.0945	202.8	105.3	55.56	.0317	-.7869	.0218
#2	.0936	200.9	104.5	54.92	.0331	-.7445	.0209
#3	.0947	202.1	105.4	55.36	.0326	-.7524	.0213

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1018	.8503	.2407	199.5	210.4	.9810	.6823
SDev	.0002	.0406	.0026	.8	.9	.0075	.0242
%RSD	.1826	4.775	1.076	.3949	.4381	.7637	3.552
#1	.1017	.8044	.2437	200.0	211.2	.9793	.6630
#2	.1020	.8816	.2392	198.6	209.4	.9746	.6744
#3	.1016	.8648	.2392	199.8	210.6	.9892	.7095

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.2670	.4064	.4799	1.581	-.3083	3.975	.0200
SDev	.0121	.0064	.0029	.017	.0096	.016	.0001
%RSD	4.515	1.573	.6019	1.055	3.099	.4139	.6119
#1	.2593	.4012	.4823	1.598	-.2982	3.967	.0200
#2	.2608	.4045	.4767	1.565	-.3094	3.965	.0199
#3	.2809	.4135	.4806	1.581	-.3172	3.994	.0201

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.6186	1.000	.0005	.3343	206.7	.0478	.5699
SDev	.0112	.028	.0002	.0112	1.1	.0007	.0138

%RSD	1.816	2.763	38.26	3.361	.5109	1.431	2.418
#1	.6066	1.030	.0004	.3215	207.5	.0471	.5855
#2	.6203	.9940	.0003	.3390	205.5	.0481	.5650
#3	.6288	.9761	.0007	.3425	207.0	.0483	.5593

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	.0226	.0783	-.0318
SDev	.0002	.0037	.0025
%RSD	1.040	4.795	7.990
#1	.0228	.0822	-.0347
#2	.0225	.0747	-.0305
#3	.0224	.0780	-.0301

Analysis Report Thu 03-14-96 01:20:24 PM

Method: ICP1A Sample Name: QC SSTMCV 951208I903 Operator: DRS
Run Time: 03/14/96 13:19:05
Comment: 127.2DL.D (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.5173	5.354	2.213	-.0027	.1027	.1014	1.686
SDev	.0047	.058	.021	.0017	.0011	.0011	.035
%RSD	.9134	1.088	.9381	62.78	1.058	1.069	2.065
#1	.5164	5.363	2.226	-.0008	.1028	.1016	1.686
#2	.5224	5.407	2.224	-.0031	.1038	.1024	1.721
#3	.5131	5.292	2.189	-.0040	.1016	.1003	1.652

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.157	.2058	-.0087	-.0026	.3164	-.0037	-.0011
SDev	.024	.0065	.0037	.0015	.0016	.0009	.0006
%RSD	2.080	3.136	42.31	58.25	.5010	25.15	55.17
#1	1.158	.2095	-.0054	-.0016	.3146	-.0036	-.0010
#2	1.180	.2096	-.0127	-.0019	.3173	-.0028	-.0017
#3	1.132	.1984	-.0079	-.0043	.3173	-.0046	-.0005

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0070	.6146	51.06	.0239	-.0034	-.0906	.1097
SDev	.0001	.0162	.32	.0043	.0007	.0013	.0013
%RSD	1.653	2.628	.6357	17.83	21.82	1.429	1.148
#1	.0069	.6160	51.11	.0247	-.0027	-.0894	.1097
#2	.0069	.6300	51.36	.0278	-.0032	-.0906	.1109
#3	.0071	.5978	50.72	.0193	-.0042	-.0920	.1083

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0035	5.297	-.0145	.6814	4.238	3.119	-.0751
SDev	.0010	.076	.0050	.0175	.057	.019	.0208
%RSD	28.14	1.442	34.20	2.571	1.350	.5996	27.74
#1	.0029	5.341	-.0117	.6791	4.272	3.131	-.0727
#2	.0030	5.341	-.0202	.6999	4.271	3.128	-.0971
#3	.0047	5.209	-.0116	.6651	4.172	3.097	-.0556

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0132	-.0030	2.220	2.687	2.934	.0399	.0012
SDev	.0053	.0031	.012	.030	.028	.0141	.0001
%RSD	40.53	100.7	.5344	1.099	.9478	35.38	5.744
#1	-.0100	-.0008	2.220	2.697	2.942	.0387	.0012
#2	-.0194	-.0018	2.232	2.710	2.957	.0264	.0012
#3	-.0102	-.0065	2.208	2.654	2.903	.0546	.0013

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0040	.1112	-.0015	-.0006	20.33	.5340	.0222
SDev	.0046	.0111	.0002	.0070	.14	.0053	.0055

%RSD	114.4	9.954	9.980	1127.	.6688	.9827	24.70
#1	.0009	.1067	-.0016	-.0017	20.36	.5360	.0191
#2	.0019	.1238	-.0016	-.0071	20.44	.5379	.0189
#3	.0092	.1031	-.0014	.0069	20.18	.5280	.0285

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0011	-.0003	.5137
SDev	.0004	.0012	.0049
%RSD	38.11	422.5	.9562
#1	-.0015	.0005	.5148
#2	-.0011	.0003	.5180
#3	-.0006	-.0017	.5084

Analysis Report QC Standard Thu 03-14-96 01:24:47 PM page 1

Method: ICP1A Sample Name: QC_SRM-1643d 108518 Operator: DRS
Run Time: 03/14/96 13:23:28
Comment: (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	0-.0005	0.1377	0.0568	.1493	.5059	0.0121	.0324
SDev	.0007	.0031	.0094	.0029	.0026	.0000	.0127
%RSD	142.0	2.252	16.50	1.932	.5198	.0977	39.15
#1	0.0000	0.1355	0.0577	.1459	.5041	0.0121	.0269
#2	0-.0002	0.1413	0.0657	.1510	.5045	0.0121	.0468
#3	0-.0013	0.1363	0.0470	.1509	.5089	0.0121	.0233
Errors	QC Fail	QC Fail	QC Fail	QC Pass	QC Pass	QC Fail	NOCHECK
Value	.0013	.1276	.0560	.1448	.5065	.0125	
Range	.0570	3.500	.7300	5.200	8.900	.2800	

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	031.83	0.0033	-.0076	.0250	0.0189	0.0173	-.0012
SDev	.08	.0011	.0036	.0007	.0005	.0006	.0004
%RSD	.2377	34.17	47.33	2.872	2.767	3.208	32.83
#1	031.77	0.0037	-.0036	0.0257	0.0185	0.0168	-.0011
#2	031.82	0.0020	-.0087	.0249	0.0195	0.0179	-.0009
#3	031.92	0.0042	-.0105	0.0243	0.0188	0.0172	-.0016
Errors	QC Fail	QC Fail	NOCHECK	QC Pass	QC Fail	QC Fail	NOCHECK
Value	31.04	.0065		.0250	.0185	.0205	
Range	.6400	.3700		.5900	.2000	3.800	

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0006	0.1008	01.764	.0089	0.0162	08.470	0.0407
SDev	.0002	.0006	.096	.0009	.0010	.031	.0004
%RSD	42.47	.5673	5.430	9.976	6.000	.3704	.9542
#1	.0007	0.1013	01.841	.0100	0.0152	08.438	0.0409
#2	.0007	0.1008	01.795	.0083	0.0171	08.471	0.0402
#3	.0003	0.1002	01.657	.0085	0.0162	08.500	0.0409
Errors	NOCHECK	QC Fail	QC Fail	NOCHECK	QC Fail	QC Fail	QC Fail
Value		.0912	2.356		.0165	7.989	.0377
Range		3.900	.0350		.5500	.0350	.8300

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.1113	22.10	.0021	0.1138	.0096	0.0117	-.0224
SDev	.0008	.05	.0029	.0038	.0129	.0058	.0069
%RSD	.6919	.2425	141.2	3.342	135.0	49.84	30.70
#1	0.1109	22.06	.0051	0.1149	.0206	0.0162	-.0160
#2	.1121	22.09	.0018	0.1170	-.0046	0.0137	-.0217
#3	0.1107	22.16	-.0007	0.1096	.0126	0.0051	-.0297
Errors	QC Pass	QC Pass	NOCHECK	QC Fail	NOCHECK	QC Fail	NOCHECK
Value	.1129	22.07		.0581		.0181	

Range	1.700	.6400		2.700		.6400	
Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0120	-.0042	0.0711	0.0181	2.683	-.0315	.2991
SDev	.0048	.0015	.0114	.0146	.011	.0382	.0014
%RSD	39.93	36.02	15.98	80.64	.3976	121.2	.4739
#1	-.0107	-.0025	0.0805	0.0299	2.676	-.0091	.2982
#2	-.0079	-.0048	0.0742	0.0018	2.679	-.0099	.2984
#3	-.0172	-.0053	0.0585	0.0226	2.696	-.0756	.3008
Errors	NOCHECK	NOCHECK	QC Fail	QC Fail	NOCHECK	NOCHECK	QC Pass
Value			.0541	.0114			.2948
Range			1.100	.1700			3.400

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0032	-.0109	-.0002	0.0109	.1287	0.0343	.0044
SDev	.0018	.0022	.0001	.0081	.0922	.0006	.0010
%RSD	56.41	19.90	30.85	74.23	71.67	1.827	23.31
#1	-.0020	-.0132	-.0003	0.0079	.2018	.0349	.0056
#2	-.0023	-.0090	-.0003	0.0201	.1592	0.0337	.0037
#3	-.0053	-.0103	-.0002	0.0048	.0251	0.0342	.0039
Errors	NOCHECK	NOCHECK	NOCHECK	QC Fail	NOCHECK	QC Fail	NOCHECK
Value				.0073		.0351	
Range				.2500		1.400	

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0001	0.0781	-.0007
SDev	.0004	.0013	.0005
%RSD	557.8	1.644	74.24
#1	.0001	0.0782	-.0006
#2	.0002	0.0768	-.0002
#3	-.0005	0.0794	-.0013
Errors	NOCHECK	QC Fail	NOCHECK
Value		.0725	
Range		.6500	

Analysis Report Thu 03-14-96 01:29:16 PM page 1

Method: ICP1A Sample Name: QC CCV1 960126H901 Operator: DRS
Run Time: 03/14/96 13:27:57
Comment: 127.2DL.D (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0011	2.001	2.124	2.096	.9802	.9865	1.971
SDev	.0008	.008	.023	.017	.0082	.0065	.013
%RSD	68.87	.3796	1.086	.8049	.8335	.6596	.6719
#1	-.0009	1.999	2.132	2.091	.9793	.9871	1.973
#2	-.0005	1.996	2.098	2.083	.9726	.9827	1.957
#3	-.0020	2.010	2.142	2.115	.9888	.9956	1.984

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.086	1.029	-.0200	1.022	.5005	1.994	-.0009
SDev	.011	.002	.0075	.006	.0047	.017	.0010
%RSD	.5159	.2164	37.51	.5515	.9370	.8523	107.8
#1	2.083	1.029	-.0149	1.019	.4979	1.992	-.0006
#2	2.077	1.026	-.0165	1.018	.4977	1.978	-.0001
#3	2.098	1.031	-.0286	1.029	.5059	2.012	-.0020

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0004	2.022	4.196	-.0017	2.000	2.083	1.050
SDev	.0001	.012	.174	.0016	.019	.005	.006
%RSD	31.35	.6175	4.153	94.65	.9715	.2364	.5771
#1	-.0003	2.019	4.119	-.0019	1.992	2.087	1.050
#2	-.0003	2.012	4.395	.0000	1.986	2.078	1.044
#3	-.0005	2.036	4.073	-.0031	2.023	2.085	1.056

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.985	8.506	-.0111	2.088	4.949	2.004	-.0275
SDev	.015	.042	.0034	.021	.048	.001	.0048
%RSD	.7363	.4896	31.17	1.002	.9671	.0437	17.62
#1	1.984	8.545	-.0143	2.088	4.913	2.005	-.0293
#2	1.971	8.462	-.0075	2.067	4.931	2.003	-.0220
#3	2.000	8.511	-.0114	2.109	5.003	2.004	-.0311

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0142	.0021	.0148	2.035	4.819	.0229	2.001
SDev	.0115	.0013	.0060	.012	.025	.0311	.016
%RSD	81.38	61.10	40.51	.5937	.5263	135.8	.7913
#1	-.0110	.0007	.0217	2.023	4.807	.0472	1.998
#2	-.0046	.0032	.0123	2.035	4.801	.0337	1.986
#3	-.0270	.0026	.0105	2.047	4.848	-.0122	2.018

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0118	.0082	-.0006	2.001	-.2038	.9884	.0028
SDev	.0034	.0046	.0002	.025	.0413	.0049	.0017

%RSD	28.80	56.11	31.67	1.249	20.28	.4951	62.69
#1	.0129	.0040	-.0006	2.001	-.2005	.9875	.0046
#2	.0080	.0076	-.0004	1.976	-.1642	.9840	.0026
#3	.0145	.0131	-.0008	2.026	-.2467	.9936	.0011

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0012	1.037	-.0022
SDev	.0002	.004	.0006
%RSD	15.07	.3625	29.89
#1	-.0010	1.034	-.0019
#2	-.0011	1.035	-.0017
#3	-.0014	1.041	-.0029

Analysis Report Thu 03-14-96 01:33:46 PM page 1

Method: ICP1A Sample Name: ICP1.0 960103F100 Operator: DRS
Run Time: 03/14/96 13:32:27
Comment: 127.2DL.D (DRAINABLE LIQUIDS)K.SILVERS
Mode: CONC Corr. Factor: 1

Elem	Ag	Al	As	B	Ba	Be	Bi
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0012	.0041	.0017	-.0008	.0001	.0005	.0058
SDev	.0010	.0030	.0034	.0016	.0002	.0000	.0116
%RSD	79.59	72.45	202.1	206.8	182.7	3.184	200.5
#1	-.0001	.0068	.0007	.0009	.0003	.0005	.0190
#2	-.0015	.0009	.0054	-.0010	-.0001	.0005	.0009
#3	-.0020	.0048	-.0011	-.0021	.0001	.0005	-.0026

Elem	Ca	Cd	Ce	Co	Cr	Cu	Dy
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0061	-.0023	-.0113	-.0000	.0000	.0007	-.0009
SDev	.0012	.0027	.0101	.0007	.0017	.0023	.0009
%RSD	19.92	115.5	89.85	4145.	15440.	334.3	108.1
#1	-.0049	-.0037	-.0007	.0004	.0011	.0033	.0002
#2	-.0074	-.0041	-.0209	-.0009	-.0020	-.0004	-.0011
#3	-.0060	.0008	-.0124	.0003	.0009	-.0009	-.0016

Elem	Eu	Fe	K	La	Li	Mg	Mn
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0005	-.0061	-.5216	-.0017	-.0018	-.0075	.0005
SDev	.0003	.0010	.2317	.0011	.0005	.0042	.0002
%RSD	66.05	16.59	44.41	61.19	27.27	55.74	30.35
#1	-.0001	-.0052	-.2761	-.0006	-.0013	-.0039	.0006
#2	-.0007	-.0072	-.7364	-.0027	-.0023	-.0120	.0007
#3	-.0005	-.0060	-.5523	-.0019	-.0018	-.0064	.0004

Elem	Mo	Na	Nd	Ni	P	Pb	Pd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0012	-.0175	-.0094	.0277	-.0226	-.0084	-.0158
SDev	.0006	.0223	.0054	.0027	.0104	.0082	.0142
%RSD	45.16	127.3	57.38	9.594	46.21	97.55	89.54
#1	.0007	-.0047	-.0032	.0305	-.0314	-.0161	-.0011
#2	.0011	-.0046	-.0133	.0273	-.0111	-.0095	-.0294
#3	.0018	-.0432	-.0118	.0252	-.0252	.0003	-.0171

Elem	Rh	Ru	Sb	Se	Si	Sn	Sr
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.0075	-.0010	.0027	.0207	-.0156	-.0058	.0009
SDev	.0078	.0021	.0056	.0105	.0036	.0152	.0001
%RSD	103.7	205.7	204.9	50.66	22.79	262.5	7.843
#1	.0014	.0014	-.0011	.0212	-.0115	.0117	.0009
#2	-.0111	-.0021	.0092	.0100	-.0180	-.0134	.0009
#3	-.0128	-.0024	.0002	.0309	-.0174	-.0156	.0008

Elem	Te	Th	Ti	Tl	U	V	W
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.0030	-.0036	-.0008	.0063	-.1384	-.0009	-.0066
SDev	.0061	.0063	.0002	.0069	.0966	.0008	.0158

%RSD	201.3	172.5	28.53	110.5	69.79	86.73	238.8
#1	.0039	-.0018	-.0006	-.0009	-.0269	-.0000	.0074
#2	-.0035	.0015	-.0010	.0068	-.1940	-.0012	-.0035
#3	.0087	-.0106	-.0009	.0130	-.1942	-.0016	-.0238

Elem	Y	Zn	Zr
Units	ppm	ppm	ppm
Avge	-.0010	-.0007	-.0012
SDev	.0001	.0002	.0008
%RSD	13.94	22.89	66.09
#1	-.0008	-.0006	-.0010
#2	-.0010	-.0009	-.0021
#3	-.0010	-.0005	-.0006

C3 - IC ANALYSIS

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DATE TO QC: 03/22/96

DATA QUALITY REVIEW

I have reviewed the following data for completeness and for compliance with project requirements.

Analyte - IC Anions

Data Package/Report - BX-104

Project No. - 22762

ACL Numbers - 96-2979, 96-2981, 96-2982, 96-2983, 96-2984, 96-2985
96-2987, 96-2988, 96-2989, 96-2990, 96-2992

PNL ACL Quality Representative

3/27/96
Date

Battelle
Pacific Northwest Laboratories

Project Number 22421

Internal Distribution

File/LB

Date March 28, 1996

To Kurt Silvers

From M. O'Neill

Subject Tank BX104: Core 126, 127 and Drainable Liquids

The drainable liquids and core 126 and 127 tank samples were analyzed according to procedure PNL-ALO-212 using IC system 1 (M&TE # WD2513) and IC system 2 (M&TE # WD2514). The drainable liquids include Fld-Blk.F/96-2987, Hyd-Fluid.D/96-2988, 126.1DL.D/96-2989, 126.2DL.D/96-2990 and 127.2DL.D/96-2992. The core samples were prepared in the SAL according to PNL-ALO-110 prior to IC analysis. Core 126 samples include 126.1A.W/96-2979, 126.2A.W/96-2981, and 126.2B.W/96-2982. Core 127 samples include 127.1A.W/96-2983, 127.2B.W/96-2984, and 127.2A.W/96-2985. All of the samples were filtered through a 0.2 μm filter prior to IC analysis.

IC Calibration Ranges:

IC system 1 and system 2 were calibrated from 0.25 - 7.5 μg/ml for the halides (F, Cl, Br) and 0.5 - 30.0 μg/ml for the oxyanions (NO_2 ,NO_3 ,PO_4 , and SO_4).

Quality Control:

MCS-033 Deviations:

On 3/06/96, thirteen injections of sample were analyzed prior to injection of the low, mid, and high verification standards.

Verification Recoveries:

The continuing calibration "mid" verification standard recovery was within acceptable limits of 100 ± 10%. The "high" and "low" verification standard recoveries were also within 100 ± 10%, except the first and last "low" verification standards analyzed 3/14/96, using IC system 2. The phosphate and sulfate recoveries for these standards were low, by approximately 13%. The "low" and "high" verification standards are used to test the system response using standards at approximately 20% and 80% of the calibration curve, and are analyzed for informational purposes only.

Process Blanks:

Analyte concentrations in the process blank 96-2979 were less than the EQL, except chloride, phosphate and sulfate. Values reported for these analytes are flagged with an "*" if the concentration in the process blank is greater than 5% of the concentration measured in the sample.

Blank/Matrix Spikes:

The blank spike recoveries of fluoride and sulfate were within acceptable limits of 100 ± 20%. Low recoveries were found for nitrite (70%), and phosphate (79%). No further corrective actions were taken since the analytes were reported for information only.

For the matrix spike of sample 126.1A.W/96-2979, only fluoride and phosphate were recoverable; all other analytes were present in the sample at levels greater than 4 times the spike concentration. The phosphate recovery was within acceptable limits of 100 ± 25%, while the fluoride recovery (138%) was high. The high matrix spike recovery of fluoride may be due to interference from organic anions. No further corrective actions were taken since the analytes were reported for information only.

To estimate the accuracy of the analysis, a post spike and post spike duplicate were analyzed for sample 127.2A.W/96-2985. The recoveries were all within 100 ± 25%.

Relative Percent Difference:

The relative percent difference (RPD) was within acceptable limits of less than 20% for analytes of the sample and duplicate, except phosphate for 126.2B.W/96-2982 (108%) and FLD.BLK.F/96-2987 (23%). An aliquot of sample 126.2B.W/96-2982 was refiltered and reanalyzed, but the phosphate RPD did not change significantly. The phosphate results for this sample should be used with caution because of the large discrepancy between the sample and duplicate phosphate values.

Fluoride:

The fluoride reported for these tank samples is biased high because method PNL-ALO-212 does not currently use gradient elution which is needed to fully separate fluoride from the organic anions acetate and formate. Five μl injections were used to report the fluoride in an effort to provide the best resolution of fluoride from the organic anions.

Bromide/Nitrate:

The nitrate and bromide peaks were difficult to resolve completely for these tank samples, especially at higher injection volumes, because of the high concentration of nitrate relative to bromide. Results for five μl injections were reported for bromide.

The results for the samples are reported on the accompanying data report sheets. All sample and QC results can be found in system file: IC-325-400 System 1 File# 96.18 and System 2 File# 96.09.

MM O'Neill

Concur: MM O'Neill 3/28/96

Anion concentrations in samples from Tank BX104

This Data Summary sheet is not complete without narrative

Results are archived in System File IC-325-400-System 1 File #: 96.18 and System 2 File #: 96.09

ALO #	CLIENT ID	FLUORIDE	% RPD	CHLORIDE	% RPD	NITRITE	% RPD	BROMIDE	% RPD	NITRATE	% RPD	PHOSPHATE	% RPD	SULFATE	% RPD
		For the samples Listed below, units are in ug/ml													
(1) 96-2987	FLD-BLK.F	1.0		1.1		1.3		0.4		4.3		1.1		3.1	
96-2987	FLD-BLK.F	0.8		1.2		0.9		0.4		2.7		1.3		2.7	
DUP96-2987	FLD-BLK.F	0.8	0.0	1.1	8.7	1.1	20.0	0.4	0.0	3.4	23.0	1.4	7.4	2.8	3.6
(1) 96-2988	HYD-FLUID.D	<250		<250		<500		7500		<500		<500		<500	
96-2988	HYD-FLUID.D	<25.0		60		<50.0		8500		<50.0		<50.0		<50.0	
DUP96-2988	HYD-FLUID.D	<25.0		<25.0		<50.0		8000	6.1	<50.0		<50.0		<50.0	
96-2989 BLK	Process Blank	<0.25		0.3		<0.50		<0.25		<0.50		<0.50		<0.50	
(2) 96-2989 BLK	Process Blank	<30		30		<50		<30		<50		<50		<50	
DUP 96-2989 BLK	Process Blank	<0.25		0.3	0.0	<0.50		<0.25		<0.50		<0.50		<0.50	
(2) DUP 96-2989 BLK	Process Blank	<30		30	0.0	<50		<30		<50		<50		<50	
96-2989	126.1DL.D	300		2700		60000		<300		118000		4900		3700	
DUP96-2989	126.1DL.D	300	0.0	2700	0.0	60000	0.0	<300		118000	0.0	5000	2.0	3800	2.7
96-2990	126.2DL.D	300		2900		67000		<300		150000		4600		4100	
DUP96-2990	126.2DL.D	300	0.0	2900	0.0	68000	1.5	<300		152000	1.3	4600	0.0	4100	0.0
96-2992	127.2DL.D	300		1400		29700		14000		66000		3300		1800	
DUP96-2992	127.2DL.D	300	0.0	1400	0.0	29700	0.0	14000	0.0	67000	1.5	3300	0.0	1800	0.0

(1)Values are from analysis on 3/6/96 using IC System 1.

(2) Blank values were multiplied by the dilution factor 103.2

ALO #	CLIENT ID	FLUORIDE	% RPD	CHLORIDE	% RPD	NITRITE	% RPD	BROMIDE	% RPD	NITRATE	% RPD	PHOSPHATE	% RPD	SULFATE	% RPD
		For the samples Listed below, units are in ug/g													
(3) 96-2979 BLK	Process Blank	<0.25		0.4		<0.50		<0.25		0.9		<0.50		0.9	
(4) 96-2979 BLK	Process Blank	<25		40		<50		<25		90		<50		90	
96-2979	126.1A.W	600		890		18000		<500		34000		5800		1400 *	
DUP96-2979	126.1A.W	600	0.0	870	2.3	18000	0.0	<500		35000	2.9	6200	6.7	1400 *	0.0
96-2981	126.2A.W	<500		790 *		16300		<500		35900		1370		1250 *	
DUP96-2981	126.2A.W	<500		740 *	6.5	15000	8.3	<500		33200	7.8	1160	16.6	1160 *	7.5
96-2982	126.2B.W	<500		910		18000		<500		43000		2100		1500 *	
DUP96-2982	126.2B.W	600		890	2.2	18000	0.0	<500		43000	0.0	7000	108	1500 *	0.0
96-2983	127.1A.W	<500		1320		35200		<500		66000		4300		2360	
DUP96-2983	127.1A.W	<500		1260	4.7	35000	0.6	<500		66000	0.0	4400	2.3	2350	0.4
96-2984	127.2B.W	2000		1130		27000		<500		52000		21000		2000	
DUP96-2984	127.2B.W	1800	10.5	1140	0.9	26300	2.6	<500		51400	1.2	20300	3.4	1700 *	16.2
96-2985	127.2A.W	<500		580 *		11400		3000		26300		2630		930 *	
DUP96-2985	127.2A.W	<500		610 *	5.0	11400	0.0	3100	3.3	26300	0.0	3000	13.1	930 *	0.0

(3) Values are reported in ug/ml.

(4) The blank values in ug/ml were converted to ug/g a process factor of 100 (avg. process factor for samples extracted with blank).

* The concentration in the process blank is greater than 5% of the concentration measured in the sample.

2-1067

Anion concentrations in samples from Tank BX104
Results are archived in System File IC-325-400-System 1 File #: 96.18 and System 2 File #: 96.09

This Data Summary sheet is not complete without narrative

Blank Spike and Matrix Spike Percent Recoveries

ALO #	CLIENT ID	FLUORIDE	CHLORIDE	NITRITE	BROMIDE	NITRATE	PHOSPHATE	SULFATE
MS96-2979	126.1A.W	138	NA	NA	Not Spiked	NA	79	NA
(1) MS96-2985	127.2A.W	98	93	94	96	101	89	89
(1) MSD96-2985	127.2A.W	108	88	93	91	79	91	90
96-2979-BS		103	81	70	Not Spiked	87	79	92

NA: The percent recovery data is Not Available. The analyte concentration in the spike is less than 25% of the analyte concentration in the sample

(1) Post matrix spike and spike duplicate recoveries

FOR DATA REVIEW

FOR DATA REVIEW

This compiled data sheet is for data review and spike recovery calculations. Verification data is included.
All values are in ug/ml and are derived by dividing system quantitated values by (100/INJ VOL) X DIL(manual dilution factor).
100% ANALYTE LEVELS (HALIDES/OXYANIONS) : V1/LO- 1.25/5.00, V2/MID - 3.75/15.00, V3/HI - ~~6.25/25.00~~ 7.25 5000 SPIKE - 2.00/5.00
6.25/25.00 MWTL 3/21/96
M & TE ID: PN900902, WD25124,P/NB11620,P/NF02993
METHOD: PNL-MA-599-ALO-212, Var. Loop Size

Analyst M. Vaiss 3/15/96

Reviewer MWTL 3/20/96

INJ	SAMPLE ID	INJ VOL	DIL	F	Cl	NO2	Br	NO3	PO4	SO4
03/06.d01	DDI WATER - A01	100	1	0.00	0.11	0.00	0.00	0.20	0.00	0.21
03/06.d02	A960123V1/LO - A04	10	2	1.18	1.14	4.65	1.15	4.64	4.60	4.72
03/06.d03	A960123V2/MID - A04	30	2	3.81	3.64	15.24	3.66	15.24	15.02	15.18
03/06.d04	A960123V3/HI - A04	50	2	6.23	6.09	25.24	6.14	25.51	25.32	25.36
03/06.d05	A9603061B1 - A01	100	1	0.00	0.08	0.22	0.01	0.22	0.00	0.16
03/06.d06	96-2979/126.1A.W - A06	1	1	0.13	0.13	1.74	0.00	3.30	0.59	0.27
03/06.d07	96-2985/127.2A.W - A07	1	1	0.05	0.15	1.32	0.33	2.85	0.34	0.23
03/06.d08	96-2979/126.1A.W - A06	50	1	4.85	4.31	67.91	0.00	-97.67	28.65	6.86
03/06.d09	96-2985/127.2A.W - A07	50	1	2.15	3.12	57.39	7.45	-3.30	14.05	4.97
03/06.d10	A960123V2/MID - A04	30	2	3.74	3.65	15.33	3.67	15.21	14.84	15.21
03/06.d11	96-2979-BLK - A09	100	1	0.00	0.44	0.23	0.02	0.90	0.30	0.87
03/06.d12	96-2979-BS - A10	100	1	104 3.11	92% 1.34	70% 4.81	0.0 ~~35.49~~ MO 3-14-96	47 ~~0.00~~ MO 3-14-96	-184.25	92% 23.99
03/06.d13	DUP96-2979/126.1A.W -	50	1	4.61	4.23	69.12	0.00	-109.50	31.52	6.66
03/06.d14	96-2981/126.2A.W - A11	50	1	0.21	4.10	69.20	0.00	-197.83	7.13	6.47
03/06.d15	DUP96-2981/126.2A.W -	50	1	0.00	3.95	67.50	0.00	-165.08	6.19	6.20
03/06.d16	A960123V1/LO - A03	10	2	1.19	1.14	4.80	1.17	4.74	4.66	4.79
03/06.d17	A960123V2/MID - A03	30	2	3.73	3.65	15.53	3.72	15.28	15.22	15.33
03/06.d18	A960123V3/HI - A03	50	2	6.37	6.13	25.62	6.04	25.68	25.58	25.57
03/06.d19	A9603061B2 - A01	100	1	0.00	0.07	0.22	0.01	0.21	0.19	0.18
03/06.d20	96-2982/126.2B.W - A13	50	1	0.00	4.17	68.90	0.00	-258.78	9.51	7.05
03/06.d21	DUP96-2982/126.2B.W -	50	1	4.59	4.37	71.19	0.00	-324.02	37.04	7.42
03/06.d22	96-2983/127.1A.W - A15	50	1	0.00	6.71	84.36	0.00	-1297.23	25.18	11.99
03/06.d23	DUP96-2983/127.1A.W -	50	1	0.00	6.59	83.92	0.00	-1378.08	26.58	12.27
03/06.d24	96-2984/127.1B.W - A17	50	1	11.39	5.60	82.67	0.00	-595.12	8.33	15.60
03/06.d25	DUP96-2984/127.1B.W -	50	1	10.89	5.70	82.58	0.00	-586.48	16.16	9.04

SAMPLES ANALYZED ON: 03/06/96 USING SYSTEM IC-325-400-SYS 1 (DATA ARCHIVAL LOCATOR)

FOR DATA REVIEW ***FOR DATA REVIEW***

This compiled data sheet is for data review and spike recovery calculations. Verification data is included.

All values are in ug/ml and are derived by dividing system quantitated values by (100/INJ VOL) X DIL(manual dilution factor).

100% ANALYTE LEVELS (HALIDES/OXYANIONS) : V1/LO- 1.25/5.00, V2/MID - 3.75/15.00, V3/HI - 6.25/25.00, SPIKE - 2.00/5.00

M & TE ID: PN900902, WD25124,P/NB11620,P/NF02993 METHOD: PNL-MA-599-ALO-212, Var. Loop Size

Analyst M. O'Neill 3/15/96 Reviewer MW Ulm 3/20/96

INJ	SAMPLE ID	INJ VOL	DIL	F	Cl	NO2	Br	NO3	PO4	SO4
03/06.d26	DUP96-2985/127.2A.W -	50	1	2.15	3.08	55.85	7.20	13.58	15.12	4.71
1 03/06.d27	MS96-2979/126.1A.W -	50	1	138 6.92	90% 4.75	70.72	0.00	-210.01	-7.06	97% 18.95
03/06.d28	A960123V1/LO - A03	10	2	1.20	1.23	5.12	1.13	4.62	4.78	4.78
03/06.d29	A960123V2/MID - A03	30	2	3.84	3.69	15.57	3.79	15.12	15.29	15.31
03/06.d30	A960123V3/HI - A03	50	2	6.26	6.14	25.81	6.25	25.68	25.57	25.55
03/06.d31	A9603061B3 - A01	100	1	0.00	0.08	0.22	0.00	0.22	0.20	0.18
03/06.d32	96-2979/126.1A.W - A06	5	1	0.31	0.44	8.57	0.00	16.55	2.55	0.72
03/06.d33	DUP96-2979/126.1A.W -	5	1	0.30	0.43	8.80	0.00	16.93	2.77	0.70
03/06.d34	MS96-2979/126.1A.W -	50	1	6.90	4.75	70.45	0.00 ~~2038.99~~ MO 3-14-96	-421 ~~0.00~~ MO 3-14-96	-7.29	18.95
03/06.d35	96-2979-BLK - A09	5	1	0.00	0.09	0.27	0.00	0.23	0.00	0.20
03/06.d36	96-2979-BS - A10	5	1	0.17	0.10	0.42	0.00	2.84	8.67	1.22
03/06.d37	96-2981/126.2A.W - A11	5	1	0.10	0.40	8.46	0.09	18.68	0.98	0.66
03/06.d38	DUP96-2981/126.2A.W -	5	1	0.09	0.38	8.00	0.08	17.72	0.63	0.62
03/06.d39	96-2982/126.2B.W - A34	5	1	0.10	0.40	8.28	0.08	19.89	0.88	0.70
03/06.d40	DUP96-2982/126.2B.W -	5	1	0.33	0.42	8.89	0.09	21.21	3.37	0.72
03/06.d41	96-2983/127.1A.W - A15	5	1	0.23	0.82	17.87	0.00	32.82	2.19	1.10
03/06.d42	DUP96-2983/127.1A.W -	5	1	0.24	0.84	18.33	0.00	33.51	2.33	1.12
03/06.d43	96-2984/127.1B.W - A17	5	1	0.99	0.61	13.20	0.02	25.68	10.52	0.88
03/06.d44	DUP96-2984/127.1B.W -	5	1	0.88	0.61	13.19	0.02	25.71	10.15	0.87
03/06.d45	A960123V1/LO - A04	10	2	1.15	1.11	4.62	1.14	4.59	4.69	4.57
03/06.d46	A960123V2/MID - A04	30	2	3.78	3.60	15.30	3.74	15.05	15.17	15.07
03/06.d47	A960123V3/HI - A04	50	2	6.24	6.04	25.28	6.14	25.29	25.33	25.18
03/06.d48	A9603061B4 - A01	100	1	0.00	0.29	0.22	0.00	0.95	0.25	0.18
03/06.d49	96-2985/127.2A.W - A07	5	1	0.15	0.31	6.11	1.62	14.07	1.25	0.53
03/06.d50	DUP96-2985/127.2A.W -	5	1	0.15	0.29	5.77	1.54	13.28	1.28	0.52

SAMPLES ANALYZED ON: 03/06/96 USING SYSTEM IC-325-400-SYS 1 (DATA ARCHIVAL LOCATOR)

1 03/06.d08, 50µl inj. of 96-2979, was used to calc the spike recoveries of the matrix spike. (See page 1).

FOR DATA REVIEW ***FOR DATA REVIEW***

This compiled data sheet is for data review and spike recovery calculations. Verification data is included.

All values are in ug/ml and are derived by dividing system quantitated values by (100/INJ VOL) X DIL(manual dilution factor).

100% ANALYTE LEVELS (HALIDES/OXYANIONS) : V1/LO- 1.25/5.00, V2/MID - 3.75/15.00, V3/HI - 6.25/25.00, SPIKE - 2.00/5.00

M & TE ID: PN900902, WD25124,P/NB11620,P/NF02993 METHOD: PNL-MA-599-ALO-212, Var. Loop Size

Analyst M. Mill 3/15/96 Reviewer MW Ulm 3/20/96

	INJ	SAMPLE ID	INJ VOL	DIL	F	Cl	NO2	Br	NO3	PO4	SO4
	03/06.d51	96-2982/126.2B.W - A36	5	1	0.09	0.40	8.22	0.08	19.80	0.93	0.70
	03/06.d52	DUP96-2982/126.2B.W -	5	1	0.30	0.42	8.81	0.09	21.08	3.35	0.72
	03/06.d53	96-2982/126.2B.W - A34	50	1	0.34	4.13	68.21	0.00	-238.44	9.49	6.87
	03/06.d54	DUP96-2982/126.2B.W -	50	1	4.42	4.32	70.56	0.00	-298.89	36.57	7.21
	03/06.d55	96-2982/126.2B.W - A36	50	1	0.57	4.15	68.27	0.00	-237.06	9.69	6.88
	03/06.d56	DUP96-2982/126.2B.W -	50	1	3.96	4.33	70.53	0.00	-296.05	36.63	7.19
	03/06.d57	A960123V1/LO - A04	10	2	1.14	1.11	4.61	1.14	4.59	4.51	4.59
	03/06.d58	A960123V2/MID - A04	30	2	3.78	3.61	15.33	3.70	15.04	15.07	15.06
	03/06.d59	A960123V3/HI - A04	50	2	6.27	6.03	25.46	6.25	24.87	25.34	25.25
	03/06.d60	A9603061B5 - A01	100	1	0.00	0.06	0.22	0.00	0.21	0.27	0.19
	03/06.d62	A960123V1/LO - A04	10	2	1.14	1.12	4.58	1.15	4.60	4.55	4.60
	03/06.d63	A960123V2/MID - A04	30	2	3.77	3.61	15.24	3.72	15.10	15.04	15.03
	03/06.d64	A960123V3/HI - A04	50	2	6.22	6.05	25.24	6.24	25.14	25.23	25.14
	03/06.d65	A9603071B1 - A01	100	1	0.00	0.05	0.22	0.00	0.20	0.23	0.19
	03/06.d66	96-2985/127.2A.W - A21	100	50	0.06	0.17	2.61	0.69	5.93	0.73	0.33
1	03/06.d67	MS96-2985/127.2A.W -	100	50	48% 2.01	93% 2.02	94% 7.33	96% 2.60	101 10.99	89% 5.17	89% 4.77
	03/06.d68	96-2985/127.2A.W - A23	100	10	0.26	0.64	13.34	3.45	29.39	2.59	1.01
2	03/06.d69	MS96-2985/127.2A.W -	100	10	108% 2.41	88 2.40	93% 17.98	91% 5.27	79% 33.33	91% 7.15	90% 5.49
	03/06.d70	96-2979/126.1A.W - A06	25	1	1.55	2.22	41.26	0.00	46.52	13.92	3.29
	03/06.d71	DUP96-2979/126.1A.W -	25	1	1.51	2.18	42.15	0.00	45.88	15.13	3.19
	03/06.d72	A960123V1/LO - A04	10	2	1.17	1.12	4.46	1.15	4.58	4.53	4.56
	03/06.d73	A960123V1/LO - A04	10	2	1.13	1.11	4.60	1.15	4.59	4.60	4.57
	03/06.d74	A960123V2/MID - A04	30	2	3.74	3.60	15.21	3.72	14.92	15.00	14.97
	03/06.d75	A960123V3/HI - A04	50	2	6.15	6.05	25.20	6.14	25.32	25.14	25.06
	03/06.d76	A9603071B2 - A01	100	1	0.00	0.06	0.00	0.00	0.21	0.27	0.20

SAMPLES ANALYZED ON: 03/06/96 USING SYSTEM IC-325-400-SYS 1 (DATA ARCHIVAL LOCATOR)

1+2 Spike recoveries calculated using the inj. just before the matrix spike inj. (03/06 d66 and .d68).

WHC-SD-WM-DP-171, REV. 1

FOR DATA REVIEW

FOR DATA REVIEW

This compiled data sheet is for data review and spike recovery calculations. Verification data is included.
All values are in ug/ml and are derived by dividing system quantitated values by (100/INJ VOL) X DIL(manual dilution factor).
100% ANALYTE LEVELS (HALIDES/OXYANIONS) : V1/LO- 1.25/5.00, V2/MID - 3.75/15.00, V3/HI - 6.25/25.00, SPIKE - 2.00/5.00
M & TE ID: PN900902, WD25124,P/NB11620,P/NF02993

METHOD: PNL-MA-599-ALO-212, Var. Loop Size

Analyst M. O'Neill 3/15/96

Reviewer M W Ulm 3/20/96

INJ	SAMPLE ID	INJ VOL	DIL	F	Cl	NO2	Br	NO3	PO4	SO4
2 03/06.d77	96-2987/FLD. BLNK - A2	100	1	4.31	-682.57	18.22	-24871.40	0.00	-20.51	-3117.99
03/06.d78	96-2987/FLD. BLNK - A3	1	1	0.05	0.05	0.22	0.00	0.36	0.00	0.19
03/06.d79	96-2987/FLD. BLNK - A3	100	1	1.00	1.15	1.29	0.44	4.30	1.09	3.10
03/06.d80	96-2988/HYD. FLUID - A	1	100	0.00	0.05	0.00	0.76	0.20	0.00	0.00
1 03/06.d81	MS96-2979/126.1A.W -	5	1	0.40	0.46	22% 8.64	0.00	80% 18.94	79% 11.25	73% 1.63
03/06.d82	96-2979-BLK - A09	5	1	0.00	0.06	0.00	0.00	0.23	0.20	0.18
03/06.d83	96-2979-BS - A33	5	1	0.17	0.10	0.41	0.00	86% 2.80	78% 8.78	81% 1.19
03/06.d84	96-2988/HYD. FLUID - A	5	100	0.00	0.05	0.00	3.77	0.00	0.36	0.00
03/06.d85	96-2981/126.2A.W - A26	100	190	0.00	0.09	1.03	0.02	2.10	0.66	0.21
03/06.d86	MS96-2981/126.2A.W -	100	190	0.22	0.10	1.02	0.02	2.08	0.41	0.21
03/06.d87	A960123V1/LO - A04	10	2	1.14	1.11	4.55	1.14	4.60	4.57	4.59
03/06.d88	A960123V2/MID - A04	30	2	3.77	3.63	15.20	3.72	15.15	15.11	15.06
03/06.d89	A960123V3/HI - A04	50	2	6.26	6.10	25.19	6.01	25.31	25.35	25.23
03/06.d90	A9603071B3 - A01	100	1	0.00	0.06	0.00	0.01	0.21	0.24	0.20
03/06.d91	96-2983/127.1A.W - A15	2	1	0.12	0.34	6.81	0.00	13.39	0.87	0.50
03/06.d92	DUP96-2983/127.1A.W -	2	1	0.12	0.34	7.00	0.00	13.73	0.94	0.51
03/06.d93	96-2988/HYD. FLUID - A	10	100	0.00	0.05	0.22	7.81	0.00	0.20	0.00
03/06.d94	DILUTION BLANK - A28	100	1	0.00	0.10	0.22	0.00	0.21	0.20	0.00
03/06.d95	A960123V1/LO - A05	10	2	1.17	1.13	4.72	1.17	4.74	4.64	4.71
03/06.d96	A960123V2/MID - A05	30	2	3.87	3.71	15.64	3.83	15.59	15.44	15.49
03/06.d97	A960123V3/HI - A05	50	2	6.42	6.23	25.82	6.12	26.11	25.94	25.92
03/06.d98	A9603071B4 - A01	100	1	0.00	0.07	0.22	0.00	0.23	0.25	0.20

SAMPLES ANALYZED ON: 03/06/96 USING SYSTEM IC-325-400-SYS 1 (DATA ARCHIVAL LOCATOR)

1 03/06.d32, 5 uling. of 96-2979 used to calc. the spike recoveries. (on page 2 of Data Review)

2. Sample came from Rad Chem group + was preserved w/ HNO_3.

2-1072

****REPORT GENERATION FOR SOLID SAMPLES****

This compiled data sheet may be used for report generation, DIL(EX)=EXTRACTION DILUTION&DIL(AN)=ANALYTICAL DILUTION=(100/INJ VOL) X MANUAL DILUTION (from Data Review Sheet)

Divide ug/g values in this table by the product, DIL(EX)*DIL(AN), to obtain the concentrations in the analyzed solutions.

Approx. DL values (ug/g, solids) may be found by multiplying DIL(EX)*DIL(AN by 0.25 and 0.5 for halides and oxy-anions, respectively.

M&TE ID: WD02513,PN900907

METHOD: PNL-MA 599-ALO-212, Var. Loop Size

Analyst: M. O'Neill 5-15-96

Reviewer: MD Thr 3/20/96

********** Units of Measurement: ug/g (ppm) **********

INJ.	SAMPLE ID.	INJ. VOL	DIL (EX)	%SOLI	SAM. WT.	DIL.VOL.	DIL. (AN)	F	Cl	NO2	Br	NO3	PO4	SO4
02/26.d05	96-2989-BLK - A16	100					1							
02/26.d20	DUP96-2989-BLK - A20	100					1							
02/26.d05	96-2989-BLK - A16	100	103.174		0.0967	9.8802	NO 100 5-13-96	25.7934333	31.578694	51.5868666	25.7934333	25.7934333	25.7934333	25.7934333
02/26.d20	DUP96-2989-BLK - A20	100	103.174		0.0967	9.8802	PFF 10 5-13-96	25.7934333	31.8455013	51.5868666	25.7934333	25.7934333	25.7934333	25.7934333
02/26.d06	96-2989/126.1DL.D - A17	10	103.174		0.0967	9.8802	100	754.148403	3060.4734	60025.8589	0	117950.275	6044.46411	5093.18166
02/26.d13	96-2989/126.1DL.D - A17	100	103.174		0.0967	9.8802	10	318.383823	2667.38148	52236.2421	0	29361.3873	4929.95049	3724.60272
02/26.d10	DUP96-2989/126.1DL.D -	10	103.174		0.0967	9.8802	100	742.884926	3296.34919	60321.3485	0	118268.05	5984.22097	5190.57766
02/26.d21	DUP96-2989/126.1DL.D -	100	103.174		0.0967	9.8802	10	291.130482	2698.98359	52391.6217	0	28886.1691	4952.75189	3758.22704
02/26.d07	96-2990/126.2DL.D - A18	10	103.174		0.0967	9.8802	100	708.313472	3347.09003	67133.8069	1016.71008	150416.986	5552.98572	5479.83554
02/26.d14	96-2990/126.2DL.D - A18	100	103.174		0.0967	9.8802	10	262.991909	2946.64182	56663.7365	0	-17520.138	4591.99461	4121.03747
02/26.d11	DUP96-2990/126.2DL.D -	10	103.174		0.0967	9.8802	100	705.171832	3360.23436	67729.9448	1049.45226	151582.849	5670.29425	5427.78439
02/26.d22	DUP96-2990/126.2DL.D -	100	103.174		0.0967	9.8802	10	259.746064	2942.06091	56707.379	0	-17867.833	4597.17393	4123.21444
02/26.d08	96-2992/127.2DL.D - A19	10	103.174		0.0967	9.8802	100	730.450428	1768.70731	29907.5891	14155.4362	66451.0032	4466.71075	3227.27437
02/26.d19	96-2992/127.2DL.D - A19	100	103.174		0.0967	9.8802	10	264.051504	1384.72563	29746.1222	12325.031	49520.2967	3322.20453	1823.77113
02/26.d12	DUP96-2992/127.2DL.D -	10	103.174		0.0967	9.8802	100	743.294526	1785.28733	30154.2775	14258.3004	67051.1648	4535.58953	3285.90801
02/26.d23	DUP96-2992/127.2DL.D -	100	103.174		0.0967	9.8802	10	267.905043	1392.26763	29689.7893	12341.642	49454.7814	3315.54982	1806.33477

SAMPLES ANALYZED USING SYSTEM IC-325-400 SYS2 (DATA ARCHIVAL LOCATOR)

2-1073

WHC-SD-WM-DP-171, REV. 1

****REPORT GENERATION FOR LIQUID SAMPLES****

This compiled data sheet may be used for report generation, %RPD calculations, and spike recovery calculations.

Divide values in this table by DIL ((100/INJ VOL) X Manual Dilution from Data Review Sheet), to obtain the concentration in the analyzed solutions.

Approx. DL values (ug/ml, liquids) may be found by multiplying DIL by 0.25 and 0.5 for halides and oxy-anions, respectively.

M&TE ID: WD02513,PN900907

METHOD: PNL-MA 599-ALO-212, Var. Loop Size

Analyst M. Mill 3-15-96

Reviewer MW Thu 3/20/96

Units of Measurement: ug/ml (ppm)

INJ.	SAMPLE ID.	INJ. VOL.	DIL.	F	Cl	NO2	Br	NO3	PO4	SO4
02/26.d05	96-2989-BLK - A16	100	1.0	0.0	0.3	0.0	0.0	0.2	0.0	0.2
02/26.d20	DUP96-2989-BLK - A20	100	1.0	0.0	0.3	0.0	0.0	0.2	0.0	0.2
02/26.d06	96-2989/126.1DL.D - A17	10	100.0	7.3	29.7	581.8	0.0	1143.2	58.6	49.4
02/26.d13	96-2989/126.1DL.D - A17	100	10.0	3.1	25.9	506.3	0.0	284.6	47.8	36.1
02/26.d10	DUP96-2989/126.1DL.D - A2	10	100.0	7.2	31.9	584.7	0.0	1146.3	58.0	50.3
02/26.d21	DUP96-2989/126.1DL.D - A2	100	10.0	2.8	26.2	507.8	0.0	280.0	48.0	36.4
02/26.d07	96-2990/126.2DL.D - A18	10	100.0	6.9	32.4	650.7	9.9	1457.9	53.8	53.1
02/26.d14	96-2990/126.2DL.D - A18	100	10.0	2.5	28.6	549.2	0.0	-169.8	44.5	39.9
02/26.d11	DUP96-2990/126.2DL.D - A2	10	100.0	6.8	32.6	656.5	10.2	1469.2	55.0	52.6
02/26.d22	DUP96-2990/126.2DL.D - A2	100	10.0	2.5	28.5	549.6	0.0	-173.2	44.6	40.0
02/26.d08	96-2992/127.2DL.D - A19	10	100.0	7.1	17.1	289.9	137.2	644.1	43.3	31.3
02/26.d19	96-2992/127.2DL.D - A19	100	10.0	2.6	13.4	288.3	119.5	480.0	32.2	17.7
02/26.d12	DUP96-2992/127.2DL.D - A2	10	100.0	7.2	17.3	292.3	138.2	649.9	44.0	31.8
02/26.d23	DUP96-2992/127.2DL.D - A2	100	10.0	2.6	13.5	287.8	119.6	479.3	32.1	17.5

SAMPLES ANALYZED USING SYSTEM IC-325-400 SYS2 (DATA ARCHIVAL LOCATOR)

FOR DATA REVIEW ***FOR DATA REVIEW***

This compiled data sheet is for data review and spike recovery calculations. Verification data is included.

All values are in ug/ml and are derived by dividing system quantitated values by (100/INJ VOL) X DIL(manual dilution factor).

100% ANALYTE LEVELS (HALIDES/OXYANIONS) : V1/LO- 1.25/5.00, V2/MID - 3.75/15.00, V3/HI - 6.25/25.00, SPIKE - 2.00/5.00

M & TE ID: PN900902, WD25124,P/NB11620,P/NF02993 METHOD: PNL-MA-599-ALO-212, Var. Loop Size

Analyst M. O'Neill 3/15/96 Reviewer MWOhm 3/20/96

INJ	SAMPLE ID	INJ VOL	DIL	F	Cl	NO2	Br	NO3	PO4	SO4
02/26.d16	A960123V1/LO - A04	10	2	1.21	1.22	4.97	1.28	4.96	5.11	5.02
02/26.d17	A960123V2/MID - A04	30	2	3.96	3.87	16.05	3.98	15.95	16.09	16.02
02/26.d18	A960123V3/HI - A04	50	2	6.48	6.48	26.57	6.51	26.76	26.82	26.69
02/26.d19	A9602261B2 - A01	100	1	0.00	0.00	0.00	0.00	0.19	0.00	0.16
02/26.d06	DILUTION BLANK - A11	100	1	0.00	0.05	0.00	0.00	0.00	0.00	0.00
02/26.d05	96-2989-BLK - A16	100	1	0.00	0.31	0.00	0.00	0.23	0.00	0.22
02/26.d06	96-2989/126.1DL.D - A1	10	10	0.07	0.30	5.82	0.00	11.43	0.59	0.49
02/26.d07	96-2990/126.2DL.D - A1	10	10	0.07	0.32	6.51	0.10	14.58	0.54	0.53
02/26.d08	96-2992/127.2DL.D - A1	10	10	0.07	0.17	2.90	1.37	6.44	0.43	0.31
02/26.d09	96-2848/118.1ADL.D-A07	100	10	1.03	1.06	25.32	-1087.18	46.01	0.33	5.53
02/26.d10	DUP96-2989/126.1DL.D -	10	10	0.07	0.32	5.85	0.00	11.46	0.58	0.50
02/26.d11	DUP96-2990/126.2DL.D -	10	10	0.07	0.33	6.56	0.10	14.69	0.55	0.53
02/26.d12	DUP96-2992/127.2DL.D -	10	10	0.07	0.17	2.92	1.38	6.50	0.44	0.32
02/26.d13	96-2989/126.1DL.D - A1	100	10	0.31	2.59	50.63	0.00	28.46	4.78	3.61
02/26.d14	96-2990/126.2DL.D - A1	100	10	0.25	2.86	54.92	0.00	-16.98	4.45	3.99
02/26.d15	A960123V1/LO - A04	10	2	1.21	1.21	4.91	1.25	4.96	5.01	4.98
02/26.d16	A960123V2/MID - A04	30	2	3.91	3.88	16.05	3.94	16.05	16.02	15.98
02/26.d17	A960123V3/HI - A04	50	2	6.55	6.46	26.58	6.66	25.96	26.72	26.61
02/26.d18	A9602261B3 - A01	100	1	0.00	0.00	0.00	0.00	0.19	0.00	0.17
02/26.d19	96-2992/127.2DL.D - A1	100	10	0.26	1.34	28.83	11.95	48.00	3.22	1.77
02/26.d20	DUP96-2989-BLK - A20	100	1	0.00	0.31	0.00	0.00	0.23	0.00	0.23
02/26.d21	DUP96-2989/126.1DL.D -	100	10	0.28	2.62	50.78	0.00	28.00	4.80	3.64
02/26.d22	DUP96-2990/126.2DL.D -	100	10	0.25	2.85	54.96	0.00	-17.32	4.46	4.00
02/26.d23	DUP96-2992/127.2DL.D -	100	10	0.26	1.35	28.78	11.96	47.93	3.21	1.75
02/26.d24	A960123V1/LO - A04	10	2	1.20	1.21	4.95	1.25	4.94	4.97	4.95

SAMPLES ANALYZED ON: 02/26/96 USING SYSTEM IC-325-400-SYS 1 (DATA ARCHIVAL LOCATOR)

FOR DATA REVIEW ***FOR DATA REVIEW***

This compiled data sheet is for data review and spike recovery calculations. Verification data is included.

All values are in ug/ml and are derived by dividing system quantitated values by (100/INJ VOL) X DIL(manual dilution factor).

100% ANALYTE LEVELS (HALIDES/OXYANIONS) : V1/LO- 1.25/5.00, V2/MID - 3.75/15.00, V3/HI - 6.25/25.00, SPIKE - 2.00/5.00

M & TE ID: PN900902, WD25124,P/NB11620,P/NF02993 METHOD: PNL-MA-599-ALO-212, Var. Loop Size

Analyst M. Mill 3/15/96 Reviewer MW Th 3/28/96

INJ	SAMPLE ID	INJ VOL	DIL	F	Cl	NO2	Br	NO3	PO4	SO4
02/26.d25	A960123V2/MID - A04	30	2	3.93	3.86	16.09	3.93	16.08	15.98	15.97
02/26.d26	A960123V3/HI - A04	50	2	6.56	6.45	26.62	6.67	25.80	26.69	26.61
02/26.d27	A9602261B4 - A01	100	1	0.00	0.00	0.00	0.00	0.19	0.15	0.17

SAMPLES ANALYZED ON: 02/26/96 USING SYSTEM IC-325-400-SYS 1 (DATA ARCHIVAL LOCATOR)

****REPORT GENERATION FOR LIQUID SAMPLES****

This compiled data sheet may be used for report generation, %RPD calculations, and spike recovery calculations.
Divide values in this table by DIL ((100/INJ VOL) X Manual Dilution from Data Review Sheet), to obtain the concentration in the analyzed solutions.
Approx. DL values (ug/ml, liquids) may be found by multiplying DIL by 0.25 and 0.5 for halides and oxy-anions, respectively.
M&TE ID: WD02514,PN900902

METHOD: PNL-MA 599-ALO-212, Var. Loop Size

Analyst M. Neill 3/15/96

Reviewer MW Zhu 3/20/96

Units of Measurement: ug/ml (ppm)

INJ.	SAMPLE ID.	INJ. VOL.	DIL.	F	Cl	NO2	Br	NO3	PO4	SO4
03/07.d94	DILUTION BLANK - A28	100	1.0	0.0	0.1	0.2	0.0	0.2	0.2	0.0
03/07.d79	96-2987/FLD. BLNK - A32	100	1.0	1.0	1.1	1.3	0.4	4.3	1.1	3.1
03/07.d80	96-2988/HYD. FLUID - A31	1	10000.0	0.0	491.1	0.0	7609.6	2034.7	0.0	0.0
03/07.d84	96-2988/HYD. FLUID - A31	5	2000.0	0.0	97.1	0.0	7530.7	0.0	713.2	0.0
03/07.d93	96-2988/HYD. FLUID - A31	10	1000.0	0.0	49.6	221.0	7811.6	0.0	197.8	0.0
03/06.d11	96-2979-BLK - A09	100	1.0	0.0	0.4	0.2	0.0	0.9	0.3	0.9
03/07.d82	96-2979-BLK - A09	5	20.0	0.0	1.2	0.0	0.0	4.5	4.0	3.6
03/06.d35	96-2979-BLK - A09	5	20.0	0.0	1.7	5.5	0.0	4.7	0.0	4.0
03/06.d12	96-2979-BS - A10	100	1.0	3.1	1.3	4.8	-35.5	0.0	-184.3	24.0
03/07.d83	96-2979-BS - A33	5	20.0	3.3	2.0	8.1	0.0	55.9	175.5	23.8
03/06.d36	96-2979-BS - A10	5	20.0	3.4	1.9	8.4	0.0	56.9	173.5	24.5
03/06.d06	96-2979/126.1A.W - A06	1	100.0	13.4	12.9	174.4	0.0	330.1	59.2	26.8
03/06.d32	96-2979/126.1A.W - A06	5	20.0	6.2	8.8	171.5	0.0	-331.0	51.0	14.4
03/06.d70	96-2979/126.1A.W - A06	25	4.0	6.2	8.9	165.0	0.0	186.1	55.7	13.2
03/06.d08	96-2979/126.1A.W - A06	50	2.0	9.7	8.6	135.8	0.0	-195.3	57.3	13.7
03/06.d33	DUP96-2979/126.1A.W - A08	5	20.0	6.0	8.6	176.0	0.0	338.6	55.4	14.0
03/06.d71	DUP96-2979/126.1A.W - A08	25	4.0	6.0	8.7	168.6	0.0	183.5	60.5	12.7
03/06.d13	DUP96-2979/126.1A.W - A08	50	2.0	9.2	8.5	138.2	0.0	-219.0	63.0	13.3
03/07.d81	MS96-2979/126.1A.W - A20	5	20.0	8.0	9.2	172.8	0.0	378.8	224.9	32.5
03/06.d27	MS96-2979/126.1A.W - A20	50	2.0	13.8	9.5	141.4	0.0	-420.0	-14.1	37.9
03/06.d34	MS96-2979/126.1A.W - A20	50	2.0	13.8	9.5	140.9	-4078.0	0.0	-14.6	37.9
03/06.d37	96-2981/126.2A.W - A11	5	20.0	2.0	8.1	169.1	1.7	373.6	19.6	13.2
03/06.d14	96-2981/126.2A.W - A11	50	2.0	0.4	8.2	138.4	0.0	-395.7	14.3	12.9
03/06.d38	DUP96-2981/126.2A.W - A12	5	20.0	1.7	7.6	160.0	1.6	354.5	12.7	12.5
03/06.d15	DUP96-2981/126.2A.W - A12	50	2.0	0.0	7.9	135.0	0.0	-330.2	12.4	12.4

SAMPLES ANALYZED USING SYSTEM IC-325-400 SYS1 (DATA ARCHIVAL LOCATOR)

2-1077

****REPORT GENERATION FOR LIQUID SAMPLES****

This compiled data sheet may be used for report generation, %RPD calculations, and spike recovery calculations.
Divide values in this table by DIL ((100/INJ VOL) X Manual Dilution from Data Review Sheet), to obtain the concentration in the analyzed solutions.
Approx. DL values (ug/ml, liquids) may be found by multiplying DIL by 0.25 and 0.5 for halides and oxy-anions, respectively.
M&TE ID: WD02514,PN900902

METHOD: PNL-MA 599-ALO-212, Var. Loop Size

Analyst M. O'Neill 3/15/96

Reviewer M.O. Thu 3/20/96

Units of Measurement: ug/ml (ppm)

	INJ.	SAMPLE ID.	INJ. VOL.	DIL.	F	Cl	NO2	Br	NO3	PO4	SO4
*	03/06.d51	96-2982/126.2B.W - A36	5	20.0	1.7	8.0	164.5	1.7	396.0	18.5	13.9
**	03/06.d39	96-2982/126.2B.W - A34	5	20.0	1.9	8.0	165.6	1.6	397.8	17.6	13.9
x	03/06.d20	96-2982/126.2B.W - A13	50	2.0	0.0	8.3	137.8	0.0	-517.6	19.0	14.1
	03/06.d53	96-2982/126.2B.W - A34	50	2.0	0.7	8.3	136.4	0.0	-476.9	19.0	13.7
	03/06.d55	96-2982/126.2B.W - A36	50	2.0	1.1	8.3	136.5	0.0	-474.1	19.4	13.8
*	03/06.d52	DUP96-2982/126.2B.W - A37	5	20.0	6.1	8.4	176.2	1.8	421.6	66.9	14.4
**	03/06.d40	DUP96-2982/126.2B.W - A35	5	20.0	6.5	8.5	177.8	1.7	424.3	67.5	14.5
x	03/06.d21	DUP96-2982/126.2B.W - A14	50	2.0	9.2	8.7	142.4	0.0	-648.0	74.1	14.8
	03/06.d54	DUP96-2982/126.2B.W - A35	50	2.0	8.8	8.6	141.1	0.0	-597.8	73.1	14.4
	03/06.d56	DUP96-2982/126.2B.W - A37	50	2.0	7.9	8.7	141.1	0.0	-592.1	73.3	14.4
	03/07.d91	96-2983/127.1A.W - A15	2	50.0	5.9	16.9	340.7	0.0	669.7	43.6	25.1
	03/06.d41	96-2983/127.1A.W - A15	5	20.0	4.7	16.4	357.3	0.0	656.4	43.8	22.0
	03/06.d22	96-2983/127.1A.W - A15	50	2.0	0.0	13.4	168.7	0.0	-2594.5	50.4	24.0
	03/07.d92	DUP96-2983/127.1A.W - A16	2	50.0	6.0	17.2	349.9	0.0	686.3	46.8	25.5
	03/06.d42	DUP96-2983/127.1A.W - A16	5	20.0	4.8	16.7	366.6	0.0	670.2	46.6	22.4
	03/06.d23	DUP96-2983/127.1A.W - A16	50	2.0	0.0	13.2	167.8	0.0	-2756.2	53.2	24.5
	03/06.d43	96-2984/127.1B.W - A17	5	20.0	19.8	12.1	263.9	0.4	513.7	210.4	17.7
	03/06.d24	96-2984/127.1B.W - A17	50	2.0	22.8	11.2	165.3	0.0	-1190.2	16.7	31.2 *
	03/06.d44	DUP96-2984/127.1B.W - A18	5	20.0	17.6	12.2	263.7	0.5	514.2	203.1	17.5
	03/06.d25	DUP96-2984/127.1B.W - A18	50	2.0	21.8	11.4	165.2	0.0	-1173.0	32.3	18.1
	03/06.d07	96-2985/127.2A.W - A07	1	100.0	5.4	14.8	132.5	32.7	284.7	33.7	22.9
	03/06.d66	96-2985/127.2A.W - A21	100	50.0	2.8	8.7	130.6	34.7	296.4	36.4	16.4
	03/06.d49	96-2985/127.2A.W - A07	5	20.0	3.0	6.3	122.1	32.4	281.4	25.0	10.7
	03/06.d09	96-2985/127.2A.W - A07	50	2.0	4.3	6.2	114.8	14.9	-6.6	28.1	9.9
	03/06.d68	96-2985/127.2A.W - A23	100	10.0	2.6	6.4	133.4	34.5	293.9	25.9	10.1

SAMPLES ANALYZED USING SYSTEM IC-325-400 SYS1 (DATA ARCHIVAL LOCATOR)

* Sample aliquots from SAL were refiltered
** a second aliquot of the 1st filtration.
x origional filtered sample.

* SO4 peak right surface at the.

2-1078

WHC-SD-WM-DP-171, REV. 1

****REPORT GENERATION FOR LIQUID SAMPLES****

This compiled data sheet may be used for report generation, %RPD calculations, and spike recovery calculations.
Divide values in this table by DIL ((100/INJ VOL) X Manual Dilution from Data Review Sheet), to obtain the concentration in the analyzed solutions.
Approx. DL values (ug/ml, liquids) may be found by multiplying DIL by 0.25 and 0.5 for halides and oxy-anions, respectively.
M&TE ID: WD02514,PN900902

METHOD: PNL-MA 599-ALO-212, Var. Loop Size

Analyst M. O'Neill 3/15/96

Reviewer MW Mun 3/20/96

Units of Measurement: ug/ml (ppm)

INJ.	SAMPLE ID.	INJ. VOL.	DIL.	F	Cl	NO2	Br	NO3	PO4	SO4
03/06.d50	DUP96-2985/127.2A.W - A19	5	20.0	3.0	5.9	115.3	30.8	265.6	25.6	10.4
03/06.d26	DUP96-2985/127.2A.W - A19	50	2.0	4.3	6.2	111.7	14.4	27.2	30.2	9.4
03/06.d67	MS96-2985/127.2A.W - A22	100	50.0	100.5	100.8	366.6	130.1	549.5	258.4	238.5
03/06.d69	MS96-2985/127.2A.W - A24	100	10.0	24.1	24.0	179.8	52.7	333.3	71.5	54.9

SAMPLES ANALYZED USING SYSTEM IC-325-400 SYS1 (DATA ARCHIVAL LOCATOR)

****REPORT GENERATION FOR LIQUID SAMPLES****

This compiled data sheet may be used for report generation, %RPD calculations, and spike recovery calculations.
Divide values in this table by DIL ((100/INJ VOL) X Manual Dilution from Data Review Sheet), to obtain the concentration in the analyzed solutions.
Approx. DL values (ug/ml, liquids) may be found by multiplying DIL by 0.25 and 0.5 for halides and oxy-anions, respectively.
M&TE ID: WD02513,PN900907

METHOD: PNL-MA 599-ALO-212, Var. Loop Size

Analyst M. Davis 3/15/96

Reviewer MW Ulm 3/20/96

Units of Measurement: ug/ml (ppm)

INJ.	SAMPLE ID.	INJ. VOL.	DIL.	F	Cl	NO2	Br	NO3	PO4	SO4
03/14.d13	DILUTION BLANK - A38	100	1.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
03/14.d07	96-2987/FLD. BLNK - A09	100	1.0	0.8	1.2	0.9	0.4	2.7	1.3	2.7
03/14,d08	DUP96-2987/FLD. BLNK - A	100	1.0	0.8	1.1	1.1	0.4	3.4	1.4	2.8
03/14.d09	96-2988/HYD. FLUID - A11	5	2000.0	0.0	223.2	0.0	8469.4	0.0	0.0	0.0
03/14.d10	96-2988/HYD. FLUID - A11	100	100.0	0.0	58.6	0.0	-7592.4	0.0	20.4	22.2
03/14.d11	DUP96-2988/HYD. FL - A12	5	2000.0	0.0	187.7	0.0	7951.4	0.0	0.0	0.0
03/14.d12	DUP96-2988/HYD. FL - A12	100	100.0	0.0	11.1	0.0	-8605.4	0.0	0.0	21.6

SAMPLES ANALYZED USING SYSTEM IC-325-400 SYS2 (DATA ARCHIVAL LOCATOR)

FOR DATA REVIEW

FOR DATA REVIEW

This compiled data sheet is for data review and spike recovery calculations. Verification data is included. multiplied * 30ml injection

All values are in ug/ml and are derived by dividing system quantitated values by (100/INJ VOL) X DIL(manual dilution factor).

100% ANALYTE LEVELS (HALIDES/OXYANIONS) : V1/LO- 1.25/5.00, V2/MID - 3.75/15.00, V3/HI - 7.25/25.00, SPIKE - 2.00/5.00

M & TE ID: PN900907,WD25123,P/NB11620,P/NF02993

METHOD: PNL-MA-599-ALO-212, Var. Loop Size

Analyst M. Mauli 3/15/96 Reviewer JMWilson 3/20/96

	INJ	SAMPLE ID	INJ VOL	DIL	F	Cl	NO2	Br	NO3	PO4	SO4
	03/14.d01	A960123V1/LO - A04	5	1	1.11	1.27	4.38	1.15	4.57	4.29	4.40
	03/14.d02	A960123V1/LO - A05	5	1	1.14	1.17	4.52	1.18	4.57	4.41	4.47
	03/14.d03	A960123V2/MID - A05	15	1	3.62	3.71	14.44	3.59	14.51	14.13	14.21
2	03/14.d04	A960123V3/HI - A05	30	1	7.23	7.47	28.71	7.18	28.82	28.46	28.55
	03/14.d05	A9603141B2 - A01	100	1	0.00	0.10	0.00	0.00	0.00	0.21	0.21
	03/14.d06	SPKCHK960207 - A06	1	1	93% 1.86	90% 1.80	91% 4.57	94% 1.88	91% 4.78	89% 4.45	88% 4.41
	03/14.d07	96-2987/FLD. BLNK - A0	100	1	0.79	1.19	0.88	0.43	2.74	1.34	2.69
	03/14.d08	DUP96-2987/FLD. BLNK -	100	1	0.77	1.09	1.12	0.44	3.45	1.38	2.80
	03/14.d09	96-2988/HYD. FLUID - A	5	100	0.00	0.11	0.00	4.23	0.00	0.00	0.00
	03/14.d10	96-2988/HYD. FLUID - A	100	100	0.00	0.59	0.00	-75.92	0.00	0.20	0.22
	03/14.d11	DUP96-2988/HYD. FL - A	5	100	0.00	0.09	0.00	3.98	0.00	0.00	0.00
	03/14.d12	DUP96-2988/HYD. FL - A	100	100	0.00	0.11	0.00	-86.05	0.00	0.00	0.22
	03/14.d13	DILUTION BLANK - A38	100	1	0.00	0.17	0.00	0.00	0.00	0.00	0.00
	03/14.d14	A960123V1/LO - A05	5	1	1.13	1.17	4.53	1.18	4.60	4.36	4.49
	03/14.d15	A960123V2/MID - A05	15	1	3.61	3.77	14.32	3.64	14.23	14.10	14.22
1	03/14.d16	A960123V3/HI - A05	30	1	7.21	7.49	28.62	7.22	28.76	28.46	28.58
	03/14.d17	A9603141B2 - A01	100	1	0.00	0.10	0.00	0.00	0.00	0.22	0.24

SAMPLES ANALYZED ON: 03/14/96 USING SYSTEM IC-325-400-SYS 2 (DATA ARCHIVAL LOCATOR)

* 1: For 30ulinj of stock verification std., The V3/HI is 7.5/30.

2-1081

****REPORT GENERATION FOR SOLID SAMPLES****

This compiled data sheet may be used for report generation, DIL(EX)=EXTRACTION DILUTION&DIL(AN)=ANALYTICAL DILUTION=(100/INJ VOL) X MANUAL DILUTION (from Data Review Sheet

Divide ug/g values in this table by the product, DIL(EX)*DIL(AN), to obtain the concentrations in the analyzed solutions.

Approx. DL values (ug/g, solids) may be found by multiplying DIL(EX)*DIL(AN by 0.25 and 0.5 for halides and oxy-anions, respectively.

M&TE ID: WD02514,PN900902

METHOD: PNL-MA 599-ALO-212, Var. Loop Size

Analyst M. Mill 3/20/96 samples delivered undiluted. Reviewer MW Ch 3/20/96

********** Units of Measurement: ug/g (ppm) **********

INJ.	SAMPLE ID.	INJ. VOL.	DIL (EX)	%SOLI	SAM. WT.	DIL.VOL.	DIL. (AN)	F	Cl	NO2	Br	NO3	PO4	SO4	
03/07.d94	DILUTION BLANK - A28	100					1								
03/07.d79	96-2987/FLD. BLNK - A32	100	103.174				1	102.972223	118.163696	133.406032	487199687	443.687744	112.062222	319.440113	
03/07.d79	96-2987/FLD. BLNK - A32	100					1								
03/07.d80	96-2988/HYD. FLUID - A31	1	103.174		0.0967	9.8802	10000	DATA	0	50671.3029	0	785111.872	209929.658	0	0
03/07.d84	96-2988/HYD. FLUID - A31	5	103.174		0.0967	9.8802	2000	0	10018.2417	0	776973.528	0	73588.4589	0	
03/07.d93	96-2988/HYD. FLUID - A31	10	103.174		0.0967	9.8802	1000	0	5119.0989	22801.6014	805950.902	0	20405.3914	0	
03/06.d11	96-2979-BLK - A09	100	99.8321		0.499	49.3172	1	0	44.2756203	22.4765902	1.65058342	90.2241264	30.0440604	86.5917368	1
03/07.d82	96-2979-BLK - A09	5	99.8321		0.499	49.3172	20	0	118.441759	0	0	449.899187	399.573843	357.576491	2
03/06.d35	96-2979-BLK - A09	5	99.8321		0.499	49.3172	20	0	174.541389	544.4711	0	468.310216	0	396.872388	3
03/06.d11	96-2979-BLK - A09	100	99.52		0.499	49.3172	1	24.8797854	44.1368388	49.7595708	24.8797854	89.9413199	49.7595708	86.3203159	
03/07.d82	96-2979-BLK - A09	5	99.52		0.499	49.3172	20	0	118.070505	0	0	448.488983	398.321384	356.455671	
03/06.d35	96-2979-BLK - A09	5	99.52		0.499	49.3172	20	0	173.994291	542.764461	0	466.842303	0	395.628396	
03/06.d12	96-2979-BS - A10	100	99.8321		0.499	49.3172	1	310.182217	133.279799	480.366935	-3543.3195	0	-18394.257	2394.78154	1
03/07.d83	96-2979-BS - A33	5	99.8321		0.499	49.3172	20	331.442453	199.456478	812.938488	0	5582.72882	17524.1212	2377.48064	2
03/06.d36	96-2979-BS - A10	5	99.8321		0.499	49.3172	20	339.868279	191.369082	833.978096	0	5675.84219	17319.2658	2442.68096	3
03/06.d06	96-2979/126.1A.W - A06	1	103.7	100	0.5004	51.3911	100	1393.00264	1334.52618	18085.8055	0	34232.6276	6134.13735	2780.084	
03/06.d32	96-2979/126.1A.W - A06	5	103.7	100	0.5004	51.3911	20	642.971358	908.447608	17781.1348	0	34328.5501	5283.75555	1495.002	
03/06.d70	96-2979/126.1A.W - A06	25	103.7	100	0.5004	51.3911	4	643.658889	922.915838	17114.9657	0	19297.5404	5773.97675	1366.62135	
03/06.d08	96-2979/126.1A.W - A06	50	103.7	100	0.5004	51.3911	2	1006.11334	894.752981	14084.7468	0	-20257.699	5941.56638	1422.7127	
03/06.d33	DUP96-2979/126.1A.W - A	5	102.951	100	0.5315	54.1871	20	618.010297	882.015445	18120.2471	0	34856.8292	5703.52095	1437.64242	
03/06.d71	DUP96-2979/126.1A.W - A	25	102.951	100	0.5315	54.1871	4	621.600207	899.460538	17359.4372	0	18895.2643	6230.5182	1312.00069	
03/06.d13	DUP96-2979/126.1A.W - A	50	102.951	100	0.5315	54.1871	2	950.199042	871.565891	14231.9836	0	-22546.946	6489.59507	1371.59918	
03/07.d81	MS96-2979/126.1A.W - A2	5	99.3995	100	0.5399	53.1259	20	797.274591	914.572981	17171.6644	0	37652.7364	22355.7469	3232.73078	
03/06.d27	MS96-2979/126.1A.W - A2	50	99.3995	100	0.5399	53.1259	2	1375.90801	944.180122	14059.5649	0	-41749.09	-1404.3562	3767.34115	
03/06.d34	MS96-2979/126.1A.W - A2	50	99.3995	100	0.5399	53.1259	2	1372.26005	945.088633	14005.6903	-405349.25	0	-1448.2907	3767.71887	
03/06.d37	96-2981/126.2A.W - A11	5	96.1895	100	0.5252	49.9935	20	190.54938	777.279064	16266.8867	167.452369	35932.1468	1881.39834	1267.97897	
03/06.d14	96-2981/126.2A.W - A11	50	96.1895	100	0.5252	49.9935	2	39.9685448	787.805075	13312.4277	0	-38058.992	1371.27682	1245.40331	
03/06.d38	DUP96-2981/126.2A.W - A	5	93.7215	100	0.554	51.3677	20	162.588024	711.608454	14994.4996	151.638543	33221.5468	1186.93569	1167.68529	
03/06.d15	DUP96-2981/126.2A.W - A	50	93.7215	100	0.554	51.3677	2	0	741.203823	12652.4935	0	-30942.147	1160.01888	1161.71523	

SAMPLES ANALYZED USING SYSTEM IC-325-400 SYS1 (DATA ARCHIVAL LOCATOR)

Nominal Conc in Spike (µg/ml)

301	110	651	6010	22037	2504	
(F)	(Cl)	(NO2)	(NO3)	(PO4)	(SO4)	
10	103%	81%	70%		92%	1
				95%	78%	81%	2
				87%	70%	92%	3

2-1082

****REPORT GENERATION FOR SOLID SAMPLES****

This compiled data sheet may be used for report generation, DIL(EX)=EXTRACTION DILUTION&DIL(AN)=ANALYTICAL DILUTION=(100/INJ VOL) X MANUAL DILUTION (from Data Review Sheet

Divide ug/g values in this table by the product, DIL(EX)*DIL(AN), to obtain the concentrations in the analyzed solutions.

Approx. DL values (ug/g, solids) may be found by multiplying DIL(EX)*DIL(AN by 0.25 and 0.5 for halides and oxy-anions, respectively.

M&TE ID: WD02514,PN900902

METHOD: PNL-MA 599-ALO-212, Var. Loop Size

Analyst M. Mill 3/15/96 samples delivered undiluted. Reviewer M.M.O. Ulm 3/20/96

********** Units of Measurement: ug/g (ppm) **********

INJ.	SAMPLE ID.	INJ. VOL.	DIL (EX)	%SOLI	SAM. WT.	DIL.VOL.	DIL. (AN)	F	Cl	NO2	Br	NO3	PO4	SO4
03/07.d94	DILUTION BLANK - A28	100					1							
03/07.d79	96-2987/FLD. BLNK - A32	100	103.17				1	102.972223	118.163696	133.406032	49.719269	443.887744	112.062222	319.440113
03/07.d79	96-2987/FLD. BLNK - A32	100					1							
03/07.d80	96-2988/HYD. FLUID - A31	1	103.174		0.0967	9.8802	10000	0	50071.3029	0	785111.872	209929.658	0	0
03/07.d84	96-2988/HYD. FLUID - A31	5	103.174		0.0967	9.8802	2000	0	10018.2417	0	776973.528	0	73588.4589	0
03/07.d93	96-2988/HYD. FLUID - A31	10	103.174		0.0967	9.8802	1000	0	5119.0989	22801.6014	805950.902	0	20405.3914	0
03/06.d11	96-2979-BLK - A09	100					1							
03/07.d82	96-2979-BLK - A09	5					20							
03/06.d35	96-2979-BLK - A09	5					20							
03/06.d11	96-2979-BLK - A09	100	99.52				1	24.8797854	44.1368388	49.7595708	24.8797854	89.9413199	49.7595708	86.3203159
03/07.d82	96-2979-BLK - A09	5	99.52				20	0	118.070505	0	0	448.488983	398.321384	356.455671
03/06.d35	96-2979-BLK - A09	5	99.52				20	0	173.994291	542.764461	0	466.842303	0	395.628396
03/06.d12	96-2979-BS - A10	100					1							
03/07.d83	96-2979-BS - A33	5					20							
03/06.d36	96-2979-BS - A10	5					20							
03/06.d06	96-2979/126.1A.W - A06	1	103.7	100	0.5004	51.3911	100	1393.00264	1334.52618	18085.8055	0	34232.6276	6134.13735	2780.084
03/06.d32	96-2979/126.1A.W - A06	5	103.7	100	0.5004	51.3911	20	642.971358	908.447608	17781.1348	0	34328.5501	5283.75555	1495.002
03/06.d70	96-2979/126.1A.W - A06	25	103.7	100	0.5004	51.3911	4	643.658889	922.915838	17114.9657	0	19297.5404	5773.97675	1366.62135
03/06.d08	96-2979/126.1A.W - A06	50	103.7	100	0.5004	51.3911	2	1006.11334	894.752981	14084.7468	0	-20257.699	5941.56638	1422.7127
03/06.d33	DUP96-2979/126.1A.W - A	5	102.951	100	0.5315	54.1871	20	618.010297	882.015445	18120.2471	0	34856.8292	5703.52095	1437.64242
03/06.d71	DUP96-2979/126.1A.W - A	25	102.951	100	0.5315	54.1871	4	621.600207	899.460538	17359.4372	0	18895.2643	6230.5182	1312.00069
03/06.d13	DUP96-2979/126.1A.W - A	50	102.951	100	0.5315	54.1871	2	950.199042	871.565891	14231.9836	0	-22546.946	6489.59507	1371.59918
03/07.d81	MS96-2979/126.1A.W - A2	5	99.3995	100	0.5399	53.1259	20	797.274591	914.572981	17171.6644	0	37652.7364	22355.7469	3232.73078
03/06.d27	MS96-2979/126.1A.W - A2	50	99.3995	100	0.5399	53.1259	2	1375.90801	944.180122	14059.5649	0	-41749.09	-1404.3562	3767.34115
03/06.d34	MS96-2979/126.1A.W - A2	50	99.3995	100	0.5399	53.1259	2	1372.26005	945.088633	14005.6903	-405349.25	0	-1448.2907	3767.71887
03/06.d37	96-2981/126.2A.W - A11	5	96.1895	100	0.5252	49.9935	20	190.54938	777.279064	16266.8867	167.452369	35932.1468	1881.39834	1267.97897
03/06.d14	96-2981/126.2A.W - A11	50	96.1895	100	0.5252	49.9935	2	39.9685448	787.805075	13312.4277	0	-38058.992	1371.27682	1245.40331
03/06.d38	DUP96-2981/126.2A.W - A	5	93.7215	100	0.554	51.3677	20	162.588024	711.608454	14994.4996	151.638543	33221.5468	1186.93569	1167.68529
03/06.d15	DUP96-2981/126.2A.W - A	50	93.7215	100	0.554	51.3677	2	0	741.203823	12652.4935	0	-30942.147	1160.01888	1161.71523

SAMPLES ANALYZED USING SYSTEM IC-325-400 SYS1 (DATA ARCHIVAL LOCATOR)

M. Mill 3/27/96

2-1083

****REPORT GENERATION FOR SOLID SAMPLES****

This compiled data sheet may be used for report generation, DIL(EX)=EXTRACTION DILUTION&DIL(AN)=ANALYTICAL DILUTION=(100/INJ VOL) X MANUAL DILUTION (from Data Review Sheet
Divide ug/g values in this table by the product, DIL(EX)*DIL(AN), to obtain the concentrations in the analyzed solutions.
Approx. DL values (ug/g, solids) may be found by multiplying DIL(EX)*DIL(AN by 0.25 and 0.5 for halides and oxy-anions, respectively.
M&TE ID: WD02514,PN900902

METHOD: PNL-MA 599-ALO-212, Var. Loop Size

Analyst M. Dunn 3/15/96

Reviewer Mc Dunn 3/20/96

********** Units of Measurement: ug/g (ppm) **********

INJ.	SAMPLE ID.	INJ. VOL.	DIL (EX)	%SOLI	SAM. WT.	DIL.VOL.	DIL. (AN)	F	Cl	NO2	Br	NO3	PO4	SO4
03/06.d51	96-2982/126.2B.W - A36	5	109.457	100	0.4661	50.5516	20	186.198734	876.646301	18001.3344	184.666342	43340.8551	2026.33635	1523.54767
03/06.d39	96-2982/126.2B.W - A34	5	109.457	100	0.4661	50.5516	20	209.444022	874.290796	18126.7716	178.135069	43537.2202	1921.27995	1525.2333
03/06.d20	96-2982/126.2B.W - A13	50	109.457	100	0.4661	50.5516	2	0	912.513024	15083.551	0	-56650.006	2082.22487	1542.36325
03/06.d53	96-2982/126.2B.W - A34	50	109.457	100	0.4661	50.5516	2	73.556118	903.08991	14931.297	0	-52197.313	2077.55108	1504.10819
03/06.d55	96-2982/126.2B.W - A36	50	109.457	100	0.4661	50.5516	2	125.662692	907.406876	14946.0736	0	-51896.527	2120.5675	1506.64758
03/06.d52	DUP96-2982/126.2B.W - A	5	101.618	100	0.5022	50.5303	20	618.606982	856.580817	17903.3432	179.122856	42844.1311	6802.67696	1467.86013
03/06.d40	DUP96-2982/126.2B.W - A	5	101.618	100	0.5022	50.5303	20	663.633865	860.533753	18062.5784	175.222761	43116.1622	6857.46932	1470.30912
03/06.d21	DUP96-2982/126.2B.W - A	50	101.618	100	0.5022	50.5303	2	932.300365	887.949241	14467.3378	0	-65852.35	7527.9441	1507.70451
03/06.d54	DUP96-2982/126.2B.W - A	50	101.618	100	0.5022	50.5303	2	898.015508	878.167504	14340.0106	0	-60745.137	7431.60019	1466.29522
03/06.d56	DUP96-2982/126.2B.W - A	50	101.618	100	0.5022	50.5303	2	804.358372	880.822779	14334.6248	0	-60167.646	7443.7232	1460.81801
03/07.d91	96-2983/127.1A.W - A15	2	98.4894	100	0.5233	51.0162	50	579.56675	1661.90019	33559.3747	0	65957.3624	4292.96556	2473.23612
03/06.d41	96-2983/127.1A.W - A15	5	98.4894	100	0.5233	51.0162	20	459.973048	1614.24117	35191.8364	0	64647.6505	4313.58924	2169.15012
03/06.d22	96-2983/127.1A.W - A15	50	98.4894	100	0.5233	51.0162	2	0	1322.70272	16617.4261	0	-255526.79	4960.17212	2362.4257
03/07.d92	DUP96-2983/127.1A.W - A	2	95.5419	100	0.5368	50.7501	50	573.6499	1641.45787	33426.581	0	65570.9896	4470.98901	2439.33796
03/06.d42	DUP96-2983/127.1A.W - A	5	95.5419	100	0.5368	50.7501	20	459.09801	1597.69967	35024.9017	0	64031.1405	4448.38379	2140.89368
03/06.d23	DUP96-2983/127.1A.W - A	50	95.5419	100	0.5368	50.7501	2	0	x 1259.3762	16036.4238	0	-263328.8	5078.85534	2345.23873
03/06.d43	96-2984/127.1B.W - A17	5	100.822	100	0.5205	51.9572	20	2000.10108	1221.42477	26610.6805	41.254933	51791.205	21213.291	1780.77353
03/06.d24	96-2984/127.1B.W - A17	50	100.822	100	0.5205	51.9572	2	2296.33543	1129.29389	16669.9623	0	-120001.02	1679.30656	3145.73817 *
03/06.d44	DUP96-2984/127.1B.W - A	5	99.9533	100	0.5118	50.6443	20	1756.74925	1216.66158	26359.8847	48.647472	51392.0897	20299.716	1745.65443
03/06.d25	DUP96-2984/127.1B.W - A	50	99.9533	100	0.5118	50.6443	2	2176.12332	1140.44719	16509.087	0	-117240.23	3230.22085	1808.12525
03/06.d07	96-2985/127.2A.W - A07	1	93.597	100	0.5424	50.2246	100	502.962072	1384.09337	12401.0378	3064.68324	26648.0887	3152.27129	2146.19739
03/06.d66	96-2985/127.2A.W - A21	100	93.597	100	0.5424	50.2246	50	259.540672	813.626348	12224.9819	3252.0363	27738.6807	3406.02205	1537.54561
03/06.d49	96-2985/127.2A.W - A07	5	93.597	100	0.5424	50.2246	20	282.687204	585.211351	11428.7524	3033.55288	26342.6818	2336.33029	998.792055
03/06.d09	96-2985/127.2A.W - A07	50	93.597	100	0.5424	50.2246	2	401.992462	583.128818	10742.6866	1394.2112	-616.95196	2630.48686	930.130249
03/06.d68	96-2985/127.2A.W - A23	100	93.597	100	0.5424	50.2246	10	241.409065	599.506417	12481.9992	3224.78087	27511.4273	2428.23316	946.162475

SAMPLES ANALYZED USING SYSTEM IC-325-400 SYS1 (DATA ARCHIVAL LOCATOR)

NR - NOT Reported.
x - reported Chloride value.

* interference at the SO_4 peak.

2-1084

****REPORT GENERATION FOR SOLID SAMPLES****

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M&TE ID: WD02514,PN900902

METHOD: PNL-MA 599-ALO-212, Var. Loop Size

Analyst M. Davis 3/15/96

Reviewer MW Uhr 3/20/96

********** Units of Measurement: ug/g (ppm) **********

INJ.	SAMPLE ID.	INJ. VOL.	DIL (EX)	%SOLI	SAM. WT.	DIL.VOL.	DIL. (AN)	F	Cl	NO2	Br	NO3	PO4	SO4
03/06.d50	DUP96-2985/127.2A.W - A	5	99.1194	100	0.5075	49.7956	20	302.193271	583.17598	11432.4326	3052.90753	26327.1062	2539.35005	1026.46077
03/06.d26	DUP96-2985/127.2A.W - A	50	99.1194	100	0.5075	49.7956	2	426.728879	610.12853	11070.845	1426.79415	2691.10186	2997.82687	933.393597
03/06.d67	MS96-2985/127.2A.W - A2	100					50							
03/06.d69	MS96-2985/127.2A.W - A2	100					10							

SAMPLES ANALYZED USING SYSTEM IC-325-400 SYS1 (DATA ARCHIVAL LOCATOR)

2-1085

AI-450 AS3500 Editor - 03142SCH.AS3

#	Vial Pos	Inj. Vol.	Inj/ Vial	Sample	Method (.MET)	Data	Dil.	Int. Std.	Template (.PRP)
1	A04	5	1	A960123V1/LO F, NO_2, PO_4, SO_4	2anions2	96031421	1	1	
2	A05	5	1	A960123V1/LO PO_4, SO_4	2anions2	96031421	1	1	
3	A05	15	1	A960123V2/MID acc	2anions2	96031421	1	1	
4	A05	30	1	A960123V3/HI acc	2anions2	96031421	1	1	
5	A01	100	1	A9603141B2 acc	2anions2	96031421	1	1	
6	A06	1	1	SPKCHK960207 acc	2anions2	96031421	1	1	
7	A09	100	1	96-2987/FLD. BLNK	2anions2	96031421	1	1	
8	A10	100	1	DUP96-2987/FLD. BLNK	2anions2	96031421	1	1	
9	A11	5	1	96-2988/HYD. FLUID	2anions2	96031421	100	1	
10	A11	100	1	96-2988/HYD. FLUID	2anions2	96031421	100	1	
11	A12	5	1	DUP96-2988/HYD. FLUI	2anions2	96031421	100	1	
12	A12	100	1	DUP96-2988/HYD. FLUI	2anions2	96031421	100	1	
13	A38	100	1	DILUTION BLANK	2anions2	96031421	1	1	
14	A05	5	1	A960123V1/LO PO_4, SO_4	2anions2	96031421	1	1	
15	A05	15	1	A960123V2/MID acc	2anions2	96031421	1	1	
16	A05	30	1	A960123V3/HI acc	2anions2	96031421	1	1	
17	A01	100	1	A9603141B2	2anions2	96031421	1	1	
18	A40	100	1	NO RUN	2anions2	96031421	1	1	
19	A15	1	1	96-2617/118.COMP.W	2anions2	96031421	1	1	
20	A20	1	1	96-3365/118.1A.W	2anions2	96031421	1	1	
21	A15	3	1	96-2617/118.COMP.W	2anions2	96031421	1	1	
22	A17	3	1	MS96-2617/118.COMP.W	2anions2	96031421	1	1	
23	A16	3	1	DUP96-2617/118.COMP.	2anions2	96031421	1	1	
24	A13	100	1	96-2617/BLK	2anions2	96031421	1	1	
25	A14	100	1	96-2617/BS	2anions2	96031421	1	1	
26	A18	3	1	96-2618/119.COMP.W	2anions2	96031421	1	1	
27	A19	3	1	DUP96-2618/119.COMP.	2anions2	96031421	1	1	
28	A20	3	1	96-3365/118.1A.W	2anions2	96031421	1	1	
29	A05	5	1	A960123V1/LO	2anions2	96031421	1	1	
30	A05	15	1	A960123V2/MID	2anions2	96031421	1	1	
31	A05	25	1	A960123V3/HI	2anions2	96031421	1	1	
32	A01	100	1	A9603141B3	2anions2	96031421	1	1	
33	A21	3	1	DUP96-3365/118.1A.W	2anions2	96031421	1	1	
34	A22	3	1	96-3366/118.1B.W	2anions2	96031421	1	1	
35	A23	3	1	DUP96-3366/118.1B.W	2anions2	96031421	1	1	
36	A15	5	1	96-2617/118.COMP.W	2anions2	96031421	1	1	
37	A17	5	1	MS96-2617/118.COMP.W	2anions2	96031421	1	1	
38	A15	25	1	96-2617/118.COMP.W	2anions2	96031421	1	1	
39	A17	25	1	MS96-2617/118.COMP.W	2anions2	96031421	1	1	
40	A24	100	1	96-3365/118.1A.W	2anions2	96031421	100	1	
41	A25	100	1	MS96-3365/118.1A.W	2anions2	96031421	100	1	
42	A35	5	1	A960123V1/LO	2anions2	96031421	1	1	
43	A35	15	1	A960123V2/MID	2anions2	96031421	1	1	
44	A35	25	1	A960123V3/HI	2anions2	96031421	1	1	
45	A01	100	1	A9603141B4	2anions2	96031421	1	1	
46	A13	5	1	96-2617/BLK	2anions2	96031421	1	1	

#	Vial Pos	Inj. Vol.	Inj/ Vial	Sample	Method (.MET)	Data	Dil.	Int. Std.	Template (.PRP)
47	A14	5	1	96-2617/BS	2anions2	96031421	1	1	
48	A26	100	1	96-2607/118.2A.W	2anions2	96031421	100	1	
49	A27	100	1	MS96-2607/118.2A.W	2anions2	96031421	100	1	
50	A35	5	1	A960123V1/LO	2anions2	96031421	1	1	
51	A35	15	1	A960123V2/MID	2anions2	96031421	1	1	
52	A35	25	1	A960123V3/HI	2anions2	96031421	1	1	
53	A01	100	1	A9603141B5	2anions2	96031421	1	1	

More Run Parameters

#	Vial Pos	Oven Ctl	Oven Set	Cool Ctl	Cool Set	Cycle Time	Flush Vol	Visc Factor	Prep Visc	Inj Type	Needle Height
1	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
2	A05	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
3	A05	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
4	A05	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
5	A01	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
6	A06	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
7	A09	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
8	A10	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
9	A11	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
10	A11	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
11	A12	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
12	A12	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
13	A38	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
14	A05	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
15	A05	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
16	A05	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
17	A01	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
18	A40	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
19	A15	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
20	A20	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
21	A15	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
22	A17	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
23	A16	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
24	A13	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
25	A14	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
26	A18	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
27	A19	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
28	A20	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0

29	A05	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
30	A05	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
31	A05	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
32	A01	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
33	A21	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
34	A22	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
35	A23	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
36	A15	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
37	A17	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
38	A15	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
39	A17	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
40	A24	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
41	A25	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
42	A35	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
43	A35	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
44	A35	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
45	A01	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
46	A13	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
47	A14	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
48	A26	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
49	A27	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
50	A35	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
51	A35	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
52	A35	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
53	A01	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0

Comment:

DIONEX METHOD PARAMETERS - 2ANIONS2.MET

Method Comment: CALIBRATED ON ~~01/09~~ 03/06 MO 3-14-96 *** FLOW RATE: 1.8 MLS/MIN***
Column ID: AG4A/AS4A (28411/5758)
Analyst ID: MMO

System Parameters

System Name: ANIONS 2	
Number of Detectors	1
Run Time (minutes)	10.00
Sampling Rate (seconds)	0.20
Detector 1 Type	PED-Cond.
Detector 1 real time plot scale maximum (uS)	10.000
minimum	-1.000
Save Data File	Yes
Data File Name: C:\DX\DATA\9511142\95112021.D12	

-- DETECTOR 1 PARAMETERS --

Report Options

Create ASCII Report File	No
Print Report	Yes
Print All Components	No
Print Components Found	No
Print Missing Components	No
Print All Peaks	Yes
Print Unknown Peaks	No
Print Chromatogram	Yes
Autoscale Chromatogram Maximum	Yes
Autoscale Maximum Value Delay (minutes)	0.0
Autoscale Chromatogram Minimum	Yes
Autoscale Minimum Value Delay (minutes)	0.0
Fill Peaks with Color	No
Draw Grid Lines on Chromatogram	No
Show Component Fraction Numbers	No
Label with Peak Number	No
Label with Retention Times on Chromatogram	Yes
Label with Component Name	No
Format File Name: C:\DX\METHOD\DEFAULT.PRF	

Integration Parameters

Starting Peak Width (seconds)	10.0
Peak Threshold	165.326
Peak Area Reject	30000
Area Reject for Reference Peaks	30000

Data Events

Time	Description
0.00	Force exponential skim
0.00	Stop peak detection
0.85	Start peak detection
1.08	Void volume treatment for this peak
2.00	Force baseline at start of all peaks
2.70	Double bunching factor

Calibration Parameters

Number Of Levels for Calibration	6
Force Calibration Curve Through Origin	No
Calibration Fit Type	Quadratic
Replace Or Average Calibrations	Replace
External or Internal Calibration	External
Calculate Unknowns by Area or Height	Area
Default Sample Volume	100.0
Default Dilution Factor	1.0
Default Response Factor for Unknown Peaks	0.0
Calibration Standard Volume	100.0
Internal Standard Amount in Samples	1.0
Amount Units	ppm

Component Table -- Last Modified: 12:56 on Wed, 06 Mar 1996

Component # 1 FLUORIDE Retention Time 0.95
Reference Comp. CHLORIDE Window Size 10.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 8.49753E-002
K1 = 2.37999E-008
K2 = -1.80518E-018

Level	Amount	Area	Height
1	2.50000E-001	8477929	1905687
2	5.00000E-001	18184059	4199536
3	1.25000E+000	46562125	15756732
4	2.50000E+000	101244906	27445417
5	5.00000E+000	211980390	46937349
6	7.50000E+000	318492742	64035570

Component # 2 CHLORIDE Retention Time 1.60
Reference Comp. CHLORIDE Window Size 8.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 9.18871E-002
K1 = 3.86174E-008
K2 = -2.68820E-017

Level	Amount	Area	Height
1	2.50000E-001	5420979	1168898
2	5.00000E-001	11393872	2830831
3	1.25000E+000	28680274	7394881
4	2.50000E+000	63800089	16593159
5	5.00000E+000	143183077	32381901
6	7.50000E+000	227174234	48657180

Component # 3 NITRITE Retention Time 2.00
Reference Comp. CHLORIDE Window Size 8.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 2.43743E-001
K1 = 5.64179E-008
K2 = -2.29263E-019

Level	Amount	Area	Height
1	5.00000E-001	7010733	1246575
2	1.00000E+000	14644373	2848632
3	5.00000E+000	79538071	15745625
4	1.00000E+001	171933435	33310858
5	2.00000E+001	354286190	63156932
6	3.00000E+001	527156246	83378502

Component # 4 BROMIDE Retention Time 3.07
Reference Comp. CHLORIDE Window Size 8.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 1.73094E-002
K1 = 1.09172E-007
K2 = -1.76572E-016

Level	Amount	Area	Height
1	2.50000E-001	2260382	263075
2	5.00000E-001	4625260	536099
3	1.25000E+000	11287919	1341288
4	2.50000E+000	23306121	2641620
5	5.00000E+000	50029237	6411657
6	7.50000E+000	78365801	10295770

Component # 5 NITRATE Retention Time 3.43
Reference Comp. NITRATE Window Size 10.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 1.64149E-001
K1 = 7.65986E-008
K2 = -3.01910E-017

Level	Amount	Area	Height
1	5.00000E-001	5718906	538108
2	1.00000E+000	11780041	1103289
3	5.00000E+000	62046470	5472421
4	1.00000E+001	134936827	11467555
5	2.00000E+001	294871649	24609960
6	3.00000E+001	479667967	37834971

Component # 6 PHOSPHATE Retention Time 5.47
Reference Comp. NITRATE Window Size 10.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 1.85495E-001
K1 = 1.47680E-007
K2 = -1.08786E-016

Level	Amount	Area	Height
1	5.00000E-001	3015949	207175
2	1.00000E+000	6334545	444921
3	5.00000E+000	31602883	2264405
4	1.00000E+001	68974171	5065959
5	2.00000E+001	152947803	10838175
6	3.00000E+001	245956478	16234876

Component # 7 SULFATE Retention Time 7.23
Reference Comp. SULFATE Window Size 10.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 1.93860E-001
K1 = 5.77459E-008
K2 = -1.62642E-017

Level	Amount	Area	Height
1	5.00000E-001	7627695	384529
2	1.00000E+000	15895518	803460
3	5.00000E+000	80965041	4088608
4	1.00000E+001	175604055	8697305
5	2.00000E+001	389978167	19732744
6	3.00000E+001	624780326	30637971

Timed Events File: C:\DX\METHOD\2ANIONS2.TE

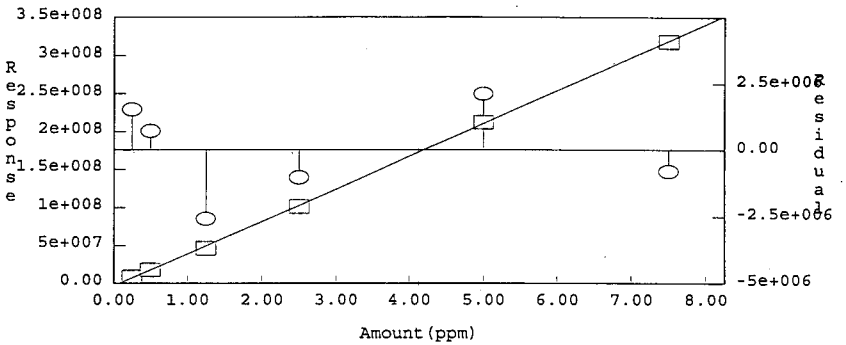
Step	Time	Description
Init		PED AutoOffset Off
Init		PED Cell ON
Init		PED Recorder Mark OFF
Init		PED Recorder Range = 0.100 uS
Init		ACI RLY 3 OFF
Init		ACI RLY 4 OFF
Init		ACI TTL 3 OFF
Init		ACI TTL 4 OFF
Init		ACI AC 2 ON
Init		GPM Start
Init		GPM Hold Gradient Clock
Init		GPM Reset ON
1	0.0	PED AutoOffset ON
1	0.0	GPM Run Gradient Clock
1	0.0	GPM Reset OFF
2	0.1	PED AutoOffset Off
2	0.1	Start Sampling

```
 Lo Pressure Limit = 0
Hi Pressure Limit = 5000
Eluent 1 - Eluant 1 CO3 / HCO3
Eluent 2 - Eluant 2
Eluent 3 - Eluant 3
Eluent 4 - Eluant 4
V5 Off - Off
V5 On  - On
V6 Off - Off
V6 On  -
```

Time	Flow	%1	%2	%3	%4	V5	V6	Comment
0.0	1.8	100	0	0	0	0	0	1CLEANUP
0.1	1.8	100	0	0	0	0	0	
1.1	1.8	100	0	0	0	0	0	

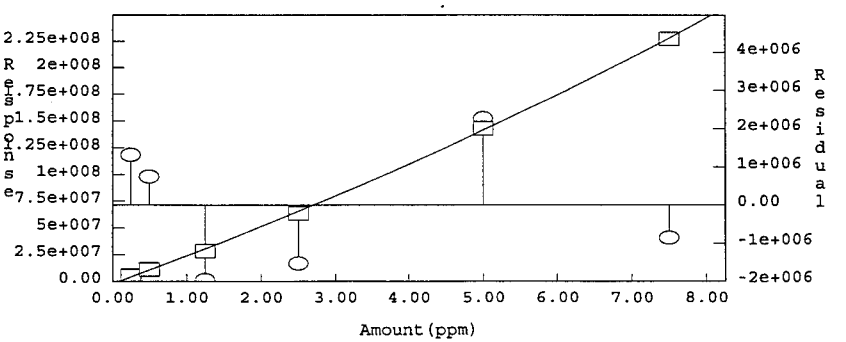
```
 PED file: C:\DX\METHOD\2ANIONS2.PCD
Temperature:   1.7  Deg. C
```

Method: 2ANIONS2.MET - Last Updated: 12:56 Component: FLUORIDE
Fit Type: Quadratic
r^2 = 0.999791 Sum(abs(Residuals)) = 8.7781e+006
Amt = (-1.805176e-018 * $Resp^2$)+
(2.379986e-008 * Resp)+ 0.0850
Standardization: External
Calibration: Area



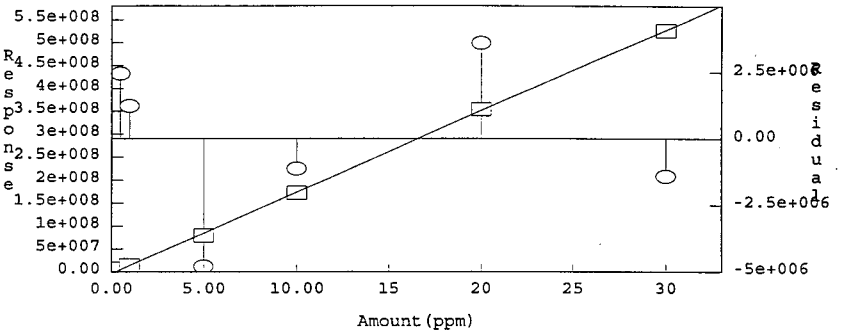
Method: C:\DX\METHOD\2ANIONS2.MET

Component: CHLORIDE
Fit Type: Quadratic
r^2 = 0.999589 Sum(abs(Residuals)) = 8.6725e+006
Amt = (-2.688202e-017 * $Resp^2$)+
(3.861742e-008 * Resp)+ 0.0919
Standardization: External
Calibration: Area



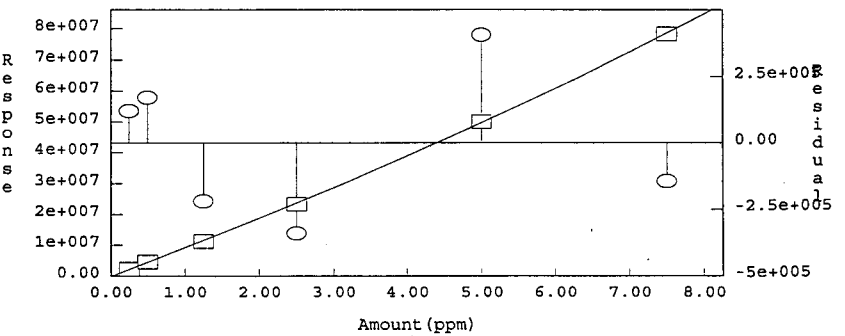
Method: C:\DX\METHOD\2ANIONS2.MET

Component: NITRITE
Fit Type: Quadratic
r^2 = 0.999784 Sum(abs(Residuals)) = 1.4634e+007
Amt = (-2.292628e-019 * Resp^2)+
(5.641786e-008 * Resp)+ 0.2437
Standardization: External
Calibration: Area



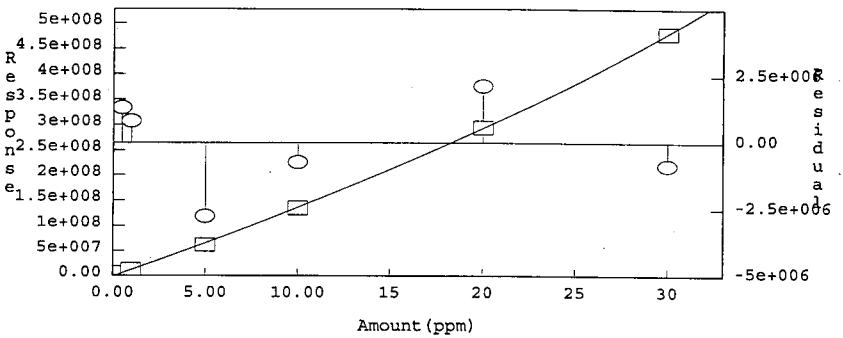
Method: C:\DX\METHOD\2ANIONS2.MET

Component: BROMIDE
Fit Type: Quadratic
r^2 = 0.999910 Sum(abs(Residuals)) = 1.3995e+006
Amt = (-1.765725e-016 * Resp^2)+
(1.091719e-007 * Resp)+ 0.0173
Standardization: External
Calibration: Area



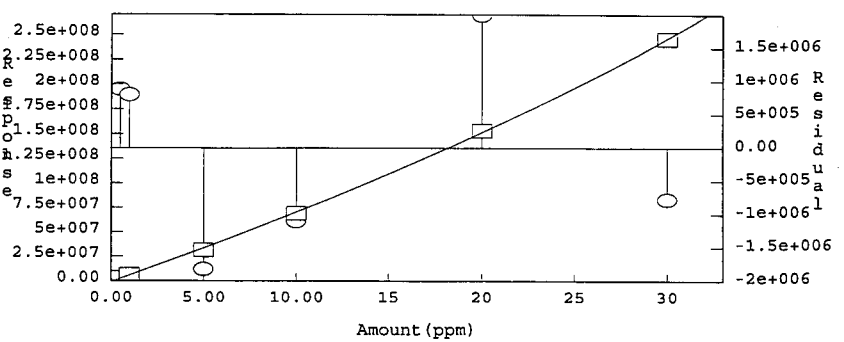
Method: C:\DX\METHOD\2ANIONS2.MET

Component: NITRATE
Fit Type: Quadratic
r^2 = 0.999893 Sum(abs(Residuals)) = 8.5973e+006
Amt = (-3.019103e-017 * Resp^2)+
(7.659862e-008 * Resp)+ 0.1641
Standardization: External
Calibration: Area



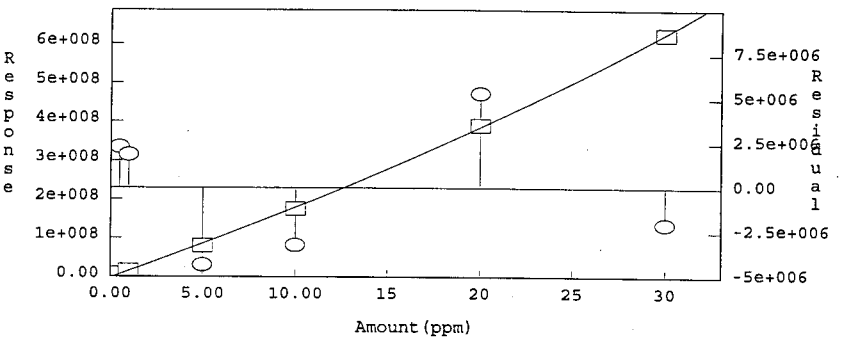
Method: C:\DX\METHOD\2ANIONS2.MET

Component: PHOSPHATE
Fit Type: Quadratic
r^2 = 0.999747 Sum(abs(Residuals)) = 7.3621e+006
Amt = (-1.087857e-016 * Resp^2)+
(1.476801e-007 * Resp)+ 0.1855
Standardization: External
Calibration: Area



Method: C:\DX\METHOD\2ANIONS2.MET

Component: SULFATE
Fit Type: Quadratic
r^2 = 0.999743 Sum(abs(Residuals)) = 1.9087e+007
Amt = (-1.626419e-017 * $Resp^2$)+
(5.774587e-008 * Resp)+ 0.1939
Standardization: External
Calibration: Area



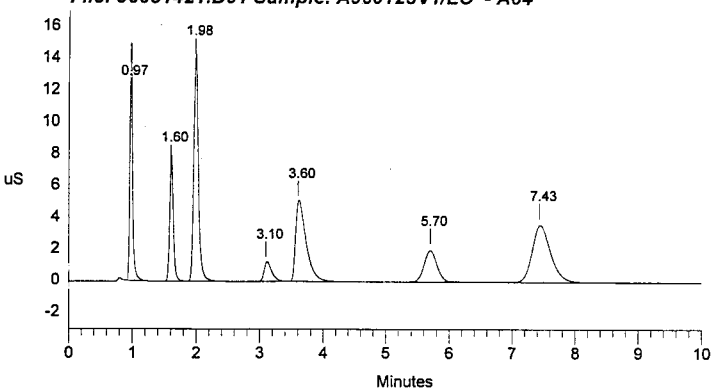
```
| Sample Name: A960123V1/LO  - A04              Date: 03/14/1996 09:04:41 |
| Data File  : l:\iag\ic\icdata\9603142\96031421.D01                      |
| Method     : c:\dx\method\2anions2.met                                  |
| ACI Address: 1  System: 2  Inject#: 1   Vial:A04        Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A (28411/5758)             |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97	FLUORIDE	22.286	11357598	43391982	1	1.75
2	1.60	CHLORIDE	25.479	7233459	31290551	1	0.00
3	1.98	NITRITE	87.606	13901741	73341553	1	-0.83
4	3.10	BROMIDE	23.073	1142670	10590265	1	1.09
5	3.60	NITRATE	91.378	4963694	58870018	1	0.00
6	5.70	PHOSPHATE	85.873	1995789	28412727	1	-0.56
7	7.43	SULFATE	87.993	3616278	74391051	1	0.00
		Totals	423.687	44211228	320288147		

File: 96031421.D01 Sample: A960123V1/LO - A04



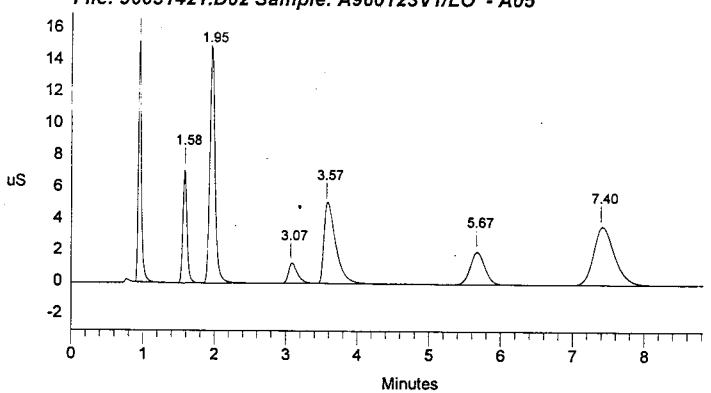
```
Sample Name: A960123V1/LO  - A05              Date: 03/14/1996 09:14:53
Data File  : l:\iag\ic\icdata\9603142\96031421.D02
Method     : c:\dx\method\2anions2.met
ACI Address: 1  System: 2  Inject#: 2   Vial:A05        Detector:PED-Cond.
Analyst    : MMO             Column: AG4A/AS4A (28411/5758)
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	2648	5Hz	0.00	8.82	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95	FLUORIDE	22.813	15200187	44505827	1	1.05
2	1.58	CHLORIDE	23.325	7138294	28380765	1	0.00
3	1.95	NITRITE	90.484	13590703	75893682	1	-1.47
4	3.07	BROMIDE	23.611	1154511	10845504	1	1.05
5	3.57	NITRATE	91.340	4976745	58844358	1	0.00
6	5.67	PHOSPHATE	88.129	2041494	29210092	1	-0.22
7	7.40	SULFATE	89.475	3633019	75730941	1	0.00
		Totals	429.175	47734953	323411169		

File: 96031421.D02 Sample: A960123V1/LO - A05



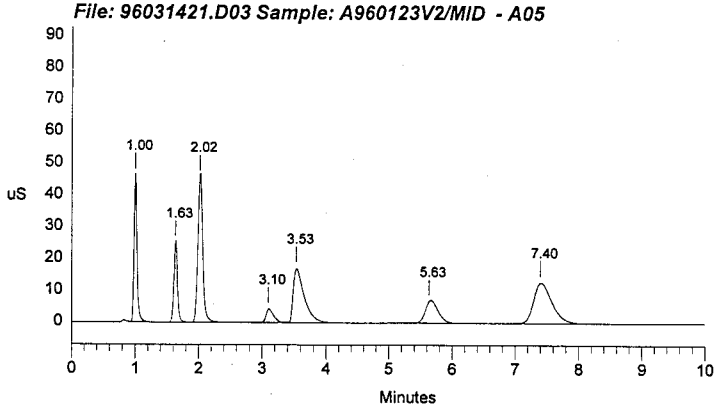
```
| Sample Name: A960123V2/MID  - A05          Date: 03/14/1996 09:27:59 |
| Data File  : 1:\iag\ic\icdata\9603142\96031421.D03                   |
| Method     : c:\dx\method\2anions2.met                               |
| ACI Address: 1  System: 2  Inject#: 3   Vial:A05       Detector:PED-Cond. |
| Analyst    : MMO            Column: AG4A/AS4A (28411/5758)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	15	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.00	FLUORIDE	24.105	46209477	150063739	1	3.11
2	1.63	CHLORIDE	24.725	25076676	100720547	1	0.00
3	2.02	NITRITE	96.268	45795790	251887120	1	-1.22
4	3.10	BROMIDE	23.949	4251652	34693402	1	-0.98
5	3.53	NITRATE	96.740	17012248	203645618	1	0.00
6	5.63	PHOSPHATE	94.211	6799663	102116106	1	0.13
7	7.40	SULFATE	94.738	12898218	262077885	1	0.00
		Totals	454.736	158043723	1105204417		

File: 96031421.D03 Sample: A960123V2/MID - A05



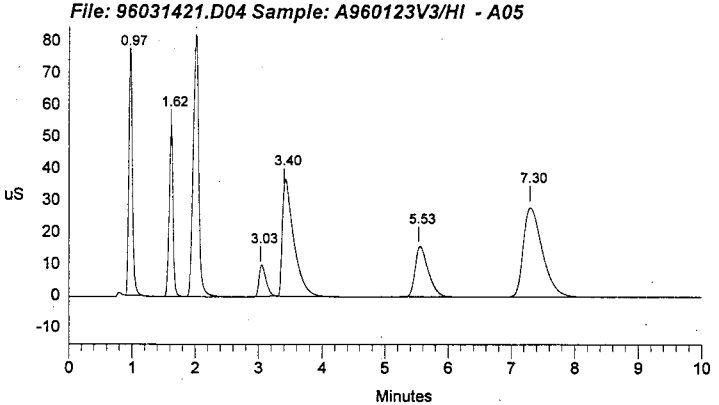
```
| Sample Name: A960123V3/HI  - A05            Date: 03/14/1996 09:39:33 |
| Data File  : 1:\iag\ic\icdata\9603142\96031421.D04                    |
| Method     : c:\dx\method\2anions2.met                                |
| ACI Address: 1  System: 2  Inject#: 4   Vial:A05       Detector:PED-Cond. |
| Analyst    : MMO             Column: AG4A/AS4A (28411/5758)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	30	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97	FLUORIDE	24.094	70689770	307302122	1	0.71
2	1.62	CHLORIDE	24.901	52020261	226903089	1	0.00
3	2.02	NITRITE	95.712	82340661	505662158	1	-0.21
4	3.03	BROMIDE	23.940	8857566	74638385	1	-2.11
5	3.40	NITRATE	96.057	33309504	456034235	1	0.00
6	5.53	PHOSPHATE	94.873	15186228	230664814	1	2.21
7	7.30	SULFATE	95.170	28140017	588671514	1	0.00
		Totals	454.747	290544006	2389876316		

File: 96031421.D04 Sample: A960123V3/HI - A05



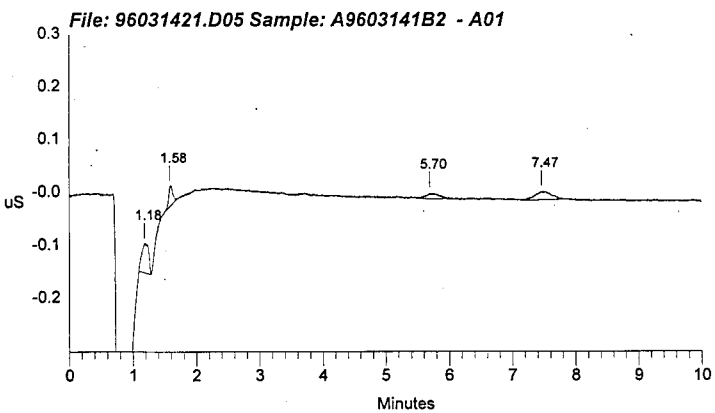
Data Reprocessed On 03/14/1996 13:19:59

Sample Name: A9603141B2 - A01		Date: 03/14/1996 09:51:38	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603142\96031421.D05			
Method : c:\dx\method\2anions2.met			
ACI Address: 1 System: 2 Inject#: 5	Vial:A01	Detector:PED-Cond.	
Analyst : MMO	Column: AG4A/AS4A (28411/5758)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.18		0.000	52615	424571	1	
2	1.58	CHLORIDE	0.098	35456	162652	1	0.00
3	5.70	PHOSPHATE	0.207	9132	143561	1	4.27
4	7.47	SULFATE	0.210	14082	287798	1	0.00
		Totals	0.515	111285	1018582		

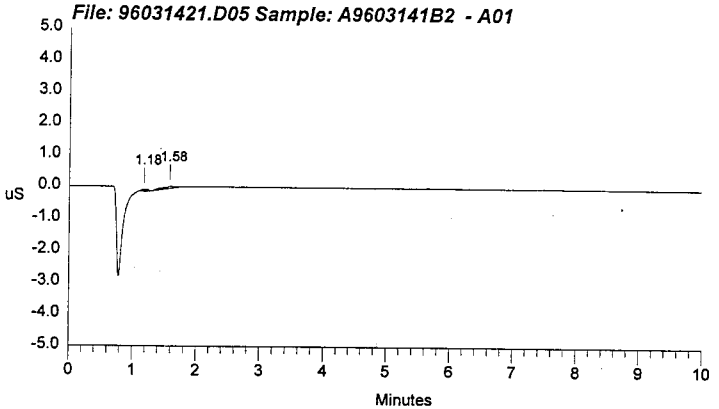


```
| Sample Name: A9603141B2  - A01                Date: 03/14/1996 09:51:38
| Data File  : l:\iag\ic\icdata\9603142\96031421.D05
| Method     : c:\dx\method\2anions2.met
| ACI Address: 1  System: 2  Inject#: 5   Vial:A01        Detector:PED-Cond.
| Analyst    : MMO              Column: AG4A/AS4A (28411/5758)
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.18		0.000	52615	424571	1	
2	1.58	CHLORIDE	0.129	66703	949880	1	0.00
		Totals	0.129	119318	1374452		



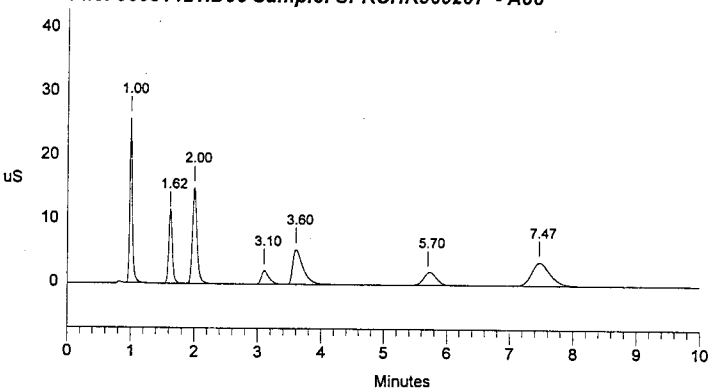
```
| Sample Name: SPKCHK960207  - A06            Date: 03/14/1996 10:02:54 |
| Data File  : l:\iag\ic\icdata\9603142\96031421.D06                    |
| Method     : c:\dx\method\2anions2.met                                |
| ACI Address: 1  System: 2  Inject#: 6   Vial:A06      Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A (28411/5758)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.00	FLUORIDE	186.413	25885005	75183403	1	4.18
2	1.62	CHLORIDE	179.545	11010328	45558713	1	0.00
3	2.00	NITRITE	456.840	15117746	76677979	1	-1.03
4	3.10	BROMIDE	188.297	2090270	17589631	1	0.04
5	3.60	NITRATE	478.298	5467667	61804679	1	0.00
6	5.70	PHOSPHATE	444.765	1954215	29501862	1	-0.56
7	7.47	SULFATE	441.455	3640257	74660802	1	0.00
		Totals	2375.613	65165486	380977069		

File: 96031421.D06 Sample: SPKCHK960207 - A06



Data Reprocessed On 03/14/1996 13:22:31

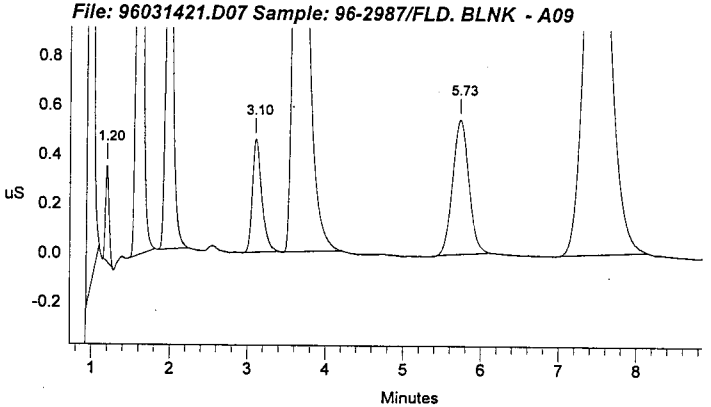
Sample Name:	96-2987/FLD. BLNK - A09
Date:	03/14/1996 10:14:58
Data File :	L:\IAG\IC\ICDATA\OPTIMIZE\9603142\96031421.D07
Method :	c:\dx\method\2anions2.met
ACI Address:	1 System: 2 Inject#: 7 Vial:A09
Detector:	PED-Cond.
Analyst :	MMO
Column:	AG4A/AS4A (28411/5758)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.72	8.85	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97	FLUORIDE	0.787	9691743	29552747	1	2.83
2	1.20		0.000	391556	1216938	1	
3	1.58	CHLORIDE	1.191	5961943	29054791	1	0.00
4	1.97	NITRITE	0.880	2001861	11284811	1	-0.63
5	3.10	BROMIDE	0.434	455678	3838490	1	2.15
6	3.60	NITRATE	2.739	2871917	34073305	1	0.00
7	5.73	PHOSPHATE	1.343	544059	7885191	1	0.02
8	7.43	SULFATE	2.694	2089870	43841143	1	0.00
		Totals	10.069	24008627	160747415		

File: 96031421.D07 Sample: 96-2987/FLD. BLNK - A09



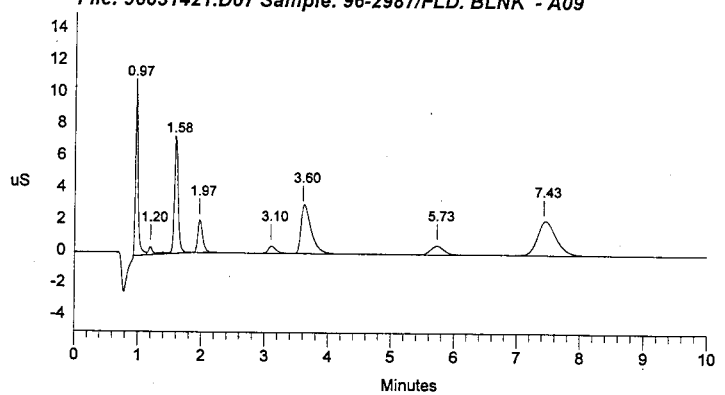
```
Sample Name: 96-2987/FLD. BLNK  - A09        Date: 03/14/1996 10:14:58
Data File  : l:\iag\ic\icdata\9603142\96031421.D07
Method     : c:\dx\method\2anions2.met
ACI Address: 1  System: 2  Inject#: 7   Vial:A09        Detector:PED-Cond.
Analyst    : MMO             Column: AG4A/AS4A (28411/5758)
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97	FLUORIDE	0.822	9738451	31024826	2	2.83
2	1.20		0.000	507233	2013582	2	
3	1.58	CHLORIDE	1.244	5999833	30472182	2	0.00
4	1.97	NITRITE	0.885	2003762	11373890	1	-0.63
5	3.10	BROMIDE	0.434	455678	3838490	1	2.15
6	3.60	NITRATE	2.765	2874587	34422906	1	0.00
7	5.73	PHOSPHATE	1.372	548485	8085761	1	0.02
8	7.43	SULFATE	2.720	2095623	44294472	1	0.00
		Totals	10.242	24223650	165526109		

File: 96031421.D07 Sample: 96-2987/FLD. BLNK - A09



Data Reprocessed On 03/14/1996 13:25:16

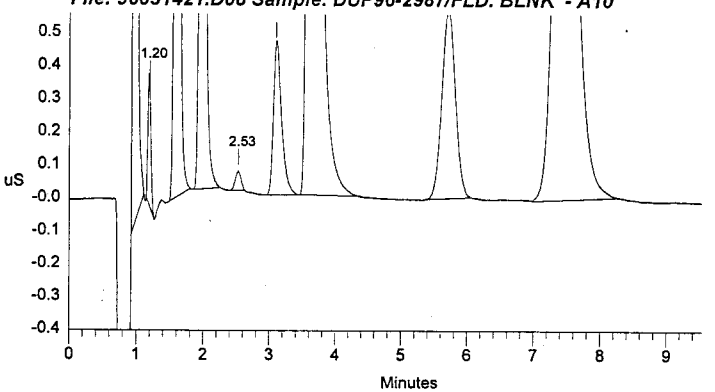
```
| Sample Name: DUP96-2987/FLD. BLNK  - A10    Date: 03/14/1996 10:27:03 |
| Data File  : L:\IAG\IC\ICDATA\OPTIMIZE\9603142\96031421.D08           |
| Method     : c:\dx\method\2anions2.met                                |
| ACI Address: 1  System: 2  Inject#: 8   Vial:A10      Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A (28411/5758)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	9.54	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97	FLUORIDE	0.774	10416271	29013962	1	2.83
2	1.20		0.000	372283	1227802	1	
3	1.58	CHLORIDE	1.093	6067809	26419454	1	0.00
4	1.97	NITRITE	1.124	2855947	15602501	1	-0.63
5	2.53		0.000	57611	339144	1	
6	3.10	BROMIDE	0.445	456012	3938755	1	2.15
7	3.60	NITRATE	3.447	3751523	43612324	1	0.00
8	5.70	PHOSPHATE	1.379	556973	8129919	1	-0.56
9	7.43	SULFATE	2.796	2201071	45657118	1	0.00
		Totals	11.059	26735499	173940980		

File: 96031421.D08 Sample: DUP96-2987/FLD. BLNK - A10



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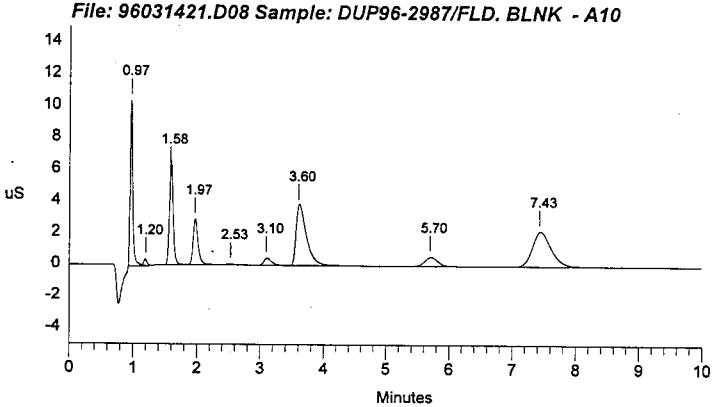
| Sample Name: DUP96-2987/FLD. BLNK  - A10     Date: 03/14/1996 10:27:03 |
| Data File  : 1:\iag\ic\icdata\9603142\96031421.D08                     |
| Method     : c:\dx\method\2anions2.met                                 |
| ACI Address: 1  System: 2  Inject#: 8   Vial:A10       Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A (28411/5758)             |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97	FLUORIDE	0.789	10436374	29641276	2	2.83
2	1.20		0.000	419523	1528025	2	
3	1.58	CHLORIDE	1.094	6069526	26444864	1	0.00
4	1.97	NITRITE	1.125	2856361	15623541	1	-0.63
5	2.53		0.000	49700	262947	1	
6	3.10	BROMIDE	0.445	456012	3938755	1	2.15
7	3.60	NITRATE	3.450	3751696	43648264	1	0.00
8	5.70	PHOSPHATE	1.392	559112	8219652	1	-0.56
9	7.43	SULFATE	2.796	2201071	45657118	1	0.00
		Totals	11.091	26799375	174964443		

File: 96031421.D08 Sample: DUP96-2987/FLD. BLNK - A10



Data Reprocessed On 03/14/1996 15:59:13

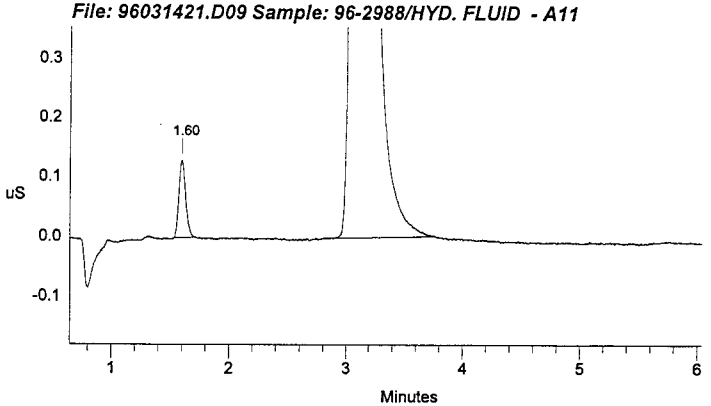
Sample Name:	96-2988/HYD. FLUID - A11 Date: 03/14/1996 10:38:24
Data File :	L:\IAG\IC\ICDATA\OPTIMIZE\9603142\96031421.D09
Method :	c:\dx\method\2anions2.met
ACI Address:	1 System: 2 Inject#: 9 Vial:A11 Detector:PED-Cond.
Analyst :	MMO Column: AG4A/AS4A (28411/5758)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	100	3000	5Hz	0.65	6.04	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.60	CHLORIDE	223.179	128778	510372	1	0.00
2	3.10	BROMIDE	8469.407	4757970	41403340	1	1.09
		Totals	8692.586	4886747	41913712		

File: 96031421.D09 Sample: 96-2988/HYD. FLUID - A11



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| Sample Name: DUP96-2988/HYD. FLUID  - A11   Date: 03/14/1996 10:38:24 |
| Data File  : 1:\iag\ic\icdata\9603142\96031421.D09                    |
| Method     : c:\dx\method\2anions2.met                                |
| ACI Address: 1  System: 2  Inject#: 9   Vial:A11      Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A (28411/5758)            |
```
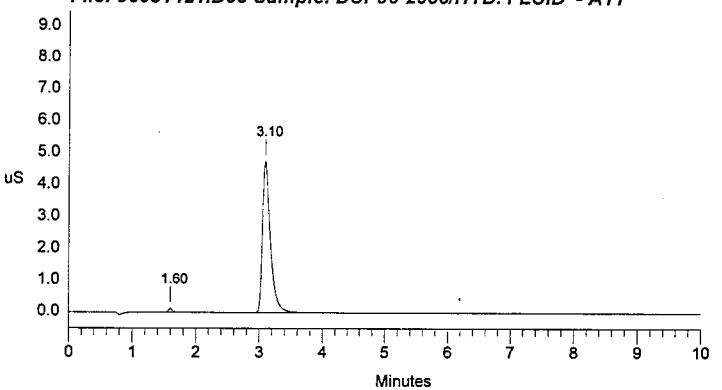

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	100	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.60	CHLORIDE	223.179	128778	510372	1	0.00
2	3.10	BROMIDE	8469.407	4757970	41403340	1	1.09
		Totals	8692.586	4886747	41913712		

File: 96031421.D09 Sample: DUP96-2988/HYD. FLUID - A11



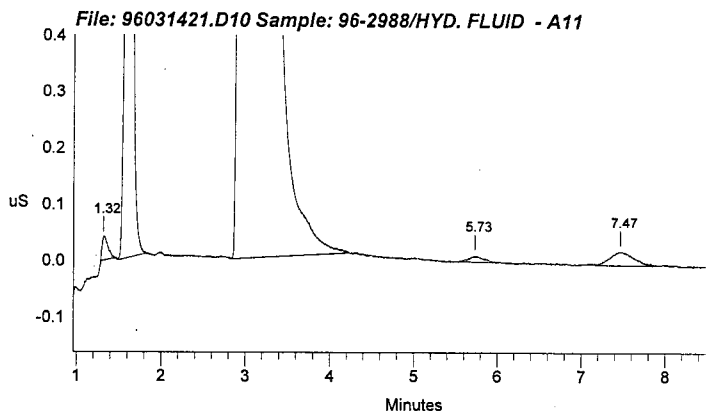
Data Reprocessed On 03/14/1996 15:59:28

Sample Name:	96-2988/HYD. FLUID - A11 Date: 03/14/1996 10:50:29
Data File :	L:\IAG\IC\ICDATA\OPTIMIZE\9603142\96031421.D10
Method :	c:\dx\method\2anions2.met
ACI Address:	1 System: 2 Inject#: 10 Vial:A11 Detector:PED-Cond.
Analyst :	MMO Column: AG4A/AS4A (28411/5758)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	100	3000	5Hz	0.96	8.48	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.32		0.000	39188	198829	1	
2	1.60	CHLORIDE	58.637	2871172	12920927	1	0.00
3	2.97	BROMIDE	-7592.424	112062265	1034163125	1	-3.26
4	5.73	PHOSPHATE	20.435	9941	127688	1	4.88
5	7.47	SULFATE	22.183	23399	484403	1	0.00
		Totals	-7491.169	115005966	1047894972		



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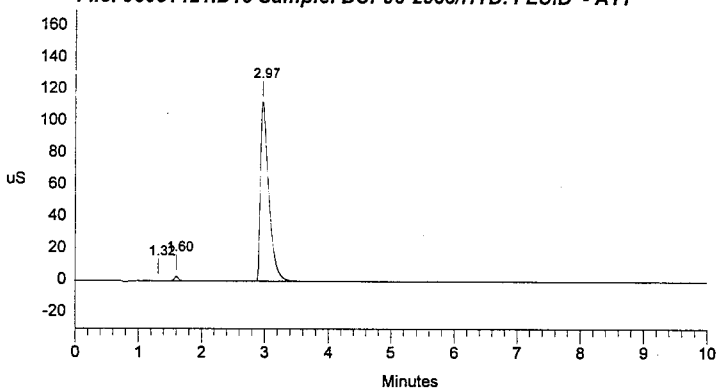
| Sample Name: DUP96-2988/HYD. FLUID  - A11   Date: 03/14/1996 10:50:29 |
| Data File  : l:\iag\ic\icdata\9603142\96031421.D10                    |
| Method     : c:\dx\method\2anions2.met                                |
| ACI Address: 1  System: 2  Inject#: 10  Vial:A11       Detector:PED-Cond. |
| Analyst    : MMO            Column: AG4A/AS4A (28411/5758)            |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	100	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.32		0.000	39188	198829	1	
2	1.60	CHLORIDE	58.637	2871172	12920927	1	0.00
3	2.97	BROMIDE	-7592.424	112062265	1034163125	1	-3.26
		Totals	-7533.787	114972625	1047282881		

File: 96031421.D10 Sample: DUP96-2988/HYD. FLUID - A11



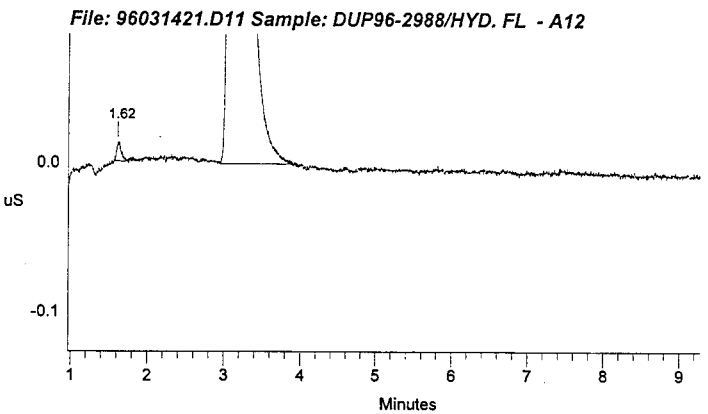
Data Reprocessed On 03/14/1996 15:59:40

Sample Name:	DUP96-2988/HYD. FL - A12	Date:	03/14/1996 11:35:31
Data File :	L:\IAG\IC\ICDATA\OPTIMIZE\9603142\96031421.D11		
Method :	c:\dx\method\2anions2.met		
ACI Address:	1 System: 2 Inject#: 11 Vial:A12	Detector:	PED-Cond.
Analyst :	MMO Column: AG4A/AS4A (28411/5758)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	100	3000	5Hz	0.97	9.28	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.62	CHLORIDE	187.703	11366	50872	1	0.00
2	3.10	BROMIDE	7951.369	3825127	38677735	1	0.04
		Totals	8139.072	3836493	38728608		



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| Sample Name: 96-2988/HYD. FLUID  - A12       Date: 03/14/1996 11:35:31 |
| Data File  : 1:\iag\ic\icdata\9603142\96031421.D11                     |
| Method     : c:\dx\method\2anions2.met                                 |
| ACI Address: 1  System: 2  Inject#: 11  Vial:A12        Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A (28411/5758)            |
```
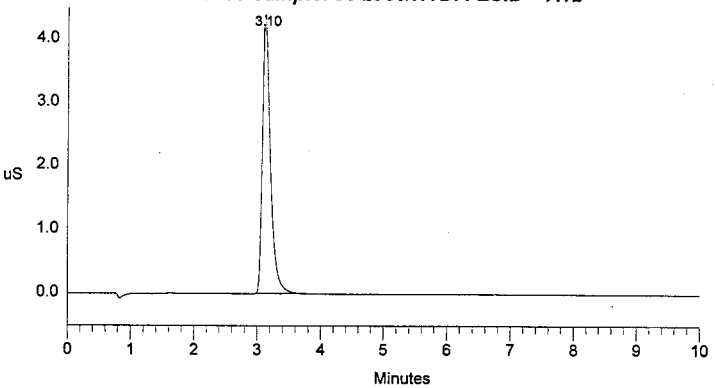

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	5	100	3000	5Hz	0.00	10.00	30000	

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	3.10	BROMIDE	7907.049	3820769	38445827	1	1.09
		Totals	7907.049	3820769	38445827		

File: 96031421.D11 Sample: 96-2988/HYD. FLUID - A12



Data Reprocessed On 03/14/1996 15:59:55

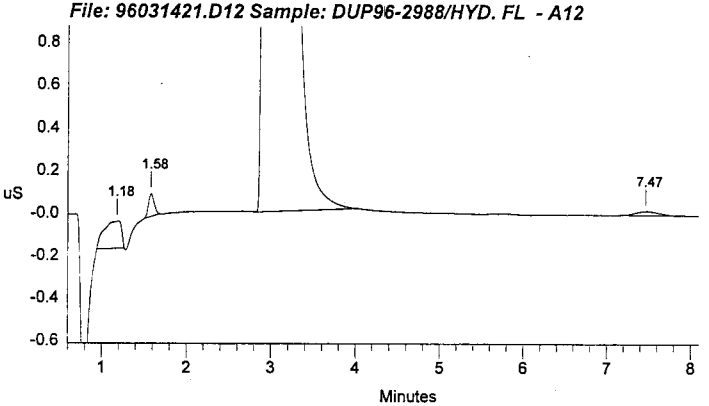
Sample Name: DUP96-2988/HYD. FL - A12		Date: 03/14/1996 11:47:34	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603142\96031421.D12			
Method : c:\dx\method\2anions2.met			
ACI Address: 1 System: 2 Inject#: 12 Vial:A12			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A (28411/5758)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	100	3000	5Hz	0.60	8.10	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.18		0.000	128384	1807839	1	
2	1.58	CHLORIDE	11.113	106648	498432	1	0.00
3	2.93	BROMIDE	-8605.424	97005786	1072703271	1	-3.34
4	7.47	SULFATE	21.602	18883	383731	1	0.00
		Totals	-8572.709	97259702	1075393274		

File: 96031421.D12 Sample: DUP96-2988/HYD. FL - A12



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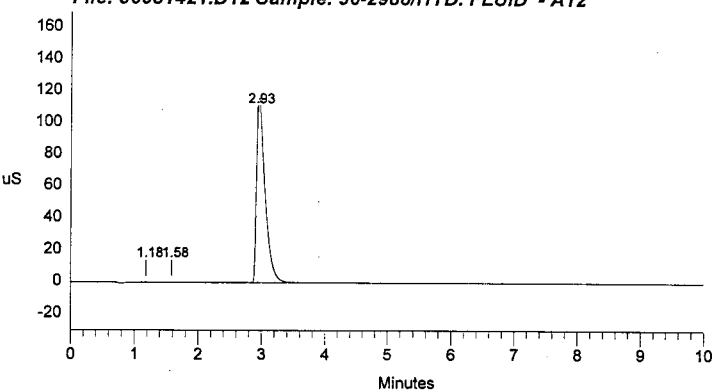
| Sample Name: 96-2988/HYD. FLUID  - A12       Date: 03/14/1996 11:47:34 |
| Data File  : l:\iag\ic\icdata\9603142\96031421.D12                     |
| Method     : c:\dx\method\2anions2.met                                 |
| ACI Address: 1  System: 2  Inject#: 12  Vial:A12        Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A (28411/5758)            |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	100	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.18		0.000	128384	1807839	1	
2	1.58	CHLORIDE	14.750	137230	1441552	1	0.00
3	2.93	BROMIDE	-8605.424	97005786	1072703271	1	-3.34
		Totals	-8590.674	97271400	1075952662		

File: 96031421.D12 Sample: 96-2988/HYD. FLUID - A12

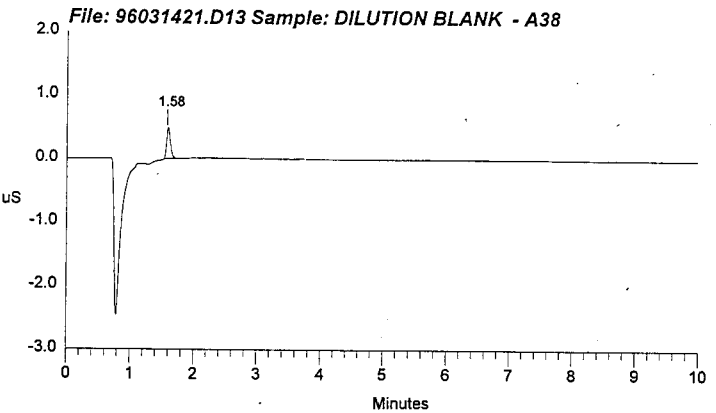


```
| Sample Name: DILUTION BLANK  - A38          Date: 03/14/1996 11:59:37
| Data File  : l:\iag\ic\icdata\9603142\96031421.D13
| Method     : c:\dx\method\2anions2.met
| ACI Address: 1  System: 2  Inject#: 13  Vial:A38        Detector:PED-Cond.
| Analyst    : MMO             Column: AG4A/AS4A (28411/5758)
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.58	CHLORIDE	0.167	422681	1941297	1	0.00
		Totals	0.167	422681	1941297		



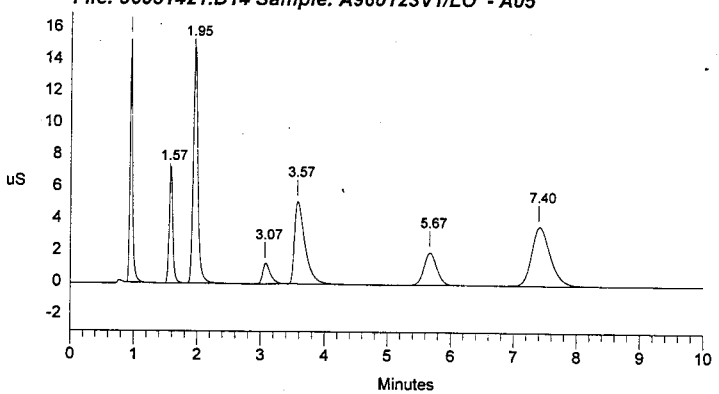
```
| Sample Name: A960123V1/LO  - A05              Date: 03/14/1996 12:10:58 |
| Data File  : l:\iag\ic\icdata\9603142\96031421.D14                      |
| Method     : c:\dx\method\2anions2.met                                  |
| ACI Address: 1  System: 2  Inject#: 14  Vial:A05        Detector:PED-Cond.|
| Analyst    : MMO              Column: AG4A/AS4A (28411/5758)            |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95	FLUORIDE	22.591	15270496	44037226	1	2.13
2	1.57	CHLORIDE	23.340	6132999	28402090	1	0.00
3	1.95	NITRITE	90.679	13951258	76066881	1	-0.43
4	3.07	BROMIDE	23.679	1230423	10877856	1	2.13
5	3.57	NITRATE	91.978	5149128	59280958	1	0.00
6	5.67	PHOSPHATE	87.288	2030680	28912818	1	-0.22
7	7.40	SULFATE	89.778	3692805	76005737	1	0.00
		Totals	429.334	47457789	323583566		

File: 96031421.D14 Sample: A960123V1/LO - A05



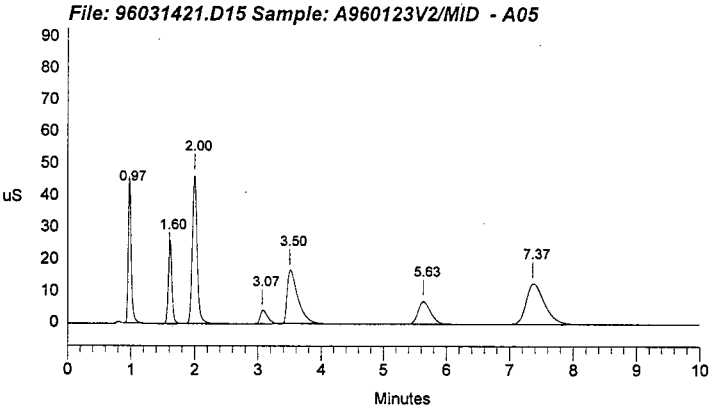
```
| Sample Name: A960123V2/MID  - A05          Date: 03/14/1996 12:22:23      |
| Data File  : 1:\iag\ic\icdata\9603142\96031421.D15                        |
| Method     : c:\dx\method\2anions2.met                                    |
| ACI Address: 1  System: 2  Inject#: 15  Vial:A05       Detector:PED-Cond. |
| Analyst    : MMO            Column: AG4A/AS4A (28411/5758)                |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	15	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97	FLUORIDE	24.034	36885331	149604712	1	1.75
2	1.60	CHLORIDE	25.103	21910224	102430677	1	0.00
3	2.00	NITRITE	95.488	46464765	249810384	1	0.00
4	3.07	BROMIDE	24.243	4068948	35148840	1	0.00
5	3.50	NITRATE	94.874	16609169	199301590	1	0.00
6	5.63	PHOSPHATE	93.985	7244488	101846392	1	1.09
7	7.37	SULFATE	94.802	12882386	262274541	1	0.00
		Totals	452.530	146065310	1100417136		

File: 96031421.D15 Sample: A960123V2/MID - A05



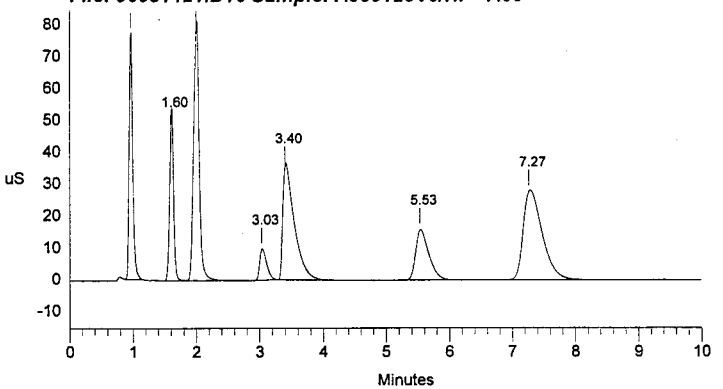
```
| Sample Name: A960123V3/HI  - A05            Date: 03/14/1996 12:33:55      |
| Data File  : l:\iag\ic\icdata\9603142\96031421.D16                         |
| Method     : c:\dx\method\2anions2.met                                     |
| ACI Address: 1  System: 2  Inject#: 16  Vial:A05       Detector:PED-Cond.  |
| Analyst    : MMO             Column: AG4A/AS4A (28411/5758)                |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	30	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97	FLUORIDE	24.032	76783570	306475875	1	1.75
2	1.60	CHLORIDE	24.951	46635104	227475424	1	0.00
3	2.00	NITRITE	95.393	77752681	503958532	1	0.00
4	3.03	BROMIDE	24.052	9539508	75043640	1	-1.09
5	3.40	NITRATE	95.856	35029537	454808244	1	0.00
6	5.53	PHOSPHATE	94.869	15802146	230650776	1	2.21
7	7.27	SULFATE	95.260	27740297	589367335	1	0.00
		Totals	454.412	289282842	2387779825		

File: 96031421.D16 Sample: A960123V3/HI - A05



Data Reprocessed On 03/14/1996 13:32:50

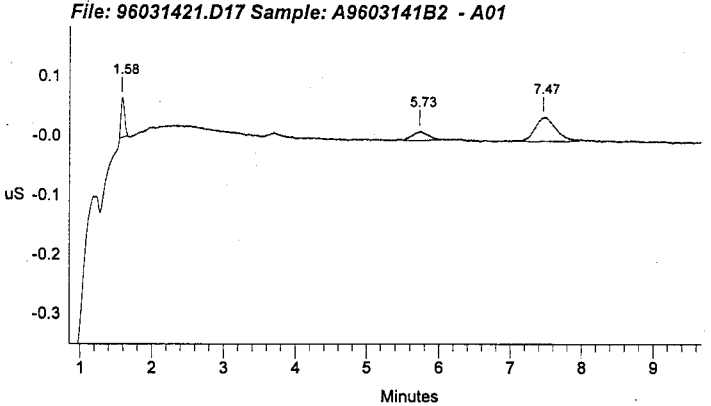
Sample Name: A9603141B2 - A01		Date: 03/14/1996 12:45:59	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603142\96031421.D17			
Method : c:\dx\method\2anions2.met			
ACI Address: 1 System: 2 Inject#: 17 Vial:A01			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A (28411/5758)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.85	9.67	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.58	CHLORIDE	0.101	64904	228333	1	0.00
2	5.73	PHOSPHATE	0.220	14394	235386	1	4.88
3	7.47	SULFATE	0.242	37719	827419	1	0.00
		Totals	0.563	117018	1291137		

File: 96031421.D17 Sample: A9603141B2 - A01



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| Sample Name: A9603141B2  - A01              Date: 03/14/1996 12:45:59      |
| Data File  : l:\iag\ic\icdata\9603142\96031421.D17                         |
| Method     : c:\dx\method\2anions2.met                                     |
| ACI Address: 1  System: 2  Inject#: 17  Vial:A01        Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A (28411/5758)                |
```
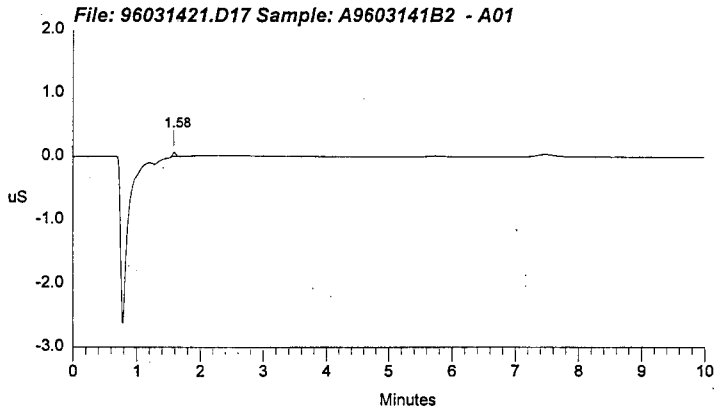

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.58	CHLORIDE	0.101	64904	228333	1	0.00
		Totals	0.101	64904	228333		



AI-450 AS3500 Editor - 03061SCH.AS3

#	Vial Pos	Inj. Vol.	Inj/ Vial	Sample	Method (.MET)	Data	Dil.	Int. Std.	Template (.PRP)
1	A01	100	1	DDI WATER	1anions1	96030611	1	1	
2	A04	10	1	A960123V1/LO acc	1anions1	96030611	2	1	
3	A04	30	1	A960123V2/MID acc	1anions1	96030611	2	1	
4	A04	50	1	A960123V3/HI acc	1anions1	96030611	2	1	
5	A01	100	1	A9603061B1 acc	1anions1	96030611	1	1	
6	A06	1	1	96-2979/126.1A.W	1anions1	96030611	1	1	
7	A07	1	1	96-2985/127.2A.W	1anions1	96030611	1	1	
8	A06	50	1	96-2979/126.1A.W	1anions1	96030611	1	1	
9	A07	50	1	96-2985/127.2A.W	1anions1	96030611	1	1	
10	A04	30	1	A960123V2/MID acc	1anions1	96030611	2	1	
11	A09	100	1	96-2979-BLK	1anions1	96030611	1	1	
12	A10	100	1	96-2979-BS	1anions1	96030611	1	1	
13	A08	50	1	DUP96-2979/126.1A.W	1anions1	96030611	1	1	
14	A11	50	1	96-2981/126.2A.W	1anions1	96030611	1	1	
15	A12	50	1	DUP96-2981/126.2A.W	1anions1	96030611	1	1	
16	A03	10	1	A960123V1/LO acc	1anions1	96030611	2	1	
17	A03	30	1	A960123V2/MID acc	1anions1	96030611	2	1	
18	A03	50	1	A960123V3/HI acc	1anions1	96030611	2	1	
19	A01	100	1	A9603061B2 acc	1anions1	96030611	1	1	
20	A13	50	1	96-2982/126.2B.W	1anions1	96030611	1	1	
21	A14	50	1	DUP96-2982/126.2B.W	1anions1	96030611	1	1	
22	A15	50	1	96-2983/127.1A.W	1anions1	96030611	1	1	
23	A16	50	1	DUP96-2983/127.1A.W	1anions1	96030611	1	1	
24	A17	50	1	96-2984/127.1B.W	1anions1	96030611	1	1	
25	A18	50	1	DUP96-2984/127.1B.W	1anions1	96030611	1	1	
26	A19	50	1	DUP96-2985/127.2A.W	1anions1	96030611	1	1	
27	A20	50	1	MS96-2979/126.1A.W	1anions1	96030611	1	1	
28	A03	10	1	A960123V1/LO acc	1anions1	96030611	2	1	
29	A03	30	1	A960123V2/MID acc	1anions1	96030611	2	1	
30	A03	50	1	A960123V3/HI acc	1anions1	96030611	2	1	
31	A01	100	1	A9603061B3 acc	1anions1	96030611	1	1	
32	A06	5	1	96-2979/126.1A.W	1anions1	96030611	1	1	
33	A08	5	1	DUP96-2979/126.1A.W	1anions1	96030611	1	1	
34	A20	50	1	MS96-2979/126.1A.W	1anions1	96030611	1	1	
35	A09	5	1	96-2979-BLK	1anions1	96030611	1	1	
36	A10	5	1	96-2979-BS	1anions1	96030611	1	1	
37	A11	5	1	96-2981/126.2A.W	1anions1	96030611	1	1	
38	A12	5	1	DUP96-2981/126.2A.W	1anions1	96030611	1	1	
39	A34 repair only	5	1	96-2982/126.2B.W	1anions1	96030611	1	1	
40	A35	5	1	DUP96-2982/126.2B.W	1anions1	96030611	1	1	
41	A15	5	1	96-2983/127.1A.W	1anions1	96030611	1	1	
42	A16	5	1	DUP96-2983/127.1A.W	1anions1	96030611	1	1	
43	A17	5	1	96-2984/127.1B.W	1anions1	96030611	1	1	
44	A18	5	1	DUP96-2984/127.1B.W	1anions1	96030611	1	1	
45	A04	10	1	A960123V1/LO acc	1anions1	96030611	2	1	
46	A04	30	1	A960123V2/MID acc	1anions1	96030611	2	1	

#	Vial Pos	Inj. Vol.	Inj/ Vial	Sample	Method (.MET)	Data	Dil.	Int. Std.	Template (.PRP)
47	A04	50	1	A960123V3/HI acc	1anions1	96030611	2	1	
48	A01	100	1	A9603061B4 ↑ NO_3	1anions1	96030611	1	1	
49	A07	5	1	96-2985/127.2A.W	1anions1	96030611	1	1	
50	A19	5	1	DUP96-2985/127.2A.W	1anions1	96030611	1	1	
51	A36	5	1	96-2982/126.2B.W	1anions1	96030611	1	1	
52	A37	5	1	DUP96-2982/126.2B.W	1anions1	96030611	1	1	
53	A34	50	1	96-2982/126.2B.W	1anions1	96030611	1	1	
54	A35	50	1	DUP96-2982/126.2B.W	1anions1	96030611	1	1	
55	A36 } refit	50	1	96-2982/126.2B.W	1anions1	96030611	1	1	
56	A37 } sample	50	1	DUP96-2982/126.2B.W	1anions1	96030611	1	1	
57	A04	10	1	A960123V1/LO acc	1anions1	96030611	2	1	
58	A04	30	1	A960123V2/MID acc	1anions1	96030611	2	1	
59	A04	50	1	A960123V3/HI acc	1anions1	96030611	2	1	
60	A01	100	1	A9603061B5 acc	1anions1	96030611	1	1	
61	A40	100	1	NO RUN	1shutdn	96030611	1	1	
62	A04	10	1	A960123V1/LO acc	1anions1	96030711	2	1	
63	A04	30	1	A960123V2/MID acc	1anions1	96030711	2	1	
64	A04	50	1	A960123V3/HI acc	1anions1	96030711	2	1	
65	A01	100	1	A9603071B1 acc	1anions1	96030711	1	1	
66	A21	100	1	96-2985/127.2A.W	1anions1	96030711	50	1	
67	A22	100	1	MS96-2985/127.2A.W	1anions1	96030711	50	1	
68	A23	100	1	96-2985/127.2A.W	1anions1	96030711	10	1	
69	A24	100	1	MS96-2985/127.2A.W	1anions1	96030711	10	1	
70	A06	25	1	96-2979/126.1A.W	1anions1	96030711	1	1	
71	A08	25	1	DUP96-2979/126.1A.W	1anions1	96030711	1	1	
72	A04	10	1	A960123V1/LO ↓ NO_2	1anions1	96030711	2	1	
73	A04	10	1	A960123V1/LO acc	1anions1	96030711	2	1	
74	A04	30	1	A960123V2/MID acc	1anions1	96030711	2	1	
75	A04	50	1	A960123V3/HI acc	1anions1	96030711	2	1	
76	A01	100	1	A9603071B2 acc	1anions1	96030711	1	1	
77	A25	100	1	96-2987/FLD. BLNK ↑ NO_3	1anions1	96030711	1	1	
78	A32	1	1	96-2987/FLD. BLNK	1anions1	96030711	1	1	
79	A32	100	1	96-2987/FLD. BLNK	1anions1	96030711	1	1	
80	A31	1	1	96-2988/HYD. FLUID	1anions1	96030711	100	1	
81	A20	5	1	MS96-2979/126.1A.W	1anions1	96030711	1	1	
82	A09	5	1	96-2979-BLK	1anions1	96030711	1	1	
83	A33	5	1	96-2979-BS	1anions1	96030711	1	1	
84	A31	5	1	96-2988/HYD. FLUID	1anions1	96030711	100	1	
85	A26	100	1	96-2981/126.2A.W	1anions1	96030711	20	1	
86	A27	100	1	MS96-2981/126.2A.W	1anions1	96030711	20	1	
87	A04	10	1	A960123V1/LO ↓ Cl	1anions1	96030711	2	1	
88	A04	30	1	A960123V2/MID acc	1anions1	96030711	2	1	
89	A04	50	1	A960123V3/HI acc	1anions1	96030711	2	1	
90	A01	100	1	A9603071B3 acc	1anions1	96030711	1	1	
91	A15	2	1	96-2983/127.1A.W	1anions1	96030711	1	1	
92	A16	2	1	DUP96-2983/127.1A.W	1anions1	96030711	1	1	
93	A31	10	1	96-2988/HYD. FLUID	1anions1	96030711	100	1	
94	A28	100	1	DILUTION BLANK	1anions1	96030711	1	1	
95	A05	10	1	A960123V1/LO acc	1anions1	96030711	2	1	

#	Vial Pos	Inj. Vol.	Inj/ Vial	Sample	Method (.MET)	Data	Dil.	Int. Std.	Template (.PRP)
96	A05	30	1	A960123V2/MID acc	1anions1	96030711	2	1	
97	A05	50	1	A960123V3/HI acc	1anions1	96030711	2	1	
98	A01	100	1	A9603071B4 acc	1anions1	96030711	1	1	
99	A40	100	1	NO RUN	1shutdn	96030711	1	1	

More Run Parameters

#	Vial Pos	Oven Ctl	Oven Set	Cool Ctl	Cool Set	Cycle Time	Flush Vol	Visc Factor	Prep Visc	Inj Type	Needle Height
1	A01	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
2	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
3	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
4	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
5	A01	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
6	A06	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
7	A07	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
8	A06	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
9	A07	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
10	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
11	A09	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
12	A10	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
13	A08	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
14	A11	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
15	A12	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
16	A03	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
17	A03	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
18	A03	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
19	A01	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
20	A13	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
21	A14	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
22	A15	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
23	A16	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
24	A17	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
25	A18	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
26	A19	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
27	A20	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
28	A03	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
29	A03	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
30	A03	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
31	A01	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0

32	A06	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
33	A08	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
34	A20	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
35	A09	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
36	A10	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
37	A11	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
38	A12	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
39	A34	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
40	A35	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
41	A15	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
42	A16	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
43	A17	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
44	A18	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
45	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
46	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
47	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
48	A01	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
49	A07	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
50	A19	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
51	A36	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
52	A37	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
53	A34	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
54	A35	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
55	A36	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
56	A37	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
57	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
58	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
59	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
60	A01	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
61	A40	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
62	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
63	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
64	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
65	A01	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
66	A21	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
67	A22	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
68	A23	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
69	A24	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
70	A06	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
71	A08	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
72	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
73	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
74	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
75	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
76	A01	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
77	A25	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0

78	A32	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
79	A32	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
80	A31	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
81	A20	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
82	A09	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
83	A33	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
84	A31	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
85	A26	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
86	A27	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
87	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
88	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
89	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
90	A01	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
91	A15	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
92	A16	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
93	A31	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
94	A28	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
95	A05	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
96	A05	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
97	A05	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
98	A01	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
99	A40	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0

Comment:

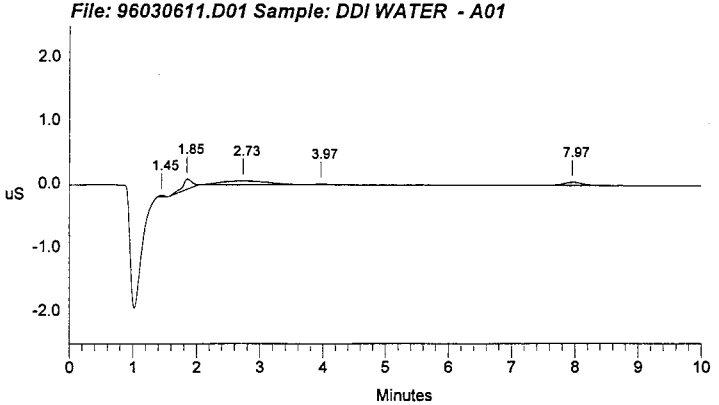
```
| Sample Name: DDI WATER  - A01                  Date: 03/06/1996 08:54:08 |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D01                       |
| Method     : c:\dx\method\1anions1.met                                   |
| ACI Address: 1  System: 1  Inject#: 1   Vial:A01       Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)          |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.45		0.000	23039	129341	1	
2	1.85	CHLORIDE	0.110	161900	1687945	1	0.00
3	2.73		0.000	59835	3150865	1	
4	3.97	NITRATE	0.204	15968	223262	1	0.00
5	7.97	SULFATE	0.214	50638	1136687	1	0.00
		Totals	0.528	311379	6328099		

File: 96030611.D01 Sample: DDI WATER - A01



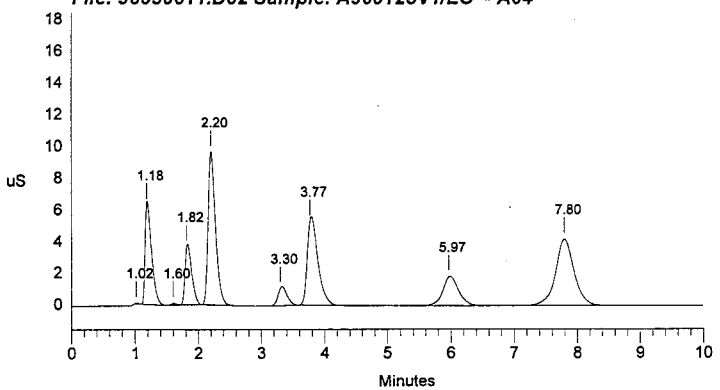
Sample Name: A960123V1/LO - A04	Date: 03/06/1996 09:05:32
Data File : l:\iag\ic\icdata\9603061\96030611.D02	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 System: 1 Inject#: 2 Vial:A04	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.02		0.000	32673	161193	2	
2	1.18	FLUORIDE	23.641	6254767	45845444	2	3.63
3	1.60		0.000	110343	615980	1	
4	1.82	CHLORIDE	22.845	3653421	28145927	1	0.00
5	2.20	NITRITE	92.978	9599421	78556536	1	0.92
6	3.30	BROMIDE	23.035	1055537	11493984	1	-4.63
7	3.77	NITRATE	92.773	5267457	64751611	1	0.00
8	5.97	PHOSPHATE	92.012	1807315	32062917	1	-1.22
9	7.80	SULFATE	94.336	4189152	85577131	1	0.00
		Totals	441.621	31970084	347210724		

File: 96030611.D02 Sample: A960123V1/LO - A04



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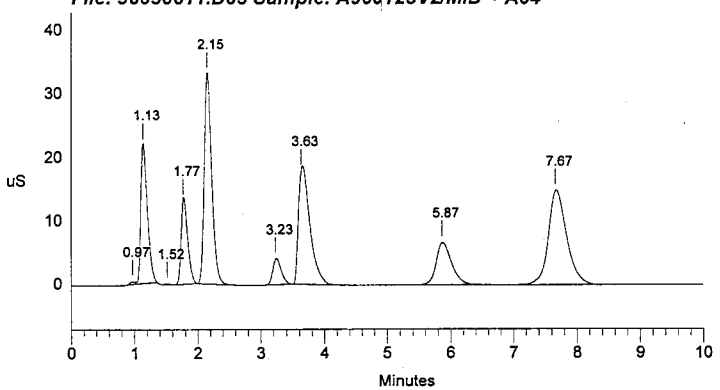
| Sample Name: A960123V2/MID  - A04          Date: 03/06/1996 09:17:17      |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D03                        |
| Method     : c:\dx\method\lanions1.met                                    |
| ACI Address: 1  System: 1  Inject#: 3   Vial:A04        Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	30	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	406444	2180709	2	
2	1.13	FLUORIDE	25.380	21838911	159928088	2	2.06
3	1.52		0.000	118978	681878	1	
4	1.77	CHLORIDE	24.290	13166623	97996452	1	0.00
5	2.15	NITRITE	101.587	33012232	275441698	1	1.42
6	3.23	BROMIDE	24.427	4012779	37845596	1	-3.92
7	3.63	NITRATE	101.602	17909325	233579577	1	0.00
8	5.87	PHOSPHATE	100.128	6682094	113777110	1	0.69
9	7.67	SULFATE	101.206	14865787	301154007	1	0.00
		Totals	478.622	112013172	1222585114		

File: 96030611.D03 Sample: A960123V2/MID - A04



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| Sample Name: A960123V3/HI  - A04            Date: 03/06/1996 09:29:04      |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D04                         |
| Method     : c:\dx\method\1anions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 4   Vial:A04        Detector:PED-Cond. |
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)            |
```
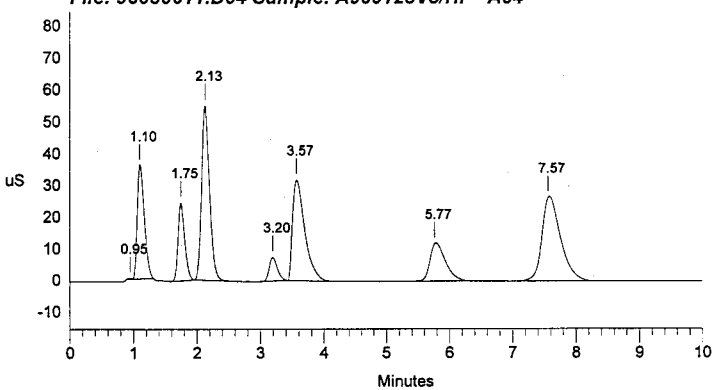

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	221367	854392	2	
2	1.10	FLUORIDE	24.906	35595068	277905710	2	0.00
3	1.75	CHLORIDE	24.349	24562130	177235048	1	0.00
4	2.13	NITRITE	100.968	54879113	475743802	1	1.59
5	3.20	BROMIDE	24.545	7457021	65659421	1	-4.00
6	3.57	NITRATE	102.026	31739580	424949575	1	0.00
7	5.77	PHOSPHATE	101.285	11825076	208485695	1	0.82
8	7.57	SULFATE	101.450	26438957	548534897	1	0.00
		Totals	479.530	192718312	2179368541		

File: 96030611.D04 Sample: A960123V3/HI - A04



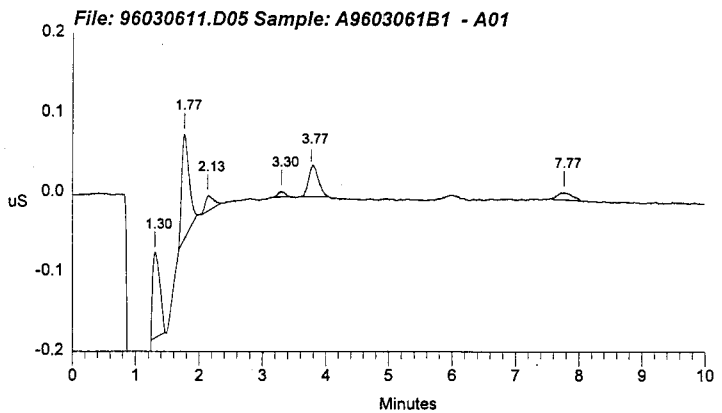
Data Reprocessed On 03/07/1996 10:49:10

Sample Name: A9603061B1 - A01	Date: 03/06/1996 09:41:11
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D05	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 System: 1 Inject#: 5 Vial:A01	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	100	1	3000	5Hz	0.00	10.00	30000	

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.30		0.000	106550	853170	1	
2	1.77	CHLORIDE	0.084	130915	1030826	1	0.00
3	2.13	NITRITE	0.224	18931	170278	1	0.63
4	3.30	BROMIDE	0.009	6730	50213	1	-1.93
5	3.77	NITRATE	0.218	35804	426190	1	0.00
6	7.77	SULFATE	0.160	9195	149454	1	0.00
		Totals	0.696	308125	2680130		



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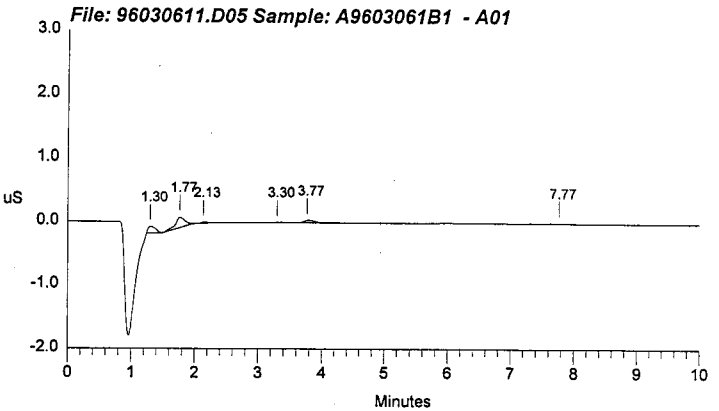
| Sample Name: A9603061B1  - A01                Date: 03/06/1996 09:41:11 |
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D05                      |
| Method     : c:\dx\method\1anions1.met                                  |
| ACI Address: 1  System: 1  Inject#: 5   Vial:A01        Detector:PED-Cond.|
| Analyst    : MMO              Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.30		0.000	106550	853170	1	
2	1.77	CHLORIDE	0.109	163302	1673209	1	0.00
3	2.13	NITRITE	0.224	18346	163258	1	0.63
4	3.30	BROMIDE	0.014	8923	99916	1	-1.93
5	3.77	NITRATE	0.222	37280	479236	1	0.00
6	7.77	SULFATE	0.160	9385	156334	1	0.00
		Totals	0.730	343787	3425122		



Data Reprocessed On 03/07/1996 10:55:03

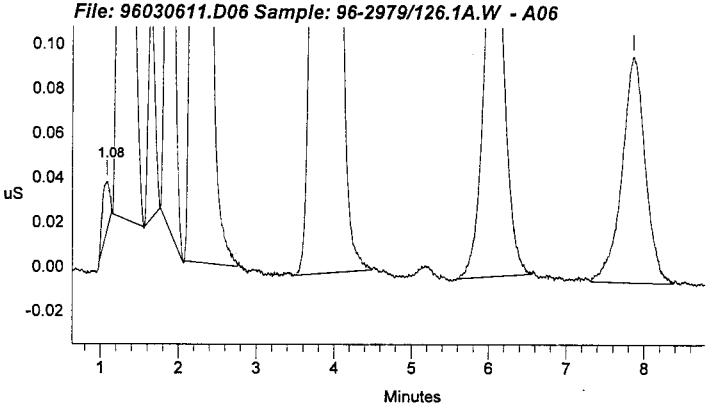
Sample Name: 96-2979/126.1A.W - A06		Date: 03/06/1996 10:04:48	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D06			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 6	Vial:A06	Detector:PED-Cond.	
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.64	8.78	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.08		0.000	21440	149065	1	
2	1.23	FLUORIDE	13.433	287907	3418115	1	6.06
3	1.63		0.000	94142	565949	1	
4	1.85	CHLORIDE	12.869	292655	2159314	1	0.00
5	2.22	NITRITE	174.405	3062913	26855713	1	-0.15
6	3.80	NITRATE	330.112	3776792	44961766	1	0.00
7	6.03	PHOSPHATE	59.153	182635	3268410	1	1.69
8	7.87	SULFATE	26.809	102007	2125485	1	0.00
		Totals	616.780	7820491	83503818		

File: 96030611.D06 Sample: 96-2979/126.1A.W - A06



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Sample Name: 96-2979/126.1A.W  - A06        Date: 03/06/1996 10:04:48
Data File  : l:\iag\ic\icdata\9603061\96030611.D06
Method     : c:\dx\method\1anions1.met
ACI Address: 1  System: 1  Inject#: 6   Vial:A06        Detector:PED-Cond.
Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)
```
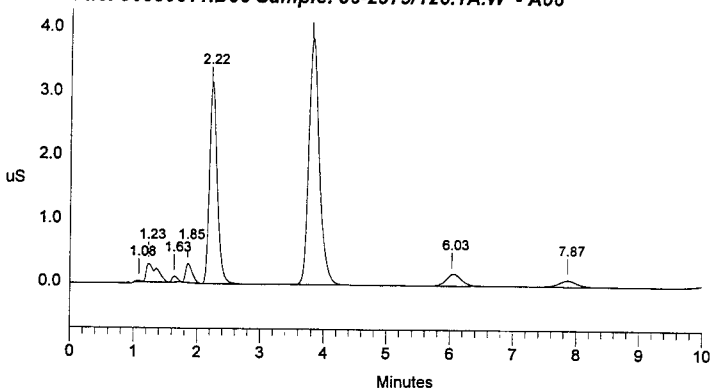

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.08		0.000	16101	90990	2	
2	1.23	FLUORIDE	13.503	289995	3445771	2	6.06
3	1.63		0.000	91983	536219	1	
4	1.85	CHLORIDE	12.869	292655	2159314	1	0.00
5	2.22	NITRITE	174.229	3061196	26824665	1	-0.15
6	3.80	BROMIDE	432.526	3777840	45084274	1	7.84
7	6.03	PHOSPHATE	59.959	183507	3325072	1	-0.99
8	7.87	SULFATE	26.946	102149	2150552	1	0.00
		Totals	720.031	7815426	83616857		

File: 96030611.D06 Sample: 96-2979/126.1A.W - A06



Data Reprocessed On 03/07/1996 10:58:07

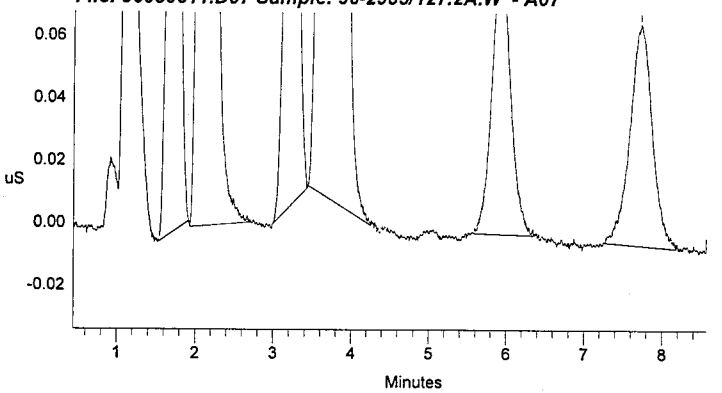
Sample Name:	96-2985/127.2A.W - A07 Date: 03/06/1996 10:15:42
Data File :	L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D07
Method :	c:\dx\method\lanions1.met
ACI Address:	1 System: 1 Inject#: 7 Vial:A07 Detector:PED-Cond.
Analyst :	MMO Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	2570	5Hz	0.45	8.57	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.08	FLUORIDE	5.374	50824	218254	1	1.38
2	1.70	CHLORIDE	14.788	291084	2640730	1	0.00
3	2.08	NITRITE	132.494	2311943	19471495	1	2.12
4	3.20	BROMIDE	32.743	339176	3206736	1	-1.18
5	3.67	NITRATE	284.711	3349386	38310501	1	0.34
6	5.90	PHOSPHATE	33.679	85345	1480517	1	0.00
7	7.73	SULFATE	22.930	70328	1415770	1	0.00
		Totals	526.720	6498086	66744002		

File: 96030611.D07 Sample: 96-2985/127.2A.W - A07



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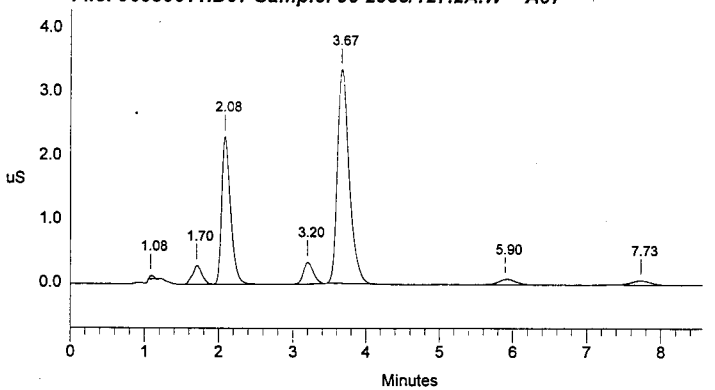
| Sample Name: 96-2985/127.2A.W  - A07          Date: 03/06/1996 10:15:42 |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D07                      |
| Method     : c:\dx\method\lanions1.met                                  |
| ACI Address: 1  System: 1  Inject#: 7   Vial:A07        Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)        |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	2570	5Hz	0.00	8.56	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.08	FLUORIDE	5.374	50824	218254	1	1.38
2	1.70	CHLORIDE	14.788	291084	2640730	1	0.00
3	2.08	NITRITE	132.816	2312278	19528110	1	2.12
4	3.20	BROMIDE	32.743	339176	3206736	1	-1.18
5	3.67	NITRATE	282.296	3343317	37957548	1	0.00
6	5.90	PHOSPHATE	34.735	86308	1554557	1	0.34
7	7.73	SULFATE	22.584	69157	1352481	1	0.00
		Totals	525.336	6492145	66458416		

File: 96030611.D07 Sample: 96-2985/127.2A.W - A07



Data Reprocessed On 03/07/1996 11:00:56

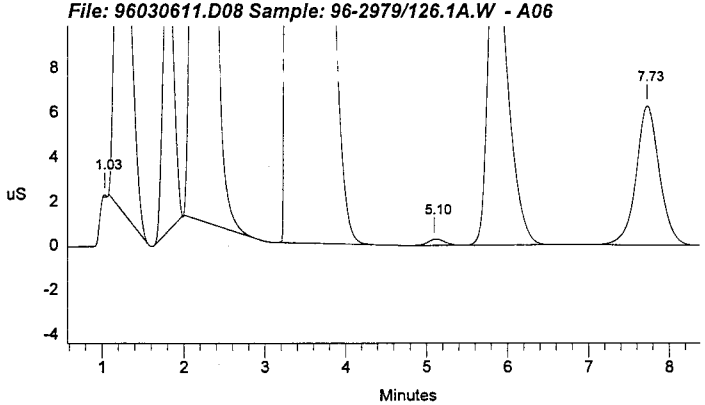
Sample Name: 96-2979/126.1A.W - A06			Date: 03/06/1996 10:32:33
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D08			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 8		Vial:A06	Detector:PED-Cond.
Analyst : MMO		Column: AG4A/AS4A-SC	(10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.58	8.38	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03		0.000	120847	251034	1	
2	1.20	FLUORIDE	9.702	15369370	209059476	1	6.06
3	1.80	CHLORIDE	8.628	13105756	118441509	1	0.00
4	2.25	NITRITE	135.822	135307950	1635119134	1	4.17
5	3.33	NITRATE	-195.349	209367016	3787625162	1	1.01
6	5.10		0.000	280501	4178152	1	
7	5.83	PHOSPHATE	57.296	13894802	243502223	1	-1.63
8	7.73	SULFATE	13.719	6280836	127340107	1	0.00
		Totals	29.818	393727078	6125516796		

File: 96030611.D08 Sample: 96-2979/126.1A.W - A06



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| Sample Name: 96-2979/126.1A.W  - A06          Date: 03/06/1996 10:32:33 |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D08                      |
| Method     : c:\dx\method\lanions1.met                                  |
| ACI Address: 1  System: 1  Inject#: 8   Vial:A06        Detector:PED-Cond.|
| Analyst    : MMO              Column: AG4A/AS4A-SC  (10196/12484)       |
```
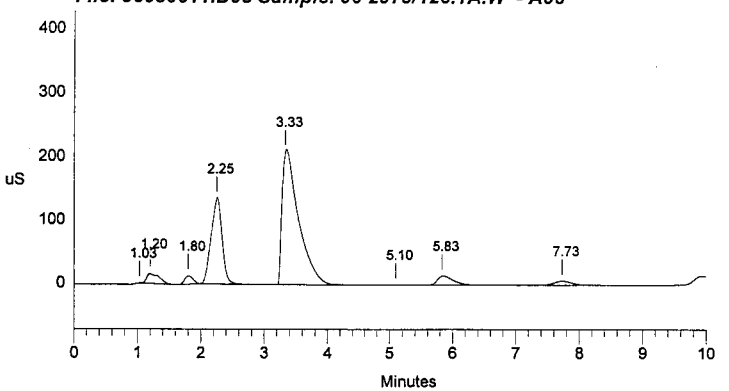

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03		0.000	120847	251034	1	
2	1.20	FLUORIDE	9.702	15369370	209059476	1	6.06
3	1.80	CHLORIDE	8.628	13105756	118441509	1	0.00
4	2.25	NITRITE	135.822	135307950	1635119134	1	4.17
5	3.33	BROMIDE	-2652.259	209367420	3787807800	1	-2.78
6	5.10	PHOSPHATE	1.442	280501	4178152	1	-4.59
7	5.83		0.000	13898493	243996995	1	
8	7.73	SULFATE	13.839	6292198	128524311	1	0.00
		Totals	-2482.825	393742535	6127378411		

File: 96030611.D08 Sample: 96-2979/126.1A.W - A06



Data Reprocessed On 03/07/1996 11:05:42

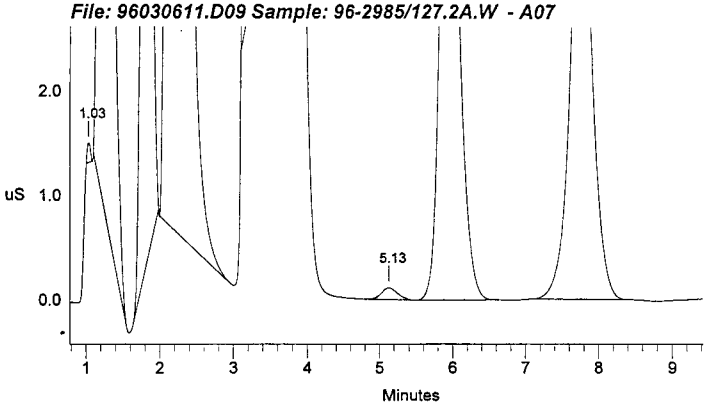
Sample Name: 96-2985/127.2A.W - A07		Date: 03/06/1996 10:44:17	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D09			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 9	Vial:A07	Detector:PED-Cond.	
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.78	9.42	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03		0.000	187888	568461	1	
2	1.20	FLUORIDE	4.295	6825332	86406423	1	6.06
3	1.80	CHLORIDE	6.230	9341631	82453278	1	0.00
4	2.23	NITRITE	114.776	115000465	1273426488	1	3.40
5	3.17	BROMIDE	14.896	15990482	81328678	1	2.62
6	3.37	NITRATE	-6.592	169964038	2819111168	1	-0.98
7	5.13		0.000	113458	1718841	1	
8	5.93	PHOSPHATE	28.104	6370738	105697163	1	0.06
9	7.77	SULFATE	9.938	4490427	90432641	1	0.00
		Totals	171.647	328284458	4541143141		

File: 96030611.D09 Sample: 96-2985/127.2A.W - A07



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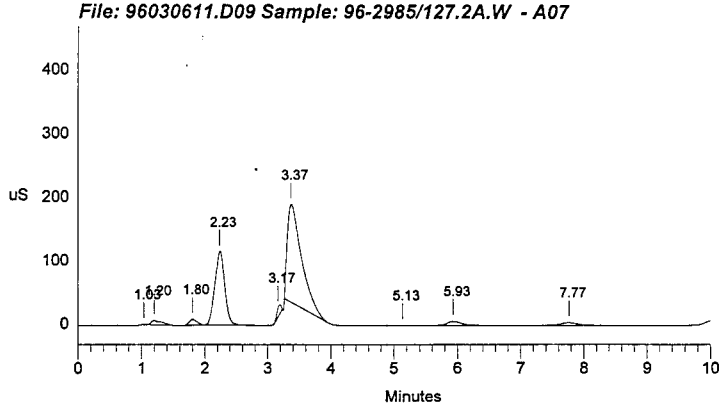
| Sample Name: 96-2985/127.2A.W  - A07        Date: 03/06/1996 10:44:17      |
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D09                         |
| Method     : c:\dx\method\1anions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 9   Vial:A07        Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03		0.000	187888	568461	1	
2	1.20	FLUORIDE	4.295	6825332	86406423	1	6.06
3	1.80	CHLORIDE	6.230	9341631	82453278	1	0.00
4	2.23	NITRITE	114.776	115000465	1273426488	1	3.40
5	3.17		0.000	14057091	64712422	1	
6	3.37	BROMIDE	-895.529	153417282	2409280538	1	-1.81
7	5.13	PHOSPHATE	0.742	113458	1718841	1	-4.92
8	5.93		0.000	6371037	105735441	1	
9	7.77	SULFATE	10.062	4502748	91636547	1	0.00
		Totals	-759.425	309816932	4115938439		

File: 96030611.D09 Sample: 96-2985/127.2A.W - A07



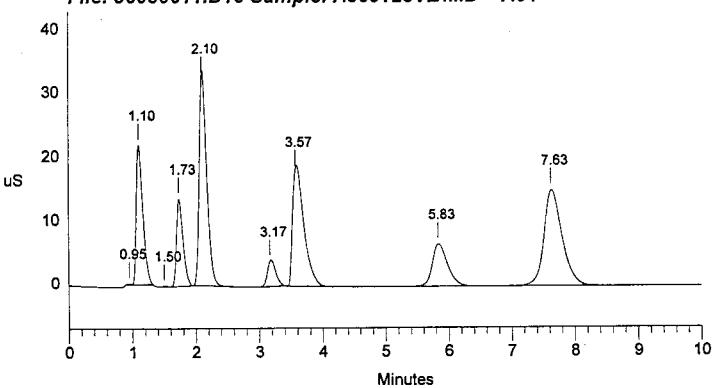
```
| Sample Name: A960123V2/MID  - A04          Date: 03/06/1996 10:55:55      |
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D10                        |
| Method     : c:\dx\method\1anions1.met                                    |
| ACI Address: 1  System: 1  Inject#: 10  Vial:A04        Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	30	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	123502	481244	2	
2	1.10	FLUORIDE	24.942	21843980	156918966	2	0.96
3	1.50		0.000	75481	383136	1	
4	1.73	CHLORIDE	24.301	13734551	98044460	1	0.00
5	2.10	NITRITE	102.204	32540269	277226600	1	0.96
6	3.17	BROMIDE	24.471	3934410	37917206	1	-4.09
7	3.57	NITRATE	101.382	18015979	233016313	1	0.00
8	5.83	PHOSPHATE	98.919	6671068	112252962	1	1.99
9	7.63	SULFATE	101.368	15144337	301692578	1	0.00
		Totals	477.589	112083576	1217933466		

File: 96030611.D10 Sample: A960123V2/MID - A04



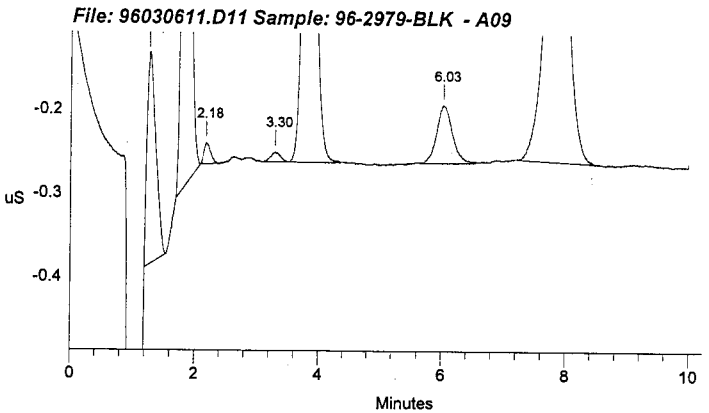
Data Reprocessed On 03/07/1996 11:08:28

Sample Name:	96-2979-BLK - A09	Date:	03/06/1996 11:08:03
Data File :	L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D11		
Method :	c:\dx\method\1anions1.met		
ACI Address:	1 System: 1 Inject#: 11 Vial:A09	Detector:	PED-Cond.
Analyst :	MMO	Column:	AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.23	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.27		0.000	252663	2464115	1	
2	1.82	CHLORIDE	0.444	1279131	10108024	1	0.00
3	2.18	NITRITE	0.225	24646	181842	1	0.15
4	3.30	BROMIDE	0.017	11537	123072	1	-4.63
5	3.80	NITRATE	0.904	870618	10203530	1	0.00
6	6.03	PHOSPHATE	0.301	68959	1229306	1	-0.99
7	7.83	SULFATE	0.867	629605	13128780	1	0.00
		Totals	2.757	3137158	37438668		

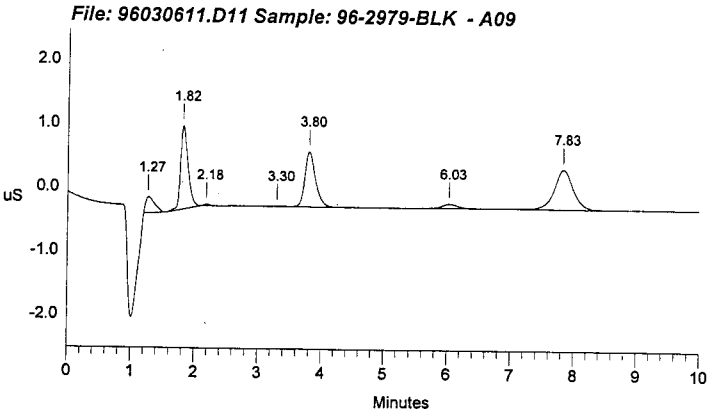


```
| Sample Name: 96-2979-BLK  - A09                Date: 03/06/1996 11:08:03 |
| Data File   : l:\iag\ic\icdata\9603061\96030611.D11                      |
| Method      : c:\dx\method\lanions1.met                                  |
| ACI Address: 1  System: 1  Inject#: 11  Vial:A09        Detector:PED-Cond.|
| Analyst     : MMO              Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.27		0.000	252663	2464115	1	
2	1.82	CHLORIDE	0.466	1304432	10671941	1	0.00
3	2.18	NITRITE	0.225	24558	179946	1	0.15
4	3.30	BROMIDE	0.017	11537	123072	1	-4.63
5	3.80	NITRATE	0.906	870833	10229450	1	0.00
6	6.03	PHOSPHATE	0.301	68959	1229306	1	-0.99
7	7.83	SULFATE	0.870	630178	13180511	1	0.00
		Totals	2.784	3163160	38078340		



Data Reprocessed On 03/15/1996 11:03:38

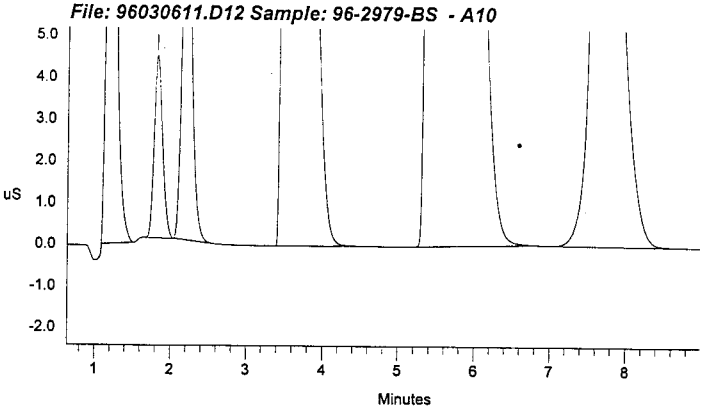
Sample Name: 96-2979-BS - A10		Date: 03/06/1996 11:20:12	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D12			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 12 Vial:A10			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.64	8.99	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.17	FLUORIDE	3.107	15983767	128285486	1	2.17
2	1.82	CHLORIDE	1.335	4329757	33223069	1	0.00
3	2.18	NITRITE	4.812	9666984	81482217	1	0.15
4	3.53	NITRATE	47.094	71020268	1116354966	1	0.95
5	5.47	PHOSPHATE	-184.252	81054909	2153576627	1	-8.73
6	7.67	SULFATE	23.988	24687314	512168295	1	0.00
		Totals	-103.916	206742999	4025090658		

File: 96030611.D12 Sample: 96-2979-BS - A10



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| Sample Name: 96-2979-BS  - A10                Date: 03/06/1996 11:20:12
| Data File  : l:\iag\ic\icdata\9603061\96030611.D12
| Method     : c:\dx\method\1anions1.met
| ACI Address: 1  System: 1  Inject#: 12  Vial:A10        Detector:PED-Cond.
| Analyst    : MMO              Column: AG4A/AS4A-SC  (10196/12484)
```
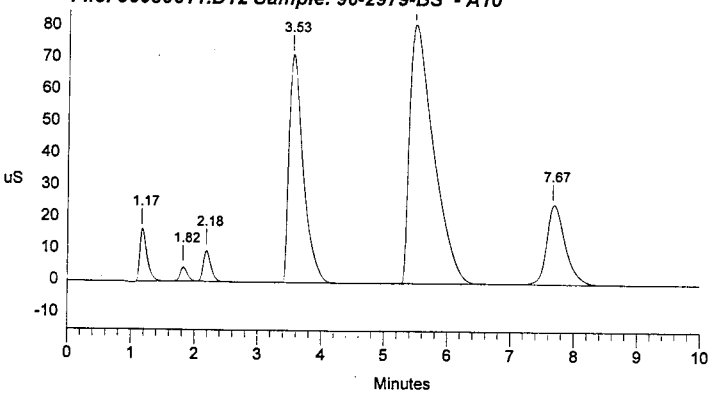

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	100	1	3000	5Hz	0.00	10.00	30000	

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.17	FLUORIDE	3.107	15983767	128285486	1	2.17
2	1.82	CHLORIDE	1.392	4381625	34723993	1	0.00
3	2.18	NITRITE	4.720	9640017	79826801	1	0.15
4	3.53	BROMIDE	-35.552	71021652	1116711693	1	2.11
5	5.47	PHOSPHATE	-184.513	81057923	2154408327	1	-3.52
6	7.67	SULFATE	23.992	24688117	512260841	1	0.00
		Totals	-186.855	206773101	4026217142		

File: 96030611.D12 Sample: 96-2979-BS - A10



Data Reprocessed On 03/07/1996 11:19:27

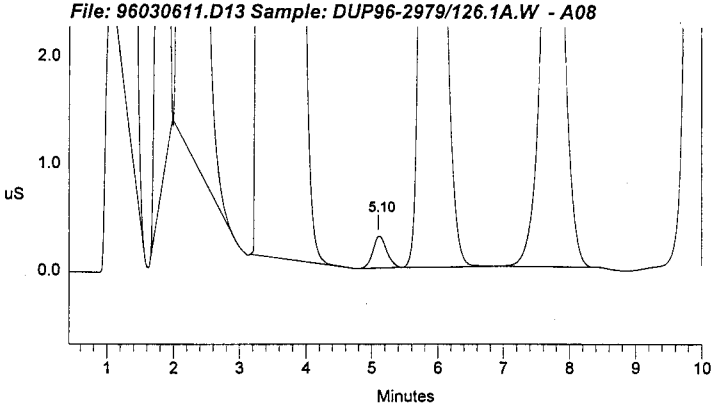
Sample Name: DUP96-2979/126.1A.W - A08			Date: 03/06/1996 11:31:55	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D13				
Method : c:\dx\method\1anions1.met				
ACI Address: 1 System: 1	Inject#: 13	Vial:A08		Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)			

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.43	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03		0.000	113248	210918	1	
2	1.18	FLUORIDE	9.230	14475015	197723716	1	4.59
3	1.80	CHLORIDE	8.466	12810949	115918697	1	0.00
4	2.25	NITRITE	138.240	136158386	1683228438	1	4.17
5	3.33	NITRATE	-219.006	216224395	3882660133	1	1.01
6	5.10		0.000	291953	4328977	1	
7	5.83	PHOSPHATE	63.036	15939637	276182627	1	-1.63
8	7.73	SULFATE	13.323	6118162	123428241	1	0.00
		Totals	13.288	402131745	6283681748		

File: 96030611.D13 Sample: DUP96-2979/126.1A.W - A08



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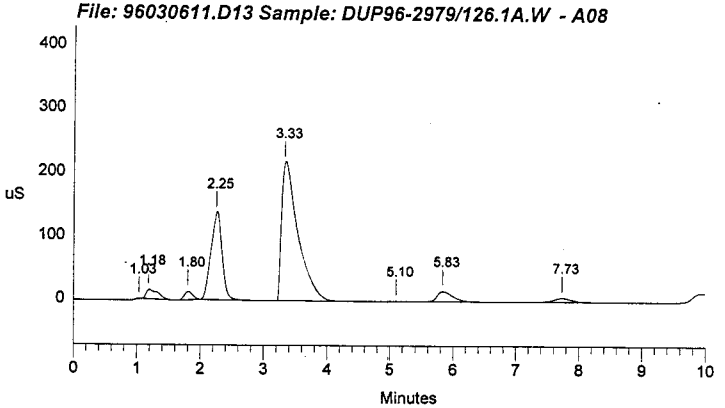
| Sample Name: DUP96-2979/126.1A.W  - A08      Date: 03/06/1996 11:31:55
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D13
| Method     : c:\dx\method\1anions1.met
| ACI Address: 1  System: 1  Inject#: 13  Vial:A08        Detector:PED-Cond.
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	50	1	3000	5Hz	0.00	10.00	30000	

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03		0.000	113248	210918	1	
2	1.18	FLUORIDE	9.230	14475015	197723716	1	4.59
3	1.80	CHLORIDE	8.466	12810949	115918697	1	0.00
4	2.25	NITRITE	138.240	136158386	1683228438	1	4.17
5	3.33	BROMIDE	-2806.438	216224395	3882660133	1	-2.78
6	5.10	PHOSPHATE	1.485	291953	4328977	1	-4.59
7	5.83		0.000	15939637	276182627	1	
8	7.73	SULFATE	13.464	6131430	124820715	1	0.00
		Totals	-2635.554	402145013	6285074222		

File: 96030611.D13 Sample: DUP96-2979/126.1A.W - A08



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Accession #: D196089689

Document #: SD-WM-DP-171

Title/Desc:
FINAL REPORT FOR TANK 241-BX-104 PUSH MODE CORES 126 & 127 [SEC 8 OF 9]

Pages: 203

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

DOCUMENT NUMBER: SD-WM-DP-171 Rev. 1

SECTION 8 OF 9

TITLE: Final Report for Tank 241-BX-104 Push Mode Cores 126 and 127

DATE: 4/25/96

ORIGINATOR: Wu, PA

CO: WHC

RECIPIENT:

CO:

REFERENCES: ECN- 629038

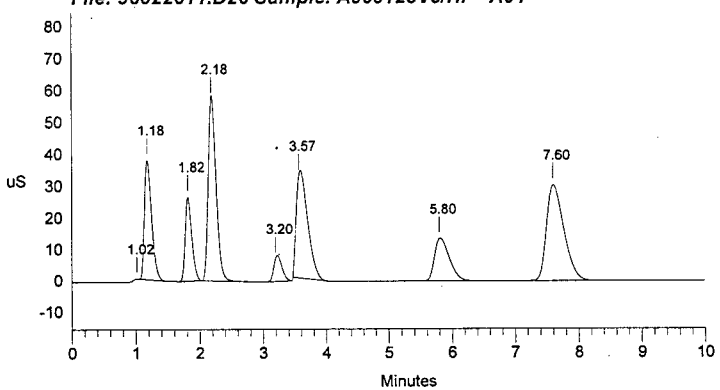
Sample Name: A960123V3/HI - A04	Date: 02/26/1996 17:08:13
Data File : 1:\iag\ic\icdata\9602261\96022611.D26	
Method : c:\dx\method\lanions1.met	
ACI Address: 1 System: 1 Inject#: 26 Vial:A04	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.02		0.000	54240	115840	1	
2	1.18	FLUORIDE	26.220	37727172	295148109	1	3.63
3	1.82	CHLORIDE	25.814	26689774	190426873	1	0.00
4	2.18	NITRITE	106.464	57314237	504531373	1	0.15
5	3.20		0.000	7277194	71933089	1	
6	3.57	BROMIDE	85.983	32235600	430920177	1	3.07
7	5.80	PHOSPHATE	106.771	13515808	222593089	1	1.41
8	7.60	SULFATE	106.433	30453269	582511288	1	0.00
		Totals	457.686	205267295	2298179837		

File: 96022611.D26 Sample: A960123V3/HI - A04



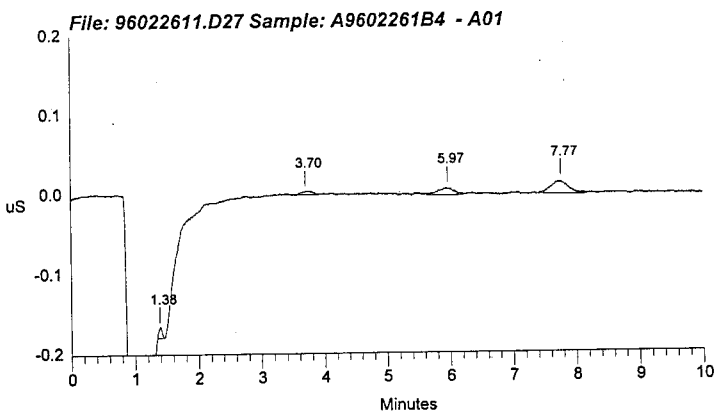
Data Reprocessed On 03/08/1996 13:06:15

Sample Name: A9602261B4 - A01		Date: 02/26/1996 17:20:17	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9602261\96022611.D27			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 27 Vial:A01			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.38		0.000	11666	48246	1	
2	3.70	NITRATE	0.192	2634	56530	1	0.00
3	5.97	PHOSPHATE	0.149	8278	162491	1	0.56
4	7.77	SULFATE	0.169	15367	308329	1	0.00
		Totals	0.510	37944	575597		



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| Sample Name: A9602261B4  - A01              Date: 02/26/1996 17:20:17      |
| Data File  : 1:\iag\ic\icdata\9602261\96022611.D27                         |
| Method     : c:\dx\method\1anions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 27  Vial:A01        Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)           |
```
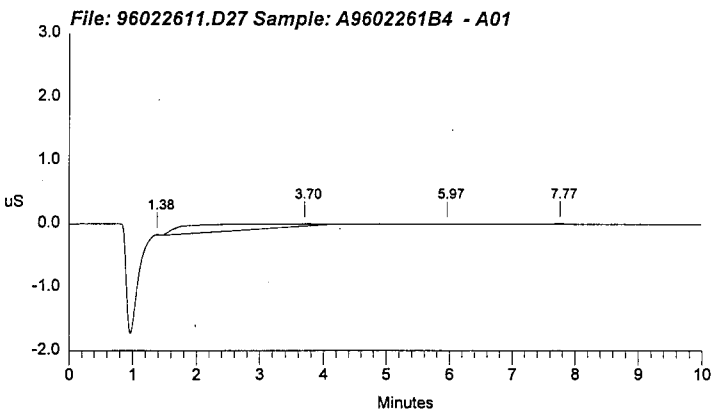

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.38		0.000	11666	48246	1	
2	3.70	NITRATE	1.040	35687	12155795	1	0.00
3	5.97	PHOSPHATE	0.149	8278	162491	1	0.56
4	7.77	SULFATE	0.169	15367	308329	1	0.00
		Totals	1.357	70997	12674862		



DIONEX METHOD PARAMETERS - 1ANIONS1.MET

Method Comment: CALIBRATED ON 02/23/96 *** FLOW RATE: 1.8 MLS/ MIN***
Column ID: AG4A/AS4A-SC (10196/12484)
Analyst ID: MMO

System Parameters

System Name: ANIONS1	
Number of Detectors	1
Run Time (minutes)	10.00
Sampling Rate (seconds)	0.20
Detector 1 Type	PED-Cond.
Detector 1 real time plot scale maximum (uS)	10.000
minimum	-1.000
Save Data File	Yes
Data File Name: L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030711.D96	

-- DETECTOR 1 PARAMETERS --

Report Options

Create ASCII Report File	No
Print Report	Yes
Print All Components	No
Print Components Found	No
Print Missing Components	No
Print All Peaks	Yes
Print Unknown Peaks	No
Print Chromatogram	Yes
Autoscale Chromatogram Maximum	Yes
Autoscale Maximum Value Delay (minutes)	0.0
Autoscale Chromatogram Minimum	Yes
Autoscale Minimum Value Delay (minutes)	0.0
Fill Peaks with Color	No
Draw Grid Lines on Chromatogram	No
Show Component Fraction Numbers	No
Label with Peak Number	No
Label with Retention Times on Chromatogram	Yes
Label with Component Name	No
Format File Name: C:\DX\METHOD\DEFAULT.PRF	

Integration Parameters

Starting Peak Width (seconds)	10.0
Peak Threshold	24.662
Peak Area Reject	30000
Area Reject for Reference Peaks	30000

Data Events

Time	Description
0.00	Force exponential skim
0.00	Stop peak detection
0.90	Start peak detection
1.08	Void volume treatment for this peak
2.00	Force baseline at start of all peaks
2.70	Double bunching factor

Calibration Parameters

Number Of Levels for Calibration	6
Force Calibration Curve Through Origin	No
Calibration Fit Type	Quadratic
Replace Or Average Calibrations	Replace
External or Internal Calibration	External
Calculate Unknowns by Area or Height	Area
Default Sample Volume	30.0
Default Dilution Factor	2.0
Default Response Factor for Unknown Peaks	0.0
Calibration Standard Volume	100.0
Internal Standard Amount in Samples	1.0
Amount Units	ppm

Component Table -- Last Modified: 09:32 on Mon, 26 Feb 1996

Component # 1 FLUORIDE Retention Time 1.10
Reference Comp. CHLORIDE Window Size 10.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 4.82320E-002
K1 = 2.52257E-008
K2 = -1.07726E-017

Level	Amount	Area	Height
1	2.50000E-001	9523357	1343285
2	5.00000E-001	20322455	2732426
3	1.25000E+000	44629791	6537710
4	2.50000E+000	99867255	13969188
5	5.00000E+000	219435022	29691393
6	7.50000E+000	345543883	42130071

Component # 2 CHLORIDE Retention Time 1.75
Reference Comp. CHLORIDE Window Size 8.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 4.24441E-002
K1 = 4.00140E-008
K2 = -3.33337E-017

Level	Amount	Area	Height
1	2.50000E-001	6093509	791167
2	5.00000E-001	12909890	1737522
3	1.25000E+000	28838346	3852665
4	2.50000E+000	63412074	8721712
5	5.00000E+000	142514215	20036422
6	7.50000E+000	229869269	30278847

Component # 3 NITRITE Retention Time 2.10
Reference Comp. CHLORIDE Window Size 8.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 2.14742E-001
K1 = 5.72048E-008
K2 = -9.66506E-018

Level	Amount	Area	Height
1	5.00000E-001	7903947	934922
2	1.00000E+000	16517432	2025522
3	5.00000E+000	78468785	9521984
4	1.00000E+001	173184043	20996531
5	2.00000E+001	375096440	44508971
6	3.00000E+001	574493441	64016632

Component # 4 BROMIDE Retention Time 3.33
Reference Comp. CHLORIDE Window Size 8.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 4.07819E-003
K1 = 1.01219E-007
K2 = -1.19152E-016

Level	Amount	Area	Height
1	2.50000E-001	2627755	272024
2	5.00000E-001	5485202	576556
3	1.25000E+000	11809978	1142880
4	2.50000E+000	24865894	2663069
5	5.00000E+000	53383332	5756882
6	7.50000E+000	81684039	9292839

Component # 5 NITRATE Retention Time 3.70
Reference Comp. NITRATE Window Size 10.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 1.88344E-001
K1 = 7.03737E-008
K2 = -2.54015E-017

Level	Amount	Area	Height
1	5.00000E-001	6743115	629834
2	1.00000E+000	14123835	1240703
3	5.00000E+000	64860830	5750922
4	1.00000E+001	144331725	12536138
5	2.00000E+001	323435782	26150379
6	3.00000E+001	519822826	39459601

Component # 6 PHOSPHATE Retention Time 5.93
Reference Comp. NITRATE Window Size 10.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 1.25338E-001
K1 = 1.42982E-007
K2 = -1.06147E-016

Level	Amount	Area	Height
1	5.00000E-001	3501034	216635
2	1.00000E+000	7370734	436890
3	5.00000E+000	32741032	2051261
4	1.00000E+001	71685623	4528068
5	2.00000E+001	159792028	9951222
6	3.00000E+001	257637992	15575932

Component # 7 SULFATE Retention Time 7.73
Reference Comp. SULFATE Window Size 10.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 1.51881E-001
K1 = 5.47075E-008
K2 = -1.59473E-017

Level	Amount	Area	Height
1	5.00000E-001	9097601	464452
2	1.00000E+000	19042360	988823
3	5.00000E+000	84530747	4392539
4	1.00000E+001	186452240	9899680
5	2.00000E+001	419545717	22239624
6	3.00000E+001	677810053	34874952

Lo Pressure Limit = 0
Hi Pressure Limit = 5000
Eluent 1 - Eluant 1 CO3 / HCO3
Eluent 2 - Eluant 2
Eluent 3 - Eluant 3
Eluent 4 - Eluant 4
V5 Off - Off
V5 On - On
V6 Off - Off
V6 On -

Time	Flow	%1	%2	%3	%4	V5	V6	Comment
0.0	1.3	100	0	0	0	0	0	1CLEANUP
0.1	1.3	100	0	0	0	0	0	
1.1	1.3	100	0	0	0	0	0	

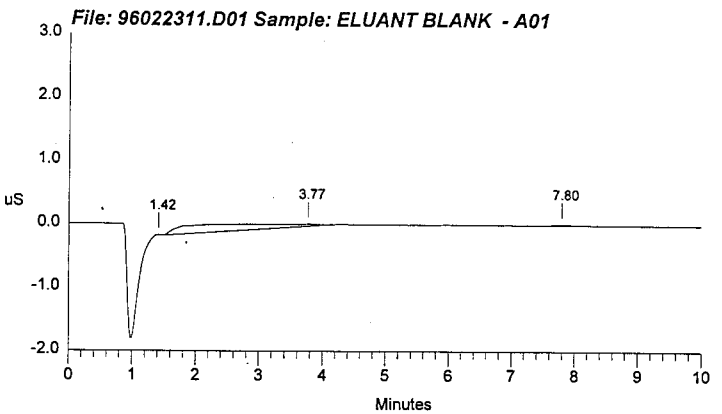
PED file: C:\DX\METHOD\1ANIONS1.PCD
Temperature: 1.7 Deg. C

```
| Sample Name: ELUANT BLANK  - A01              Date: 02/23/1996 11:24:30 |
| Data File  : l:\iag\ic\icdata\9602231\96022311.D01                      |
| Method     : c:\dx\method\1anions1.met                                  |
| ACI Address: 1  System: 1  Inject#: 1   Vial:A01        Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)        |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.42		0.000	12194	45008	1	
2	3.77	NITRATE	1.267	34778	11688041	1	0.00
3	7.80	SULFATE	0.229	15899	304523	1	0.00
		Totals	1.496	62871	12037572		



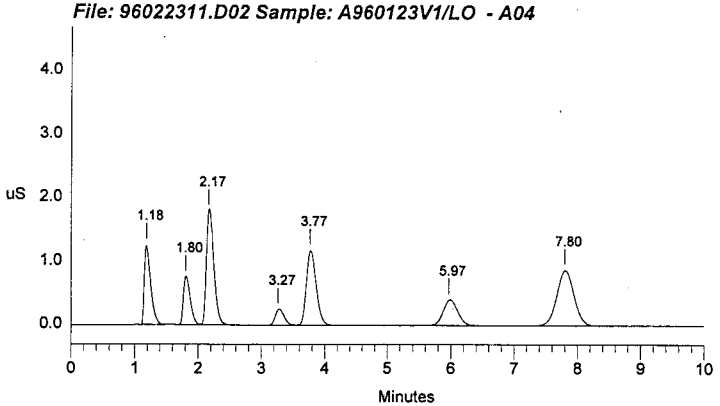
```
| Sample Name: A960123V1/LO  - A04            Date: 02/23/1996 11:35:51 |
| Data File  : l:\iag\ic\icdata\9602231\96022311.D02                    |
| Method     : c:\dx\method\1anions1.met                                |
| ACI Address: 1  System: 1  Inject#: 2   Vial:A04       Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.18	FLUORIDE	7.154	1251024	8757922	1	3.03
2	1.80	CHLORIDE	7.036	751485	5702185	1	0.00
3	2.17	NITRITE	26.388	1784303	14850733	1	-2.02
4	3.27	BROMIDE	6.738	243522	2421033	1	-0.75
5	3.77	NITRATE	26.980	1168890	12627326	1	0.00
6	5.97	PHOSPHATE	26.983	398287	6581087	1	-3.15
7	7.80	SULFATE	26.652	868131	16565568	1	0.00
		Totals	127.931	6465642	67505854		

File: 96022311.D02 Sample: A960123V1/LO - A04



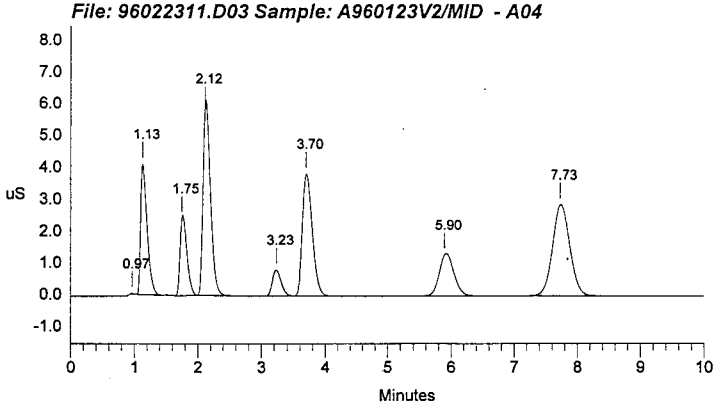
```
| Sample Name: A960123V2/MID  - A04          Date: 02/23/1996 11:47:23      |
| Data File  : l:\iag\ic\icdata\9602231\96022311.D03                        |
| Method     : c:\dx\method\1anions1.met                                    |
| ACI Address: 1  System: 1  Inject#: 3   Vial:A04        Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	30	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	19990	89790	2	
2	1.13	FLUORIDE	6.460	4093210	28974054	2	1.49
3	1.75	CHLORIDE	6.703	2423138	18606474	1	0.00
4	2.12	NITRITE	25.002	5870371	49649805	1	-1.55
5	3.23	BROMIDE	6.564	818950	7702638	1	1.04
6	3.70	NITRATE	25.753	3828564	41888024	1	0.00
7	5.90	PHOSPHATE	26.356	1297813	21547123	1	-2.50
8	7.73	SULFATE	25.790	2872721	54666059	1	0.00
		Totals	122.628	21224758	223123966		

File: 96022311.D03 Sample: A960123V2/MID - A04



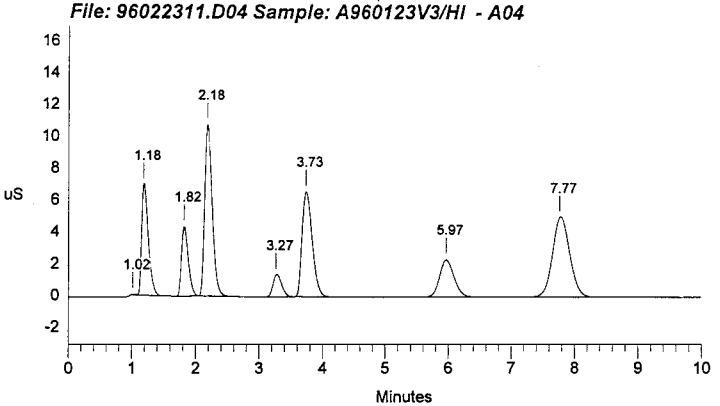
```
| Sample Name: A960123V3/HI  - A04            Date: 02/23/1996 11:59:09 |
| Data File  : l:\iag\ic\icdata\9602231\96022311.D04                     |
| Method     : c:\dx\method\lanions1.met                                 |
| ACI Address: 1  System: 1  Inject#: 4   Vial:A04      Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.02		0.000	31189	153585	2	
2	1.18	FLUORIDE	6.486	6908745	50921823	2	2.08
3	1.82	CHLORIDE	6.723	4360618	32312830	1	0.00
4	2.18	NITRITE	25.537	10753447	87887925	1	-2.18
5	3.27	BROMIDE	6.657	1350771	13297262	1	-1.66
6	3.73	NITRATE	25.926	6588243	73262037	1	0.00
7	5.97	PHOSPHATE	26.482	2336622	37331503	1	-2.28
8	7.77	SULFATE	25.967	4995146	95249424	1	0.00
		Totals	123.777	37324782	390416390		

File: 96022311.D04 Sample: A960123V3/HI - A04



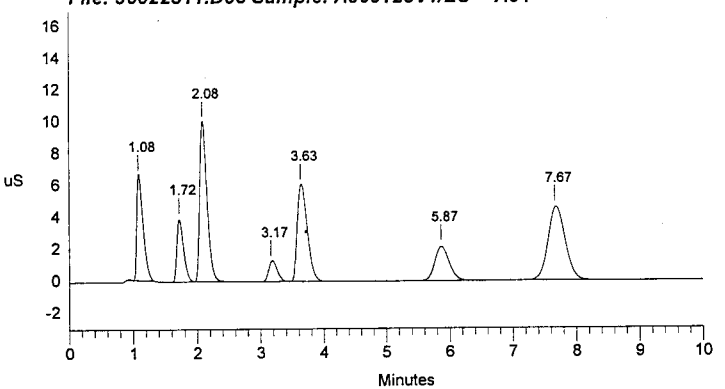
```
| Sample Name: A960123V1/LO  - A04            Date: 02/23/1996 12:27:33      |
| Data File  : 1:\iag\ic\icdata\9602231\96022311.D05                         |
| Method     : c:\dx\method\1anions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 5   Vial:A04        Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.08	FLUORIDE	29.080	6480338	45251030	1	-1.10
2	1.72	CHLORIDE	29.826	3882014	28427223	1	0.00
3	2.08	NITRITE	117.331	9919035	80328851	1	-1.22
4	3.17	BROMIDE	30.602	1208119	12188603	1	0.88
5	3.63	NITRATE	119.718	5996587	67249566	1	0.00
6	5.87	PHOSPHATE	121.580	2143324	34087581	1	-1.27
7	7.67	SULFATE	119.378	4571565	87061922	1	0.00
		Totals	567.515	34200982	354594776		

File: 96022311.D05 Sample: A960123V1/LO - A04



********** AUTOMATIC CALIBRATION UPDATE **********

Sample Name: AUTOCAL1R - A02		Date: Fri Feb 23 12:38:56 1996
Raw File : l:\iag\ic\icdata\9602231\96022311.D06		
Method : c:\dx\method\lanions1.met		Calibration Level: 1
ACI Address: 1	System : 1 Inject#: 6	Detector: PED-Cond.

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	FLUORIDE	1.12	1.10	1.10	6.944e+006	9.523e+006	9.523e+006
2	CHLORIDE	1.75	1.72	1.72	4.515e+006	6.094e+006	6.094e+006
3	NITRITE	2.15	2.08	2.08	5.752e+006	7.904e+006	7.904e+006
4	BROMIDE	3.20	3.20	3.20	1.945e+006	2.628e+006	2.628e+006
5	NITRATE	3.57	3.70	3.70	4.933e+006	6.743e+006	6.743e+006
6	PHOSPHATE	5.83	5.90	5.90	2.555e+006	3.501e+006	3.501e+006
7	SULFATE	7.67	7.70	7.70	6.638e+006	9.098e+006	9.098e+006

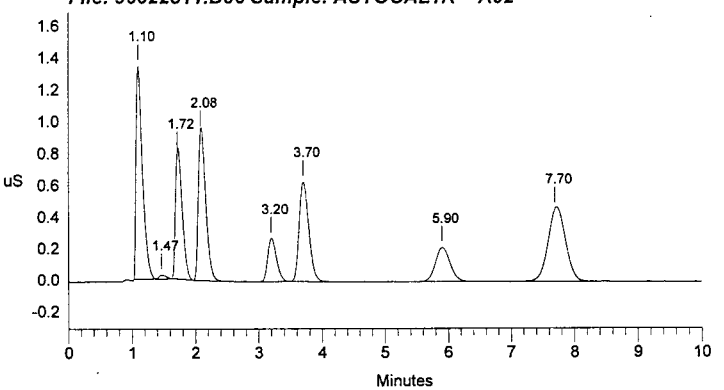
```
| Sample Name: AUTOCAL1R  - A02                Date: 02/23/1996 12:38:56      |
| Data File  : 1:\iag\ic\icdata\9602231\96022311.D06                          |
| Method     : c:\dx\method\1anions1.met                                      |
| ACI Address: 1  System: 1  Inject#: 6   Vial:A02       Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.10	FLUORIDE	0.250	1343285	9523357	1	0.42
2	1.47		0.000	25249	209865	1	
3	1.72	CHLORIDE	0.250	791167	6093509	1	0.00
4	2.08	NITRITE	0.500	934922	7903947	1	-1.22
5	3.20	BROMIDE	0.250	272024	2627755	1	1.94
6	3.70	NITRATE	0.500	629834	6743115	1	0.00
7	5.90	PHOSPHATE	0.500	216635	3501034	1	-2.50
8	7.70	SULFATE	0.500	464452	9097601	1	0.00
		Totals	2.750	4677568	45700183		

File: 96022311.D06 Sample: AUTOCAL1R - A02



********** AUTOMATIC CALIBRATION UPDATE **********

Sample Name: AUTOCAL2R - A02	Date: Fri Feb 23 12:50:26 1996
Raw File : l:\iag\ic\icdata\9602231\96022311.D07	
Method : c:\dx\method\1anions1.met	Calibration Level: 2
ACI Address: 1 System : 1 Inject#: 7	Detector: PED-Cond.

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	FLUORIDE	1.10	1.12	1.12	1.458e+007	2.032e+007	2.032e+007
2	CHLORIDE	1.72	1.75	1.75	9.298e+006	1.291e+007	1.291e+007
3	NITRITE	2.08	2.12	2.12	1.197e+007	1.652e+007	1.652e+007
4	BROMIDE	3.20	3.23	3.23	3.952e+006	5.485e+006	5.485e+006
5	NITRATE	3.70	3.70	3.70	1.026e+007	1.412e+007	1.412e+007
6	PHOSPHATE	5.90	5.90	5.90	5.272e+006	7.371e+006	7.371e+006
7	SULFATE	7.70	7.73	7.73	1.372e+007	1.904e+007	1.904e+007

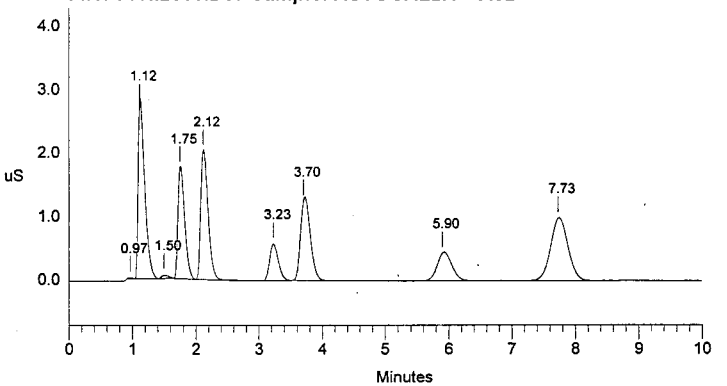
```
| Sample Name: AUTOCAL2R  - A02                Date: 02/23/1996 12:50:26 |
| Data File  : l:\iag\ic\icdata\9602231\96022311.D07                     |
| Method     : c:\dx\method\1anions1.met                                 |
| ACI Address: 1  System: 1  Inject#: 7   Vial:A02      Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	20	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	13099	57514	2	
2	1.12	FLUORIDE	0.500	2732426	20322455	2	-0.42
3	1.50		0.000	50781	374253	1	
4	1.75	CHLORIDE	0.500	1737522	12909890	1	0.00
5	2.12	NITRITE	1.000	2025522	16517432	1	-0.34
6	3.23	BROMIDE	0.500	576556	5485202	1	-0.88
7	3.70	NITRATE	1.000	1240703	14123835	1	0.00
8	5.90	PHOSPHATE	1.000	436890	7370734	1	0.00
9	7.73	SULFATE	1.000	988823	19042360	1	0.00
		Totals	5.500	9802321	96203676		

File: 96022311.D07 Sample: AUTOCAL2R - A02



********** AUTOMATIC CALIBRATION UPDATE **********

Sample Name: AUTOCAL3R - A03			Date: Fri Feb 23 13:01:49 1996
Raw File : l:\iag\ic\icdata\9602231\96022311.D08			
Method : c:\dx\method\1anions1.met			Calibration Level: 3
ACI Address: 1	System : 1	Inject#: 8	Detector: PED-Cond.

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	FLUORIDE	1.12	1.10	1.10	3.599e+007	4.463e+007	4.463e+007
2	CHLORIDE	1.75	1.72	1.72	2.212e+007	2.884e+007	2.884e+007
3	NITRITE	2.12	2.08	2.08	6.303e+007	7.847e+007	7.847e+007
4	BROMIDE	3.23	3.17	3.17	9.397e+006	1.181e+007	1.181e+007
5	NITRATE	3.70	3.63	3.63	5.190e+007	6.486e+007	6.486e+007
6	PHOSPHATE	5.90	5.87	5.87	2.614e+007	3.274e+007	3.274e+007
7	SULFATE	7.73	7.67	7.67	6.744e+007	8.453e+007	8.453e+007

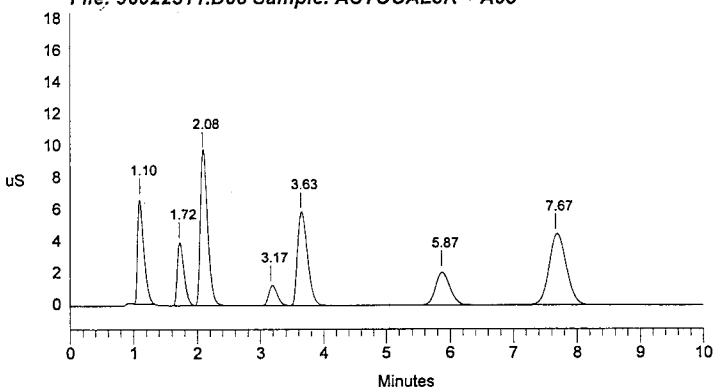
```
| Sample Name: AUTOCAL3R  - A03                Date: 02/23/1996 13:01:49      |
| Data File   : 1:\iag\ic\icdata\9602231\96022311.D08                         |
| Method      : c:\dx\method\1anions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 8   Vial:A03        Detector:PED-Cond.  |
| Analyst     : MMO             Column: AG4A/AS4A-SC  (10196/12484)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.10	FLUORIDE	1.250	6537710	44629791	1	0.42
2	1.72	CHLORIDE	1.250	3852665	28838346	1	0.00
3	2.08	NITRITE	5.000	9521984	78468785	1	0.34
4	3.17	BROMIDE	1.250	1142880	11809978	1	-0.16
5	3.63	NITRATE	5.000	5750922	64860830	1	0.00
6	5.87	PHOSPHATE	5.000	2051261	32741032	1	1.26
7	7.67	SULFATE	5.000	4392539	84530747	1	0.00
		Totals	23.750	33249959	345879509		

File: 96022311.D08 Sample: AUTOCAL3R - A03



********** AUTOMATIC CALIBRATION UPDATE **********

Sample Name: AUTOCAL4R - A03	Date: Fri Feb 23 13:13:18 1996
Raw File : 1:\iag\ic\icdata\9602231\96022311.D09	
Method : c:\dx\method\1anions1.met	Calibration Level: 4
ACI Address: 1 System : 1 Inject#: 9	Detector: PED-Cond.

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	FLUORIDE	1.10	1.12	1.12	7.844e+007	9.987e+007	9.987e+007
2	CHLORIDE	1.72	1.75	1.75	4.840e+007	6.341e+007	6.341e+007
3	NITRITE	2.08	2.12	2.12	1.389e+008	1.732e+008	1.732e+008
4	BROMIDE	3.17	3.20	3.20	2.005e+007	2.487e+007	2.487e+007
5	NITRATE	3.63	3.63	3.63	1.139e+008	1.443e+008	1.443e+008
6	PHOSPHATE	5.87	5.87	5.87	5.713e+007	7.169e+007	7.169e+007
7	SULFATE	7.67	7.67	7.67	1.484e+008	1.865e+008	1.865e+008

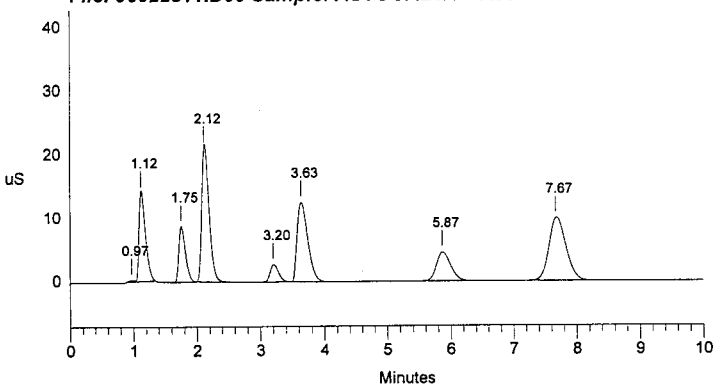
Sample Name: AUTOCAL4R - A03	Date: 02/23/1996 13:13:18
Data File : l:\iag\ic\icdata\9602231\96022311.D09	
Method : c:\dx\method\lanions1.met	
ACI Address: 1 System: 1 Inject#: 9 Vial:A03	Detector:PED-Cond.
Analyst : MMO Column: AG4A/AS4A-SC (10196/12484)	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	20	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	217068	1179174	2	
2	1.12	FLUORIDE	2.500	13969188	99867255	2	-0.42
3	1.75	CHLORIDE	2.500	8721712	63412074	1	0.00
4	2.12	NITRITE	10.000	20996531	173184043	1	-0.34
5	3.20	BROMIDE	2.500	2663069	24865894	1	-0.87
6	3.63	NITRATE	10.000	12536138	144331725	1	0.00
7	5.87	PHOSPHATE	10.000	4528068	71685623	1	0.00
8	7.67	SULFATE	10.000	9899680	186452240	1	0.00
		Totals	47.500	73531452	764978029		

File: 96022311.D09 Sample: AUTOCAL4R - A03



********** AUTOMATIC CALIBRATION UPDATE **********

Sample Name: AUTOCAL5R - A03			Date: Fri Feb 23 13:24:54 1996
Raw File : l:\iag\ic\icdata\9602231\96022311.D10			
Method : c:\dx\method\1anions1.met			Calibration Level: 5
ACI Address: 1	System : 1	Inject#: 10	Detector: PED-Cond.

********** COMPONENTS FOUND IN THIS RUN **********

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	FLUORIDE	1.12	1.18	1.18	1.750e+008	2.194e+008	2.194e+008
2	CHLORIDE	1.75	1.82	1.82	1.083e+008	1.425e+008	1.425e+008
3	NITRITE	2.12	2.18	2.18	3.002e+008	3.751e+008	3.751e+008
4	BROMIDE	3.20	3.23	3.23	4.200e+007	5.338e+007	5.338e+007
5	NITRATE	3.63	3.63	3.63	2.585e+008	3.234e+008	3.234e+008
6	PHOSPHATE	5.87	5.87	5.87	1.271e+008	1.598e+008	1.598e+008
7	SULFATE	7.67	7.67	7.67	3.337e+008	4.195e+008	4.195e+008

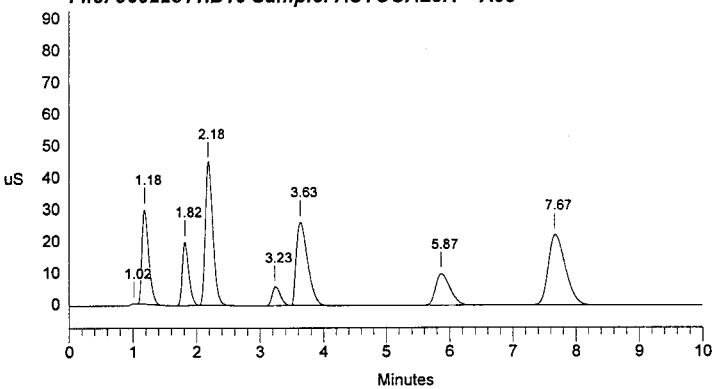
```
| Sample Name: AUTOCAL5R  - A03                Date: 02/23/1996 13:24:54 |
| Data File  : 1:\iag\ic\icdata\9602231\96022311.D10                     |
| Method     : c:\dx\method\1anions1.met                                 |
| ACI Address: 1  System: 1  Inject#: 10  Vial:A03       Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	40	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.02		0.000	108264	335034	1	
2	1.18	FLUORIDE	5.000	29691393	219435022	1	2.08
3	1.82	CHLORIDE	5.000	20036422	142514215	1	0.00
4	2.18	NITRITE	20.000	44508971	375096440	1	-0.64
5	3.23	BROMIDE	5.000	5756882	53383332	1	-2.67
6	3.63	NITRATE	20.000	26150379	323435782	1	0.00
7	5.87	PHOSPHATE	20.000	9951222	159792028	1	0.00
8	7.67	SULFATE	20.000	22239624	419545717	1	0.00
		Totals	95.000	158443157	1693537570		

File: 96022311.D10 Sample: AUTOCAL5R - A03



********** AUTOMATIC CALIBRATION UPDATE **********

Sample Name: AUTOCAL6R - A03	Date: Fri Feb 23 13:36:44 1996
Raw File : l:\iag\ic\icdata\9602231\96022311.D11	
Method : c:\dx\method\1anions1.met	Calibration Level: 6
ACI Address: 1 System : 1	Inject#: 11 Detector: PED-Cond.

********** COMPONENTS FOUND IN THIS RUN **********

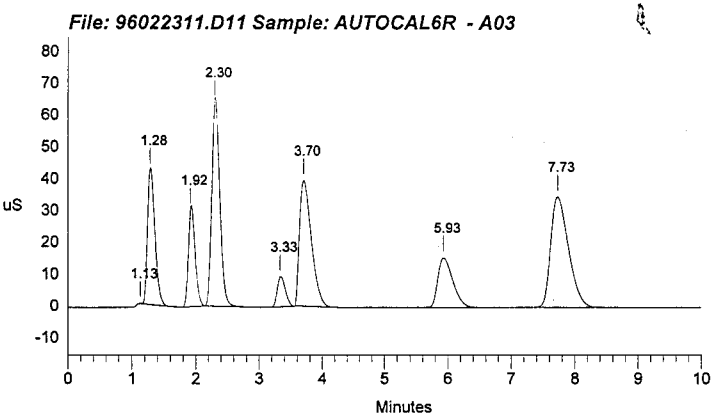
COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	FLUORIDE	1.18	1.28	1.28	2.687e+008	3.455e+008	3.455e+008
2	CHLORIDE	1.82	1.92	1.92	1.731e+008	2.299e+008	2.299e+008
3	NITRITE	2.18	2.30	2.30	4.584e+008	5.745e+008	5.745e+008
4	BROMIDE	3.23	3.33	3.33	6.367e+007	8.168e+007	8.168e+007
5	NITRATE	3.63	3.70	3.70	4.159e+008	5.198e+008	5.198e+008
6	PHOSPHATE	5.87	5.93	5.93	2.053e+008	2.576e+008	2.576e+008
7	SULFATE	7.67	7.73	7.73	5.387e+008	6.778e+008	6.778e+008

```
| Sample Name: AUTOCAL6R  - A03                Date: 02/23/1996 13:36:44 |
| Data File  : 1:\iag\ic\icdata\9602231\96022311.D11                     |
| Method     : c:\dx\method\1anions1.met                                 |
| ACI Address: 1  System: 1  Inject#: 11  Vial:A03      Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	60	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.13		0.000	36922	55501	1	
2	1.28	FLUORIDE	7.500	42130071	345543883	1	2.79
3	1.92	CHLORIDE	7.500	30278847	229869269	1	0.00
4	2.30	NITRITE	30.000	64016632	574493441	1	-0.15
5	3.33	BROMIDE	7.500	9292839	81684039	1	-2.29
6	3.70	NITRATE	30.000	39459601	519822826	1	0.00
7	5.93	PHOSPHATE	30.000	15575932	257637992	1	-0.69
8	7.73	SULFATE	30.000	34874952	677810053	1	0.00
		Totals	142.500	235665797	2686917005		



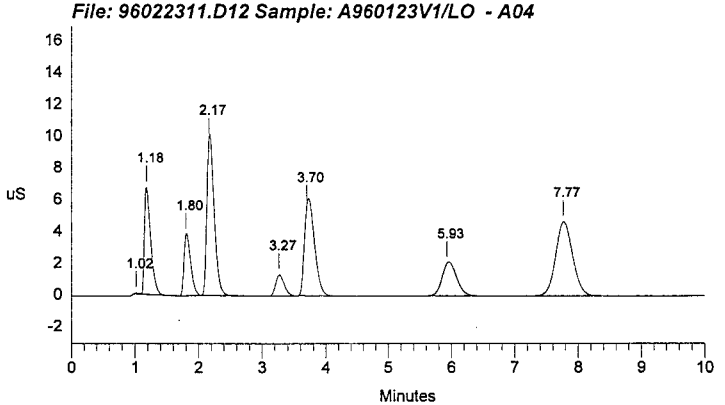
Sample Name: A960123V1/LO - A04	Date: 02/23/1996 13:48:13
Data File : 1:\iag\ic\icdata\9602231\96022311.D12	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 System: 1 Inject#: 12 Vial:A04	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.02		0.000	43479	208507	2	
2	1.18	FLUORIDE	23.810	6722559	46193935	2	-1.82
3	1.80	CHLORIDE	23.105	3806744	28486146	1	0.00
4	2.17	NITRITE	95.871	9794568	81155313	1	0.31
5	3.27	BROMIDE	24.579	1305613	12278655	1	4.35
6	3.70	NITRATE	95.866	5572502	67059245	1	0.00
7	5.93	PHOSPHATE	98.070	2066242	34290992	1	0.00
8	7.77	SULFATE	96.150	4653839	87323214	1	0.00
		Totals	457.452	33965544	356996007		

File: 96022311.D12 Sample: A960123V1/LO - A04



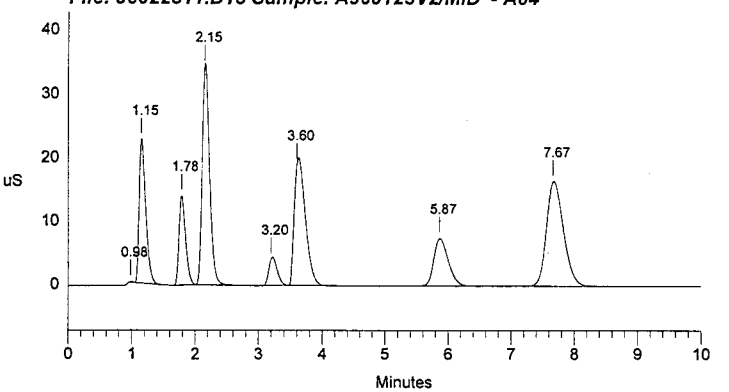
```
| Sample Name: A960123V2/MID  - A04          Date: 02/23/1996 13:59:47      |
| Data File  : 1:\iag\ic\icdata\9602231\96022311.D13                        |
| Method     : c:\dx\method\1anions1.met                                    |
| ACI Address: 1  System: 1  Inject#: 13  Vial:A04       Detector:PED-Cond. |
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	30	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.98		0.000	128887	621214	2	
2	1.15	FLUORIDE	25.838	22566445	163084653	2	-3.69
3	1.78	CHLORIDE	24.682	14046925	99754265	1	0.00
4	2.15	NITRITE	104.361	34228208	283473446	1	0.47
5	3.20	BROMIDE	25.585	4057518	39733152	1	3.18
6	3.60	NITRATE	104.614	18982268	241328723	1	0.00
7	5.87	PHOSPHATE	104.283	7495704	119045807	1	1.62
8	7.67	SULFATE	103.636	16484537	309256826	1	0.00
		Totals	492.998	117990493	1256298087		

File: 96022311.D13 Sample: A960123V2/MID - A04



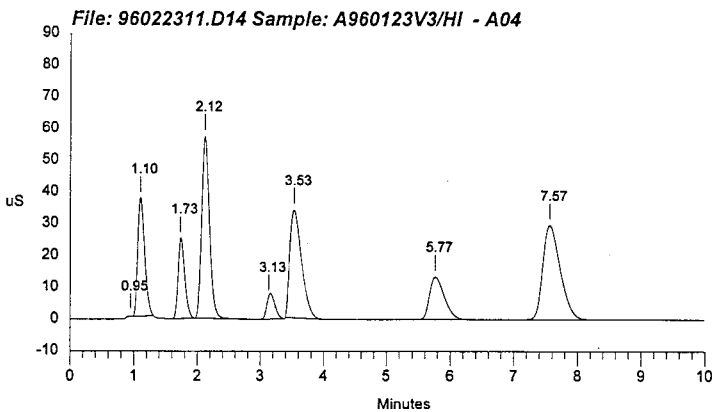
Data Reprocessed On 03/15/1996 09:57:22

Sample Name: A960123V3/HI - A04		Date: 02/23/1996 14:11:25	
Data File : L:\IAG\IC\ICDATA\FEB_96\9602231\96022311.D14			
Method : c:\dx\method\lanions1.met			
ACI Address: 1 System: 1 Inject#: 14 Vial:A04		Detector:PED-Cond.	
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	213067	810027	2	
2	1.10	FLUORIDE	25.201	36994636	281743111	2	-0.19
3	1.73	CHLORIDE	24.889	25118456	182054147	1	0.00
4	2.12	NITRITE	103.619	57227778	489584549	1	-0.35
5	3.13	BROMIDE	26.064	6922435	70124106	1	-0.09
6	3.53	NITRATE	103.436	33809582	432199049	1	0.00
7	5.77	PHOSPHATE	104.825	13362390	217540039	1	1.78
8	7.57	SULFATE	104.077	29641662	566318481	1	0.00
		Totals	492.111	203290006	2240373509		



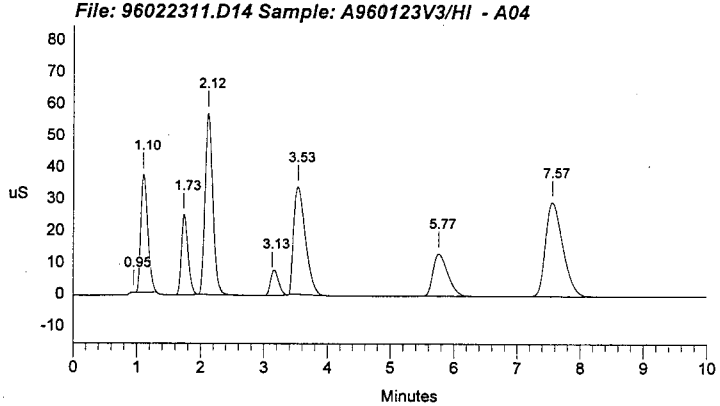
```
| Sample Name: A960123V3/HI  - A04            Date: 02/23/1996 14:11:25      |
| Data File  : l:\iag\ic\icdata\9602231\96022311.D14                         |
| Method     : c:\dx\method\1anions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 14  Vial:A04       Detector:PED-Cond.  |
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	213067	810027	2	
2	1.10		0.000	36994636	281743111	2	
3	1.73		0.000	25118456	182054147	1	
4	2.12	NITRITE	103.619	57227778	489584549	1	-7.97
5	3.13	BROMIDE	26.064	6922435	70124106	1	-6.00
6	3.53	NITRATE	103.436	33809582	432199049	1	0.00
7	5.77	PHOSPHATE	104.825	13362390	217540039	1	1.78
8	7.57	SULFATE	104.077	29641662	566318481	1	0.00
		Totals	442.020	203290006	2240373509		

File: 96022311.D14 Sample: A960123V3/HI - A04

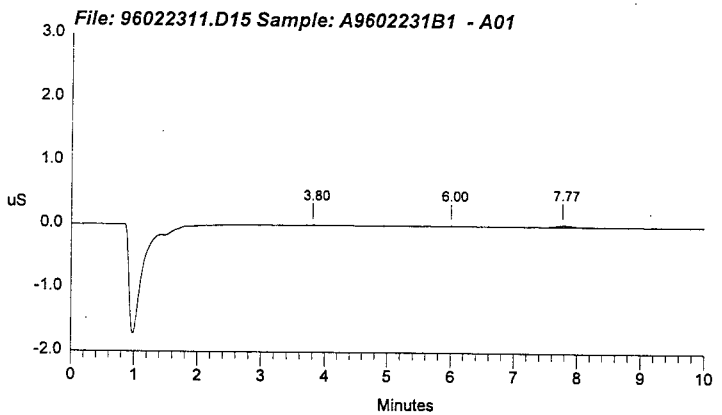


```
| Sample Name: A9602231B1  - A01              Date: 02/23/1996 14:23:32 |
| Data File  : 1:\iag\ic\icdata\9602231\96022311.D15                    |
| Method     : c:\dx\method\1anions1.met                                |
| ACI Address: 1  System: 1  Inject#: 15  Vial:A01       Detector:PED-Cond. |
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	3.80	NITRATE	0.192	4478	58368	1	0.00
2	6.00	PHOSPHATE	0.142	7402	119380	1	-1.54
3	7.77	SULFATE	0.186	29327	615328	1	0.00
		Totals	0.520	41208	793076		



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C4 - TOC/TIC/TC ANALYSIS

2-1384

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DATE TO QC: 03/22/96

DATA QUALITY REVIEW

I have reviewed the following data for completeness and for compliance with project requirements.

Analyte - TOC/TIC/TC

Data Package/Report - BX-104

Project No. - 22762

ACL Numbers - 96-2979, ~~thru 96-2992~~ BV 3-28-96 96-2981 thru 96-2985, 96-2987, 96-2989, 96-2990, 96-2992

PNL ACL Quality Representative

3-28-96
Date

3/28/96

Battelle
Pacific Northwest Laboratories

Project Number _____

Internal Distribution

System File/LB

Date March 21, 1996

To Project Manager

From DL Baldwin

Subject TOC/TIC/TC Analysis (Hot Persulfate Method) of BX104 Cores 126 and 127 Composites

The analysis of these samples was done by the hot persulfate wet oxidation method, PNL-ALO-381, rev. 1. The work was performed according to TI TI96-PM-08, Rev. 2, dated Feb 28, 1996. The work was performed at Impact Level II. The hot persulfate method uses hot acid decomposition for TIC and acidic persulfate oxidation at 92-95°C for TOC, all on the same sample. TC is the sum of the two.

The table below shows the results, rounded to 3 significant figures. The full results are located on the attached spreadsheets, with the supporting raw data located on data sheets and review report spreadsheets and on file in the LSO Records Office. The TIC standard is calcium carbonate and the TOC standard is glucose. The standard materials were used in solid form for system standards as well as matrix spikes. Percent recovery is determined for TIC and TOC using the respective standards, CaCO3, or glucose, and all sample results are corrected for percent recovery and are blank-corrected. The estimated precision is ±10% and the estimated accuracy is ±15%. The sludge sample results are reported in ugC/g, based on the weight of sample. In contrast, the drainable liquid and field blank samples are reported in ugC/ml, based on the volume of the sample.

QC Narrative: QC for this work involved systems blanks, system standards, duplicates for all samples, and one matrix spike per batch. The system standards and blanks for the batches all came within required limits, with system standards for TIC and TOC ranging from 88% to 98% recovery. Three matrix spikes were done, added to samples 96-002981, 96-002982, and 96-002989. All spike recoveries, for TIC and TOC, were within the required 75-125% limits. Spike recoveries for the 1st and second batches, covering sludge samples 96-02979 through 96-002985, ranged from 93% to 101%. Spike recoveries for the third batch, covering drainable liquid samples 96-002987 through 96-002992, came in on the low side, 81% and 85%, but within limits. Precision was good throughout the batches, ranging from 0% to 15% RPD (Relative Percent Difference). No TOC levels greater than 0.86% were measured. The mdl (method detection limit) for the field blank values are equal to 9 ugC/ml and 16 ugC/ml, respectively for TIC and TOC.

Table of Results

ALO No.	Sample ID	wt (g)	TIC (ugC/g)	RPD (%)	TOC (ugC/g)	RPD (%)	TC (ugC/g)	RPD (%)
By weight:								
96-002979	Core 126 1/2 Seg 1A	0.1464	3580		7070		10700	
96-002979	Core 126 1/2 Seg 1A	0.1441	3770	5	6490	9	10300	4
96-002981	Core 126 1/2 Seg 2A	0.1422	2720		1100		3820	
96-002981	Core 126 1/2 Seg 2A	0.1669	2700	1	1040	6	3740	2
96-002981	spike	0.1136	100% Recov		101% Recov			
96-002982	Core 126 1/2 Seg 2B	0.1952	3080		600		3680	
96-002982	Core 126 1/2 Seg 2B	0.1926	2680	14	680	12	3360	9
96-002982	spike	0.1862	93% Recov		94% Recov			
96-002983	Core 127 1/2 Seg 1A	0.1199	7760		7440		15200	
96-002983	Core 127 1/2 Seg 1A	0.1699	8350	7	8680	15	17000	11
96-002984	Core 127 1/2 Seg 1B	0.2237	4510		5380		9890	
96-002984	Core 127 1/2 Seg 1B	0.1807	5040	11	4890	10	9930	0
96-002985	Core 127 1/2 Seg 2A	0.1105	2020		2300		4320	
96-002985	Core 127 1/2 Seg 2A	0.1943	2160	7	2600	12	4760	10

ALO No.	Sample ID	vol (ml)	TIC (ugC/ml)	RPD (%)	TOC (ugC/ml)	RPD (%)	TC (ugC/ml)	RPD (%)
By volume:								
96-002987	Field Blank	1.0058	<mdl		<mdl		<mdl	
96-002987	Field Blank	1.0058	<mdl		<mdl		<mdl	na
96-002989	C126 Seg 1 Drbl Liq	0.1003	9930		4100		14000	
96-002989	C126 Seg 1 Drbl Liq	0.1003	10300	4	4270	4	14600	4
96-002989	spike	0.1003	81% Recov		85% Recov			
96-002990	C126 Seg 2 Drbl Liq	0.1003	7740		2130		9870	
96-002990	C126 Seg 2 Drbl Liq	0.1003	7860	2	2250	6	10100	2
96-002992	C127 Seg 2 Drbl Liq	0.1003	3530		1450		4980	
96-002992	C127 Seg 2 Drbl Liq	0.1003	3650	3	1300	11	4950	1

Concur by: _____ Date: 3-21-96

File TOC-PER.55
System File No. TOC031996

TOC/TIC/TC Calculations **Review** Report - Hot Persulfate Method PNL-ALO-381
Samples: SST 241-BX-104 Cores 126 and 127 Batch 1 Analyzed 3/18/96

Preparer/date: [signature] 3/21/96
Reviewer/date: [signature] 3-21-96

Instrument: WC01713 in SAL Hot Cell / Fume Hood
TIC STD: CaCO3 (lot N261)
Project No.: 22762, TI96-PM-08 Rev 2, ASR: WP#: K36447 IL II

Bal M&TE: 360-06-01-016
TOC STD: Glucose (lot Kodak B1F)

Procedure: PNL-ALO-381
Archive File: 201PER17.XLS

Standard Calculations

Blank Averages:

TIC Blk:	6	Average:	7.7	TOC Blk:	66	Average:	65.0
	7	SD:	2.1		59	SD:	5.6
	10	Pooled SD:	3.0		70	Pooled SD:	5.3
		MDL:	9.0			MDL:	16.0

	measured TIC (ug)	Blk (ug)	Standard wt (g)	TIC % Recov	measured TOC (ug)	blk (ug)	Standard wt (g)	TOC % Recov
STD 1	1320	7.7	0.0113	96.9	1341	65.0	0.0033	96.7
STD 2	1275	7.7	0.0120	88.1	1538	65.0	0.0040	92.1
STD 3	1636	7.7	0.0144	94.3	1118	65.0	0.0028	94.0
			avg:	93.1			avg:	94.2

Sample Calculations

ACL Number	Client ID	display TIC (ug)	blk (ug)	sample wt (g)	TIC (ugC/g)	TIC RPD (%)	display TOC (ug)	blk (ug)	sample wt (g)	TOC (ugC/g)	TOC RPD (%)	TC (ugC/g)	TC RPD (%)
96-002979	Core 126 1/2 Seg 1A sludge	496	7.7	0.1464	3583		1040	65.0	0.1464	7066		10650	
96-002979	Core 126 1/2 Seg 1A sludge	513	7.7	0.1441	3767	5	946	65.0	0.1441	6487	9	10254	4
96-002981	Core 126 1/2 Seg 2A sludge	73	7.7	0.1129	622	<- leak	135	65.0	0.1129	658	<- leak	1280	<- leak
96-002981	Core 126 1/2 Seg 2A sludge	368	7.7	0.1422	2722		212	65.0	0.1422	1097		3819	
96-002981	Core 126 1/2 Seg 2A sludge	427	7.7	0.1669	2699	1	228	65.0	0.1669	1036	6	3735	2
96-002981 spike	Core 126 1/2 Seg 2A sludge spike	1290	7.7	0.1136	see below		1482	65.0	0.1136	see below		see below	

Matrix Spike Results

ACL Number	Client ID	MS (ug)	MS blk (ug)	Sa (ug/g)	MS Sa wt (g)	spike (g)	Spike % Recovery
96-002981 spike	Core 126 1/2 Seg 2A sludge spike	1290	7.7	2.72E+03	0.1136	0.0089	100.1
96-002981 spike	Core 126 1/2 Seg 2A sludge spike	1482	65.0	1.10E+03	0.1136	0.0034	101.4

Equations

% TIC (CaCO3) Recovery = [(S-B)/(Sample wt*e+6*0.1199)]*100
% TOC (Glucose) Recovery = [(S-B)/(Sample wt*e+6*0.400)]*100
TIC (ugC/g sample) = (TIC-Blk)/(Sample wt*Avg TIC Recov/100)
TOC (ugC/g sample) = (TOC-Blk)/(Sample wt*Avg TOC Recov/100)
TIC MS Recov (spike in g) = [(MS(ug)-B)*1e-6/(Avg TIC Recov/100)-S(ug/g)*Sample wt]*100/[spk wt*1e6*0.1199]
TOC MS Recov (spike in g) = [(MS(ug)-B)*1e-6/(Avg TOC Recov/100)-S(ug/g)*Sample wt]*100/[spk wt*1e6*0.400]
Due to the precision carried in the spreadsheet, some calculations may appear to be slightly off due to rounding errors.
The Pooled SD is the averaged SD for a recent list of 12 sample batches. MDL is based upon the Pooled SD. MDL = 3 x pooled SD.

Carbon Fraction in TIC (CaCO3) Standard = 0.1199
Carbon Fraction in TOC (Glucose) Standard = 0.4000

TOC/TIC/TC Calculations **Review** Report - Hot Persulfate Method PNL-ALO-381
Samples: SST 241-BX-104 Cores 126 and 127 Batch 2 Analyzed 3/19/96

Preparer/date: 3/21/96
Reviewer/date: 3-21-96

Instrument: WC01713 in SAL Hot Cell / Fume Hood
TIC STD: CaCO3 (lot N261)
Project No.: 22762, T96-PM-08 Rev 2, ASR: WP#: K36447 IL II

Bal M&TE: 360-06-01-016
TOC STD: Glucose (lot Kodak B1F)

Procedure: PNL-ALO-381
Archive File: 201PER18.XLS

**** Standard Calculations ****

Blank Averages:	TIC Blk:	18	Average:	18.3	TOC Blk:	80	Average:	80.3
		19	SD:	0.6		78	SD:	2.5
		18	Pooled SD:	3.0		83	Pooled SD:	5.3
			MDL:	9.0			MDL:	16.0

	measured TIC (ug)	Blk (ug)	Standard wt (g)	TIC % Recov	measured TOC (ug)	blk (ug)	Standard wt (g)	TOC % Recov
STD 1	972	18.3	0.0085	93.6	1365	80.3	0.0034	94.5
STD 2	778	18.3	0.0068	93.2	1397	80.3	0.0035	94.0
STD 3	1501	18.3	0.0146	84.7	1015	80.3	0.0024	97.4
			avg:	90.5			avg:	95.3

**** Sample Calculations ****

ACL Number	Client ID	display TIC (ug)	blk (ug)	sample wt (g)	TIC (ugC/g)	TIC RPD (%)	display TOC (ug)	blk (ug)	sample wt (g)	TOC (ugC/g)	TOC RPD (%)	TC (ugC/g)	TC RPD (%)
96-002982	Core 126 1/2 Seg 2B sludge	563	18.3	0.1952	3084		192	80.3	0.1952	600		3684	
96-002982	Core 126 1/2 Seg 2B sludge dup	486	18.3	0.1926	2684	14	205	80.3	0.1926	679	12	3363	9
96-002982 spike	Core 126 1/2 Seg 2B sludge spike	2395	18.3	0.1862	see below		2346	80.3	0.1862	see below		see below	
96-002983	Core 127 1/2 Seg 1A sludge	860	18.3	0.1199	7758		930	80.3	0.1199	7437		15195	
96-002983	Core 127 1/2 Seg 1A sludge dup	1302	18.3	0.1699	8350	7	1498	80.3	0.1699	8682	15	17033	11
96-002984	Core 127 1/2 Seg 1B sludge	931	18.3	0.2237	4509		1228	80.3	0.2237	5364		9893	
96-002984	Core 127 1/2 Seg 1B sludge dup	842	18.3	0.1807	5038	11	923	80.3	0.1807	4894	10	9932	0
96-002985	Core 127 1/2 Seg 2A sludge	220	18.3	0.1105	2017		322	80.3	0.1105	2205		4312	
96-002985	Core 127 1/2 Seg 2A sludge dup	398	18.3	0.1943	2160	7	561	80.3	0.1943	2506	12	4756	10

**** Matrix Spike Results ****

ACL Number	Client ID	MS (ug)	MS blk (ug)	Sa (ug/g)	MS Sa wt (g)	spike (g)	Spike % Recovery
96-002982 spike	Core 126 1/2 Seg 2B sludge spike T	2395	18.3	3.08E+03	0.1862	0.0185	92.5
96-002982 spike	Core 126 1/2 Seg 2B sludge spike T	2346	80.3	6.00E+02	0.1862	0.0060	94.4

**** Equations ****

% TIC (CaCO3) Recovery = [(S-B)/(Sample wt*e+6*0.1199)]*100
% TOC (Glucose) Recovery = [(S-B)/(Sample wt*e+6*0.400)]*100
TIC (ugC/g sample) = (TIC-Blk)/(Sample wt*Avg TIC Recov/100)
TOC (ugC/g sample) = (TOC-Blk)/(Sample wt*Avg TOC Recov/100)
TIC MS Recov (spike in g) = [(MS(ug)-B)*1e-6/(Avg TIC Recov/100)-S(ug/g)*Sample wt]*100/[spk wt*1e6*0.1199]
TOC MS Recov (spike in g) = [(MS(ug)-B)*1e-6/(Avg TOC Recov/100)-S(ug/g)*Sample wt]*100/[spk wt*1e6*0.400]

Carbon Fraction in TIC (CaCO3) Standard = 0.1199
Carbon Fraction in TOC (Glucose) Standard = 0.4000

Due to the precision carried in the spreadsheet, some calculations may appear to be slightly off due to rounding errors.
The Pooled SD is the averaged SD for a recent list of 12 sample batches. MDL is based upon the Pooled SD. MDL = 3 x pooled SD.

2-1389

WHC-SD-WM-DP-171, REV. 1

TOC/TIC/TC Calculations **Review** Report - Hot Persulfate Method PNL-ALO-381
Samples: SST 241-BX-104 Cores 126 and 127 Batch 3 Analyzed 3/20/96

Preparer/date: 3/21/96
Reviewer/date: 3-21-96

Instrument: WC01713 in SAL Hot Cell / Fume Hood
TIC STD: CaCO3 (lot N261)
Project No.: 22762, TI96-PM-06 Rev 2, ASR:

Bal M&TE: 360-06-01-016
TOC STD: Glucose (lot Kodak B1F)
WP#: K36447 IL II

Procedure: PNL-ALO-381
Archive File: 201PER19.XLS

Standard Calculations

Blank Averages:	TIC Blk:		TOC Blk:	
	19	Average: 17.0	71	Average: 73.7
	15	SD: 2.0	72	SD: 3.8
	17	Pooled SD: 3.0	78	Pooled SD: 5.3
		MDL: 9.0		MDL: 16.0

	measured TIC (ug)	Blk (ug)	Standard wt (g)	TIC % Recov	measured TOC (ug)	blk (ug)	Standard wt (g)	TOC % Recov
STD 1	2725	17.0	0.0230	98.2	1823	73.7	0.0045	97.2
STD 2	1112	17.0	0.0093	98.2	1158	73.7	0.0026	97.7
STD 3	1055	17.0	0.0088	98.4	1046	73.7	0.0026	86.8
			avg:	98.28			avg:	93.9

Sample Calculations

Analyzed by volume.

ACL Number	Client ID	display TIC (ug)	blk (ug)	sample Vol (ml)	TIC (ugC/ml)	TIC RPD (%)	display TOC (ug)	blk (ug)	sample Vol (ml)	TOC (ugC/ml)	TOC RPD (%)	TC (ugC/ml)	TC RPD (%)
96-002987	Field Blank	15	17.0	1.0058	<mdl		65	73.7	1.0058	<mdl		<mdl	
96-002987	Field Blank	14	17.0	1.0058	<mdl	na	70	73.7	1.0058	<mdl	ns	<mdl	ns
96-002989	Core 126 Seg 1 Drainable Liquid	996	17.0	0.1003	9934		460	73.7	0.1003	4102		14036	
96-002989	Core 126 Seg 1 Drainable Liquid	1035	17.0	0.1003	10329	4	476	73.7	0.1003	4272	4	14601	4
96-002989 spike	Core 126 Seg 1 Drainable Liquid spl	2352	17.0	0.1003	see below		1898	73.7	0.1003	see below		see below	
96-002990	Core 126 Seg 2 Drainable Liquid	780	17.0	0.1003	7742		274	73.7	0.1003	2127		9869	
96-002990	Core 126 Seg 2 Drainable Liquid	792	17.0	0.1003	7864	2	286	73.7	0.1003	2254	6	10118	2
96-002992	Core 127 Seg 2 Drainable Liquid	365	17.0	0.1003	3531		210	73.7	0.1003	1448		4879	
96-002992	Core 127 Seg 2 Drainable Liquid	377	17.0	0.1003	3653	3	196	73.7	0.1003	1299	11	4952	1

Matrix Spike Results

ACL Number	Client ID	MS (ug)	MS blk (ug)	Sa (ug/ml)	MS Sa vol (ml)	spike (g)	Spike % Recovery
96-002989 spike	Core 126 Seg 1 Drainable Liquid spl	2352	17.0	9.93E+03	0.1003	0.0143	80.5
96-002989 spike	Core 126 Seg 1 Drainable Liquid spl	1898	73.7	4.10E+03	0.1003	0.0045	65.1

Equations

% TIC (CaCO3) Recovery = [(S-B)/(Sample wt*e+6*0.1199)]*100
% TOC (Glucose) Recovery = [(S-B)/(Sample wt*e+6*0.400)]*100
TIC (ugC/ml sample) = (TIC-Blk)/(Sample vol*Avg TIC Recov/100)
TOC (ugC/ml sample) = (TOC-Blk)/(Sample vol*Avg TOC Recov/100)
TIC MS Recov (spike in g) = [(MS(ug)-B)*1e-6/(Avg TIC Recov/100)-S(ug/ml)*Sample vol]*100/[spk wt*1e6*0.1199]
TOC MS Recov (spike in g) = [(MS(ug)-B)*1e-6/(Avg TOC Recov/100)-S(ug/ml)*Sample vol]*100/[spk wt*1e6*0.400]

Carbon Fraction in TIC (CaCO3) Standard = 0.1199
Carbon Fraction in TOC (Glucose) Standard = 0.4000

Due to the precision carried in the spreadsheet, some calculations may appear to be slightly off due to rounding errors.
The Pooled SD is the averaged SD for a recent list of 12 sample batches. MDL is based upon the Pooled SD. MDL = 3 x pooled SD.

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
Shielded Analytical Laboratory

CARBON (TOC/TIC/TC) DATA SHEET
(325 SHIELDED ANALYTICAL LABORATORY)

CLIENT: KL SILVERS WORK PACKAGE: K36447 ASR/ARF/LOI/TI: TI96-PM-08 ASR 2822

QA PLAN: MCS-033 IMPACT LEVEL: II

TANK BX104 CARBON ANALYSIS
SAMPLE IDENTIFICATION

ACL NUMBER	SAMPLE IDENTIFICATION	SAMPLE SIZE	TIC (ugC)	TOC (ugC)	TC (ugC)	OBSERVATIONS/COMMENTS
	BLK 1	—	6	66		
	BLK 2	—	7	59		
	Std 1	11.3/3.3 mg.	1320	1341		$CaCO_3$ N2G1 Glucose BIF
	Std 2	12.0/4.0	1275	1538		
96-2979	Sludge	0.1464 g.	496	1040		
96-2979	↓	0.1441	513	946		
96-2981		0.1139	* 73	135		* Must have had A leak in system.
96-2981		0.1422	368	212		

PROCEDURE: PNL-ALO-380 ___
PNL-ALO-381 X

INSTRUMENT NUMBER: WC01213

BALANCE: CELL 2 (360-06-01-016) X
CELL 6 (362-06-01-038) ___

PIPET PERFORMANCE CHECKS:

Pipet DIW @ °C	Pipet DIW @ °C	Pipet DIW @ °C
g x= g	g x= g	g x= g
g s=	g s=	g s=
g RSD= %	g RSD= %	g RSD= %
g Del Vol= ml	g Del Vol= ml	g Del Vol= ml
g N=5	g N=5	g N=5

Analyst: [signature] Date: 3/18/96 Reviewer: [signature] Date: 3/18/96

2-1391

WHC-SD-WM-DP-171, REV. 1

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
Shielded Analytical Laboratory

CARBON (TOC/TIC/TC) DATA SHEET CONTINUED

ACL NUMBER	SAMPLE IDENTIFICATION	SAMPLE SIZE	TIC (ugC)	TOC (ugC)	TC (ugC)	OBSERVATIONS/COMMENTS
96-2981		0.1669	427	228		
96-2981	MATRIX SPIKE	0.1136 & 8.2/3.4 mg.	1890	1482		
	BLK 3	—	10	70		
	STD. 3	14.4/2.8 mg.	1636	1118		

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
Shielded Analytical Laboratory

CARBON (TOC/TIC/TC) DATA SHEET
(325 SHIELDED ANALYTICAL LABORATORY)

CLIENT: K L Silvers WORK PACKAGE: K36447 ASR/ARF/LOV/TI: 96-PM-08

QA PLAN: MCS-033 IMPACT LEVEL: II

BX104 Core 126/127
SAMPLE IDENTIFICATION

ACL NUMBER	SAMPLE IDENTIFICATION	SAMPLE SIZE	TIC (ugC)	TOC(ugC)	TC (ugC)	OBSERVATIONS/COMMENTS
	Blk 1		21	120		Had to run several clean out blanks because
	Blk 2		18	80		Coulometer would titrate. even before oxygen line was
	Blk 3		19	78		hooked up.
Ca Co3 N261 Glucose Blf	Std. 1	8.5/3.4 mg	972	1365		IT Finally stabilized.
	Std. 2	6.8/3.5	778	1397		
96-2982	Spl. 1	0.1952 g.	563	192		
96-2982	Spl. Dup	0.1926	486	205		
96-2982	Spl. MS.	0.1862 + 18.5/6.0	2395	2346		

PROCEDURE: PNL-ALO-380 ___
PNL-ALO-381 X

INSTRUMENT NUMBER: WC 01713

BALANCE: CELL 2 (360-06-01-016) X
CELL 6 (362-06-01-038) ___

PIPET PERFORMANCE CHECKS:

Pipet DIW @ °C			Pipet DIW @ °C			Pipet DIW @ °C		
g	x=	g	g	x=	g	g	x=	g
g	s=		g	s=		g	s=	
g	RSD=	%	g	RSD=	%	g	RSD=	%
g	Del Vol=	ml	g	Del Vol=	ml	g	Del Vol=	ml
g	N=5		g	N=5		g	N=5	

Analyst: [signature] Date: 3/19/96 Reviewer: [signature] Date: 3/20/96

2-1393

WHC-SD-WM-DP-171, REV. 1

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
Shielded Analytical Laboratory

CARBON (TOC/TIC/TC) DATA SHEET CONTINUED

ACL NUMBER	SAMPLE IDENTIFICATION	SAMPLE SIZE	TIC (ugC)	TOC (ugC)	TC (ugC)	OBSERVATIONS/COMMENTS
96-2983	Spl.	0.1199 g	860	930		
96-2983	Spl. Dup	0.1698	1302	1486		
96-2984	Spl	0.2237	* 931	1228		* Reading after normal Time. Perpetual Titrant occurred here. Changed Cell Solution.
96-2984	Spl. Dup	0.1807	842	923		
96-2985	Spl.	0.1105	220	322		
96-2985	Spl. Dup	0.1943	398	561		
	BLK 4	—	18	83		
	STD. 3	14.6/2.4 mg	1501	1015		

2-1394

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
Shielded Analytical Laboratory

CARBON (TOC/TIC/TC) DATA SHEET
(325 SHIELDED ANALYTICAL LABORATORY)

CLIENT: KL Silvers WORK PACKAGE: K36447 ASR/ARF/LOI/TI: 96-PM-08/ASR 2822

QA PLAN: MCS-033 IMPACT LEVEL: II

Bx 104 Cores 126-127
SAMPLE IDENTIFICATION

ACL NUMBER	SAMPLE IDENTIFICATION	SAMPLE SIZE	TIC (ugC)	TOC(ugC)	TC (ugC)	OBSERVATIONS/COMMENTS
	Blk 1	—	39	137		
	Blk 2	—	19	71		
	Blk 3	—	15	72		
	Std 1	23.0/4.5 mg.	2725	1823		$CaCO_3$ N261 Blocks BIF
	Std 2	9.3/2.8	1112	1168		
96-2987	Spl Field Blk	1.0058 ml.	15	65		
96-2987	Dup.	1.0058 ml.	14	70		
96-2989	Drainable Liquid	.1003 ml.	996	460		

PROCEDURE: PNL-ALO-380 ___ PNL-ALO-381 X

INSTRUMENT NUMBER: WC 01713

BALANCE: CELL 2 (360-06-01-016) X CELL 6 (362-06-01-038) ___

PIPET PERFORMANCE CHECKS:

.1 ml. Pipet DIW @ 25 °C (25 Jan 3/20/96)		1.0 ml. Pipet DIW @ 25 °C		Pipet DIW @ °C	
.0995 g	x=0.1000 g	1.0046 g	x=1.0028 g	g	x= g
.0998 g	s= .0007	1.0032 g	s= .0014	g	s=
.1002 g	RSD= .74 %	1.0025 g	RSD= .14 %	g	RSD= %
.1011 g	Del Vol= .1003 ml	1.0007 g	Del Vol= 1.0058 ml	g	Del Vol= ml
.0992 g	N=5	1.0028 g	N=5	g	N=5

Analyst: [signature] Date: 3/20/96 Reviewer: [signature] Date: 3/21/96

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
Shielded Analytical Laboratory

CARBON (TOC/TIC/TC) DATA SHEET CONTINUED

ACL NUMBER	SAMPLE IDENTIFICATION	SAMPLE SIZE	TIC (ugC)	TOC (ugC)	TC (ugC)	OBSERVATIONS/COMMENTS
96-2989	D.L. Dup.	.1003 ml.	1035	476		
96-2989	D.L. MS	.1003 + 14.3/4.5	2352	1898		
96-2990	Drain Liquid spl.	.1003 ml ~~780~~ 3/26/96	780	274		
96-2990	D.L. Dup.	.1003 ml.	792	286		
96-2992	Drain Liquid spl.	.1003 ml	365	210		
96-2992	D.L. Dup	.1003 ml	377	196		
	BLK 4	—	17	78		
	STD. 3	8.8/2.8 mg.	1055	1046		

2-1396

WHC-SD-WM-DP-171, REV. 1

SINGLE SHELL TANK

WASTE CHARACTERIZATION PROJECT

APPENDIX D

RADIOCHEMISTRY

TANK BX-104 CORES 126 & 127

March 1996

Pacific Northwest National Laboratory

2-1397

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D1 - INTRODUCTION

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Introduction to Radioanalytical Primary Data Package

This section of the BX-104 Cores 126 and 127 Primary Data Package contains primary or "raw" data collected during preparation and analysis of radiochemistry samples. Much of the analytical information is listed on the analytical data sheets. All analytical information is tracked by the laboratory sample number. Assessment of the primary analytical data will require in-depth knowledge of the methodology.

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D2 - TOTAL ALPHA ANALYSIS

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DATE TO QC: 02/21/96

DATA QUALITY REVIEW

I have reviewed the following data for completeness and for compliance with project requirements.

Analyte - Total Alpha

Data Package/Report - BX-104

Project No. - 22762

ACL Numbers - 96-2979, 96-2982, 96-2984, 96-2985
96-2987, 96-2989, 96-2990, 96-2992

PNL ACL Quality Representative

2/21/96
Date

Tank 241-BX-104 Cores 126,127 Total Alpha Results

ALO #	CORE ID	ANALYSIS BATCH	Total Alpha uCi/g	+/-% Error	Matrix Spike Recovery, %	95% Confidence Value, uCi/g (Limit = 41 uCi/g)
96-2979BLK	PROCESS BLANK	1	4.33E-02	5%	91%	
96-2979	126.1A.F	1	5.47E-01	14%	88%	7.85E-01
96-2979DUP	126.1A.F DUP	1	6.12E-01	12%	87%	
	RPD		11.2%			
96-2982	126.2B.F	1	1.53E-01	21%	85%	1.93E-01
96-2982DUP	126.2B.F DUP	1	1.64E-01	25%	87%	
	RPD		6.9%			
96-2984	127.1B.F	1	2.13E+00	7%	87%	2.53E+00
96-2984DUP	127.1B.F DUP	1	2.24E+00	7%	81%	
	RPD		5.0%			
96-2985	127.2A.F	1	3.74E-01	16%	85%	4.17E-01
96-2985DUP	127.2A.F DUP	1	3.58E-01	15%	86%	
	RPD		4.4%			
96-2989	126.1DL.D	3	3.89E-04	25%	70%	5.86E-04
96-2989DUP	126.1DL.D DUP	3	4.43E-04	23%		
	RPD		13.0%			
96-2990	126.2DL.D	3	<1.2E-4		66%	
96-2990DUP	126.2DL.D DUP	3	<1.0E-4			

ALO #	CORE ID	ANALYSIS BATCH	Total Alpha uCi/g	+/-% Error	Matrix Spike Recovery, %	95% Confidence Value, uCi/g (Limit = 41 uCi/g)
96-2992	127.2DL.D	2	<2.2E-4		86%	
96-2992DUP	127.2DL.D DUP	2	<2.7E-4			
96-2987	FLD-BLANK.D	2	<1.1E-3		92%	
96-2987DUP	FLD-BLANK.D DUP	2	<1.2E-3			
96-2989BLK	PROCESS BLANK	2	<4.8E-6		88%	
96-2989BLKDUP	PROCESS BLANK	2	<4.8E-6			
	LAB STANDARD	1	90%			
	LAB STANDARD	2	92%			
	LAB STANDARD	3	91%			
	LAB BLANK	1	<6.E-4			
	LAB BLANK	2	<7.E-4			
	LAB BLANK	3	<5.E-6			

Tank 241-BX-104 Cores 126,127 Gamma Energy Analyses

ALO #	CORE ID	Co-60 uCi/g	+/-% Error	Cs-134 uCi/g	+/-% Error	Cs-137 uCi/g	+/-% Error	Eu-154 uCi/g	+/-% Error	Eu-155 uCi/g	+/-% Error	Am-241 uCi/g	+/-% Error
96-2979BLK	PROCESS BLANK	<3.E-3		6.40E-03	17%	8.25E-01	2%	<1.E-2		<2.E-2		1.84E-02	30%
96-2982	126.2B.F	<2.E-2		<9.E-2		7.35E+01	2%	<5.E-2		<3.E-1		<4.E-1	
96-2982DUP	126.2B.F DUP	<2.E-2		<6.E-2		7.79E+01	2%	<5.E-2		<2.E-1		<3.E-1	
	RPD					5.8%							
96-2985	127.2A.F	1.87E-02	20%	<5.E-2		4.49E+01	2%	2.45E-01	7%	2.31E-01	19%	<3.E-1	
96-2985DUP	127.2A.F DUP	1.78E-02	19%	<4.E-2		4.71E+01	2%	2.78E-01	6%	2.53E-01	17%	3.29E-01	23%
	RPD	4.9%				4.8%		12.6%		9.1%			
96-2980BLK	PROCESS BLANK	<4.E-3		<4.E-3		1.45E-01	4%	<2.E-2		<1.E-2		<2.E-2	
96-2980	126.2BH.F	<2.E-2		<5.E-2		6.47E+01	2%	<4.E-2		<2.E-1		<2.E-1	
96-2980DUP	126.2BH.F DUP	<2.E-2		<5.E-2		7.60E+01	2%	<5.E-2		<2.E-1		<2.E-1	
	RPD					16.0%							
96-2986	127.2AH.F	2.21E-02	17%	<5.E-2		4.68E+01	2%	2.58E-01	7%	2.06E-01	22%	<4E-1	
96-2986DUP	127.2AH.F DUP	<2.E-2		<5.E-2		5.15E+01	2%	2.88E-01	6%	2.42E-01	18%	3.45E-01	27%
	RPD					9.5%		11.0%		16.1%			

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/Silvers Date Received 0/ 0/ 0 Work order : K36499 ARF(SOW) : ASR2822

TTL 2/20/96

A.L.O. No. 96-2989~~BLK DUP~~ Description :

DF .... 2.99400 -+-> 11.85580 .... 1.02870 ml ---> 25.00000 .... .09944

.9623 ml LRR 2-20-96

Dilution Factor = 1.2122E+03 +/- 1.75%

1.296

Instrument	Ludlum 3
Eff. Factor	.4321
Date	2/ 20/ 96
Total counts	236
Count time	360
Bkg C/M	.287
Bkg cnt time	900
Corrected C/H	.37

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	1.03E+03	24.8	3.19E+02
	uCi/ml	~~4.66E-04~~ 4.98E-4		1.44E-04

4.98E-4 / 1.28 g/ml = 3.89E-4 µCi/g

LRR 2-20-96

Data Entry by T Trang-Le Date 2/20/96

Calculation and Analytical Data Sheet Reviewed by LR Greenwood Date 2/20/96

Pacific Northwest Laboratory

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2989 Description : 126.1DL.D

Pipet Nos.:

DF --- see hot cell prep --- → 25 µl --- .09944 µl --- #8

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 3
Eff. Factor	0.50	0.38054	0.4321
Date	/ /	/ /	2/20/96
Total counts			236
Count time			360
Bkg C/M			.287
Bkg cnt time			900 min.

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst [signature] 2/20/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : Twxs/Silvers Date Received 0/ 0/ 0 Work order : K36499 ARF(SOW) : ASR2822

A.L.O. No. 96-2989 S Description : 1.424 E5 dpm/ml

DF .... .09944 ---> 10.00000 .... .09944

Dilution Factor = 1.0113E+03 +/- 1.73%

Instrument	Ludlum 8
Eff. Factor	.4355
Date	2/ 20/ 96
Total counts	5200
Count time	120
Bkg C/M	.319
Bkg cnt time	900
Corrected C/M	43.01

9.99E4 / 1.011E3 = 9.88E1
− 1.03E3 / 1.2122E3 = 8.50E-1
9.80E1 *
1.0113E3
9.91E4 /
1.424E5
70%

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	9.99E+04	4.1	4.28E+02
	uCi/ml	4.50E-02		1.93E-04

Data Entry by T Trang-le Date 2/20/96

Calculation and Analytical Data Sheet Reviewed by L R Greenwood Date 2/20/96

Pacific Northwest Laboratory 96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2989 5 Description : 126.1DL.D W-92-2 1.424 ES d/m/ml

Pipet Nos.:

DF --- see hot cell prep --- → 25 ml --- .09944 ml --- #18 + .09944 ml → 10 ml - .09944 ml #8

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. -	G.E. ASC.	Ludlum - 8
Eff. Factor	0.50	0.38054	0.4355
Date	/ /	/ /	2/20/96
Total counts			5200
Count time			120
Bkg C/M			.319
Bkg cnt time			900 min.

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst [signature] 2/20/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS / Siler Date Received 0/ 0/ 0 Work order : 136499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2989 DUP Description :

DF .... 2.99400 mL +-> 11.85580 .... ~~1.02870 g~~ .9623 mL --> 25.00000 .... .09944

LRS 2-20-96

Dilution Factor = ~~1.2122E+03~~ 1.296 +/- 1.75%

Instrument	Ludlum 4
Eff. Factor	.4337
Date	2/ 20/ 96
Total counts	258
Count time	360
Bkg C/M	.296
Bkg cnt time	900
Corrected C/M	.42

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	1.18E+03	22.6	3.22E+02
	uCi/ml	~~5.30E-04~~		1.45E-04

$\times \frac{1.069}{1.28} = 4.43E-4 \mu Ci/g$

Data Entry by T Trang-Le Date 2/20/96

Calculation and Analytical Data Sheet Reviewed by LR Greenwood Date 2/20/96

Pacific Northwest Laboratory 96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2989 Description : 126.1DL.D

Pipet Nos.: #8

DF ---see hot cell prep --- → 25 ml ---.09944 ml---

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. -	G.E. ASC.	Ludlum - 4
Eff. Factor	0.50	0.38054	0.4337
Date	/ /	/ /	2/20/96
Total counts			258
Count time			360
Bkg C/M	.	.	.296
Bkg cnt time			900 min

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst [signature] 2/20/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received 2/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2990 Description : 126.2DL.D

DF ---- 3.02400 -+-> 12.09960 ---- 1.08480 g ---> 25.00000 ---- .09944

1.0129 ml JRH 2-20-96

Dilution Factor = 1.1991E+03 +/- 1.75%

1.241

Instrument	Ludlum 6
Eff. Factor	.4235
Date	2/ 20/ 96
Total counts	90
Count time	360
Bkg C/H	.297
Bkg cnt time	900
Corrected C/H	-.05

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	-1.29E+02	133.5	3.16E+02
	uCi/ml	-5.79E-05		1.42E-04 X 1.071 / 1.29 g/ml = 1.18E-4 uCi/g

Data Entry by T Tzang-le Date 2/20/96

Calculation and Analytical Data Sheet Reviewed by LR Freeman Date 2/20/96

Pacific Northwest Laboratory

96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2990 Description : 126.2DL.D

Pipet Nos.:

DF ---see hot cell prep --- → 25 µl ---.09944 µl--- #8

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/94

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 6
Eff. Factor	0.50	0.38054	0.4235
Date	/ /	/ /	2/20/96
Total counts			90
Count time			360
Bkg C/M	.	.	.297
Bkg cnt time			900 min.

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst [signature] 2/20/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/Silvers Date Received 0/ 0/ 0 Work order : K36499ARF(SOW) : ASR 2822

A.L.O. No. 96-2990 S Description : 1.424 E 5 dpm/ml

DF .... .09944 ---> 10.00000 .... .09944

Dilution Factor = 1.0113E+03 +/- 1.73%

Instrument	Ludlum 1
Eff. Factor	.4227
Date	2/ 20/ 96
Total counts	2349
Count time	60
Bkg C/M	.247
Bkg cnt time	900
Corrected C/M	38.90

9.31E4 / 1.0113E3 = 9.21 E1

~~+ 1.29E3 / 1.159E3 = 1.11E-1~~

~~9.22E1 *~~

~~1.0113E3~~

~~9.33E4~~

~~1.424E5~~

66 %

LPL 2-20-96

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	9.31E+04	5.1	5.31E+02
	uCi/ml	4.19E-02		2.39E-04

Data Entry by T Trang-Le Date 2/20/96

Calculation and Analytical Data Sheet Reviewed by LR Greenwood Date 2/20/96

Pacific Northwest Laboratory 96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2990 5 Description : 126.2DL.D W-92-2 1.424ES d/m/ml

Pipet Nos.:

DF --see hot cell prep --- → 25 ml --- .09944 --- #8 .09944 → 10 ml - .0994 #8 ml

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 1
Eff. Factor	0.50	0.38054	0.4227
Date	__/__/__	__/__/__	2/20/96
Total counts			2349
Count time			60
Bkg C/M			.247
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-Le 2/20/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/Silvers Date Received 0/ 0/ 0 Work order : ARF(SOW) : ASR 2822

A.L.O. No. 96-2990 D Description :

DF .... 3.02400 -+-> 12.09960 .... 1.08480 g --> 25.00000 .... .09944

1.0129 ml 1.09 2-20-96

Dilution Factor = ~~1.1691E+03~~ 1.291 +/- 1.75%

Instrument	Ludlum 7
Eff. Factor	.3971
Date	2/ 20/ 96
Total counts	53
Count time	360
Bkg C/M	.177
Bkg cnt time	900
Corrected C/M	-.03

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	-8.69E+01	162.0	2.62E+02
	uCi/ml	-3.92E-05		~~1.18E-04~~ ✓ X 1.071 / 1.29 g/ml = 9.8E-5 μCi/g

Data Entry by T Trang-Le Date 2/20/96

Calculation and Analytical Data Sheet Reviewed by LR Greenwood Date 2/20/96

Pacific Northwest Laboratory

96

Total Alpha.....PNL-ALO-420 & 421

Customer : THRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2990 Description : 126.2DL.D

Pipet Nos.:

DF --- dec dup cell prep --- → 25 ml — #8 .09944 ml ---

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 1
Eff. Factor	0.50	0.88054	0.43971 2nd 2/20/96
Date	___/___/___	___/___/___	2/20/96
Total counts			53
Count time			360
Bkg C/M			.177
Bkg cnt time			900 min

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst [signature] 2/20/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received 2/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2992 Description : 127.2DL.D

DF .... 2.91330 -+-> 11.93670 .... .09944 -+-> .99492 .... .05001

Dilution Factor = 1.1217E+03 +/- 2.01%

Instrument	Ludlum 7
Eff. Factor	.3971
Date	2/ 16/ 96
Total counts	13
Count time	60
Bkg C/M	.187
Bkg cnt time	900
Corrected C/M	.03

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	8.38E+01	408.3	5.47E+02
	uCi/ml	3.77E-05		2.46E-04 ✓/1.15g/ml = 2.14E-4 uCi/g

JRG-2-20-96

Data Entry by T Trang-le Date 2/20/96

Calculation and Analytical Data Sheet Reviewed by L R Greenwood Date 2/20/96

Pacific Northwest Laboratory 96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2992 Description : 127.2DL.D

Pipet Nos.: hot cell #18 #14 #15 ~~#15 .09944~~ Kap ~~.09944~~

DF see sample prep .09944 → .99492 — .05001 2/16/96 ok

Pipet checks are recorded on labsheets by pipet number

Analyst K A Pappas Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 7
Eff. Factor	0.50	0.38054	0.43971 TTL 2/27/96
Date	/ /	/ /	2/16/96
Total counts			13
Count time			60
Bkg C/M	.	.	.187
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-le 2/16/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/Silvers Date Received 0/ 0/ 0 Work order : 36499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2992S Description : 1.424 E 5 dpm/ml

DF .... .09944 ---> 10.00000 .... .09944

Dilution Factor = 1.0113E+03 +/- 1.73%

Instrument	Ludlum 3
Eff. Factor	.4321
Date	2/ 16/ 96
Total counts	3115
Count time	60
Bkg C/M	.283
Bkg cnt time	900
Corrected C/M	51.63

1.21E5 / 1.0113E3 = 1.20E2
- 8.38E1 / 1.1217E3 = 7.47E-2

1.20E2 X
1.011E3

1.21E5 /
1.424E5

86%

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	1.21E+05	4.7	5.56E+02
	uCi/ml	5.44E-02		2.50E-04

Data Entry by T Trang-Le Date 2/20/96

Calculation and Analytical Data Sheet Reviewed by L R Greenwood Date 2/20/96

Pacific Northwest Laboratory

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2992 S Description : 127.2DL.D W-92-2 1.424ES d/m/ml

Pipet Nos.: #8 #14 #13 #8 #8

DF ...see hot cell prep .09944 → .99492 - .05001 + .09944 → 10 - .09944

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 3
Eff. Factor	0.50	0.38054	0.4321
Date	/ /	/ /	2/16/96
Total counts			3115
Count time			60
Bkg C/M	.	.	.283
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-le 2/16/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : Turks / Silvers Date Received 0/ 0/ 0 Work order : ARF(SOW) :

A.L.O. No. 96-2992 DUP Description :

DF .... 2.91330 -+-> 11.93670 .... .09944 -+-> .99492 .... .05001

Dilution Factor = 1.1217E+03 +/- 2.01%

Instrument	Ludlum 8
Eff. Factor	.4355
Date	2/ 16/ 96
Total counts	12
Count time	60
Bkg C/M	.341
Bkg cnt time	900
Corrected C/M	-.14

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	-3.63E+02	84.8	6.70E+02
	uCi/ml	-1.64E-04		3.02E-04

$1/1.15\ g/ml = 2.63\ \mu Ci/g$

Data Entry by T. Trang-Le Date 2/20/96

Calculation and Analytical Data Sheet Reviewed by L R Greenwood Date 2/20/96

Pacific Northwest Laboratory

96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2992 Description : 127.2DL.D

Pipet Nos.: #8 #14 #15

DF see AVL cell prep .09944 → .99492 .05001

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. -	G.E. ASC.	Ludlum - 8
Eff. Factor	0.50	0.38054	0.4355
Date	/ /	/ /	2/16/96
Total counts			12
Count time			60
Bkg C/M			.341
Bkg cnt time			900

Alpha Energy Analysis Det. # A

Filename

Analyst T Trang-le 2/16/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received 2/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2989BLK Description : PROCESS BLANK

DF .... .09944

Dilution Factor = 1.0056E+01 +/- 1.00%

Instrument	Ludlum 4
Eff. Factor	.4337
Date	2/ 16/ 96
Total counts	144
Count time	360
Bkg C/M	.296
Bkg cnt time	900
Corrected C/M	.10

Calculation and Results

		Activity	Uncertainty,±	MDA
Total Alpha	dpm/ml	2.41E+00	71.6	2.67E+00
	uCi/ml	1.09E-06		1.20E-06 ✓

Avg. Dilution Avg. Sp G
X 4.9598 = 6.0E-6/1.24
2002-20-96 = 4.8E-6 μCi/g

Data Entry by T Trang-Le Date 8/20/96

Calculation and Analytical Data Sheet Reviewed by L L Sherwood Date 2/20/96

Pacific Northwest Laboratory

96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2989BLK Description : PROCESS BLANK

Pipet Nos.: #8

DF (see for cell prep) --- 39944 --- --- ---
(not needed for calculation) ml

Pipet checks are recorded on labsheets by pipet number

Analyst K C Pepper Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 4
Eff. Factor	0.50	0.38054	0.4337
Date	/ /	/ /	2/16/96
Total counts			144
Count time			360 min.
Bkg C/M	.	.	296
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-le 2/16/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : Twrs/Silver Date Received 0/ 0/ 0 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2989BLK DUP Description : Process Blank

DF .... .09944

Dilution Factor = 1.0056E+01 +/- 1.00%

Instrument	Ludlum 5
Eff. Factor	.4174
Date	2/ 20/ 96
Total counts	113
Count time	360
Bkg C/M	.267
Bkg cnt time	900
Corrected C/M	.05

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	1.13E+00	142.9	2.64E+00
	uCi/ml	5.09E-07		1.19E-06 ✓

$X 4.9598 = 5.9E-6/1.24 = 4.8E-6$ mCi/g

Data Entry by T Trang-Le Date 2/20/96

Calculation and Analytical Data Sheet Reviewed by LR Sherwood Date 2/20/96

Pacific Northwest Laboratory

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2989BLK Description : PROCESS BLANK

Pipet Nos.:

DF --- see hot cell prep --- .09944 #8 --- --- ---

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 5
Eff. Factor	0.50	0.38054	0.4174
Date	__/__/__	__/__/__	2/~~18~~/96
Total counts			113
Count time			360 min.
Bkg C/M			.267
Bkg cnt time			900

20 K.T. 2/20/96 recount *

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-le 2/16/96
T.T. 2/20/96 rect. *

Pacific Northwest Laboratory

96104

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received 2/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. BLK-2822 Description :

DF .... .09944

Dilution Factor = 1.0056E+01 +/- 1.00%

Instrument	Ludlum 2
Eff. Factor	.4186
Date	2/ 20/ 96
Total counts	46
Count time	360
Bkg C/M	.200
Bkg cnt time	900
Corrected C/M	-.07

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	-1.74E+00	65.3	2.29E+00
	uCi/ml	-7.82E-07		1.03E-06 ✓

$\times \frac{\text{Avg. Dilution}}{\text{Avg. Sp g}} = \frac{5.0}{1.29} = 4.2\ E\text{-}6\ \frac{\mu C}{g}$

Data Entry by T Trang-Le Date 2/20/96

Calculation and Analytical Data Sheet Reviewed by L R Sheemaker Date 2/20/96

Pacific Northwest Laboratory

96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : BLK-2822 Description : D.H2O

Pipet Nos.: #8

DF ---.09944--- --- --- --- --- ---

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/14/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum -2
Eff. Factor	0.50	0.38054	0.4186
Date	/ /	/ /	2/20/96
Total counts			96
Count time			360
Bkg C/M	.	.	.200
Bkg cnt time			900 min.

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst [signature] 2/20/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/Silvers Date Received 0/ 0/ 0 Work order : K36499 ARF(SOW) : ASK 2822

A.L.O. No. Matrix+BLK-2822 Description : Matrix Blank

DF .... .99492 ---> 25.00000 .... .09944

Dilution Factor = 2.5269E+02 +/- 1.43%

Instrument	Ludlum 8
Eff. Factor	.4355
Date	2/ 20/ 96
Total counts	16
Count time	120
Bkg C/M	.319
Bkg cnt time	900
Corrected C/M	-.19

Calculation and Results

		Activity	Uncertainty,±	MDA
Total Alpha	dpm/ml	-1.08E+02	40.5	1.07E+02
	uCi/ml	-4.85E-05		4.82E-05 ✓

Data Entry by T Trang-le Date 2/20/96

Calculation and Analytical Data Sheet Reviewed by LR Greenwood Date 2/20/96

Pacific Northwest Laboratory

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : Matrix BLK-2822 Description : Matrix Blank D.H_2O

Pipet Nos.: #14 #8

DF ---.99492 ml → 25 ml --- .09944 ml --- --- ---

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum -8
Eff. Factor	0.50	0.38054	0.4355
Date	/ /	/ /	2/20/96
Total counts			16
Count time			120
Bkg C/M	.	.	.319
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-le 2/20/96

Pacific Northwest Laboratory 96104

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received 2/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. STD-2822 Description : 1.424 E 5 dpm/ml

DF .... .09944 ---> 10.00000 .... .09944

Dilution Factor = 1.0113E+03 +/- 1.73%

Instrument	Ludlum 1
Eff. Factor	.4227
Date	2/ 20/ 96
Total counts	6494
Count time	120
Bkg C/M	.247
Bkg cnt time	900
Corrected C/M	53.87

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	1.29E+05	3.9	3.89E+02
	uCi/ml	5.81E-02		1.75E-04

91%

Data Entry by T Trang-le Date 2/20/96

Calculation and Analytical Data Sheet Reviewed by L R Greenwood Date 2-20-96

Pacific Northwest Laboratory

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : STD-2822 Description : [illegible] 92-2 1.427 ES d/m/ml

Pipet Nos.: #8 #8

DF --- .09944 → 10 — .09944 --- --- --- ---

ml ml

Pipet checks are recorded on labsheets by pipet number

Analyst [illegible] Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 1
Eff. Factor	0.50	0.38054	0.4227
Date	/ /	/ /	2/20/96
Total counts			6494
Count time			120
Bkg C/M	.	.	.247
Bkg cnt time			900 min.

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst [illegible] 2/20/96

Samples: 96-2989; 2989 Dup; 2989 S
96-2990; 2990 Dup; 2990 S
Std; Blk. Matrix Std; Matrix Blk.

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/Silvers Date Received 0/ 0/ 0 Work order : K36499 ARF(SOW) : ASR2822

A.L.O. No. Matrix+STD-2822 Description : 1.424 E 5 dpm/ml

DF .... .09944 ---> 25.00000 .... .09944

Dilution Factor = 2.5282E+03 +/- 1.43%

Instrument	Ludlum 10
Eff. Factor	.4222
Date	2/ 20/ 96
Total counts	2930
Count time	120
Bkg C/M	.300
Bkg cnt time	900
Corrected C/M	24.12

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	1.44E+05	4.7	1.07E+03
	uCi/ml	6.51E-02		4.83E-04

102%

Data Entry by T Tieang-le Date 2/20/96

Calculation and Analytical Data Sheet Reviewed by LR Shemwell Date 2-20-96

Pacific Northwest Laboratory

96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : Matrix STD-2822 Description : Matrix Spike W-92-2
1.424 E5 d/m/ml

Pipet Nos.: #8 #8

DF .09944 ml → 25 ml .09944 ml

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. -	G.E. ASC.	Ludlum - 10
Eff. Factor	0.50	0.38054	0.4222
Date	/ /	/ /	2/20/96
Total counts			2930
Count time			120
Bkg C/M	.	.	.300
Bkg cnt time			900 min.

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst [signature] 2/20/96

Pacific Northwest Laboratory 96104

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received 2/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2979 Description : 126.1A.F

DF .16220 ---> 100.00000 .09944 -+-> .99492 .05001

Dilution Factor = 1.3567E+05 +/- 1.81%

Instrument	Ludlum 3
Eff. Factor	.4321
Date	2/ 16/ 96
Total counts	249
Count time	60
Bkg C/M	.283
Bkg cnt time	900
Corrected C/M	3.87

Calculation and Results

		Activity	Uncertainty,±	MDA
Total Alpha	dpm/g	1.21E+06	13.7	7.45E+04
	uCi/g	5.47E-01 ✓		3.36E-02

Data Entry by T Trang-le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by L R Greenwood Date 2/16/96

2-1436

Pacific Northwest Laboratory

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2979 Description : 126.1A.F

Pipet Nos.: #8 #14 #15

DF --- .1632 g → 100 ml --- .09944 ml → .99492 ml .05001 ml ---

Pipet checks are recorded on labsheets by pipet number

Analyst Yu Peppel Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum -3
Eff. Factor	0.50___	0.38054	0.4321
Date	___/___/___	___/___/___	2/16/96
Total counts			249
Count time			60
Bkg C/M			.283
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-Le 2/16/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : Twks/Silvers Date Received 0/ 0/ 0 Work order : K3649 RF(SOW) : AS R2822

A.L.O. No. 96-2979S Description : 1.424 E5 dpm / ml

DF .... .09944 ---> 10.00000 .... .09944

Dilution Factor = 1.0113E+03 +/- 1.73%

Instrument	Ludlum 4	
Eff. Factor	.4337	
Date	2/ 16/ 96	
Total counts	3469	
Count time	60	
Bkg C/M	.296	
Bkg cnt time	900	
Corrected C/M	57.52	

1.34 E5 / 1.01 E3 = 1.33 E2
- 1.21 E6 / 1.36 E5 = 8.90 E0
1.24 E2 * 1.01 E3
= 1.25 E5 / 1.424 E5
= 88%
± 5%

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	1.34E+05	4.5	5.66E+02
	uCi/ml	6.04E-02		2.55E-04

Data Entry by T Trang-Le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by L R Greenwood Date 2/16/96

Pacific Northwest Laboratory

96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2979 S Description : 126.1A.F 1.43455 d/m/ml W-92-2

Pipet Nos.: #8 #14 #15 #8 #8

DF ---.1622 g → 100 ml ---.09944 ml → .99492 ml ---.05001 ml --- A .09944 ml → 10 ml - .09944 ml std

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 4
Eff. Factor	0.50	0.38054	0.4337
Date	/ /	/ /	2/16/96
Total counts			3469
Count time			60
Bkg C/M	.	.	.296
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-le 2/16/96

Pacific Northwest Laboratory 96104

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received 2/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2979DUP Description : 126.1A.F DUPLICATE

DF .21850 ---> 100.00000 .09944 -+-> .99492 .05001

Dilution Factor = 1.0071E+05 +/- 1.81%

Instrument	Ludlum 5
Eff. Factor	.4174
Date	2/ 16/ 96
Total counts	354
Count time	60
Bkg C/M	.267
Bkg cnt time	900
Corrected C/M	5.63

Calculation and Results

		Activity	Uncertainty,±	MDA
Total Alpha	dpm/g	1.36E+06	11.4	5.57E+04
	uCi/g	6.12E-01 ✓		2.51E-02

Data Entry by T Trang-le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by L R Greenwood Date 2/16/96

Pacific Northwest Laboratory

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2979DUP Description : 126.1A.F DUPLICATE

Pipet Nos.: #8 #14 #15

DF ---.2185 → 100 --- .09944 → .99492 .05001 ---

g µl µl µl µl

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/14/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 5
Eff. Factor	0.50	0.38054	0.4174
Date	/ /	/ /	2/16/95
Total counts			354
Count time			60
Bkg C/M	.	.	.267
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-le 2/16/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/Silver Date Received 0/ 0/ 0 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2979DUP S Description : 1.424E5 dpm/ml

DF .... .09944 ---> 10.00000 .... .09944

Dilution Factor = 1.0113E+03 +/- 1.73%

Instrument	Ludlum 6
Eff. Factor	.4235
Date	2/ 16/ 96
Total counts	3426
Count time	60
Bkg C/M	.297
Bkg cnt time	900
Corrected C/M	56.80

1.36E5 / 1.01E3 = 1.35E2
- 1.36E6 / 1.01E5 = 1.35E1
1.22E2 *
1.01E3
1.23E5 / 1.424E5
= 87%
± 5%

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	1.36E+05	4.5	5.81E+02
	uCi/ml	6.11E-02		2.62E-04

Data Entry by T Trang-Le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by L P Sheesley Date 2/16/96

Pacific Northwest Laboratory

96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2979DUP S Description : 126.1A.F DUPLICATE 1.424E5d/m/ml W-92-2

Pipet Nos.: #8 #8

DF ---.2185 → 100 ml --- .09944 ml → .99492 ml .05001 ml --- + .09944 ml → 10 = .09944 ml std

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 6
Eff. Factor	0.50	0.38054	0.4235
Date	/ /	/ /	2/16/96
Total counts			3426
Count time			60
Bkg C/M	.	.	.297
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-Le 2/16/96

Pacific Northwest Laboratory 96104

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received 2/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2979BLK Description : PROCESS BLANK

DF .... .19035 ---> 100.00000 .... .09944

Dilution Factor = 5.2831E+03 +/- 1.14%

Instrument	Ludlum 1
Eff. Factor	.4227
Date	2/ 16/ 96
Total counts	2859
Count time	360
Bkg C/M	.247
Bkg cnt time	900
Corrected C/M	7.69

Calculation and Results

		Activity	Uncertainty,±	MDA
Total Alpha	dpm/g	9.62E+04	4.7	1.32E+03
	uCi/g	4.33E-02 ✓		5.95E-04

Data Entry by T Trang-le Date 2/20/96

Calculation and Analytical Data Sheet Reviewed by L R Greenwood Date 2-20-96

Pacific Northwest Laboratory

96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOV) : ASR 2822

A.L.O. No. : 96-29798LK Description : PROCESS BLANK

Pipet Nos.: #8

DF	---	.19035 → 100 ml	---	.09444 ml	---	---	---

Aug 8 x2

Pipet checks are recorded on labsheets by pipet number

Analyst K L Poppe Date 2/14/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 1
Eff. Factor	0.50	0.38054	0.4227
Date	/ /	/ /	2/16/96
Total counts			2859
Count time			360 min.
Bkg C/M			.247
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-Le 2/16/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS / Silvers Date Received 0/ 0/ 0 Work order : K3649 ARF(SOW) : ASK 2822

A.L.O. No. STD+96-2979BLK Description : 1.424 E5 dpm/ml

DF .... .09944 ---> 10.00000 .... .09944

Dilution Factor = 1.0113E+03 +/- 1.73%

Instrument	Ludlum 1
Eff. Factor	.4227
Date	2/ 16/ 96
Total counts	3278
Count time	60
Bkg C/M	.247
Bkg cnt time	900
Corrected C/M	54.39

Calculation and Results

91 gr

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	1.30E+05	4.6	5.31E+02
	uCi/ml	5.86E-02		2.39E-04

Data Entry by T Trang-le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by L R Greenwood Date 2/16/96

Pacific Northwest Laboratory

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2979BLK Std + Description : PROCESS BLANK 1.424ES d/m/ml W-92-2

Pipet Nos.:

DF --- .19035 → 100 --- .09944 --- + .09944 → 10 - .09944 std

#8 #8 #8

Avg x̄ 2

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 1
Eff. Factor	0.50	0.38054	0.4227
Date	/ /	/ /	2/16/96
Total counts			3278
Count time			60
Bkg C/M			.247
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-Le 2/16/96

Pacific Northwest Laboratory 96104

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received 2/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2982 Description : 126.2B.F

DF .... .27900 ---> 100.00000 .... .09944 -+-> .99492 .... .05001

Dilution Factor = 7.8875E+04 +/- 1.81%

Instrument	Ludlum 7
Eff. Factor	.3971
Date	2/ 16/ 96
Total counts	114
Count time	60
Bkg C/M	.187
Bkg cnt time	900
Corrected C/M	1.71

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/g	3.40E+05	20.7	3.85E+04
	uCi/g	1.53E-01 ✓		1.73E-02

Data Entry by T Trang-Le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by L R Greenwood Date 2/16/96

Pacific Northwest Laboratory

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2982 Description : 126.2B.F

Pipet Nos.:

		#8	#14	#15	
DF	.2790 → 100	.09944 →	.99492	.05001	
	g	ml	ml	ml	

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 7
Eff. Factor	0.50	0.38054	0.43971 → TTC 2/27/96
Date	__/__/__	__/__/__	2/16/96
Total counts			114
Count time			60
Bkg C/M			.187
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-le 2/16/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/Silvers Date Received 0/ 0/ 0 Work order : K36499 ARF(SOW) : A5K2822

A.L.O. No. 96-2982 S Description : 1.424 E 5 dpm/ml

DF .... .09944 ---> 10.00000 .... .09944

Dilution Factor = 1.0113E+03 +/- 1.73%

Instrument	Ludlum 8
Eff. Factor	.4355
Date	2/ 16/ 96
Total counts	3249
Count time	60
Bkg C/M	.341
Bkg cnt time	900
Corrected C/M	53.81

1.25 E5 / 1.01 E3 = 1.24 E2
- 3.40 E5 / 7.89 E4 = 4.31 E0
1.20 E2 *
1.01 E3
1.21 E5 / 1.424 E5
= 85 %
± 5%

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	1.25E+05	4.6	6.04E+02
	uCi/ml	5.63E-02		2.72E-04

Data Entry by T Trang-Le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by LR Thurgood Date 2-16-96

Pacific Northwest Laboratory

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2982 S Description : 126.28.F 1.424ES d/n/ml W-92-2

Pipet Nos.: #8 #14 #15 #8 #8

DF ---.2740 → 100 ---.09944 → .99492 — .05001 .09944 → 10 - .09944

g ml ml ml ml ml ml std

Pipet checks are recorded on labsheets by pipet number

Analyst K A Pappal Date 2/16/94

Instrument	P.A.C. -	G.E. ASC.	Ludlum - 8
Eff. Factor	0.50	0.38054	0.4355
Date	/ /	/ /	2/16/96
Total counts			3249
Count time			60
Bkg C/M			.341
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-le 2/16/96

WHC-SD-WM-DP-171, REV. 1

Pacific Northwest Laboratory 96104

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received 2/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2982DUP Description : 126.2B.F DUPLICATE

DF .... .19860 ---> 100.00000 .... .09944 -+-> .99492 .... .05001

Dilution Factor = 1.1081E+05 +/- 1.81%

Instrument	Ludlum 10
Eff. Factor	.4222
Date	2/ 16/ 96
Total counts	102
Count time	60
Bkg C/M	.314
Bkg cnt time	900
Corrected C/M	1.39

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/g	3.64E+05	24.1	6.56E+04
	uCi/g	1.64E-01 ✓		2.95E-02

Data Entry by T Trang-Le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by L R Greenwood Date 2/16/96

Pacific Northwest Laboratory

96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2982DUP Description : 126.2B.F DUPLICATE

Pipet Nos.: #8 #14 #15

DF ---.1986 ⇒ 100 --- .04944 + .99492 .05001 ---
5 ml ml ml ml

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 10
Eff. Factor	0.50 ___	0.38054	0.4 222
Date	__/__/__	__/__/__	2/16/96
Total counts			103
Count time			60
Bkg C/M	___.___	___.___	.314
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-Le 2/16/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer :TWRS/Silvers Date Received 0/ 0/ 0 Work order :K36499 ARF(SOW) : ASR.2822

A.L.O. No. 96-2982DUP S Description : 1.424 E5 dpm/ml

DF .... .09944 ---> 10.00000 .... .09944

Dilution Factor = 1.0113E+03 +/- 1.73%

Instrument	Ludlum 1
Eff. Factor	.4227
Date	2/ 16/ 96
Total counts	3211
Count time	60
Bkg C/M	.247
Bkg cnt time	900
Corrected C/M	53.27

1.27E5/1.01E3 = 1.26E2
- 3.64E5/1.1081E5 = 3.28E0
1.23E2*
1.01E3
1.24E5/1.424E5
= 87%
± 5%

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	1.27E+05	4.6	5.31E+02
	uCi/ml	5.74E-02		2.39E-04

Data Entry by T Trang-Le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by L R Greenwood Date 2/16/96

Pacific Northwest Laboratory

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2982DUP S Description : 126.2B.F DUPLICATE 1.424ES d/w/ml Pu 239

W-92-2

Pipet Nos.: #8 #14 #15 #8 #8

DF ---.1986 → 100 ---.09944 → .99492 ---.05001 ---+ .09944 → 10 - .09944

g ml ml ml ml ml ml std

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 1
Eff. Factor	0.50	0.38054	0.4227
Date	__/__/__	__/__/__	2/16/96
Total counts			3211
Count time			60
Bkg C/M			.247
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-le 2/16/96

Pacific Northwest Laboratory 96104

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received 2/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2984 Description : 127.1B.F

DF .... .22500 ---> 100.00000 .... .09944 -+-> .99492 .... .05001

Dilution Factor = 9.7805E+04 +/- 2.01%

Instrument	Ludlum 2
Eff. Factor	.4186
Date	2/ 16/ 96
Total counts	1226
Count time	60
Bkg C/M	.200
Bkg cnt time	900
Corrected C/M	20.23

Calculation and Results

		Activity	Uncertainty,±	MDA
Total Alpha	dpm/g	4.73E+06	6.5	4.68E+04
	uCi/g	2.13E+00 ✓		2.11E-02

Data Entry by T Trang-Le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by L R Greenwood Date 2-16-96

Pacific Northwest Laboratory

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2984 Description : 127.1B.F

Pipet Nos.: #8 #14 #15

DF ---.2250 g → 100 ml ---.09944 → .99492 --- .05001 --- ---

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/14/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 2
Eff. Factor	0.50	0.38054	0.4 186
Date	/ /	/ /	2/16/96
Total counts			1226
Count time			60
Bkg C/M	.	.	200
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-le 2/16/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/Silvers Date Received 0/ 0/ 0 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2984 S Description : 1.424 E5 dpm/ml

DF .... .09944 ---> 10.00000 .... .09944

Dilution Factor = 1.0113E+03 +/- 1.73%

Instrument	Ludlum 4
Eff. Factor	.4337
Date	2/ 16/ 96
Total counts	4454
Count time	60
Bkg C/M	.296
Bkg cnt time	900
Corrected C/M	73.94

1.72E5 / 1.0113E3 = 1.700E2
- 4.73E6 / 9.7805E4 = 4.84E1
1.22E2 ✓
1.01E3
1.23E5
1.424E5
= 87%
~~±7%~~
±7% ✓
2-16-96

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	1.72E+05	4.2	5.66E+02
	uCi/ml	7.77E-02		2.55E-04

Data Entry by T Trang-Le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by LR Jewett Date 2-16-96

Pacific Northwest Laboratory

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2984 S Description : 127.1B.F 1.424ES W-92-2

Pipet Nos.: #8 #14 #15 #8 #8

DF --- .2250 → 100 --- .09944 → .99492 .05001 --- + .09944 → 10 - .09944

S ml ml ml ml ml ml ml

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 4
Eff. Factor	0.50	0.38054	0.4337
Date	/ /	/ /	2/16/96
Total counts			4454
Count time			60
Bkg C/M			.296
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-le 2/16/96

Pacific Northwest Laboratory 96104

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received 2/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2984DUP Description : 127.1B.F DUPLICATE

DF .... .21640 ---> 100.00000 .... .09944 -+-> .99492 .... .05001

Dilution Factor = 1.0169E+05 +/- 2.01%

Instrument	Ludlum 5
Eff. Factor	.4174
Date	2/ 16/ 96
Total counts	1242
Count time	60
Bkg C/M	.267
Bkg cnt time	900
Corrected C/M	20.43

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/g	4.98E+06	6.5	5.62E+04
	uCi/g	2.24E+00		2.53E-02

Data Entry by T Trangle Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by LR Greenwood Date 2/16/96

Pacific Northwest Laboratory

WHC-SD-WM-DP-171, REV. 1

96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2984DUP Description : 127.18.F DUPLICATE

Pipet Nos.: #8 #14 #15

DF ---.2164 g → 100 ml ---.09944 ml → .99492 ml _ .05001 ml --- ---

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/14/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum -5
Eff. Factor	0.50	0.38054	0.4174
Date	/ /	/ /	2/16/96
Total counts			1242
Count time			60
Bkg C/M	.	.	.267
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-le 2/16/96

2-1461

Pacific Northwest Laboratory WHC-SD-WM-DP-171, REV. 1 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS /Sisk Date Received 0/ 0/ 0 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2984DUP S Description : 1.424 E5 dpm/ml

DF .... .09944 ---> 10.00000 .... .09944

Dilution Factor = 1.0113E+03 +/- 1.73%

Instrument	Ludlum 6
Eff. Factor	.4235
Date	2/ 16/ 96
Total counts	4145
Count time	60
Bkg C/M	.297
Bkg cnt time	900
Corrected C/M	68.79

1.64E5 / 1.0113E3 = 1.62E2
− 4.98E6 / 1.02E5 = 4.88E1
1.13E2 *
1.01E3
1.14E5 / 1.424E5
= 81%
±7%

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	1.64E+05	4.3	5.81E+02
	uCi/ml	7.40E-02		2.62E-04

Data Entry by T Trang-Le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by _____ Date _____

Pacific Northwest Laboratory

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2984DUP 5 Description : 127.1B.F DUPLICATE 1.424 E 5 d/m/ml

Pipet Nos.: #8 #14 #15 #8 #8

DF ---- 2164 → 100 --- .09944 → .9992 .0506 --- + .09944 → 10 - .09944
5 ml ml ml ml ml 2Td

Pipet checks are recorded on labsheets by pipet number

Analyst YG Poppe Date 2/16/96

Instrument	P.A.C. -	G.E. ASC.	Ludlum - 6
Eff. Factor	0.50	0.38054	0.4235
Date	/ /	/ /	2/16/96
Total counts			4145
Count time			60
Bkg C/M			.297
Bkg cnt time			900

Alpha Energy Analysis Det. # A

Filename

Analyst T Trang 2/16/96

Pacific Northwest Laboratory 96104

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received 2/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2985 Description : 127.2A.F

DF .... .19410 ---> 100.00000 .... .09944 -+-> .99492 .... .05001

Dilution Factor = 1.1337E+05 +/- 2.01%

Instrument	Ludlum 3
Eff. Factor	.4321
Date	2/ 16/ 96
Total counts	207
Count time	60
Bkg C/M	.283
Bkg cnt time	900
Corrected C/M	3.17

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/g	8.31E+05	15.2	6.23E+04
	uCi/g	3.74E-01 ✓		2.81E-02

Data Entry by T Trang-le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by LR Greenwood Date 2/16/96

Pacific Northwest Laboratory

96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2985 Description : 127.2A.F

Pipet Nos.: #8 #14 #15

DF ---.1941 → 100 ---.09944 .9945 .0500 ---

5 ml ml ml ml

Pipet checks are recorded on labsheets by pipet number

Analyst YG Pompeo Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 3
Eff. Factor	0.50	0.38054	0.4321
Date	/ /	/ /	2/16/96
Total counts			207
Count time			100
Bkg C/M			383
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst J Truong-Le 2/16/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/Silver Date Received 0/ 0/ 0 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2985 S Description : 1.424 E5 dpm/ml

DF .... .09944 ---> 10.00000 .... .09944

Dilution Factor = 1.0113E+03 +/- 1.73%

Instrument	Ludlum 7
Eff. Factor	.3971
Date	2/ 16/ 96
Total counts	2992
Count time	60
Bkg C/M	.187
Bkg cnt time	900
Corrected C/M	49.68

1.27 E5 / 1.01 E3 = 1.26 E2
− 8.31 E5 / 1.14 E5 = 7.29 E0
1.19 E2 *
1.01 E3
1.2065 / 1.424 E5
= 85%
± 5%

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	1.27E+05	4.7	4.93E+02
	uCi/ml	5.70E-02		2.22E-04

Data Entry by T Trang-Le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by LR Greenwood Date 2/16/96

Pacific Northwest Laboratory

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2985 S Description : 127.2A.F 1.424 E5 d/m/ml W-92-2

Pipet Nos.: #8 #14 #15 #8 #8

DF --- .1941 g → 100 ml --- .09944 ml → .99492 ml .05001 ml + .09944 ml → 10 ml - .09944 ml std

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/14/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 7
Eff. Factor	0.50	0.38054	0.3971 → TTL 2/27/96
Date	__/__/__	__/__/__	2/16/96
Total counts			2992
Count time			60
Bkg C/M	___.___	___.___	.187
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-le 2/16/96

Pacific Northwest Laboratory 96104

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received 2/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2985DUP Description : 127.2A.F DUPLICATE

DF .... .22500 ---> 100.00000 ---- .09944 -+-> .99492 ---- .05001

Dilution Factor = 9.7805E+04 +/- 2.01%

Instrument	Ludlum 8
Eff. Factor	.4355
Date	2/ 16/ 96
Total counts	233
Count time	60
Bkg C/M	.341
Bkg cnt time	900
Corrected C/M	3.54

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/g	7.96E+05	14.5	5.85E+04
	uCi/g	3.58E-01 ✓		2.63E-02

Data Entry by T Trang-le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by LRGreenwood Date 2/16/96

Pacific Northwest Laboratory

96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2985DUP Description : 127.2A.F DUPLICATE

Pipet Nos.: #8 #14 #15

DF ---.2250 ⇒ 100 ml --- .09944 ⇒ .99452 ml .05001 ml ---

Pipet checks are recorded on labsheets by pipet number

Analyst TG Rapp Date 2/14/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 8
Eff. Factor	0.50	0.38054	0.4355
Date	/ /	/ /	2/16/96
Total counts			233
Count time			60
Bkg C/M			.341
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst TTraag-Le 2/16/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/Silver S Date Received 0/ 0/ 0 Work order : 136499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2985DUP S Description : 1.42+ E5 dpm/ml

DF .... .09944 ---> 10.00000 .... .09944

Dilution Factor = 1.0113E+03 +/- 1.73%

Instrument	Ludlum 10
Eff. Factor	.4222
Date	2/ 16/ 96
Total counts	3270
Count time	60
Bkg C/M	.314
Bkg cnt time	900
Corrected C/M	54.19

1.30E5 / 1.01E3 = 1.29E2
- 7.96E5 / 9.7805E4 = 8.14E0
1.21E2 Y
1.0113E3
1.22E5 / 1.424E5
= 86%
± 5%

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	1.30E+05	4.6	5.99E+02
	uCi/ml	5.85E-02		2.70E-04

Data Entry by T Trang-Le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by LR Greenwood Date 2/16/96

Pacific Northwest Laboratory

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2985DUP S Description : 127.2A.F DUPLICATE 1.424 ES d/m/ml W-92-2

Pipet Nos.: #8 #14 #15 #8 #8

DF ---.2250 → 100 ---.09944 → .99492 .05001 ---.09944 → 10 - .09944

g ml ml ml ml ml ml ml std

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 10
Eff. Factor	0.50	0.38054	0.4 222
Date	__/__/__	__/__/__	2/16/96
Total counts			3870
Count time			60
Bkg C/M			.314
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-Le 2/16/96

Pacific Northwest Laboratory 96104

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received 2/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. STD-2822 Description : 1.424 E 5 dpm/ml

DF .... .09944 ---> 10.00000 .... .09944

Dilution Factor = 1.0113E+03 +/- 1.50%

Instrument	Ludlum 2
Eff. Factor	.4186
Date	2/ 16/ 96
Total counts	3200
Count time	60
Bkg C/M	.200
Bkg cnt time	900
Corrected C/M	53.13

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	1.28E+05	4.5	4.83E+02
	uCi/ml	5.78E-02		2.18E-04

90%

Data Entry by T Trang-le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by LR Dennard Date 2-16-96

Pacific Northwest Laboratory

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : STD-2822 Description : W-92-2 1.424ES d/m/ml

Pipet Nos.: #8 #8

DF ---.09944 → 10 — .09944--- --- --- ---

ml ml ml

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 2
Eff. Factor	0.50___	0.38054	0.4186
Date	___/___/___	___/___/___	2/16/96
Total counts			3200
Count time			60
Bkg C/M	___.___	___.___	.200
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-le 2/16/96

Samples: 96-2979; 2979 S; 2979 D; 2979 D S
2979 BLK; 2979 BLK S, BLK; STD;
2982; 2982 S; 2984; 2984 S;
2982 D; 2982 D S; 2984 D; 2984 D S;
2985; 2985 S; 2985 D; 2985 D S.

Pacific Northwest Laboratory 96104

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received 2/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. BLK-2822 Description :

DF .09944

Dilution Factor = 1.0056E+01 +/- .50%

Instrument	Ludlum 2
Eff. Factor	.4186
Date	2/ 16/ 96
Total counts	52
Count time	360
Bkg C/M	.200
Bkg cnt time	900
Corrected C/M	-.06

Calculation and Results

		Activity	Uncertainty,±	MDA
Total Alpha	dpm/ml	-1.33E+00	88.1	2.29E+00
	uCi/ml	-6.01E-07		1.03E-06

✓ $X \frac{100ml}{.19035} = 5.4E-4 \frac{\mu C_i}{g}$

Data Entry by T Truong-Le Date 2/20/96

Calculation and Analytical Data Sheet Reviewed by LR Greenwood Date 2-20-96

Pacific Northwest Laboratory

96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : BLK-2822 Description : D_1H_2O

Pipet Nos.: #8

DF ---.09944--- --- --- --- --- ---

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 2
Eff. Factor	0.50	0.38054	0.4186
Date	__/__/__	__/__/__	2/16/96
Total counts			33
Count time			360 min.
Bkg C/H			200
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-lo 2/16/96

Pacific Northwest Laboratory 96105

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received 2/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. 96-2987 Description : FLD-BLANK.D

DF .... .09944

Dilution Factor = 1.0056E+01 +/- 1.00%

Instrument	Ludlum 2
Eff. Factor	.4186
Date	2/ 16/ 96
Total counts	30
Count time	60
Bkg C/M	.200
Bkg cnt time	900
Corrected C/M	.30

Calculation and Results

		Activity	Uncertainty.%	MDA
Total Alpha	dpm/ml	7.21E+00	60.5	4.81E+00
	uCi/ml	3.25E-06		2.17E-06 ✓ $* \frac{100 ml}{\bar{x} = .2129 g} = 1.02E-3 \frac{\mu Ci}{g}$

Data Entry by T Trang-Le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by L R Greenwood Date 2/16/96

Pacific Northwest Laboratory

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2987 Description : FLD-BLANK.D

Pipet Nos.: #8

DF	---	.0994	---	---	---	---	---

Pipet checks are recorded on labsheets by pipet number

Analyst PG Peppard Date 2/14/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 2
Eff. Factor	0.50	0.38054	0.4186
Date	__/__/__	__/__/__	2/16/96
Total counts			30
Count time			60
Bkg C/M			200
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-Le 2/16/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/Silvers Date Received 0/ 0/ 0 Work order : K36499 ARF(SOW) : ASR2822

A.L.O. No. 96-2987 S Description : 1.424 E 5 dpm/ml

DF .... .09944 ---> 10.00000 .... .09944

Dilution Factor = 1.0113E+03 +/- 1.73%

Instrument	Ludlum 4
Eff. Factor	.4337
Date	2/ 16/ 96
Total counts	3364
Count time	60
Bkg C/M	.296
Bkg cnt time	900
Corrected C/M	55.77

1.30 E 5
- 7.21 E 0
1.30 E 5 / 1.424 E 5
= 92%

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	1.30E+05	4.6	5.66E+02
	uCi/ml	5.86E-02 ✓		2.55E-04

Data Entry by T Trang-Le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by L R Greenwood Date 2/16/96

Pacific Northwest Laboratory

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2987 S Description : FLO-BLANK.D W-92-2 1.424ES d/w/nl

Pipet Nos.: #8 #8 #8

DF ---.09944 ---+ .09944 → 10 - .09944 --- --- --- std --- --- ---

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/14/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 4
Eff. Factor	0.50___	0.38054	0.4337
Date	___/___/___	___/___/___	2/16/96
Total counts			3369
Count time			60
Bkg C/M	___.___	___.___	296
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-Le 2/16/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/Sillee Date Received 0/ 0/ 0 Work order : K36499 ARF(SOW) : ASR0822

A.L.O. No. 96-2987DUP Description : FLD - BLANK, DUPLICATE

DF ---- .09944

Dilution Factor = 1.0056E+01 +/- 1.00%

Instrument	Ludlum 5
Eff. Factor	.4174
Date	2/ 16/ 96
Total counts	23
Count time	60
Bkg C/M	.267
Bkg cnt time	900
Corrected C/M	.12

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	2.80E+00	137.8	5.56E+00
	uCi/ml	1.26E-06		2.50E-06 ✓ * $\frac{100ml}{1.2129g}$ = 1.2E-3 $\frac{\mu Ci}{g}$

Data Entry by T Trang-le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by L R Greenwood Date 2/16/96

Pacific Northwest Laboratory

96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2987 Description : FLD-BLANK.D Duplicate

Pipet Nos.: #8

DF --- .0444 --- --- --- --- --- ---

Pipet checks are recorded on labsheets by pipet number

Analyst TA Peppel Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 5
Eff. Factor	0.50 ___	0.38054	0.4 174
Date	__/__/__	__/__/__	2/16/96
Total counts			83
Count time			60
Bkg C/M			.267
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Thang-Le 2/16/96

Pacific Northwest Laboratory 96106

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/Silvers Date Received 0/ 0/ 0 Work order : K36499 ARF(SOW) : ASR2822

A.L.O. No. 96-2989BLK S Description : 1.424 E5 dpm/ml

DF .... .09944 ---> 10.00000 .... .09944

Dilution Factor = 1.0113E+03 +/- 1.73%

Instrument	Ludlum 10
Eff. Factor	.4222
Date	2/ 16/ 96
Total counts	3155
Count time	60
Bkg C/M	.314
Bkg cnt time	900
Corrected C/M	52.27

88%

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	1.25E+05	4.6	5.99E+02
	uCi/ml	5.64E-02		2.70E-04

~~x 100ml / .2129g~~ = LRG 2-16-96

Data Entry by T Trang-le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by LRGreenwood Date 2-16-96

Pacific Northwest Laboratory

96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2989BLK 5 Description : PROCESS BLANK W-92-2 1.424 ES d/m/ml

#8 #8

Pipet Nos.: #8 + .09944 → 10 - .09944

DF --- .09944 --- ml ml ml --- ml 2nd --- --- ---

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 10
Eff. Factor	0.50	0.38054	0.4222
Date	/ /	/ /	2/16/96
Total counts			3155
Count time			60
Bkg C/M			314
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-Le 2/16/96

Pacific Northwest Laboratory

96104

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received 2/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. STD-2822 Description : 1.424 E5 dpm/ml

DF .... .09944 ---> 10.00000 .... .09944

Dilution Factor = 1.0113E+03 +/- 1.73%

Instrument	Ludlum 1
Eff. Factor	.4227
Date	2/ 16/ 96
Total counts	3293
Count time	60
Bkg C/M	.247
Bkg cnt time	900
Corrected C/M	54.64

Calculation and Results

		Activity	Uncertainty,%	MDA	
Total Alpha	dpm/ml	1.31E+05	4.6	5.31E+02	92%
	uCi/ml	5.89E-02		2.39E-04	

Data Entry by T Trang-Le Date 2/16/96

Calculation and Analytical Data Sheet Reviewed by L R Greenwood Date 2-16-96

Pacific Northwest Laboratory

96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : STD-2822 Description : W-92-2 1.424 ES

Pipet Nos.: LLP 2/16/96 718 718

DF ~~.09944~~ 77 .09944 → 10 - .09944 --- ---

Pipet checks are recorded on labsheets by pipet number

Analyst [signature] Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum - 1
Eff. Factor	0.50	0.38054	0.4227
Date	/ /	/ /	2/16/96
Total counts			3293
Count time			60
Bkg C/M	.	.	.247
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-le 2/16/96

Samples: 96-2987; 2987 Dup; 2987 S
96-2989 BLK; 2989 BLK Dup; 2989 BLK S;
96 2992; 2992 Dup; 2992 S;
BLK; Std.

Pacific Northwest Laboratory 96104

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received 2/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. BLK-2822 Description :

DF .... .09944

Dilution Factor = 1.0056E+01 +/- 1.00%

Instrument	Ludlum 6
Eff. Factor	.4235
Date	2/ 16/ 96
Total counts	56
Count time	360
Bkg C/M	.297
Bkg cnt time	900
Corrected C/M	-.14

Calculation and Results

		Activity	Uncertainty,%	MDA
Total Alpha	dpm/ml	-3.36E+00	38.3	2.74E+00
	uCi/ml	-1.51E-06		1.24E-06 ✓

$$X \frac{100\,ml}{.19035\,g} = 6.5E\text{-}4 \frac{\mu Ci}{g}$$

Data Entry by T Trang-Le Date 2/20/96

Calculation and Analytical Data Sheet Reviewed by LR Greenwood Date 2-20-96

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Pacific Northwest Laboratory

96

Total Alpha.....PNL-ALO-420 & 421

Customer : TWRS/SILVERS Date Received : 02/ 16/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : BLK-2822 Description : D.H2O

Pipet Nos.: #8

DF	---	---	---	---	---	---
	.09944					
	1.0					

Pipet checks are recorded on labsheets by pipet number

Analyst Y C Pepper Date 2/16/96

Instrument	P.A.C. - ___	G.E. ASC.	Ludlum -6
Eff. Factor	0.50	0.38054	0.4235
Date	___/___/___	___/___/___	2/16/96
Total counts			56
Count time			360 min
Bkg C/H			.097
Bkg cnt time			900

Alpha Energy Analysis Det. # A_____

Filename _____

Analyst T Trang-6 2/16/96

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D3 - GEA

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DATE TO QC: 02/23/96

DATA QUALITY REVIEW

I have reviewed the following data for completeness and for compliance with project requirements.

Analyte - GEA

Data Package/Report - BX-104

Project No. - 22762

ACL Numbers - 96-2982, 96-2985

PNL ACL Quality Representative

2/27/96
Date

BX104 Gamma Energy Analyses

[See narrative for Total Alpha for description of sample preps.]

Gamma Energy Analyses

Homogenization testing was performed on Segment 2B from Core 126 and Segment 2A from Core 127. For this testing, duplicates from the top and bottom of each segment were prepared and analyzed in two batches.

Core 126 Segment 2B samples showed only ^{137}Cs present at detectable levels. Core 127 Segment 2A samples showed ^{137}Cs, ^{154}Eu and ^{155}Eu in all samples. ^{60}Co was detected in three of four samples, and ^{241}Am was detected in two of four samples.

All calculable RPDs fell less than the 20% criteria indicating satisfactory homogenization.

Process blank contamination was noted for ^{134}Cs and ^{137}Cs. No ^{134}Cs was detectable in the samples. ^{137}Cs in the process blanks fell well below that present in the samples. The impact on results is therefore negligible.

L R Greenwood
3-18-96

RT R
3/18/96

Tank 241-BX-104 Cores 126,127 Gamma Energy Analyses

ALO #	CORE ID	Co-60 uCi/g	+/-% Error	Cs-134 uCi/g	+/-% Error	Cs-137 uCi/g	+/-% Error	Eu-154 uCi/g	+/-% Error	Eu-155 uCi/g	+/-% Error	Am-241 uCi/g	+/-% Error
96-2979BLK	PROCESS BLANK	<3.E-3		6.40E-03	17%	8.25E-01	2%	<1.E-2		<2.E-2		1.84E-02	30%
96-2982	126.2B.F	<2.E-2		<9.E-2		7.35E+01	2%	<5.E-2		<3.E-1		<4.E-1	
96-2982DUP	126.2B.F DUP	<2.E-2		<6.E-2		7.79E+01	2%	<5.E-2		<2.E-1		<3.E-1	
	RPD					5.8%							
96-2985	127.2A.F	1.87E-02	20%	<5.E-2		4.49E+01	2%	2.45E-01	7%	2.31E-01	19%	<3.E-1	
96-2985DUP	127.2A.F DUP	1.78E-02	19%	<4.E-2		4.71E+01	2%	2.78E-01	6%	2.53E-01	17%	3.29E-01	23%
	RPD	4.9%				4.8%		12.6%		9.1%			

Note: Reference dates: 02/15-20/1996.

2-1491

WHC-SD-WM-DP-171, REV. 1

LR Greenwood
2-22-96

RT Ross
2/22/96

RC RS 2/21/96

Battelle / Pacific Northwest Laboratories
Analytical Chemistry Laboratory

20-FEB-1996 12:24:58.12
Gamma Energy Analysis (GEA)

Sample Title: 96-2985D / 127.2A.F Dup / TWRS / K28848

Config. File: DKA200:[USER.SCUSR.ARCHIVE]SMP_G0311.CNF;3
Analys. File: ND_SC_ASF:SST.ASF

Effic. File : DKA200:[USER.SCUSR.EFF]EFF_G3GSV2MLW_N
Library File: nd_sc_lib:common.nlb

Backgnd File: DKA200:[USER.SCUSR.ARCHIVE]BKG_G0GSV10MLW.CNF;1 - 29-JAN-1996 12:

Acquisition time : 16-FEB-1996 10:25:58 Sample quantity: 4.47710E-03 g
Sample (EOI) time: 16-FEB-1996 10:25:58 Sample geometry: P3-GSV-2ML-W
Elapsed live time: 0 01:00:00.00
Elapsed real time: 0 01:00:13.86 0.4%

Peak Search Sens.: 3.00000
Eng. Tol. (FWHM) : 0.75 Half life ratio: 8.00
Errors propagated: Yes Systematic Erro: 1.30
Abundance limit : 70.00 WTM error limit: 3.00

Analyses by : PEAK V16.6 PEAKEFF V2.2 ENBACK V1.5 NID V3.2
WTMEAN V1.8 MINACT V2.5

Nuclide Line Activity Report

Nuclide Type: activation

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
CO-60	1173.24	99.97	3.586E-01	1.792E-02	1.792E-02	22.85	OK
	1332.50	99.99*	3.297E-01	1.780E-02	1.780E-02	30.56	OK
	Final Mean for 2 Valid Peaks = 1.788E-02+/- 3.272E-03 (18.30%)						

Nuclide Type: fission

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
CS-137	661.66	85.20*	5.574E-01	4.713E+01	4.713E+01	1.54	OK
	Final Mean for 1 Valid Peaks = 4.713E+01+/- 7.243E-01 (1.54%)						
EU-154	123.07	40.60	1.724E+00	2.847E-01	2.847E-01	13.68	OK
	247.93	6.91	1.172E+00	3.652E-01	3.652E-01	44.77	OK
	582.01	0.89	6.160E-01	----- Line Not Found		-----	Absent
	591.76	4.96	6.082E-01	----- Line Not Found		-----	Absent
	692.42	1.79	5.379E-01	----- Line Not Found		-----	Absent
	723.30	20.11	5.197E-01	2.791E-01	2.791E-01	12.89	OK
	756.80	4.54	5.010E-01	5.513E-01	5.513E-01	26.57	OK
	873.19	12.20	4.479E-01	3.363E-01	3.363E-01	14.34	OK
	904.08	0.89	4.360E-01	----- Line Not Found		-----	Absent
	996.26	10.53	4.045E-01	2.361E-01	2.361E-01	22.37	OK

Nuclide Line Activity Report (continued) Page : 2
Sample ID : 96-2985D / 127 Acquisition date : 16-FEB-1996 10:25:58

Nuclide Type: fission

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
	1004.25	17.91	4.019E-01	2.842E-01	2.842E-01	14.18	OK
	1246.15	0.86	3.442E-01	----- Line Not Found		-----	Absent
	1274.44	35.00*	3.391E-01	2.583E-01	2.583E-01	9.36	OK
	1494.00	0.70	3.094E-01	----- Line Not Found		-----	Absent
	1596.49	1.79	3.003E-01	----- Line Not Found		-----	Absent
	Final Mean for 8 Valid Peaks = 2.783E-01+/- 1.469E-02 (5.28%)						
EU-155	60.01	1.13	8.246E-01	1.070E+01	1.070E+01	22.77	<<WM Interf *
	86.54	30.85	1.578E+00	2.751E-01	2.751E-01	20.16	OK
	105.31	21.20*	1.728E+00	2.188E-01	2.188E-01	31.50	OK
	Final Mean for 2 Valid Peaks = 2.530E-01+/- 4.322E-02 (17.08%)						
AM-241	59.54	35.90*	8.246E-01	3.368E-01	3.368E-01	22.39	OK *
	Final Mean for 1 Valid Peaks = ~~3.368E-01~~ 3.288E-1 +/- 7.542E-02 (22.39%)						

Flag: "*" = Keyline

* RJR 2/22/96

Am Correction:

$$\frac{(3.368E\text{-}1)(.359) - (2.53E\text{-}1)(.0113)}{.359} = 3.288E\text{-}1$$

* Correction required for interferrence from 60.0 keV line in ^{155}Eu. RJR 2-26-96

RJR

Post-NID Peak Search Report
Sample ID : 96-2985D / 127

Acquisition date : 16-FEB-1996 10:25:58

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity uCi/g
0	42.70	288	1.20	115.05	113	6	35.2			
0	59.41	595	1.37	159.61	157	7	21.5		AM-241	0.337
									EU-155	10.7
0	86.62	799	1.32	232.14	228	9	19.9		EU-155	0.275
0	105.52	478	1.02	282.51	278	9	31.4		EU-155	0.219
0	123.21	1188	1.23	329.65	325	10	13.5		EU-154	0.285
0	146.44	252	1.82	391.59	388	8	47.1			
0	248.16	176	0.96	662.76	660	6	44.7		EU-154	0.365
0	464.63	150	1.04	1239.93	1236	9	72.0			
0	574.15	111	3.64	1532.00	1520	17	69.8			
0	661.67	133493	1.77	1765.42	1752	26	0.3		CS-137	47.1
0	703.23	29	6.58	1876.26	1859	24	95.1			
0	723.45	174	1.26	1930.21	1923	16	12.8		EU-154	0.279
0	751.08	38	3.64	2003.89	1988	24	55.9			
0	757.74	75	2.18	2021.66	2011	25	26.5		EU-154	0.551
0	766.98*	25	0.43	2046.32	2038	17	65.8			
0	873.51	110	1.26	2330.50	2323	17	14.3		EU-154	0.336
0	996.25	60	2.24	2657.99	2649	17	22.3		EU-154	0.236
0	1004.70	122	1.78	2680.54	2668	20	14.1		EU-154	0.284
0	1173.50	38	0.76	3130.96	3121	16	22.8		CO-60	1.792E-02
0	1274.47	183	1.79	3400.45	3388	22	9.2		EU-154	0.258
0	1332.87	35	1.88	3556.34	3543	19	30.5		CO-60	1.780E-02

Minimum Detectable Activity Report

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/g)
K-40	27.	1460.83	1.2135E-01
FE-59	24.	1099.25	1.8144E-02
SR-85	2333.	514.00	5.7887E-02
RU-103	2616.	497.05	6.4670E-02
RU-106	793.	621.92	3.8292E-01
CD-109	7057.	88.03	1.1359E+00
SB-125	4568.	427.88	2.2994E-01
CS-134	885.	604.72	3.9734E-02
CE-139	5391.	165.85	4.6735E-02
CE-141	5657.	145.44	7.4352E-02
CE-144	5794.	133.54	3.1640E-01
EU-152	16.	1408.01	4.6815E-02
HG-203	6686.	72.87	7.8580E-01
TH-228	4736.	238.58	1.0203E-01
U-235	6421.	185.74	8.2273E-02
U-238	90.	1001.00	2.8247E+00

Battelle / Pacific Northwest Laboratories
Analytical Chemistry Laboratory

15-FEB-1996 13:08:39.57
Gamma Energy Analysis (GEA)

Sample Title: 96-2985DUP 127.2A.F Duplicate TWRS/Silvers K28848

Config. File: DKA200:[USER.SCUSR.ARCHIVE]SMP_G0311.CNF;1
Analys. File: ND_SC_ASF:SST.asf

Effic. File : DKA200:[USER.SCUSR.EFF]EFF_G3GSV2MLW_N
Library File: nd_sc_lib:common.nlb

Backgnd File: DKA200:[USER.SCUSR.ARCHIVE]BKG_G0GSV10MLW.CNF;1 - 29-JAN-1996 12:

Acquisition time : 15-FEB-1996 12:53:22
Sample (EOI) time: 15-FEB-1996 12:53:21
Elapsed live time: 0 00:15:00.00
Elapsed real time: 0 00:15:03.47 0.4%

Sample quantity: 4.47710E-03 g
Sample geometry: P3-GSV-2ML-W

Peak Search Sens.: 5.00000
Eng. Tol. (FWHM) : 0.75
Errors propagated: Yes
Abundance limit : 70.00

Half life ratio: 8.00
Systematic Erro: 1.30
WTM error limit: 3.00

Analyses by : PEAK V16.6 PEAKEFF V2.2 ENBACK V1.5 NID V3.2
WTMEAN V1.8 MINACT V2.5

Nuclide Line Activity Report

Nuclide Type: fission

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
CS-137	661.66	85.20*	5.574E-01	4.695E+01	4.695E+01	1.61	OK
	Final Mean for 1 Valid Peaks = 4.695E+01+/- 7.568E-01 (1.61%)						
EU-154	123.07	40.60	1.725E+00	2.938E-01	2.938E-01	23.25	OK
	247.93	6.91	1.173E+00	-----	Line Not Found	-----	Absent
	582.01	0.89	6.160E-01	-----	Line Not Found	-----	Absent
	591.76	4.96	6.082E-01	-----	Line Not Found	-----	Absent
	692.42	1.79	5.379E-01	-----	Line Not Found	-----	Absent
	723.30	20.11	5.197E-01	3.149E-01	3.149E-01	16.45	OK
	756.80	4.54	5.015E-01	-----	Line Not Found	-----	Absent
	873.19	12.20	4.481E-01	3.126E-01	3.126E-01	36.22	OK
	904.08	0.89	4.360E-01	-----	Line Not Found	-----	Absent
	996.26	10.53	4.045E-01	-----	Line Not Found	-----	Absent
	1004.25	17.91	4.021E-01	3.200E-01	3.200E-01	21.29	OK
	1246.15	0.86	3.442E-01	-----	Line Not Found	-----	Absent
	1274.44	35.00*	3.390E-01	2.536E-01	2.536E-01	21.67	OK
	1494.00	0.70	3.094E-01	-----	Line Not Found	-----	Absent
	1596.49	1.79	3.003E-01	-----	Line Not Found	-----	Absent
	Final Mean for 5 Valid Peaks = 2.952E-01+/- 2.873E-02 (9.73%)						
AM-241	59.54	35.90*	8.229E-01	7.501E-01	7.501E-01	28.26	OK
	Final Mean for 1 Valid Peaks = 7.501E-01+/- 2.120E-01 (28.26%)						

Shorter run with larger uncertainties. Use recount.
JRG 2-26-96

2-1495

Nuclide Line Activity Report (continued) Page : 2
Sample ID : 96-2985DUP 127 Acquisition date : 15-FEB-1996 12:53:22

Flag: "*" = Keyline

Post-NID Peak Search Report
Sample ID : 96-2985DUP 127

Acquisition date : 15-FEB-1996 12:53:22

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity uCi/g
0	59.37	330	1.29	159.49	155	11	27.5		AM-241	0.750
0	86.51	177	0.67	231.83	229	8	39.6			
0	122.97	307	1.16	329.01	325	9	23.1		EU-154	0.294
0	661.68	33240	1.78	1765.44	1754	22	0.6		CS-137	46.9
0	723.40	49	1.68	1930.07	1924	14	16.3		EU-154	0.315
0	873.20	25	1.08	2329.69	2320	16	36.2		EU-154	0.313
0	1004.26	34	2.16	2679.35	2670	16	21.2		EU-154	0.320
0	1275.13	45	2.04	3402.23	3390	18	21.6		EU-154	0.254

Minimum Detectable Activity Report

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/g)
K-40	6.	1460.83	2.2881E-01
FE-59	7.	1099.25	3.8303E-02
CO-60	15.	1332.50	3.6639E-02
SR-85	631.	514.00	1.2038E-01
RU-103	691.	497.05	1.3291E-01
RU-106	224.	621.92	8.1503E-01
CD-109	1722.	88.03	2.2445E+00
SB-125	1102.	427.88	4.5183E-01
CS-134	205.	604.72	7.6498E-02
CE-139	1324.	165.85	9.2647E-02
CE-141	1435.	145.44	1.4973E-01
CE-144	1524.	133.54	6.4893E-01
EU-152	1.	1408.01	4.6815E-02
EU-155	1687.	105.31	3.4968E-01
HG-203	1651.	72.87	1.5615E+00
TH-228	1185.	238.58	2.0413E-01
U-235	1567.	185.74	1.6257E-01
U-238	24.	1001.00	5.8060E+00

Pacific Northwest Laboratory

Gamma-Spectroscopy.....PNL-ALO-450

K28848

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2985DUP Description : 127.2A.F DUPLICATE

Pipet Nos.:

DF ---.2250 g → 100 ml --- 2(.99492) ml #14 --- --- ---

Pipet checks are recorded on labsheets by pipet number

Data Path: _____ Direct to customer _____ Hold for Radioanalytical

Storage Path: _____ Direct to A.L.O.

Analyst [signature] Date 2/15/96

Counting Information:

Detector: B-ASCP C-70% D-70% E-100% FOG G-40% H-40% I-LEPS J-LEPS K-60% N-NaI TRACK X-Well Y-Well

File:_____

sample size
4.4771E-3g

Analyst _____ Date_____

R Richard TWRS 2/24/96

Battelle / Pacific Northwest Laboratories
Analytical Chemistry Laboratory

15-FEB-1996 23:22:45.59
Gamma Energy Analysis (GEA)

Sample Title: 96-2979BLK Process Blank TWRS/Silvers K28848

Config. File: DKA200:[USER.SCUSR.ARCHIVE]SMP_G0312.CNF;1
Analys. File: ND_SC_ASF:SST.asf

Effic. File : DKA200:[USER.SCUSR.EFF]EFF_G3GSV2MLW_N
Library File: nd_sc_lib:common.nlb

Backgnd File: DKA200:[USER.SCUSR.ARCHIVE]BKG_G0GSV10MLW.CNF;1 - 29-JAN-1996 12:

Acquisition time : 15-FEB-1996 15:22:39
Sample (EOI) time: 15-FEB-1996 13:11:55
Elapsed live time: 0 08:00:00.00
Elapsed real time: 0 08:00:04.15 0.0%

Sample quantity: 3.78770E-03 g
Sample geometry: P3-GSV-2ML-W

Peak Search Sens.: 5.00000
Eng. Tol. (FWHM) : 0.75
Errors propagated: Yes
Abundance limit : 70.00

Half life ratio: 8.00
Systematic Erro: 1.30
WTM error limit: 3.00

Analyses by : PEAK V16.6 PEAKEFF V2.2 ENBACK V1.5 NID V3.2
WTMEAN V1.8 MINACT V2.5

Nuclide Line Activity Report

Nuclide Type: fission

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
CS-134	563.25	8.35	6.319E-01	----- Line Not Found		-----	Absent
	569.33	15.38	6.266E-01	----- Line Not Found		-----	Absent
	604.72	97.62*	5.979E-01	6.124E-03	6.126E-03	22.64	OK
	795.86	85.53	4.817E-01	6.769E-03	6.771E-03	23.77	OK
	801.95	8.69	4.791E-01	----- Line Not Found		-----	Absent
	Final Mean for 2 Valid Peaks = 6.401E-03+/- 1.051E-03 (16.41%)						
CS-137	661.66	85.20*	5.575E-01	8.250E-01	8.250E-01	1.73	OK
	Final Mean for 1 Valid Peaks = 8.250E-01+/- 1.429E-02 (1.73%)						
AM-241	59.54	35.90*	8.356E-01	1.835E-02	1.835E-02	29.55	OK
	Final Mean for 1 Valid Peaks = 1.835E-02+/- 5.423E-03 (29.55%)						

Flag: "*" = Keyline

Post-NID Peak Search Report
Sample ID : 96-2979BLK Pro

Acquisition date : 15-FEB-1996 15:22:39

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity uCi/g
0	59.69	222	1.38	160.35	156	10	28.9		AM-241	1.835E-02
0	92.57*	11	1.10	247.98	244		9691.5			
0	123.10	168	1.11	329.36	326	8	35.1			
0	185.78*	100	0.94	496.46	491	12	88.6			
0	510.95*	130	2.43	1363.45	1355	24	62.2			
0	558.36*	70	1.57	1489.88	1483	12	50.8			
0	604.84	144	1.17	1613.84	1609	12	22.5		CS-134	6.126E-03
0	661.64	15815	1.75	1765.34	1753	25	0.8		CS-137	0.825
0	796.38	113	2.02	2124.74	2114	16	23.7		CS-134	6.771E-03

Minimum Detectable Activity Report

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/g)
K-40	234.	1460.83	5.2730E-02
FE-59	70.	1099.25	4.5613E-03
CO-60	68.	1332.50	2.8801E-03
SR-85	666.	514.00	4.5817E-03
RU-103	514.	497.05	4.2518E-03
RU-106	235.	621.92	3.0789E-02
CD-109	1063.	88.03	6.5146E-02
SB-125	803.	427.88	1.4246E-02
CE-139	1265.	165.85	3.3485E-03
CE-141	1331.	145.44	5.3555E-03
CE-144	1298.	133.54	2.2140E-02
EU-152	59.	1408.01	1.3263E-02
EU-154	87.	1274.44	9.0401E-03
EU-155	1111.	105.31	1.0486E-02
HG-203	1123.	72.87	4.7742E-02
TH-228	1244.	238.58	7.7275E-03
U-235	1624.	185.74	6.1134E-03
U-238	122.	1001.00	4.8594E-01

Pacific Northwest Laboratory

96

Gamma-Spectroscopy.....PNL-ALO-450

K28848

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2979BLK Description : PROCESS BLANK

Pipet Nos.: #14

DF ---19035 → 100 --- 2(.99492) --- --- ---

Pipet checks are recorded on labsheets by pipet number

Data Path: _____ Direct to customer _____ Hold for Radioanalytical

Storage Path: _____ Direct to A.L.O.

Analyst [signature] Date 2/15/96

Counting Information:

Detector: B-ASCP C-70% D-70% E-100% FOG (G-40%) H-40% I-LEPS J-LEPS K-60% N-NaI TRACK X-Well Y-Well

File: G0312

sample size

3.7877 E-3g

Analyst [signature] Date 2/15/96

RT RS 2/10/96

Battelle / Pacific Northwest Laboratories
Analytical Chemistry Laboratory

15-FEB-1996 12:14:51.95
Gamma Energy Analysis (GEA)

Sample Title: 96-2982 126.2B.F TWRS/Silvers K28848

Config. File: DKA200:[USER.SCUSR.ARCHIVE]SMP_G0308.CNF;1
Analys. File: ND_SC_ASF:SST.asf

Effic. File : DKA200:[USER.SCUSR.EFF]EFF_G3GSV2MLW_N
Library File: nd_sc_lib:common.nlb

Backgnd File: DKA200:[USER.SCUSR.ARCHIVE]BKG_G0GSV10MLW.CNF;1 - 29-JAN-1996 12:

Acquisition time : 15-FEB-1996 11:59:34
Sample (EOI) time: 15-FEB-1996 11:59:34
Elapsed live time: 0 00:15:00.00
Elapsed real time: 0 00:15:05.42 0.6%

Sample quantity: 5.55170E-03 g
Sample geometry: P3-GSV-2ML-W

Peak Search Sens.: 5.00000
Eng. Tol. (FWHM) : 0.75
Errors propagated: Yes
Abundance limit : 70.00

Half life ratio: 8.00
Systematic Erro: 1.30
WTM error limit: 3.00

Analyses by : PEAK V16.6 PEAKEFF V2.2 ENBACK V1.5 NID V3.2
WTMEAN V1.8 MINACT V2.5

Nuclide Line Activity Report

Nuclide Type: fission

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
CS-137	661.66	85.20*	5.574E-01	7.349E+01	7.349E+01	1.56	OK

Final Mean for 1 Valid Peaks = 7.349E+01+/- 1.149E+00 (1.56%)

Flag: "*" = Keyline

Post-NID Peak Search Report
Sample ID : 96-2982 126.2B

Acquisition date : 15-FEB-1996 11:59:34

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity uCi/g
0	661.66	64527	1.77	1765.39	1752	24	0.4		CS-137	73.5

Minimum Detectable Activity Report

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/g)
K-40	7.	1460.83	1.9931E-01
FE-59	4.	1099.25	2.3694E-02
CO-60	5.	1332.50	1.7059E-02
SR-85	1055.	514.00	1.2551E-01
RU-103	1280.	497.05	1.4589E-01
RU-106	382.	621.92	8.5740E-01
CD-109	1884.	88.03	1.8932E+00
SB-125	2080.	427.88	5.0056E-01
CS-134	374.	604.72	8.3344E-02
CE-139	1908.	165.85	8.9688E-02
CE-141	1978.	145.44	1.4176E-01
CE-144	1976.	133.54	5.9597E-01
EU-152	3.	1408.01	6.5390E-02
EU-154	5.	1274.44	4.7382E-02
EU-155	1852.	105.31	2.9547E-01
HG-203	1766.	72.87	1.3025E+00
TH-228	2000.	238.58	2.1387E-01
U-235	2653.	185.74	1.7059E-01
U-238	7.	1001.00	2.6167E+00
AM-241	1612.	59.54	3.3906E-01

Pacific Northwest Laboratory

Gamma-Spectroscopy.....PNL-ALO-450

K28848

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2982 Description : 126.2B.F

Pipet Nos.: .2790 #14

DF ~~.1625~~ 2/15/96 g → 100 ml 2(.99492) ml --- --- ---

Pipet checks are recorded on labsheets by pipet number

Data Path: _____ Direct to customer _____ Hold for Radioanalytical

Storage Path: _____ Direct to A.L.O.

Analyst [signature] Date 2/15/96

Counting Information:

Detector: B-ASCP C-70% D-70% E-100% FOG G-40% H-40% I-LEPS J-LEPS K-60% N-NaI TRACK X-Well Y-Well

File: G0308

Sample size 5.5517E-3 g

Analyst [signature] Date 2/15/96

RT RS 2/29/96

Battelle / Pacific Northwest Laboratories
Analytical Chemistry Laboratory

21-FEB-1996 06:53:28.09
Gamma Energy Analysis (GEA)

Sample Title: 96-2982D / 126.2B.F Dup / TWRS / K28848

Config. File: DKA200:[USER.SCUSR.ARCHIVE]SMP_G0309.CNF;3
Analys. File: nd_sc_asf:COMMON.ASF

Effic. File : DKA200:[USER.SCUSR.EFF]EFF_G3GSV2MLW_N
Library File: nd_sc_lib:common.nlb

Backgnd File: DKA200:[USER.SCUSR.ARCHIVE]BKG_G.CNF;17 - 20-FEB-1996 12:29:46

Acquisition time : 20-FEB-1996 15:03:32
Sample (EOI) time: 20-FEB-1996 15:03:31
Elapsed live time: 0 01:00:00.00
Elapsed real time: 0 01:00:16.35 0.5%

Sample quantity: 3.95180E-03 g
Sample geometry: P3-GSV-2ML-W

Peak Search Sens.: 5.00000
Eng. Tol. (FWHM) : 0.75
Errors propagated: Yes
Abundance limit : 70.00

Half life ratio: 8.00
Systematic Erro: 1.30
WTM error limit: 3.00

Analyses by : PEAK V16.6 PEAKEFF V2.2 ENBACK V1.5 NID V3.2
WTMEAN V1.8 MINACT V2.5

Nuclide Line Activity Report

Nuclide Type: fission

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
CS-137	661.66	85.20*	5.574E-01	7.788E+01	7.788E+01	1.53	OK

Final Mean for 1 Valid Peaks = 7.788E+01+/- 1.190E+00 (1.53%)

Flag: "*" = Keyline

Post-NID Peak Search Report
Sample ID : 96-2982D / 126

Acquisition date : 20-FEB-1996 15:03:32

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity uCi/g
0	661.66	194696	1.78	1765.38	1752	25	0.2		CS-137	77.9

Minimum Detectable Activity Report

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/g)
K-40	22.	1460.83	1.2424E-01
FE-59	11.	1099.25	1.3885E-02
CO-60	29.	1332.50	1.4429E-02
SR-85	3169.	514.00	7.6428E-02
RU-103	3919.	497.05	8.9666E-02
RU-106	1094.	621.92	5.0954E-01
CD-109	5428.	88.03	1.1285E+00
SB-125	6279.	427.88	3.0542E-01
CS-134	1224.	604.72	5.2941E-02
CE-139	5931.	165.85	5.5533E-02
CE-141	5998.	145.44	8.6735E-02
CE-144	6049.	133.54	3.6626E-01
EU-152	8.	1408.01	3.7503E-02
EU-154	29.	1274.44	4.0199E-02
EU-155	5489.	105.31	1.7866E-01
HG-203	5219.	72.87	7.8650E-01
TH-228	6039.	238.58	1.3053E-01
U-235	7842.	185.74	1.0301E-01
U-238	33.	1001.00	1.9334E+00
AM-241	4904.	59.54	2.0773E-01

RT R 2/15/96

Battelle / Pacific Northwest Laboratories 15-FEB-1996 12:33:39.14
Analytical Chemistry Laboratory Gamma Energy Analysis (GEA)

Sample Title: 96-2982DUP 126.2B.F Duplicate TWRS/Silvers K28848

Config. File: DKA200:[USER.SCUSR.ARCHIVE]SMP_G0309.CNF;1
Analys. File: ND_SC_ASF:SST.asf

Effic. File : DKA200:[USER.SCUSR.EFF]EFF_G3GSV2MLW_N
Library File: nd_sc_lib:common.nlb

Backgnd File: DKA200:[USER.SCUSR.ARCHIVE]BKG_G0GSV10MLW.CNF;1 - 29-JAN-1996 12:

Acquisition time : 15-FEB-1996 12:18:23 Sample quantity: 3.95180E-03 g
Sample (EOI) time: 15-FEB-1996 12:18:22 Sample geometry: P3-GSV-2ML-W
Elapsed live time: 0 00:15:00.00
Elapsed real time: 0 00:15:04.05 0.4%

Peak Search Sens.: 5.00000
Eng. Tol. (FWHM) : 0.75 Half life ratio: 8.00
Errors propagated: Yes Systematic Erro: 1.30
Abundance limit : 70.00 WTM error limit: 3.00

Analyses by : PEAK V16.6 PEAKEFF V2.2 ENBACK V1.5 NID V3.2
WTMEAN V1.8 MINACT V2.5

Nuclide Line Activity Report

Nuclide Type: fission

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
CS-137	661.66	85.20*	5.574E-01	7.815E+01	7.815E+01	1.58	OK

Final Mean for 1 Valid Peaks = 7.815E+01+/- 1.235E+00 (1.58%)

Flag: "*" = Keyline

Post-NID Peak Search Report
Sample ID : 96-2982DUP 126

Acquisition date : 15-FEB-1996 12:18:23

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity uCi/g
0	661.68	48841	1.77	1765.43	1753	25	0.5		CS-137	78.1

Minimum Detectable Activity Report

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/g)
K-40	4.	1460.83	2.1670E-01
FE-59	6.	1099.25	4.0768E-02
CO-60	1.	1332.50	1.0718E-02
SR-85	784.	514.00	1.5205E-01
RU-103	996.	497.05	1.8076E-01
RU-106	266.	621.92	1.0042E+00
CD-109	1322.	88.03	2.2281E+00
SB-125	1530.	427.88	6.0313E-01
CS-134	285.	604.72	1.0220E-01
CE-139	1480.	165.85	1.1097E-01
CE-141	1484.	145.44	1.7253E-01
CE-144	1465.	133.54	7.2095E-01
EU-152	2.	1408.01	7.5007E-02
EU-154	3.	1274.44	5.1561E-02
EU-155	1388.	105.31	3.5940E-01
HG-203	1308.	72.87	1.5745E+00
TH-228	1532.	238.58	2.6297E-01
U-235	1952.	185.74	2.0558E-01
U-238	2.	1001.00	1.9074E+00
AM-241	1141.	59.54	4.0083E-01

Pacific Northwest Laboratory

96

Gamma-Spectroscopy.....PNL-ALO-450

L 28845

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2982DUP Description : 126.28.F DUPLICATE

Pipet Nos.: #14

DF ---.1986 g → 100 ml --- 2(.99493 ml) --- --- ---

Pipet checks are recorded on labsheets by pipet number

Data Path: _____ Direct to customer _____ Hold for Radioanalytical

Storage Path: _____ Direct to A.L.O.

Analyst T G Poppe Date 3/13/96

Counting Information:

Detector: B-ASCP C-70% D-70% E-100% FOG (G-40%) H-40% I-LEPS J-LEPS K-60% N-NaI TRACK X-Well Y-Well

File: G0309

Sample size 0.9518E-3 g

Analyst T. Thomas Date 3/15/96

RT RB 2/21/96

Battelle / Pacific Northwest Laboratories
Analytical Chemistry Laboratory

21-FEB-1996 06:51:18.35
Gamma Energy Analysis (GEA)

Sample Title: 96-2985 /127.2A.F / TWRS / K28848

Config. File: DKA200:[USER.SCUSR.ARCHIVE]SMP_G0308.CNF;2
Analys. File: nd_sc_asf:COMMON.ASF

Effic. File : DKA200:[USER.SCUSR.EFF]EFF_G3GSV2MLW_N
Library File: nd_sc_lib:common.nlb

Backgnd File: DKA200:[USER.SCUSR.ARCHIVE]BKG_G.CNF;17 - 20-FEB-1996 12:29:46

Acquisition time : 20-FEB-1996 16:14:41
Sample (EOI) time: 20-FEB-1996 16:10:14
Elapsed live time: 0 01:00:00.00
Elapsed real time: 0 01:00:11.61 0.3%

Sample quantity: 3.86230E-03 g
Sample geometry: P3-GSV-2ML-W

Peak Search Sens.: 3.00000
Eng. Tol. (FWHM) : 0.75
Errors propagated: Yes
Abundance limit : 70.00

Half life ratio: 8.00
Systematic Erro: 1.30
WTM error limit: 3.00

Analyses by : PEAK V16.6 PEAKEFF V2.2 ENBACK V1.5 NID V3.2
WTMEAN V1.8 MINACT V2.5

Nuclide Line Activity Report

Nuclide Type: activation

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
CO-60	1173.24	99.97	3.585E-01	1.591E-02	1.591E-02	36.78	OK
	1332.50	99.99*	3.298E-01	2.044E-02	2.044E-02	22.58	OK
	Final Mean for 2 Valid Peaks = 1.870E-02+/- 3.623E-03 (19.37%)						

Nuclide Type: fission

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
CS-137	661.66	85.20*	5.574E-01	4.486E+01	4.486E+01	1.54	OK
	Final Mean for 1 Valid Peaks = 4.486E+01+/- 6.917E-01 (1.54%)						
EU-154	123.07	40.60	1.724E+00	2.039E-01	2.039E-01	18.75	OK
	247.93	6.91	1.173E+00	----- Line Not Found		-----	Absent
	582.01	0.89	6.160E-01	----- Line Not Found		-----	Absent
	591.76	4.96	6.082E-01	----- Line Not Found		-----	Absent
	692.42	1.79	5.379E-01	----- Line Not Found		-----	Absent
	723.30	20.11	5.194E-01	2.983E-01	2.983E-01	14.31	OK
	756.80	4.54	5.016E-01	2.658E-01	2.658E-01	46.70	OK
	873.19	12.20	4.477E-01	2.393E-01	2.393E-01	27.34	OK
	904.08	0.89	4.360E-01	----- Line Not Found		-----	Absent
	996.26	10.53	4.044E-01	2.228E-01	2.228E-01	30.65	OK

Nuclide Line Activity Report (continued)
Sample ID : 96-2985 /127.2 Acquisition date : 20-FEB-1996 16:14:41

Nuclide Type: fission

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
	1004.25	17.91	4.018E-01	3.031E-01	3.031E-01	13.02	OK
	1246.15	0.86	3.442E-01	----- Line Not Found		-----	Absent
	1274.44	35.00*	3.391E-01	2.261E-01	2.261E-01	10.13	OK
	1494.00	0.70	3.094E-01	----- Line Not Found		-----	Absent
	1596.49	1.79	3.003E-01	----- Line Not Found		-----	Absent
	Final Mean for 7 Valid Peaks = 2.445E-01+/- 1.526E-02 (6.24%)						
EU-155	60.01	1.13	8.228E-01	4.559E+00	4.559E+00	55.81	<<WM Interf
	86.54	30.85	1.578E+00	2.625E-01	2.625E-01	22.32	OK
	105.31	21.20*	1.729E+00	1.920E-01	1.920E-01	34.17	OK
	Final Mean for 2 Valid Peaks = 2.312E-01+/- 4.370E-02 (18.90%)						
AM-241	59.54	35.90*	8.228E-01	1.435E-01	1.435E-01	55.66	OK
	Final Mean for 1 Valid Peaks = 1.435E-01+/- 7.988E-02 (55.66%)						

Flag: "*" = Keyline

Report
Mean+2σ < .1435 + 2(.08) = .30 μCi/g
LRQ
2-26-96

Post-NID Peak Search Report
Sample ID : 96-2985 /127.2

Acquisition date : 20-FEB-1996 16:14:41

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity uCi/g
0	59.37	218	1.36	159.49	158	7	55.3		AM-241	0.144
									EU-155	4.56
0	86.65	658	1.60	232.20	228	9	22.0		EU-155	0.263
0	105.55	362	1.02	282.58	279	8	34.0		EU-155	0.192
0	123.15	734	1.01	329.51	325	9	18.6		EU-154	0.204
0	208.67	135	0.65	557.48	555	8	76.9			
0	270.13	54	1.00	721.33	720	8	160.7			
0	276.83	104	1.09	739.19	737	8	81.5			
0	330.32	89	0.58	881.78	873	12	120.7			
0	424.30	102	1.31	1132.38	1128	11	101.7			
0	509.33	32	0.66	1359.12	1351	10	223.2			
0	528.48	208	0.42	1410.18	1404	13	34.7			
0	645.93	29	3.48	1723.43	1711	14	170.9			
0	661.66	109600	1.76	1765.39	1752	24	0.3		CS-137	44.9
0	723.86	160	2.28	1931.30	1925	20	14.2		EU-154	0.298
0	756.67	31	1.37	2018.82	2012	13	46.7		EU-154	0.266
0	790.90	14	4.77	2110.11	2096	19	129.0			
0	874.11	67	2.10	2332.11	2319	20	27.3		EU-154	0.239
0	880.14	19	4.54	2348.19	2338	18	67.7			
0	910.88	21	1.41	2430.21	2420	16	52.0			
0	996.74	49	1.32	2659.29	2651	20	30.6		EU-154	0.223
0	1005.26	112	1.54	2682.03	2673	20	12.9		EU-154	0.303
0	1033.23	9	1.95	2756.65	2749	11	66.0			
0	1174.03	29	1.98	3132.39	3123	17	36.8		CO-60	1.591E-02
0	1274.79	138	1.57	3401.32	3391	19	10.0		EU-154	0.226
0	1332.45	35	2.94	3555.23	3545	19	22.5		CO-60	2.044E-02

Minimum Detectable Activity Report

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/g)
K-40	24.	1460.83	1.3276E-01
FE-59	26.	1099.25	2.1654E-02
SR-85	1867.	514.00	6.0022E-02
RU-103	2197.	497.05	6.8697E-02
RU-106	656.	621.92	4.0361E-01
CD-109	5941.	88.03	1.2081E+00
SB-125	3558.	427.88	2.3525E-01
CS-134	718.	604.72	4.1485E-02
CE-139	4386.	165.85	4.8865E-02
CE-141	4775.	145.44	7.9183E-02
CE-144	5014.	133.54	3.4119E-01
EU-152	13.	1408.01	4.8694E-02
HG-203	5621.	72.87	8.3521E-01
TH-228	3958.	238.58	1.0812E-01
U-235	5291.	185.74	8.6575E-02
U-238	75.	1001.00	2.9836E+00

Battelle / Pacific Northwest Laboratories — 16-FEB-1996 10:38:34.95
Analytical Chemistry Laboratory — Gamma Energy Analysis (GEA)

Sample Title: 96-2985 127.2A.F rect. TWRS/Silvers K28848

Config. File: DKA200:[USER.SCUSR.ARCHIVE]SMP_G0313.CNF;1
Analys. File: ND_SC_ASF:SST.asf

Effic. File : DKA200:[USER.SCUSR.EFF]EFF_G3GSV2MLW_N
Library File: nd_sc_lib:common.nlb

Backgnd File: DKA200:[USER.SCUSR.ARCHIVE]BKG_G0GSV10MLW.CNF;1 - 29-JAN-1996 12:

Acquisition time : 16-FEB-1996 06:46:39 — Sample quantity: 3.86230E-03 g
Sample (EOI) time: 16-FEB-1996 06:46:39 — Sample geometry: P3-GSV-2ML-W
Elapsed live time: 0 00:30:00.00
Elapsed real time: 0 00:30:05.71 0.3%

Peak Search Sens.: 3.00000
Eng. Tol. (FWHM) : 0.75 — Half life ratio: 8.00
Errors propagated: Yes — Systematic Erro: 1.30
Abundance limit : 70.00 — WTM error limit: 3.00

Analyses by : PEAK V16.6 PEAKEFF V2.2 ENBACK V1.5 NID V3.2
WTMEAN V1.8 MINACT V2.5

Nuclide Line Activity Report

Nuclide Type: fission

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
CS-137	661.66	85.20*	5.574E-01	4.461E+01	4.461E+01	1.57	OK
	Final Mean for 1 Valid Peaks = 4.461E+01+/- 7.017E-01 (1.57%)						
EU-154	123.07	40.60	1.724E+00	2.068E-01	2.068E-01	27.56	OK
	247.93	6.91	1.173E+00	----- Line Not Found		-----	Absent
	582.01	0.89	6.160E-01	----- Line Not Found		-----	Absent
	591.76	4.96	6.082E-01	----- Line Not Found		-----	Absent
	692.42	1.79	5.379E-01	----- Line Not Found		-----	Absent
	723.30	20.11	5.196E-01	2.934E-01	2.934E-01	13.84	OK
	756.80	4.54	5.014E-01	3.757E-01	3.757E-01	50.02	OK
	873.19	12.20	4.481E-01	3.559E-01	3.559E-01	17.98	OK
	904.08	0.89	4.360E-01	----- Line Not Found		-----	Absent
	996.26	10.53	4.046E-01	1.830E-01	1.830E-01	39.71	OK
	1004.25	17.91	4.017E-01	2.718E-01	2.718E-01	20.44	OK
	1246.15	0.86	3.442E-01	----- Line Not Found		-----	Absent
	1274.44	35.00*	3.391E-01	2.784E-01	2.784E-01	10.96	OK
	1494.00	0.70	3.094E-01	----- Line Not Found		-----	Absent
	1596.49	1.79	3.003E-01	----- Line Not Found		-----	Absent
	Final Mean for 7 Valid Peaks = 2.742E-01+/- 1.898E-02 (6.92%)						
EU-155	60.01	1.13	8.266E-01	3.683E+00	3.683E+00	83.30	<<WM Interf
	86.54	30.85	1.575E+00	2.630E-01	2.630E-01	31.03	OK

Nuclide Line Activity Report (continued)
Sample ID : 96-2985 127.2A Acquisition date : 16-FEB-1996 06:46:39

Nuclide Type: fission

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
	105.31	21.20*	1.728E+00	1.887E-01	1.887E-01	38.87	OK
	Final Mean for 2 Valid Peaks = 2.219E-01+/- 5.455E-02 (24.59%)						
AM-241	59.54	35.90*	8.266E-01	1.159E-01	1.159E-01	83.20	OK
	Final Mean for 1 Valid Peaks = 1.159E-01+/- 9.646E-02 (83.20%)						

Flag: "*" = Keyline

Post-NID Peak Search Report
Sample ID : 96-2985 127.2A

Acquisition date : 16-FEB-1996 06:46:39

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity uCi/g
0	59.46	88	0.98	159.74	157	6	83.0		AM-241	0.116
									EU-155	3.68
0	86.45	329	1.37	231.68	228	9	30.8		EU-155	0.263
0	105.32	178	1.04	281.97	279	6	38.8		EU-155	0.189
0	123.17	372	1.40	329.54	326	10	27.5		EU-154	0.207
0	260.70	94	1.26	696.19	693	7	59.4			
0	275.11	84	1.11	734.60	731	8	70.1			
0	501.23	40	0.46	1337.52	1333	10	131.2			
0	608.93*	44	1.86	1624.74	1620	12	77.5			
0	661.68	54499	1.76	1765.43	1752	24	0.4		CS-137	44.6
0	723.51	79	2.23	1930.36	1924	16	13.7		EU-154	0.293
0	757.08	22	4.43	2019.91	2009	18	50.0		EU-154	0.376
0	821.02	13	2.12	2190.48	2179	14	66.7			
0	872.98	50	2.00	2329.10	2321	14	17.9		EU-154	0.356
3	995.89	20	3.03	2657.02	2649	16	39.7	7.76E-01	EU-154	0.183
3	997.63	17	1.66	2661.66	2649	16	29.2			
0	1005.38	50	1.81	2682.35	2674	14	20.4		EU-154	0.272
0	1172.53	26	2.17	3128.38	3119	17	19.6			
0	1274.58	85	1.88	3400.74	3391	18	10.8		EU-154	0.278

Minimum Detectable Activity Report

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/g)
K-40	15.	1460.83	2.1005E-01
FE-59	15.	1099.25	3.2980E-02
CO-60	20.	1332.50	2.4521E-02
SR-85	978.	514.00	8.6881E-02
RU-103	1144.	497.05	9.9100E-02
RU-106	329.	621.92	5.7186E-01
CD-109	2903.	88.03	1.6890E+00
SB-125	1812.	427.88	3.3578E-01
CS-134	377.	604.72	6.0119E-02
CE-139	2148.	165.85	6.8392E-02
CE-141	2238.	145.44	1.0840E-01
CE-144	2445.	133.54	4.7643E-01
EU-152	8.	1408.01	7.6745E-02
HG-203	2750.	72.87	1.1682E+00
TH-228	1930.	238.58	1.5099E-01
U-235	2789.	185.74	1.2571E-01
U-238	32.	1001.00	3.8780E+00

Pacific Northwest Laboratory

96

Gamma-Spectroscopy.....PNL-ALO-450

K28848

Customer : TWRS/SILVERS Date Received : 02/ 15/ 96 Work order : K36499 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2985 Description : 127.2A.F

Pipet Nos.: #14

DF ---.1941 g → 100 ml --- 2(.99492) ml --- --- ---

Pipet checks are recorded on labsheets by pipet number

Data Path: _____ Direct to customer _____ Hold for Radioanalytical

Storage Path: _____ Direct to A.L.O.

Analyst [signature] Date 2/15/96

Counting Information:

Detector: B-ASCP C-70% D-70% E-100% FOG G-40% H-40% I-LEPS J-LEPS K-60% N-NaI TRACK X-Well Y-Well

File: G0310

sample size

3.8623E-3g

Analyst [signature] Date 2/15/96

DATE TO QC: 02/28/96

DATA QUALITY REVIEW

I have reviewed the following data for completeness and for compliance with project requirements.

Analyte - GEA

Data Package/Report - BX-104

Project No. - 22762

ACL Numbers - 96-2980, 96-2986

PNL ACL Quality Representative

2/28/96
Date

BX104 Gamma Energy Analyses

[See narrative for Total Alpha for description of sample preps.]

Gamma Energy Analyses

Homogenization testing was performed on Segment 2B from Core 126 and Segment 2A from Core 127. For this testing, duplicates from the top and bottom of each segment were prepared and analyzed in two batches.

Core 126 Segment 2B samples showed only ^{137}Cs present at detectable levels. Core 127 Segment 2A samples showed ^{137}Cs, ^{154}Eu and ^{155}Eu in all samples. ^{60}Co was detected in three of four samples, and ^{241}Am was detected in two of four samples.

All calculable RPDs fell less than the 20% criteria indicating satisfactory homogenization.

Process blank contamination was noted for ^{134}Cs and ^{137}Cs. No ^{134}Cs was detectable in the samples. ^{137}Cs in the process blanks fell well below that present in the samples. The impact on results is therefore negligible.

L R Greenwood
3-18-96

RT R
3/18/96

Tank 241-BX-104 Cores 126,127 Gamma Energy Analyses

ALO #	CORE ID	Co-60 uCi/g	+/-% Error	Cs-134 uCi/g	+/-% Error	Cs-137 uCi/g	+/-% Error	Eu-154 uCi/g	+/-% Error	Eu-155 uCi/g	+/-% Error	Am-241 uCi/g	+/-% Error
96-2979BLK	PROCESS BLANK	<3.E-3		6.40E-03	17%	8.25E-01	2%	<1.E-2		<2.E-2		1.84E-02	30%
96-2982	126.2B.F	<2.E-2		<9.E-2		7.35E+01	2%	<5.E-2		<3.E-1		<4.E-1	
96-2982DUP	126.2B.F DUP	<2.E-2		<6.E-2		7.79E+01	2%	<5.E-2		<2.E-1		<3.E-1	
	RPD					5.8%							
96-2985	127.2A.F	1.87E-02	20%	<5.E-2		4.49E+01	2%	2.45E-01	7%	2.31E-01	19%	<3.E-1	
96-2985DUP	127.2A.F DUP	1.78E-02	19%	<4.E-2		4.71E+01	2%	2.78E-01	6%	2.53E-01	17%	3.29E-01	23%
	RPD	4.9%				4.8%		12.6%		9.1%			
Note:	Reference dates: 02/15-20/1996 for above samples.												
96-2980BLK	PROCESS BLANK	<4.E-3		<4.E-3		1.45E-01	4%	<2.E-2		<1.E-2		<2.E-2	
96-2980	126.2BH.F	<2.E-2		<5.E-2		6.47E+01	2%	<4.E-2		<2.E-1		<2.E-1	
96-2980DUP	126.2BH.F DUP	<2.E-2		<5.E-2		7.60E+01	2%	<5.E-2		<2.E-1		<2.E-1	
	RPD					16.0%							
96-2986	127.2AH.F	2.21E-02	17%	<5.E-2		4.68E+01	2%	2.58E-01	7%	2.06E-01	22%	<4E-1	
96-2986DUP	127.2AH.F DUP	<2.E-2		<5.E-2		5.15E+01	2%	2.88E-01	6%	2.42E-01	18%	3.45E-01	27%
	RPD					9.5%		11.0%		16.1%			
Note:	Reference date: 02/23/1996 for above samples.												

L R Greenwood 2-27-96
R T Ras 2/27/96

Battelle Pacific Northwest Laboratories
Analytical Chemistry Laboratory
325 Shielded Analytical Laboratory

SAMPLE PREP SHEET
(325 SHIELDED ANALYTICAL LABORATORY)

TI NO.: TI96-PM-08/ASR 2822 PROJECT NO.: 22762 WBS NO.: _____ SAMPLE TYPE: SLUDGE

ISSUED BY: Rick T. Steele DATE: 2/15/96 PREP TYPE: NI/KOH FUSION

ANALYST: [signature] DATE: 2/22/96 CONTROLLING PROCEDURE: PNL-ALO-010

REVIEW: [signature] DATE: 2/22/96 QA PLAN: MCS 033 IMPACT LEVEL: II

CORE ID: 126/127 TANK ID: BX104

WORK PACKAGE NUMBER	ALO NUMBER	SAMPLE IDENTIFICATION	ANALYTE OR ANALYSIS	SAMPLE WT g	WATER WT (g)	TOTAL VOL (mL)	SPIKE ID	SPIKE VOL (mL)	DILUTION FACTOR	DILUTION MATRIX	PIPET CALIB (mL)	ORDER NUMBER
K28848	96-02980-BLK	PROCESS BLANK	GEA ASM	–		100						
	96-02980	126.2BH.F	ASM	0.2037		↓						39124
	96-02980-DUP	126.2BH.F	ASM	0.2202								
	96-02986	127.2AH.F	ASM	0.1858								39125
	96-02986-DUP	127.2AH.F	ASM	0.1990								

REQUIRED PROCEDURE(S) BY ANALYTE:
GEA PNL-ALO-450

you received 5 mg straight

PAGE 1 OF 1

2-1519

WHC-SD-WM-DP-171, REV. 1

RT RS 2/26/96

Battelle / Pacific Northwest Laboratories
Analytical Chemistry Laboratory

23-FEB-1996 18:28:41.49
Gamma Energy Analysis (GEA)

Sample Title: 96-2980Blk Process Blank TWRS K28848

Config. File: DKA200:[USER.SCUSR.ARCHIVE]SMP_G0330.CNF;1
Analys. File: ND_SC_ASF:COMMON.ASF

Effic. File : DKA200:[USER.SCUSR.EFF]EFF_G3GSV2MLW_N
Library File: nd_sc_lib:common.nlb

Backgnd File: DKA200:[USER.SCUSR.ARCHIVE]BKG_G.CNF;17 - 20-FEB-1996 12:29:46

Acquisition time : 23-FEB-1996 13:28:33
Sample (EOI) time: 23-FEB-1996 13:28:33
Elapsed live time: 0 05:00:00.00
Elapsed real time: 0 05:00:01.98 0.0%

Sample quantity: 4.22000E-03 g
Sample geometry: P3-GSV-2ML-W

Peak Search Sens.: 5.00000
Eng. Tol. (FWHM) : 0.75
Errors propagated: Yes
Abundance limit : 70.00

Half life ratio: 8.00
Systematic Erro: 1.30
WTM error limit: 3.00

Analyses by : PEAK V16.6 PEAKEFF V2.2 ENBACK V1.5 NID V3.2
WTMEAN V1.8 MINACT V2.5

Nuclide Line Activity Report

Nuclide Type: natural

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
K-40	1460.83	10.67*	3.129E-01	4.102E-02	4.102E-02	72.12	OK

Final Mean for 1 Valid Peaks = 4.102E-02+/- 2.958E-02 (72.12%)

Nuclide Type: fission

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
CS-137	661.66	85.20*	5.575E-01	1.448E-01	1.448E-01	3.02	OK

Final Mean for 1 Valid Peaks = 1.448E-01+/- 4.375E-03 (3.02%)

Flag: "*" = Keyline

Post-NID Peak Search Report
Sample ID : 96-2980Blk Pro

Acquisition date : 23-FEB-1996 13:28:33

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity uCi/g
0	559.61*	2	1.03	1493.22	1481	19	*****			
0	661.61	1932	1.68	1765.26	1753	21	2.6		CS-137	0.145
0	1460.98*	38	1.68	3898.31	3887	22	72.1		K-40	4.102E-02

Minimum Detectable Activity Report

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/g)
FE-59	55.	1099.25	5.8090E-03
CO-60	46.	1332.50	3.4130E-03
SR-85	311.	514.00	4.4909E-03
RU-103	168.	497.05	3.4789E-03
RU-106	107.	621.92	2.9873E-02
CD-109	493.	88.03	6.3713E-02
SB-125	228.	427.88	1.0907E-02
CS-134	122.	604.72	3.1247E-03
CE-139	605.	165.85	3.3240E-03
CE-141	640.	145.44	5.3142E-03
CE-144	586.	133.54	2.1359E-02
EU-152	36.	1408.01	1.4876E-02
EU-154	54.	1274.44	1.0227E-02
EU-155	489.	105.31	9.9840E-03
HG-203	493.	72.87	4.5330E-02
TH-228	573.	238.58	7.5305E-03
U-235	706.	185.74	5.7896E-03
U-238	58.	1001.00	4.8028E-01
AM-241	338.	59.54	1.0210E-02

Pacific Northwest Laboratory

Gamma-Spectroscopy.....PNL-ALO-450

Customer : TWRS Date Received : 02/ 22/ 96 Work order : K28848 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2980BLK Description : PROCESS BLANK

Pipet Nos.: Kap 2/22/96

DF ---2/.994--- ---.21195 $\bar{x}$ 2 S --> 100 ml --- 2(.99492 ml) --- #14

Pipet checks are recorded on labsheets by pipet number

Data Path: _____ Direct to customer _____ Hold for Radioanalytical

Storage Path: _____ Direct to A.L.O.

Analyst Ka Pappel Date 2/22/96

Counting Information:

Detector: B-ASCP C-70% D-70% E-100% FOG G-40% H-40% I-LEPS J-LEPS K-60% N-NaI TRACK X-Well Y-Well

File: G0330

4.22E-3 g

Sample size

Analyst K. Thomas Date 2.23.96

RT RS 2/26/96

Battelle / Pacific Northwest Laboratories
Analytical Chemistry Laboratory

23-FEB-1996 09:59:46.96
Gamma Energy Analysis (GEA)

Sample Title: 96-2980 126.2BH.F TWRS K28848

Config. File: DKA200:[USER.SCUSR.ARCHIVE]SMP_G0326.CNF;1
Analys. File: ND_SC_ASF:COMMON.ASF

Effic. File : DKA200:[USER.SCUSR.EFF]EFF_G3GSV2MLW_N ✓
Library File: nd_sc_lib:common.nlb

Backgnd File: DKA200:[USER.SCUSR.ARCHIVE]BKG_G.CNF;17 - 20-FEB-1996 12:29:46

Acquisition time : 23-FEB-1996 08:59:21
Sample (EOI) time: 23-FEB-1996 08:59:21
Elapsed live time: 0 01:00:00.00
Elapsed real time: 0 01:00:13.91 0.4%

Sample quantity: 4.05000E-03 g ✓
Sample geometry: P3-GSV-2ML-W ✓

Peak Search Sens.: 5.00000
Eng. Tol. (FWHM) : 0.75
Errors propagated: Yes
Abundance limit : 70.00

Half life ratio: 8.00
Systematic Erro: 1.30
WTM error limit: 3.00

Analyses by : PEAK V16.6 PEAKEFF V2.2 ENBACK V1.5 NID V3.2
WTMEAN V1.8 MINACT V2.5

Nuclide Line Activity Report

Nuclide Type: fission

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
CS-137	661.66	85.20*	5.574E-01	6.473E+01	6.473E+01	1.53	OK

Final Mean for 1 Valid Peaks = 6.473E+01+/- 9.915E-01 (1.53%)

Flag: "*" = Keyline

Post-NID Peak Search Report
Sample ID : 96-2980 126.2B

Acquisition date : 23-FEB-1996 08:59:21

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity uCi/g
0	661.68	165839	1.79	1765.44	1752	26	0.3		CS-137	64.7
0	872.98	22	1.39	2329.09	2323	12	26.6			

Minimum Detectable Activity Report

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/g)
K-40	33.	1460.83	1.4830E-01
FE-59	20.	1099.25	1.8161E-02
CO-60	25.	1332.50	1.3094E-02
SR-85	2675.	514.00	6.8520E-02
RU-103	3213.	497.05	7.9220E-02
RU-106	922.	621.92	4.5638E-01
CD-109	4716.	88.03	1.0265E+00
SB-125	5190.	427.88	2.7094E-01
CS-134	982.	604.72	4.6268E-02
CE-139	4985.	165.85	4.9680E-02
CE-141	5198.	145.44	7.8787E-02
CE-144	5069.	133.54	3.2714E-01
EU-152	9.	1408.01	3.8303E-02
EU-154	22.	1274.44	3.4131E-02
EU-155	4784.	105.31	1.6276E-01
HG-203	4538.	72.87	7.1560E-01
TH-228	5229.	238.58	1.1852E-01
U-235	6705.	185.74	9.2941E-02
U-238	18.	1001.00	1.3875E+00
AM-241	4323.	59.54	1.9031E-01

Pacific Northwest Laboratory

Gamma-Spectroscopy.....PNL-ALO-450

Customer : TWRS Date Received : 02/ 22/ 96 Work order : K28848 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2980 Description : 126.2BH.F

Pipet Nos.:

DF --- .2037 g → 100 ml --- 2(.99492 ml) #14 --- --- ---

Pipet checks are recorded on labsheets by pipet number

Data Path: _____ Direct to customer _____ Hold for Radioanalytical

Storage Path: _____ Direct to A.L.O.

Analyst [signature] Date 2/22/96

Counting Information:

Detector: B-ASCP C-70% D-70% E-100% FOG G-40% H-40% I-LEPS J-LEPS K-60% N-NaI TRACK X-Well Y-Well

File: G 0326

4.05 E-3 g
Sample size

Analyst T Trang-le Date 2/23/96

RT RS 2/26/96

Battelle / Pacific Northwest Laboratories
Analytical Chemistry Laboratory

23-FEB-1996 11:07:06.79
Gamma Energy Analysis (GEA)

Sample Title: 96-2980Dup 126.2BH.F Duplicate TWRS K28848

Config. File: DKA200:[USER.SCUSR.ARCHIVE]SMP_G0327.CNF;1
Analys. File: ND_SC_ASF:COMMON.ASF

Effic. File : DKA200:[USER.SCUSR.EFF]EFF_G3GSV2MLW_N
Library File: nd_sc_lib:common.nlb

Backgnd File: DKA200:[USER.SCUSR.ARCHIVE]BKG_G.CNF;17 - 20-FEB-1996 12:29:46

Acquisition time : 23-FEB-1996 10:06:38
Sample (EOI) time: 23-FEB-1996 10:06:36
Elapsed live time: 0 01:00:00.00
Elapsed real time: 0 01:00:17.57 0.5%

Sample quantity: 4.38160E-03 g
Sample geometry: P3-GSV-2ML-W

Peak Search Sens.: 5.00000
Eng. Tol. (FWHM) : 0.75
Errors propagated: Yes
Abundance limit : 70.00

Half life ratio: 8.00
Systematic Erro: 1.30
WTM error limit: 3.00

Analyses by : PEAK V16.6 PEAKEFF V2.2 ENBACK V1.5 NID V3.2
WTMEAN V1.8 MINACT V2.5

Nuclide Line Activity Report

Nuclide Type: fission

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
CS-137	661.66	85.20*	5.574E-01	7.595E+01	7.595E+01	1.53	OK

Final Mean for 1 Valid Peaks = 7.595E+01+/- 1.160E+00 (1.53%)

Flag: "*" = Keyline

Post-NID Peak Search Report
Sample ID : 96-2980Dup 126 Acquisition date : 23-FEB-1996 10:06:38

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity uCi/g
0	661.69	210515	1.78	1765.48	1753	24	0.2		CS-137	75.9

Minimum Detectable Activity Report

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/g)
K-40	22.	1460.83	1.1241E-01
FE-59	13.	1099.25	1.3602E-02
CO-60	36.	1332.50	1.4592E-02
SR-85	3244.	514.00	6.9740E-02
RU-103	4039.	497.05	8.2096E-02
RU-106	1177.	621.92	4.7670E-01
CD-109	6054.	88.03	1.0750E+00
SB-125	6659.	427.88	2.8368E-01
CS-134	1289.	604.72	4.9001E-02
CE-139	6406.	165.85	5.2054E-02
CE-141	6483.	145.44	8.1327E-02
CE-144	6590.	133.54	3.4477E-01
EU-152	16.	1408.01	4.7835E-02
EU-154	40.	1274.44	4.2361E-02
EU-155	6104.	105.31	1.6993E-01
HG-203	5787.	72.87	7.4695E-01
TH-228	6464.	238.58	1.2180E-01
U-235	8481.	185.74	9.6617E-02
U-238	32.	1001.00	1.7183E+00
AM-241	5340.	59.54	1.9550E-01

Pacific Northwest Laboratory

96

Gamma-Spectroscopy.....PNL-ALO-450

Customer : TWRS Date Received : 02/ 22/ 96 Work order : K28848 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2980DUP Description : 126.2BH.F DUPLICATE

Pipet Nos.:

DF ---. 2202 → 100 --- 2(.99492) --- --- ---

g ml ml

Pipet checks are recorded on labsheets by pipet number

Data Path: _____ Direct to customer _____ Hold for Radioanalytical

Storage Path: _____ Direct to A.L.O.

Analyst [signature] Date 2/22/96

Counting Information:

Detector: B-ASCP C-70% D-70% E-100% FOG G-40% H-40% I-LEPS J-LEPS K-60% N-NaI TRACK X-Well Y-Well

File: G0327

TIU 2/23/96 6.59E-3 g

4.3816e-3 g

Sample size

Analyst [signature] Date 2/23/96

RI R 2/26/96

Battelle / Pacific Northwest Laboratories
Analytical Chemistry Laboratory

26-FEB-1996 11:00:18.74
Gamma Energy Analysis (GEA)

Sample Title: 96-2986 127.2AH.F TWS K28848

Config. File: DKA200:[USER.SCUSR.ARCHIVE]SMP_G0328.CNF;1
Analys. File: ND_SC_ASF:COMMON.ASF

Effic. File : DKA200:[USER.SCUSR.EFF]EFF_G3GSV2MLW_N
Library File: nd_sc_lib:common.nlb

Backgnd File: DKA200:[USER.SCUSR.ARCHIVE]BKG_G.CNF;17 - 20-FEB-1996 12:29:46

Acquisition time : 23-FEB-1996 11:16:18 Sample quantity: 3.69700E-03 g
Sample (EOI) time: 23-FEB-1996 11:16:17 Sample geometry: P3-GSV-2ML-W
Elapsed live time: 0 01:00:00.00
Elapsed real time: 0 01:00:11.41 0.3%

Peak Search Sens.: 3.00000
Eng. Tol. (FWHM) : 0.75 Half life ratio: 8.00
Errors propagated: Yes Systematic Erro: 1.30
Abundance limit : 70.00 WTM error limit: 3.00

Analyses by : PEAK V16.6 PEAKEFF V2.2 ENBACK V1.5 NID V3.2
WTMEAN V1.8 MINACT V2.5

Nuclide Line Activity Report

Nuclide Type: activation

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
CO-60	1173.24	99.97	3.585E-01	2.643E-02	2.643E-02	19.46	OK
	1332.50	99.99*	3.297E-01	1.766E-02	1.766E-02	29.65	OK
	Final Mean for 2 Valid Peaks = 2.212E-02+/- 3.669E-03 (16.58%)						

Nuclide Type: fission

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
CS-137	661.66	85.20*	5.574E-01	4.679E+01	4.679E+01	1.54	OK
	Final Mean for 1 Valid Peaks = 4.679E+01+/- 7.217E-01 (1.54%)						
EU-154	123.07	40.60	1.724E+00	2.206E-01	2.206E-01	19.35	OK
	247.93	6.91	1.172E+00	5.172E-01	5.172E-01	43.61	OK
	582.01	0.89	6.160E-01	----- Line Not Found		-----	Absent
	591.76	4.96	6.082E-01	----- Line Not Found		-----	Absent
	692.42	1.79	5.379E-01	----- Line Not Found		-----	Absent
	723.30	20.11	5.197E-01	2.913E-01	2.913E-01	13.14	OK
	756.80	4.54	5.018E-01	2.591E-01	2.591E-01	53.43	OK
	873.19	12.20	4.481E-01	2.378E-01	2.378E-01	25.43	OK
	904.08	0.89	4.360E-01	----- Line Not Found		-----	Absent
	996.26	10.53	4.043E-01	2.724E-01	2.724E-01	19.63	OK

Nuclide Line Activity Report (continued) Page : 2
Sample ID : 96-2986 127.2A Acquisition date : 23-FEB-1996 11:16:18

Nuclide Type: fission

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
	1004.25	17.91	4.018E-01	3.012E-01	3.012E-01	16.58	OK
	1246.15	0.86	3.442E-01	----- Line Not Found		-----	Absent
	1274.44	35.00*	3.391E-01	2.406E-01	2.406E-01	10.80	OK
	1494.00	0.70	3.094E-01	----- Line Not Found		-----	Absent
	1596.49	1.79	3.003E-01	----- Line Not Found		-----	Absent
	Final Mean for 8 Valid Peaks = 2.576E-01+/- 1.620E-02 (6.29%)						
EU-155	60.01	1.13	8.337E-01	3.838E+00	3.838E+00	59.32	<<WM Interf
	86.54	30.85	1.576E+00	2.237E-01	2.237E-01	27.15	OK
	105.31	21.20*	1.728E+00	1.880E-01	1.880E-01	33.06	OK
	Final Mean for 2 Valid Peaks = 2.062E-01+/- 4.343E-02 (21.06%)						
AM-241	59.54	35.90*	8.337E-01	1.208E-01	1.208E-01	59.18	OK
	Final Mean for 1 Valid Peaks = 1.208E-01+/- 7.149E-02 (59.18%)						

Flag: "*" = Keyline

corrected: 1.14E-1 (59.2%)
for ^{155}Eu interference
YRR 2-27-96

Report as < mean + 3σ due to large error
< 0.34E-0 μCi/g
YRR 2-27-96

Post-NID Peak Search Report
Sample ID : 96-2986 127.2A

Acquisition date : 23-FEB-1996 11:16:18

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity uCi/g
0	59.64	178	0.48	160.22	159	6	58.9		AM-241	0.121
									EU-155	3.84
0	86.51	536	1.06	231.82	228	9	26.9		EU-155	0.224
0	105.48	339	1.18	282.39	279	7	32.9		EU-155	0.188
0	123.15	760	1.11	329.50	325	10	19.2		EU-154	0.221
0	142.85	119	1.01	382.02	379	8	91.5			
0	185.48*	103	1.23	495.65	493	8	110.0			
0	248.29	206	0.98	663.08	660	8	43.6		EU-154	0.517
0	267.46	86	0.70	714.20	712	8	100.8			
0	345.69	35	0.47	922.77	917	9	237.3			
0	377.97	85	1.64	1008.85	1004	10	105.4			
0	511.50*	47	1.61	1364.90	1356	13	188.2			
0	627.11	44	0.46	1673.24	1667	11	92.8			
0	661.69	109423	1.77	1765.47	1753	24	0.3		CS-137	46.8
0	700.95	15	1.02	1870.17	1865	9	69.0			
0	723.34	150	1.72	1929.90	1922	15	13.0		EU-154	0.291
9	752.20*	19	4.37	2006.89	2005	21	36.5	4.75E+00		
9	756.37	29	2.04	2018.00	2005	21	53.4		EU-154	0.259
9	757.93	16	1.41	2022.16	2005	21	53.0			
0	803.62	15	3.58	2144.06	2137	15	78.2			
0	836.91	12	0.93	2232.86	2220	15	90.8			
0	873.21	64	1.46	2329.72	2321	16	25.4		EU-154	0.238
0	996.99	57	1.16	2659.95	2653	13	19.6		EU-154	0.272
0	1005.16	107	1.80	2681.77	2669	23	16.5		EU-154	0.301
0	1173.81	47	1.95	3131.80	3123	15	19.4		CO-60	2.643E-02
0	1274.69	141	2.47	3401.05	3390	18	10.7		EU-154	0.241
0	1332.83	29	2.19	3556.23	3546	17	29.6		CO-60	1.766E-02

Minimum Detectable Activity Report

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/g)
K-40	35.	1460.83	1.6802E-01
FE-59	31.	1099.25	2.4741E-02
SR-85	1926.	514.00	6.3687E-02
RU-103	2183.	497.05	7.1540E-02
RU-106	675.	621.92	4.2787E-01
CD-109	5830.	88.03	1.2502E+00
SB-125	3583.	427.88	2.4663E-01
CS-134	702.	604.72	4.2868E-02
CE-139	4285.	165.85	5.0459E-02
CE-141	4531.	145.44	8.0578E-02
CE-144	4975.	133.54	3.5503E-01
EU-152	9.	1408.01	4.2520E-02
HG-203	5546.	72.87	8.6667E-01
TH-228	3860.	238.58	1.1155E-01
U-235	5285.	185.74	9.0391E-02
U-238	77.	1001.00	3.1628E+00

```
%PSM-E-OPENIN, error opening _BATEL2$DKA200:[USER]OUT.LIS;1 as input
-RMS-E-FNF, file not found
```

Battelle / Pacific Northwest Laboratories 23-FEB-1996 12:16:40.09
Analytical Chemistry Laboratory Gamma Energy Analysis (GEA)

Sample Title: 96-2986 127.2AH.F TWS K28848

Config. File: DKA200:[USER.SCUSR.ARCHIVE]SMP_G0328.CNF;1
Analys. File: ND_SC_ASF:COMMON.ASF

Effic. File : DKA200:[USER.SCUSR.EFF]EFF_G3GSV2MLW_N
Library File: nd_sc_lib:common.nlb

Backgnd File: DKA200:[USER.SCUSR.ARCHIVE]BKG_G.CNF;17 - 20-FEB-1996 12:29:46

Acquisition time : 23-FEB-1996 11:16:18 Sample quantity: 3.69700E-03 g
Sample (EOI) time: 23-FEB-1996 11:16:17 Sample geometry: P3-GSV-2ML-W
Elapsed live time: 0 01:00:00.00
Elapsed real time: 0 01:00:11.41 0.3%

Peak Search Sens.: 5.00000
Eng. Tol. (FWHM) : 0.75 Half life ratio: 8.00
Errors propagated: Yes Systematic Erro: 1.30
Abundance limit : 70.00 WTM error limit: 3.00

Analyses by : PEAK V16.6 PEAKEFF V2.2 ENBACK V1.5 NID V3.2
WTMEAN V1.8 MINACT V2.5

Nuclide Line Activity Report

Nuclide Type: fission

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
CS-137	661.66	85.20*	5.574E-01	4.679E+01	4.679E+01	1.54	OK
	Final Mean for 1 Valid Peaks = 4.679E+01+/- 7.217E-01 (1.54%)						
EU-154	123.07	40.60	1.724E+00	2.206E-01	2.206E-01	19.35	OK
	247.93	6.91	1.173E+00	----- Line Not Found		-----	Absent
	582.01	0.89	6.160E-01	----- Line Not Found		-----	Absent
	591.76	4.96	6.082E-01	----- Line Not Found		-----	Absent
	692.42	1.79	5.379E-01	----- Line Not Found		-----	Absent
	723.30	20.11	5.197E-01	2.913E-01	2.913E-01	13.14	OK
	756.80	4.54	5.015E-01	----- Line Not Found		-----	Absent
	873.19	12.20	4.481E-01	2.378E-01	2.378E-01	25.43	OK
	904.08	0.89	4.360E-01	----- Line Not Found		-----	Absent
	996.26	10.53	4.043E-01	2.724E-01	2.724E-01	19.63	OK
	1004.25	17.91	4.018E-01	3.014E-01	3.014E-01	16.11	OK
	1246.15	0.86	3.442E-01	----- Line Not Found		-----	Absent
	1274.44	35.00*	3.391E-01	2.524E-01	2.524E-01	10.32	OK
	1494.00	0.70	3.094E-01	----- Line Not Found		-----	Absent
	1596.49	1.79	3.003E-01	----- Line Not Found		-----	Absent
	Final Mean for 6 Valid Peaks = 2.611E-01+/- 1.632E-02 (6.25%)						
EU-155	60.01	1.13	8.481E-01	----- Line Not Found		-----	Absent
	86.54	30.85	1.576E+00	2.237E-01	2.237E-01	27.15	OK

Nuclide Line Activity Report (continued) Page : 2
Sample ID : 96-2986 127.2A Acquisition date : 23-FEB-1996 11:16:18

Nuclide Type: fission

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
	105.31	21.20*	1.728E+00	1.834E-01	1.834E-01	37.68	OK

Final Mean for 2 Valid Peaks = 2.062E-01+/- 4.562E-02 (22.13%)

Flag: "*" = Keyline

Post-NID Peak Search Report
Sample ID : 96-2986 127.2A Acquisition date : 23-FEB-1996 11:16:18

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity uCi/g
0	86.51	536	1.06	231.82	228	9	26.9		EU-155	0.224
0	105.53	331	1.16	282.53	279	8	37.6		EU-155	0.183
0	123.15	760	1.11	329.50	325	10	19.2		EU-154	0.221
0	661.69	109423	1.77	1765.47	1753	24	0.3		CS-137	46.8
0	723.34	150	1.72	1929.90	1922	15	13.0		EU-154	0.291
0	873.21	64	1.46	2329.72	2321	16	25.4		EU-154	0.238
0	996.99	57	1.16	2659.95	2653	13	19.6		EU-154	0.272
0	1005.10	107	1.80	2681.61	2671	22	16.0		EU-154	0.301
0	1173.81	47	1.95	3131.80	3123	15	19.4			
0	1274.73	148	2.48	3401.15	3390	21	10.2		EU-154	0.252

Minimum Detectable Activity Report

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/g)
K-40	35.	1460.83	1.6802E-01
FE-59	31.	1099.25	2.4741E-02
CO-60	42.	1332.50	1.8580E-02
SR-85	1926.	514.00	6.3687E-02
RU-103	2183.	497.05	7.1540E-02
RU-106	675.	621.92	4.2787E-01
CD-109	5830.	88.03	1.2502E+00
SB-125	3583.	427.88	2.4663E-01
CS-134	702.	604.72	4.2858E-02
CE-139	4285.	165.85	5.0459E-02
CE-141	4531.	145.44	8.0578E-02
CE-144	4975.	133.54	3.5503E-01
EU-152	9.	1408.01	4.2520E-02
HG-203	5546.	72.87	8.6667E-01
TH-228	3860.	238.58	1.1155E-01
U-235	5285.	185.74	9.0391E-02
U-238	77.	1001.00	3.1628E+00
AM-241	5385.	59.54	2.3269E-01

Pacific Northwest Laboratory

Gamma-Spectroscopy.....PNL-ALO-450

Customer : TWRS Date Received : 02/ 22/ 96 Work order : K28848 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2986 Description : 127.2AH.F

Pipet Nos.:

DF --- .1858 g → 100 ml --- 2(.99493) ml --- --- ---

Pipet checks are recorded on labsheets by pipet number

Data Path: _____ Direct to customer _____ Hold for Radioanalytical

Storage Path: _____ Direct to A.L.O.

Analyst [signature] Date 2/22/96

Counting Information:

Detector: B-ASCP C-70% D-70% E-100% FOG G-40% H-40% I-LEPS J-LEPS K-60% N-NaI TRACK X-Well Y-Well

File: G0328

3.697E-3 g
Sample size

Analyst [signature] Date 2/23/96

RT RS 2/26/92

Battelle / Pacific Northwest Laboratories — 23-FEB-1996 13:25:04.84
Analytical Chemistry Laboratory — Gamma Energy Analysis (GEA)

Sample Title: 96-2986Dup 127.2AH.F Duplicate TWRS K28848

Config. File: DKA200:[USER.SCUSR.ARCHIVE]SMP_G0329.CNF;1
Analys. File: ND_SC_ASF:COMMON.ASF

Effic. File : DKA200:[USER.SCUSR.EFF]EFF_G3GSV2MLW_N
Library File: nd_sc_lib:common.nlb

Backgnd File: DKA200:[USER.SCUSR.ARCHIVE]BKG_G.CNF;17 - 20-FEB-1996 12:29:46

Acquisition time : 23-FEB-1996 12:24:39 — Sample quantity: 3.96000E-03 g
Sample (EOI) time: 23-FEB-1996 12:24:38 — Sample geometry: P3-GSV-2ML-W
Elapsed live time: 0 01:00:00.00
Elapsed real time: 0 01:00:13.38 0.4%

Peak Search Sens.: 5.00000
Eng. Tol. (FWHM) : 0.75 — Half life ratio: 8.00
Errors propagated: Yes — Systematic Erro: 1.30
Abundance limit : 70.00 — WTM error limit: 3.00

Analyses by : PEAK V16.6 PEAKEFF V2.2 ENBACK V1.5 NID V3.2
WTMEAN V1.8 MINACT V2.5

Nuclide Line Activity Report

Nuclide Type: fission

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
CS-137	661.66	85.20*	5.574E-01	5.146E+01	5.146E+01	1.54	OK
	Final Mean for 1 Valid Peaks =			5.146E+01+/- 7.912E-01 (1.54%)			
EU-154	123.07	40.60	1.724E+00	2.715E-01	2.715E-01	14.72	OK
	247.93	6.91	1.173E+00	----- Line Not Found		-----	Absent
	582.01	0.89	6.160E-01	----- Line Not Found		-----	Absent
	591.76	4.96	6.082E-01	----- Line Not Found		-----	Absent
	692.42	1.79	5.379E-01	----- Line Not Found		-----	Absent
	723.30	20.11	5.195E-01	3.083E-01	3.083E-01	16.63	OK
	756.80	4.54	5.015E-01	----- Line Not Found		-----	Absent
	873.19	12.20	4.481E-01	2.888E-01	2.888E-01	20.12	OK
	904.08	0.89	4.360E-01	----- Line Not Found		-----	Absent
	996.26	10.53	4.045E-01	3.108E-01	3.108E-01	14.82	OK
	1004.25	17.91	4.019E-01	3.212E-01	3.212E-01	12.82	OK
	1246.15	0.86	3.442E-01	----- Line Not Found		-----	Absent
	1274.44	35.00*	3.392E-01	2.724E-01	2.724E-01	8.86	OK
	1494.00	0.70	3.094E-01	----- Line Not Found		-----	Absent
	1596.49	1.79	3.003E-01	----- Line Not Found		-----	Absent
	Final Mean for 6 Valid Peaks =			2.883E-01+/- 1.565E-02 (5.43%)			
EU-155	60.01	1.13	8.263E-01	1.119E+01	1.119E+01	26.40	<<WM Interf
	86.54	30.85	1.578E+00	2.366E-01	2.366E-01	23.75	OK

Nuclide Line Activity Report (continued) Page : 2
Sample ID : 96-2986Dup 127 Acquisition date : 23-FEB-1996 12:24:39

Nuclide Type: fission

Nuclide	Energy	%Abn	%Eff	Uncorrected uCi/g	Decay Corr uCi/g	1-Sigma %Error	Status
	105.31	21.20*	1.728E+00	2.505E-01	2.505E-01	27.72	OK
	Final Mean for 2 Valid Peaks = 2.421E-01+/- 4.369E-02 (18.04%)						
AM-241	59.54	35.90*	8.263E-01	3.522E-01	3.522E-01	26.08	OK
	Final Mean for 1 Valid Peaks = ~~3.522E-01~~+/- 9.187E-02 (26.08%)						

3.45 E-1 (27%)

Flag: "*" = Keyline

corrected: Eu-155 interference - RSTR

Post-NID Peak Search Report
Sample ID : 96-2986Dup 127

Acquisition date : 23-FEB-1996 12:24:39

It	Energy	Area	FWHM	Channel	Left	Pw	%Err	Fit	Nuclides	Activity uCi/g
0	59.46	551	1.45	159.72	156	8	25.3		AM-241	0.352
									EU-155	11.2
0	86.65	608	0.93	232.20	229	8	23.5		EU-155	0.237
0	105.39	484	1.30	282.15	279	8	27.6		EU-155	0.251
0	123.11	1003	0.91	329.40	325	9	14.6		EU-154	0.271
0	661.68	128922	1.79	1765.45	1753	23	0.3		CS-137	51.5
0	723.82	170	2.15	1931.19	1923	23	16.5		EU-154	0.308
0	873.11	83	1.53	2329.44	2318	21	20.1		EU-154	0.289
0	996.43	70	1.79	2658.45	2650	18	14.7		EU-154	0.311
0	1004.80	122	2.00	2680.79	2669	22	12.7		EU-154	0.321
0	1173.89	34	2.50	3132.01	3123	16	31.1			
0	1274.26	171	2.44	3399.90	3387	22	8.7		EU-154	0.272

Minimum Detectable Activity Report

Nuclide	Bckgnd Sum	Energy (keV)	MDA (uCi/g)
K-40	36.	1460.83	1.5884E-01
FE-59	27.	1099.25	2.1633E-02
CO-60	54.	1332.50	1.9732E-02
SR-85	2314.	514.00	6.5173E-02
RU-103	2563.	497.05	7.2357E-02
RU-106	761.	621.92	4.2423E-01
CD-109	6800.	88.03	1.2606E+00
SB-125	4243.	427.88	2.5055E-01
CS-134	824.	604.72	4.3342E-02
CE-139	5113.	165.85	5.1456E-02
CE-141	5442.	145.44	8.2447E-02
CE-144	5718.	133.54	3.5533E-01
EU-152	14.	1408.01	4.9301E-02
HG-203	6657.	72.87	8.8644E-01
TH-228	4607.	238.58	1.1378E-01
U-235	6264.	185.74	9.1878E-02
U-238	65.	1001.00	2.7067E+00

Pacific Northwest Laboratory

Gamma-Spectroscopy.....PNL-ALO-450

Customer : TWRS Date Received : 02/ 22/ 96 Work order : K28848 ARF(SOW) : ASR 2822

A.L.O. No. : 96-2986DUP Description : 127.2AH.F DUPLICATE

Pipet Nos.:

DF ---.1990 → 100 --- 3(.99492) --- --- ---

5 ml ml

Pipet checks are recorded on labsheets by pipet number

Data Path: _____ Direct to customer _____ Hold for Radioanalytical

Storage Path: _____ Direct to A.L.O.

Analyst [signature] Date 2/23/96

Counting Information:

Detector: B-ASCP C-70% D-70% E-100% FOG G-40% H-40% I-LEPS J-LEPS K-60% N-NaI TRACK X-Well Y-Well

File: G0.329

3.96E-3 g TTL 2/23/96

Sample size

Analyst [signature] Date 2-23-96

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D4 - RADIOCHEMISTRY CALIBRATION AND CONTROL CHART DOCUMENTATION

2-1541

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LUDLUM ZnS ALPHA SCINTILLATION COUNTERS USED FOR TOTAL ALPHA LUDLUM 1 THROUGH 10

2-1542

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*** RMIS View/Print Document Cover Sheet ***

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Accession #: D196089683

Document #: SD-WM-DP-171

Title/Desc:
FINAL REPORT FOR TANK 241-BX-104 PUSH MODE CORES 126 & 127 [SEC 7 OF 9]

Pages: 205

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

DOCUMENT NUMBER: SD-WM-DP-171 Rev. 1

SECTION 7 OF 9

TITLE: Final Report for Tank 241-BX-104 Push Mode Cores 126 and 127.

DATE: 4/25/96

ORIGINATOR: Wu, PA

CO: WHC

RECIPIENT:

CO:

REFERENCES: ECN- 629038

Data Reprocessed On 03/07/1996 11:25:52

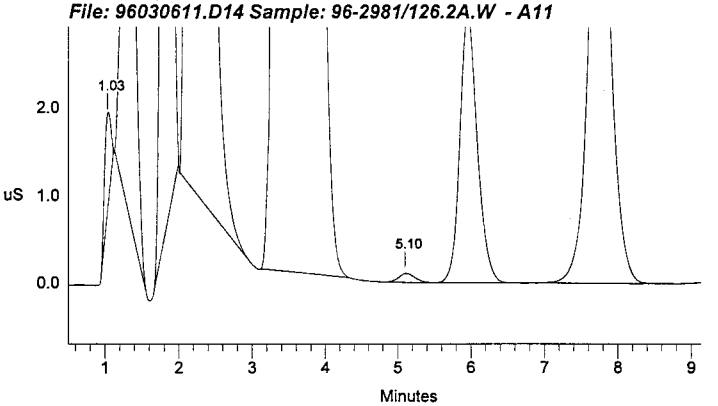
Sample Name: 96-2981/126.2A.W - A11		Date: 03/06/1996 11:43:37	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D14			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 14 Vial:A11			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.50	9.14	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03	FLUORIDE	0.416	1114838	6341177	1	-9.51
2	1.32		0.000	5031626	57633887	1	
3	1.82	CHLORIDE	8.190	12193823	111668221	1	0.00
4	2.28	NITRITE	138.398	139386103	1686447268	1	4.74
5	3.33	NITRATE	-395.667	246375344	4502042984	1	1.01
6	5.10		0.000	99066	1567664	1	
7	5.93	PHOSPHATE	14.256	2941269	50899124	1	0.06
8	7.73	SULFATE	12.947	5897531	119736239	1	0.00
		Totals	-221.459	413039600	6536336565		

File: 96030611.D14 Sample: 96-2981/126.2A.W - A11



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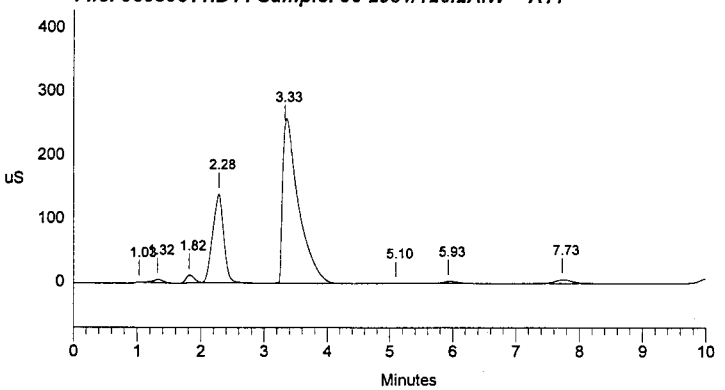
| Sample Name: 96-2981/126.2A.W  - A11        Date: 03/06/1996 11:43:37      |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D14                         |
| Method     : c:\dx\method\1anions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 14  Vial:A11        Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)            |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03	FLUORIDE	0.261	538971	3272146	2	-9.51
2	1.32		0.000	5274362	63156020	2	
3	1.82	CHLORIDE	8.190	12193823	111668221	1	0.00
4	2.28	NITRITE	138.398	139386103	1686447268	1	4.74
5	3.33	BROMIDE	-3917.870	246364583	4501644319	1	-3.67
6	5.10	PHOSPHATE	0.698	99066	1567664	1	-4.59
7	5.93		0.000	2941800	50958134	1	
8	7.73	SULFATE	12.955	5897998	119808066	1	0.00
		Totals	-3757.367	412696706	6538521838		

File: 96030611.D14 Sample: 96-2981/126.2A.W - A11



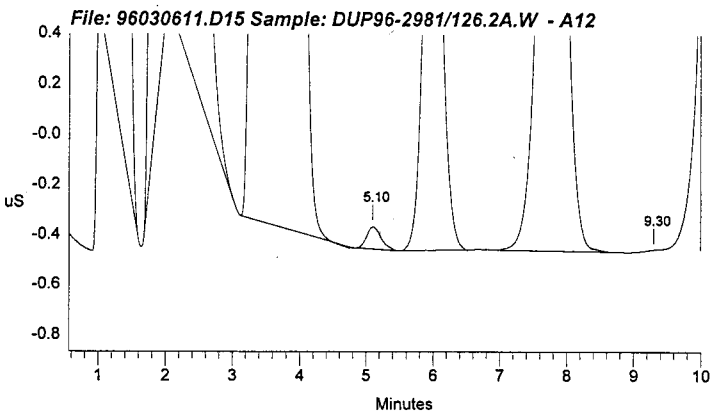
Data Reprocessed On 03/08/1996 11:33:40

Sample Name: DUP96-2981/126.2A.W - A12		Date: 03/06/1996 11:55:18	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D15			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 15 Vial:A12			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.56	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03		0.000	483343	2753229	2	
2	1.33		0.000	4628281	53524479	2	
3	1.83	CHLORIDE	7.909	12178936	107364718	1	0.00
4	2.28	NITRITE	135.001	133924053	1619188787	1	3.79
5	3.37	NITRATE	-330.150	238601060	4287798031	1	-0.98
6	5.10		0.000	89491	1348022	1	
7	5.97	PHOSPHATE	12.377	2636292	43832623	1	0.62
8	7.73	SULFATE	12.395	5519376	114321477	1	0.00
		Totals	-162.467	398060831	6230131366		



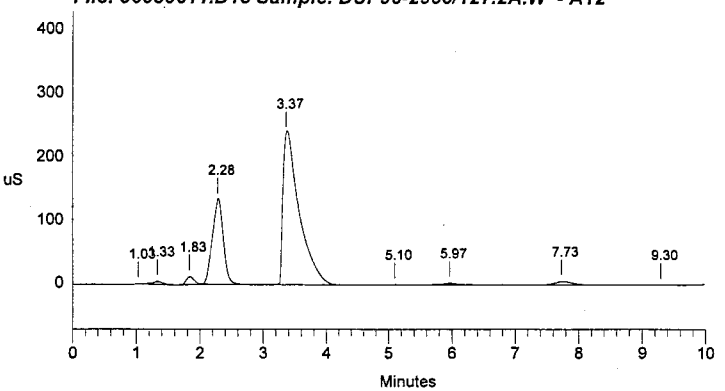
```
| Sample Name: DUP96-2985/127.2A.W  - A12      Date: 03/06/1996 11:55:18      |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D15                          |
| Method     : c:\dx\method\lanions1.met                                      |
| ACI Address: 1  System: 1  Inject#: 15  Vial:A12        Detector:PED-Cond.  |
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)            |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03		0.000	483343	2753229	2	
2	1.33		0.000	4628281	53524479	2	
3	1.83	CHLORIDE	7.909	12178936	107364718	1	0.00
4	2.28	NITRITE	135.001	133924053	1619188787	1	3.79
5	3.37	BROMIDE	-3513.247	238601060	4287798031	1	-3.59
6	5.10	PHOSPHATE	0.636	89491	1348022	1	-5.53
7	5.97		0.000	2636292	43832623	1	
8	7.73	SULFATE	12.395	5519376	114321477	1	0.00
		Totals	-3357.306	398060831	6230131366		

File: 96030611.D15 Sample: DUP96-2985/127.2A.W - A12



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| Sample Name: A960123V1/LO  - A03            Date: 03/06/1996 12:06:39      |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D16                         |
| Method     : c:\dx\method\lanions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 16  Vial:A03        Detector:PED-Cond. |
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)            |
```
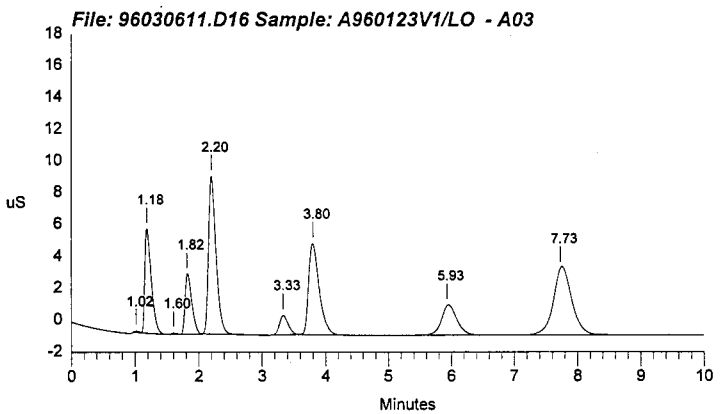

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.02		0.000	73916	391648	2	
2	1.18	FLUORIDE	23.747	6507367	46064015	2	3.63
3	1.60		0.000	80628	446605	1	
4	1.82	CHLORIDE	22.840	3747840	28139222	1	0.00
5	2.20	NITRITE	96.003	9899812	81273759	1	0.92
6	3.33	BROMIDE	23.426	1225912	11692491	1	-3.67
7	3.80	NITRATE	94.731	5702216	66211485	1	0.00
8	5.93	PHOSPHATE	93.174	1861169	32489656	1	-2.63
9	7.73	SULFATE	95.791	4201924	86977475	1	0.00
		Totals	449.712	33300785	353686357		



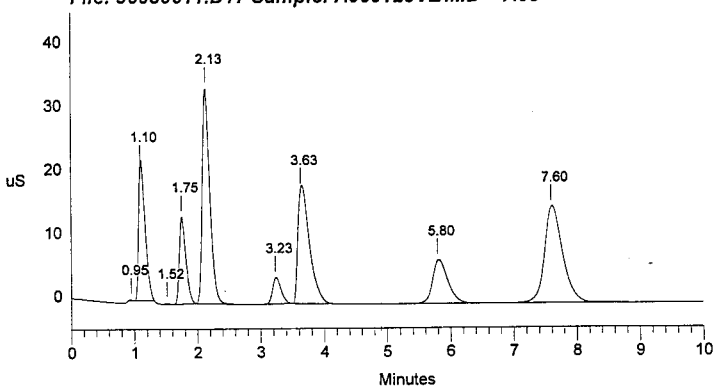
Sample Name: A960123V2/MID - A03	Date: 03/06/1996 12:18:10
Data File : l:\iag\ic\icdata\9603061\96030611.D17	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 System: 1 Inject#: 17 Vial:A03	Detector:PED-Cond.
Analyst : MMO Column: AG4A/AS4A-SC (10196/12484)	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	30	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	143648	583219	1	
2	1.10	FLUORIDE	24.894	21074153	156588215	1	0.00
3	1.52		0.000	81656	423181	1	
4	1.75	CHLORIDE	24.335	13660128	98197917	1	0.00
5	2.13	NITRITE	103.526	33826626	281054527	1	1.59
6	3.23	BROMIDE	24.783	4086193	38423942	1	-3.00
7	3.63	NITRATE	101.890	17929271	234318574	1	0.00
8	5.80	PHOSPHATE	101.488	6761113	115495749	1	-0.45
9	7.60	SULFATE	102.207	15149459	304487743	1	0.00
		Totals	483.124	112712247	1229573067		

File: 96030611.D17 Sample: A960123V2/MID - A03



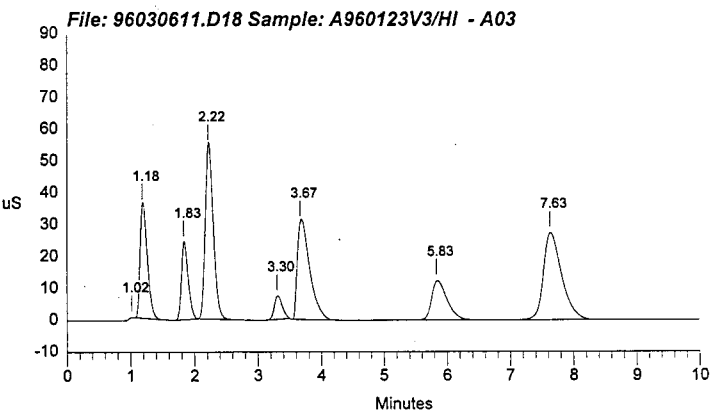
Data Reprocessed On 03/07/1996 11:45:19

Sample Name: A960123V3/HI - A03		Date: 03/06/1996 12:29:52	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D18			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 18 Vial:A03			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.02		0.000	66129	212154	1	
2	1.18	FLUORIDE	25.465	35277319	285200242	1	2.69
3	1.83	CHLORIDE	24.514	24251672	178697198	1	0.00
4	2.22	NITRITE	102.465	54225117	483550310	1	0.76
5	3.30	BROMIDE	24.154	7276920	64518575	1	-4.55
6	3.67	NITRATE	102.729	30478422	428556084	1	0.00
7	5.83	PHOSPHATE	102.308	12235198	211085174	1	-1.60
8	7.63	SULFATE	102.283	27348950	554147860	1	0.00
		Totals	483.918	191159727	2205967596		



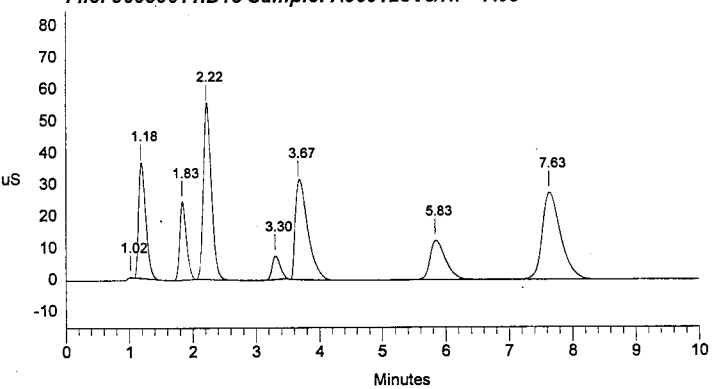
Sample Name: A960123V3/HI - A03	Date: 03/06/1996 12:29:52
Data File : l:\iag\ic\icdata\9603061\96030611.D18	
Method : c:\dx\method\lanions1.met	
ACI Address: 1 System: 1 Inject#: 18 Vial:A03	Detector:PED-Cond.
Analyst : MMO Column: AG4A/AS4A-SC (10196/12484)	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.02		0.000	66129	212154	1	
2	1.18	FLUORIDE	25.465	35277319	285200242	1	2.69
3	1.83	CHLORIDE	24.514	24251672	178697198	1	0.00
4	2.22	NITRITE	102.465	54225117	483550310	1	0.76
5	3.30		0.000	7276920	64518575	1	
6	3.67	BROMIDE	85.994	30478422	428556084	1	5.00
7	5.83	PHOSPHATE	102.308	12235198	211085174	1	-0.79
8	7.63	SULFATE	102.283	27348950	554147860	1	0.00
		Totals	443.029	191159727	2205967596		

File: 96030611.D18 Sample: A960123V3/HI - A03



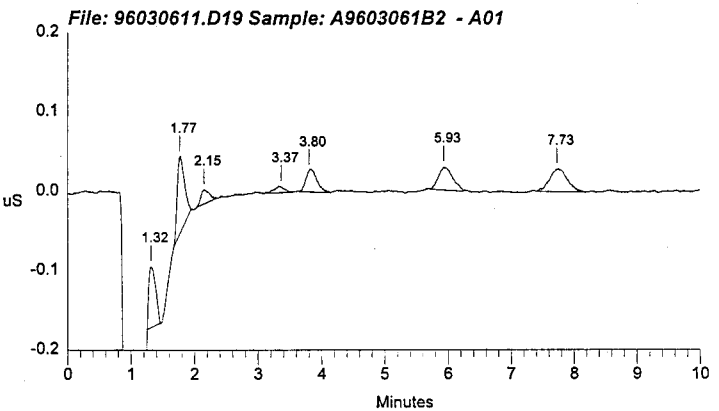
Data Reprocessed On 03/07/1996 11:43:56

Sample Name:	A9603061B2 - A01	Date:	03/06/1996 12:41:57
Data File :	L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D19		
Method :	c:\dx\method\1anions1.met		
ACI Address:	1 System: 1 Inject#: 19 Vial:A01	Detector:	PED-Cond.
Analyst :	MMO Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.32		0.000	76638	580704	1	
2	1.77	CHLORIDE	0.073	96022	751980	1	0.00
3	2.15	NITRITE	0.224	17201	160187	1	1.42
4	3.37	BROMIDE	0.013	6912	90163	1	0.05
5	3.80	NITRATE	0.213	25951	346236	1	0.00
6	5.93	PHOSPHATE	0.190	28041	451747	1	-2.63
7	7.73	SULFATE	0.182	27541	558870	1	0.00
		Totals	0.895	278306	2939886		

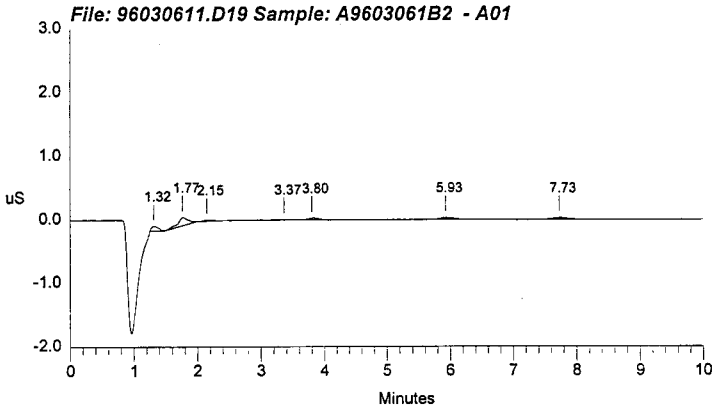


Sample Name: A9603061B2 - A01	Date: 03/06/1996 12:41:57
Data File : l:\iag\ic\icdata\9603061\96030611.D19	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 System: 1 Inject#: 19 Vial:A01	Detector:PED-Cond.
Analyst : MMO Column: AG4A/AS4A-SC (10196/12484)	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.32		0.000	76638	580704	1	
2	1.77	CHLORIDE	0.100	127971	1450228	1	0.00
3	2.15	NITRITE	0.225	18069	173649	1	1.42
4	3.37	BROMIDE	0.013	6912	90163	1	0.05
5	3.80	NITRATE	0.213	25951	346236	1	0.00
6	5.93	PHOSPHATE	0.191	28112	460679	1	-2.63
7	7.73	SULFATE	0.182	27541	558870	1	0.00
		Totals	0.925	311194	3660529		



Data Reprocessed On 03/07/1996 11:48:13

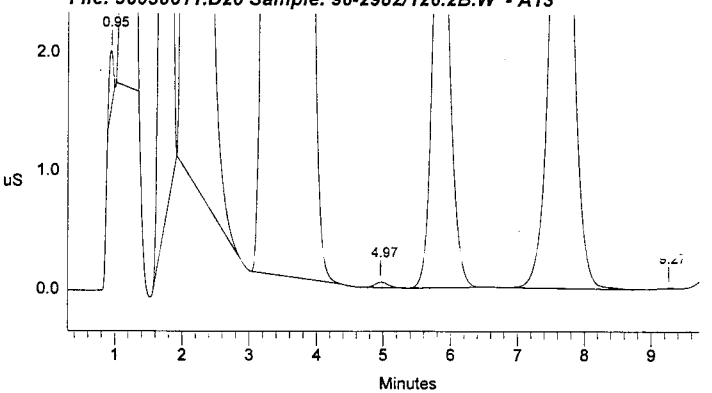
Sample Name:	96-2982/126.2B.W - A13	Date:	03/06/1996 12:53:40
Data File :	L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D20		
Method :	c:\dx\method\1anions1.met		
ACI Address: 1	System: 1 Inject#: 20 Vial:A13	Detector:	PED-Cond.
Analyst :	MMO Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.30	9.72	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	452920	2065344	1	
2	1.22		0.000	4152226	41750848	1	
3	1.73	CHLORIDE	8.337	12505421	113924315	1	0.00
4	2.18	NITRITE	137.804	138648901	1674414139	1	4.97
5	3.27	NITRATE	-517.557	281280071	4865718786	1	-0.10
6	4.97		0.000	46700	668693	1	
7	5.83	PHOSPHATE	19.023	4164241	69202374	1	-1.59
8	7.63	SULFATE	14.091	6463334	131013162	1	0.00
		Totals	-338.302	447713814	6898757661		

File: 96030611.D20 Sample: 96-2982/126.2B.W - A13



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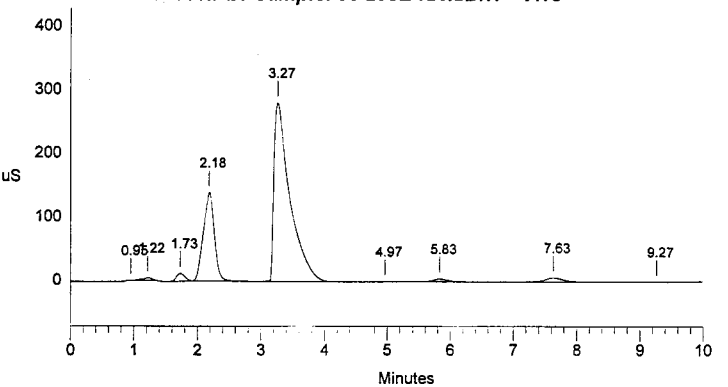
| Sample Name: 96-2982/126.2B.W  - A13        Date: 03/06/1996 12:53:40 |
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D20                    |
| Method     : c:\dx\method\1anions1.met                                |
| ACI Address: 1  System: 1  Inject#: 20  Vial:A13       Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	402814	1694285	2	
2	1.22		0.000	4207241	43142138	2	
3	1.73	CHLORIDE	8.337	12505421	113924315	1	0.00
4	2.18	NITRITE	137.569	138526783	1669692480	1	4.97
5	3.27	BROMIDE	-4657.279	281280883	4865905862	1	-1.06
6	4.97		0.000	46700	668693	1	
7	5.83	PHOSPHATE	19.090	4166663	69462638	1	-1.69
8	7.63	SULFATE	14.091	6463334	131013163	1	0.00
		Totals	-4478.192	447599840	6895503572		

File: 96030611.D20 Sample: 96-2982/126.2B.W - A13



Data Reprocessed On 03/07/1996 11:51:48

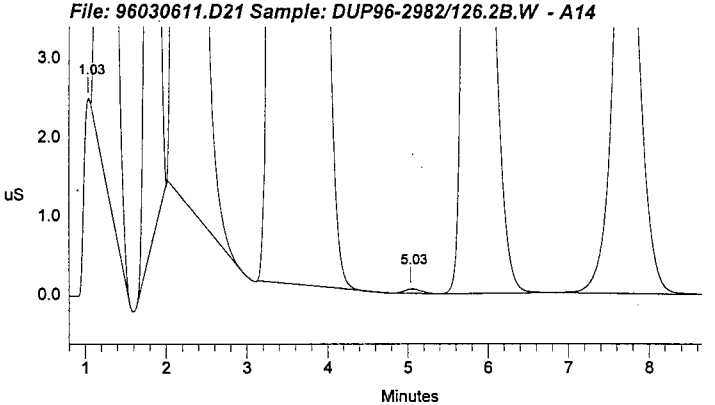
Sample Name: DUP96-2982/126.2B.W - A14		Date: 03/06/1996 13:05:23	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D21			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1	Inject#: 21	Vial:A14	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC	(10196/12484)	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.80	8.65	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
2	1.18	FLUORIDE	9.175	17341034	196412192	1	3.63
3	1.82	CHLORIDE	8.738	12633804	120154378	1	0.00
4	2.27	NITRITE	142.370	141927937	1769892274	1	3.98
5	3.33	NITRATE	-648.039	303533457	5216964670	1	1.01
6	5.03		0.000	51537	788313	1	
7	5.80	PHOSPHATE	74.081	19662163	348178788	1	-2.19
8	7.70	SULFATE	14.837	6659646	138411305	1	0.00
		Totals	-398.838	501809578	7790801918		

File: 96030611.D21 Sample: DUP96-2982/126.2B.W - A14



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| Sample Name: DUP96-2982/126.2B.W  - A14      Date: 03/06/1996 13:05:23
| Data File   : 1:\iag\ic\icdata\9603061\96030611.D21
| Method      : c:\dx\method\1anions1.met
| ACI Address: 1  System: 1  Inject#: 21  Vial:A14          Detector:PED-Cond.
| Analyst     : MMO             Column: AG4A/AS4A-SC  (10196/12484)
```
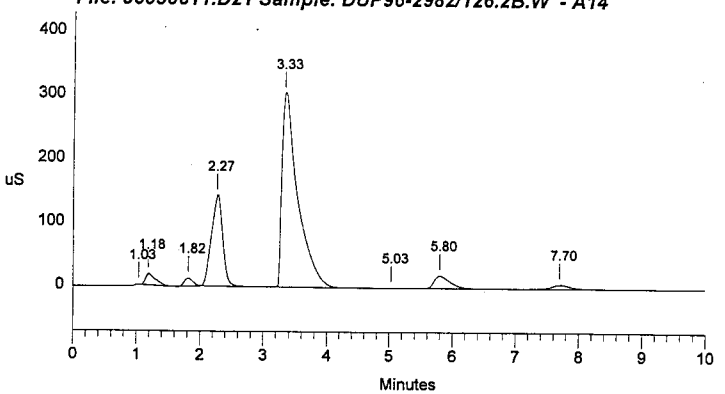

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
2	1.18	FLUORIDE	9.175	17341034	196412192	1	3.63
3	1.82	CHLORIDE	8.738	12633804	120154378	1	0.00
4	2.27	NITRITE	142.266	141868504	1767626579	1	3.98
5	3.33	BROMIDE	-5429.731	303533457	5216964670	1	-3.67
6	5.03	PHOSPHATE	0.476	51537	788313	1	-5.84
7	5.80		0.000	19662163	348178788	1	
8	7.70	SULFATE	14.862	6661414	138661577	1	0.00
		Totals	-5254.214	501751913	7788786496		

File: 96030611.D21 Sample: DUP96-2982/126.2B.W - A14



Data Reprocessed On 03/07/1996 12:49:50

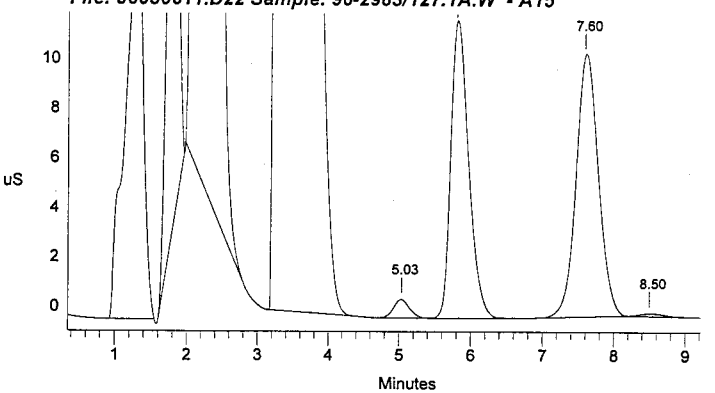
Sample Name:	96-2983/127.1A.W - A15	Date:	03/06/1996 13:17:02
Data File :	L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D22		
Method :	c:\dx\method\1anions1.met		
ACI Address:	1 System: 1 Inject#: 22 Vial:A15	Detector:	PED-Cond.
Analyst :	MMO Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.35	9.22	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.28		0.000	16897994	282553639	1	
2	1.77	CHLORIDE	13.430	18765267	200114423	1	0.00
3	2.32	NITRITE	168.723	195309764	3186384394	1	-1.09
4	3.33	NITRATE	-2594.457	609928343	8665015813	1	1.01
5	5.03		0.000	748347	11370079	1	
6	5.80	PHOSPHATE	50.363	11891381	207070942	1	-2.19
7	7.60	SULFATE	23.987	10591308	232161727	1	0.00
8	8.50		0.000	114039	2959914	1	
		Totals	-2337.954	864246443127876309 30			

File: 96030611.D22 Sample: 96-2983/127.1A.W - A15



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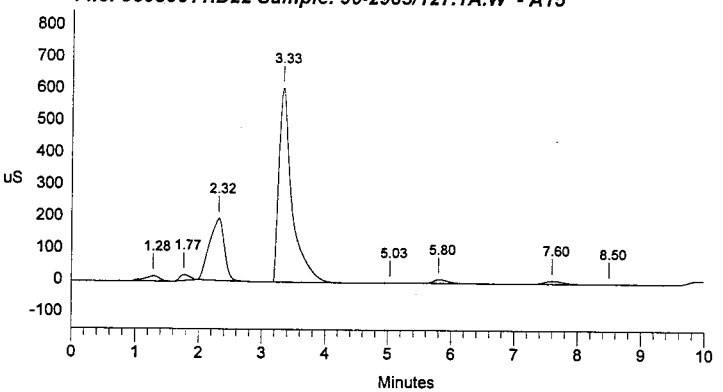
| Sample Name: 96-2983/127.1A.W  - A15          Date: 03/06/1996 13:17:02 |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D22                      |
| Method     : c:\dx\method\1anions1.met                                  |
| ACI Address: 1  System: 1  Inject#: 22  Vial:A15        Detector:PED-Cond.|
| Analyst    : MMO              Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.28		0.000	16897994	282553639	1	
2	1.77	CHLORIDE	13.430	18765267	200114423	1	0.00
3	2.32		0.000	195309764	3186384394	1	
4	3.33	BROMIDE	-16134.181	609904801	8663963942	1	-0.94
5	5.03	PHOSPHATE	3.475	748347	11370079	1	-5.84
6	5.80		0.000	11891381	207070942	1	
7	7.60	SULFATE	23.995	10592572	232252892	1	0.00
8	8.50		0.000	114039	2959914	1	
		Totals	-16093.281	864224166127866702 25			

File: 96030611.D22 Sample: 96-2983/127.1A.W - A15



Data Reprocessed On 03/07/1996 13:10:30

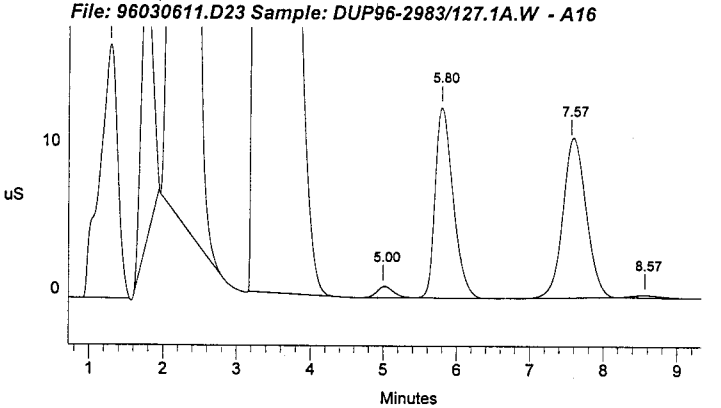
Sample Name: DUP96-2983/127.1A.W - A16				Date: 03/06/1996 13:28:41	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D23					
Method : c:\dx\method\1anions1.met					
ACI Address: 1 System: 1 Inject#: 23 Vial:A16					Detector:PED-Cond.
Analyst : MMO			Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.72	9.33	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.28		0.000	17070557	285336678	1	
2	1.77	CHLORIDE	13.181	18613776	195483492	1	0.00
3	2.32	NITRITE	167.847	197971329	3270614384	1	-0.23
4	3.33	NITRATE	-2756.160	622232667	8880444146	1	1.01
5	5.00		0.000	753385	11907325	1	
6	5.80	PHOSPHATE	53.158	12858181	221409061	1	-2.19
7	7.57	SULFATE	24.547	10597905	238093742	1	0.00
8	8.57		0.000	163232	4747440	1	
		Totals	-2497.427	880261032131080362 68			

File: 96030611.D23 Sample: DUP96-2983/127.1A.W - A16



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Sample Name: DUP96-2983/127.1A.W  - A16      Date: 03/06/1996 13:28:41
Data File  : l:\iag\ic\icdata\9603061\96030611.D23
Method     : c:\dx\method\1anions1.met
ACI Address: 1  System: 1  Inject#: 23  Vial:A16          Detector:PED-Cond.
Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)
```
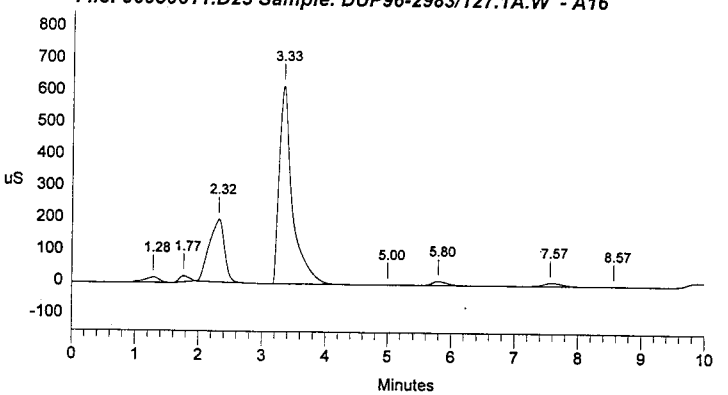

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.28		0.000	17070557	285336678	1	
2	1.77	CHLORIDE	13.181	18613776	195483492	1	0.00
3	2.32		0.000	197971329	3270614384	1	
4	3.33	BROMIDE	-16995.439	622232667	8880444146	1	-0.94
5	5.00	PHOSPHATE	3.626	753385	11907325	1	-6.46
6	5.80		0.000	12856443	221254078	1	
7	7.57	SULFATE	24.527	10595683	237882759	1	0.00
8	8.57		0.000	163232	4747440	1	
		Totals	-16954.105	880257072131076703			

File: 96030611.D23 Sample: DUP96-2983/127.1A.W - A16



Data Reprocessed On 03/07/1996 13:06:28

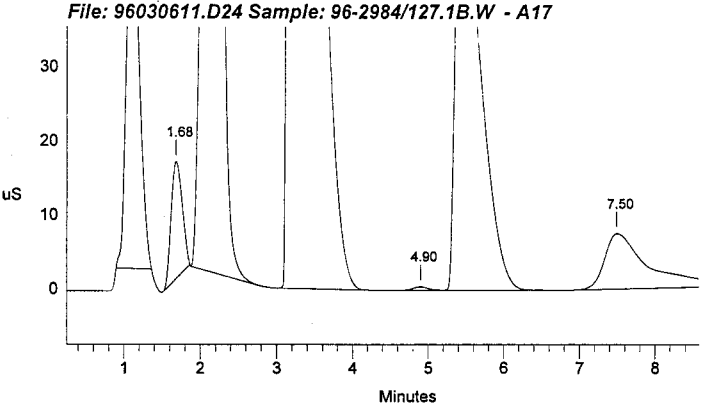
Sample Name: 96-2984/127.1B.W - A17	Date: 03/06/1996 13:42:36
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D24	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 System: 1 Inject#: 24 Vial:A17	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.25	8.58	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.10	FLUORIDE	22.776	55227017	606753638	1	3.96
2	1.68	CHLORIDE	11.201	15836934	160310051	1	0.00
3	2.18	NITRITE	165.341	173139287	2483424602	1	4.12
4	3.20	NITRATE	-1190.233	396250237	6420573408	1	0.00
5	4.90		0.000	479531	6792465	1	
6	5.47	PHOSPHATE	16.656	56403734	1286966736	1	-7.87
7	7.50	SULFATE	31.201	7451065	310487120	1	0.00
8	9.80		0.000	2404443	35925645	1	
		Totals	-943.058	707192247113112336 64			

File: 96030611.D24 Sample: 96-2984/127.1B.W - A17



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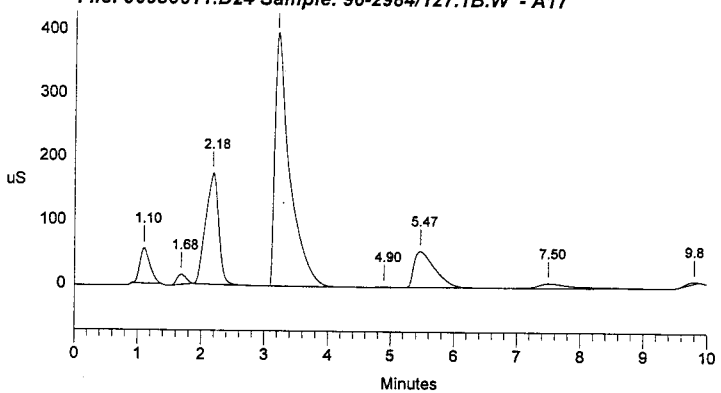
| Sample Name: 96-2984/127.1B.W  - A17        Date: 03/06/1996 13:42:36 |
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D24                    |
| Method     : c:\dx\method\1anions1.met                                |
| ACI Address: 1  System: 1  Inject#: 24  Vial:A17       Detector:PED-Cond. |
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.10	FLUORIDE	22.776	55227017	606753638	1	3.96
2	1.68	CHLORIDE	11.201	15836934	160310051	1	0.00
3	2.18		0.000	173139287	2483424602	1	
4	3.20	BROMIDE	-8524.006	396250237	6420573408	1	-0.20
5	4.90		0.000	479531	6792465	1	
6	5.47	PHOSPHATE	16.656	56403734	1286966736	1	-7.87
7	7.50	SULFATE	31.201	7451065	310487120	1	0.00
8	9.80		0.000	2404443	35925645	1	
		Totals	-8442.172	707192247113112336 64			

File: 96030611.D24 Sample: 96-2984/127.1B.W - A17



Data Reprocessed On 03/07/1996 13:05:19

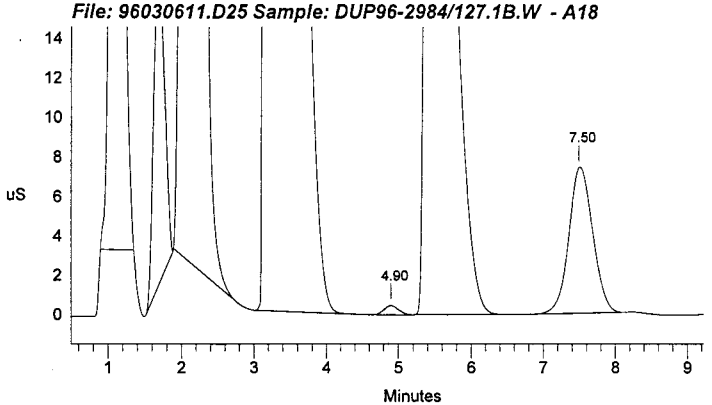
Sample Name: DUP96-2984/127.1B.W - A18		Date: 03/06/1996 13:54:41	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D25			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 25 Vial:A18			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.50	9.23	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.10	FLUORIDE	21.771	52275411	566828877	1	3.96
2	1.68	CHLORIDE	11.410	15928207	163886563	1	0.00
3	2.18	NITRITE	165.168	172116327	2474101008	1	4.12
4	3.20	NITRATE	-1172.954	398546361	6386686934	1	0.00
5	4.90		0.000	472936	6548145	1	
6	5.47	PHOSPHATE	32.317	54128547	1223563600	1	-7.87
7	7.50	SULFATE	18.090	7408679	171087544	1	0.00
8	9.83		0.000	1037587	17553459	1	
		Totals	-924.198	701914053110102561 30			

File: 96030611.D25 Sample: DUP96-2984/127.1B.W - A18



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| Sample Name: DUP96-2984/127.1B.W  - A18      Date: 03/06/1996 13:54:41 |
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D25                     |
| Method     : c:\dx\method\lanions1.met                                 |
| ACI Address: 1  System: 1  Inject#: 25  Vial:A18        Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)       |
```
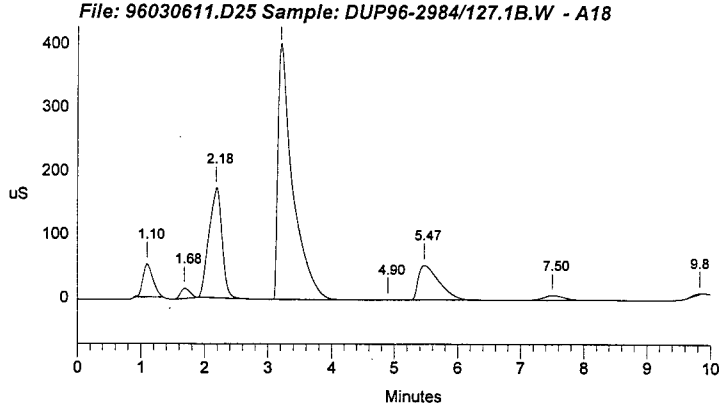

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	50	1	3000	5Hz	0.00	10.00	30000	

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.10	FLUORIDE	21.771	52275411	566828877	1	3.96
2	1.68	CHLORIDE	11.410	15928207	163886563	1	0.00
3	2.18		0.000	171856709	2464160650	1	
4	3.20	BROMIDE	-8427.444	398546361	6386686934	1	-0.20
5	4.90		0.000	472936	6548145	1	
6	5.47	PHOSPHATE	32.317	54128547	1223563600	1	-7.87
7	7.50	SULFATE	18.090	7408679	171087544	1	0.00
8	9.83		0.000	1037587	17553459	1	
		Totals	-8343.856	701654435110003157 72			

File: 96030611.D25 Sample: DUP96-2984/127.1B.W - A18



Data Reprocessed On 03/07/1996 13:02:18

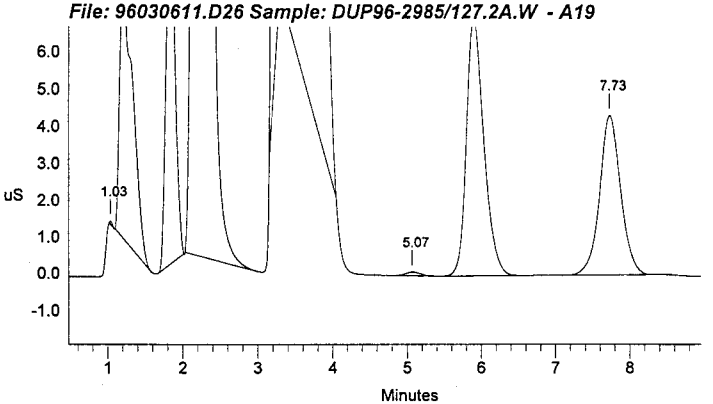
Sample Name: DUP96-2985/127.2A.W - A19		Date: 03/06/1996 14:06:42	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D26			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 26 Vial:A19			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.47	8.95	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03		0.000	68523	201075	1	
2	1.20	FLUORIDE	4.305	7039756	86626324	1	4.13
3	1.83	CHLORIDE	6.155	9765680	81371996	1	0.00
4	2.25	NITRITE	111.692	111764658	1226763496	1	2.27
5	3.23	BROMIDE	14.395	16440080	78280371	1	7.78
6	3.40	NITRATE	27.150	150739082	2564995930	1	0.00
7	5.07		0.000	103038	1508079	1	
8	5.90	PHOSPHATE	30.245	6951394	114644859	1	-0.51
9	7.73	SULFATE	9.417	4340422	85416169	1	0.00
		Totals	203.359	307212632	4239808299		

File: 96030611.D26 Sample: DUP96-2985/127.2A.W - A19



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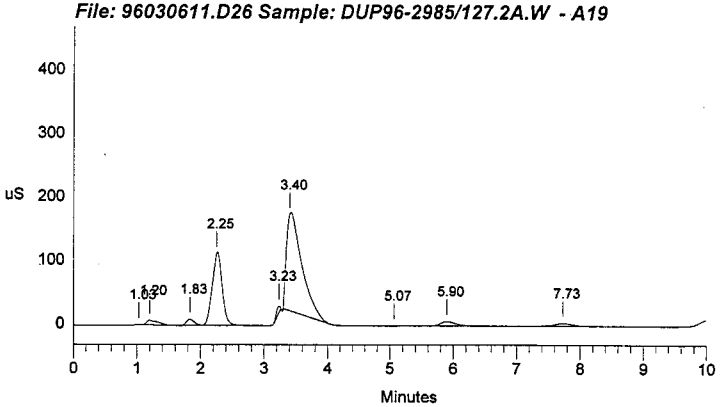
| Sample Name: DUP96-2985/127.2A.W  - A19      Date: 03/06/1996 14:06:42
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D26
| Method     : c:\dx\method\1anions1.met
| ACI Address: 1  System: 1  Inject#: 26  Vial:A19        Detector:PED-Cond.
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	50	1	3000	5Hz	0.00	10.00	30000	

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03		0.000	294692	1200473	2	
2	1.20	FLUORIDE	4.458	7218970	89900286	2	4.13
3	1.83	CHLORIDE	6.155	9765680	81371996	1	0.00
4	2.25	NITRITE	111.692	111764658	1226763496	1	2.27
5	3.23		0.000	10758799	45720691	1	
6	3.40	BROMIDE	-1048.590	150739082	2564995930	1	-2.64
7	5.07	PHOSPHATE	0.681	103038	1508079	1	-7.07
8	5.90		0.000	6952033	114680377	1	
9	7.73	SULFATE	9.653	4360004	87685426	1	0.00
		Totals	-915.950	301956956	4213826755		

File: 96030611.D26 Sample: DUP96-2985/127.2A.W - A19



Data Reprocessed On 03/07/1996 13:13:49

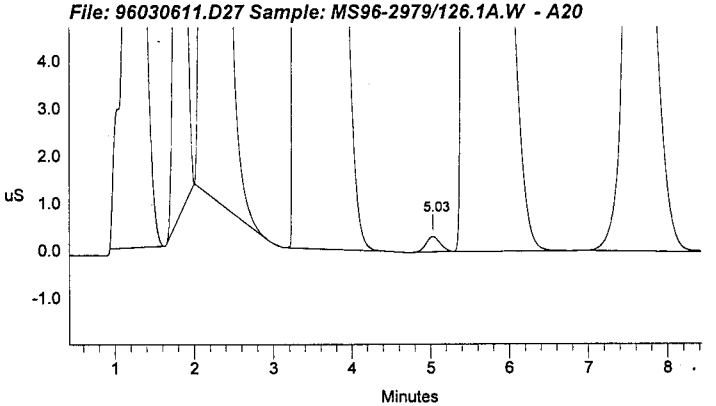
Sample Name: MS96-2979/126.1A.W - A20		Date: 03/06/1996 14:18:45	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D27			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1	Inject#: 27	Vial:A20	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.42	8.43	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.18	FLUORIDE	13.842	23097128	314766256	1	3.63
2	1.82	CHLORIDE	9.499	14299614	132190160	1	0.00
3	2.27	NITRITE	141.445	142178541	1749933622	1	3.98
4	3.33	NITRATE	-420.013	254874564	4577997426	1	1.01
5	5.03		0.000	322789	4019479	1	
6	5.53	PHOSPHATE	-14.128	59793184	1395546799	1	-6.69
7	7.60	SULFATE	37.901	19022930	387359622	1	0.00
		Totals	-231.455	513588750	8561813363		

File: 96030611.D27 Sample: MS96-2979/126.1A.W - A20



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| Sample Name: MS96-2979/126.1A.W  - A20      Date: 03/06/1996 14:18:45      |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D27                         |
| Method     : c:\dx\method\1anions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 27  Vial:A20        Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)           |
```
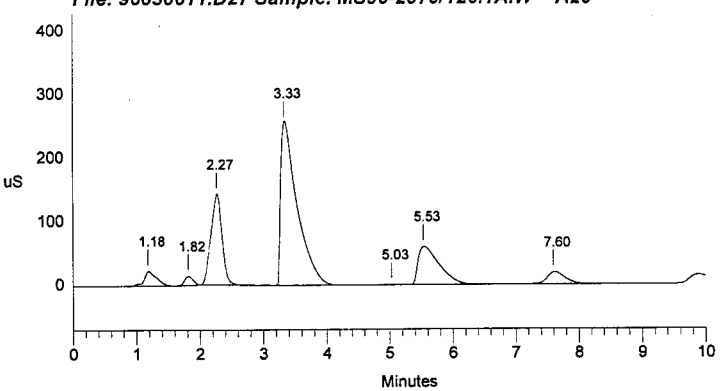

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	50	1	3000	5Hz	0.00	10.00	30000	

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.18	FLUORIDE	13.842	23097128	314766256	1	3.63
2	1.82	CHLORIDE	9.499	14299614	132190160	1	0.00
3	2.27	NITRITE	141.269	142079965	1746173569	1	3.98
4	3.33	BROMIDE	-4069.321	254877061	4578857260	1	-3.67
5	5.03		0.000	322789	4019479	1	
6	5.53	PHOSPHATE	-14.128	59793184	1395546799	1	3.52
7	7.60	SULFATE	37.946	19028354	387888470	1	0.00
		Totals	-3880.894	513498095	8559441992		

File: 96030611.D27 Sample: MS96-2979/126.1A.W - A20



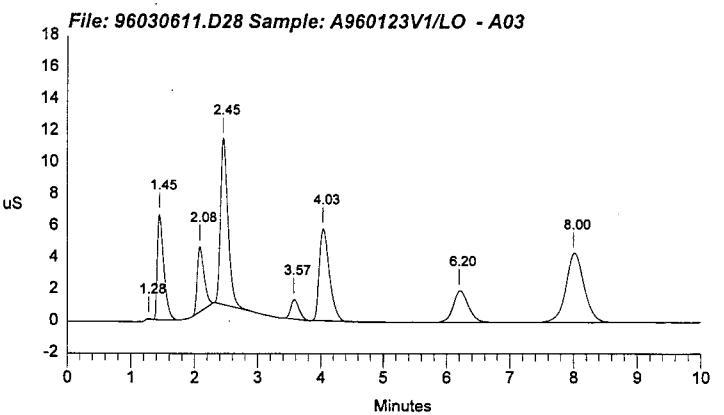
Data Reprocessed On 03/07/1996 13:15:50

Sample Name: A960123V1/LO - A03		Date: 03/06/1996 14:39:07	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D28			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 28 Vial:A03			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.28		0.000	46420	206476	2	
2	1.45	FLUORIDE	23.907	6625289	46394215	2	-0.16
3	2.08	CHLORIDE	24.591	4073956	30438627	1	0.00
4	2.45	NITRITE	102.432	10388075	87057456	1	-0.16
5	3.57	BROMIDE	22.597	1187930	11271884	1	-0.25
6	4.03	NITRATE	92.326	5763319	64418649	1	0.00
7	6.20	PHOSPHATE	95.531	1961373	33356232	1	-0.08
8	8.00	SULFATE	95.686	4300557	86876454	1	0.00
		Totals	457.071	34346920	360019993		



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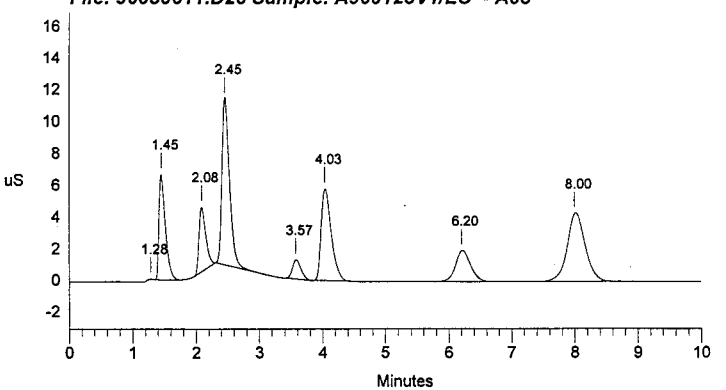
| Sample Name: A960123V1/LO  - A03            Date: 03/06/1996 14:39:07      |
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D28                         |
| Method     : c:\dx\method\1anions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 28  Vial:A03        Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	10	2	3000	5Hz	0.00	10.00	30000	

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.28		0.000	46420	206503	2	
2	1.45		0.000	6625289	46394628	2	
3	2.08	NITRITE	38.940	4073956	30438627	1	-0.79
4	2.45		0.000	10390151	87230434	1	
5	3.57	BROMIDE	22.597	1187930	11271884	1	7.00
6	4.03	NITRATE	92.326	5763319	64418649	1	0.00
7	6.20	PHOSPHATE	95.531	1961373	33356232	1	-4.14
8	8.00	SULFATE	95.686	4300557	86876454	1	0.00
		Totals	345.081	34348995	360193411		

File: 96030611.D28 Sample: A960123V1/LO - A03



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| Sample Name: A960123V2/MID  - A03          Date: 03/06/1996 14:51:02      |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D29                        |
| Method     : c:\dx\method\1anions1.met                                    |
| ACI Address: 1  System: 1  Inject#: 29  Vial:A03       Detector:PED-Cond. |
| Analyst    : MMO           Column: AG4A/AS4A-SC  (10196/12484)            |
```
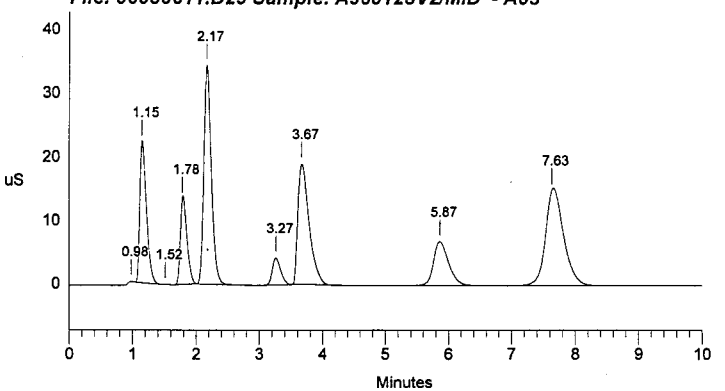

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	30	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.98		0.000	72111	220416	1	
2	1.15	FLUORIDE	25.584	22099036	161334153	1	2.59
3	1.52		0.000	66966	393284	1	
4	1.78	CHLORIDE	24.593	13462422	99355467	1	0.00
5	2.17	NITRITE	103.820	34262596	281906103	1	1.25
6	3.27	BROMIDE	25.263	4273076	39206911	1	-3.83
7	3.67	NITRATE	100.795	18942304	231511985	1	0.00
8	5.87	PHOSPHATE	101.944	6968665	116073475	1	-0.22
9	7.63	SULFATE	102.078	15046846	304055652	1	0.00
		Totals	484.077	115194022	1234057445		

File: 96030611.D29 Sample: A960123V2/MID - A03



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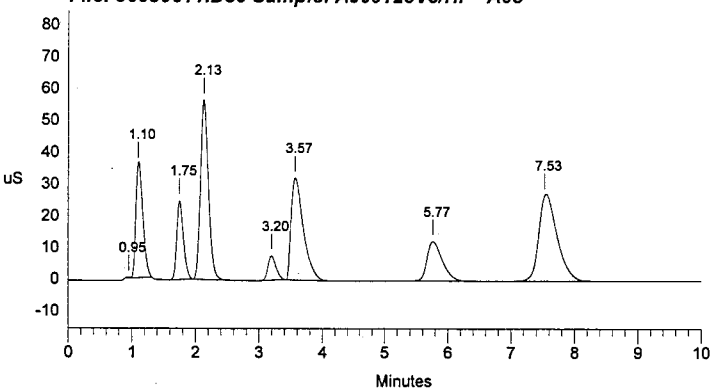
| Sample Name: A960123V3/HI  - A03            Date: 03/06/1996 15:03:03 |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D30                    |
| Method     : c:\dx\method\1anions1.met                                |
| ACI Address: 1  System: 1  Inject#: 30  Vial:A03      Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	250316	967110	2	
2	1.10	FLUORIDE	25.042	35726414	279662973	2	0.00
3	1.75	CHLORIDE	24.569	25005152	179190022	1	0.00
4	2.13	NITRITE	103.246	56532903	487634016	1	1.59
5	3.20	BROMIDE	25.000	7632083	66990552	1	-4.00
6	3.57	NITRATE	102.726	32165970	428544308	1	0.00
7	5.77	PHOSPHATE	102.280	12488747	211014224	1	0.82
8	7.53	SULFATE	102.213	27164073	553671189	1	0.00
		Totals	485.076	196965658	2207674393		

File: 96030611.D30 Sample: A960123V3/HI - A03



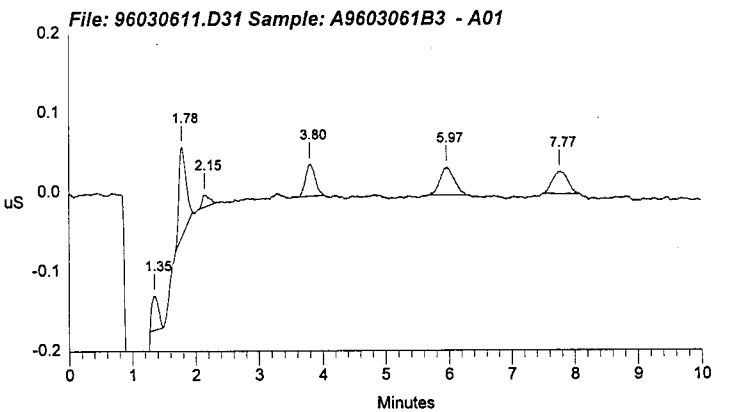
Data Reprocessed On 03/07/1996 13:17:28

Sample Name: A9603061B3 - A01		Date: 03/06/1996 15:15:29	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D31			
Method : c:\dx\method\lanions1.met			
ACI Address: 1 System: 1	Inject#: 31	Vial:A01	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.35		0.000	43219	321845	1	
2	1.78	CHLORIDE	0.077	112291	865350	1	0.00
3	2.15	NITRITE	0.221	14779	117408	1	0.47
4	3.80	NITRATE	0.218	39459	424856	1	0.00
5	5.97	PHOSPHATE	0.204	34574	551441	1	-2.08
6	7.77	SULFATE	0.178	27081	474441	1	0.00
		Totals	0.899	271402	2755341		

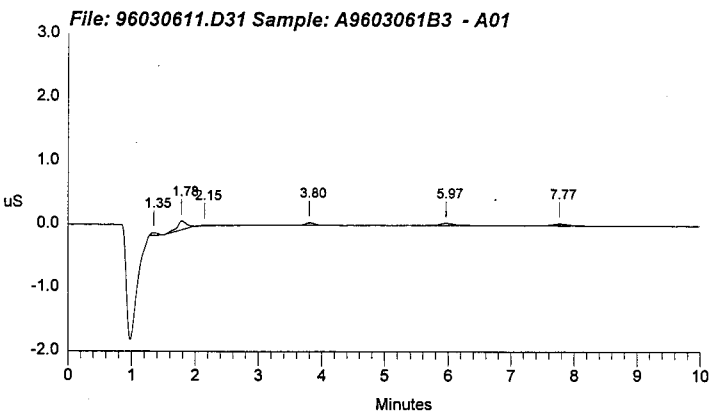


Sample Name: A9603061B3 - A01	Date: 03/06/1996 15:15:29
Data File : l:\iag\ic\icdata\9603061\96030611.D31	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 System: 1 Inject#: 31 Vial:A01	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.35		0.000	43219	321845	1	
2	1.78	CHLORIDE	0.102	140601	1496055	1	0.00
3	2.15	NITRITE	0.223	16421	145514	1	0.47
4	3.80	NITRATE	0.222	41330	482143	1	0.00
5	5.97	PHOSPHATE	0.214	36235	623184	1	-2.08
6	7.77	SULFATE	0.189	31972	684362	1	0.00
		Totals	0.951	309778	3753103		



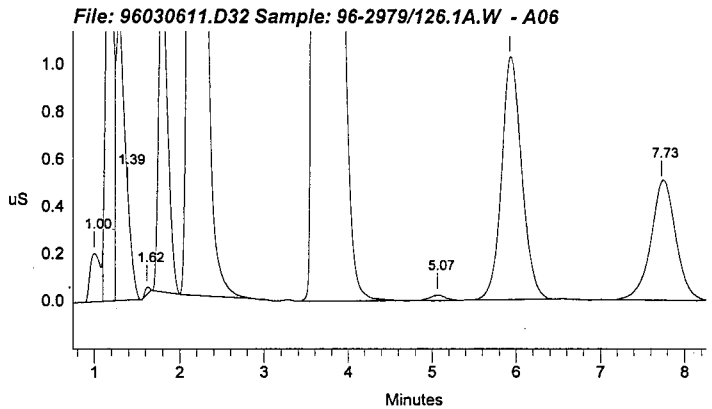
Data Reprocessed On 03/08/1996 12:04:13

Sample Name: 96-2979/126.1A.W - A06		Date: 03/06/1996 15:27:59	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D32			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 32 Vial:A06			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.75	8.26	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.00		0.000	203476	1776083	2	
2	1.17	FLUORIDE	6.200	1611920	10424046	2	4.08
3	1.39		0.000	469787	9484470	2	
4	1.62		0.000	30875	112235	1	
5	1.78	CHLORIDE	8.760	1334040	9968650	1	0.00
6	2.17	NITRITE	171.467	18374490	149913978	1	1.25
7	3.67	NITRATE	331.037	20443788	256218727	1	-0.90
8	5.07		0.000	22755	310967	1	
9	5.93	PHOSPHATE	50.952	1023017	17159771	1	0.91
10	7.73	SULFATE	14.417	499756	10431564	1	0.00
		Totals	582.833	44013904	465800491		



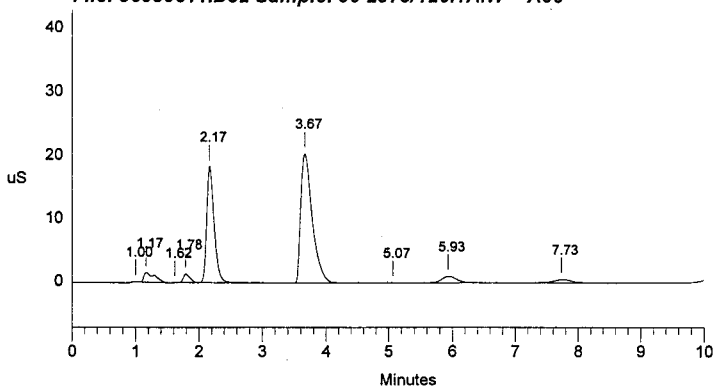
Sample Name: 96-2979/126.1A.W - A06	Date: 03/06/1996 15:27:59
Data File : l:\iag\ic\icdata\9603061\96030611.D32	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 System: 1 Inject#: 32 Vial:A06	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.00		0.000	65545	342195	2	
2	1.17	FLUORIDE	10.240	1517092	18531274	2	4.08
3	1.62		0.000	34226	135551	1	
4	1.78	CHLORIDE	8.595	1317353	9758614	1	0.00
5	2.17	NITRITE	171.069	18362092	149548055	1	1.25
6	3.67	BROMIDE	362.342	20443904	256244101	1	7.94
7	5.07		0.000	22144	292110	1	
8	5.93	PHOSPHATE	50.914	1022805	17146014	1	0.91
9	7.73	SULFATE	14.421	499766	10435471	1	0.00
		Totals	617.581	43284926	462433385		

File: 96030611.D32 Sample: 96-2979/126.1A.W - A06



Data Reprocessed On 03/08/1996 12:08:05

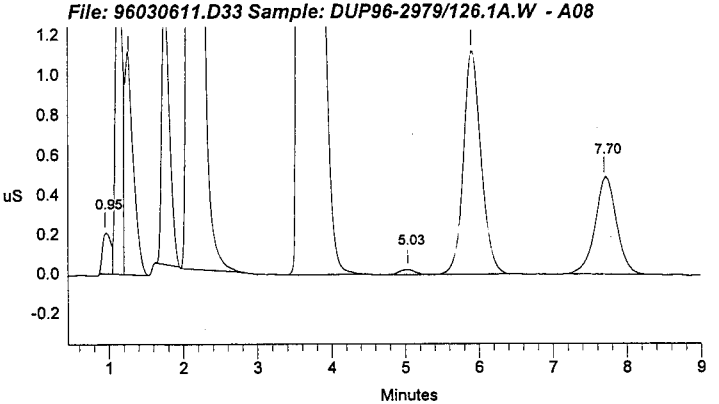
Sample Name:	DUP96-2979/126.1A.W - A08 Date: 03/06/1996 15:39:40
Data File :	L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D33
Method :	c:\dx\method\1anions1.met
ACI Address:	1 System: 1 Inject#: 33 Vial:A08 Detector:PED-Cond.
Analyst :	MMO Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.45	9.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	203056	1617582	2	
2	1.13	FLUORIDE	6.003	1616542	10029403	2	3.03
3	1.27		0.000	1091315	8612685	2	
4	1.75	CHLORIDE	8.567	1313641	9723425	1	0.00
5	2.13	NITRITE	176.008	18925804	154098639	1	1.59
6	3.63	NITRATE	338.576	20902503	262810507	1	0.00
7	5.03		0.000	25875	385555	1	
8	5.90	PHOSPHATE	55.400	1121496	18757790	1	1.26
9	7.70	SULFATE	13.964	485703	10015723	1	0.00
		Totals	598.519	45685935	476051309		

File: 96030611.D33 Sample: DUP96-2979/126.1A.W - A08



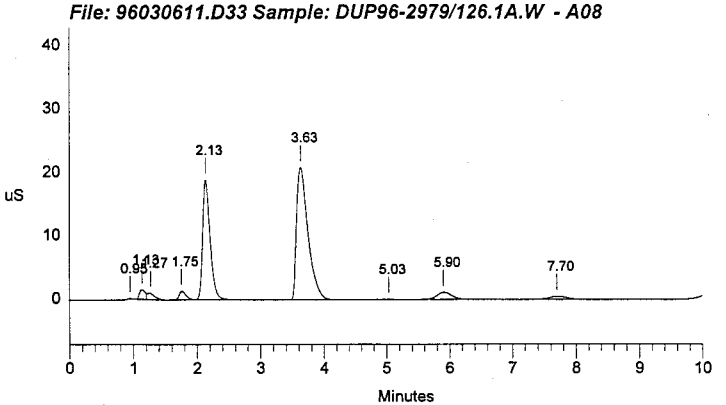
Sample Name: DUP96-2979/126.1A.W - A08 Date: 03/06/1996 15:39:40
Data File : 1:\iag\ic\icdata\9603061\96030611.D33
Method : c:\dx\method\1anions1.met
ACI Address: 1 System: 1 Inject#: 33 Vial:A08 Detector:PED-Cond.
Analyst : MMO Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	65286	386979	2	
2	1.13	FLUORIDE	5.575	1522320	9173535	2	3.03
3	1.27		0.000	1028765	7905625	2	
4	1.75	CHLORIDE	9.096	1347295	10395306	1	0.00
5	2.13	NITRITE	176.083	18926490	154167715	1	1.59
6	3.63	NITRATE	338.752	20903010	262964197	1	0.00
7	5.03		0.000	25875	385555	1	
8	5.90	PHOSPHATE	55.867	1123368	18925562	1	1.26
9	7.70	SULFATE	14.183	488151	10216822	1	0.00
		Totals	599.555	45430559	474521297		

File: 96030611.D33 Sample: DUP96-2979/126.1A.W - A08



Data Reprocessed On 03/15/1996 11:04:35

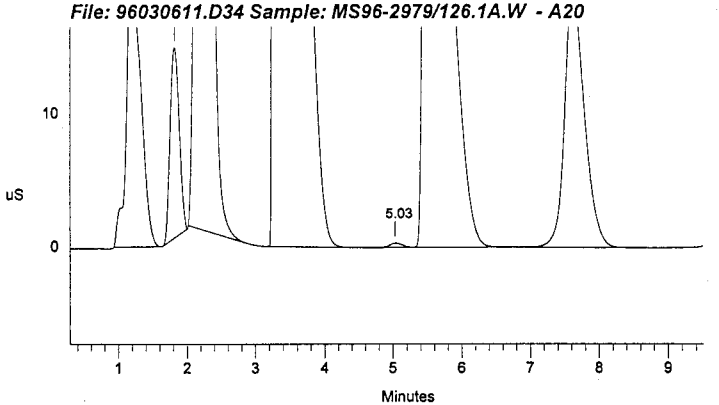
Sample Name: MS96-2979/126.1A.W - A20		Date: 03/06/1996 15:51:41	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D34			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 34 Vial:A20			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.29	9.51	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.18	FLUORIDE	13.806	23148434	313772498	1	3.63
2	1.82	CHLORIDE	9.508	14296805	132336664	1	0.00
3	2.27	NITRITE	140.903	142749343	1738404462	1	3.98
4	3.33	NITRATE	-421.712	261664624	4583229078	1	-9.91
5	5.03		0.000	317120	3920900	1	
6	5.53	PHOSPHATE	-14.570	59568211	1396987334	1	3.52
7	7.60	SULFATE	37.905	18809552	387404811	1	0.00
		Totals	-234.161	520554087	8556055747		

File: 96030611.D34 Sample: MS96-2979/126.1A.W - A20



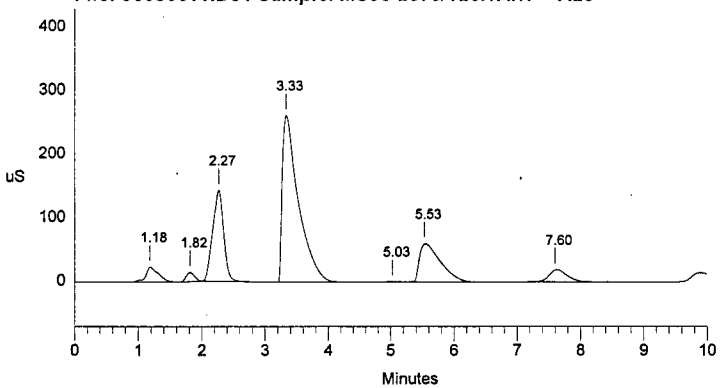
Sample Name: MS96-2979/126.1A.W - A20 Date: 03/06/1996 15:51:41
Data File : l:\iag\ic\icdata\9603061\96030611.D34
Method : c:\dx\method\lanions1.met
ACI Address: 1 System: 1 Inject#: 34 Vial:A20 Detector:PED-Cond.
Analyst : MMO Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.18	FLUORIDE	13.806	23148434	313772498	1	3.63
2	1.82	CHLORIDE	9.508	14296805	132336664	1	0.00
3	2.27	NITRITE	140.903	142749343	1738404462	1	3.98
4	3.33	BROMIDE	-4077.982	261664624	4583229078	1	-3.67
5	5.03		0.000	317120	3920900	1	
6	5.53	PHOSPHATE	-14.570	59568211	1396987334	1	3.52
7	7.60	SULFATE	37.905	18809552	387404811	1	0.00
		Totals	-3890.431	520554087	8556055747		

File: 96030611.D34 Sample: MS96-2979/126.1A.W - A20



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| Sample Name: 96-2979-BLK  - A09              Date: 03/06/1996 16:03:24      |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D35                          |
| Method     : c:\dx\method\1anions1.met                                      |
| ACI Address: 1  System: 1  Inject#: 35  Vial:A09        Detector:PED-Cond. |
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)            |
```
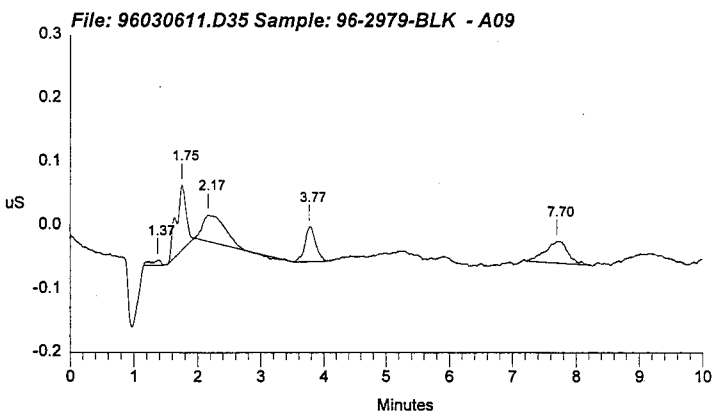

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.37		0.000	7926	94994	1	
2	1.75	CHLORIDE	1.748	102172	1124994	1	0.00
3	2.17	NITRITE	5.454	40831	1013228	1	3.17
4	3.77	NITRATE	4.691	54271	656728	1	0.00
5	7.70	SULFATE	3.975	33770	857309	1	0.00
		Totals	15.869	238971	3747253		



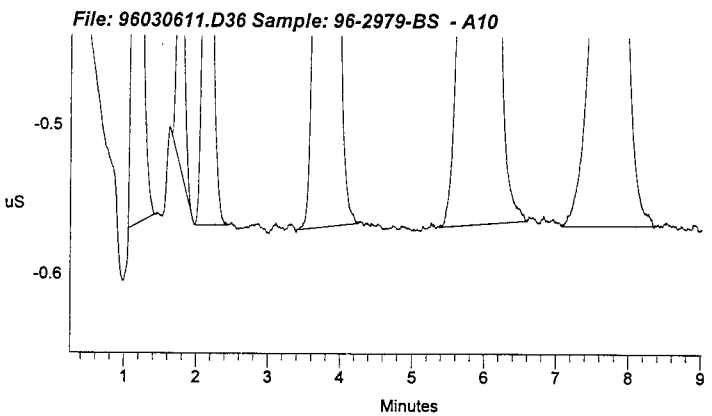
Data Reprocessed On 03/07/1996 13:42:08

Sample Name: 96-2979-BS - A10		Date: 03/06/1996 16:15:04	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D36			
Method : c:\dx\method\lanions1.met			
ACI Address: 1 System: 1 Inject#: 36 Vial:A10			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.25	9.03	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.12	FLUORIDE	3.404	637834	4845892	1	1.52
2	1.75	CHLORIDE	1.917	194057	1336050	1	0.00
3	2.12	NITRITE	8.354	412533	3549875	1	0.79
4	3.73	NITRATE	56.854	3337870	38245936	1	0.00
5	5.87	PHOSPHATE	173.484	3741248	62709420	1	-2.01
6	7.70	SULFATE	24.468	965620	19699401	1	0.00
		Totals	268.481	9289161	130386574		

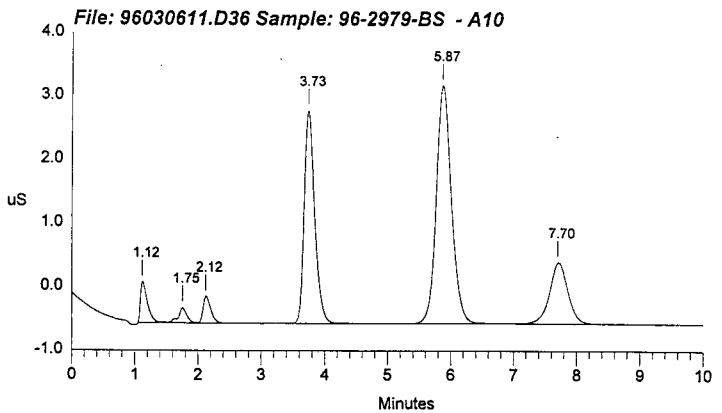


Sample Name: 96-2979-BS - A10	Date: 03/06/1996 16:15:04
Data File : 1:\iag\ic\icdata\9603061\96030611.D36	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 System: 1 Inject#: 36 Vial:A10	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.12	FLUORIDE	3.404	637834	4845892	1	1.52
2	1.75	CHLORIDE	2.542	233754	2119930	1	0.00
3	2.12	NITRITE	8.354	412533	3549875	1	0.79
4	3.73	NITRATE	57.136	3340199	38452432	1	0.00
5	5.87	PHOSPHATE	173.372	3740884	62666060	1	-2.01
6	7.70	SULFATE	24.578	966359	19801046	1	0.00
		Totals	269.387	9331562	131435235		



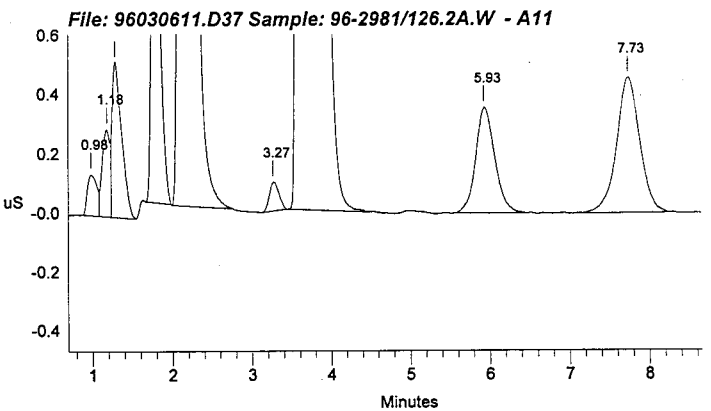
Data Reprocessed On 03/08/1996 12:09:21

Sample Name: 96-2981/126.2A.W - A11		Date: 03/06/1996 16:26:41	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D37			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 37 Vial:A11			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.70	8.65	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.98		0.000	138273	1132863	2	
2	1.18	FLUORIDE	1.981	294458	2016239	2	5.56
3	1.28		0.000	520434	4340342	2	
4	1.78	CHLORIDE	8.081	1232574	9105692	1	0.00
5	2.15	NITRITE	169.113	17378252	147747382	1	0.47
6	3.27	BROMIDE	1.741	96846	820453	1	-3.83
7	3.63	NITRATE	373.556	21709463	293913224	1	0.00
8	5.93	PHOSPHATE	19.559	355938	5989833	1	1.83
9	7.73	SULFATE	13.182	456132	9296758	1	0.00
		Totals	587.212	42182368	474362785		



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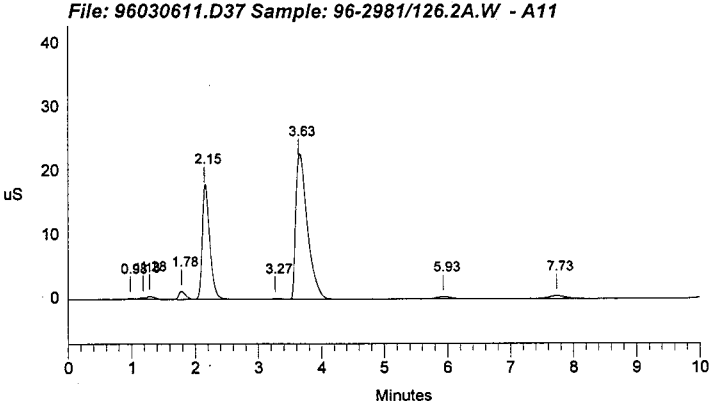
| Sample Name: 96-2981/126.2A.W  - A11        Date: 03/06/1996 16:26:41      |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D37                         |
| Method     : c:\dx\method\1anions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 37  Vial:A11        Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)            |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.98		0.000	71122	469240	2	
2	1.18	FLUORIDE	1.645	251088	1349995	2	5.56
3	1.28		0.000	488955	4035512	2	
4	1.78	CHLORIDE	8.610	1260654	9777635	1	0.00
5	2.15	NITRITE	169.279	17379490	147900944	1	0.47
6	3.27	BROMIDE	1.741	96846	820453	1	-3.83
7	3.63	NITRATE	373.670	21709845	294016248	1	0.00
8	5.93	PHOSPHATE	19.970	358184	6134670	1	1.83
9	7.73	SULFATE	13.265	457133	9372716	1	0.00
		Totals	588.180	42073316	473877413		

File: 96030611.D37 Sample: 96-2981/126.2A.W - A11



Data Reprocessed On 03/08/1996 12:10:13

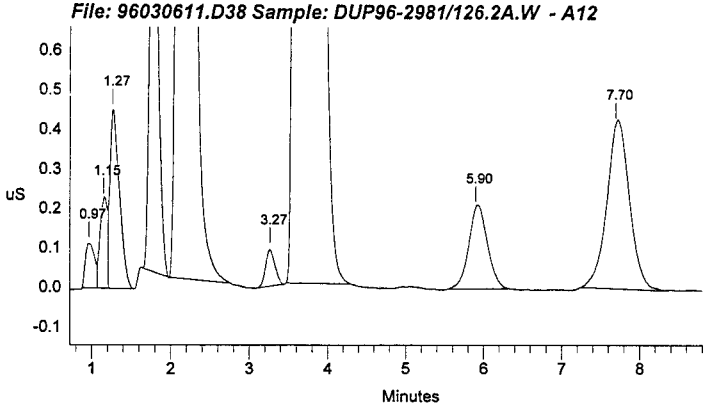
Sample Name: DUP96-2981/126.2A.W - A12		Date: 03/06/1996 16:38:22	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D38			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 38 Vial:A12			Detector:PED-Cond.
Analyst : MMO		Column: AG4A/AS4A-SC (10196/12484)	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.72	8.80	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	112244	902784	2	
2	1.15	FLUORIDE	1.735	223656	1527601	2	3.56
3	1.27		0.000	449948	3732623	2	
4	1.77	CHLORIDE	7.593	1156037	8486951	1	0.00
5	2.13	NITRITE	159.990	16364785	139367322	1	0.63
6	3.27	BROMIDE	1.618	92489	759632	1	-2.92
7	3.63	NITRATE	354.471	21348659	276835154	1	0.00
8	5.90	PHOSPHATE	12.665	205919	3561540	1	1.26
9	7.70	SULFATE	12.459	417704	8632473	1	0.00
		Totals	550.530	40371441	443806080		

File: 96030611.D38 Sample: DUP96-2981/126.2A.W - A12



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| Sample Name: DUP96-2981/126.2A.W  - A12      Date: 03/06/1996 16:38:22 |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D38                     |
| Method     : c:\dx\method\1anions1.met                                 |
| ACI Address: 1  System: 1  Inject#: 38  Vial:A12        Detector:PED-Cond. |
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)       |
```
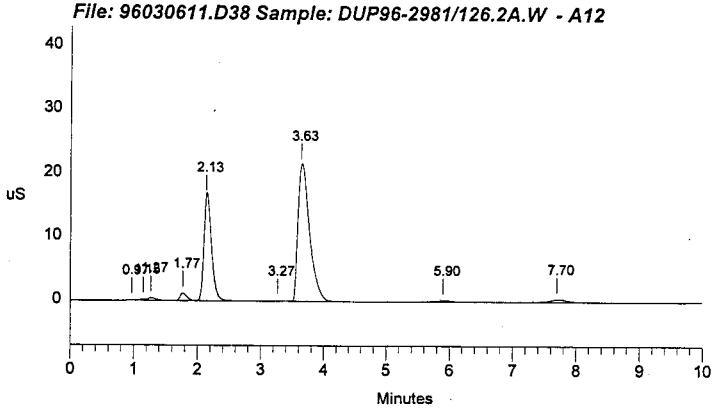

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	61400	399075	2	
2	1.15	FLUORIDE	1.502	189760	1065748	2	3.56
3	1.27		0.000	426837	3480250	2	
4	1.77	CHLORIDE	8.075	1184257	9098901	1	0.00
5	2.13	NITRITE	160.119	16365703	139485398	1	0.63
6	3.27	BROMIDE	1.618	92489	759632	1	-2.92
7	3.63	NITRATE	354.716	21350041	277053398	1	0.00
8	5.90	PHOSPHATE	13.103	208694	3715838	1	1.26
9	7.70	SULFATE	12.773	422517	8921147	1	0.00
		Totals	551.907	40301698	443979387		

File: 96030611.D38 Sample: DUP96-2981/126.2A.W - A12



Data Reprocessed On 03/08/1996 12:11:10

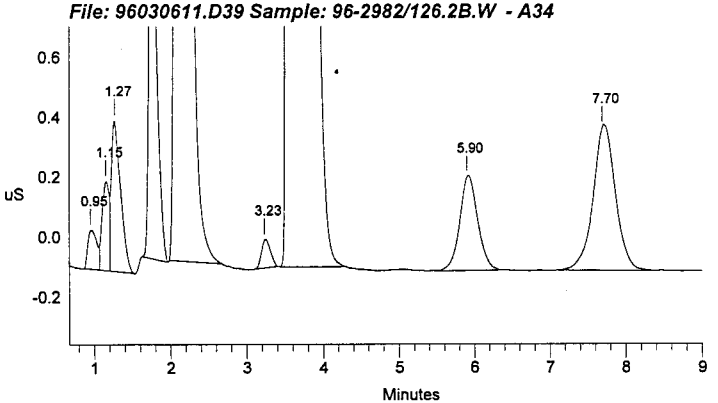
Sample Name: 96-2982/126.2B.W - A34		Date: 03/06/1996 16:50:04	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D39			
Method : c:\dx\method\lanions1.met			
ACI Address: 1 System: 1 Inject#: 39 Vial:A34			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.67	9.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	127157	1066966	2	
2	1.15	FLUORIDE	1.914	294319	1882585	2	4.55
3	1.27		0.000	502079	4230833	2	
4	1.75	CHLORIDE	7.988	1180945	8987525	1	0.00
5	2.13	NITRITE	165.607	17650350	144524459	1	1.59
6	3.23	BROMIDE	1.627	91325	764327	1	-3.00
7	3.60	NITRATE	397.758	23331340	315962700	1	0.00
8	5.90	PHOSPHATE	17.553	309049	5282296	1	2.20
9	7.70	SULFATE	13.935	477151	9988384	1	0.00
		Totals	606.382	43963715	492690075		

File: 96030611.D39 Sample: 96-2982/126.2B.W - A34



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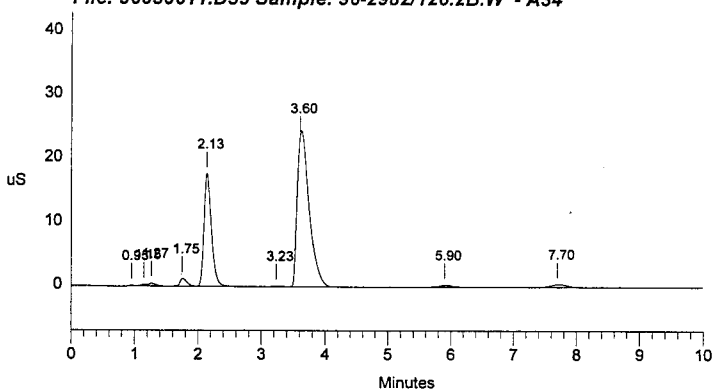
| Sample Name: 96-2982/126.2B.W  - A34          Date: 03/06/1996 16:50:04
| Data File  : l:\iag\ic\icdata\9603061\96030611.D39
| Method     : c:\dx\method\1anions1.met
| ACI Address: 1  System: 1  Inject#: 39  Vial:A34          Detector:PED-Cond.
| Analyst    : MMO              Column: AG4A/AS4A-SC  (10196/12484)
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	62072	415842	2	
2	1.15	FLUORIDE	1.702	252424	1461835	2	4.55
3	1.27		0.000	473712	3773169	2	
4	1.75	CHLORIDE	8.491	1212540	9626247	1	0.00
5	2.13	NITRITE	165.901	17652604	144794817	1	1.59
6	3.23	BROMIDE	1.645	91727	772967	1	-3.00
7	3.60	NITRATE	398.134	23333224	316308956	1	0.00
8	5.90	PHOSPHATE	17.820	310089	5376303	1	2.20
9	7.70	SULFATE	13.935	477151	9988384	1	0.00
		Totals	607.627	43865542	492518519		

File: 96030611.D39 Sample: 96-2982/126.2B.W - A34



Data Reprocessed On 03/08/1996 12:13:21

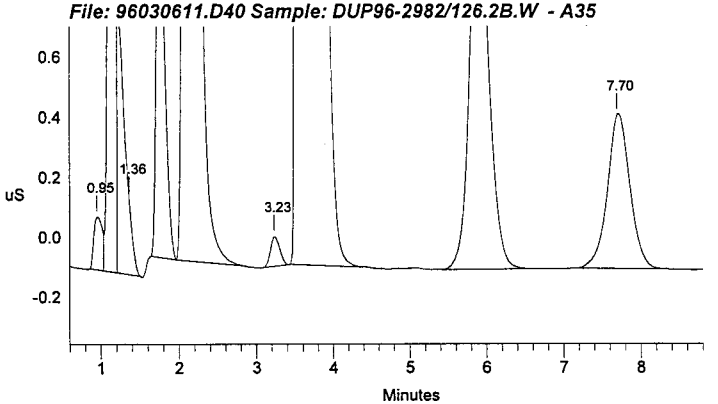
Sample Name:	DUP96-2982/126.2B.W - A35	Date:	03/06/1996 17:01:49
Data File :	L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D40		
Method :	c:\dx\method\lanions1.met		
ACI Address:	1 System: 1 Inject#: 40 Vial:A35	Detector:	PED-Cond.
Analyst :	MMO Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.60	8.80	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	174253	1291206	2	
2	1.12	FLUORIDE	6.531	1662922	11084956	2	1.52
3	1.36		0.000	253160	6111047	2	
4	1.75	CHLORIDE	8.468	1286339	9597718	1	0.00
5	2.13	NITRITE	177.750	18999601	155704555	1	1.59
6	3.23	BROMIDE	1.724	97912	812272	1	-3.00
7	3.60	NITRATE	424.297	25882348	340675381	1	0.00
8	5.90	PHOSPHATE	67.483	1372781	23118637	1	2.20
9	7.70	SULFATE	14.469	512267	10479793	1	0.00
		Totals	700.721	50241584	558875566		

File: 96030611.D40 Sample: DUP96-2982/126.2B.W - A35



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| Sample Name: DUP96-2982/126.2B.W  - A35      Date: 03/06/1996 17:01:49 |
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D40                     |
| Method     : c:\dx\method\1anions1.met                                 |
| ACI Address: 1  System: 1  Inject#: 40  Vial:A35      Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)        |
```
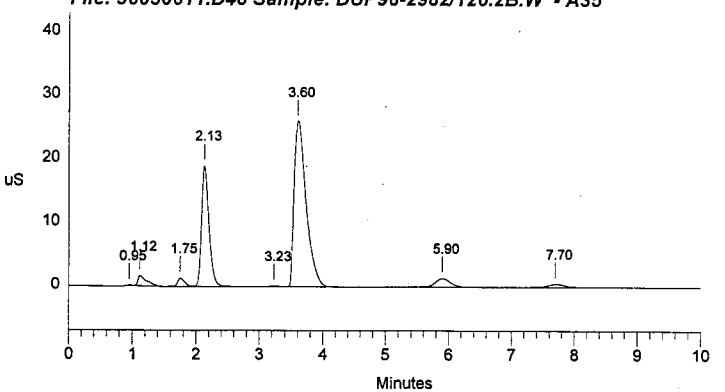

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	64547	384734	2	
2	1.12	FLUORIDE	8.969	1586461	15975274	2	1.52
3	1.75	CHLORIDE	8.967	1318894	10231560	1	0.00
4	2.13	NITRITE	177.856	19000213	155802631	1	1.59
5	3.23	BROMIDE	1.751	98622	825588	1	-3.00
6	3.60	NITRATE	424.440	25882952	340810917	1	0.00
7	5.90	PHOSPHATE	67.582	1373088	23154700	1	2.20
8	7.70	SULFATE	14.523	512680	10529351	1	0.00
		Totals	704.090	49837456	557714753		

File: 96030611.D40 Sample: DUP96-2982/126.2B.W - A35



Data Reprocessed On 03/08/1996 12:14:03

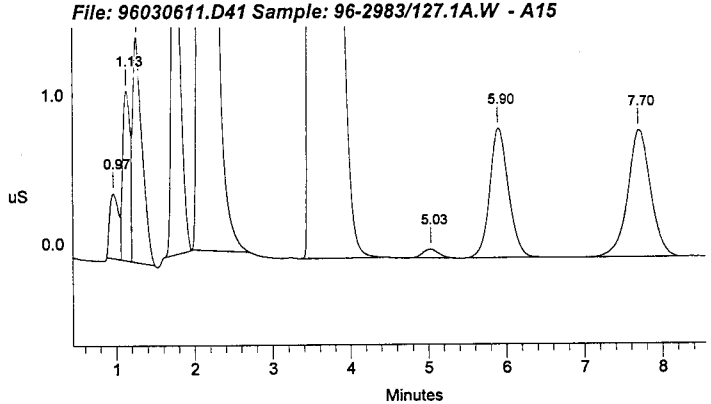
Sample Name: 96-2983/127.1A.W - A15		Date: 03/06/1996 17:13:31	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D41			
Method : c:\dx\method\lanions1.met			
ACI Address: 1 System: 1 Inject#: 41 Vial:A15			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.45	8.55	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	436332	3530591	2	
2	1.13	FLUORIDE	4.670	1137916	7368158	2	3.03
3	1.27		0.000	1504463	11830731	2	
4	1.75	CHLORIDE	16.390	2579800	19744369	1	0.00
5	2.13	NITRITE	357.316	37308436	326578885	1	1.59
6	3.57	NITRATE	656.392	42005702	588839058	1	-0.09
7	5.03		0.000	59244	850804	1	
8	5.90	PHOSPHATE	43.798	870162	14597370	1	-0.47
9	7.70	SULFATE	22.024	853463	17441507	1	0.00
		Totals	1100.591	86755518	990781473		

File: 96030611.D41 Sample: 96-2983/127.1A.W - A15



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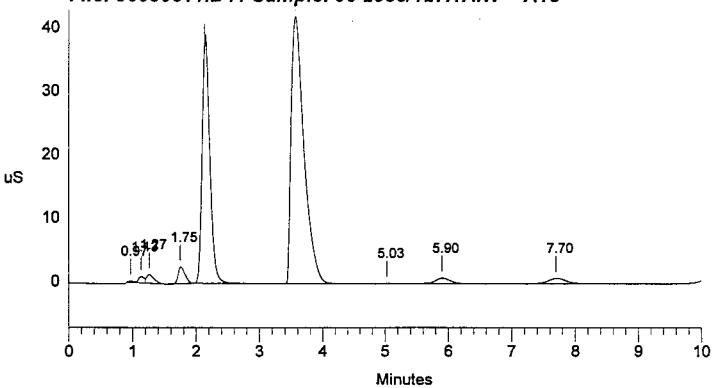
| Sample Name: 96-2983/127.1A.W - A15          Date: 03/06/1996 17:13:31 |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D41                     |
| Method     : c:\dx\method\1anions1.met                                 |
| ACI Address: 1  System: 1  Inject#: 41  Vial:A15      Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	181000	1040836	2	
2	1.13	FLUORIDE	3.910	963229	5852594	2	3.03
3	1.27		0.000	1394293	10716657	2	
4	1.75	CHLORIDE	16.850	2608057	20339257	1	0.00
5	2.13	NITRITE	356.960	37288713	326228599	1	1.59
6	3.57	BROMIDE	365.616	42007361	589122346	1	7.00
7	5.03		0.000	60838	905716	1	
8	5.90	PHOSPHATE	43.912	870815	14638463	1	3.16
9	7.70	SULFATE	22.059	853866	17474092	1	0.00
		Totals	809.308	86228172	986318559		

File: 96030611.D41 Sample: 96-2983/127.1A.W - A15



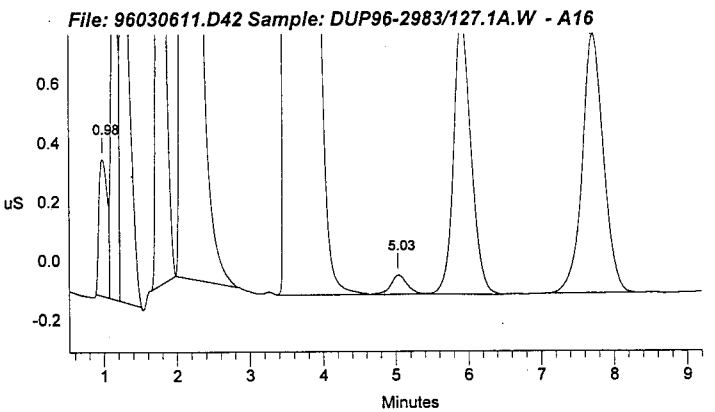
Data Reprocessed On 03/08/1996 12:14:55

Sample Name: DUP96-2983/127.1A.W - A16		Date: 03/06/1996 17:25:14	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D42			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 42 Vial:A16			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.52	9.20	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.98		0.000	463752	3602038	2	
2	1.15	FLUORIDE	4.806	1155202	7638344	2	3.56
3	1.28		0.000	1525073	11996510	2	
4	1.77	CHLORIDE	16.723	2625122	20174167	1	0.00
5	2.17	NITRITE	366.592	40136469	335707858	1	2.20
6	3.57	NITRATE	670.189	42163708	606076496	1	-0.09
7	5.03		0.000	64674	996831	1	
8	5.90	PHOSPHATE	46.559	901854	15585354	1	-0.47
9	7.70	SULFATE	22.408	855740	17795855	1	0.00
		Totals	1127.277	89891594	1019573454		

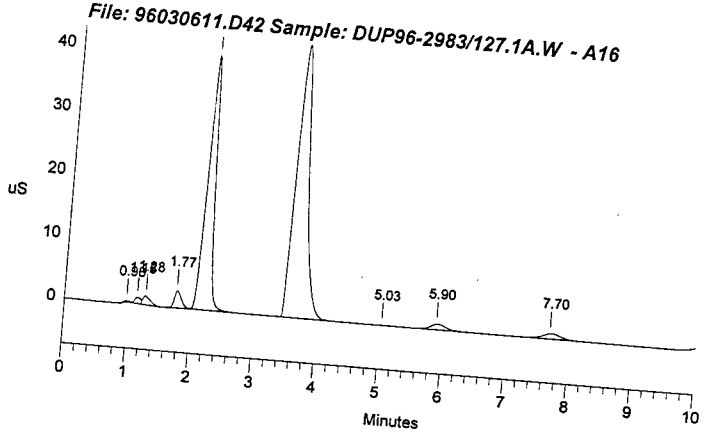


Sample Name: DUP96-2983/127.1A.W - A16 Date: 03/06/1996 17:25:14
Data File : 1:\iag\ic\icdata\9603061\96030611.D42
Method : c:\dx\method\lanions1.met
ACI Address: 1 System: 1 Inject#: 42 Vial:A16
Analyst : MMO Column: AG4A/AS4A-SC (10196/12484) Detector:PED-Cond.

Calibration	Volume	Dilution	Points Rate	Start	Stop	Area Reject
External	5	1	3000 5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.98		0.000	193695	1139408	2	
2	1.15	FLUORIDE	3.938	970449	5908460	2	3.56
3	1.28		0.000	1408562	10812749	2	
4	1.77	CHLORIDE	17.140	2649013	20714265	1	0.00
5	2.17	NITRITE	365.692	40108974	334820789	1	2.20
6	3.57	BROMIDE	351.648	42163708	606076496	1	5.99
7	5.03		0.000	64674	996831	1	
8	5.90	PHOSPHATE	46.559	901854	15585354	1	3.16
9	7.70	SULFATE	22.408	855740	17795855	1	0.00
		Totals	807.386	89316670	1013850206		



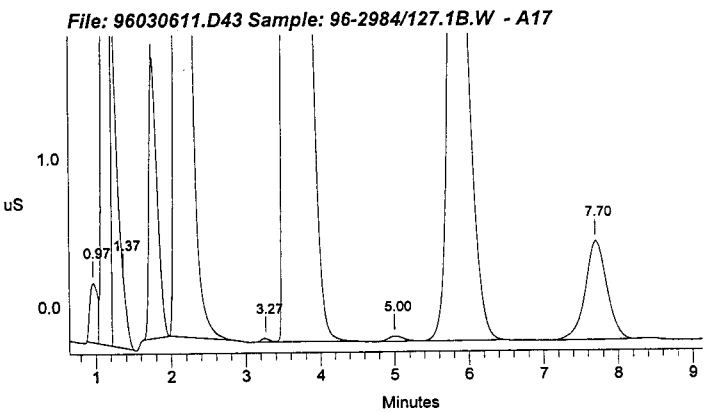
Data Reprocessed On 03/08/1996 12:17:21

Sample Name: 96-2984/127.1B.W - A17		Date: 03/06/1996 17:36:55	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D43			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 43 Vial:A17			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.65	9.13	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	397145	2742484	2	
2	1.13	FLUORIDE	19.838	6113353	38026588	2	3.03
3	1.37		0.000	485380	14280554	2	
4	1.75	CHLORIDE	12.115	1838914	14246472	1	0.00
5	2.13	NITRITE	263.938	27811964	236381848	1	1.59
6	3.27	BROMIDE	0.409	20391	161870	1	-2.00
7	3.60	NITRATE	513.691	31819288	428605710	1	0.00
8	5.00		0.000	35353	505224	1	
9	5.83	PHOSPHATE	210.404	4435856	77115615	1	1.05
10	7.70	SULFATE	17.663	660652	13419054	1	0.00
		Totals	1038.058	73618295	825485419		



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| Sample Name: 96-2984/127.1B.W  - A17          Date: 03/06/1996 17:36:55      |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D43                           |
| Method     : c:\dx\method\1anions1.met                                       |
| ACI Address: 1  System: 1  Inject#: 43  Vial:A17        Detector:PED-Cond.   |
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)             |
```
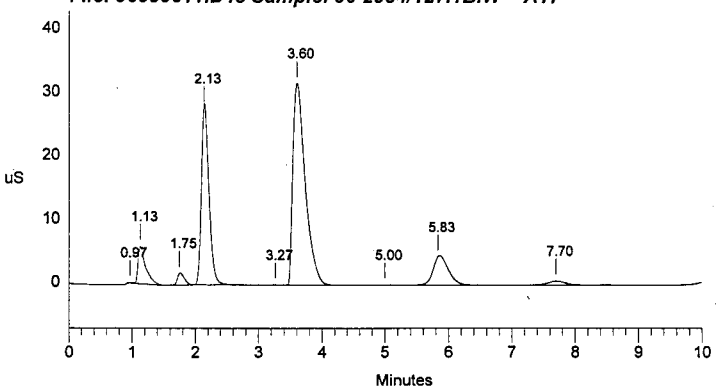

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	128289	662658	2	
2	1.13	FLUORIDE	25.276	5928515	49222027	2	3.03
3	1.75	CHLORIDE	12.655	1872130	14938632	1	0.00
4	2.13	NITRITE	263.601	27802415	236062210	1	1.59
5	3.27	BROMIDE	0.409	20391	161870	1	-2.00
6	3.60	NITRATE	513.901	31820290	428821240	1	0.00
7	5.00		0.000	35353	505224	1	
8	5.83	PHOSPHATE	210.724	4437274	77242022	1	1.05
9	7.70	SULFATE	17.663	660652	13419054	1	0.00
		Totals	1044.229	72705309	821034937		

File: 96030611.D43 Sample: 96-2984/127.1B.W - A17



Data Reprocessed On 03/08/1996 12:19:37

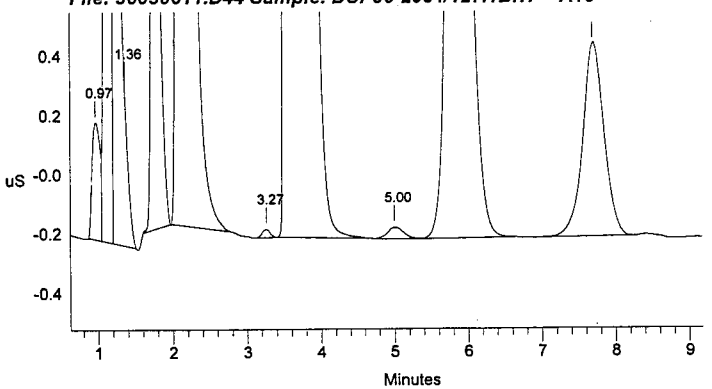
Sample Name: DUP96-2984/127.1B.W - A18		Date: 03/06/1996 17:48:41	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D44			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 44 Vial:A18			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	5	1	3000	5Hz	0.62	9.18	30000	

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	395102	2922818	2	
2	1.13	FLUORIDE	17.576	5827199	33401238	2	2.06
3	1.36		0.000	547922	16869569	2	
4	1.77	CHLORIDE	12.172	1905532	14320118	1	0.00
5	2.15	NITRITE	263.722	28633155	236176775	1	1.42
6	3.27	BROMIDE	0.487	26975	200178	1	-2.92
7	3.60	NITRATE	514.161	31464892	429089034	1	0.00
8	5.00		0.000	38068	583830	1	
9	5.87	PHOSPHATE	203.092	4475692	74234711	1	1.62
10	7.70	SULFATE	17.465	651643	13236748	1	0.00
		Totals	1028.674	73966181	821035020		

File: 96030611.D44 Sample: DUP96-2984/127.1B.W - A18



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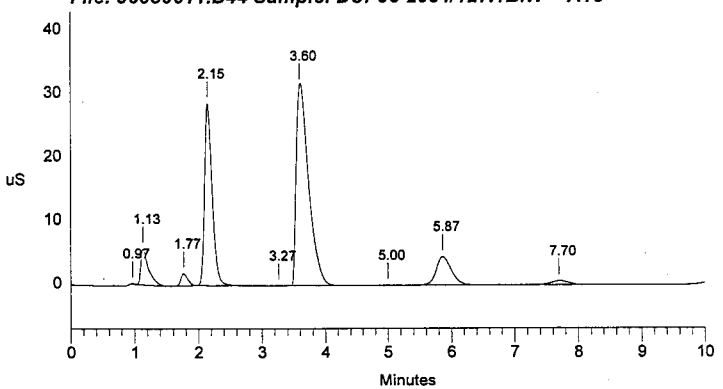
| Sample Name: DUP96-2984/127.1B.W  - A18      Date: 03/06/1996 17:48:41      |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D44                          |
| Method     : c:\dx\method\lanions1.met                                      |
| ACI Address: 1  System: 1  Inject#: 44  Vial:A18         Detector:PED-Cond. |
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)            |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	121874	619747	2	
2	1.13	FLUORIDE	24.241	5638301	47082135	2	2.06
3	1.77	CHLORIDE	12.595	1929210	14861016	1	0.00
4	2.15	NITRITE	263.925	28634611	236370356	1	1.42
5	3.27	BROMIDE	0.487	26975	200178	1	-2.92
6	3.60	NITRATE	514.089	31462453	429014632	1	0.00
7	5.00		0.000	38068	583830	1	
8	5.87	PHOSPHATE	203.332	4476558	74329322	1	1.62
9	7.70	SULFATE	17.465	651643	13236748	1	0.00
		Totals	1036.133	72979692	816297964		

File: 96030611.D44 Sample: DUP96-2984/127.1B.W - A18



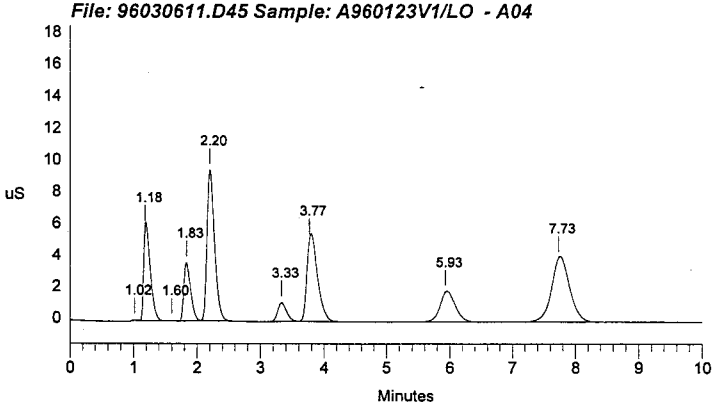
Sample Name: A960123V1/LO - A04	Date: 03/06/1996 18:00:28
Data File : l:\iag\ic\icdata\9603061\96030611.D45	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 System: 1 Inject#: 45 Vial:A04	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.02		0.000	40086	212911	2	
2	1.18	FLUORIDE	22.974	5902030	44469022	2	2.69
3	1.60		0.000	46981	266580	1	
4	1.83	CHLORIDE	22.148	3682159	27232599	1	0.00
5	2.20	NITRITE	92.341	9494164	77984788	1	0.00
6	3.33	BROMIDE	22.861	1191588	11405527	1	-4.55
7	3.77	NITRATE	91.869	5105383	64078057	1	0.00
8	5.93	PHOSPHATE	93.722	1887821	32690991	1	-1.77
9	7.73	SULFATE	91.458	4037035	82810621	1	0.00
		Totals	437.373	31387247	341151098		

File: 96030611.D45 Sample: A960123V1/LO - A04



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| Sample Name: A960123V2/MID  - A04          Date: 03/06/1996 18:12:28      |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D46                        |
| Method     : c:\dx\method\lanions1.met                                    |
| ACI Address: 1  System: 1  Inject#: 46  Vial:A04       Detector:PED-Cond. |
| Analyst    : MMO           Column: AG4A/AS4A-SC  (10196/12484)            |
```
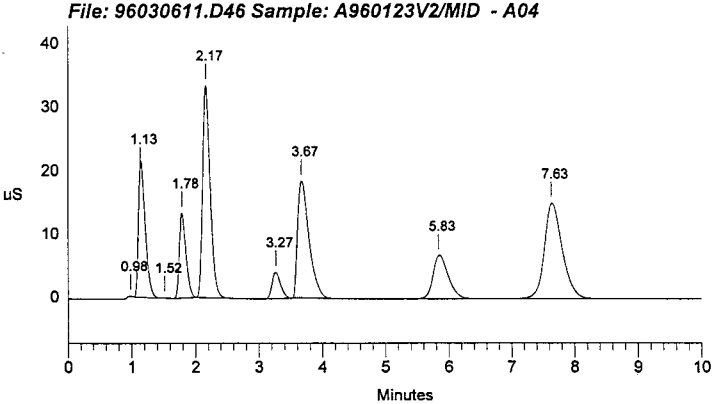

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	30	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.98		0.000	100532	406989	2	
2	1.13	FLUORIDE	25.221	20265976	158835283	2	1.10
3	1.52		0.000	56776	336686	1	
4	1.78	CHLORIDE	23.982	13440870	96617222	1	0.00
5	2.17	NITRITE	101.998	33434730	276629990	1	1.25
6	3.27	BROMIDE	24.911	4159770	38633695	1	-3.83
7	3.67	NITRATE	100.349	18422816	230370552	1	0.00
8	5.83	PHOSPHATE	101.145	6797160	115062356	1	-0.79
9	7.63	SULFATE	100.478	15044047	298733221	1	0.00
		Totals	478.084	111722678	1215625994		

File: 96030611.D46 Sample: A960123V2/MID - A04



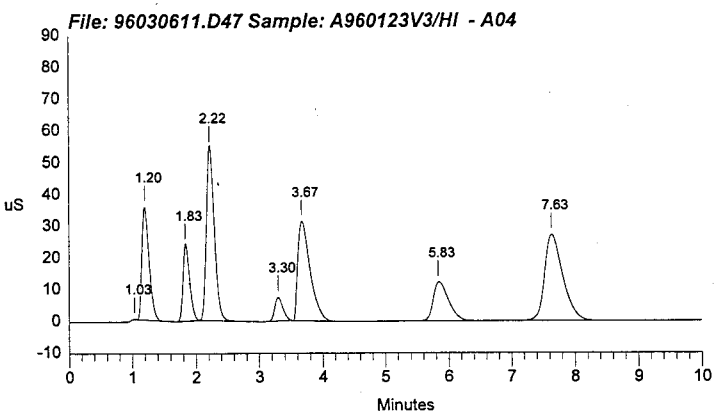
Data Reprocessed On 03/08/1996 08:42:24

Sample Name: A960123V3/HI - A04	Date: 03/06/1996 18:24:41
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D47	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 , System: 1 Inject#: 47 Vial:A04	Detector:PED-Cond.
Analyst : MMO Column: AG4A/AS4A-SC (10196/12484)	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03		0.000	59128	134605	1	
2	1.20	FLUORIDE	24.964	35562217	278652029	1	4.13
3	1.83	CHLORIDE	24.170	23788579	175651946	1	0.00
4	2.22	NITRITE	101.133	54276202	476604081	1	0.76
5	3.30	BROMIDE	24.562	7433739	65707496	1	-4.55
6	3.67	NITRATE	101.164	31233784	420540467	1	0.00
7	5.83	PHOSPHATE	101.331	12148740	208602492	1	-1.60
8	7.63	SULFATE	100.726	27105885	543682060	1	0.00
		Totals	478.050	191608275	2169575174		



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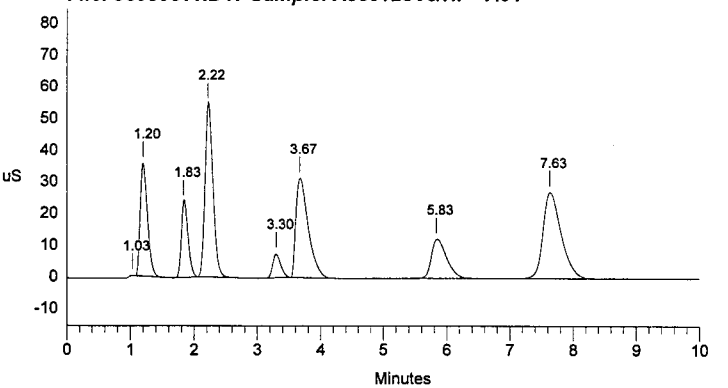
| Sample Name: A960123V3/HI  - A04            Date: 03/06/1996 18:24:41 |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D47                    |
| Method     : c:\dx\method\1anions1.met                                |
| ACI Address: 1  System: 1  Inject#: 47  Vial:A04      Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)      |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03		0.000	59128	134605	1	
2	1.20	FLUORIDE	24.964	35562217	278652029	1	4.13
3	1.83	CHLORIDE	24.170	23788579	175651946	1	0.00
4	2.22	NITRITE	101.133	54276202	476604081	1	0.76
5	3.30		0.000	7433739	65707496	1	
6	3.67	BROMIDE	85.992	31233784	420540467	1	5.00
7	5.83	PHOSPHATE	101.331	12148740	208602492	1	-0.79
8	7.63	SULFATE	100.726	27105885	543682060	1	0.00
		Totals	438.316	191608275	2169575174		

File: 96030611.D47 Sample: A960123V3/HI - A04



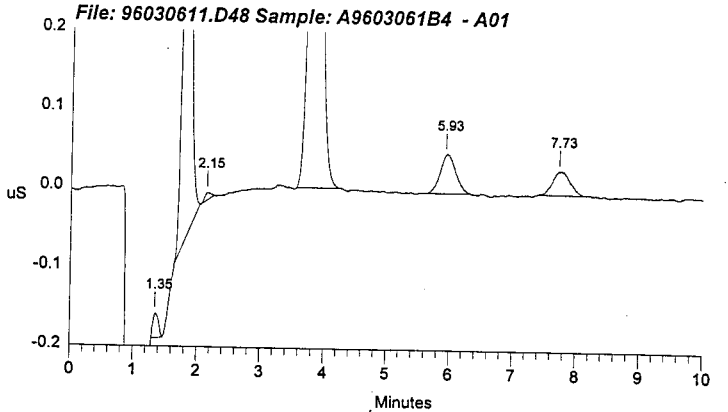
Data Reprocessed On 03/08/1996 08:44:33

Sample Name: A9603061B4 - A01	Date: 03/06/1996 18:37:11
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D48	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 System: 1 Inject#: 48 Vial:A01	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.35		0.000	30488	190522	1	
2	1.77	CHLORIDE	0.286	737568	6111517	1	0.00
3	2.15	NITRITE	0.218	8983	57427	1	1.42
4	3.77	NITRATE	0.952	877849	10899323	1	0.00
5	5.93	PHOSPHATE	0.246	48437	847877	1	-1.77
6	7.73	SULFATE	0.184	29438	586333	1	0.00
		Totals	1.887	1732763	18692999		

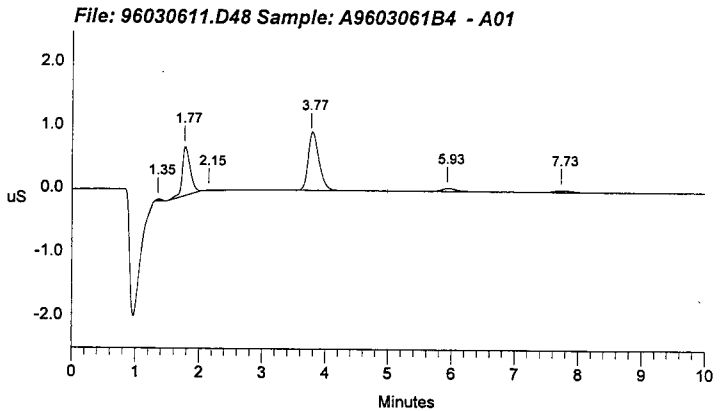


```
| Sample Name: A9603061B4  - A01                Date: 03/06/1996 18:37:11      |
| Data File   : l:\iag\ic\icdata\9603061\96030611.D48                          |
| Method      : c:\dx\method\lanions1.met                                      |
| ACI Address: 1  System: 1  Inject#: 48  Vial:A01          Detector:PED-Cond. |
| Analyst     : MMO              Column: AG4A/AS4A-SC  (10196/12484)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.35		0.000	30488	190522	1	
2	1.77	CHLORIDE	0.314	767518	6814390	1	0.00
3	2.15	NITRITE	0.221	11175	102308	1	1.42
4	3.77	NITRATE	0.959	879668	10988810	1	0.00
5	5.93	PHOSPHATE	0.250	48885	869973	1	-1.77
6	7.73	SULFATE	0.194	32391	768726	1	0.00
		Totals	1.936	1770125	19734728		



Data Reprocessed On 03/08/1996 08:47:01

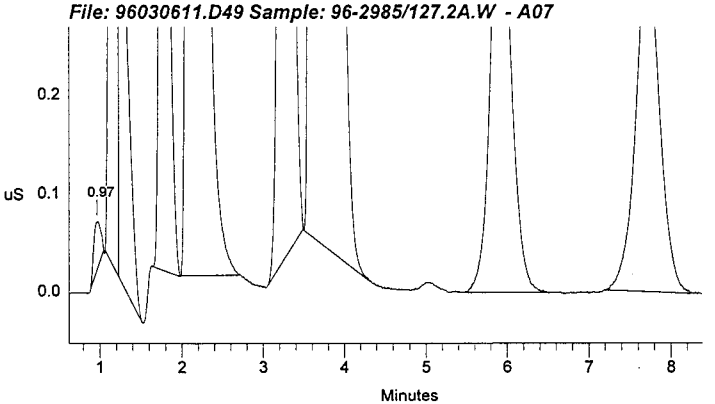
Sample Name: 96-2985/127.2A.W - A07		Date: 03/06/1996 18:48:57	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D49			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 49 Vial:A07			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.62	8.38	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	49239	293493	1	
2	1.13	FLUORIDE	3.020	607384	4081572	2	2.06
3	1.28		0.000	418433	3403924	2	
4	1.77	CHLORIDE	6.252	909366	6790530	1	0.00
5	2.15	NITRITE	122.106	12780879	104829818	1	1.42
6	3.27	BROMIDE	32.411	1773752	16282074	1	-2.92
7	3.67	NITRATE	281.448	17216706	213787909	1	0.00
8	5.90	PHOSPHATE	24.962	456407	7898677	1	0.34
9	7.70	SULFATE	10.671	338044	6990934	1	0.00
		Totals	480.870	34550211	364358930		

File: 96030611.D49 Sample: 96-2985/127.2A.W - A07



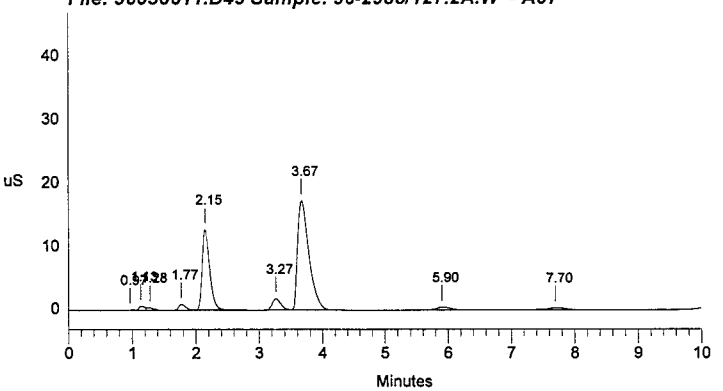
Sample Name: 96-2985/127.2A.W - A07	Date: 03/06/1996 18:48:57
Data File : l:\iag\ic\icdata\9603061\96030611.D49	
Method : c:\dx\method\lanions1.met	
ACI Address: 1 System: 1 Inject#: 49 Vial:A07	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	38414	240783	2	
2	1.13	FLUORIDE	2.988	625136	4016538	2	2.06
3	1.28		0.000	429173	3450937	2	
4	1.77	CHLORIDE	6.768	939044	7442573	1	0.00
5	2.15	NITRITE	122.080	12775035	104805937	1	1.42
6	3.27	BROMIDE	31.511	1755549	15819937	1	-2.92
7	3.67	NITRATE	280.743	17213941	213196111	1	0.00
8	5.90	PHOSPHATE	25.020	456682	7919352	1	0.34
9	7.70	SULFATE	10.771	339413	7082364	1	0.00
		Totals	479.880	34572386	363974532		

File: 96030611.D49 Sample: 96-2985/127.2A.W - A07



Data Reprocessed On 03/08/1996 09:06:56

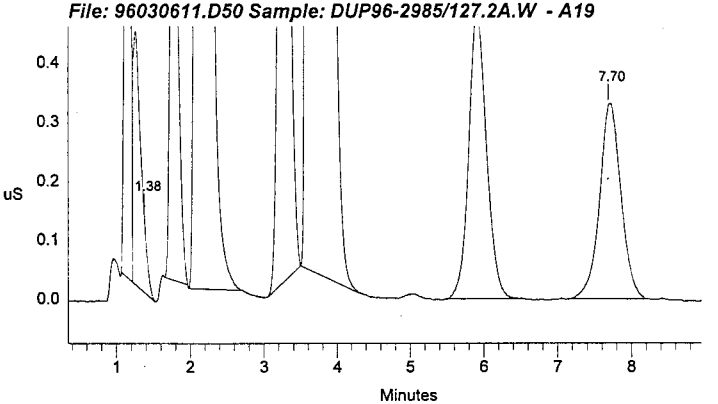
Sample Name: DUP96-2985/127.2A.W - A19		Date: 03/06/1996 19:00:45	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D50			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1	Inject#: 50	Vial:A19	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC	(10196/12484)	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.35	8.95	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.13	FLUORIDE	3.049	640432	4138298	2	2.06
2	1.38		0.000	130196	3301449	2	
3	1.77	CHLORIDE	5.884	857134	6324482	1	0.00
4	2.13	NITRITE	115.340	11568713	98705262	1	0.63
5	3.27	BROMIDE	30.800	1671626	15455662	1	-2.92
6	3.67	NITRATE	265.610	16164860	200556383	1	0.00
7	5.90	PHOSPHATE	25.619	475429	8131352	1	0.34
8	7.70	SULFATE	10.356	326555	6701527	1	0.00
		Totals	456.658	31834946	343314414		

File: 96030611.D50 Sample: DUP96-2985/127.2A.W - A19



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| Sample Name: DUP96-2985/127.2A.W  - A19      Date: 03/06/1996 19:00:45 |
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D50                     |
| Method     : c:\dx\method\lanions1.met                                 |
| ACI Address: 1  System: 1  Inject#: 50  Vial:A19        Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)        |
```
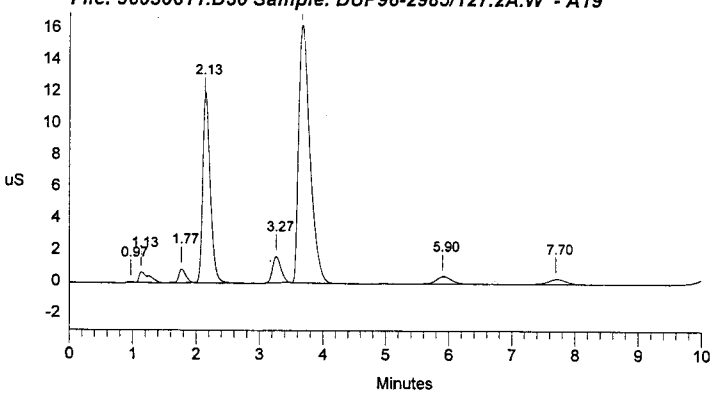

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	34562	199290	2	
2	1.13	FLUORIDE	4.833	656109	7693122	2	2.06
3	1.77	CHLORIDE	6.243	877766	6778795	1	0.00
4	2.13	NITRITE	115.585	11570395	98926743	1	0.63
5	3.27	BROMIDE	29.866	1652901	14976797	1	-2.92
6	3.67	NITRATE	265.058	16162633	200097733	1	0.00
7	5.90	PHOSPHATE	26.106	477808	8303644	1	0.34
8	7.70	SULFATE	10.438	327665	6777120	1	0.00
		Totals	458.129	31759838	343753244		

File: 96030611.D50 Sample: DUP96-2985/127.2A.W - A19



Data Reprocessed On 03/08/1996 09:09:52

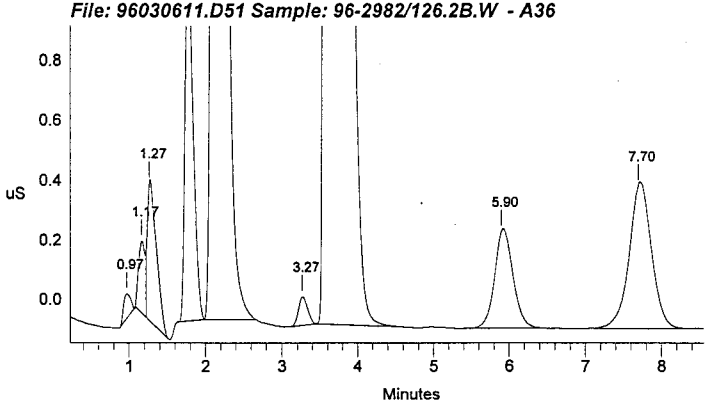
Sample Name: 96-2982/126.2B.W - A36			Date: 03/06/1996 19:12:31	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D51				
Method : c:\dx\method\1anions1.met				
ACI Address: 1 System: 1	Inject#: 51	Vial:A36		Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)			

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.22	8.55	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	82026	516494	1	
2	1.17	FLUORIDE	1.701	239788	1460700	2	5.06
3	1.27		0.000	458590	3843206	2	
4	1.77	CHLORIDE	8.009	1193327	9014820	1	0.00
5	2.15	NITRITE	164.461	17521136	143471226	1	1.42
6	3.27	BROMIDE	1.687	94706	793857	1	-2.92
7	3.63	NITRATE	395.964	23883745	314312964	1	0.00
8	5.90	PHOSPHATE	18.513	323790	5620670	1	1.26
9	7.70	SULFATE	13.919	477649	9974205	1	0.00
		Totals	604.254	44274757	489008143		

File: 96030611.D51 Sample: 96-2982/126.2B.W - A36



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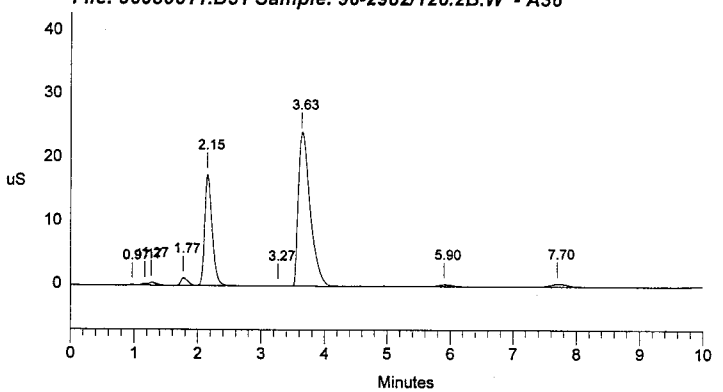
| Sample Name: 96-2982/126.2B.W  - A36          Date: 03/06/1996 19:12:31 |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D51                      |
| Method     : c:\dx\method\1anions1.met                                  |
| ACI Address: 1  System: 1  Inject#: 51  Vial:A36        Detector:PED-Cond.|
| Analyst    : MMO              Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	57769	393507	2	
2	1.17	FLUORIDE	1.668	268916	1394481	2	5.06
3	1.27		0.000	479196	4190365	2	
4	1.77	CHLORIDE	8.490	1221119	9625053	1	0.00
5	2.15	NITRITE	164.513	17515122	143518793	1	1.42
6	3.27	BROMIDE	1.672	94350	786502	1	-2.92
7	3.63	NITRATE	395.914	23881799	314266517	1	0.00
8	5.90	PHOSPHATE	18.598	324259	5650713	1	1.26
9	7.70	SULFATE	13.919	477649	9974205	1	0.00
		Totals	604.773	44320179	489800136		

File: 96030611.D51 Sample: 96-2982/126.2B.W - A36



Data Reprocessed On 03/08/1996 09:13:26

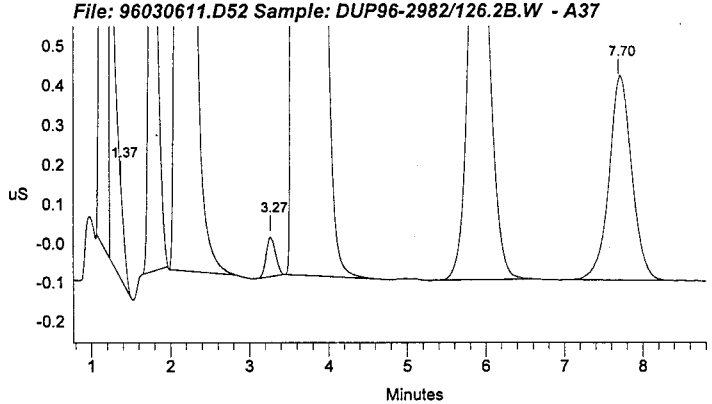
Sample Name: DUP96-2982/126.2B.W - A37		Date: 03/06/1996 19:24:18	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D52			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1	Inject#: 52	Vial:A37	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC	(10196/12484)	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.77	8.80	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.13	FLUORIDE	6.088	1558307	10198641	2	2.06
2	1.37		0.000	246692	5303550	2	
3	1.77	CHLORIDE	8.429	1276357	9548325	1	0.00
4	2.15	NITRITE	176.183	18784486	154259701	1	1.42
5	3.27	BROMIDE	1.763	100821	831268	1	-2.92
6	3.63	NITRATE	421.620	25791680	338156688	1	0.00
7	5.90	PHOSPHATE	66.944	1366265	22923388	1	1.26
8	7.70	SULFATE	14.445	505544	10457573	1	0.00
		Totals	695.472	49630151	551679134		

File: 96030611.D52 Sample: DUP96-2982/126.2B.W - A37



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| Sample Name: DUP96-2982/126.2B.W  - A37     Date: 03/06/1996 19:24:18
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D52
| Method     : c:\dx\method\1anions1.met
| ACI Address: 1  System: 1  Inject#: 52  Vial:A37        Detector:PED-Cond.
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)
```
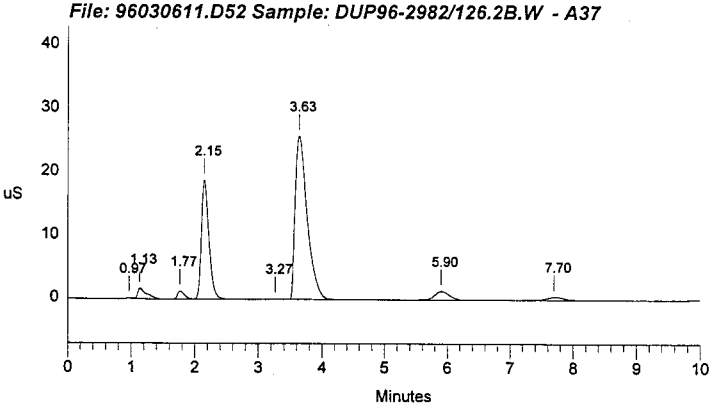

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	61641	371999	2	
2	1.13	FLUORIDE	9.044	1597799	16124991	2	2.06
3	1.77	CHLORIDE	8.899	1303644	10144689	1	0.00
4	2.15	NITRITE	176.355	18785494	154417849	1	1.42
5	3.27	BROMIDE	1.758	100690	829078	1	-2.92
6	3.63	NITRATE	421.516	25789234	338058443	1	0.00
7	5.90	PHOSPHATE	67.126	1366980	22989265	1	1.26
8	7.70	SULFATE	14.511	506276	10518541	1	0.00
		Totals	699.208	49511758	553454855		

File: 96030611.D52 Sample: DUP96-2982/126.2B.W - A37



Data Reprocessed on 03/08/1996 09:10:22

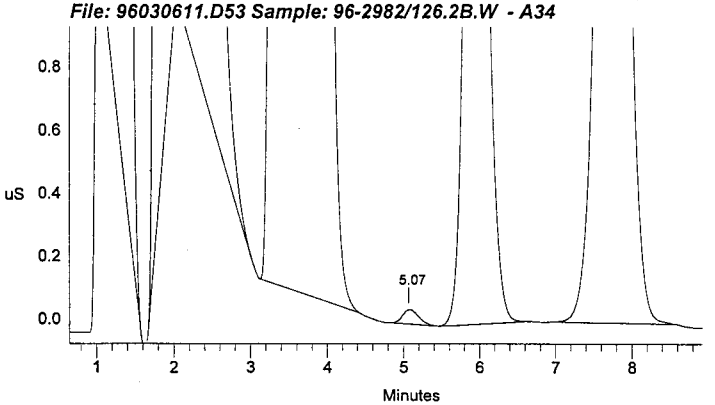
Sample Name: 96-2982/126.2B.W - A34	Date: 03/06/1996 19:36:24
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D53	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 System: 1 Inject#: 53 Vial:A34	Detector:PED-Cond.
Analyst : MMO Column: AG4A/AS4A-SC (10196/12484)	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.65	8.93	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.18	FLUORIDE	0.672	1579520	11464095	2	2.40
2	1.32		0.000	4759171	45690889	2	
3	1.83	CHLORIDE	8.251	12391884	112598343	1	0.00
4	2.28	NITRITE	136.413	138040770	1646725370	1	3.79
5	3.37	NITRATE	-476.877	274892156	4748718923	1	-9.01
6	5.07		0.000	45724	667506	1	
7	5.93	PHOSPHATE	18.981	4185129	69035698	1	0.06
8	7.73	SULFATE	13.742	6393313	127558417	1	0.00
9	9.37		0.000	5889	90315	1	
		Totals	-298.819	442293556	6762549557		

File: 96030611.D53 Sample: 96-2982/126.2B.W - A34



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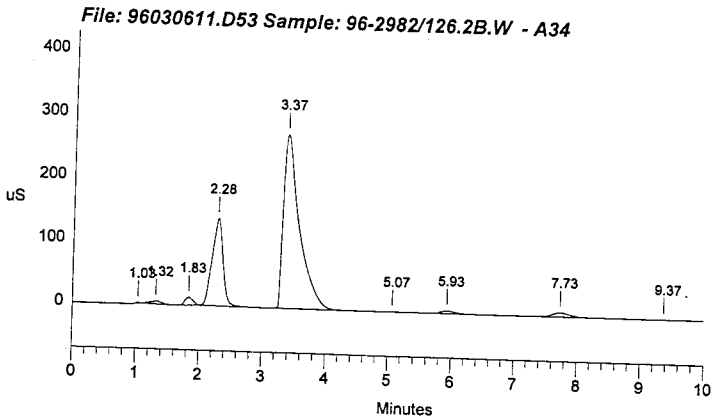
Sample Name: 96-2982/126.2B.W  - A34          Date: 03/06/1996 19:36:24
Data File  : 1:\iag\ic\icdata\9603061\96030611.D53
Method     : c:\dx\method\lanions1.met
ACI Address: 1  System: 1  Inject#: 53  Vial:A34          Detector:PED-Cond.
Analyst    : MMO                Column: AG4A/AS4A-SC  (10196/12484)
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	50	1	3000	5Hz	0.00	10.00	30000	

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03		0.000	298783	1545427	2	
2	1.32		0.000	4894846	60464512	2	
3	1.83	CHLORIDE	8.200	12357468	111823405	1	0.00
4	2.28	NITRITE	136.304	137986691	1644568988	1	3.79
5	3.37	BROMIDE	-4412.530	274892438	4748732112	1	-3.59
6	5.07	PHOSPHATE	0.446	46041	683008	1	-6.15
7	5.93		0.000	4186576	69185039	1	
8	7.73	SULFATE	13.799	6398417	128127982	1	0.00
9	9.37		0.000	4443	48648	1	
		Totals	-4253.781	441065703	6765179121		



Data Reprocessed On 03/08/1996 09:26:59

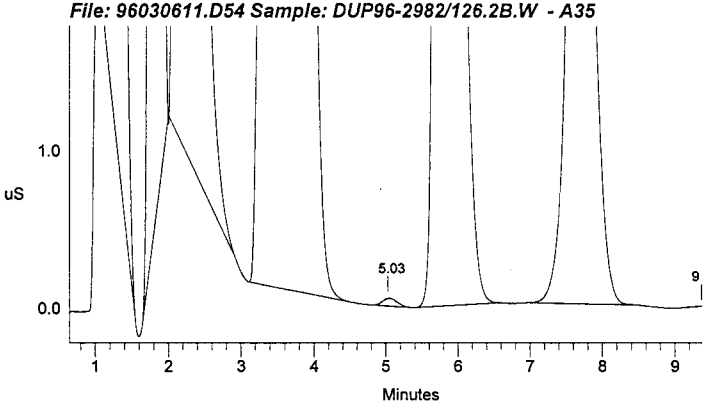
Sample Name: DUP96-2982/126.2B.W - A35			Date: 03/06/1996 19:48:31	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D54				
Method : c:\dx\method\1anions1.met				
ACI Address: 1 System: 1 Inject#: 54 Vial:A35			Detector:PED-Cond.	
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)			

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.65	9.37	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03		0.000	41429	93414	1	
2	1.20	FLUORIDE	8.837	17367541	188409760	1	5.09
3	1.82	CHLORIDE	8.642	12506630	118652886	1	0.00
4	2.27	NITRITE	141.117	141236191	1742933482	1	3.98
5	3.33	NITRATE	-597.780	293456296	5085622789	1	-9.91
6	5.03		0.000	49105	684415	1	
7	5.77	PHOSPHATE	73.133	18737969	341385919	1	-2.75
8	7.70	SULFATE	14.429	6618830	134365230	1	0.00
		Totals	-351.622	490013991	7612147896		

File: 96030611.D54 Sample: DUP96-2982/126.2B.W - A35



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| Sample Name: DUP96-2982/126.2B.W  - A35      Date: 03/06/1996 19:48:31
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D54
| Method     : c:\dx\method\1anions1.met
| ACI Address: 1  System: 1  Inject#: 54  Vial:A35          Detector:PED-Cond.
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)
```
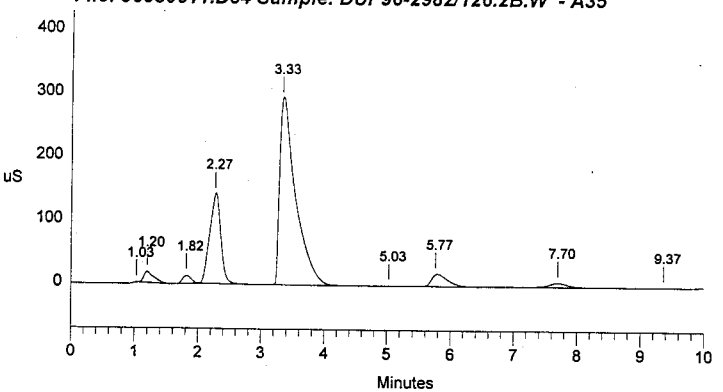

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03		0.000	41429	93414	1	
2	1.20	FLUORIDE	8.837	17367541	188409760	1	5.09
3	1.82	CHLORIDE	8.605	12480904	118080772	1	0.00
4	2.27	NITRITE	141.136	141240171	1743346754	1	3.98
5	3.33	BROMIDE	-5131.908	293444371	5084745930	1	-3.67
6	5.03	PHOSPHATE	0.446	49105	684415	1	-5.84
7	5.77		0.000	18740121	341661785	1	
8	7.70	SULFATE	14.533	6628480	135388971	1	0.00
		Totals	-4958.351	489992122	7612411801		

File: 96030611.D54 Sample: DUP96-2982/126.2B.W - A35



Data Reprocessed On 03/08/1996 09:32:39

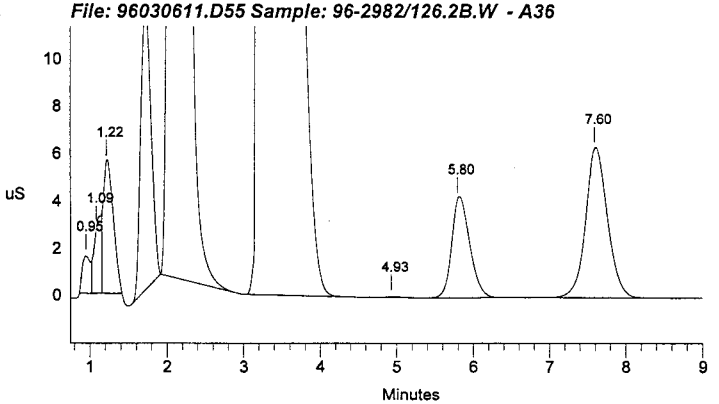
Sample Name:	96-2982/126.2B.W - A36	Date:	03/06/1996 20:00:36
Data File :	L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D55		
Method :	c:\dx\method\1anions1.met		
ACI Address: 1	System: 1 Inject#: 55 Vial:A36	Detector:	PED-Cond.
Analyst :	MMO Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.75	9.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	1578869	11696918	2	
2	1.09	FLUORIDE	1.148	2773416	21032648	2	0.71
3	1.22		0.000	5563355	50483794	2	
4	1.72	CHLORIDE	8.290	11945777	113205304	1	0.00
5	2.17	NITRITE	136.548	135391117	1649389679	1	5.18
6	3.27	NITRATE	-474.129	268298241	4740669060	1	-1.01
7	4.93		0.000	44112	693499	1	
8	5.80	PHOSPHATE	19.374	4177578	70569031	1	-2.19
9	7.60	SULFATE	13.765	6311231	127787759	1	0.00
		Totals	-295.004	436083695	6785527692		

File: 96030611.D55 Sample: 96-2982/126.2B.W - A36



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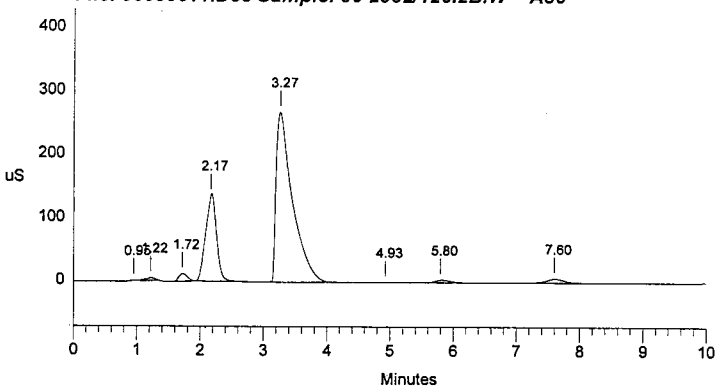
| Sample Name: 96-2982/126.2B.W  - A36          Date: 03/06/1996 20:00:36 |
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D55                      |
| Method     : c:\dx\method\1anions1.met                                  |
| ACI Address: 1  System: 1  Inject#: 55  Vial:A36        Detector:PED-Cond.|
| Analyst    : MMO              Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	544529	2485684	2	
2	1.22		0.000	4373930	46067784	2	
3	1.72	CHLORIDE	8.290	11945777	113205304	1	0.00
4	2.17	NITRITE	136.163	135192943	1641811510	1	5.18
5	3.27	BROMIDE	-4395.781	268298209	4740597119	1	-0.10
6	4.93		0.000	44112	693499	1	
7	5.80	PHOSPHATE	19.385	4178430	70613319	1	-2.25
8	7.60	SULFATE	13.832	6317043	128447601	1	0.00
		Totals	-4218.111	430894972	6743921821		

File: 96030611.D55 Sample: 96-2982/126.2B.W - A36



Data Reprocessed On 03/08/1996 09:35:19

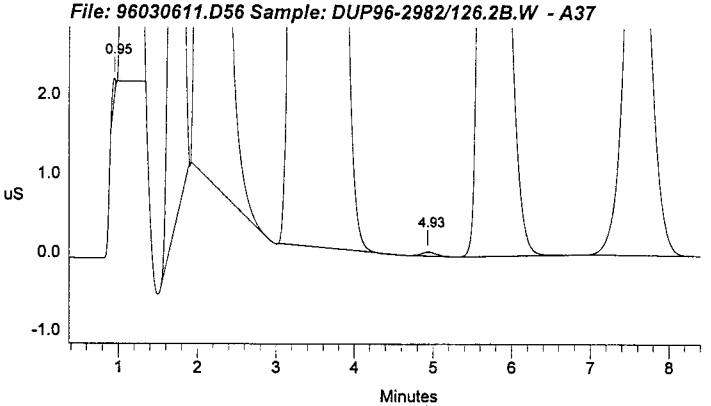
Sample Name: DUP96-2982/126.2B.W - A37		Date: 03/06/1996 20:12:42	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D56			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1	Inject#: 56 Vial:A37	Detector:PED-Cond.	
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.37	8.41	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	209712	855904	1	
2	1.10	FLUORIDE	7.916	16907757	166873958	1	2.94
3	1.70	CHLORIDE	8.668	12210811	119060025	1	0.00
4	2.17	NITRITE	141.064	141970435	1741818530	1	6.21
5	3.23	NITRATE	-592.099	286713174	5070480501	1	1.04
6	4.93		0.000	49160	670921	1	
7	5.70	PHOSPHATE	73.252	19538221	342232926	1	-4.92
8	7.57	SULFATE	14.376	6442158	133830578	1	0.00
		Totals	-346.823	484041429	7575823344		

File: 96030611.D56 Sample: DUP96-2982/126.2B.W - A37



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Sample Name: DUP96-2982/126.2B.W  - A37      Date: 03/06/1996 20:12:42
Data File  : 1:\iag\ic\icdata\9603061\96030611.D56
Method     : c:\dx\method\1anions1.met
ACI Address: 1  System: 1  Inject#: 56  Vial:A37        Detector:PED-Cond.
Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)
```
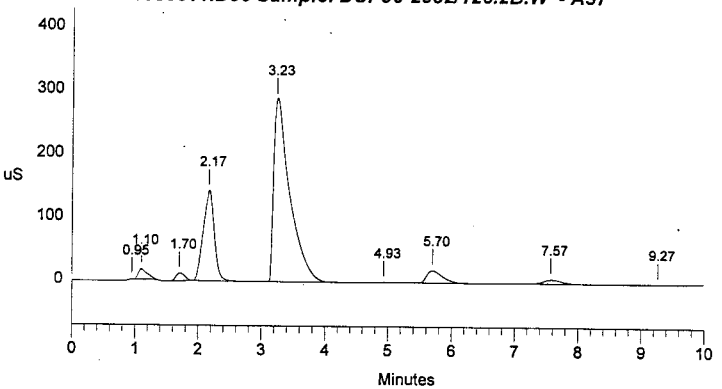

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	209712	855904	1	
2	1.10	FLUORIDE	7.916	16907757	166873958	1	2.94
3	1.70	CHLORIDE	8.668	12210811	119060025	1	0.00
4	2.17	NITRITE	141.064	141970435	1741818530	1	6.21
5	3.23	BROMIDE	-5100.273	286713174	5070480501	1	-0.15
6	4.93		0.000	49160	670921	1	
7	5.70	PHOSPHATE	73.260	19539156	342286759	1	-3.93
8	7.57	SULFATE	14.465	6450973	134719489	1	0.00
		Totals	-4854.901	484051179	7576766088		

File: 96030611.D56 Sample: DUP96-2982/126.2B.W - A37



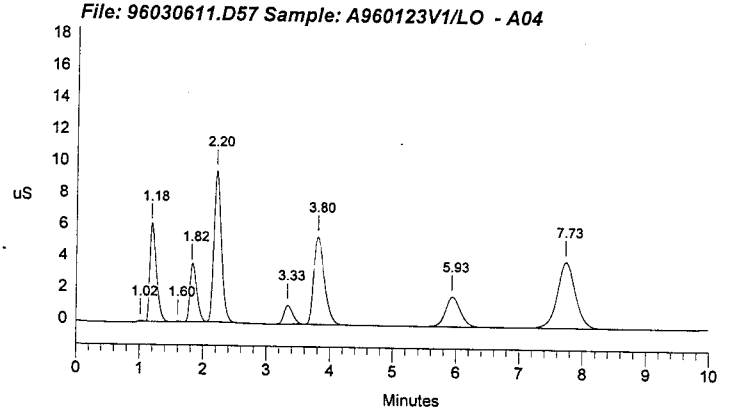
```
| Sample Name: A960123V1/LO  - A04              Date: 03/06/1996 20:24:29
| Data File  : l:\iag\ic\icdata\9603061\96030611.D57
| Method     : c:\dx\method\1anions1.met
| ACI Address: 1  System: 1  Inject#: 57  Vial:A04        Detector:PED-Cond.
| Analyst    : MMO              Column: AG4A/AS4A-SC  (10196/12484)
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.02		0.000	26397	117507	2	
2	1.18	FLUORIDE	22.827	6071367	44166563	2	3.63
3	1.60		0.000	35531	206763	1	
4	1.82	CHLORIDE	22.245	3522809	27359179	1	0.00
5	2.20	NITRITE	92.255	9526031	77907039	1	0.92
6	3.33	BROMIDE	22.740	1179100	11344548	1	-3.67
7	3.80	NITRATE	91.868	5528643	64077240	1	0.00
8	5.93	PHOSPHATE	90.228	1875904	31408093	1	-2.63
9	7.73	SULFATE	91.742	4157943	83083835	1	0.00
		Totals	433.905	31923723	339670766		

File: 96030611.D57 Sample: A960123V1/LO - A04



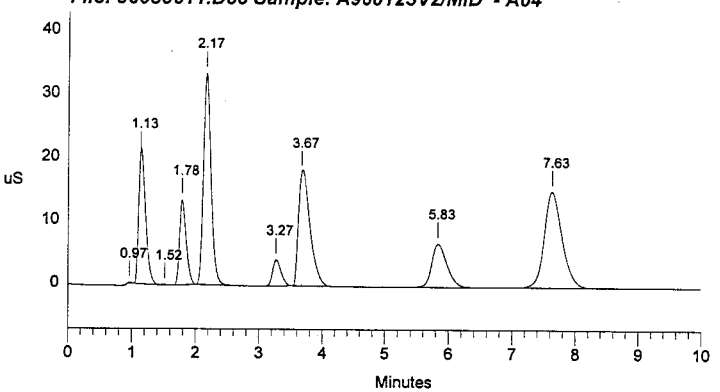
```
| Sample Name: A960123V2/MID  - A04            Date: 03/06/1996 20:36:29 |
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D58                     |
| Method     : c:\dx\method\lanions1.met                                 |
| ACI Address: 1  System: 1  Inject#: 58  Vial:A04       Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	30	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	85760	424006	2	
2	1.13	FLUORIDE	25.188	20705094	158607376	2	1.10
3	1.52		0.000	52155	303730	1	
4	1.78	CHLORIDE	24.095	13459891	97121681	1	0.00
5	2.17	NITRITE	102.201	33474576	277215828	1	1.25
6	3.27	BROMIDE	24.693	4096073	38277666	1	-3.83
7	3.67	NITRATE	100.298	17959209	230241843	1	0.00
8	5.83	PHOSPHATE	100.476	6861941	114215352	1	-0.79
9	7.63	SULFATE	100.395	15158479	298459449	1	0.00
		Totals	477.345	111853179	1214866932		

File: 96030611.D58 Sample: A960123V2/MID - A04



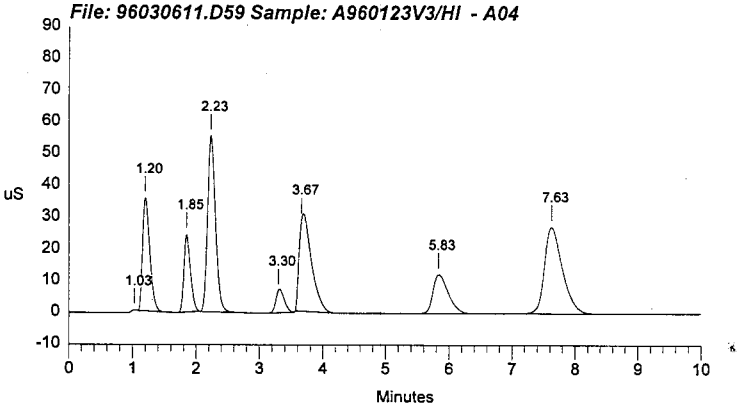
Data Reprocessed On 03/08/1996 09:54:11

Sample Name: A960123V3/HI - A04		Date: 03/06/1996 20:48:34	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D59			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1	Inject#: 59	Vial:A04	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC	(10196/12484)	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03		0.000	42987	91034	1	
2	1.20	FLUORIDE	25.064	35329806	279953284	1	3.19
3	1.85	CHLORIDE	24.107	24430414	175096406	1	0.00
4	2.23	NITRITE	101.843	55365320	480302648	1	0.60
5	3.30	BROMIDE	25.015	6981745	67033997	1	0.00
6	3.67	NITRATE	99.489	28740892	412033307	1	-0.09
7	5.83	PHOSPHATE	101.357	12291517	208669349	1	-1.60
8	7.63	SULFATE	100.989	27309768	545443205	1	0.00
		Totals	477.864	190492449	2168623230		

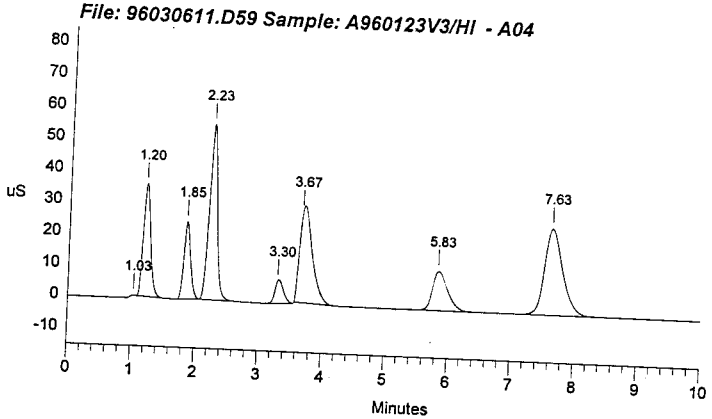


```
Sample Name: A960123V3/HI  - A04                    Date: 03/06/1996 20:48:34
Data File  : l:\iag\ic\icdata\9603061\96030611.D59
Method     : c:\dx\method\lanions1.met
ACI Address: 1  System: 1  Inject#: 59  Vial:A04          Detector:PED-Cond.
Analyst    : MMO                Column: AG4A/AS4A-SC  (10196/12484)
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03		0.000	42987	91034	1	
2	1.20	FLUORIDE	25.064	35329806	279953284	1	3.19
3	1.85	CHLORIDE	24.107	24430414	175096406	1	0.00
4	2.23	NITRITE	101.843	55365320	480302648	1	0.60
5	3.30		0.000	6981745	67033997	1	
6	3.67	BROMIDE	85.924	28740892	412033307	1	4.05
7	5.83	PHOSPHATE	101.357	12291517	208669349	1	-0.79
8	7.63	SULFATE	100.989	27309768	545443205	1	0.00
		Totals	439.284	190492449	2168623230		



Data Reprocessed On 03/08/1996 09:55:54

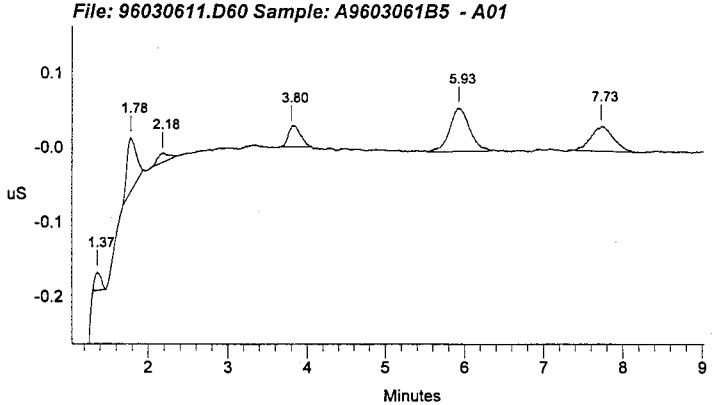
Sample Name: A9603061B5 - A01		Date: 03/06/1996 21:01:06	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D60			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1	Inject#: 60	Vial:A01	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC	(10196/12484)	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	1.04	9.03	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.37		0.000	24643	134410	1	
2	1.78	CHLORIDE	0.065	72616	560415	1	0.00
3	2.18	NITRITE	0.221	10917	112729	1	2.02
4	3.80	NITRATE	0.210	25910	301502	1	0.00
5	5.93	PHOSPHATE	0.273	57780	1030673	1	-2.63
6	7.73	SULFATE	0.188	33253	660557	1	0.00
		Totals	0.956	225119	2800286		

File: 96030611.D60 Sample: A9603061B5 - A01

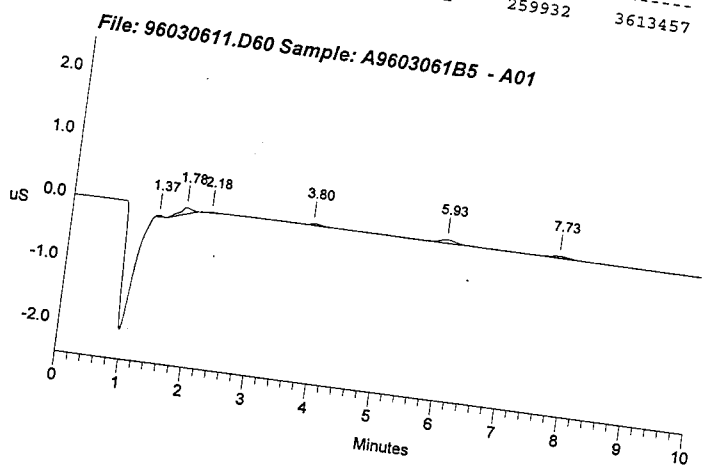


Sample Name: A9603061B5 - A01
Data File : 1:\iag\ic\icdata\9603061\96030611.D60 Date: 03/06/1996 21:01:06
Method : c:\dx\method\lanions1.met
ACI Address: 1 System: 1 Inject#: 60 Vial: A01
Analyst : MMO Column: AG4A/AS4A-SC (10196/12484) Detector:PED-Cond.

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.37		0.000	24643	134410	1	
2	1.78	CHLORIDE	0.094	104376	1288706	1	0.00
3	2.18	NITRITE	0.223	12165	137196	1	2.02
4	3.80	NITRATE	0.213	27627	355286	1	0.00
5	5.93	PHOSPHATE	0.273	57820	1035565	1	-2.63
6	7.73	SULFATE	0.188	33301	662294	1	0.00
		Totals	0.991	259932	3613457		



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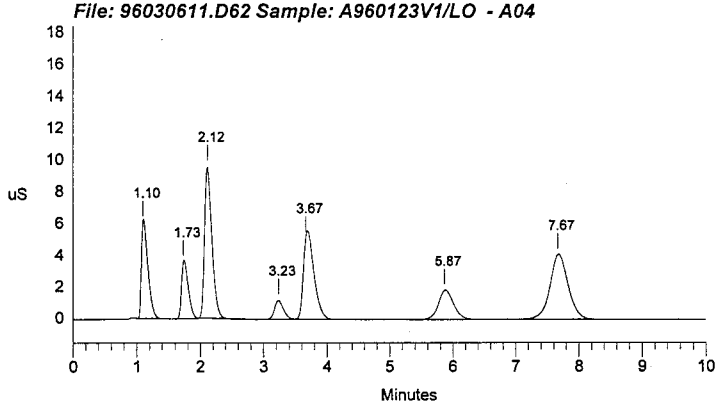
| Sample Name: A960123V1/LO  - A04            Date: 03/07/1996 08:46:42      |
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D62                         |
| Method     : c:\dx\method\lanions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 62  Vial:A04        Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)          |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.10	FLUORIDE	22.823	6055265	44159207	1	0.96
2	1.73	CHLORIDE	22.314	3607664	27450231	1	0.00
3	2.12	NITRITE	91.643	9589599	77357574	1	1.76
4	3.23	BROMIDE	22.950	1199731	11450714	1	-2.07
5	3.67	NITRATE	91.940	5142379	64130576	1	0.00
6	5.87	PHOSPHATE	91.060	1847824	31713470	1	-0.22
7	7.67	SULFATE	91.921	4110246	83255784	1	0.00
		Totals	434.651	31552709	339517556		

File: 96030611.D62 Sample: A960123V1/LO - A04



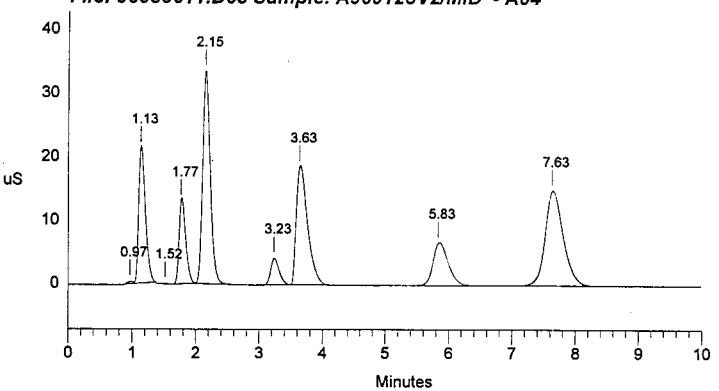
```
| Sample Name: A960123V2/MID  - A04          Date: 03/07/1996 08:58:10      |
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D63                        |
| Method     : c:\dx\method\1anions1.met                                    |
| ACI Address: 1  System: 1  Inject#: 63  Vial:A04        Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	30	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	336263	1805790	2	
2	1.13	FLUORIDE	25.138	21240009	158264241	2	2.06
3	1.52		0.000	50192	301611	1	
4	1.77	CHLORIDE	24.037	12992156	96863916	1	0.00
5	2.15	NITRITE	101.574	33383868	275403924	1	1.42
6	3.23	BROMIDE	24.783	4125104	38425084	1	-3.92
7	3.63	NITRATE	100.654	18459359	231151682	1	0.00
8	5.83	PHOSPHATE	100.292	6636817	113983139	1	0.12
9	7.63	SULFATE	100.185	14921224	297760290	1	0.00
		Totals	476.663	112144991	1213959677		

File: 96030611.D63 Sample: A960123V2/MID - A04



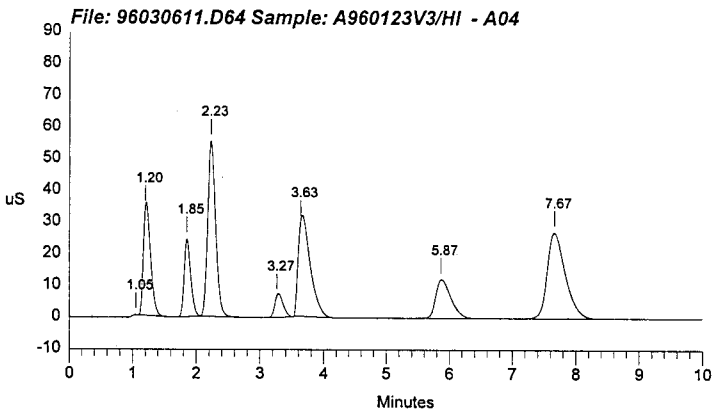
Data Reprocessed On 03/08/1996 10:01:57

Sample Name: A960123V3/HI - A04		Date: 03/07/1996 09:09:54	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D64			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 64 Vial:A04			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.05		0.000	67691	157459	1	
2	1.20	FLUORIDE	24.893	33977933	277728254	1	3.19
3	1.85	CHLORIDE	24.184	24570907	175772303	1	0.00
4	2.23	NITRITE	100.944	55446737	475619427	1	0.60
5	3.27	BROMIDE	24.965	6867084	66886136	1	-0.10
6	3.63	NITRATE	100.562	29583276	417474842	1	0.09
7	5.87	PHOSPHATE	100.916	12191451	207554327	1	-1.21
8	7.67	SULFATE	100.566	27065409	542611874	1	0.00
		Totals	477.030	189770489	2163804622		



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| Sample Name: A960123V3/HI  - A04            Date: 03/07/1996 09:09:54      |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D64                         |
| Method     : c:\dx\method\1anions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 64  Vial:A04        Detector:PED-Cond. |
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)           |
```
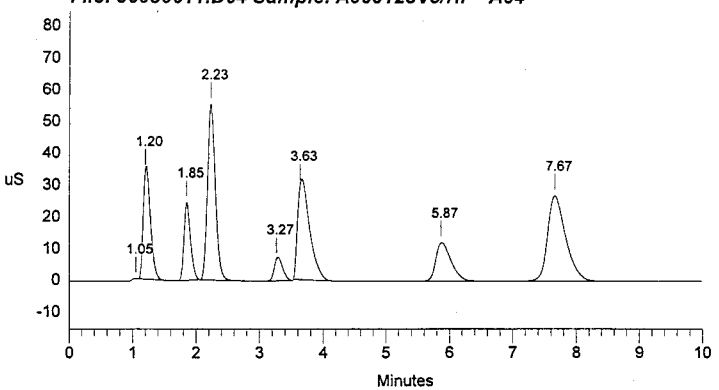

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.05		0.000	67691	157459	1	
2	1.20	FLUORIDE	24.893	33977933	277728254	1	3.19
3	1.85	CHLORIDE	24.184	24570907	175772303	1	0.00
4	2.23	NITRITE	100.944	55446737	475619427	1	0.60
5	3.27		0.000	6867084	66886136	1	
6	3.63	BROMIDE	85.976	29583276	417474842	1	3.11
7	5.87	PHOSPHATE	100.916	12191451	207554327	1	0.69
8	7.67	SULFATE	100.566	27065409	542611874	1	0.00
		Totals	437.479	189770489	2163804622		

File: 96030611.D64 Sample: A960123V3/HI - A04



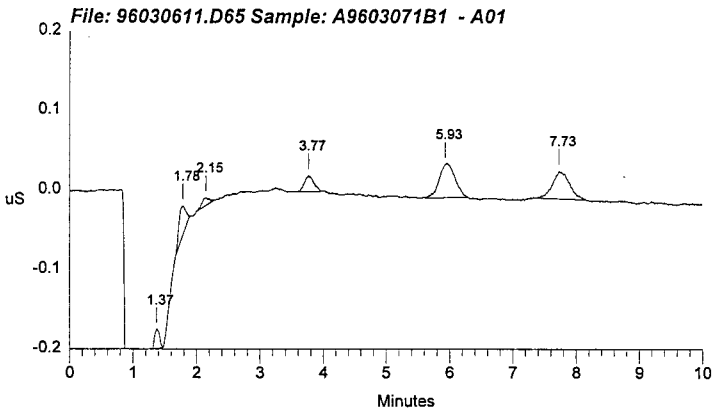
Data Reprocessed On 03/08/1996 10:01:03

Sample Name: A9603071B1 - A01	Date: 03/07/1996 09:22:02
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D65	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 System: 1 Inject#: 65 Vial:A01	Detector:PED-Cond.
Analyst : MMO Column: AG4A/AS4A-SC (10196/12484)	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.37		0.000	24117	129427	1	
2	1.78	CHLORIDE	0.054	37018	280671	1	0.00
3	2.15	NITRITE	0.219	9916	79619	1	0.47
4	3.77	NITRATE	0.203	19974	209210	1	0.00
5	5.93	PHOSPHATE	0.232	41955	749767	1	-1.77
6	7.73	SULFATE	0.187	34690	645445	1	0.00
		Totals	0.896	167670	2094140		



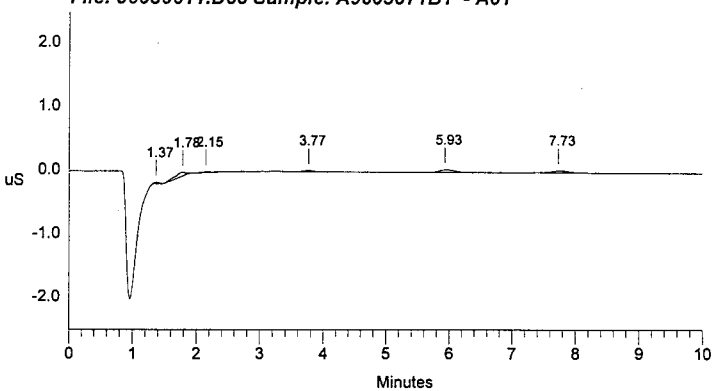
```
| Sample Name: A9603071B1  - A01              Date: 03/07/1996 09:22:02      |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D65                         |
| Method     : c:\dx\method\1anions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 65  Vial:A01        Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.37		0.000	24117	129427	1	
2	1.78	CHLORIDE	0.072	54711	750905	1	0.00
3	2.15	NITRITE	0.222	12282	127152	1	0.47
4	3.77	NITRATE	0.209	21722	288678	1	0.00
5	5.93	PHOSPHATE	0.237	42714	783664	1	-1.77
6	7.73	SULFATE	0.189	35329	685250	1	0.00
		Totals	0.930	190876	2765077		

File: 96030611.D65 Sample: A9603071B1 - A01



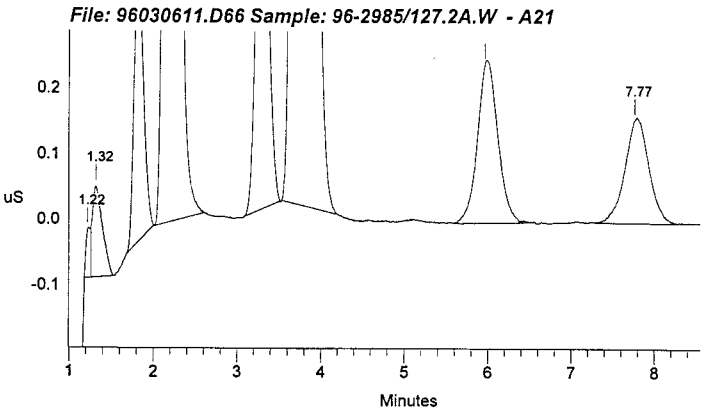
Data Reprocessed On 03/08/1996 10:10:45

Sample Name: 96-2985/127.2A.W - A21		Date: 03/07/1996 10:54:10	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D66			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 66 Vial:A21			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	50	3000	5Hz	0.99	8.55	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.22	FLUORIDE	2.773	73321	286538	2	7.83
2	1.32		0.000	138457	1135641	2	
3	1.80	CHLORIDE	8.693	419199	3293221	1	0.00
4	2.17	NITRITE	130.613	4820898	42212151	1	0.31
5	3.27	BROMIDE	34.745	684394	6880808	1	-4.72
6	3.73	NITRATE	296.363	7283220	84102195	1	0.00
7	5.97	PHOSPHATE	36.390	239853	4226869	1	-0.34
8	7.77	SULFATE	16.427	156585	3232301	1	0.00
		Totals	526.004	13815927	145369724		



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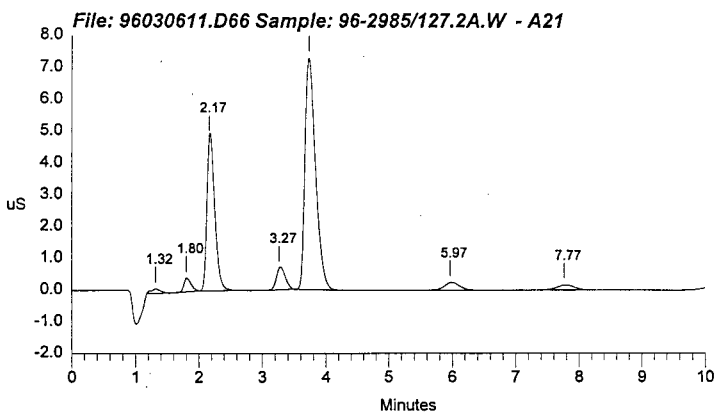
| Sample Name: 96-2985/127.2A.W  - A21        Date: 03/07/1996 10:54:10      |
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D66                         |
| Method     : c:\dx\method\1anions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 66  Vial:A21        Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	50	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.32		0.000	138457	1422179	1	
2	1.80	CHLORIDE	8.943	425593	3418864	1	0.00
3	2.17	NITRITE	131.624	4824200	42570849	1	0.31
4	3.27	BROMIDE	34.437	682472	6818908	1	-4.72
5	3.73	NITRATE	296.459	7283699	84131411	1	0.00
6	5.97	PHOSPHATE	36.751	240405	4277662	1	-0.34
7	7.77	SULFATE	16.427	156585	3232301	1	0.00
		Totals	524.642	13751410	145872175		



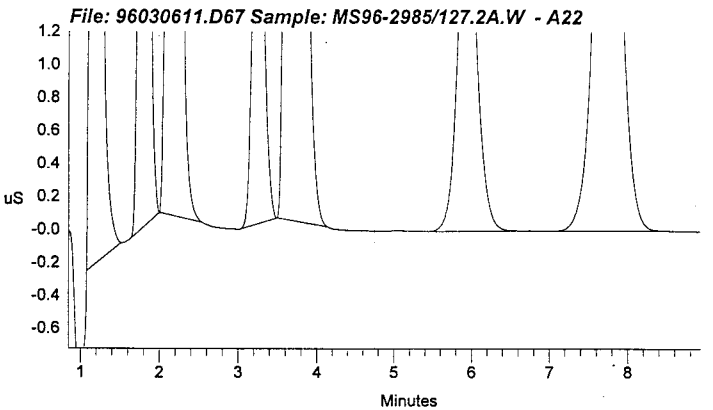
Data Reprocessed On 03/08/1996 10:12:41

Sample Name: MS96-2985/127.2A.W - A22		Date: 03/07/1996 11:06:15	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D67			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 67 Vial:A22			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	50	3000	5Hz	0.85	8.93	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.15	FLUORIDE	100.524	10790191	80559057	1	2.59
2	1.78	CHLORIDE	100.843	6804859	51557381	1	0.00
3	2.15	NITRITE	366.566	15282451	127136053	1	0.47
4	3.23	BROMIDE	130.111	2748802	26494937	1	-4.81
5	3.67	NITRATE	549.546	13660916	163105578	1	0.00
6	5.93	PHOSPHATE	258.368	2165358	36238265	1	0.91
7	7.73	SULFATE	238.533	4363409	86613549	1	0.00
		Totals	1744.489	55815986	571704822		



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| Sample Name: MS96-2985/127.2A.W  - A22       Date: 03/07/1996 11:06:15      |
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D67                          |
| Method     : c:\dx\method\1anions1.met                                      |
| ACI Address: 1  System: 1  Inject#: 67  Vial:A22        Detector:PED-Cond.  |
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)            |
```
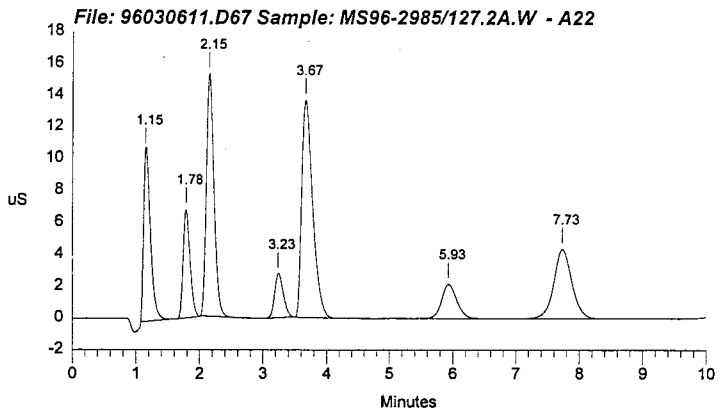

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	50	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.15	FLUORIDE	100.524	10790191	80559057	1	2.59
2	1.78	CHLORIDE	100.843	6804859	51557381	1	0.00
3	2.15	NITRITE	362.816	15238976	125766361	1	0.47
4	3.23	BROMIDE	128.346	2736052	26123266	1	-4.81
5	3.67	NITRATE	546.757	13656893	162207704	1	0.00
6	5.93	PHOSPHATE	259.480	2166837	36402751	1	0.91
7	7.73	SULFATE	239.427	4366804	86957850	1	0.00
		Totals	1738.193	55760612	569574371		



Data Reprocessed On 03/08/1996 10:16:00

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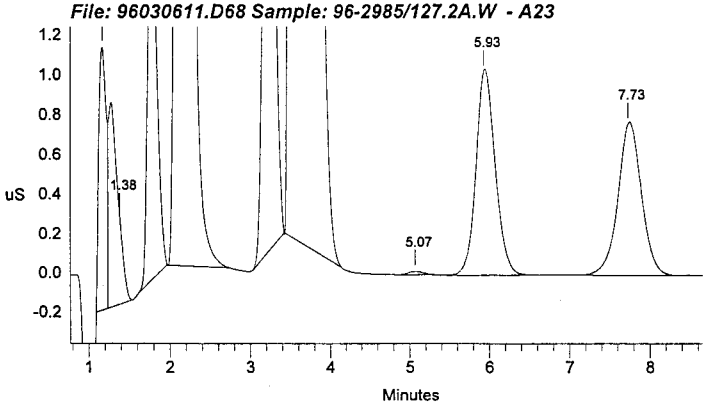
==============================================================================
| Sample Name: 96-2985/127.2A.W  - A23        Date: 03/07/1996 11:18:19      |
| Data File  : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D68                |
| Method     : c:\dx\method\1anions1.met                                      |
| ACI Address: 1  System: 1  Inject#: 68  Vial:A23        Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)            |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	10	3000	5Hz	0.77	8.65	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.17	FLUORIDE	2.579	1326224	8342361	2	5.06
2	1.38		0.000	455153	8608485	2	
3	1.77	CHLORIDE	6.405	1883370	15137540	1	0.00
4	2.15	NITRITE	133.359	27988795	239024496	1	1.42
5	3.20	BROMIDE	34.454	3622089	35480740	1	-4.91
6	3.57	NITRATE	293.935	37266067	508235829	1	0.00
7	5.07		0.000	16473	218616	1	
8	5.93	PHOSPHATE	25.943	1024663	17495240	1	3.74
9	7.73	SULFATE	10.109	763558	15774372	1	0.00
		Totals	506.784	74346392	848317681		

File: 96030611.D68 Sample: 96-2985/127.2A.W - A23



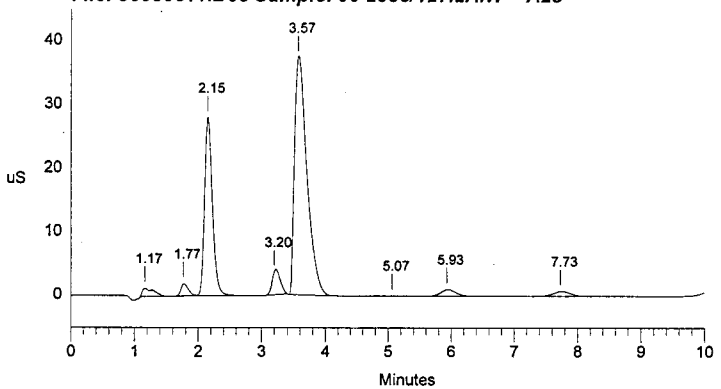
Sample Name: 96-2985/127.2A.W - A23	Date: 03/07/1996 11:18:19
Data File : l:\iag\ic\icdata\9603061\96030611.D68	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 System: 1 Inject#: 68 Vial:A23	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	10	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.17	FLUORIDE	4.727	1326224	16950847	1	5.06
2	1.77	CHLORIDE	6.433	1886661	15208719	1	0.00
3	2.15	NITRITE	133.554	27991678	239394632	1	1.42
4	3.20	BROMIDE	33.090	3565037	34012871	1	-4.91
5	3.57	NITRATE	293.850	37264806	508045470	1	0.00
6	5.07		0.000	17602	253346	1	
7	5.93	PHOSPHATE	25.977	1024929	17519616	1	3.74
8	7.73	SULFATE	10.109	763558	15774372	1	0.00
		Totals	507.740	73840496	847159872		

File: 96030611.D68 Sample: 96-2985/127.2A.W - A23



Data Reprocessed On 03/08/1996 10:19:05

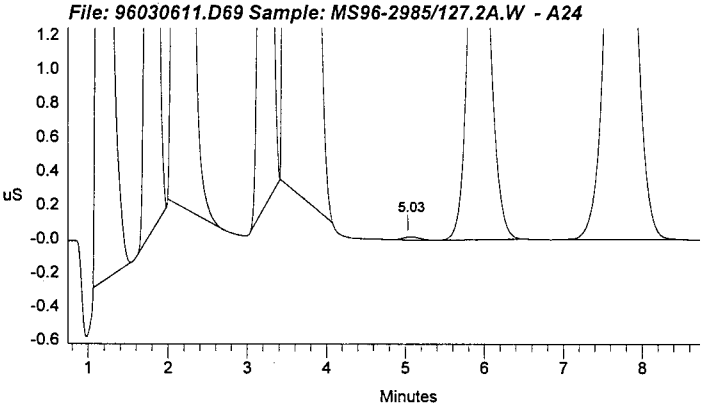
Sample Name: MS96-2985/127.2A.W - A24			Date: 03/07/1996 11:30:24	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D69				
Method : c:\dx\method\1anions1.met				
ACI Address: 1 System: 1 Inject#: 69 Vial:A24				Detector:PED-Cond.
Analyst : MMO		Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	10	3000	5Hz	0.75	8.73	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.15	FLUORIDE	24.083	12152443	97629716	1	3.56
2	1.77	CHLORIDE	23.978	7770104	62074497	1	0.00
3	2.15	NITRITE	179.814	38112689	328850234	1	1.42
4	3.20	BROMIDE	52.749	6152289	55729642	1	-4.91
5	3.53	NITRATE	333.251	41036576	601431319	1	0.00
6	5.03		0.000	18595	294615	1	
7	5.90	PHOSPHATE	71.463	3018645	51037803	1	4.13
8	7.70	SULFATE	54.945	4984846	100608954	1	0.00
		Totals	740.283	113246186	1297656781		

File: 96030611.D69 Sample: MS96-2985/127.2A.W - A24



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| Sample Name: MS96-2985/127.2A.W  - A24       Date: 03/07/1996 11:30:24
| Data File   : l:\iag\ic\icdata\9603061\96030611.D69
| Method      : c:\dx\method\1anions1.met
| ACI Address: 1  System: 1  Inject#: 69  Vial:A24          Detector:PED-Cond.
| Analyst     : MMO             Column: AG4A/AS4A-SC  (10196/12484)
```
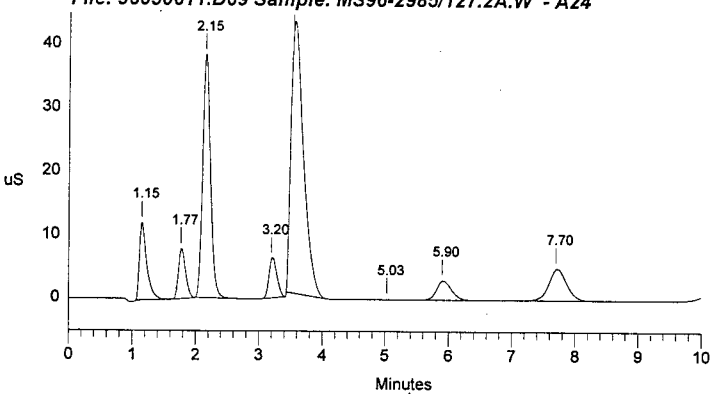

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	10	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.15	FLUORIDE	24.083	12152443	97629716	1	3.56
2	1.77	CHLORIDE	23.978	7770104	62074497	1	0.00
3	2.15	NITRITE	179.460	38087474	328154381	1	1.42
4	3.20	BROMIDE	51.923	6114728	54791547	1	-4.91
5	3.53	NITRATE	326.712	40339535	585179546	1	0.00
6	5.03		0.000	18595	294615	1	
7	5.90	PHOSPHATE	71.674	3020913	51197366	1	4.13
8	7.70	SULFATE	55.080	4986980	100870965	1	0.00
		Totals	732.911	112490771	1280192633		

File: 96030611.D69 Sample: MS96-2985/127.2A.W - A24



Data Reprocessed On 03/08/1996 10:26:43

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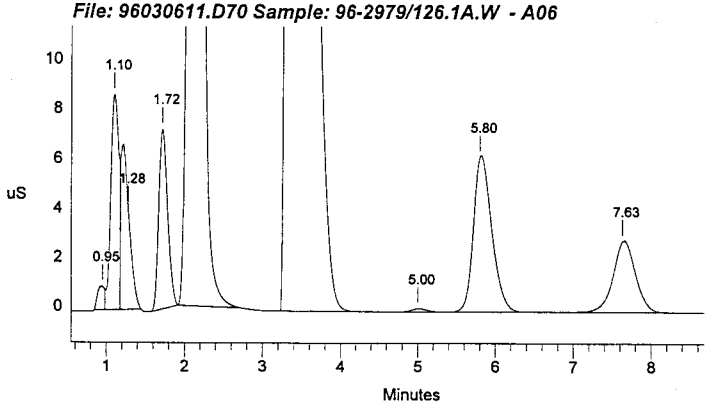
| Sample Name: 96-2979/126.1A.W  - A06          Date: 03/07/1996 11:41:55 |
| Data File  : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D70              |
| Method     : c:\dx\method\1anions1.met                                   |
| ACI Address: 1  System: 1  Inject#: 70  Vial:A06        Detector:PED-Cond.|
| Analyst    : MMO              Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	25	1	3000	5Hz	0.55	8.68	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	956407	5815444	2	
2	1.10	FLUORIDE	6.207	8680581	61201518	2	1.94
3	1.28		0.000	4111779	50411301	2	
4	1.72	CHLORIDE	8.900	7270708	57276932	1	0.00
5	2.12	NITRITE	165.043	84919780	835457636	1	2.75
6	3.37	NITRATE	186.090	102818119	1693104517	1	-0.10
7	5.00		0.000	137005	2040852	1	
8	5.80	PHOSPHATE	55.680	6256893	104600446	1	-2.19
9	7.63	SULFATE	13.179	2871772	58442351	1	0.00
10	9.27		0.000	16149876	78400	1	
		Totals	435.098	234172919	2868429396		

File: 96030611.D70 Sample: 96-2979/126.1A.W - A06



Data Reprocessed On 03/08/1996 10:29:57

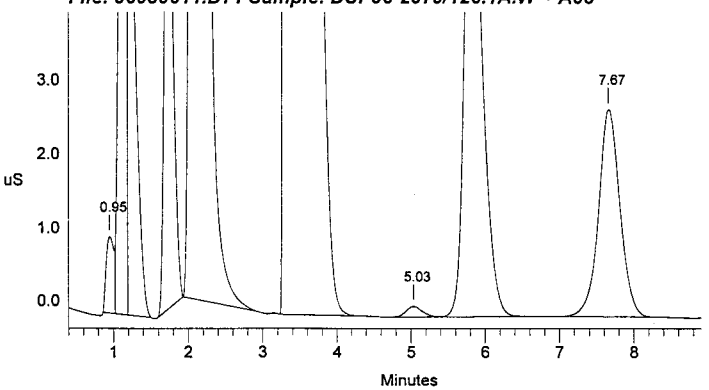
```
| Sample Name: DUP96-2979/126.1A.W  - A08      Date: 03/07/1996 11:53:29      |
| Data File  : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D71                 |
| Method     : c:\dx\method\lanions1.met                                      |
| ACI Address: 1  System: 1  Inject#: 71  Vial:A08        Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	25	1	3000	5Hz	0.40	8.90	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	1038881	7560285	2	
2	1.12	FLUORIDE	6.038	8649303	59434429	2	2.49
3	1.29		0.000	4052378	48204578	2	
4	1.73	CHLORIDE	8.737	7143012	56151544	1	0.00
5	2.13	NITRITE	168.618	86736796	857336817	1	2.56
6	3.37	NITRATE	183.536	103198385	1731527463	1	-0.10
7	5.03		0.000	141954	2130891	1	
8	5.80	PHOSPHATE	60.519	6691422	114707911	1	-2.19
9	7.67	SULFATE	12.744	2812157	56386984	1	0.00
		Totals	440.191	220464289	2933440903		

File: 96030611.D71 Sample: DUP96-2979/126.1A.W - A08



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Sample Name: DUP96-2979/126.1A.W  - A08      Date: 03/07/1996 11:53:29
Data File  : 1:\iag\ic\icdata\9603061\96030611.D71
Method     : c:\dx\method\lanions1.met
ACI Address: 1  System: 1  Inject#: 71  Vial:A08        Detector:PED-Cond.
Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)
```
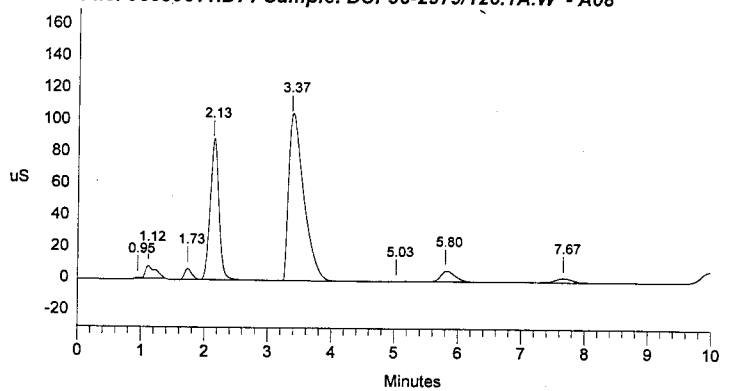

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	25	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	421932	1963603	2	
2	1.12	FLUORIDE	8.901	7948715	89740149	2	2.49
3	1.73	CHLORIDE	8.643	7114983	55504828	1	0.00
4	2.13	NITRITE	168.503	86733822	856631321	1	2.56
5	3.37	BROMIDE	-727.931	103192373	1731559822	1	1.97
6	5.03	PHOSPHATE	1.741	142866	2171250	1	-6.77
7	5.80		0.000	6691733	114751265	1	
8	7.67	SULFATE	12.829	2815993	56787933	1	0.00
		Totals	-527.314	215062417	2909110170		

File: 96030611.D71 Sample: DUP96-2979/126.1A.W - A08



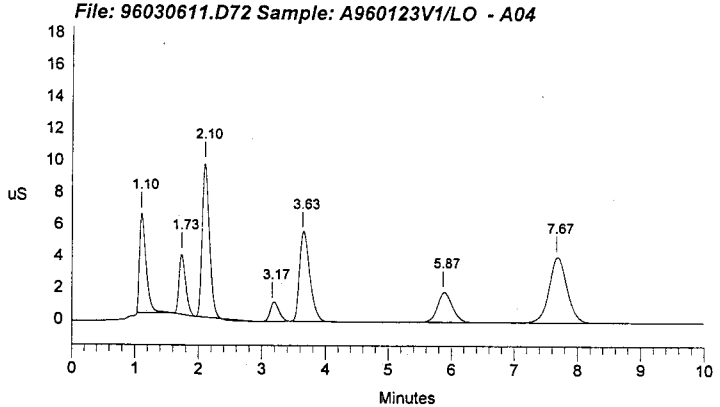
```
| Sample Name: A960123V1/LO  - A04            Date: 03/07/1996 12:14:50 |
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D72                    |
| Method     : c:\dx\method\lanions1.met                                |
| ACI Address: 1  System: 1  Inject#: 72  Vial:A04       Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.10	FLUORIDE	23.348	6217262	45240682	1	0.96
2	1.73	CHLORIDE	22.359	3781022	27508160	1	0.00
3	2.10	NITRITE	89.252	9661006	75212467	1	0.96
4	3.17	BROMIDE	23.038	1082562	11495391	1	-4.09
5	3.63	NITRATE	91.589	5527006	63869363	1	0.00
6	5.87	PHOSPHATE	90.691	1847266	31577709	1	0.69
7	7.67	SULFATE	91.168	4108360	82532294	1	0.00
		Totals	431.443	32224485	337436067		

File: 96030611.D72 Sample: A960123V1/LO - A04



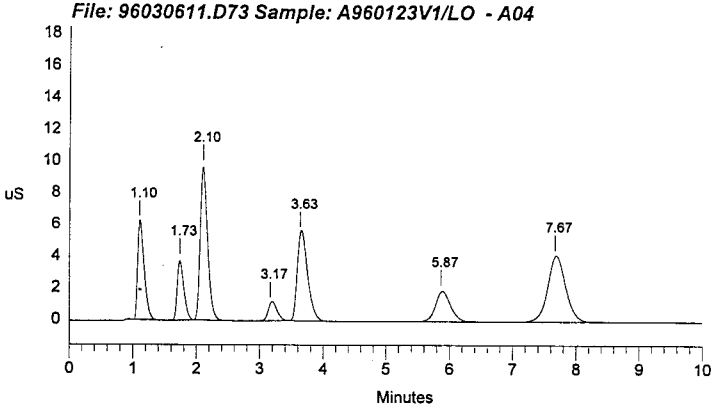
```
| Sample Name: A960123V1/LO  - A04            Date: 03/07/1996 12:26:12      |
| Data File   : l:\iag\ic\icdata\9603061\96030611.D73                        |
| Method      : c:\dx\method\1anions1.met                                    |
| ACI Address: 1  System: 1  Inject#: 73  Vial:A04        Detector:PED-Cond. |
| Analyst     : MMO            Column: AG4A/AS4A-SC  (10196/12484)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.10	FLUORIDE	22.629	6127920	43758212	1	0.96
2	1.73	CHLORIDE	22.207	3741283	27309597	1	0.00
3	2.10	NITRITE	92.069	9666509	77739981	1	0.96
4	3.17	BROMIDE	23.081	1060044	11517423	1	-4.09
5	3.63	NITRATE	91.835	5496209	64052589	1	0.00
6	5.87	PHOSPHATE	92.002	1866160	32058966	1	0.69
7	7.67	SULFATE	91.485	4095955	82836542	1	0.00
		Totals	435.307	32054079	339273310		

File: 96030611.D73 Sample: A960123V1/LO - A04



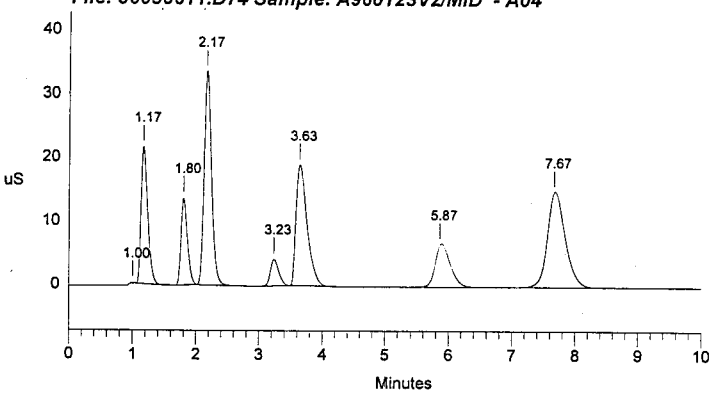
```
| Sample Name: A960123V2/MID  - A04          Date: 03/07/1996 12:37:46 |
| Data File  : 1:\iag\ic\icdata\9603061\96030611.D74                   |
| Method     : c:\dx\method\1anions1.met                               |
| ACI Address: 1  System: 1  Inject#: 74  Vial:A04       Detector:PED-Cond. |
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)      |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	30	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.00		0.000	70192	220365	1	
2	1.17	FLUORIDE	24.925	21505281	156796126	1	3.11
3	1.80	CHLORIDE	23.971	13668503	96568324	1	0.00
4	2.17	NITRITE	101.387	33516273	274861988	1	0.31
5	3.23	BROMIDE	24.798	4196119	38449917	1	-5.69
6	3.63	NITRATE	99.472	18900707	228131217	1	0.00
7	5.87	PHOSPHATE	100.014	6637269	113632863	1	0.69
8	7.67	SULFATE	99.832	14949620	296590875	1	0.00
		Totals	474.399	113443963	1205251673		

File: 96030611.D74 Sample: A960123V2/MID - A04



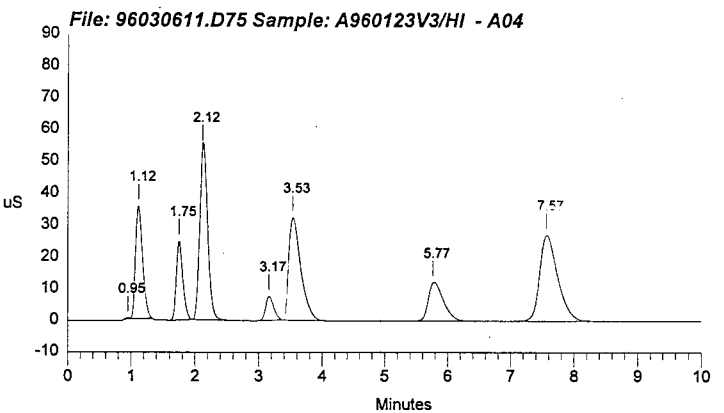
Data Reprocessed On 03/07/1996 12:54:09

Sample Name: A960123V3/HI - A04		Date: 03/07/1996 12:49:25	
Data File : L:\IAG\IC\ICDATA\9603061\96030611.D75			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 75 Vial:A04			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	283760	1113225	2	
2	1.12	FLUORIDE	24.615	35406638	274128818	2	1.52
3	1.75	CHLORIDE	24.189	24773286	175819871	1	0.00
4	2.12	NITRITE	100.814	54221910	474942930	1	0.79
5	3.17	BROMIDE	24.571	7533971	65734620	1	-5.00
6	3.53	NITRATE	101.287	32230192	421167962	1	0.00
7	5.77	PHOSPHATE	100.571	12052112	206681992	1	1.78
8	7.57	SULFATE	100.245	27090832	540472081	1	0.00
		Totals	476.293	193592700	2160061499		



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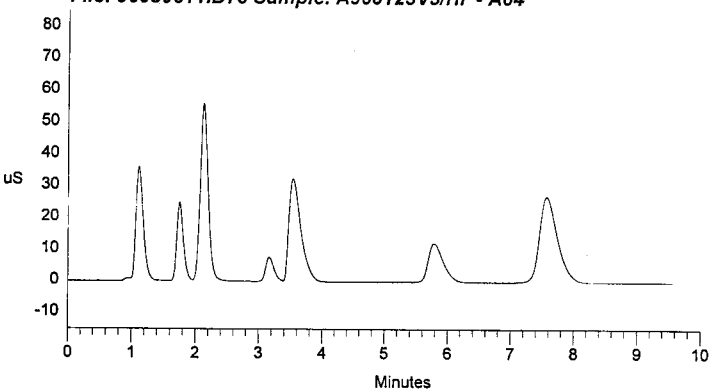
| Sample Name: A960123V3/HI  - A04              Date: 03/07/1996 12:49:25 |
| Data File  : l:\iag\ic\icdata\9603061\96030611.D75                      |
| Method     : c:\dx\method\lanionsl.met                                  |
| ACI Address: 1  System: 1  Inject#: 75  Vial:A04        Detector:PED-Cond.|
| Analyst    : MMO              Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	283760	1113225	2	
2	1.12	FLUORIDE	24.615	35406638	274128818	2	1.52
3	1.75	CHLORIDE	24.189	24773286	175819871	1	0.00
4	2.12	NITRITE	100.814	54221910	474942930	1	0.79
5	3.17	BROMIDE	24.571	7533971	65734620	1	-5.00
6	3.53	NITRATE	101.287	32230192	421167962	1	0.00
7	5.77	PHOSPHATE	100.571	12052112	206681992	1	1.78
8	7.57	SULFATE	100.245	27090832	540472081	1	0.00
		Totals	476.293	193592700	2160061499		

File: 96030611.D75 Sample: A960123V3/HI - A04



Data Reprocessed On 03/08/1996 10:31:51

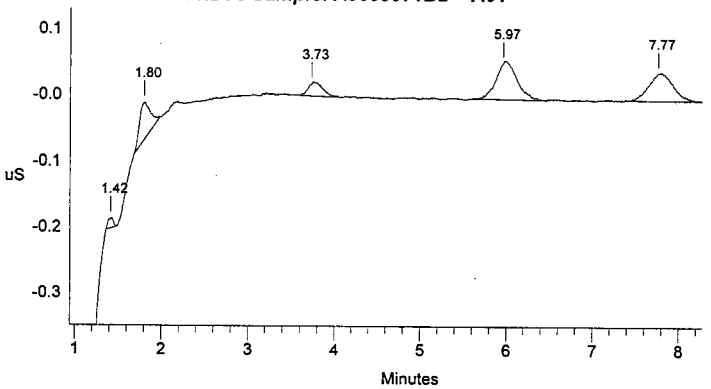
Sample Name: A9603071B2 - A01		Date: 03/07/1996 13:01:30	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030611.D76			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 76 Vial:A01		Detector:PED-Cond.	
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.94	8.28	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.42		0.000	14618	61192	1	
2	1.80	CHLORIDE	0.061	55548	474818	1	0.00
3	3.73	NITRATE	0.206	17596	250481	1	0.00
4	5.97	PHOSPHATE	0.266	54013	982682	1	-0.34
5	7.77	SULFATE	0.197	40807	829484	1	0.00
		Totals	0.730	182583	2598657		

File: 96030611.D76 Sample: A9603071B2 - A01



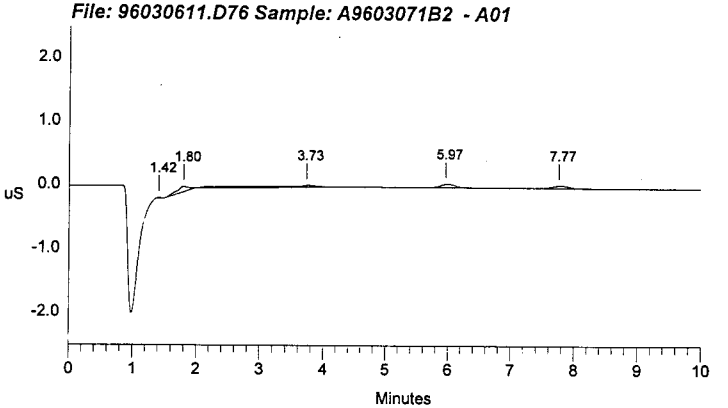
Sample Name: A9603071B2 - A01	Date: 03/07/1996 13:01:30
Data File : 1:\iag\ic\icdata\9603061\96030611.D76	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 System: 1 Inject#: 76 Vial:A01	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.42		0.000	14618	61192	1	
2	1.80	CHLORIDE	0.088	83364	1138922	1	0.00
3	3.73	NITRATE	0.345	27714	2227604	1	0.00
4	5.97	PHOSPHATE	0.274	54940	1040178	1	-0.34
5	7.77	SULFATE	0.201	41855	890639	1	0.00
		Totals	0.907	222492	5358535		

File: 96030611.D76 Sample: A9603071B2 - A01

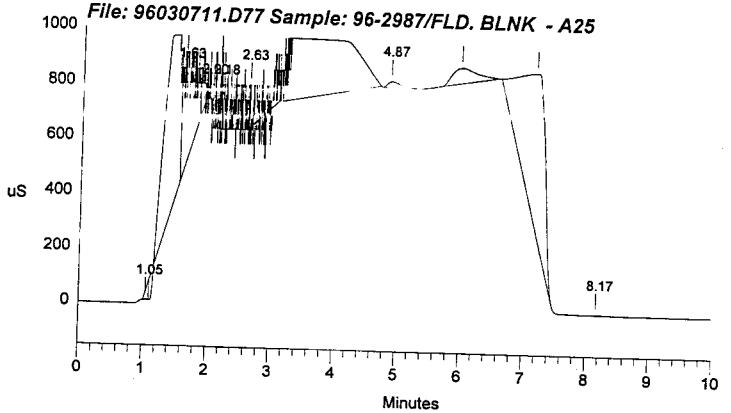


```
| Sample Name: 96-2987/FLD. BLNK  - A25        Date: 03/07/1996 14:32:29
| Data File  : 1:\iag\ic\icdata\9603061\96030711.D77
| Method     : c:\dx\method\1anions1.met
| ACI Address: 1  System: 1  Inject#: 77  Vial:A25        Detector:PED-Cond.
| Analyst    : MMO                Column: AG4A/AS4A-SC  (10196/12484)
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.05	FLUORIDE	4.306	28088893	183101523	2	2.27
2	1.48		0.000	58712190310255463250		2	
3	1.63	CHLORIDE	-682.567	295448053	5165102014	2	0.00
4	2.00	NITRITE	18.222	6409421	333591347	1	2.04
5	2.18		0.000	108521802	1991897907	1	
6	2.63		0.000	155529000	958627840	1	
7	3.30	BROMIDE	-24871.385	22141443314878716723		1	6.07
8	4.87		0.000	21623025	305863066	1	
9	5.97	PHOSPHATE	-20.514	55426172	1478524928	1	0.56
10	7.17	SULFATE	-3117.987	55612282115803185357		1	0.00
11	8.17		0.000	1472520	21931882	1	
		Totals	-28669.924	203717804351376005838			

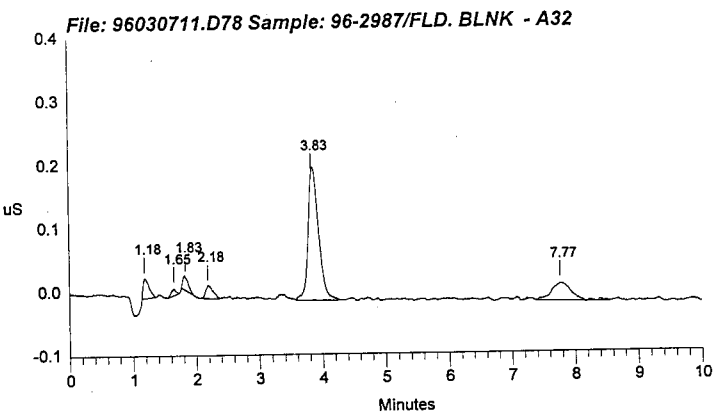


```
| Sample Name: 96-2987/FLD. BLNK  - A32        Date: 03/07/1996 14:58:47      |
| Data File  : l:\iag\ic\icdata\9603061\96030711.D78                          |
| Method     : c:\dx\method\1anions1.met                                      |
| ACI Address: 1  System: 1  Inject#: 78  Vial:A32        Detector:PED-Cond.  |
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)            |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.18	FLUORIDE	5.336	30069	203320	1	2.69
2	1.65		0.000	10090	56246	1	
3	1.83	CHLORIDE	4.755	20212	127578	1	0.00
4	2.18	NITRITE	22.449	18544	170451	1	-0.76
5	3.83	NITRATE	35.887	197183	2425322	1	0.00
6	7.77	SULFATE	18.535	27618	611882	1	0.00
		Totals	86.962	303716	3594800		



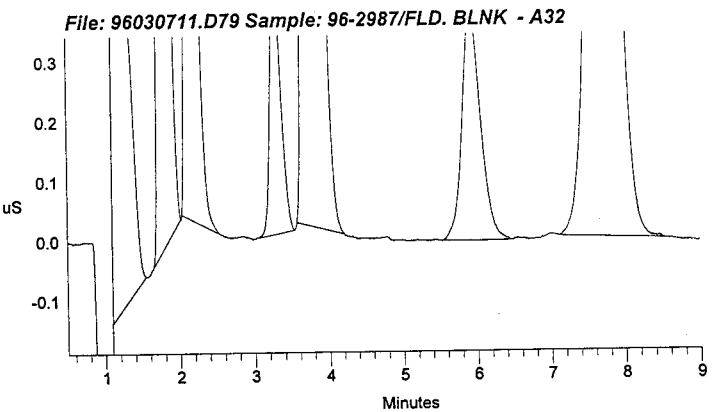
Data Reprocessed On 03/08/1996 10:33:59

Sample Name: 96-2987/FLD. BLNK - A32		Date: 03/07/1996 15:10:58	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030711.D79			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 79 Vial:A32			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.50	9.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.15	FLUORIDE	0.998	5065378	38279912	1	2.59
2	1.78	CHLORIDE	1.145	3668796	28226134	1	0.00
3	2.15	NITRITE	1.293	2187771	18910725	1	0.47
4	3.27	BROMIDE	0.443	397770	4360186	1	-3.83
5	3.73	NITRATE	4.301	4779606	59721303	1	0.00
6	5.93	PHOSPHATE	1.086	387477	6753973	1	-0.89
7	7.73	SULFATE	3.096	2668694	54692197	1	0.00
		Totals	12.363	19155491	210944429		



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| Sample Name: 96-2987/FLD. BLNK  - A32        Date: 03/07/1996 15:10:58      |
| Data File  : 1:\iag\ic\icdata\9603061\96030711.D79                          |
| Method     : c:\dx\method\1anions1.met                                      |
| ACI Address: 1  System: 1  Inject#: 79  Vial:A32        Detector:PED-Cond.  |
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)            |
```
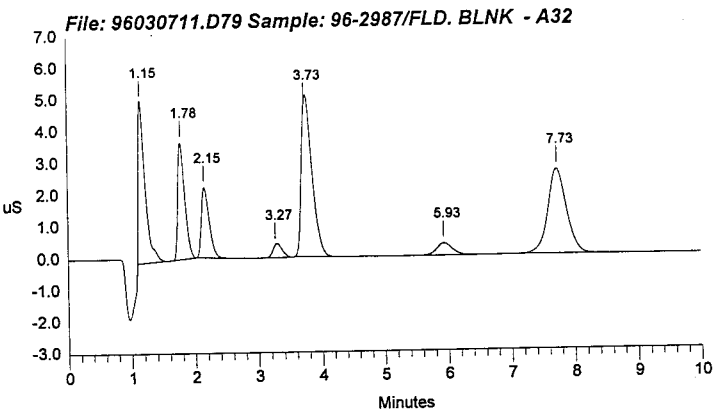

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.15	FLUORIDE	0.998	5065378	38279912	1	2.59
2	1.78	CHLORIDE	1.145	3668053	28209610	1	0.00
3	2.15	NITRITE	1.293	2187653	18900855	1	0.47
4	3.27	BROMIDE	0.444	398075	4370728	1	-3.83
5	3.73	NITRATE	4.304	4780157	59770486	1	0.00
6	5.93	PHOSPHATE	1.088	387297	6768237	1	-0.89
7	7.73	SULFATE	3.104	2669983	54845432	1	0.00
		Totals	12.376	19156597	211145260		

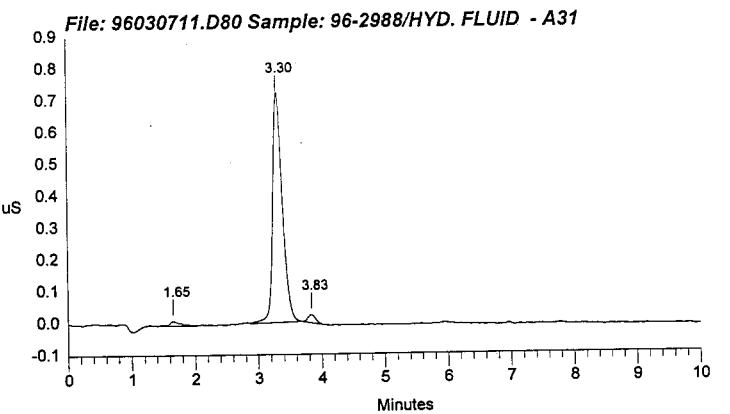


Sample Name: 96-2988/HYD. FLUID - A31 Date: 03/07/1996 15:22:23
Data File : 1:\iag\ic\icdata\9603061\96030711.D80
Method : c:\dx\method\1anions1.met
ACI Address: 1 System: 1 Inject#: 80 Vial:A31 Detector:PED-Cond.
Analyst : MMO Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	100	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.65	CHLORIDE	491.126	12927	166676	1	0.00
2	3.30	BROMIDE	7609.605	706356	7544704	1	5.00
3	3.83	NITRATE	2034.725	24396	214995	1	0.00
		Totals	10135.455	743679	7926374		



Data Reprocessed On 03/08/1996 10:39:24

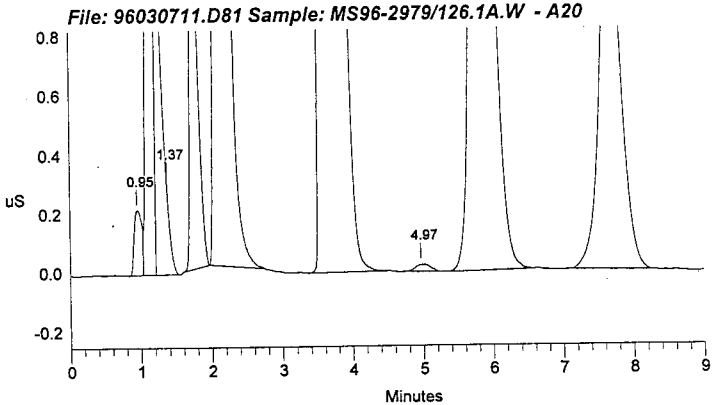
Sample Name: MS96-2979/126.1A.W - A20		Date: 03/07/1996 15:33:48	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030711.D81			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 81 Vial:A20			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	9.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	217415	1600606	2	
2	1.12	FLUORIDE	8.021	2071388	14070839	2	1.52
3	1.37		0.000	307873	8501228	2	
4	1.75	CHLORIDE	9.201	1376274	10528819	1	0.00
5	2.13	NITRITE	172.754	18280468	151099730	1	1.59
6	3.63	NITRATE	378.802	23197531	298655201	1	0.00
7	4.97		0.000	22068	351805	1	
8	5.83	PHOSPHATE	224.908	4887660	82871077	1	0.12
9	7.70	SULFATE	32.523	1344609	27162988	1	0.00
		Totals	826.209	51705287	594842291		

File: 96030711.D81 Sample: MS96-2979/126.1A.W - A20



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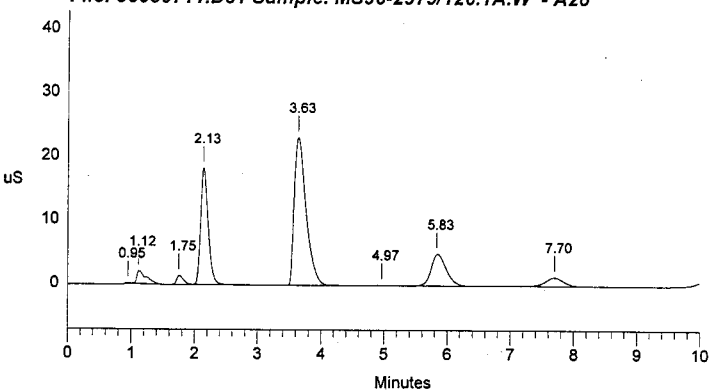
| Sample Name: MS96-2979/126.1A.W  - A20       Date: 03/07/1996 15:33:48
| Data File  : 1:\iag\ic\icdata\9603061\96030711.D81
| Method     : c:\dx\method\1anions1.met
| ACI Address: 1  System: 1  Inject#: 81  Vial:A20          Detector:PED-Cond.
| Analyst    : MMO              Column: AG4A/AS4A-SC  (10196/12484)
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	71463	413687	2	
2	1.12	FLUORIDE	11.369	1967136	20806455	2	1.52
3	1.75	CHLORIDE	9.259	1379939	10602922	1	0.00
4	2.13	NITRITE	172.374	18272967	150749405	1	1.59
5	3.63	NITRATE	378.968	23198369	298805205	1	0.00
6	4.97		0.000	22754	372579	1	
7	5.83	PHOSPHATE	225.520	4889418	83115146	1	0.12
8	7.70	SULFATE	32.693	1346457	27320819	1	0.00
		Totals	830.182	51148502	592186219		

File: 96030711.D81 Sample: MS96-2979/126.1A.W - A20



Data Reprocessed On 03/08/1996 10:41:37

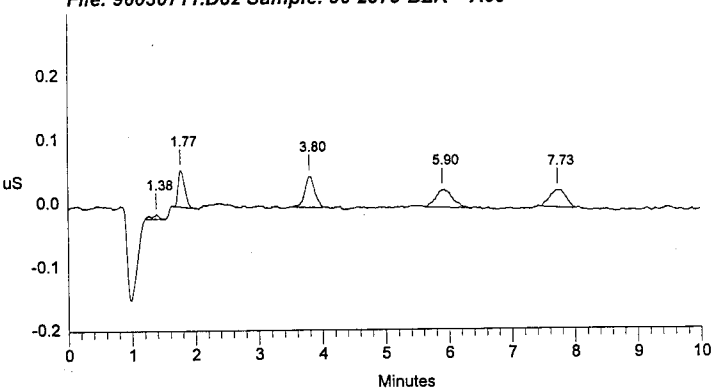
Sample Name: 96-2979-BLK - A09		Date: 03/07/1996 15:45:15	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030711.D82			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 82 Vial:A09			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.38		0.000	6059	58170	1	
2	1.77	CHLORIDE	1.186	56242	421914	1	0.00
3	3.80	NITRATE	4.507	48165	525642	1	0.00
4	5.90	PHOSPHATE	4.002	27719	523242	1	-3.18
5	7.73	SULFATE	3.582	26668	497417	1	0.00
		Totals	13.277	164854	2026384		

File: 96030711.D82 Sample: 96-2979-BLK - A09

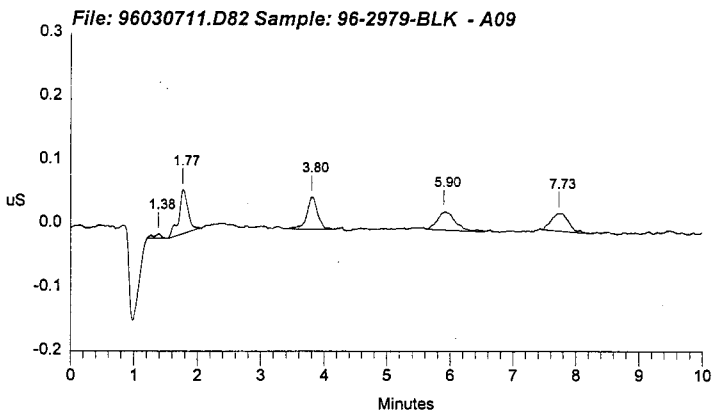


```
| Sample Name: 96-2979-BLK  - A09              Date: 03/07/1996 15:45:15
| Data File  : l:\iag\ic\icdata\9603061\96030711.D82
| Method     : c:\dx\method\lanions1.met
| ACI Address: 1  System: 1  Inject#: 82  Vial:A09        Detector:PED-Cond.
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.38		0.000	6059	58170	1	
2	1.77	CHLORIDE	1.396	67873	683765	1	0.00
3	3.80	NITRATE	4.620	50085	606318	1	0.00
4	5.90	PHOSPHATE	4.165	28323	580072	1	-3.18
5	7.73	SULFATE	3.637	27433	547874	1	0.00
		Totals	13.818	179773	2476199		



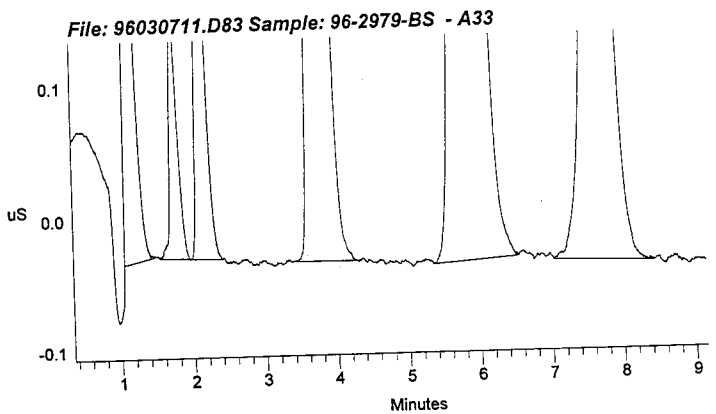
Data Reprocessed On 03/08/1996 10:43:31

Sample Name: 96-2979-BS - A33		Date: 03/07/1996 15:56:36	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030711.D83			
Method : c:\dx\method\lanions1.met			
ACI Address: 1 System: 1 Inject#: 83 Vial:A33			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.35	9.15	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.12	FLUORIDE	3.320	621094	4677927	1	1.52
2	1.75	CHLORIDE	1.998	189050	1437511	1	0.00
3	2.12	NITRITE	8.143	399600	3365453	1	0.79
4	3.73	NITRATE	55.921	3284725	37564607	1	0.00
5	5.83	PHOSPHATE	175.536	3692848	63501063	1	-2.56
6	7.67	SULFATE	23.815	910654	19095618	1	0.00
		Totals	268.733	9097970	129642178		



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| Sample Name: 96-2979-BS  - A33              Date: 03/07/1996 15:56:36      |
| Data File  : l:\iag\ic\icdata\9603061\96030711.D83                         |
| Method     : c:\dx\method\1anions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 83  Vial:A33        Detector:PED-Cond. |
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)            |
```
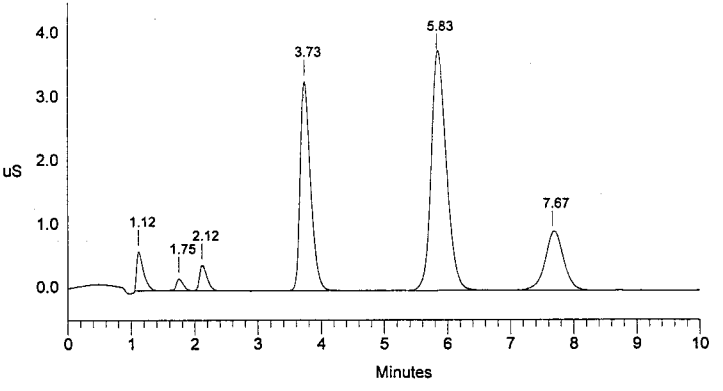

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.12	FLUORIDE	3.332	621317	4702430	1	1.52
2	1.75	CHLORIDE	1.998	189050	1437511	1	0.00
3	2.12	NITRITE	8.189	400392	3405979	1	0.79
4	3.73	NITRATE	55.978	3285285	37606289	1	0.00
5	5.83	PHOSPHATE	175.631	3693021	63537931	1	-2.56
6	7.67	SULFATE	23.928	911553	19199970	1	0.00
		Totals	269.057	9100617	129890110		

File: 96030711.D83 Sample: 96-2979-BS - A33



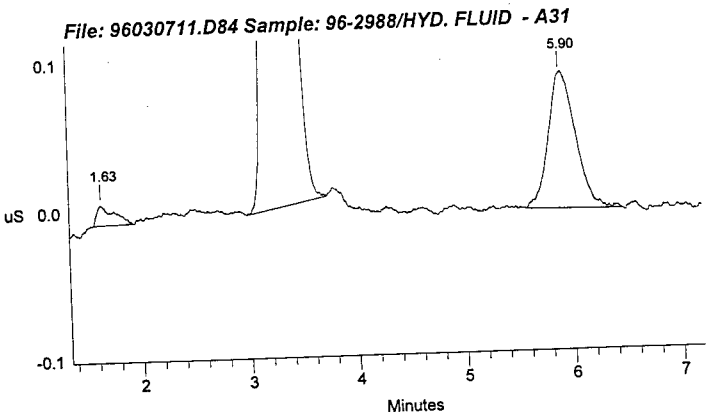
Data Reprocessed On 03/08/1996 10:44:12

Sample Name:	96-2988/HYD. FLUID - A31	Date: 03/07/1996 16:07:58	
Data File :	L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030711.D84		
Method :	c:\dx\method\1anions1.met		
ACI Address: 1	System: 1 Inject#: 84 Vial:A31	Detector:PED-Cond.	
Analyst :	MMO	Column: AG4A/AS4A-SC (10196/12484)	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	100	3000	5Hz	1.34	7.19	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.63	CHLORIDE	97.101	13347	152622	1	0.00
2	3.27	BROMIDE	7530.734	3849237	38945517	1	5.00
3	5.90	PHOSPHATE	713.248	90728	1619540	1	-0.56
		Totals	8341.083	3953312	40717679		



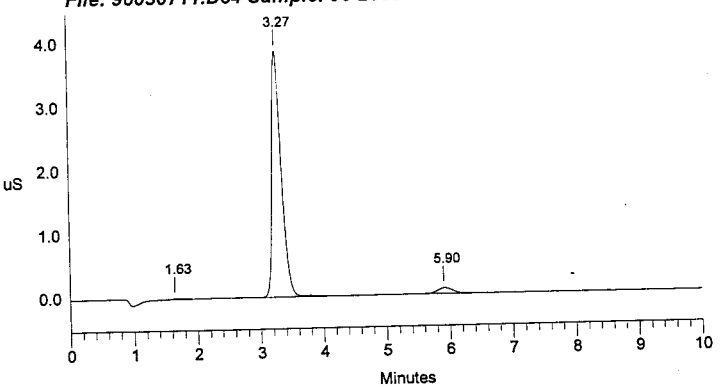
```
| Sample Name: 96-2988/HYD. FLUID  - A31       Date: 03/07/1996 16:07:58
| Data File  : l:\iag\ic\icdata\9603061\96030711.D84
| Method     : c:\dx\method\lanions1.met
| ACI Address: 1  System: 1  Inject#: 84  Vial:A31        Detector:PED-Cond.
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	5	100	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.63	CHLORIDE	97.101	13347	152622	1	0.00
2	3.27	BROMIDE	7609.693	3853574	39375170	1	5.00
3	5.90	PHOSPHATE	713.248	90728	1619540	1	-0.56
		Totals	8420.041	3957650	41147332		

File: 96030711.D84 Sample: 96-2988/HYD. FLUID - A31



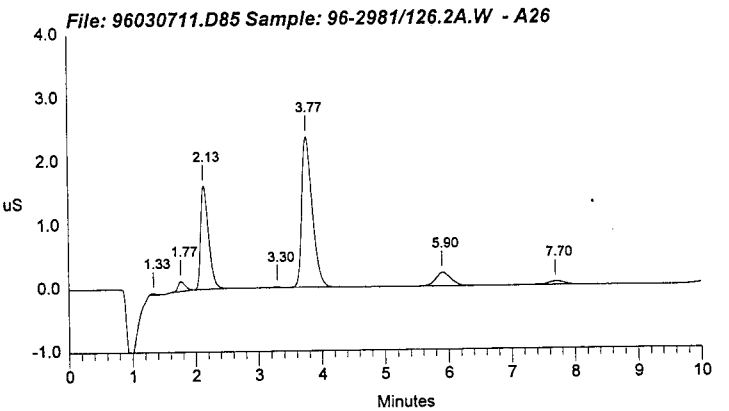
Data Reprocessed On 03/08/1996 11:09:03

Sample Name:	96-2981/126.2A.W - A26	Date:	03/07/1996 16:20:03
Data File :	L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030711.D85		
Method :	c:\dx\method\1anions1.met		
ACI Address:	1 System: 1 Inject#: 85 Vial:A26	Detector:	PED-Cond.
Analyst :	MMO Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	190	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.33		0.000	18595	128223	1	
2	1.77	CHLORIDE	17.673	156747	1265216	1	0.00
3	2.13	NITRITE	195.899	1609823	14304448	1	0.63
4	3.30	BROMIDE	3.273	16194	129922	1	-1.93
5	3.77	NITRATE	398.135	2361648	27370095	1	0.00
6	5.90	PHOSPHATE	124.765	213246	3726325	1	-2.32
7	7.70	SULFATE	40.186	54910	1090245	1	0.00
		Totals	779.932	4431162	48014475		



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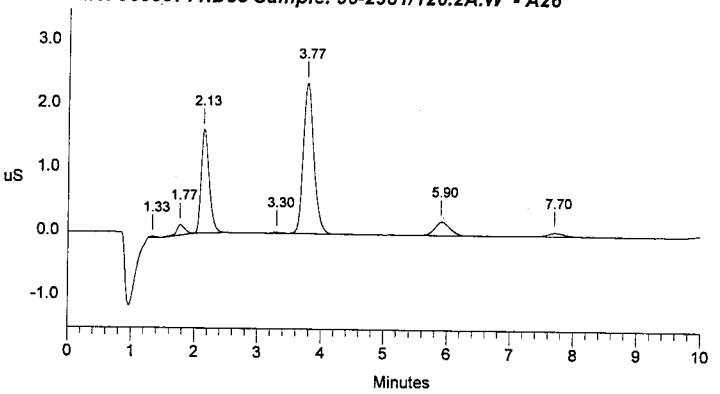
| Sample Name: 96-2981/126.2A.W  - A26          Date: 03/07/1996 16:20:03
| Data File  : l:\iag\ic\icdata\9603061\96030711.D85
| Method     : c:\dx\method\1anions1.met
| ACI Address: 1  System: 1  Inject#: 85  Vial:A26          Detector:PED-Cond.
| Analyst    : MMO              Column: AG4A/AS4A-SC  (10196/12484)
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	20	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.33		0.000	18595	128223	1	
2	1.77	CHLORIDE	2.021	164922	1466787	1	0.00
3	2.13	NITRITE	20.644	1610183	14324597	1	0.63
4	3.30	BROMIDE	0.352	16340	133724	1	-1.93
5	3.77	NITRATE	42.017	2362508	27448444	1	0.00
6	5.90	PHOSPHATE	13.327	213999	3794468	1	-2.32
7	7.70	SULFATE	4.230	54910	1090245	1	0.00
		Totals	82.592	4441457	48386489		

File: 96030711.D85 Sample: 96-2981/126.2A.W - A26



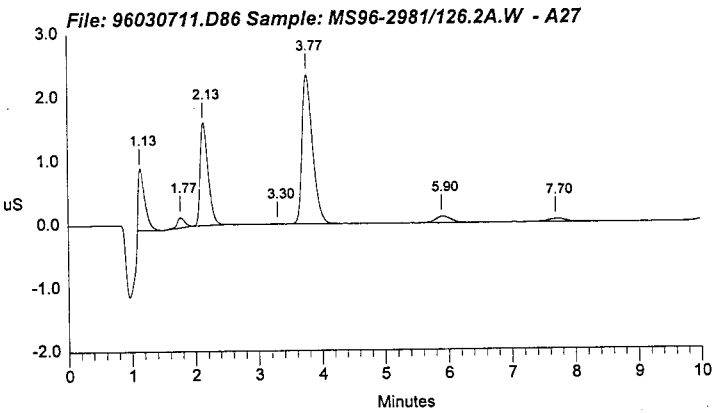
Data Reprocessed On 03/08/1996 11:10:09

Sample Name: MS96-2981/126.2A.W - A27		Date: 03/07/1996 16:32:05	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030711.D86			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 86 Vial:A27			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	190	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.13	FLUORIDE	42.730	946481	7024380	1	2.06
2	1.77	CHLORIDE	18.960	161365	1434894	1	0.00
3	2.13	NITRITE	194.647	1589289	14188669	1	0.63
4	3.30	BROMIDE	2.962	11105	113753	1	-1.93
5	3.77	NITRATE	395.905	2331247	27199979	1	0.00
6	5.90	PHOSPHATE	78.471	105296	2014920	1	-2.32
7	7.70	SULFATE	39.428	48725	1017240	1	0.00
		Totals	773.103	5193509	52993835		

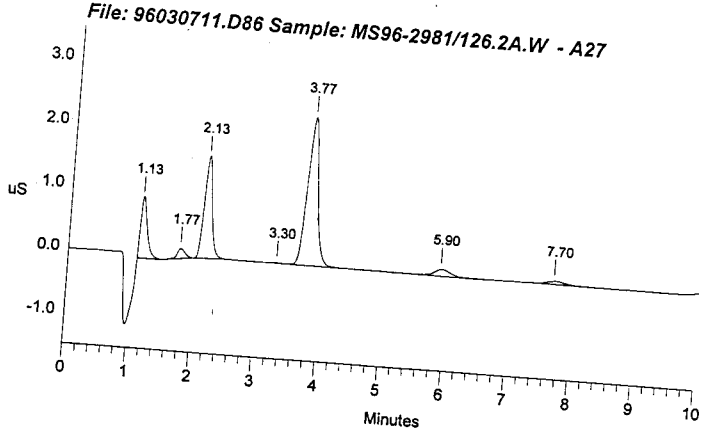


Sample Name: MS96-2981/126.2A.W - A27 Date: 03/07/1996 16:32:05
Data File : 1:\iag\ic\icdata\9603061\96030711.D86
Method : c:\dx\method\1anions1.met
ACI Address: 1 System: 1 Inject#: 86 Vial:A27 Detector:PED-Cond.
Analyst : MMO Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	20	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.13	FLUORIDE	4.498	946481	7024380	1	2.06
2	1.77	CHLORIDE	1.996	161365	1434894	1	0.00
3	2.13	NITRITE	20.489	1589289	14188669	1	0.63
4	3.30	BROMIDE	0.312	11105	113753	1	-1.93
5	3.77	NITRATE	41.674	2331247	27199979	1	0.00
6	5.90	PHOSPHATE	8.260	105296	2014920	1	-2.32
7	7.70	SULFATE	4.150	48725	1017240	1	0.00
		Totals	81.379	5193509	52993835		



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| Sample Name: A960123V1/LO  - A04            Date: 03/07/1996 16:43:24      |
| Data File  : l:\iag\ic\icdata\9603061\96030711.D87                         |
| Method     : c:\dx\method\1anions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 87  Vial:A04        Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)            |
```
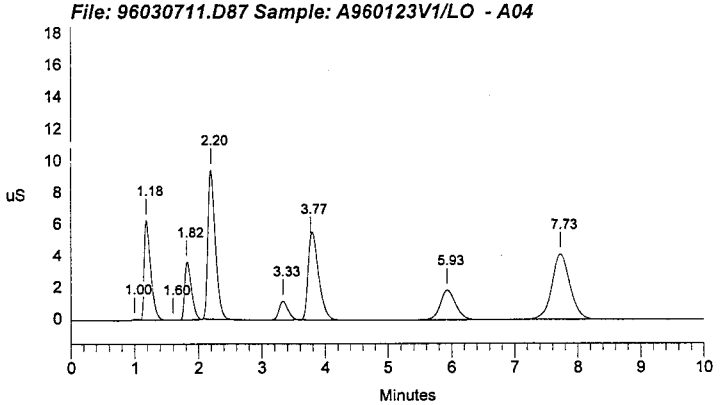

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.00		0.000	23960	129130	2	
2	1.18	FLUORIDE	22.867	6247411	44248508	2	3.63
3	1.60		0.000	20432	153741	2	
4	1.82	CHLORIDE	22.253	3641869	27369286	1	0.00
5	2.20	NITRITE	91.069	9432760	76842590	1	0.92
6	3.33	BROMIDE	22.846	1182934	11398295	1	-3.67
7	3.77	NITRATE	91.987	5110671	64165996	1	0.00
8	5.93	PHOSPHATE	91.439	1881965	31852560	1	-1.77
9	7.73	SULFATE	91.748	4145142	83089766	1	0.00
		Totals	434.209	31687145	339249871		

File: 96030711.D87 Sample: A960123V1/LO - A04



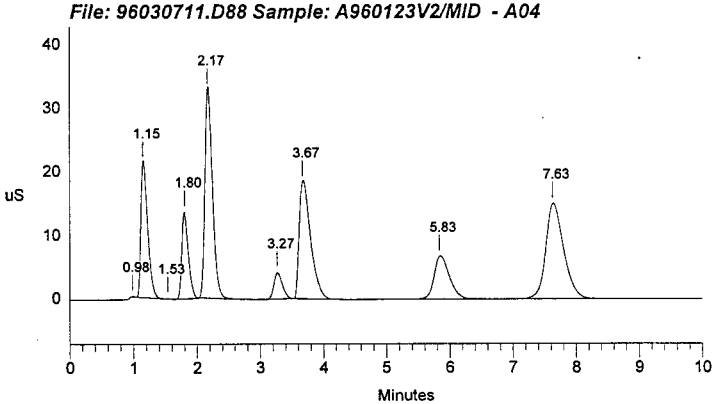
```
| Sample Name: A960123V2/MID - A04          Date: 03/07/1996 16:54:53      |
| Data File  : l:\iag\ic\icdata\9603061\96030711.D88                       |
| Method     : c:\dx\method\1anions1.met                                   |
| ACI Address: 1  System: 1  Inject#: 88  Vial:A04       Detector:PED-Cond.|
| Analyst    : MMO           Column: AG4A/AS4A-SC  (10196/12484)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	30	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.98		0.000	48210	149875	1	
2	1.15	FLUORIDE	25.164	21158453	158438661	1	1.64
3	1.53		0.000	53103	329898	1	
4	1.80	CHLORIDE	24.207	13660233	97623230	1	0.00
5	2.17	NITRITE	101.332	32745786	274705397	1	0.31
6	3.27	BROMIDE	24.780	4112593	38419044	1	-4.72
7	3.67	NITRATE	101.020	18344462	232087249	1	0.00
8	5.83	PHOSPHATE	100.716	6689249	114518686	1	-0.79
9	7.63	SULFATE	100.374	15010306	298389590	1	0.00
		Totals	477.592	111822395	1214661630		

File: 96030711.D88 Sample: A960123V2/MID - A04



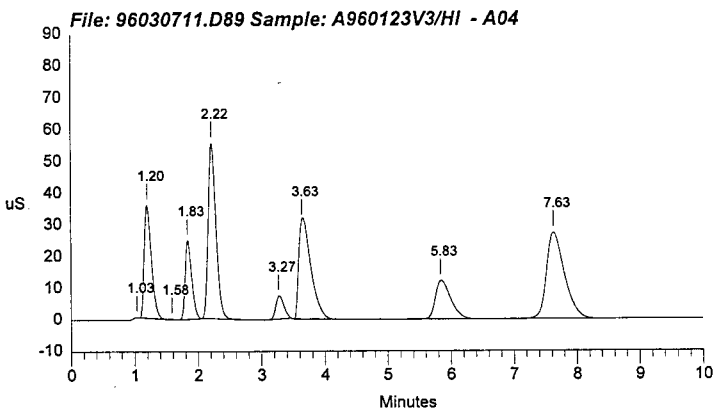
Data Reprocessed On 03/08/1996 11:11:25

Sample Name: A960123V3/HI - A04	Date: 03/07/1996 17:06:35
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030711.D89	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 System: 1 Inject#: 89 Vial:A04	Detector:PED-Cond.
Analyst : MMO Column: AG4A/AS4A-SC (10196/12484)	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03		0.000	68324	158157	1	
2	1.20	FLUORIDE	25.058	35570746	279873602	1	4.13
3	1.58		0.000	62723	357434	1	
4	1.83	CHLORIDE	24.394	24680394	177635384	1	0.00
5	2.22	NITRITE	100.769	55210262	474705273	1	0.76
6	3.27	BROMIDE	24.020	7141919	64129026	1	-4.64
7	3.63	NITRATE	101.258	30893252	421022535	1	0.00
8	5.83	PHOSPHATE	101.415	12165999	208815883	1	-1.78
9	7.63	SULFATE	100.924	27170057	545005292	1	0.00
		Totals	477.838	192963678	2171702586		



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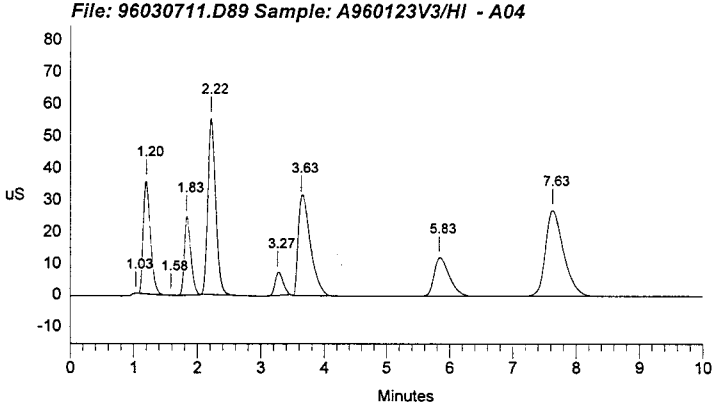
| Sample Name: A960123V3/HI  - A04            Date: 03/07/1996 17:06:35 |
| Data File  : l:\iag\ic\icdata\9603061\96030711.D89                    |
| Method     : c:\dx\method\lanions1.met                                |
| ACI Address: 1  System: 1  Inject#: 89  Vial:A04       Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.03		0.000	68324	158157	1	
2	1.20	FLUORIDE	25.058	35570746	279873602	1	4.13
3	1.58		0.000	62723	357434	1	
4	1.83	CHLORIDE	24.394	24680394	177635384	1	0.00
5	2.22	NITRITE	100.769	55210262	474705273	1	0.76
6	3.27		0.000	7141919	64129026	1	
7	3.63	BROMIDE	85.994	30893252	421022535	1	4.05
8	5.83	PHOSPHATE	101.415	12165999	208815883	1	0.12
9	7.63	SULFATE	100.924	27170057	545005292	1	0.00
		Totals	438.553	192963678	2171702586		

File: 96030711.D89 Sample: A960123V3/HI - A04



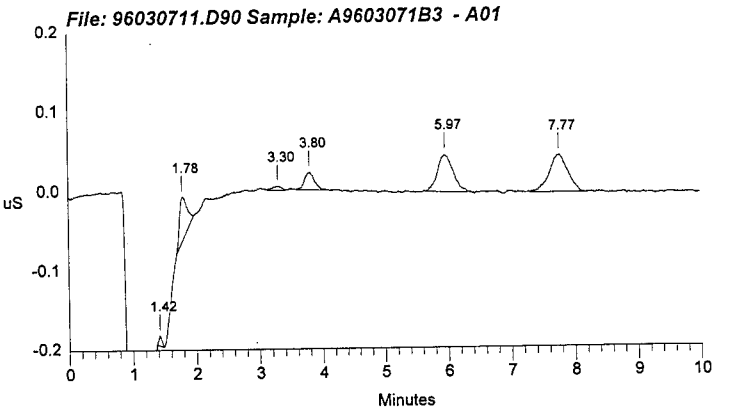
Data Reprocessed On 03/08/1996 11:12:47

Sample Name: A9603071B3 - A01		Date: 03/07/1996 17:18:38	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030711.D90			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 90 Vial:A01			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.42		0.000	12300	43142	1	
2	1.78	CHLORIDE	0.060	55388	447376	1	0.00
3	3.30	BROMIDE	0.009	4431	47962	1	-2.85
4	3.80	NITRATE	0.205	21732	241246	1	0.00
5	5.97	PHOSPHATE	0.240	46726	801486	1	-2.08
6	7.77	SULFATE	0.204	45748	951090	1	0.00
		Totals	0.718	186325	2532302		



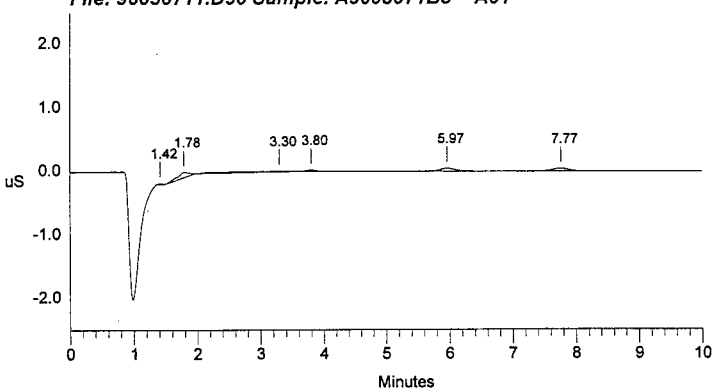
Sample Name: A9603071B3 - A01	Date: 03/07/1996 17:18:38
Data File : l:\iag\ic\icdata\9603061\96030711.D90	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 System: 1 Inject#: 90 Vial:A01	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.42		0.000	14736	57498	1	
2	1.78	CHLORIDE	0.087	86535	1107078	1	0.00
3	3.30	BROMIDE	0.108	8904	1028360	1	-2.85
4	3.80	NITRATE	0.206	21938	254319	1	0.00
5	5.97	PHOSPHATE	0.242	46942	815480	1	-2.08
6	7.77	SULFATE	0.204	45748	951090	1	0.00
		Totals	0.847	224803	4213824		

File: 96030711.D90 Sample: A9603071B3 - A01



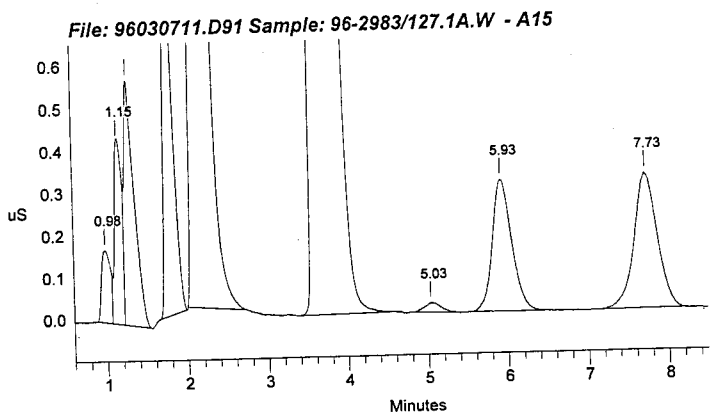
Data Reprocessed On 03/08/1996 11:15:20

Sample Name:	96-2983/127.1A.W - A15
Data File :	L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030711.D91
Method :	c:\dx\method\1anions1.met
ACI Address: 1 System: 1	Inject#: 91 Vial:A15 Detector:PED-Cond.
Analyst :	MMO Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	2	1	3000	5Hz	0.60	8.48	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.98		0.000	171241	1307545	2	
2	1.15	FLUORIDE	5.885	434397	2756755	2	3.56
3	1.28		0.000	579159	4702588	2	
4	1.77	CHLORIDE	16.874	970199	7419113	1	0.00
5	2.15	NITRITE	340.741	14484471	117717661	1	1.42
6	3.63	NITRATE	669.690	15504866	202440269	1	0.00
7	5.03		0.000	20769	317407	1	
8	5.93	PHOSPHATE	43.588	311509	5240811	1	-0.04
9	7.73	SULFATE	25.112	320988	6416136	1	0.00
		Totals	1101.890	32797600	348318285		



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| Sample Name: 96-2983/127.1A.W  - A15          Date: 03/07/1996 17:29:52
| Data File  : 1:\iag\ic\icdata\9603061\96030711.D91
| Method     : c:\dx\method\1anions1.met
| ACI Address: 1  System: 1  Inject#: 91  Vial:A15          Detector:PED-Cond.
| Analyst    : MMO              Column: AG4A/AS4A-SC  (10196/12484)
```
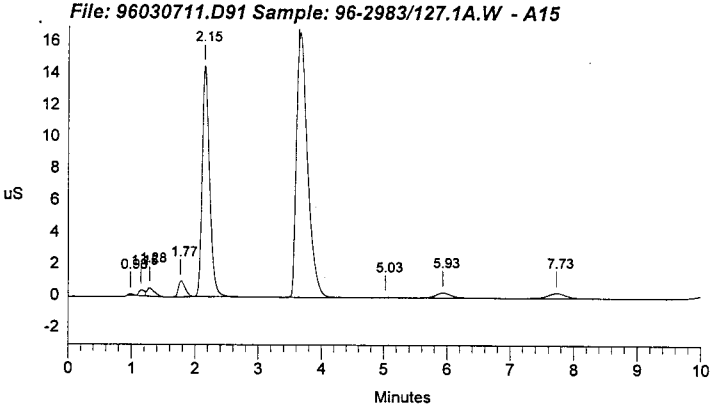

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	2	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.98		0.000	73952	447228	2	
2	1.15	FLUORIDE	5.183	366412	2199279	2	3.56
3	1.28		0.000	534617	4211925	2	
4	1.77	CHLORIDE	17.169	977658	7568298	1	0.00
5	2.15	NITRITE	341.224	14485863	117893293	1	1.42
6	3.63	BROMIDE	781.145	15506286	202651523	1	7.97
7	5.03		0.000	23040	398256	1	
8	5.93	PHOSPHATE	44.168	312549	5322618	1	1.83
9	7.73	SULFATE	25.190	321397	6444947	1	0.00
		Totals	1214.079	32601774	347137367		

File: 96030711.D91 Sample: 96-2983/127.1A.W - A15



Data Reprocessed On 03/08/1996 11:17:35

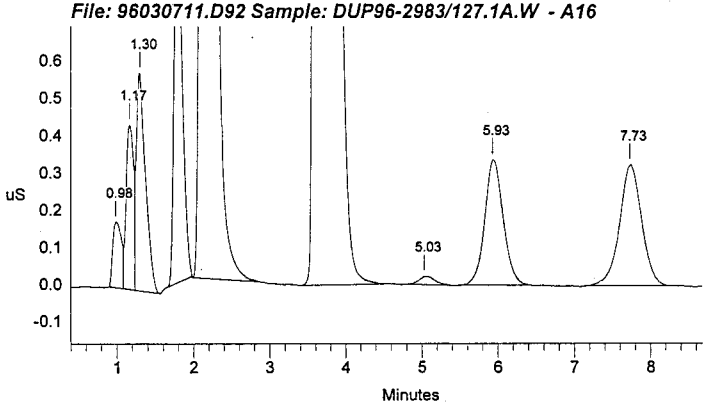
Sample Name: DUP96-2983/127.1A.W - A16		Date: 03/07/1996 17:41:07	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030711.D92			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 92 Vial:A16			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	2	1	3000	5Hz	0.40	8.68	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.98		0.000	174821	1367945	2	
2	1.17	FLUORIDE	6.005	440892	2852133	2	4.08
3	1.30		0.000	582681	4589072	2	
4	1.78	CHLORIDE	17.180	1017327	7574304	1	0.00
5	2.15	NITRITE	349.863	14256732	121040759	1	0.47
6	3.67	NITRATE	686.306	17039827	207983751	1	0.00
7	5.03		0.000	21099	327102	1	
8	5.93	PHOSPHATE	46.796	336652	5693208	1	0.09
9	7.73	SULFATE	25.532	324181	6570223	1	0.00
		Totals	1131.682	34194213	357998497		

File: 96030711.D92 Sample: DUP96-2983/127.1A.W - A16



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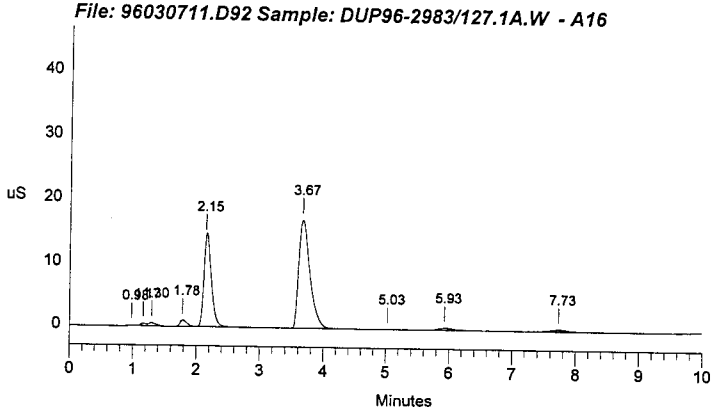
Sample Name: DUP96-2983/127.1A.W  - A16      Date: 03/07/1996 17:41:07
Data File  : l:\iag\ic\icdata\9603061\96030711.D92
Method     : c:\dx\method\1anions1.met
ACI Address: 1  System: 1  Inject#: 92  Vial:A16          Detector:PED-Cond.
Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	2	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.98		0.000	82829	543771	2	
2	1.17	FLUORIDE	5.335	379197	2319904	2	4.08
3	1.30		0.000	543020	4172333	2	
4	1.78	CHLORIDE	17.382	1021840	7676514	1	0.00
5	2.15	NITRITE	350.038	14257081	121104741	1	0.47
6	3.67	BROMIDE	795.319	17041172	208073634	1	7.94
7	5.03		0.000	21099	327102	1	
8	5.93	PHOSPHATE	48.372	339377	5915613	1	0.91
9	7.73	SULFATE	25.887	326082	6700551	1	0.00
		Totals	1242.333	34011697	356834163		

File: 96030711.D92 Sample: DUP96-2983/127.1A.W - A16



Data Reprocessed On 03/08/1996 11:19:53

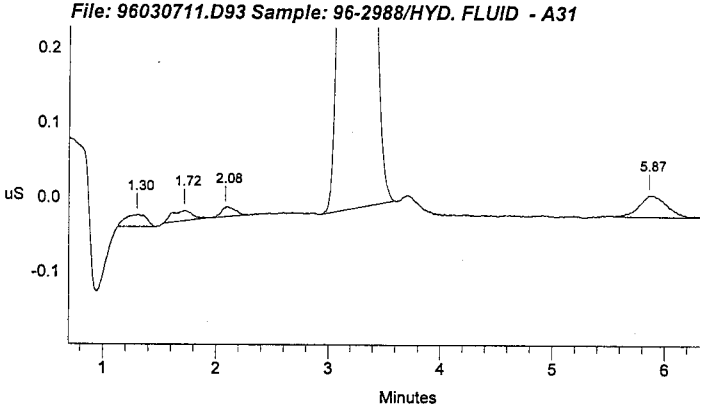
Sample Name: 96-2988/HYD. FLUID - A31		Date: 03/07/1996 17:52:28	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030711.D93			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 93 Vial:A31			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	100	3000	5Hz	0.70	6.32	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.30		0.000	15196	206504	1	
2	1.72	CHLORIDE	49.616	13683	179270	1	0.00
3	2.08	NITRITE	221.002	11691	109430	1	1.13
4	3.20	BROMIDE	7811.586	8613969	85801251	1	-2.14
5	5.87	PHOSPHATE	197.777	28647	506820	1	-1.12
		Totals	8279.981	8683186	86803274		

File: 96030711.D93 Sample: 96-2988/HYD. FLUID - A31



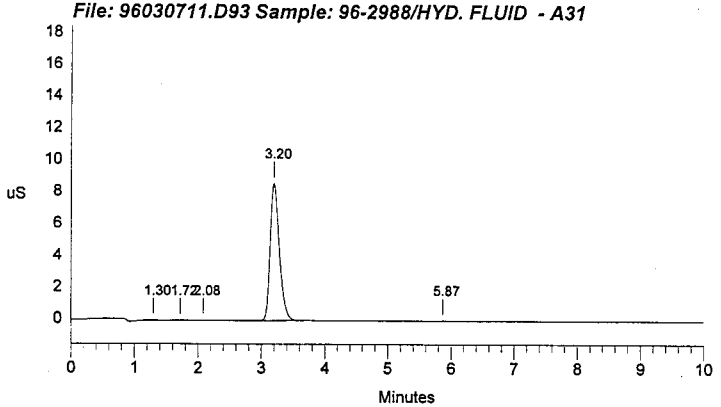
Sample Name: 96-2988/HYD. FLUID - A31	Date: 03/07/1996 17:52:28
Data File : l:\iag\ic\icdata\9603061\96030711.D93	
Method : c:\dx\method\lanions1.met	
ACI Address: 1 System: 1 Inject#: 93 Vial:A31	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	10	100	3000	5Hz	0.00	10.00	30000	

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.30		0.000	15196	206504	1	
2	1.72	CHLORIDE	51.512	15598	226672	1	0.00
3	2.08	NITRITE	221.002	11691	109430	1	1.13
4	3.20	BROMIDE	7811.586	8613969	85801251	1	-2.14
5	5.87	PHOSPHATE	201.217	28898	530903	1	-1.12
		Totals	8285.318	8685352	86874760		

File: 96030711.D93 Sample: 96-2988/HYD. FLUID - A31



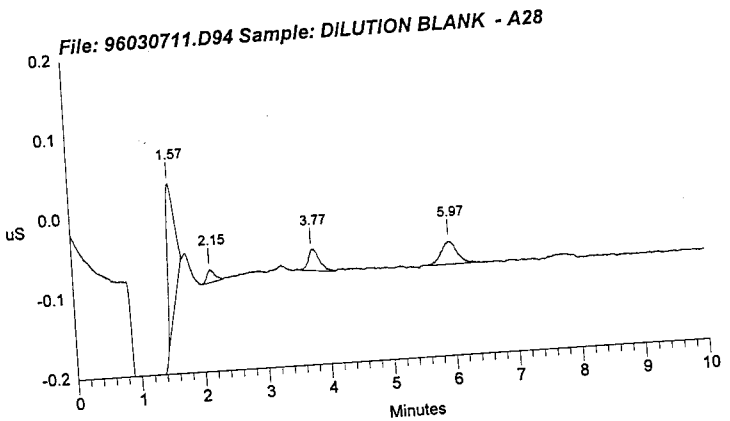
Data Reprocessed On 03/08/1996 11:21:18

Sample Name: DILUTION BLANK - A28 Date: 03/07/1996 18:04:40
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030711.D94
Method : c:\dx\method\1anions1.met Detector:PED-Cond.
ACI Address: 1 System: 1 Inject#: 94 Vial:A28
Analyst : MMO Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.57	CHLORIDE	0.098	155686	1390606	1	0.00
2	2.15	NITRITE	0.223	15519	141238	1	2.60
3	3.77	NITRATE	0.212	25543	332873	1	0.00
4	5.97	PHOSPHATE	0.198	28743	509986	1	-1.22
		Totals	0.731	225491	2374704		



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==========================================================================
| Sample Name: DILUTION BLANK  - A28                Date: 03/07/1996 18:04:40
| Data File   : l:\iag\ic\icdata\9603061\96030711.D94
| Method      : c:\dx\method\lanions1.met
| ACI Address: 1  System: 1  Inject#: 94  Vial:A28
| Analyst     : MMO                Column: AG4A/AS4A-SC  (10196/12484)  Detector:PED-Cond.
==========================================================================
```
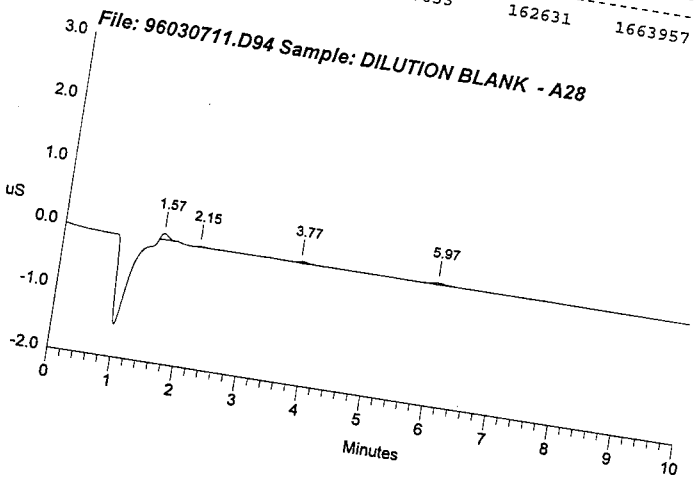

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.57		0.000	92826	679859	1	
2	2.15	NITRITE	0.223	15519	141238	1	2.38
3	3.77	NITRATE	0.212	25543	332873	1	0.00
4	5.97	PHOSPHATE	0.198	28743	509986	1	-1.22
		Totals	0.633	162631	1663957		



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2-1290

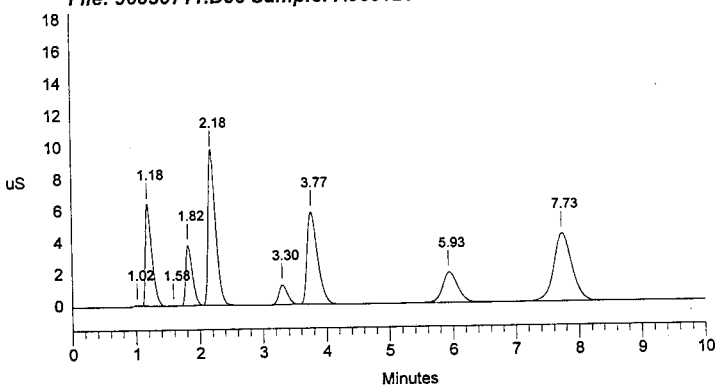
Sample Name: A960123V1/LO - A05	Date: 03/07/1996 18:16:01
Data File : l:\iag\ic\icdata\9603061\96030711.D95	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 System: 1 Inject#: 95 Vial:A05	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.02		0.000	31300	141683	2	
2	1.18	FLUORIDE	23.393	6381495	45332051	2	3.63
3	1.58		0.000	20349	139315	1	
4	1.82	CHLORIDE	22.671	3777938	27917620	1	0.00
5	2.18	NITRITE	94.405	9620494	79837452	1	0.15
6	3.30	BROMIDE	23.429	1221874	11694138	1	-4.63
7	3.77	NITRATE	94.756	5795587	66230385	1	0.00
8	5.93	PHOSPHATE	92.718	1896020	32322036	1	-1.77
9	7.73	SULFATE	94.225	4257426	85470434	1	0.00
		Totals	445.596	33002483	349085114		

File: 96030711.D95 Sample: A960123V1/LO - A05



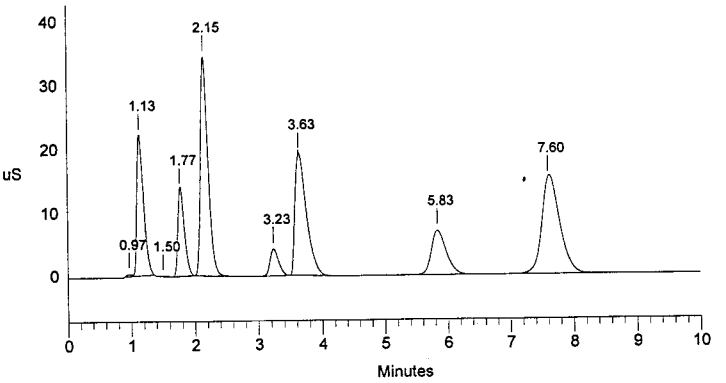
```
| Sample Name: A960123V2/MID  - A05          Date: 03/07/1996 18:27:43      |
| Data File  : l:\iag\ic\icdata\9603061\96030711.D96                        |
| Method     : c:\dx\method\lanions1.met                                    |
| ACI Address: 1  System: 1  Inject#: 96  Vial:A05       Detector:PED-Cond. |
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)          |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	30	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	343374	1843614	2	
2	1.13	FLUORIDE	25.805	22121241	162858240	2	2.06
3	1.50		0.000	58804	417992	1	
4	1.77	CHLORIDE	24.713	13607619	99891491	1	0.00
5	2.15	NITRITE	104.257	34381147	283172066	1	1.42
6	3.23	BROMIDE	25.525	4267322	39635130	1	-3.92
7	3.63	NITRATE	103.925	19114402	239551768	1	0.00
8	5.83	PHOSPHATE	102.907	7023939	117295040	1	0.12
9	7.60	SULFATE	103.261	15194897	308004061	1	0.00
		Totals	490.392	116112745	1252669402		

File: 96030711.D96 Sample: A960123V2/MID - A05



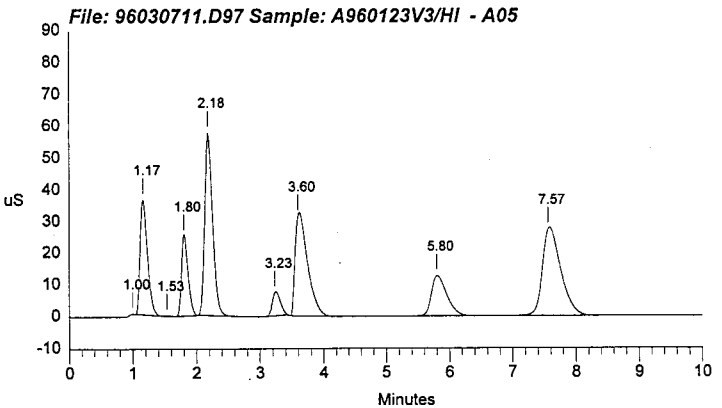
Data Reprocessed On 03/08/1996 11:22:01

Sample Name: A960123V3/HI - A05		Date: 03/07/1996 18:39:41	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030711.D97			
Method : c:\dx\method\lanions1.met			
ACI Address: 1 System: 1 Inject#: 97 Vial:A05			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.00		0.000	70329	164109	1	
2	1.17	FLUORIDE	25.672	36227606	287911390	1	3.11
3	1.53		0.000	72441	471052	1	
4	1.80	CHLORIDE	24.935	25196147	182462629	1	0.00
5	2.18	NITRITE	103.276	57608440	487788774	1	1.08
6	3.23	BROMIDE	24.491	7186442	65501544	1	-2.68
7	3.60	NITRATE	104.433	31391684	437364389	1	0.00
8	5.80	PHOSPHATE	103.742	12608533	214751456	1	-2.25
9	7.57	SULFATE	103.689	27438039	563677026	1	0.00
		Totals	490.238	197799661	2240092369		



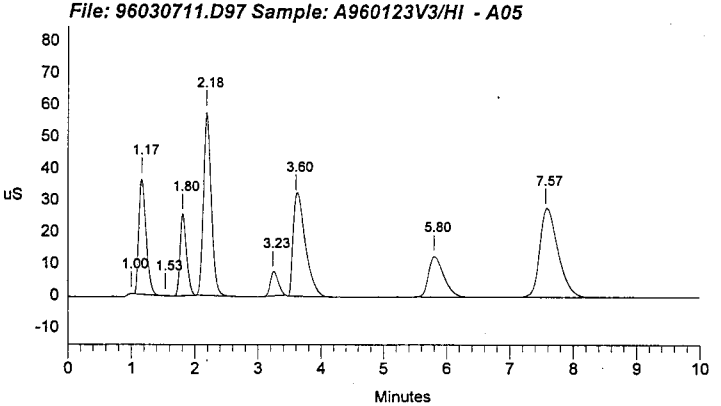
```
| Sample Name: A960123V3/HI  - A05            Date: 03/07/1996 18:39:41 |
| Data File  : l:\iag\ic\icdata\9603061\96030711.D97                    |
| Method     : c:\dx\method\1anions1.met                                |
| ACI Address: 1  System: 1  Inject#: 97  Vial:A05      Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)      |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.00		0.000	70329	164109	1	
2	1.17	FLUORIDE	25.672	36227606	287911390	1	3.11
3	1.53		0.000	72441	471052	1	
4	1.80	CHLORIDE	24.935	25196147	182462629	1	0.00
5	2.18	NITRITE	103.276	57608440	487788774	1	1.08
6	3.23		0.000	7186442	65501544	1	
7	3.60	BROMIDE	85.925	31391684	437364389	1	5.00
8	5.80	PHOSPHATE	103.742	12608533	214751456	1	0.47
9	7.57	SULFATE	103.689	27438039	563677026	1	0.00
		Totals	447.239	197799661	2240092369		

File: 96030711.D97 Sample: A960123V3/HI - A05



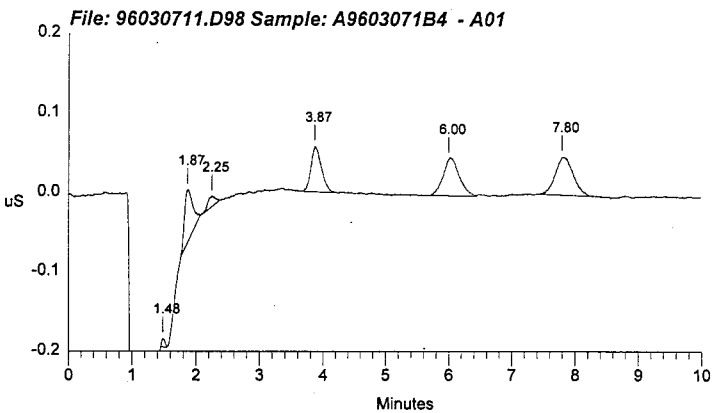
Data Reprocessed On 03/08/1996 11:23:03

Sample Name: A9603071B4 - A01		Date: 03/07/1996 18:51:53	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9603061\96030711.D98			
Method : c:\dx\method\lanions1.met			
ACI Address: 1 System: 1 Inject#: 98 Vial:A01			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.48		0.000	10512	35930	1	
2	1.87	CHLORIDE	0.066	66581	577749	1	0.00
3	2.25	NITRITE	0.221	12738	110314	1	0.45
4	3.87	NITRATE	0.234	56168	653300	1	0.00
5	6.00	PHOSPHATE	0.247	46153	853103	1	-3.24
6	7.80	SULFATE	0.203	47643	942406	1	0.00
		Totals	0.972	239795	3172802		



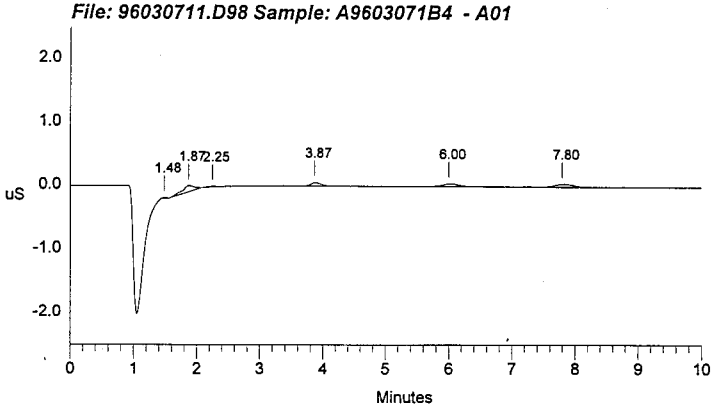
```
| Sample Name: A9603071B4  - A01                Date: 03/07/1996 18:51:53 |
| Data File  : l:\iag\ic\icdata\9603061\96030711.D98                      |
| Method     : c:\dx\method\1anions1.met                                  |
| ACI Address: 1  System: 1  Inject#: 98  Vial:A01        Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)        |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.48		0.000	10512	35930	1	
2	1.87	CHLORIDE	0.095	97981	1303092	1	0.00
3	2.25	NITRITE	0.221	12738	110314	1	0.45
4	3.87	NITRATE	0.233	55967	641502	1	0.00
5	6.00	PHOSPHATE	0.247	45934	853522	1	-3.24
6	7.80	SULFATE	0.208	49041	1025660	1	0.00
		Totals	1.004	272174	3970019		

File: 96030711.D98 Sample: A9603071B4 - A01



AI-450 AS3500 Editor - 02261#2.AS3

#	Vial Pos	Inj. Vol.	Inj/ Vial	Sample	Method (.MET)	Data	Dil.	Int. Std.	Template (.PRP)
1	A04	10	1	A960123V1/LO acc.	1anions1	96022611	2	1	
2	A04	30	1	A960123V2/MID acc.	1anions1	96022611	2	1	
3	A04	50	1	A960123V3/HI acc.	1anions1	96022611	2	1	
4	A01	100	1	A9602261B2 acc.	1anions1	96022611	1	1	
5	A16	100	1	96-2989-BLK	1anions1	96022611	1	1	
6	A17	10	1	96-2989/126.1DL.D	1anions1	96022611	10	1	
7	A18	10	1	96-2990/126.2DL.D	1anions1	96022611	10	1	
8	A19	10	1	96-2992/127.2DL.D	1anions1	96022611	10	1	
9	A20	100	1	DUP96-2989-BLK	1anions1	96022611	1	1	
10	A21	10	1	DUP96-2989/126.1DL.D	1anions1	96022611	10	1	
11	A22	10	1	DUP96-2990/126.2DL.D	1anions1	96022611	10	1	
12	A23	10	1	DUP96-2992/127.2DL.D	1anions1	96022611	10	1	
13	A17	100	1	96-2989/126.1DL.D	1anions1	96022611	10	1	
14	A18	100	1	96-2990/126.2DL.D	1anions1	96022611	10	1	
15	A04	10	1	A960123V1/LO acc.	1anions1	96022611	2	1	
16	A04	30	1	A960123V2/MID acc	1anions1	96022611	2	1	
17	A04	50	1	A960123V3/HI acc.	1anions1	96022611	2	1	
18	A01	100	1	A9602261B3 acc.	1anions1	96022611	1	1	
19	A19	100	1	96-2992/127.2DL.D	1anions1	96022611	10	1	
20	A20	100	1	DUP96-2989-BLK	1anions1	96022611	1	1	
21	A21	100	1	DUP96-2989/126.1DL.D	1anions1	96022611	10	1	
22	A22	100	1	DUP96-2990/126.2DL.D	1anions1	96022611	10	1	
23	A23	100	1	DUP96-2992/127.2DL.D	1anions1	96022611	10	1	
24	A04	10	1	A960123V1/LO acc	1anions1	96022611	2	1	
25	A04	30	1	A960123V2/MID acc	1anions1	96022611	2	1	
26	A04	50	1	A960123V3/HI acc	1anions1	96022611	2	1	
27	A01	100	1	A9602261B4 acc.	1anions1	96022611	1	1	

More Run Parameters

#	Vial Pos	Oven Ctl	Oven Set	Cool Ctl	Cool Set	Cycle Time	Flush Vol	Visc Factor	Prep Visc	Inj Type	Needle Height
1	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
2	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
3	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
4	A01	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
5	A16	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0

6	A17	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
7	A18	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
8	A19	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
9	A20	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
10	A21	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
11	A22	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
12	A23	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
13	A17	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
14	A18	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
15	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
16	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
17	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
18	A01	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
19	A19	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
20	A20	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
21	A21	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
22	A22	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
23	A23	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
24	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
25	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
26	A04	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0
27	A01	Off	18	Off	0	0.00	250	Normal	Normal	Push	2.0

Comment:

DIONEX METHOD PARAMETERS - 1ANIONS1.MET

Method Comment: CALIBRATED ON 02/23/96 *** FLOW RATE: 1.8 MLS/MIN***
Column ID: AG4A/AS4A-SC (10196/12484)
Analyst ID: MMO

System Parameters

System Name: ANIONS 1	
Number of Detectors	1
Run Time (minutes)	10.00
Sampling Rate (seconds)	0.20
Detector 1 Type	PED-Cond.
Detector 1 real time plot scale maximum (uS)	10.000
minimum	-1.000
Save Data File	Yes
Data File Name: C:\DX\DATA\9512081\95120811.D14	

-- DETECTOR 1 PARAMETERS --

Report Options

Create ASCII Report File	No
Print Report	Yes
Print All Components	No
Print Components Found	No
Print Missing Components	No
Print All Peaks	Yes
Print Unknown Peaks	No
Print Chromatogram	Yes
Autoscale Chromatogram Maximum	Yes
Autoscale Maximum Value Delay (minutes)	0.0
Autoscale Chromatogram Minimum	Yes
Autoscale Minimum Value Delay (minutes)	0.0
Fill Peaks with Color	No
Draw Grid Lines on Chromatogram	No
Show Component Fraction Numbers	No
Label with Peak Number	No
Label with Retention Times on Chromatogram	Yes
Label with Component Name	No
Format File Name: C:\DX\METHOD\DEFAULT.PRF	

Integration Parameters

Starting Peak Width (seconds)	10.0
Peak Threshold	24.662
Peak Area Reject	30000
Area Reject for Reference Peaks	30000

Data Events

Time	Description
0.00	Force exponential skim
0.00	Stop peak detection
0.90	Start peak detection
1.08	Void volume treatment for this peak
2.00	Force baseline at start of all peaks
2.70	Double bunching factor

Calibration Parameters

Number Of Levels for Calibration	6
Force Calibration Curve Through Origin	No
Calibration Fit Type	Quadratic
Replace Or Average Calibrations	Replace
External or Internal Calibration	External
Calculate Unknowns by Area or Height	Area
Default Sample Volume	5.0
Default Dilution Factor	1.0
Default Response Factor for Unknown Peaks	0.0
Calibration Standard Volume	100.0
Internal Standard Amount in Samples	1.0
Amount Units	ppm

Component Table -- Last Modified: 13:36 on Fri, 23 Feb 1996

Component # 1 FLUORIDE Retention Time 1.28
Reference Comp. CHLORIDE Window Size 10.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 4.82320E-002
K1 = 2.52257E-008
K2 = -1.07726E-017

Level	Amount	Area	Height
1	2.50000E-001	9523357	1343285
2	5.00000E-001	20322455	2732426
3	1.25000E+000	44629791	6537710
4	2.50000E+000	99867255	13969188
5	5.00000E+000	219435022	29691393
6	7.50000E+000	345543883	42130071

Component # 2 CHLORIDE Retention Time 1.92
Reference Comp. CHLORIDE Window Size 8.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 4.24441E-002
K1 = 4.00140E-008
K2 = -3.33337E-017

Level	Amount	Area	Height
1	2.50000E-001	6093509	791167
2	5.00000E-001	12909890	1737522
3	1.25000E+000	28838346	3852665
4	2.50000E+000	63412074	8721712
5	5.00000E+000	142514215	20036422
6	7.50000E+000	229869269	30278847

Component # 3 NITRITE Retention Time 2.30
Reference Comp. CHLORIDE Window Size 8.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 2.14742E-001
K1 = 5.72048E-008
K2 = -9.66506E-018

Level	Amount	Area	Height
1	5.00000E-001	7903947	934922
2	1.00000E+000	16517432	2025522
3	5.00000E+000	78468785	9521984
4	1.00000E+001	173184043	20996531
5	2.00000E+001	375096440	44508971
6	3.00000E+001	574493441	64016632

Component # 4 BROMIDE Retention Time 3.33
Reference Comp. CHLORIDE Window Size 8.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 4.07819E-003
K1 = 1.01219E-007
K2 = -1.19152E-016

Level	Amount	Area	Height
1	2.50000E-001	2627755	272024
2	5.00000E-001	5485202	576556
3	1.25000E+000	11809978	1142880
4	2.50000E+000	24865894	2663069
5	5.00000E+000	53383332	5756882
6	7.50000E+000	81684039	9292839

Component # 5 NITRATE Retention Time 3.70
Reference Comp. NITRATE Window Size 10.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 1.88344E-001
K1 = 7.03737E-008
K2 = -2.54015E-017

Level	Amount	Area	Height
1	5.00000E-001	6743115	629834
2	1.00000E+000	14123835	1240703
3	5.00000E+000	64860830	5750922
4	1.00000E+001	144331725	12536138
5	2.00000E+001	323435782	26150379
6	3.00000E+001	519822826	39459601

Component # 6 PHOSPHATE Retention Time 5.93
Reference Comp. NITRATE Window Size 10.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 1.25338E-001
K1 = 1.42982E-007
K2 = -1.06147E-016

Level	Amount	Area	Height
1	5.00000E-001	3501034	216635
2	1.00000E+000	7370734	436890
3	5.00000E+000	32741032	2051261
4	1.00000E+001	71685623	4528068
5	2.00000E+001	159792028	9951222
6	3.00000E+001	257637992	15575932

Component # 7 SULFATE Retention Time 7.73
Reference Comp. SULFATE Window Size 10.00 %
Amount = K0 + K1*Area + K2*Area**2
K0 = 1.51881E-001
K1 = 5.47075E-008
K2 = -1.59473E-017

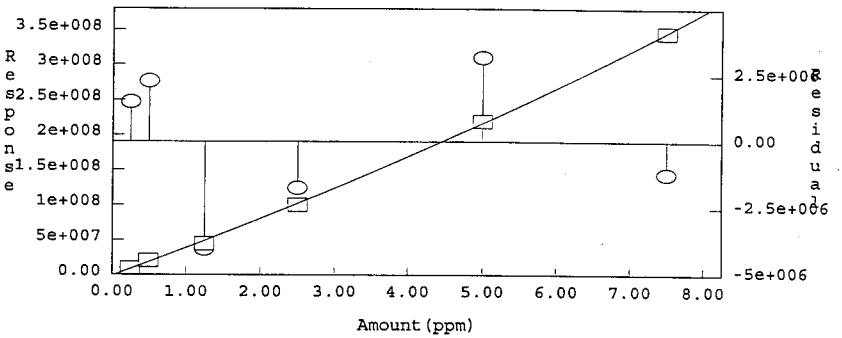
Level	Amount	Area	Height
1	5.00000E-001	9097601	464452
2	1.00000E+000	19042360	988823
3	5.00000E+000	84530747	4392539
4	1.00000E+001	186452240	9899680
5	2.00000E+001	419545717	22239624
6	3.00000E+001	677810053	34874952

Timed Events File: C:\DX\METHOD\3500.TE

Step	Time	Description
Init		PED AutoOffset Off
Init		PED Cell ON
Init		PED Recorder Mark OFF
Init		PED Recorder Range = 0.100 uS
Init		ACI Autosmp OFF
Init		ACI RLY 2 OFF
Init		ACI TTL 1 OFF
Init		ACI TTL 2 OFF
Init		ACI Regen ON
Init		GPM Start
Init		GPM Hold Gradient Clock
Init		GPM Reset ON
1	0.0	PED AutoOffset ON
1	0.0	GPM Run Gradient Clock
1	0.0	GPM Reset OFF
2	0.1	PED AutoOffset Off
2	0.1	Start Sampling

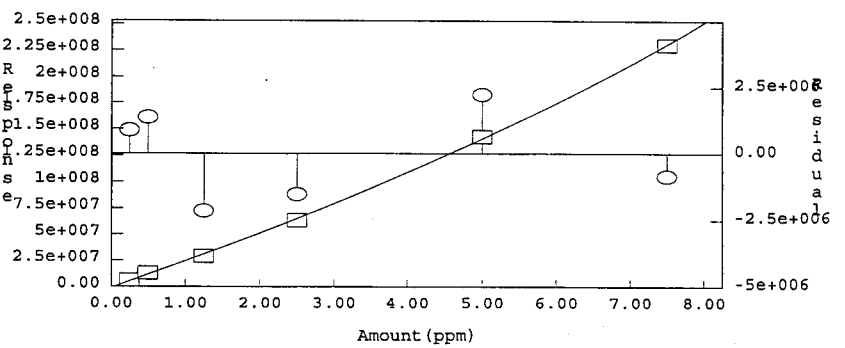
```
 Lo Pressure Limit = 0
Hi Pressure Limit = 3000
Eluent 1 -
Eluent 2 -
Eluent 3 -
Eluent 4 -
V5 Off - Off
V5 On  - On
V6 Off - Off
V6 On  - On

Time  Flow    %1    %2    %3    %4  V5 V6 Comment
------------------------------------------------------------------
 0.0  1.8    100     0     0     0   0  0

 PED file: C:\DX\METHOD\1ANIONS1.PCD
Temperature:   1.7  Deg. C
```

Method: 1ANIONS1.MET - Last Updated: 13:36 Component: FLUORIDE
Fit Type: Quadratic
r^2 = 0.999506 Sum(abs(Residuals)) = 1.3896e+007
Amt = (-1.077257e-017 * Resp^2)+
(2.522569e-008 * Resp)+ 0.0482
Standardization: External
Calibration: Area



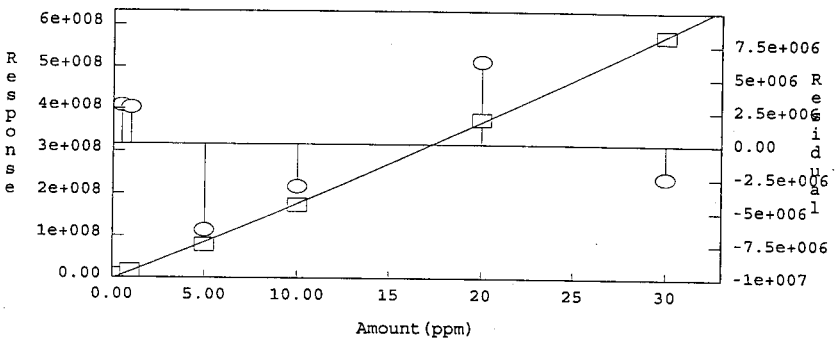
Method: C:\DX\METHOD\1ANIONS1.MET

Component: CHLORIDE
Fit Type: Quadratic
r^2 = 0.999546 Sum(abs(Residuals)) = 8.9756e+006
Amt = (-3.333368e-017 * Resp^2)+
(4.001398e-008 * Resp)+ 0.0424
Standardization: External
Calibration: Area



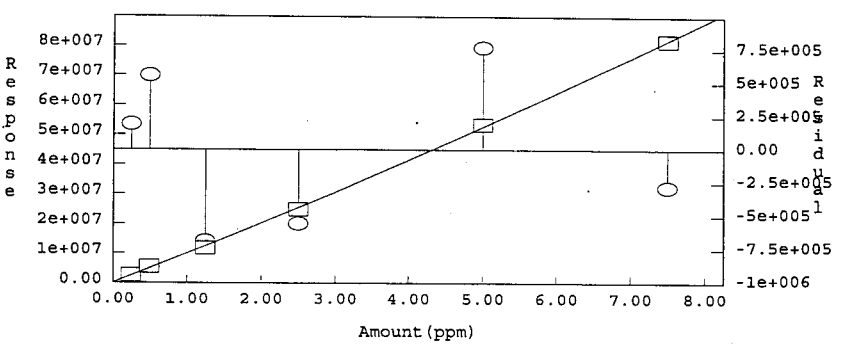
Method: C:\DX\METHOD\1ANIONS1.MET

Component: NITRITE
Fit Type: Quadratic
r^2 = 0.999540 Sum(abs(Residuals)) = 2.3854e+007
Amt = (-9.665059e-018 * Resp^2)+
(5.720483e-008 * Resp)+ 0.2147
Standardization: External
Calibration: Area



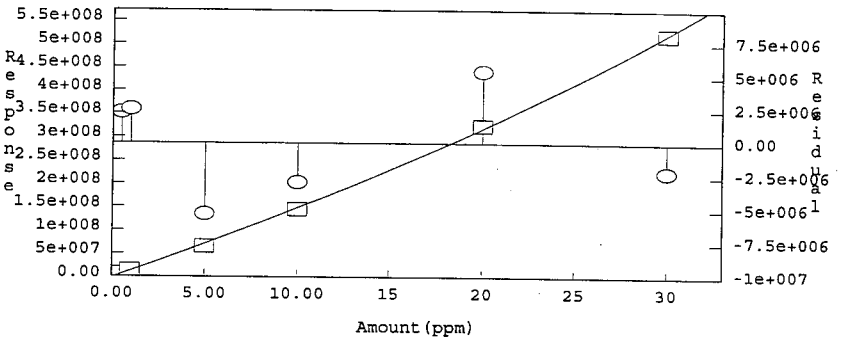
Method: C:\DX\METHOD\1ANIONS1.MET

Component: BROMIDE
Fit Type: Quadratic
r^2 = 0.999614 Sum(abs(Residuals)) = 3.0326e+006
Amt = (-1.191519e-016 * Resp^2)+
(1.012187e-007 * Resp)+ 0.0041
Standardization: External
Calibration: Area



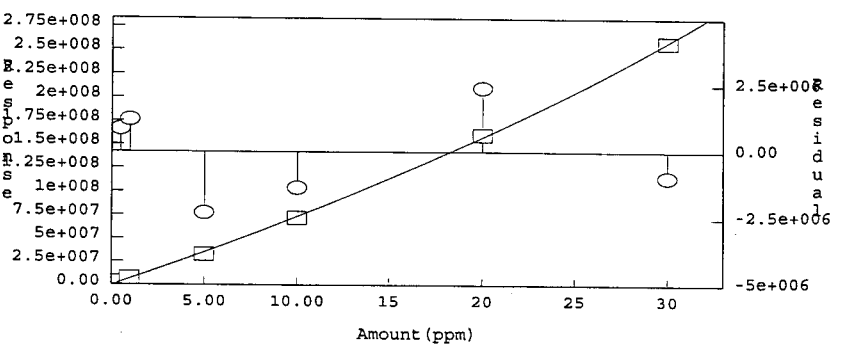
Method: C:\DX\METHOD\1ANIONS1.MET

Component: NITRATE
Fit Type: Quadratic
r^2 = 0.999549 Sum(abs(Residuals)) = 2.0596e+007
Amt = (-2.540146e-017 * Resp^2)+
(7.037365e-008 * Resp)+ 0.1883
Standardization: External
Calibration: Area



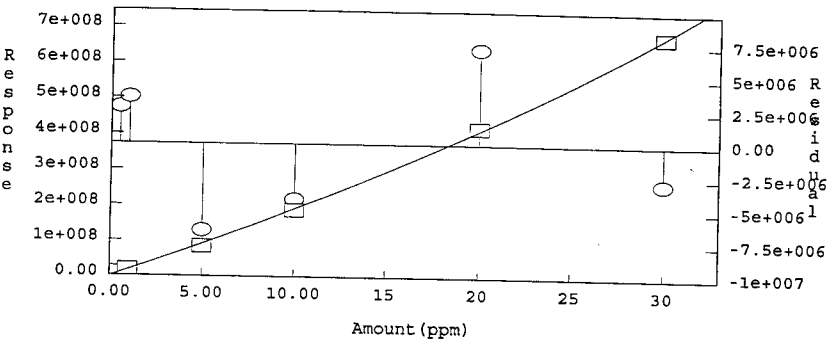
Method: C:\DX\METHOD\1ANIONS1.MET

Component: PHOSPHATE
Fit Type: Quadratic
r^2 = 0.999645 Sum(abs(Residuals)) = 9.0381e+006
Amt = (-1.061472e-016 * Resp^2)+
(1.429816e-007 * Resp)+ 0.1253
Standardization: External
Calibration: Area



Method: C:\DX\METHOD\1ANIONS1.MET

Component: SULFATE
Fit Type: Quadratic
r^2 = 0.999551 Sum(abs(Residuals)) = 2.6846e+007
Amt = (-1.594730e-017 * $Resp^2$)+
(5.470746e-008 * Resp)+ 0.1519
Standardization: External
Calibration: Area



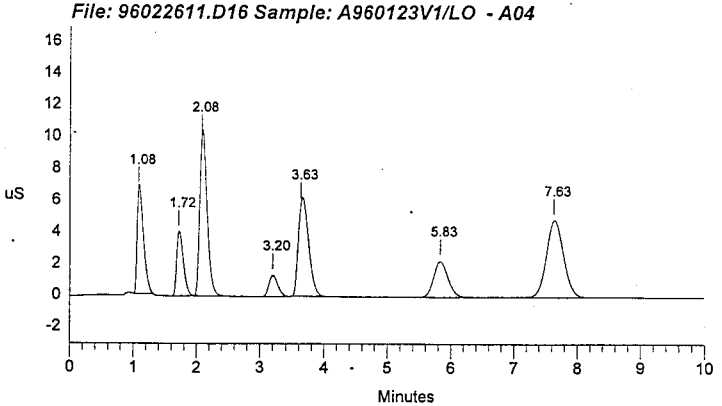
Sample Name: A960123V1/LO - A04	Date: 02/26/1996 12:13:47
Data File : 1:\iag\ic\icdata\9602261\96022611.D16	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 System: 1 Inject#: 16 Vial:A04	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.08	FLUORIDE	24.247	6579430	47095686	1	0.40
2	1.72	CHLORIDE	24.419	4016216	30213411	1	0.00
3	2.08	NITRITE	99.353	10010629	84286357	1	1.13
4	3.20	BROMIDE	25.535	1344497	12765227	1	-2.14
5	3.63	NITRATE	99.269	5809279	69602372	1	0.00
6	5.83	PHOSPHATE	102.208	2254587	35817536	1	0.12
7	7.63	SULFATE	100.327	4854489	91350241	1	0.00
		Totals	475.359	34869126	371130830		

File: 96022611.D16 Sample: A960123V1/LO - A04



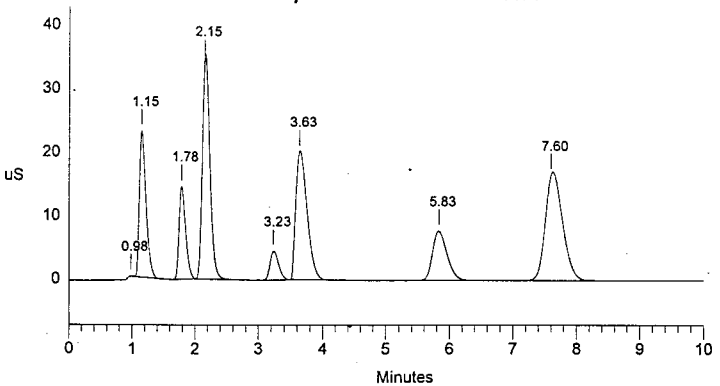
```
| Sample Name: A960123V2/MID  - A04          Date: 02/26/1996 12:25:22 |
| Data File  : l:\iag\ic\icdata\9602261\96022611.D17                   |
| Method     : c:\dx\method\lanions1.met                               |
| ACI Address: 1  System: 1  Inject#: 17  Vial:A04       Detector:PED-Cond. |
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)      |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	30	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.98		0.000	73018	224154	1	
2	1.15	FLUORIDE	26.371	23008870	166777468	1	2.59
3	1.78	CHLORIDE	25.812	14614251	104858684	1	0.00
4	2.15	NITRITE	107.020	34268949	291194568	1	0.47
5	3.23	BROMIDE	26.553	4489108	41319040	1	-4.81
6	3.63	NITRATE	106.324	20138376	245749383	1	0.00
7	5.83	PHOSPHATE	107.298	7724992	122902219	1	0.12
8	7.60	SULFATE	106.811	16540354	319918685	1	0.00
		Totals	506.188	120857918	1292944201		

File: 96022611.D17 Sample: A960123V2/MID - A04



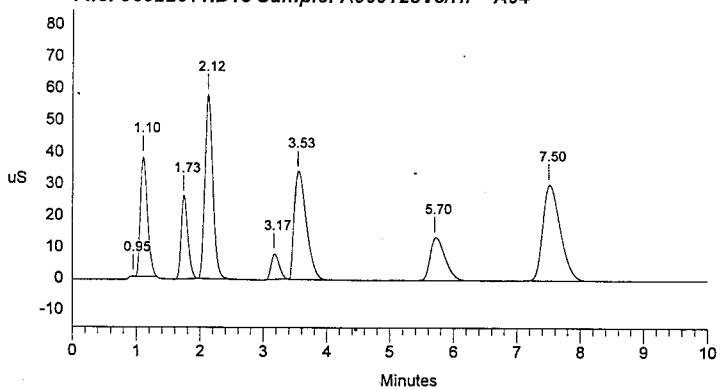
```
| Sample Name: A960123V3/HI  - A04            Date: 02/26/1996 12:37:00 |
| Data File  : l:\iag\ic\icdata\9602261\96022611.D18                    |
| Method     : c:\dx\method\1anions1.met                                |
| ACI Address: 1  System: 1  Inject#: 18  Vial:A04      Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	91736	366134	1	
2	1.10	FLUORIDE	25.921	37653308	291186618	1	0.96
3	1.73	CHLORIDE	25.918	25903577	191383474	1	0.00
4	2.12	NITRITE	106.264	57659153	503472932	1	1.76
5	3.17	BROMIDE	26.034	7822110	70034658	1	-4.09
6	3.53	NITRATE	107.054	33822600	451072008	1	0.60
7	5.70	PHOSPHATE	107.297	13291338	223969635	1	0.00
8	7.50	SULFATE	106.753	30166841	584727854	1	0.00
		Totals	505.241	206410663	2316213313		

File: 96022611.D18 Sample: A960123V3/HI - A04



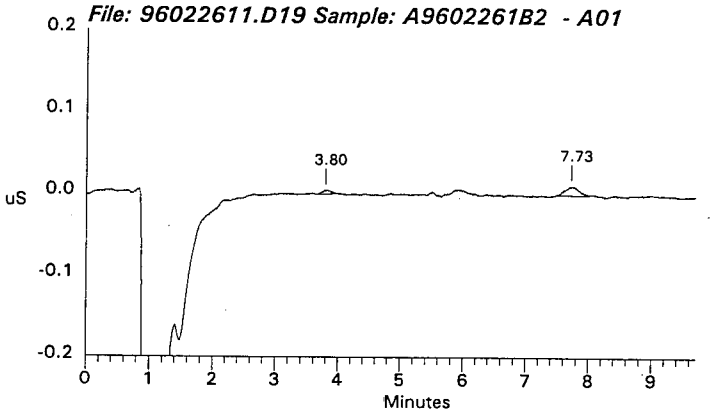
Data Reprocessed On 03/05/1996 08:17:04

```
Sample Name: A9602261B2  - A01              Date: 02/26/1996 12:48:52
Data File  : L:\IAG\IC\ICDATA\OPTIMIZE\9602261\96022611.D19
Method     : c:\dx\method\1anions1.met
ACI Address: 1  System: 1  Inject#: 19  Vial:A01        Detector:PED-Cond.
Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	2915	5Hz	0.00	9.71	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	3.80	NITRATE	0.192	4020	52526	1	0.00
2	7.73	SULFATE	0.161	10677	168590	1	0.00
		Totals	0.353	14696	221116		



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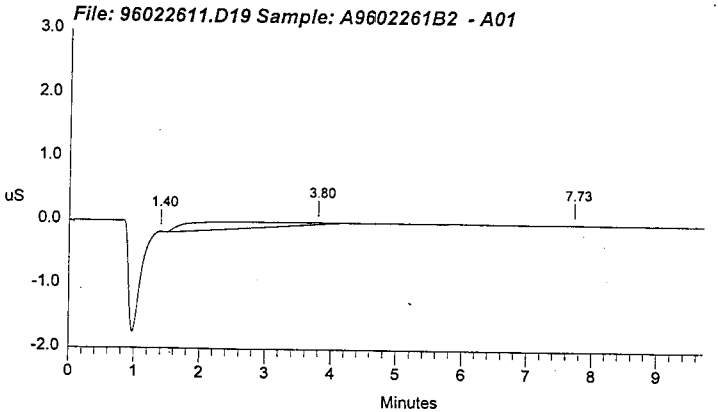
| Sample Name: A9602261B2  - A01                Date: 02/26/1996 12:48:52 |
| Data File  : l:\iag\ic\icdata\9602261\96022611.D19                      |
| Method     : c:\dx\method\lanions1.met                                  |
| ACI Address: 1  System: 1  Inject#: 19  Vial:A01        Detector:PED-Cond.|
| Analyst    : MMO              Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	2915	5Hz	0.00	9.71	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.40		0.000	17056	75370	1	
2	3.80	NITRATE	1.027	28803	11968741	1	0.00
3	7.73	SULFATE	0.168	13008	290292	1	0.00
		Totals	1.195	58867	12334403		



Data Reprocessed On 03/05/1996 08:20:37

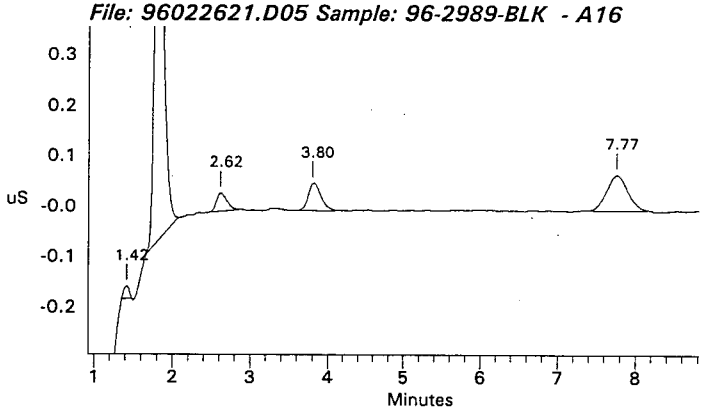
Sample Name: 96-2989-BLK - A16 Date: 02/26/1996 13:01:32
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9602261\96022621.D05
Method : c:\dx\method\1anions1.met
ACI Address: 1 System: 1 Inject#: 5 Vial:A16 Detector:PED-Cond.
Analyst : MMO Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.92	8.82	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.42		0.000	23406	117155	1	
2	1.80	CHLORIDE	0.306	828201	6624983	1	0.00
3	2.62		0.000	35378	346057	1	
4	3.80	NITRATE	0.232	52987	627331	1	0.00
5	7.77	SULFATE	0.225	70053	1335150	1	0.00
		Totals	0.763	1010025	9050676		

File: 96022621.D05 Sample: 96-2989-BLK - A16



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| Sample Name: 96-2989-BLK  - A16              Date: 02/26/1996 13:01:32 |
| Data File  : 1:\iag\ic\icdata\9602261\96022621.D05                     |
| Method     : c:\dx\method\1anions1.met                                 |
| ACI Address: 1  System: 1  Inject#: 5   Vial:A16       Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)       |
```
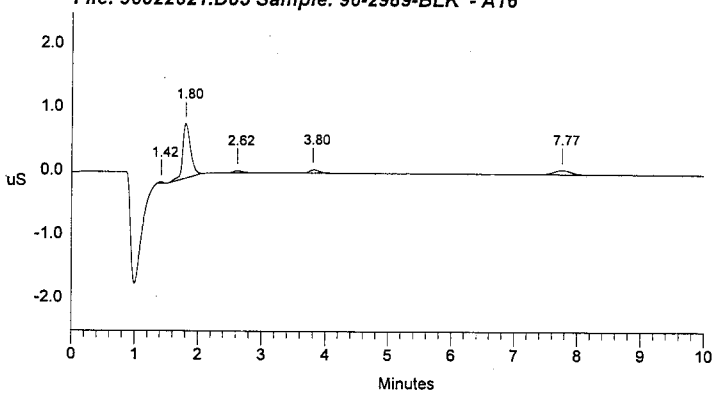

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.42		0.000	23406	117155	1	
2	1.80	CHLORIDE	0.336	858590	7370030	1	0.00
3	2.62		0.000	36083	380980	1	
4	3.80	NITRATE	0.233	53146	637853	1	0.00
5	7.77	SULFATE	0.229	71204	1401803	1	0.00
		Totals	0.797	1042429	9907821		

File: 96022621.D05 Sample: 96-2989-BLK - A16



Data Reprocessed On 03/08/1996 12:31:02

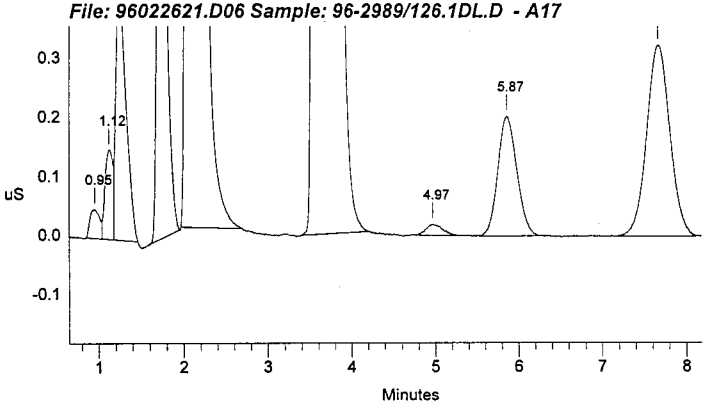
Sample Name: 96-2989/126.1DL.D - A17		Date: 02/26/1996 13:12:56	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9602261\96022621.D06			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 6 Vial:A17			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	10	3000	5Hz	0.65	8.18	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	49054	397169	2	
2	1.12	FLUORIDE	7.310	150885	986041	2	2.49
3	1.23		0.000	438438	3599231	2	
4	1.73	CHLORIDE	29.663	842942	6386484	1	0.00
5	2.10	NITRITE	581.794	12061236	99626759	1	0.96
6	3.63	NITRATE	1143.221	14361835	170234092	1	0.00
7	4.97		0.000	18387	258530	1	
8	5.87	PHOSPHATE	58.585	203491	3228538	1	0.69
9	7.67	SULFATE	49.365	324492	6258650	1	0.00
		Totals	1869.939	28450760	290975493		

File: 96022621.D06 Sample: 96-2989/126.1DL.D - A17



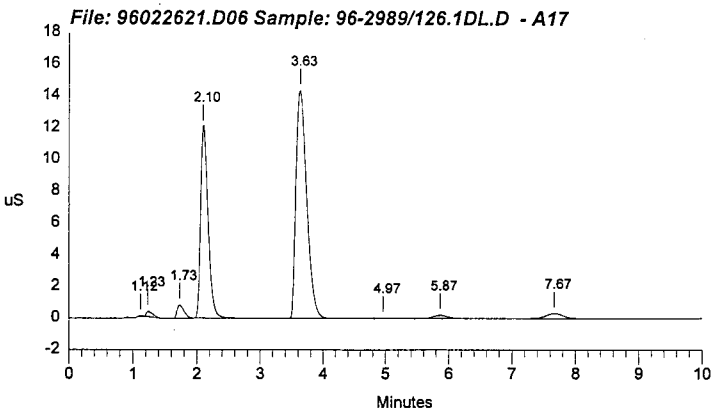
Data Reprocessed On 02/26/1996 13:14:19

Sample Name: 96-2989/126.1DL.D - A17				Date: 02/26/1996 13:12:56	
Data File : L:\IAG\IC\ICDATA\9602261\96022621.D06					
Method : c:\dx\method\1anions1.met					
ACI Address: 1 System: 1 Inject#: 6 Vial:A17				Detector:PED-Cond.	
Analyst : MMO		Column: AG4A/AS4A-SC (10196/12484)			

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	10	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.12	FLUORIDE	5.025	24861	80083	1	2.49
2	1.23		0.000	320952	2367610	1	
3	1.73	CHLORIDE	29.740	843874	6405935	1	0.00
4	2.10	NITRITE	582.849	12062515	99817590	1	0.96
5	3.63	NITRATE	1144.670	14365451	170468857	1	0.00
6	4.97		0.000	18571	262324	1	
7	5.87	PHOSPHATE	58.529	203410	3224602	1	0.69
8	7.67	SULFATE	49.375	324477	6260500	1	0.00
		Totals	1870.190	28164110	288887501		



Data Reprocessed On 03/08/1996 12:33:21

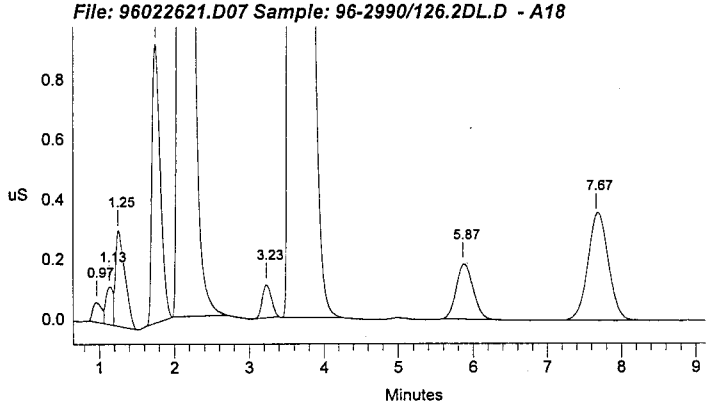
Sample Name: 96-2990/126.2DL.D - A18				Date: 02/26/1996 13:24:19	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9602261\96022621.D07					
Method : c:\dx\method\1anions1.met					
ACI Address: 1 System: 1		Inject#: 7	Vial:A18		Detector:PED-Cond.
Analyst : MMO		Column: AG4A/AS4A-SC (10196/12484)			

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	10	3000	5Hz	0.65	9.13	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	64855	541654	2	
2	1.13	FLUORIDE	6.865	124767	809793	2	3.03
3	1.25		0.000	314251	2791937	2	
4	1.75	CHLORIDE	32.441	932546	7088612	1	0.00
5	2.12	NITRITE	650.687	13529243	112116670	1	0.79
6	3.23	BROMIDE	9.854	109552	934308	1	-3.00
7	3.60	NITRATE	1457.896	16956145	222330806	1	0.00
8	5.87	PHOSPHATE	53.822	182787	2893854	1	1.62
9	7.67	SULFATE	53.113	353556	6946329	1	0.00
		Totals	2264.677	32567703	356453963		

File: 96022621.D07 Sample: 96-2990/126.2DL.D - A18

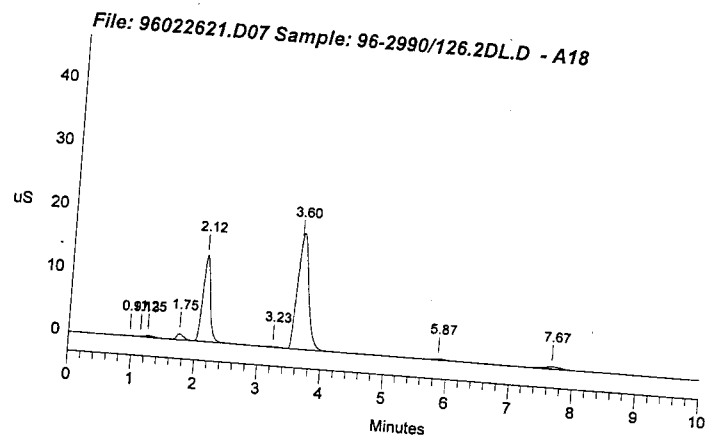


Sample Name: 96-2990/126.2DL.D - A18 Date: 02/26/1996 13:24:19
Data File : l:\iag\ic\icdata\9602261\96022621.D07
Method : c:\dx\method\1anions1.met
ACI Address: 1 System: 1 Inject#: 7 Vial:A18
Analyst : MMO Column: AG4A/AS4A-SC (10196/12484) Detector:PED-Cond.

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	10	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	33421	213276	2	
2	1.13	FLUORIDE	6.322	103157	594198	2	3.03
3	1.25		0.000	299517	2589763	2	
4	1.75	CHLORIDE	32.550	933981	7116131	1	0.00
5	2.12	NITRITE	651.845	13527572	112327126	1	0.79
6	3.23	BROMIDE	9.989	110138	947651	1	-3.00
7	3.60	NITRATE	1458.778	16957056	222480245	1	0.00
8	5.87	PHOSPHATE	56.903	186267	3110291	1	1.62
9	7.67	SULFATE	53.363	354107	6992295	1	0.00
		Totals	2269.750	32505216	356370977		



2-1320

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Data Reprocessed On 03/08/1996 12:35:04

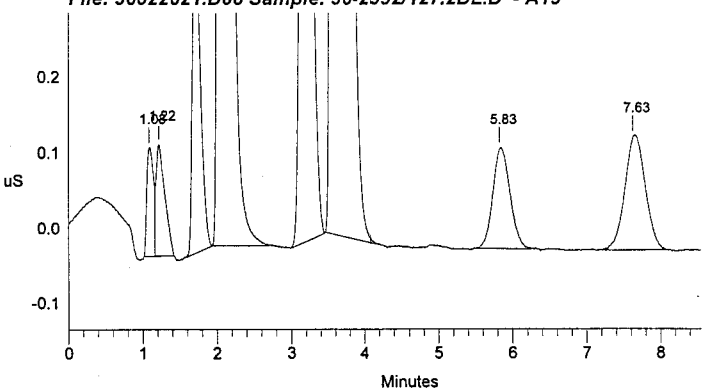
Sample Name: 96-2992/127.2DL.D - A19		Date: 02/26/1996 13:35:41	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9602261\96022621.D08			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 8	Vial:A19	Detector:PED-Cond.	
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	10	3000	5Hz	0.00	8.56	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.08	FLUORIDE	7.080	142590	894914	2	0.40
2	1.22		0.000	146871	1228556	2	
3	1.72	CHLORIDE	17.143	425925	3232235	1	0.00
4	2.08	NITRITE	289.876	5714363	47297335	1	1.13
5	3.17	BROMIDE	137.200	1287293	13736615	1	-3.16
6	3.63	NITRATE	644.069	8058847	91892917	1	0.00
7	5.83	PHOSPHATE	43.293	132289	2154724	1	0.12
8	7.63	SULFATE	31.280	149829	2943970	1	0.00
		Totals	1169.940	16058006	163381267		

File: 96022621.D08 Sample: 96-2992/127.2DL.D - A19



BEST AVAILABLE COPY

Sample Name:	96-2992/127.2DL.D - A19
Data File :	1:\iag\ic\icdata\9602261\96022621.D08
Method :	c:\dx\method\1anions1.met
ACI Address:	1 System: 1 Inject#: 8 Vial:A19
Analyst :	MMO

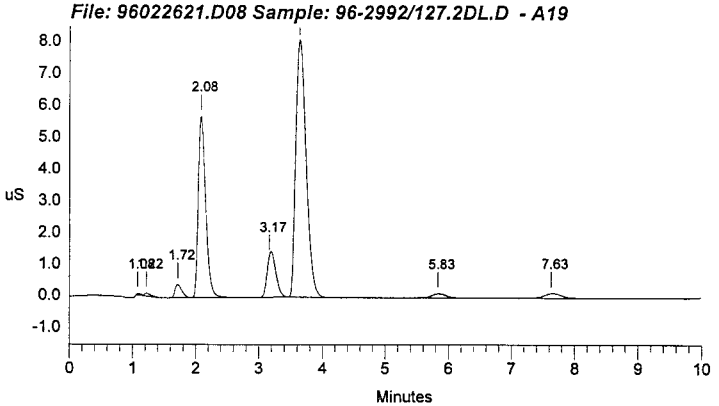
Date: 02/26/1996 13:35:41
Detector:PED-Cond.
Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	10	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.08	FLUORIDE	5.464	53253	254134	2	0.40
2	1.22		0.000	92915	710934	2	
3	1.72	CHLORIDE	17.192	426461	3244573	1	0.00
4	2.08	NITRITE	289.885	5712277	47298908	1	1.13
5	3.17	BROMIDE	136.266	1284264	13641332	1	-3.16
6	3.63	NITRATE	643.981	8058055	91879645	1	0.00
7	5.83	PHOSPHATE	43.404	132258	2162478	1	0.12
8	7.63	SULFATE	31.734	151089	3027134	1	0.00
		Totals	1167.926	15910571	162219139		

File: 96022621.D08 Sample: 96-2992/127.2DL.D - A19



BEST AVAILABLE COPY

Data Reprocessed On 03/08/1996 13:11:47

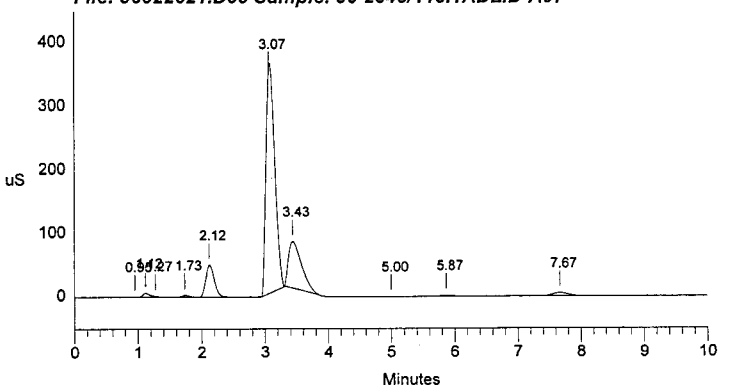
Sample Name: 96-2848/118.1ADL.D-A07		Date: 02/26/1996 13:47:45	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9602261\96022621.D09			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1	Inject#: 9	Vial:A07	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	10	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	529708	3526435	2	
2	1.12	FLUORIDE	10.348	6405562	39787019	2	2.49
3	1.27		0.000	1565818	21933020	2	
4	1.73	CHLORIDE	10.642	2940086	26102504	1	0.00
5	2.12	NITRITE	253.204	50062660	477375915	1	1.76
6	3.07	BROMIDE	-10871.774	345537866	3475113934	1	-1.08
7	3.43	NITRATE	460.139	73115502	1046395917	1	0.98
8	5.00	PHOSPHATE	3.251	94459	1398224	1	-6.57
9	5.87		0.000	2021096	32051106	1	
10	7.67	SULFATE	55.335	5390946	101366062	1	0.00
		Totals	-10078.856	487663703	5225050136		

File: 96022621.D09 Sample: 96-2848/118.1ADL.D-A07



BEST AVAILABLE COPY

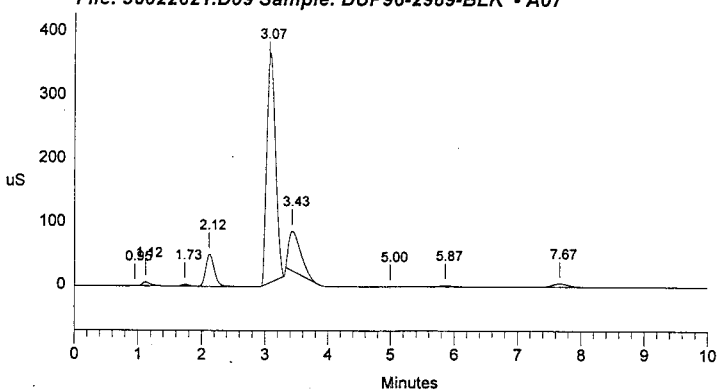
Sample Name: DUP96-2989-BLK - A07	Date: 02/26/1996 13:47:45
Data File : 1:\iag\ic\icdata\9602261\96022621.D09	
Method : c:\dx\method\1anions1.met	
ACI Address: 1 System: 1 Inject#: 9 Vial:A07	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	241943	1127030	2	
2	1.12	FLUORIDE	1.323	6014467	51671627	2	2.49
3	1.73	CHLORIDE	1.067	2943442	26175982	1	0.00
4	2.12	NITRITE	25.302	50046948	476996768	1	1.76
5	3.07		0.000	345537866	3475113934	1	
6	3.43	BROMIDE	1.502	62317880	834427174	1	3.99
7	5.00		0.000	94459	1398224	1	
8	5.87	PHOSPHATE	4.599	2021096	32051106	1	6.56
9	7.67	SULFATE	5.536	5391397	101408664	1	0.00
		Totals	39.329	474609497	5000370510		

File: 96022621.D09 Sample: DUP96-2989-BLK - A07



BEST AVAILABLE COPY

Data Reprocessed On 03/08/1996 12:40:59

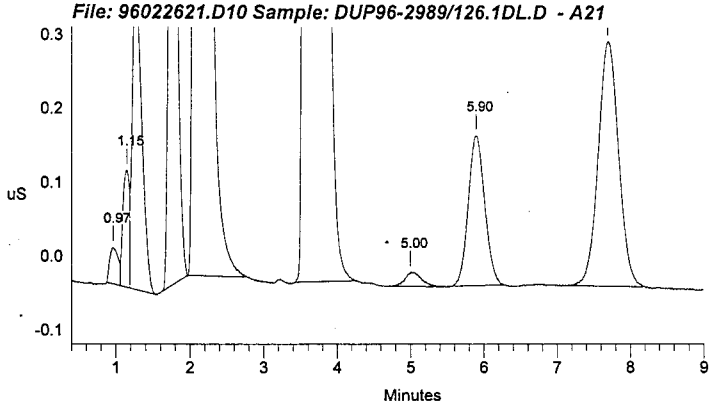
Sample Name:	DUP96-2989/126.1DL.D - A21	Date:	02/26/1996 13:59:09
Data File :	L:\IAG\IC\ICDATA\OPTIMIZE\9602261\96022621.D10		
Method :	c:\dx\method\1anions1.met		
ACI Address:	1 System: 1 Inject#: 10 Vial:A21	Detector:	PED-Cond.
Analyst :	MMO Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	10	3000	5Hz	0.40	9.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	48745	391683	2	
2	1.15	FLUORIDE	7.200	157225	942728	2	4.55
3	1.27		0.000	454136	3815027	2	
4	1.75	CHLORIDE	31.949	922845	6964253	1	0.00
5	2.12	NITRITE	584.658	12077476	100144917	1	0.79
6	3.63	NITRATE	1146.299	14509521	170732822	1	0.00
7	5.00		0.000	18199	294726	1	
8	5.90	PHOSPHATE	58.001	202500	3187501	1	1.26
9	7.70	SULFATE	50.309	331989	6431847	1	0.00
		Totals	1878.418	28722636	292905503		

File: 96022621.D10 Sample: DUP96-2989/126.1DL.D - A21



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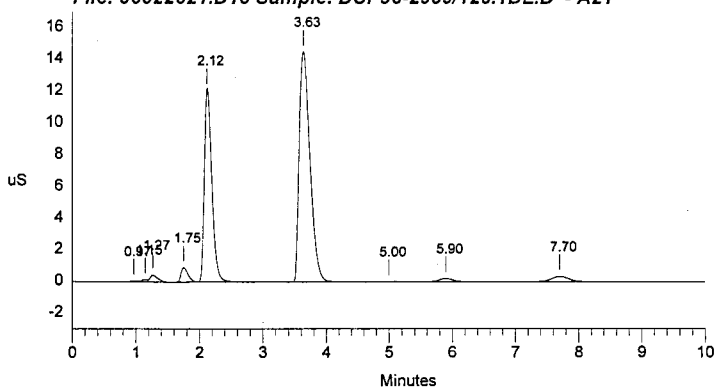
| Sample Name: DUP96-2989/126.1DL.D  - A21    Date: 02/26/1996 13:59:09      |
| Data File  : 1:\iag\ic\icdata\9602261\96022621.D10                         |
| Method     : c:\dx\method\1anions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 10  Vial:A21        Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)            |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	10	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	23442	142545	2	
2	1.15	FLUORIDE	6.717	139920	751132	2	4.55
3	1.27		0.000	441921	3603651	2	
4	1.75	CHLORIDE	31.982	923211	6972431	1	0.00
5	2.12	NITRITE	584.756	12075742	100162547	1	0.79
6	3.63	NITRATE	1147.367	14512425	170905887	1	0.00
7	5.00		0.000	18199	294726	1	
8	5.90	PHOSPHATE	59.056	204071	3261618	1	1.26
9	7.70	SULFATE	50.820	333286	6525526	1	0.00
		Totals	1880.698	28672216	292620064		

File: 96022621.D10 Sample: DUP96-2989/126.1DL.D - A21



Data Reprocessed On 03/08/1996 12:43:49

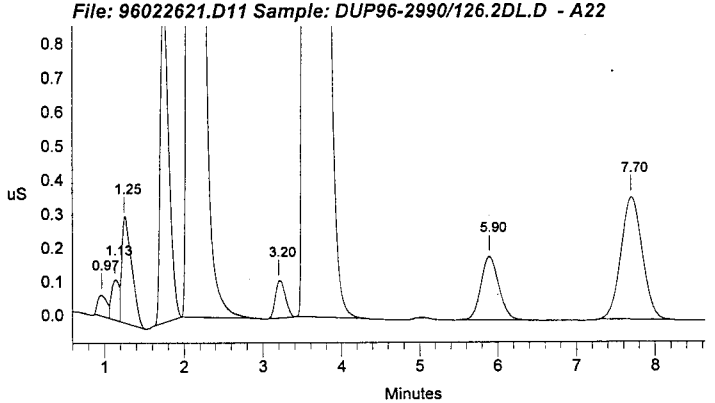
Sample Name: DUP96-2990/126.2DL.D - A22		Date: 02/26/1996 14:10:32	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9602261\96022621.D11			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1	Inject#: 11	Vial:A22	Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC	(10196/12484)	

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	10	10	3000	5Hz	0.60	8.63	30000	

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	61948	502333	2	
2	1.13	FLUORIDE	6.835	118042	797714	2	3.03
3	1.25		0.000	307044	2697670	2	
4	1.75	CHLORIDE	32.569	941211	7120835	1	0.00
5	2.12	NITRITE	656.465	13855454	113166804	1	0.79
6	3.20	BROMIDE	10.172	107734	965735	1	-4.00
7	3.60	NITRATE	1469.201	18487885	224245954	1	0.00
8	5.90	PHOSPHATE	54.959	187249	2973721	1	2.20
9	7.70	SULFATE	52.608	362110	6853732	1	0.00
		Totals	2282.808	34428678	359324498		

File: 96022621.D11 Sample: DUP96-2990/126.2DL.D - A22



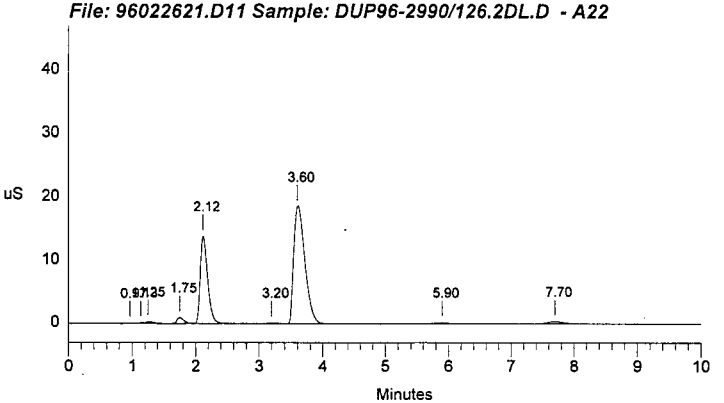
Sample Name: DUP96-2990/126.2DL.D - A22 Date: 02/26/1996 14:10:32
Data File : 1:\iag\ic\icdata\9602261\96022621.D11
Method : c:\dx\method\1anions1.met
ACI Address: 1 System: 1 Inject#: 11 Vial:A22 Detector:PED-Cond.
Analyst : MMO Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area	Reject
External	10	10	3000	5Hz	0.00	10.00	30000	

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	35214	227850	2	
2	1.13	FLUORIDE	6.269	99409	573236	2	3.03
3	1.25		0.000	294082	2554469	2	
4	1.75	CHLORIDE	32.666	942445	7145530	1	0.00
5	2.12	NITRITE	655.468	13848808	112985586	1	0.79
6	3.20	BROMIDE	10.172	107734	965735	1	-4.00
7	3.60	NITRATE	1469.498	18488157	224296318	1	0.00
8	5.90	PHOSPHATE	55.964	188626	3044318	1	2.20
9	7.70	SULFATE	53.548	365044	7026154	1	0.00
		Totals	2283.584	34369520	358819197		

File: 96022621.D11 Sample: DUP96-2990/126.2DL.D - A22



Data Reprocessed On 03/08/1996 12:45:20

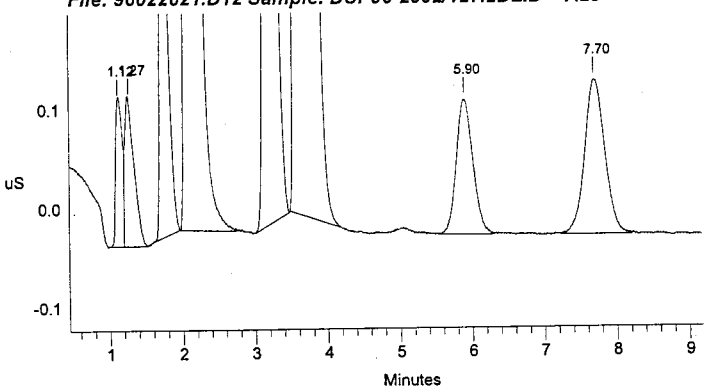
Sample Name:	DUP96-2992/127.2DL.D - A23 Date: 02/26/1996 14:21:53
Data File :	L:\IAG\IC\ICDATA\OPTIMIZE\9602261\96022621.D12
Method :	c:\dx\method\1anions1.met
ACI Address:	1 System: 1 Inject#: 12 Vial:A23 Detector:PED-Cond.
Analyst :	MMO Column: AG4A/AS4A-SC (10196/12484)

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	10	3000	5Hz	0.45	9.18	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.12	FLUORIDE	7.204	146661	944302	2	2.49
2	1.27		0.000	147780	1237423	2	
3	1.73	CHLORIDE	17.304	414192	3272612	1	0.00
4	2.12	NITRITE	292.267	5792130	47722242	1	1.76
5	3.20	BROMIDE	138.197	1441974	13838410	1	-3.08
6	3.63	NITRATE	649.886	7804356	92778589	1	0.00
7	5.90	PHOSPHATE	43.961	136548	2201565	1	1.26
8	7.70	SULFATE	31.848	156435	3048037	1	0.00
		Totals	1180.667	16040076	165043180		

File: 96022621.D12 Sample: DUP96-2992/127.2DL.D - A23



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| Sample Name: DUP96-2992/127.2DL.D  - A23    Date: 02/26/1996 14:21:53      |
| Data File  : l:\iag\ic\icdata\9602261\96022621.D12                         |
| Method     : c:\dx\method\lanions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 12  Vial:A23        Detector:PED-Cond. |
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)            |
```
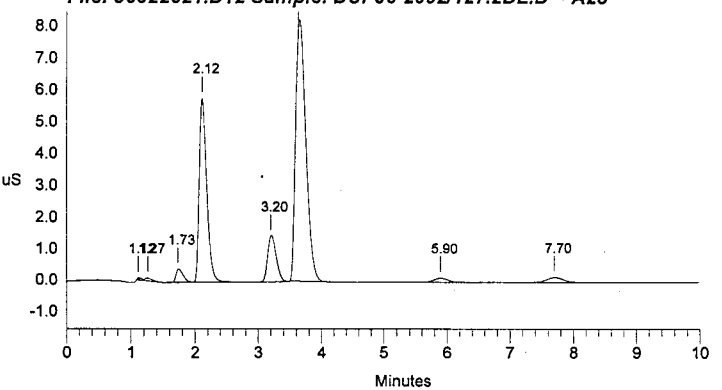

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	10	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.12	FLUORIDE	5.655	61806	329898	2	2.49
2	1.27		0.000	95284	674092	2	
3	1.73	CHLORIDE	17.392	415269	3294764	1	0.00
4	2.12	NITRITE	291.821	5787602	47642964	1	1.76
5	3.20	BROMIDE	138.197	1441974	13838410	1	-3.08
6	3.63	NITRATE	644.594	7784265	91972910	1	0.00
7	5.90	PHOSPHATE	43.778	136241	2188725	1	1.26
8	7.70	SULFATE	31.965	156668	3069461	1	0.00
		Totals	1173.402	15879108	163011225		

File: 96022621.D12 Sample: DUP96-2992/127.2DL.D - A23



Data Reprocessed On 03/08/1996 12:47:51

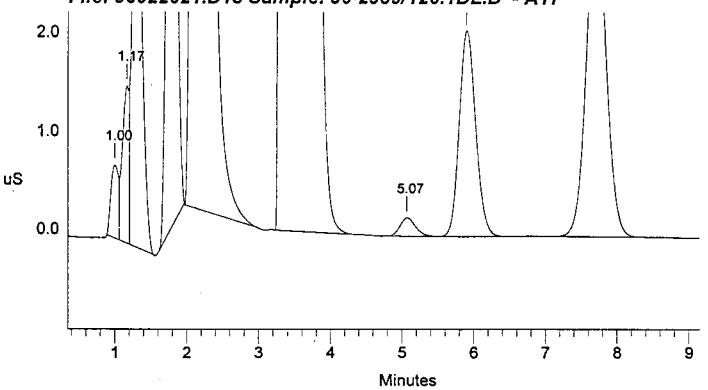
Sample Name: 96-2989/126.1DL.D - A17		Date: 02/26/1996 14:33:58	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9602261\96022621.D13			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 13 Vial:A17		Detector:PED-Cond.	
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	10	3000	5Hz	0.35	9.15	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.00		0.000	744473	5378702	2	
2	1.17	FLUORIDE	3.086	1596492	10367559	2	5.06
3	1.28		0.000	4390252	40422519	2	
4	1.77	CHLORIDE	25.853	7578106	67326090	1	0.00
5	2.18	NITRITE	506.294	103112224	1077436034	1	2.99
6	3.37	NITRATE	284.582	131337340	2282966494	1	-0.10
7	5.07		0.000	185333	2789554	1	
8	5.90	PHOSPHATE	47.783	2089535	33369016	1	-0.51
9	7.70	SULFATE	36.100	3334045	64421408	1	0.00
		Totals	903.699	254367799	3584477374		

File: 96022621.D13 Sample: 96-2989/126.1DL.D - A17



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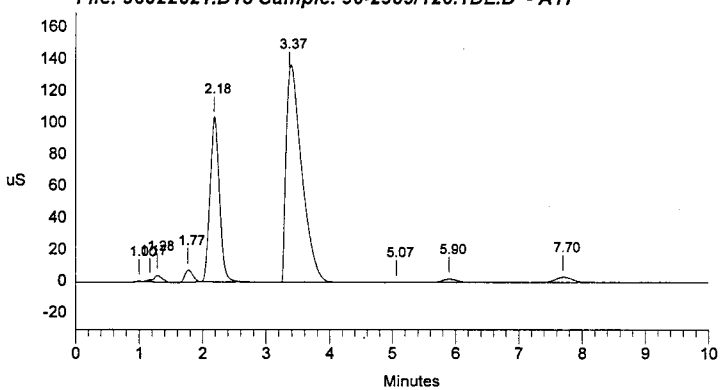
| Sample Name: 96-2989/126.1DL.D  - A17       Date: 02/26/1996 14:33:58      |
| Data File  : 1:\iag\ic\icdata\9602261\96022621.D13                         |
| Method     : c:\dx\method\1anions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 13  Vial:A17        Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)            |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	10	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.00		0.000	154918	653195	2	
2	1.17	FLUORIDE	1.802	1191173	5243672	2	5.06
3	1.28		0.000	4113898	37330664	2	
4	1.77	CHLORIDE	25.853	7578106	67326090	1	0.00
5	2.18	NITRITE	505.820	103076771	1076133424	1	2.99
6	3.37	BROMIDE	-3900.099	131337751	2283148894	1	0.05
7	5.07	PHOSPHATE	5.294	186405	2832068	1	-6.15
8	5.90		0.000	2089535	33369016	1	
9	7.70	SULFATE	36.100	3334045	64421408	1	0.00
		Totals	-3325.229	253062602	3570458430		

File: 96022621.D13 Sample: 96-2989/126.1DL.D - A17



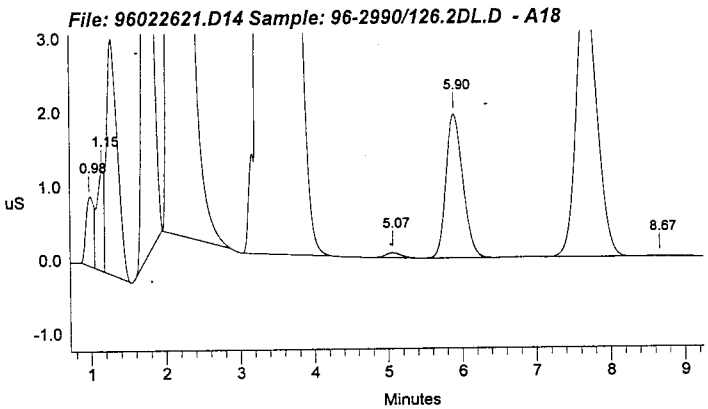
Data Reprocessed On 03/08/1996 12:51:06

Sample Name: 96-2990/126.2DL.D - A18		Date: 02/26/1996 14:46:05	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9602261\96022621.D14			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 14 Vial:A18			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	10	3000	5Hz	0.72	9.25	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.98		0.000	924329	6603766	2	
2	1.15	FLUORIDE	2.491	1348722	7991656	2	3.56
3	1.28		0.000	3191354	30582726	2	
4	1.77	CHLORIDE	28.560	8325093	75000325	1	0.00
5	2.18	NITRITE	549.207	111795626	1199350034	1	2.99
6	3.33	NITRATE	-169.812	172897043	2996062420	1	0.10
7	5.07		0.000	67562	926749	1	
8	5.90	PHOSPHATE	44.507	1949265	30963218	1	-0.51
9	7.70	SULFATE	39.943	3764001	71735239	1	0.00
10	8.67		0.000	9473	289230	1	
		Totals	494.897	304272468	4419505364		



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| Sample Name: 96-2990/126.2DL.D  - A18        Date: 02/26/1996 14:46:05 |
| Data File  : l:\iag\ic\icdata\9602261\96022621.D14                     |
| Method     : c:\dx\method\1anions1.met                                 |
| ACI Address: 1  System: 1  Inject#: 14  Vial:A18        Detector:PED-Cond.|
| Analyst    : MMO             Column: AG4A/AS4A-SC  (10196/12484)       |
```
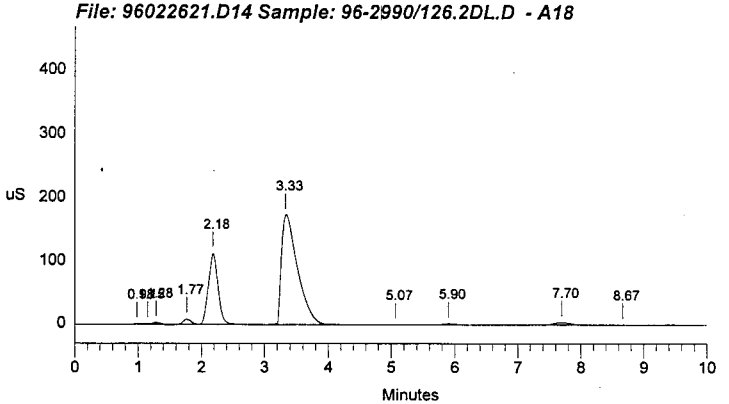

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	10	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.98		0.000	203977	1141257	2	
2	1.15	FLUORIDE	1.575	854896	4340385	2	3.56
3	1.28		0.000	2878748	26605738	2	
4	1.77	CHLORIDE	28.324	8295069	74326346	1	0.00
5	2.18	NITRITE	549.460	111801568	1200091900	1	2.99
6	3.33	BROMIDE	-7662.731	172897479	2996031105	1	-0.94
7	5.07	PHOSPHATE	2.578	67562	926749	1	-5.21
8	5.90		0.000	1949681	30987576	1	
9	7.70	SULFATE	39.926	3763518	71702564	1	0.00
10	8.67		0.000	9473	289230	1	
		Totals	-7040.869	302721970	4406442853		

File: 96022621.D14 Sample: 96-2990/126.2DL.D - A18



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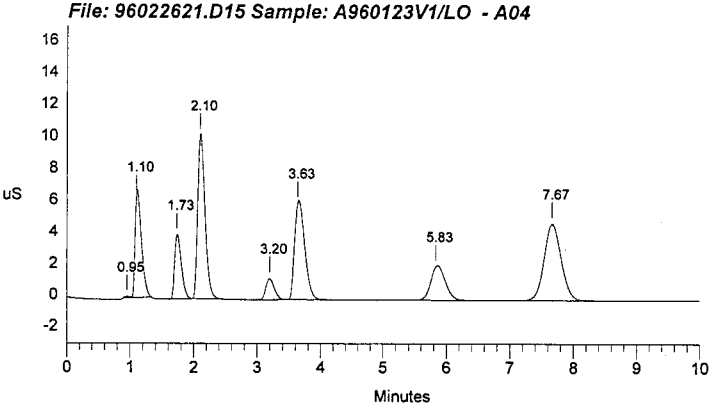
| Sample Name: A960123V1/LO  - A04              Date: 02/26/1996 14:57:28 |
| Data File  : l:\iag\ic\icdata\9602261\96022621.D15                      |
| Method     : c:\dx\method\lanions1.met                                  |
| ACI Address: 1  System: 1  Inject#: 15  Vial:A04        Detector:PED-Cond.|
| Analyst    : MMO              Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	77640	399040	2	
2	1.10	FLUORIDE	24.198	6367897	46994158	2	0.96
3	1.73	CHLORIDE	24.281	4049768	30031033	1	0.00
4	2.10	NITRITE	98.276	10268709	83316872	1	0.96
5	3.20	BROMIDE	24.986	1342040	12485644	1	-3.08
6	3.63	NITRATE	99.125	6080896	69494795	1	0.00
7	5.83	PHOSPHATE	100.102	2119706	35040263	1	0.12
8	7.67	SULFATE	99.670	4843461	90716186	1	0.00
		Totals	470.638	35150116	368477991		

File: 96022621.D15 Sample: A960123V1/LO - A04



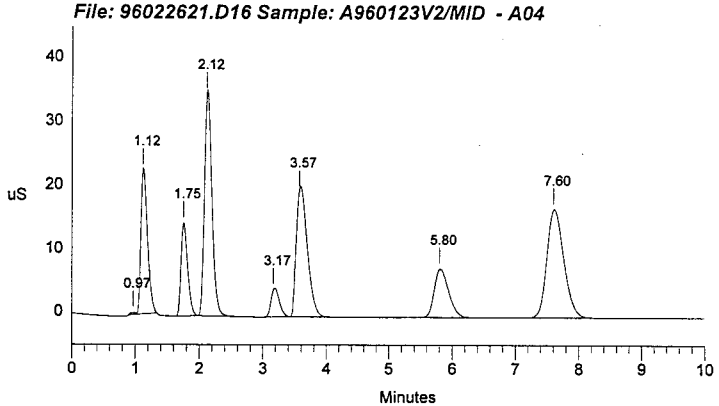
```
| Sample Name: A960123V2/MID  - A04          Date: 02/26/1996 15:09:08 |
| Data File  : l:\iag\ic\icdata\9602261\96022621.D16                   |
| Method     : c:\dx\method\1anions1.met                               |
| ACI Address: 1  System: 1  Inject#: 16  Vial:A04       Detector:PED-Cond. |
| Analyst    : MMO           Column: AG4A/AS4A-SC  (10196/12484)       |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	30	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	316462	1678847	2	
2	1.12	FLUORIDE	26.036	22598773	164452927	2	1.52
3	1.75	CHLORIDE	25.868	14663598	105113135	1	0.00
4	2.12	NITRITE	106.987	34850107	291099931	1	0.79
5	3.17	BROMIDE	26.243	4245792	40810899	1	-5.00
6	3.57	NITRATE	107.031	19626255	247583272	1	0.00
7	5.80	PHOSPHATE	106.781	7631441	122238538	1	1.41
8	7.60	SULFATE	106.560	17012878	319072801	1	0.00
		Totals	505.505	120945306	1292050350		

File: 96022621.D16 Sample: A960123V2/MID - A04



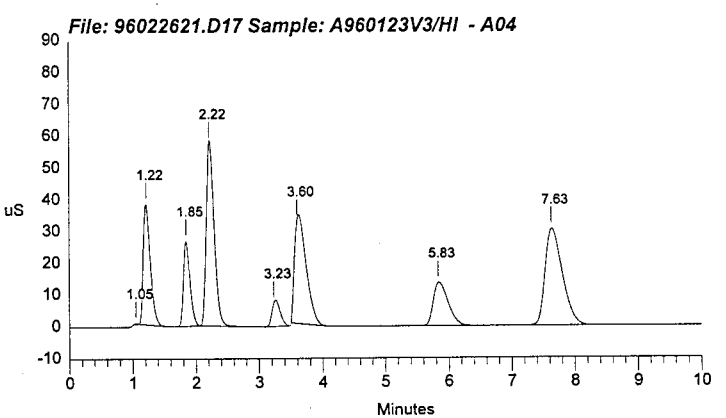
Data Reprocessed On 03/08/1996 12:51:59

Sample Name: A960123V3/HI - A04		Date: 02/26/1996 15:20:55	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9602261\96022621.D17			
Method : c:\dx\method\lanions1.met			
ACI Address: 1 System: 1 Inject#: 17 Vial:A04			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.05		0.000	65208	141216	1	
2	1.22	FLUORIDE	26.218	37808054	295120746	1	4.63
3	1.85	CHLORIDE	25.849	26687310	190753777	1	0.00
4	2.22	NITRITE	106.319	57277343	503766105	1	-0.15
5	3.23	BROMIDE	26.659	7189534	71889290	1	-5.31
6	3.60	NITRATE	103.855	32153666	434367070	1	0.00
7	5.83	PHOSPHATE	106.868	13477297	222845902	1	-1.69
8	7.63	SULFATE	106.445	30362564	582591597	1	0.00
		Totals	502.214	205020977	2301475703		



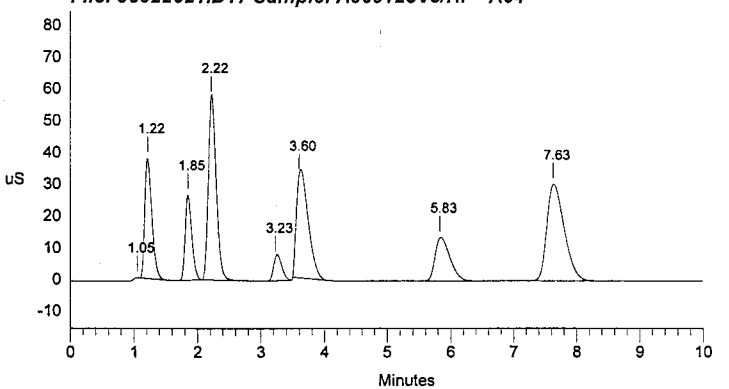
```
| Sample Name: A960123V3/HI  - A04            Date: 02/26/1996 15:20:55      |
| Data File  : l:\iag\ic\icdata\9602261\96022621.D17                         |
| Method     : c:\dx\method\lanions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 17  Vial:A04        Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)            |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.05		0.000	65208	141216	1	
2	1.22	FLUORIDE	26.218	37808054	295120746	1	4.63
3	1.85	CHLORIDE	25.849	26687310	190753777	1	0.00
4	2.22	NITRITE	106.319	57277343	503766105	1	-0.15
5	3.23		0.000	7189534	71889290	1	
6	3.60	BROMIDE	85.957	32153666	434367070	1	2.16
7	5.83	PHOSPHATE	106.868	13477297	222845902	1	1.05
8	7.63	SULFATE	106.445	30362564	582591597	1	0.00
		Totals	457.656	205020977	2301475703		

File: 96022621.D17 Sample: A960123V3/HI - A04



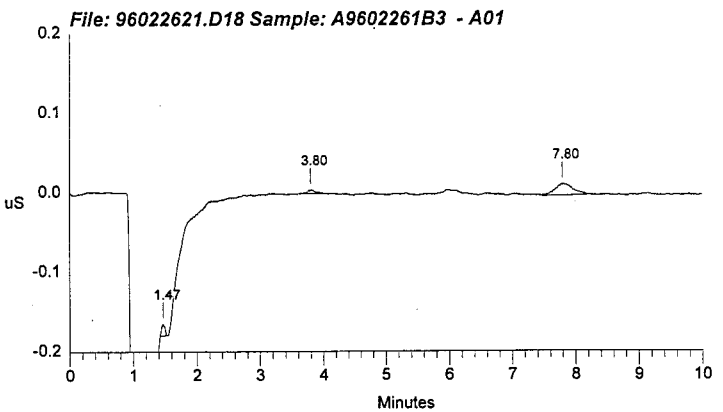
Data Reprocessed On 03/08/1996 12:52:38

Sample Name: A9602261B3 - A01		Date: 02/26/1996 15:33:05	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9602261\96022621.D18			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 18 Vial:A01			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.47		0.000	14488	53528	1	
2	3.80	NITRATE	0.191	3905	44844	1	0.00
3	7.80	SULFATE	0.168	13955	290606	1	0.00
		Totals	0.359	32349	388978		



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| Sample Name: A9602261B3  - A01              Date: 02/26/1996 15:33:05      |
| Data File  : l:\iag\ic\icdata\9602261\96022621.D18                         |
| Method     : c:\dx\method\1anions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 18  Vial:A01        Detector:PED-Cond. |
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)            |
```
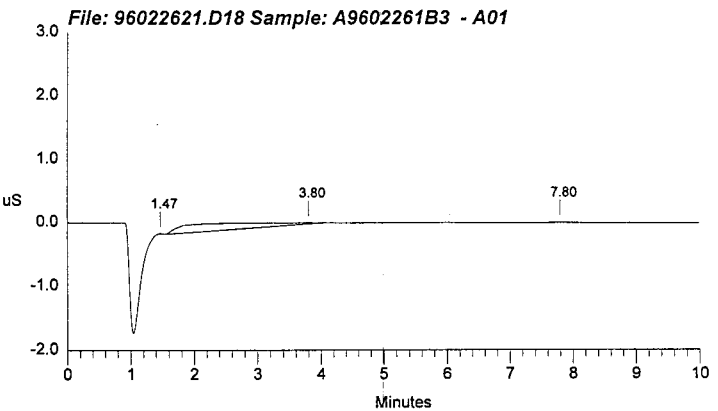

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.47		0.000	14488	53528	1	
2	3.80	NITRATE	0.955	22587	10933564	1	0.00
3	7.80	SULFATE	0.168	13955	290606	1	0.00
		Totals	1.123	51031	11277697		



Data Reprocessed On 03/08/1996 12:55:02

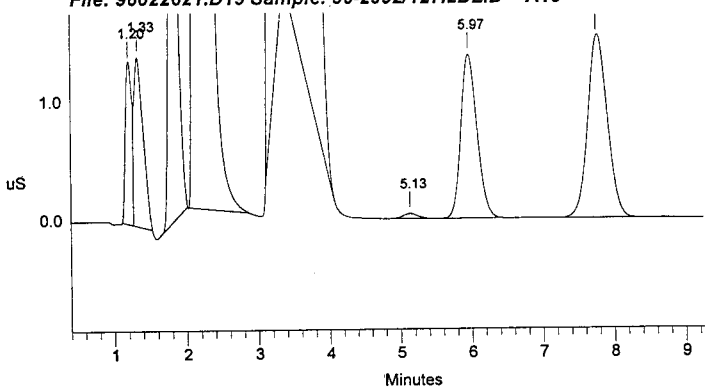
Sample Name: 96-2992/127.2DL.D - A19		Date: 02/26/1996 15:45:09	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9602261\96022621.D19			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 19 Vial:A19			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	10	3000	5Hz	0.40	9.25	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.20	FLUORIDE	2.561	1358201	8268157	2	5.09
2	1.33		0.000	1433498	11903002	2	
3	1.82	CHLORIDE	13.421	4055760	33410623	1	0.00
4	2.20	NITRITE	288.311	59089430	551661233	1	0.92
5	3.20	BROMIDE	119.459	16663977	141574837	1	0.00
6	3.50	NITRATE	479.970	78936339	1193565385	1	0.00
7	5.13		0.000	44496	635465	1	
8	5.97	PHOSPHATE	32.200	1384866	22003255	1	0.56
9	7.77	SULFATE	17.677	1535448	29793776	1	0.00
		Totals	953.598	164502013	1992815733		

File: 96022621.D19 Sample: 96-2992/127.2DL.D - A19



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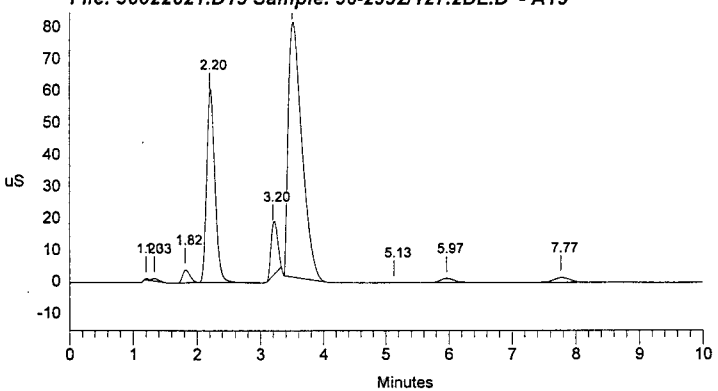
| Sample Name: 96-2992/127.2DL.D  - A19       Date: 02/26/1996 15:45:09      |
| Data File  : l:\iag\ic\icdata\9602261\96022621.D19                         |
| Method     : c:\dx\method\lanions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 19  Vial:A19        Detector:PED-Cond. |
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)            |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	10	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.20	FLUORIDE	0.997	433288	2041854	2	5.09
2	1.33		0.000	882287	6725948	2	
3	1.82	CHLORIDE	13.421	4055760	33410623	1	0.00
4	2.20	NITRITE	288.580	59093393	552240813	1	0.92
5	3.20		0.000	15399456	117903072	1	
6	3.50	BROMIDE	-489.284	78936339	1193565385	1	1.15
7	5.13		0.000	44496	635465	1	
8	5.97	PHOSPHATE	32.292	1385938	22070017	1	6.31
9	7.77	SULFATE	17.648	1534766	29741015	1	0.00
		Totals	-136.345	161765723	1958334192		

File: 96022621.D19 Sample: 96-2992/127.2DL.D - A19



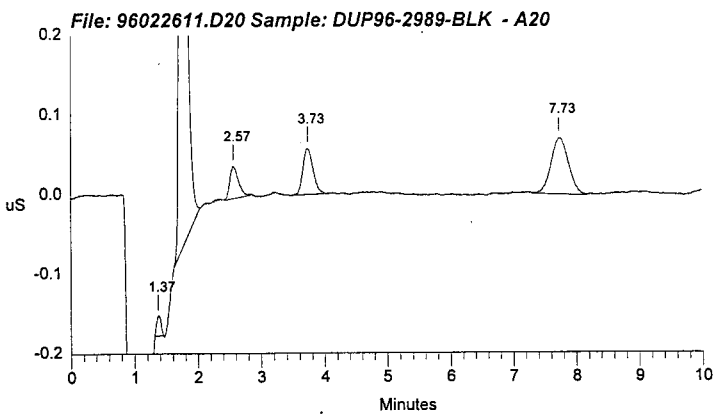
Data Reprocessed On 03/08/1996 12:58:13

Sample Name: DUP96-2989-BLK - A20		Date: 02/26/1996 15:57:16	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9602261\96022611.D20			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 20 Vial:A20			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.37		0.000	24074	121922	1	
2	1.75	CHLORIDE	0.309	827162	6690323	1	0.00
3	2.57		0.000	40159	384133	1	
4	3.73	NITRATE	0.233	57483	641308	1	0.00
5	7.73	SULFATE	0.226	70065	1354443	1	0.00
		Totals	0.768	1018943	9192128		



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| Sample Name: DUP96-2989-BLK  - A20          Date: 02/26/1996 15:57:16      |
| Data File  : l:\iag\ic\icdata\9602261\96022611.D20                         |
| Method     : c:\dx\method\lanions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 20  Vial:A20        Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)           |
```
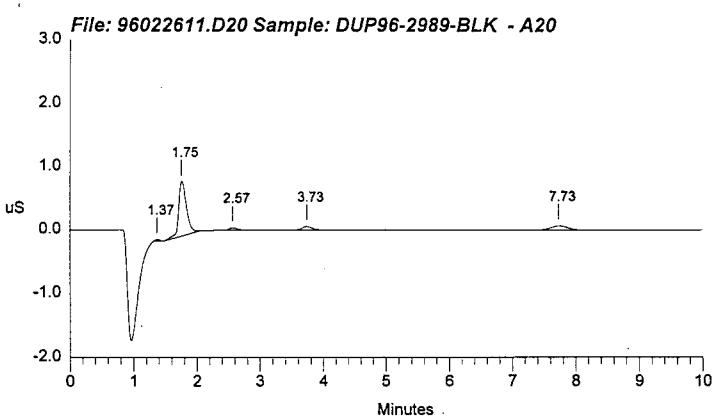

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	1	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.37		0.000	24074	121922	1	
2	1.75	CHLORIDE	0.337	857613	7410535	1	0.00
3	2.57		0.000	41140	437304	1	
4	3.73	NITRATE	0.234	57560	644348	1	0.00
5	7.73	SULFATE	0.226	69905	1348051	1	0.00
		Totals	0.796	1050291	9962160		



Data Reprocessed On 03/08/1996 13:00:40

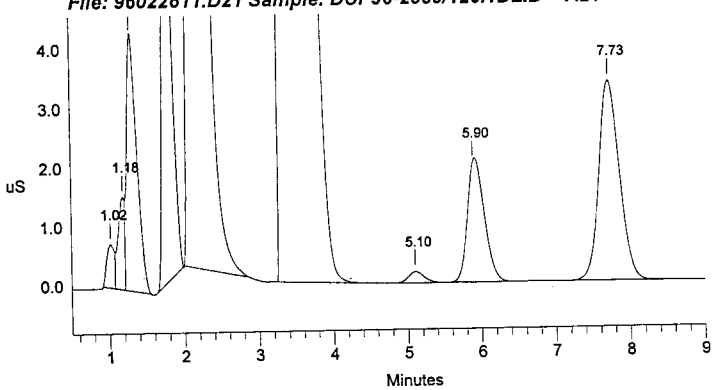
Sample Name: DUP96-2989/126.1DL.D - A21		Date: 02/26/1996 16:09:18	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9602261\96022611.D21			
Method : c:\dx\method\lanions1.met			
ACI Address: 1 System: 1 Inject#: 21 Vial:A21			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	10	3000	5Hz	0.50	9.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.02		0.000	731997	5105010	2	
2	1.18	FLUORIDE	2.822	1569716	9311029	2	5.56
3	1.30		0.000	4309057	40946343	2	
4	1.78	CHLORIDE	26.160	7736653	68188937	1	0.00
5	2.20	NITRITE	507.800	103417463	1081578711	1	2.80
6	3.40	NITRATE	279.976	138594572	2293011187	1	0.00
7	5.10		0.000	186882	2831057	1	
8	5.90	PHOSPHATE	48.004	2025697	33531642	1	-0.51
9	7.73	SULFATE	36.426	3387149	65040499	1	0.00
		Totals	901.187	261959187	3599544413		

File: 96022611.D21 Sample: DUP96-2989/126.1DL.D - A21



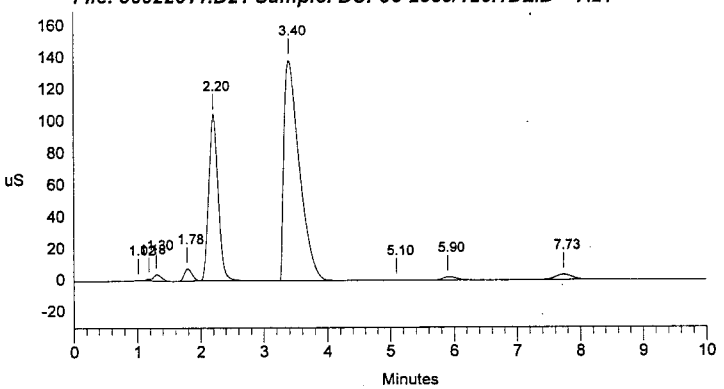
```
| Sample Name: DUP96-2989/126.1DL.D  - A21    Date: 02/26/1996 16:09:18      |
| Data File  : l:\iag\ic\icdata\9602261\96022611.D21                         |
| Method     : c:\dx\method\1anions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 21  Vial:A21        Detector:PED-Cond. |
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)            |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	10	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.02		0.000	111768	351699	1	
2	1.18	FLUORIDE	1.593	1088633	4409698	2	5.56
3	1.30		0.000	3981046	36223077	2	
4	1.78	CHLORIDE	26.160	7736653	68188937	1	0.00
5	2.20	NITRITE	507.653	103417738	1081174924	1	2.80
6	3.40	BROMIDE	-3944.421	138594827	2293130201	1	0.09
7	5.10	PHOSPHATE	5.293	186882	2831057	1	-6.46
8	5.90		0.000	2025697	33531642	1	
9	7.73	SULFATE	36.543	3388489	65263203	1	0.00
		Totals	-3367.180	260531733	3585104437		

File: 96022611.D21 Sample: DUP96-2989/126.1DL.D - A21



Data Reprocessed On 03/08/1996 13:02:36

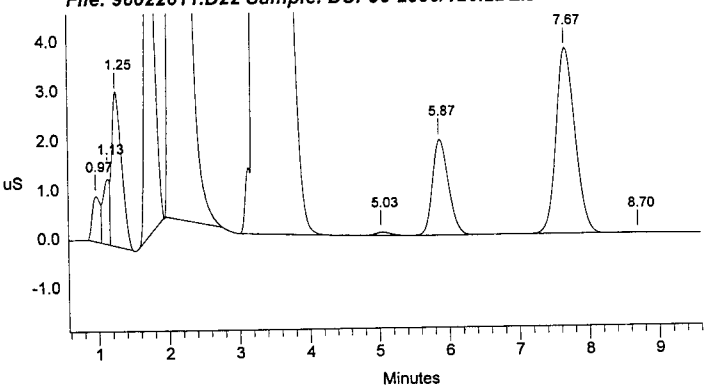
Sample Name: DUP96-2990/126.2DL.D - A22		Date: 02/26/1996 16:21:25	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9602261\96022611.D22			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 22 Vial:A22			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	10	3000	5Hz	0.57	9.60	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	922553	7073158	2	
2	1.13	FLUORIDE	2.520	1335033	8104246	2	3.03
3	1.25		0.000	3086429	29618901	2	
4	1.75	CHLORIDE	28.516	8401642	74873582	1	0.00
5	2.17	NITRITE	549.630	112703360	1200591962	1	3.17
6	3.30	NITRATE	-173.182	173293769	3000174672	1	0.00
7	5.03		0.000	64929	986996	1	
8	5.87	PHOSPHATE	44.558	1926760	30999962	1	-1.12
9	7.67	SULFATE	39.964	3741848	71775460	1	0.00
10	8.70		0.000	9457	342387	1	
		Totals	492.004	305485778	4424541326		

File: 96022611.D22 Sample: DUP96-2990/126.2DL.D - A22



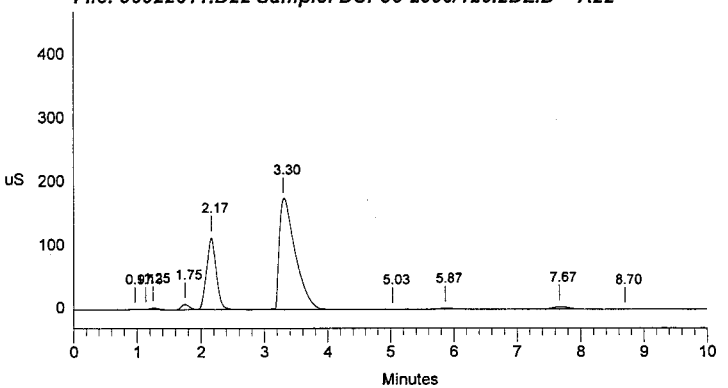
```
| Sample Name: DUP96-2990/126.2DL.D  - A22    Date: 02/26/1996 16:21:25      |
| Data File  : l:\iag\ic\icdata\9602261\96022611.D22                         |
| Method     : c:\dx\method\1anions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 22  Vial:A22        Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)            |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	10	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	203363	1068948	2	
2	1.13	FLUORIDE	1.559	845095	4276605	2	3.03
3	1.25		0.000	2756967	25758542	2	
4	1.75	CHLORIDE	28.516	8401642	74873582	1	0.00
5	2.17	NITRITE	550.215	112719616	1202313440	1	3.17
6	3.30	BROMIDE	-7687.026	173293217	2999993014	1	-1.00
7	5.03		0.000	64929	986996	1	
8	5.87	PHOSPHATE	44.558	1926760	30999962	1	-1.12
9	7.67	SULFATE	39.964	3741848	71775460	1	0.00
10	8.70		0.000	9457	342387	1	
		Totals	-7022.215	303962893	4412388934		

File: 96022611.D22 Sample: DUP96-2990/126.2DL.D - A22



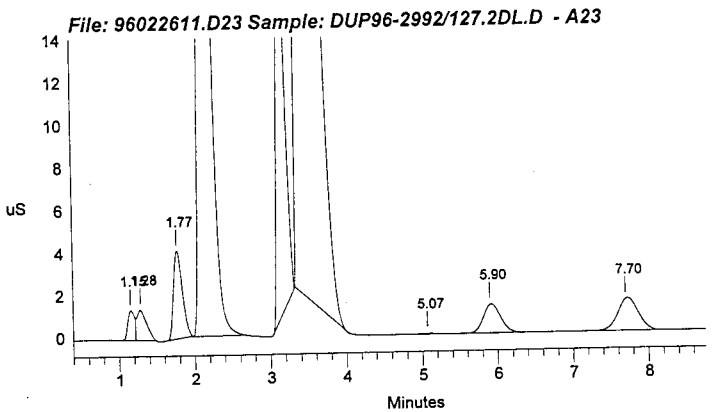
Data Reprocessed On 03/08/1996 13:04:45

Sample Name: DUP96-2992/127.2DL.D - A23		Date: 02/26/1996 16:33:30	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9602261\96022611.D23			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 23 Vial:A23			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	10	3000	5Hz	0.40	8.75	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.15	FLUORIDE	2.597	1369174	8415059	2	3.56
2	1.28		0.000	1424236	11846869	2	
3	1.77	CHLORIDE	13.494	4101160	33604302	1	0.00
4	2.15	NITRITE	287.765	59343211	550489460	1	1.42
5	3.17	BROMIDE	119.620	18247805	141813538	1	-0.11
6	3.43	NITRATE	479.335	75267185	1187150963	1	0.10
7	5.07		0.000	41702	645330	1	
8	5.90	PHOSPHATE	32.136	1358500	21956649	1	-0.66
9	7.70	SULFATE	17.508	1501556	29479468	1	0.00
		Totals	952.455	162654529	1985401637		



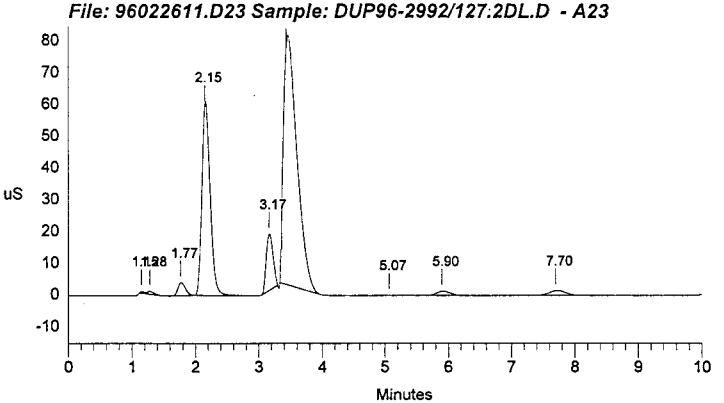
```
| Sample Name: DUP96-2992/127.2DL.D  - A23    Date: 02/26/1996 16:33:30      |
| Data File  : 1:\iag\ic\icdata\9602261\96022611.D23                         |
| Method     : c:\dx\method\lanions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 23  Vial:A23       Detector:PED-Cond.  |
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)            |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	100	10	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.15	FLUORIDE	1.010	439659	2092185	2	3.56
2	1.28		0.000	866527	6551315	2	
3	1.77	CHLORIDE	13.494	4101160	33604302	1	0.00
4	2.15	NITRITE	288.696	59361455	552490191	1	1.42
5	3.17		0.000	17691883	132335856	1	
6	3.43	BROMIDE	-413.614	73714152	1151090274	1	2.03
7	5.07		0.000	41702	645330	1	
8	5.90	PHOSPHATE	32.148	1358643	21965442	1	7.16
9	7.70	SULFATE	17.508	1501556	29479468	1	0.00
		Totals	-60.758	159076736	1930254362		

File: 96022611.D23 Sample: DUP96-2992/127.2DL.D - A23



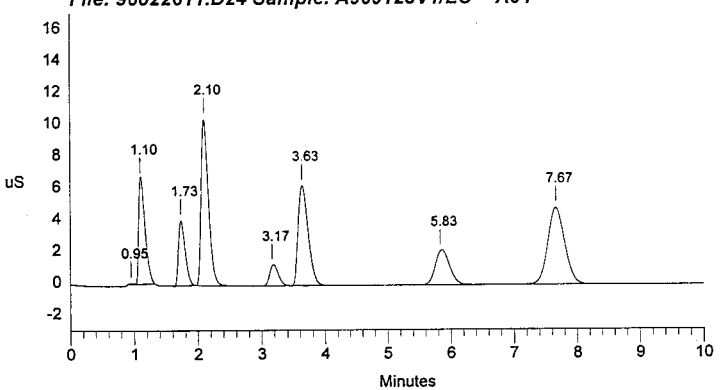
```
| Sample Name: A960123V1/LO  - A04            Date: 02/26/1996 16:44:58      |
| Data File  : l:\iag\ic\icdata\9602261\96022611.D24                         |
| Method     : c:\dx\method\lanions1.met                                     |
| ACI Address: 1  System: 1  Inject#: 24  Vial:A04        Detector:PED-Cond. |
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)            |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	10	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.95		0.000	63477	304250	2	
2	1.10	FLUORIDE	23.922	6613363	46424602	2	0.96
3	1.73	CHLORIDE	24.169	4095250	29883963	1	0.00
4	2.10	NITRITE	99.068	10442184	84029272	1	0.96
5	3.17	BROMIDE	25.081	1258022	12534219	1	-4.09
6	3.63	NITRATE	98.838	6262660	69279908	1	0.00
7	5.83	PHOSPHATE	99.494	2126303	34815882	1	0.12
8	7.67	SULFATE	99.042	4827794	90110375	1	0.00
		Totals	469.614	35689053	367382471		

File: 96022611.D24 Sample: A960123V1/LO - A04



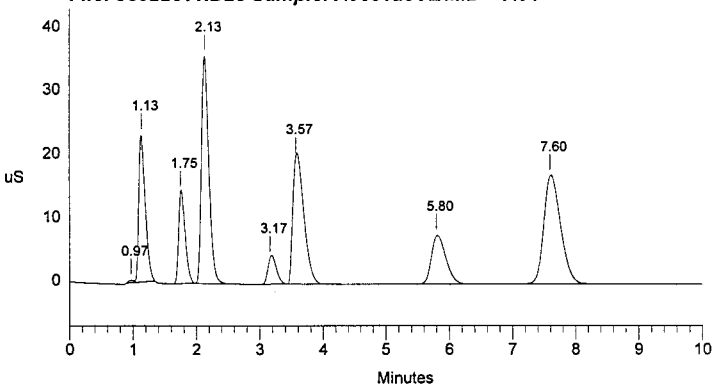
```
| Sample Name: A960123V2/MID  - A04          Date: 02/26/1996 16:56:30      |
| Data File  : l:\iag\ic\icdata\9602261\96022611.D25                        |
| Method     : c:\dx\method\lanions1.met                                    |
| ACI Address: 1  System: 1  Inject#: 25  Vial:A04        Detector:PED-Cond.|
| Analyst    : MMO            Column: AG4A/AS4A-SC  (10196/12484)           |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	30	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	0.97		0.000	377470	2038574	2	
2	1.13	FLUORIDE	26.188	23082530	165507190	2	3.03
3	1.75	CHLORIDE	25.745	14314615	104556438	1	0.00
4	2.13	NITRITE	107.291	35747140	291982829	1	1.59
5	3.17	BROMIDE	26.189	4134547	40722790	1	-5.00
6	3.57	NITRATE	107.206	19679635	248037437	1	0.00
7	5.80	PHOSPHATE	106.564	7590878	121960240	1	1.41
8	7.60	SULFATE	106.474	16995638	318784300	1	0.00
		Totals	505.657	121922452	1293589797		

File: 96022611.D25 Sample: A960123V2/MID - A04



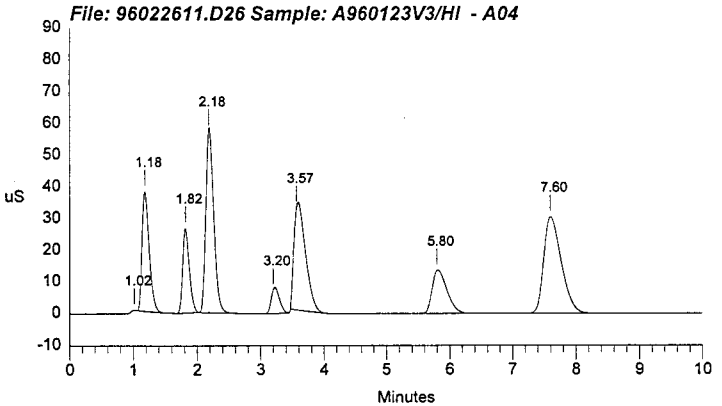
Data Reprocessed On 03/08/1996 13:05:30

Sample Name: A960123V3/HI - A04		Date: 02/26/1996 17:08:13	
Data File : L:\IAG\IC\ICDATA\OPTIMIZE\9602261\96022611.D26			
Method : c:\dx\method\1anions1.met			
ACI Address: 1 System: 1 Inject#: 26 Vial:A04			Detector:PED-Cond.
Analyst : MMO	Column: AG4A/AS4A-SC (10196/12484)		

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	50	2	3000	5Hz	0.00	10.00	30000

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

Pk. Num	Ret Time	Component Name	Concentration ppm	Height	Area	Bl. Code	%Delta
1	1.02		0.000	54240	115840	1	
2	1.18	FLUORIDE	26.220	37727172	295148109	1	3.63
3	1.82	CHLORIDE	25.814	26689774	190426873	1	0.00
4	2.18	NITRITE	106.464	57314237	504531373	1	0.15
5	3.20	BROMIDE	26.674	7277194	71933089	1	-3.67
6	3.57	NITRATE	103.188	32235600	430920177	1	0.00
7	5.80	PHOSPHATE	106.771	13515808	222593089	1	-2.16
8	7.60	SULFATE	106.433	30453269	582511288	1	0.00
		Totals	501.565	205267295	2298179837		



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Accession #: D196089693

Document #: SD-WM-DP-171

Title/Desc:
FINAL REPORT FOR TANK 241-BX-104 PUSH MODE CORES 126 & 127 [SEC 9 OF 9]

Pages: 96

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

DOCUMENT NUMBER: SD-WM-DP-171 Rev. 1

SECTION 1 OF 9

TITLE: Final Report for Tank 241-BX-104 Push Mode Cores 126 and 127

DATE: 4/25/96

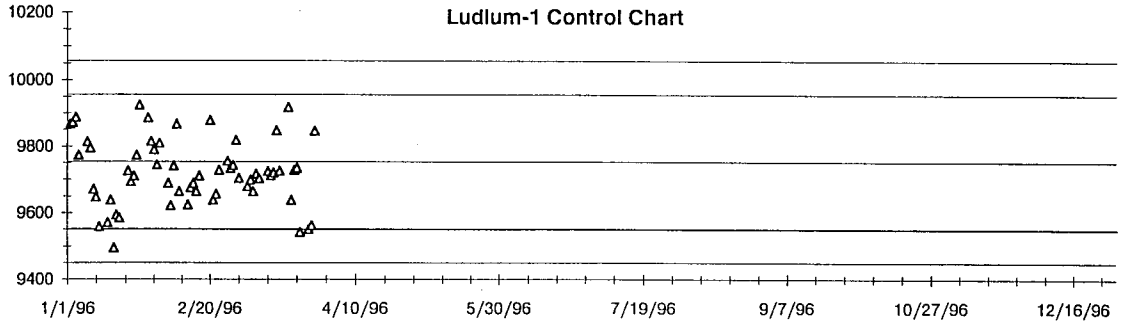
ORIGINATOR: Yu, PA

CO: WHC

RECIPIENT:

CO:

REFERENCES: ECN-629038



K. Thomas 3/27/96

L R Greenwood
3/27/96

BNW 54273 page 12 1 of 5

Ludlum-1 WB76863

High Voltage 2.30

T1350 NBS Calibration Summary

24.90μL 3321 ± 35.4 d/m
24.92μL 3324 ± 35.5 d/m } HEDL-N-3219 page 3

$\bar{X}_2$ = 3322.5 ± 25.067 d/m

Observed Counts:

$\bar{X}_{16}$ = 1404.407 ± 17.8045 c/m

Calculation:

3322.5 ± 25.067 d/m ÷ 1404.407 ± 17.8045 c/m = d/c

2.365767 ± 0.034902 = 0.4227 ~~d/c~~ d/d ± 1.48%

Reviewed L R Greenwood date 2/19/93

BATTELLE-NORTHWEST
RICHLAND, WASHINGTON

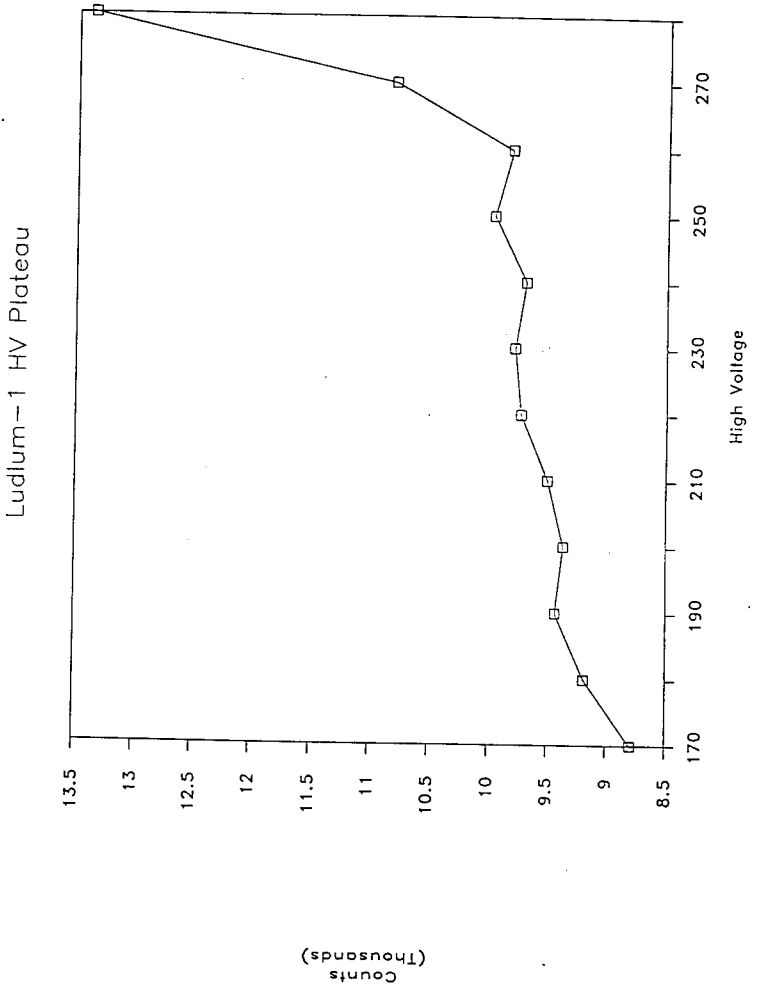
ALPHA COUNTER DATA SHEET

SAMPLE
SUBMITTED BY
COUNTED BY Anne E. Tojelisky

REMARKS Ludlum-1 Calibration Counts HV = 2.30 (WB76863)
T-1350

SAMPLE NUMBER		DATE 19 93	INST. NO.	INT. (MIN.) T	RECORDER READING SCALE OF:	TOTAL COUNTS N	RECORDED RATE R = N/T	COINC. CORR'N. C	BGD B	NET RATE X = R − B + C	GEOMETRY %	DISINTEGRATION RATE d/m
24.90	1	2/12	L-1	10	+	14160	1416.0		0.173	1415.827		
	2				+	14047	1404.7			1404.527		
	3				+	13860	1386.0			1385.827		
	4				+	14282	1428.2			1428.027		
					+							
24.92	1				+	14205	1420.5			1420.327		
	2				+	13945	1394.5			1394.327		
	3				+	13922	1392.2			1392.027		
	4				+	13998	1399.8			1399.627		
					+							
					+							
					+							
					+							
					+							
					+							
24.90	1	2/17			+	14129	1412.9		0.138	1412.762		
	2				+	13809	1380.9			1380.762		
	3				+	13976	1397.6			1397.462		
	4				+	14320	1432.0			1431.862		
					+							
24.92	1				+	14371	1437.1			1436.962		
	2				+	13828	1382.8			1382.662		
	3				+	13937	1393.7			1393.562		
	4				+	13941	1394.1			1393.962		
					+							

BNW
54273
p. 12 245


Ludlum-1 HV Plateau
Counts (Thousands)
13.5
13
12.5
12
11.5
11
10.5
10
9.5
9
8.5
170
190
210
230
250
270
High Voltage

BATTELLE-NORTHWEST
RICHLAND, WASHINGTON

ALPHA COUNTER DATA SHEET

SAMPLE

SUBMITTED BY

COUNTED BY

REMARKS High Voltage Plateau Sullum-1 using Control Standard

SAMPLE NUMBER	DATE 19 93	INST. NO.	INT. (MIN.) T	RECORDER READING SCALE OF:	TOTAL COUNTS N	RECORDED RATE R = N/T	COINC. CORR'N. C	BGD B	NET RATE X = R − B + C	GEOMETRY %	DISINTEGRATION RATE d/m
2.40	2/11	L-1	10	+	9694						
2.50				+	9964						
2.60				+	9818						
2.70				+	10805						
2.8				+	13362						
				+							
2.30				+	9783						
2.20				+	9730						
2.10				+	9501						
2.00				+	9364						
1.90				+	9431						
1.80				+	9186						
1.70				+	87.92						
				+							
				+							
				+							
				+							
				+							
				+							
				+							
				+							
				+							
				+							
				+							
				+							

BNV
54273
1/2 4 of 5

BB-1700-132 (5-66) AEC-RL RICHLAND, WASH

BATTELLE-NORTHWEST
RICHLAND, WASHINGTON

ALPHA COUNTER DATA SHEET

SAMPLE

SUBMITTED BY

COUNTED BY

REMARKS Ludlum-1 Control Chart Counts HV=2.30

SAMPLE NUMBER	DATE 19__	INST. NO.	INT. (MIN.) T	RECORDER READING SCALE OF:	TOTAL COUNTS N	RECORDED RATE R = N/T	COINC. CORR'N. C	BGD B	NET RATE X = R − B + C	GEOMETRY %	DISINTEGRATION RATE d/m
	2/12/93	L-1	10	+	9764			0.173			
				+	9742						
				+	9779						
	2/16/93			+	9857			0.151			
				+	9760						
				+	9680						
				+	9709						
				+	9923						
				+	9800						
				+	9745						
				+	9756						
	2/17/93			+	9897			0.138			
				+	9855						
				+	9809						
				+	9865						
				+	9739						
				+	9726						
				+	~~9541~~ 2/17/93						
				+	9969						
				+	9818						
	2/18/93			+	9737			0.161			
				+							
				+							
				+							
				+							

BNW 54273 p. 12 of 45

BB-1700-132 (5-66) AEC-RL RICHLAND, WASH

Sheet1

		X-Bar	2-Sigma High	2-Sigma Low	3-Sigma High	3-Sigma Low
Ludlum-1	1/1/95	9753.59	9955.998	9551.182	10057.202	9449.978
	12/31/95	9753.59	9955.998	9551.182	10057.202	9449.978
		X-Bar	2-Sigma High	2-Sigma Low	3-Sigma High	3-Sigma Low
Ludlum-2	1/1/95	9487.73	9675.1614	9300.2986	9768.8771	9206.5829
	12/31/95	9487.73	9675.1614	9300.2986	9768.8771	9206.5829
		X-Bar	2-Sigma High	2-Sigma Low	3-Sigma High	3-Sigma Low
Ludlum-3	1/1/95	10159.7	10357.7716	9961.6284	10456.8074	9862.5926
	12/31/95	10159.7	10357.7716	9961.6284	10456.8074	9862.5926
		X-Bar	2-Sigma High	2-Sigma Low	3-Sigma High	3-Sigma Low
Ludlum-4	1/1/95	10423.5	10613.2318	10233.7682	10708.0977	10138.9023
	12/31/95	10423.5	10613.2318	10233.7682	10708.0977	10138.9023
		X-Bar	2-Sigma High	2-Sigma Low	3-Sigma High	3-Sigma Low
Ludlum-5	1/1/95	10215.7	10427.742	10003.658	10533.763	9897.637
	12/31/95	10215.7	10427.742	10003.658	10533.763	9897.637

		X-Bar	2-Sigma High	2-Sigma Low	3-Sigma High	3-Sigma Low
Ludlum-6	1/1/95	10252.4	10449.6092	10055.1908	10548.2138	9956.5862
	12/31/95	10252.4	10449.6092	10055.1908	10548.2138	9956.5862
		X-Bar	2-Sigma High	2-Sigma Low	3-Sigma High	3-Sigma Low
Ludlum-7	1/1/95	8453.516129	8665.728129	8241.304129	8771.834129	8135.198129
	12/31/95	8453.516129	8665.728129	8241.304129	8771.834129	8135.198129
		X-Bar	2-Sigma High	2-Sigma Low	3-Sigma High	3-Sigma Low
Ludlum-8	1/1/95	12610.9	12889.262	12332.538	13028.443	12193.357
	12/31/95	12610.9	12889.262	12332.538	13028.443	12193.357
		X-Bar	2-Sigma High	2-Sigma Low	3-Sigma High	3-Sigma Low
Ludlum-9	1/1/95	11428.3	11672.532	11184.068	11794.648	11061.952
	12/31/95	11428.3	11672.532	11184.068	11794.648	11061.952
		X-Bar	2-Sigma High	2-Sigma Low	3-Sigma High	3-Sigma Low
Ludlum-10	1/1/95	12404.1	12618.51	12189.69	12725.715	12082.485
	12/31/95	12404.1	12618.51	12189.69	12725.715	12082.485

WHC-SD-WM-DP-171, REV. 1

LUDLUM 2

2-1551

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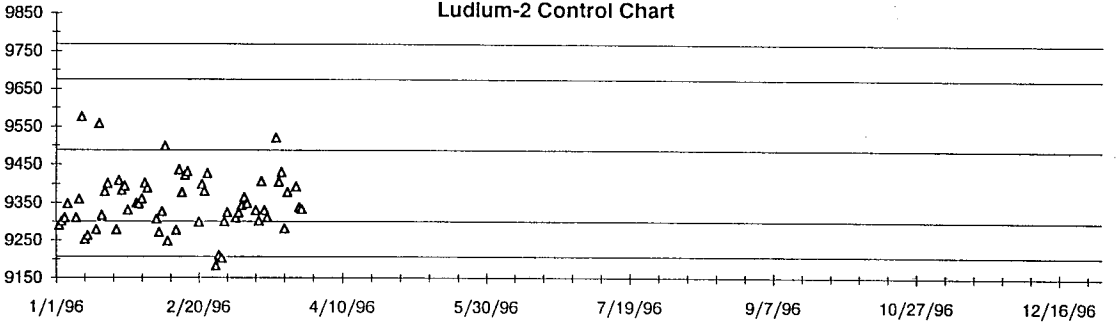

K. Thomas 3/07/96

L R Sherwood 3/27/96

BNW52343 p. 103

L. Greenwood 9-28-90

Ludlum-2 WA94744 [L-2]

T1350 NBS Calibration Summary

24.90ul 3321 ± 35 d/m
24.92ul 3324 ± 35 d/m

24.90ul $\bar{X}_4$ 1394.725 c/m

$\bar{X}_4$ 1396.425 c/m

$\bar{X}_8$ 1395.575 c/m

3321 d/m ÷ 1395.575 c/m = 2.379664
d/c = 0.420227

24.92ul $\bar{X}_4$ 1374.075 c/m

$\bar{X}_4$ 1367.650 c/m

$\bar{X}_8$ 1370.8625 c/m

3324 d/m ÷ 1370.8625 c/m = 2.424750
d/c = 0.412413

$\bar{X}_2$ = 0.416320

Project No. _____ Date of Work _____

Entered By _____ Date _____

Disclosed To and Understood By

Signed 1. _____ Date _____

2. _____ Date _____

Entered 9-26-90 Anne E. [illegible]

102

8NW52343 p.102

BATTELLE-NORTHWEST RICHLAND, WASHINGTON	ALPHA COUNTER DATA SHEET
SAMPLE Cadburn 2 WA94744	REMARKS Voltage @ 3.2
SUBMITTED BY	
COUNTED BY	

SAMPLE NUMBER	DATE 19 90	INST. NO.	INT. (MIN.) T	RECORDER READING SCALE OF:	TOTAL COUNTS N	RECORDED RATE R = N/T	COINC. CORR'N. C	BGD B	NET RATE X = R − B + C	GEOMETRY %	DISINTEGRATION RATE d/m
24.90 λ ①	4/19	2	10	+	13726						
②				+	14168						
③				+	13971						
④				+	13992						
				+							
24.92 λ ①	4/20			+	13696						
②				+	13561						
③				+	13790						
④				+	13659						
				+							
				+							
				+							
				+							
				+							
				+							
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LUDLUM 3

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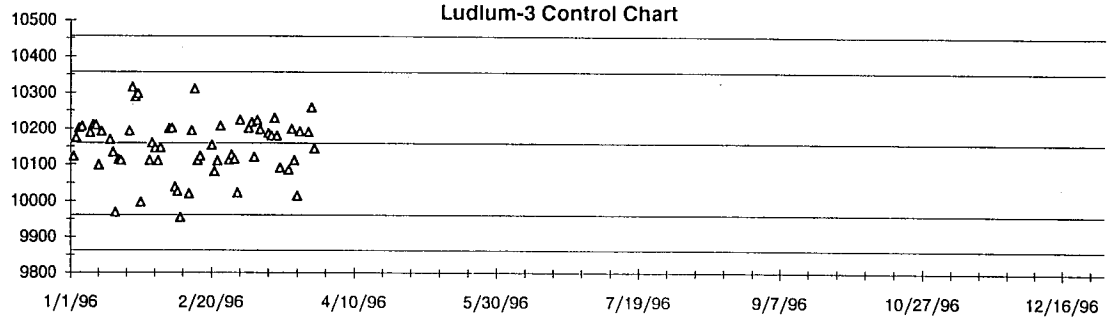

2-1556

K. Thomas 3/27/96

LR Freeman 3/27/96

BATTELLE-NORTHWEST
RICHLAND, WASHINGTON

ALPHA COUNTER DATA SHEET

SAMPLE: Cadlium - 3
SUBMITTED BY:
COUNTED BY:

REMARKS: Voltage @ 3.0

SAMPLE NUMBER		DATE 19 91	INST. NO.	INT. (MIN.) T	RECORDER READING SCALE OF:	TOTAL COUNTS N	RECORDED RATE R = N/T	COINC. CORRN. C	BGD B	NET RATE X = R − B + C	GEOMETRY %	DISINTEGRATION RATE d/m
24.90 λ	1	5-14	3	10	+	14567						
	2				+	14621						
	3				+	14520						
	4				+	14721						
					+							
14.92 λ	1				+	14429						
	2				+	14258						
	3				+	14307						
	4				+	14374						
					+							
					+							
					+							
					+							
					+							
					+							
24.90 λ	1	5-15			+	14583						
	2				+	14522						
	3				+	14470						
	4				+	14662						
					+							
14.92 λ	1				+	14419						
	2				+	14273						
	3				+	14428						
	4				+	14361						
					+							

2-1557

WHC-SD-WM-DP-171, REV. 1

BNWL-2343 page 35-9 of 50

BNW 52313 page 138 -2 of 20

Ludlum-3 WA82316

High Voltage 3.00

T1350 NBS Calibration Summary

24.90μL 3321 ± 35.4 d/m
24.92μL 3324 ± 35.5 d/m
} HEDL-N-3219 page 3

24.90μL $\bar{X}$ 1460.7250 c/m
$\bar{X}$ 1455.9250 c/m
$\bar{X}$ 1458.3250 c/m ± 8.23 c/m

3321 d/m ÷ 1458.3250 c/m = 2.2773
~~c/d~~ ~~d/c~~ = 0.4391 ± 0.56%

24.92μL $\bar{X}$ 1434.2000 c/m
$\bar{X}$ 1440.6750 c/m
$\bar{X}$ 1435.2375 c/m ± 7.51 c/m

3324 d/m ÷ 1435.2375 c/m = 2.3160
~~d/c~~ = 0.4318 ± 0.52%

$\bar{X}$ = 0.4355 ± 0.76%

Reviewed LR Heerwood date 4/25/91

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LUDLUM 4

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BNW 52393 page 138-3 of 20

Ludlum-4 WA82317

High Voltage 3.00

T1350 NBS Calibration Summary

24.90μL 3321 ± 35.4 d/m
24.92μL 3324 ± 35.5 d/m
} HEDL-N-3219 page 3

24.90μL $\bar{X}$ 1456.3750 c/m

$\bar{X}$ 1462.1750 c/m

$\bar{X}$ 1459.2750 c/m ± 16.95 c/m

3321 d/m ÷ 1459.2750 c/m = 2.2758

~~d/c~~ = 0.4394 ± 1.16%

24.92μL $\bar{X}$ 1437.5750 c/m

$\bar{X}$ 1443.9000 c/m

$\bar{X}$ 1440.7375 c/m ± 15.56 c/m

3324 d/m ÷ 1440.7375 c/m = 2.3072

~~d/c~~ = 0.4334 ± 1.08%

$\bar{X}$ = 0.4364 ± 1.58%

Reviewed L R Greenwood date 9/25/91

BNW 52343 page 12 of 20

BATTELLE-NORTHWEST
RICHLAND, WASHINGTON

ALPHA COUNTER DATA SHEET

SAMPLE: Sudlum-4
SUBMITTED BY:
COUNTED BY:

REMARKS: Voltage @ 3.0

SAMPLE NUMBER		DATE 19 91	INST. NO.	INT. (MIN.) T	RECORDER READING SCALE OF:	TOTAL COUNTS N	RECORDED RATE R = N/T	COINC. CORR'N. C	BGD B	NET RATE X = R − B + C	GEOMETRY %	DISINTEGRATION RATE d/m
24.90λ	1	5-9	4	10	+	14589						
	2				+	14440						
	3				+	14597						
	4				+	14629						
					+							
24.92λ	1				+	14491						
	2				+	14152						
	3				+	14431						
	4				+	14429						
					+							
					+							
					+							
					+							
					+							
					+							
24.90λ	1	5-10			+	14576						
	2				+	14509						
	3				+	14417						
	4				+	14965						
					+							
24.92λ	1				+	14663 ~~14965~~						
	2				+	14237						
	3				+	14450						
	4				+	14406						
					+							

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LUDLUM 5

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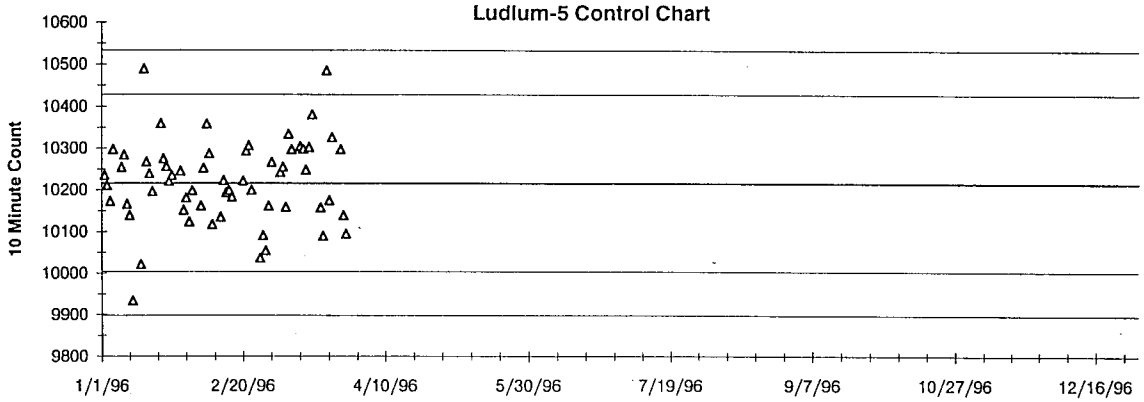

T. Thomas 3/27/96

L R Greenwood 3/27/96

BNW 52343 page 138-1 of 20

Ludlum-5 WA82318

High Voltage 2.80

T1350 NBS Calibration Summary

24.90μL 3321 ± 35.4 d/m
24.92μL 3324 ± 35.5 d/m
} HEDL-N-3219 page 3

24.90μL $\bar{X}$ 1403.6500 c/m

$\bar{X}$ 1406.1750 c/m

$\bar{X}$ 1404.9125 c/m ± 12.59 c/m

3321 d/m ÷ 1404.9125 c/m = 2.3638

~~d/c~~ = 0.4230 ± 0.90%

24.92μL $\bar{X}$ 1379.5000 c/m

$\bar{X}$ 1384.2000 c/m

$\bar{X}$ 1381.8500 c/m ± 12.31 c/m

3324 d/m ÷ 1381.8500 c/m = 2.4055

~~d/c~~ = 0.4157 ± 0.89%

$\bar{X}$ = 0.4194 ± 1.27%

Reviewed J R Greenwood date 9/25/91

BNW 52343 page 138-15 of 20

BATTELLE-NORTHWEST
RICHLAND, WASHINGTON

ALPHA COUNTER DATA SHEET

SAMPLE Sublum-5
SUBMITTED BY
COUNTED BY

REMARKS Voltage @ 2.8

SAMPLE NUMBER		DATE 19 91	INST. NO.	INT. (MIN.) T	RECORDER READING SCALE OF 1	TOTAL COUNTS N	RECORDED RATE R = N/T	COINC. CORR'N. C	BGD B	NET RATE X = R − B + C	GEOMETRY %	DISINTEGRATION RATE d/m
24.90λ	1	5-15			+	14019						
	2				+	14066						
	3				+	13857						
	4				+	14204						
					+							
24.92λ	1				+	13945						
	2				+	13639						
	3				+	13727						
	4				+	13869						
					+							
					+							
					+							
					+							
					+							
					+							
24.90λ	1	5-16			+	14004						
	2				+	13944						
	3				+	14061						
	4				+	14238						
					+							
24.92λ	1				+	13795						
	2				+	13722						
	3				+	14009						
	4				+	13847						
					+							

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WHC-SD-WM-DP-171, REV. 1

LUDLUM 6

2-1567

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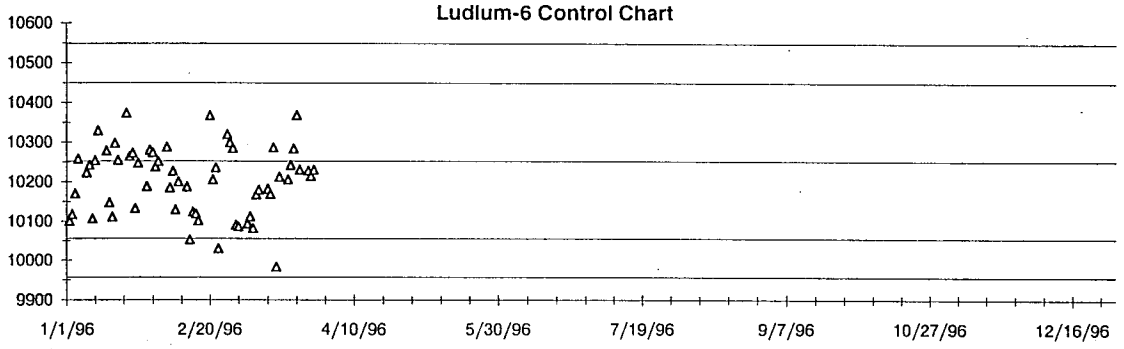

2-1568

K. Thomas 3/27/96

L R Hammond 3/27/96

BNW 52313 page 138-5 of 20

Ludlum-6 WA82319

High Voltage 2.70

T1350 NBS Calibration Summary

24.90μL 3321 ± 35.4 d/m
24.92μL 3324 ± 35.5 d/m
} HEDL-N-3219 page 3

24.90μL $\bar{X}$ 1419.8250 c/m
$\bar{X}$ 1412.7000 c/m
$\bar{X}$ 1416.2625 c/m ± 14.10 c/m

3321 d/m ÷ 1416.2625 c/m = 2.3449
~~d/c~~ = 0.4265 ± 1.00%

24.92μL $\bar{X}$ 1389.7000 c/m
$\bar{X}$ 1389.0250 c/m
$\bar{X}$ 1389.3625 c/m ± 15.83 c/m

3324 d/m ÷ 1389.3625 c/m = 2.3925
~~d/c~~ = 0.4180 ± 1.14%

$\bar{X}$ = 0.4222 ± 1.52%

Reviewed L R Greenwood date 9/25/91

BATTELLE-NORTHWEST
RICHLAND, WASHINGTON

ALPHA COUNTER DATA SHEET

SAMPLE: Ludlum-6
SUBMITTED BY:
COUNTED BY:
REMARKS: HV Voltage @ 2.7

SAMPLE NUMBER	DATE 19 91	INST. NO.	INT. (MIN.) T	RECORDER READING SCALE OF1 +	TOTAL COUNTS N	RECORDED RATE R = N/T	COINC. CORR'N. C	BGD B	NET RATE X = R − B + C	GEOMETRY %	DISINTEGRATION RATE d/m
24.901 1	5-15			+	14304						
2				+	14170						
3				+	13996						
4				+	14323						
				+							
24.921 1				+	14133						
2				+	13802						
3				+	13869						
4				+	13784						
				+	~~14323~~						
				+							
				+							
				+							
				+							
				+							
24.902 1	5-16			+	14210						
2				+	14142						
3				+	13922						
4				+	14234						
				+							
24.922 1				+	14141						
2				+	13845						
3				+	13713						
4				+	13862						
				+							

BNW-52343 pg. 135-18 of 20

2-1570

WHC-SD-WM-DP-171, REV. 1

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WHC-SD-WM-DP-171, REV. 1

LUDLUM 7

2-1571

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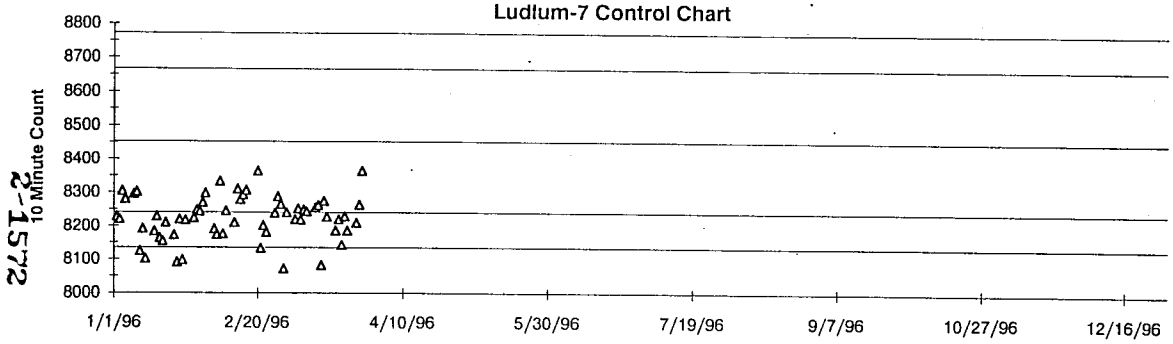


2-1572

Detector out of service on some dates.

K. Thomas 3/27/96

LR Freeman 3/27/96

Ludlum-7 WB76764

High Voltage 3.40

T1350 NBS Calibration Summary

24.90μL 3321 ± 35.4 d/m
24.92μL 3324 ± 35.5 d/m
} HEDL-N-3219 page 3

$\bar{X}_2$ = 3322.5 ± 25.067 d/m

Observed Counts:

$\bar{X}_{32}$ = 1319.381 ± 16.5868 c/m

Calculation:

3322.5 ± 25.067 d/m ÷ 1319.381 ± 16.5868 c/m = d/c

2.518226 ± 0.036922 = 0.3971 c/d ± 1.47%

Reviewed L R Greenwood date 3/9/94

LUD7CAL.XLS

Ludlum-7 T-1350 Calibration Counts
Source: Pu-239 T-1350 7-20-79

10 minute counts

Date	Source Id.	Counts	cpm
2/24/94	24.90µl - 1	13351	1335.1
	1	13349	1334.9
	2	13176	1317.6
	2	13442	1344.2
	3	13234	1323.4
	3	13322	1332.2
	4	13498	1349.8
	4	13279	1327.9
	24.92µl - 1	13019	1301.9
	1	13233	1323.3
	2	12860	1286.0
	2	13056	1305.6
	3	12982	1298.2
2/25/94	3	13151	1315.1
	4	12964	1296.4
	4	13149	1314.9
	24.90µl - 1	13249	1324.9
	1	13328	1332.8
	2	13106	1310.6
	2	13127	1312.7
	3	13150	1315.0
	3	13310	1331.0
	4	13382	1338.2
	4	13369	1336.9
	24.92µl - 1	13238	1323.8
	1	13211	1321.1
	2	12833	1283.3
	2	12977	1297.7
	3	13405	1340.5
2/28/94	3	13187	1318.7
	4	13216	1321.6
	4	13049	1304.9

avg 32 = 1319.381 ± 16.5868

Anne E Kozelisky 3/8/94
Analyst/date

2-1574

LUD7CON.XLS

Ludlum-7 Control Chart Counts

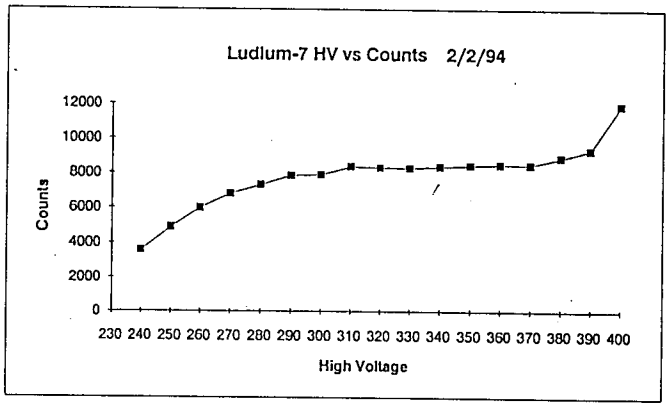
Date	10 minute Count
2/10/94	8591
2/10/94	8365
2/10/94	8492
2/11/94	8615
2/11/94	8558
2/11/94	8302
2/14/94	8492
2/14/94	8310
2/14/94	8610
2/15/94	8459
2/15/94	8559
2/15/94	8584
2/16/94	8324
2/16/94	8489
2/17/94	8315
2/17/94	8492
2/17/94	8470
2/18/94	8445
2/18/94	8655
2/18/94	8321
2/22/94	8571
2/23/94	8489
2/24/94	8463
2/25/94	8348
2/28/94	8317
3/1/94	8432
3/2/94	8350
3/3/94	8491
3/4/94	8472
3/7/94	8358
3/8/94	8320

Avg 31 = 8453.516
1 Sigma : ± 106.1058
2 Sigma : ± 214.4499
3 Sigma : ± 317.7754

Anne E Kolkhorst
Analyst/date

Ludlum-7 High Voltage
2/2/94

HV	Counts
240	3582
250	4882
260	5971
270	6793
280	7297
290	7857
300	7897
310	8372
320	8328
330	8301
340	8366
350	8445
360	8509
370	8480
380	8900
390	9363
400	11906



Anne E Hoglisky 2/2/94

2-1576

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WHC-SD-WM-DP-171, REV. 1

LUDLUM 8

2-1577

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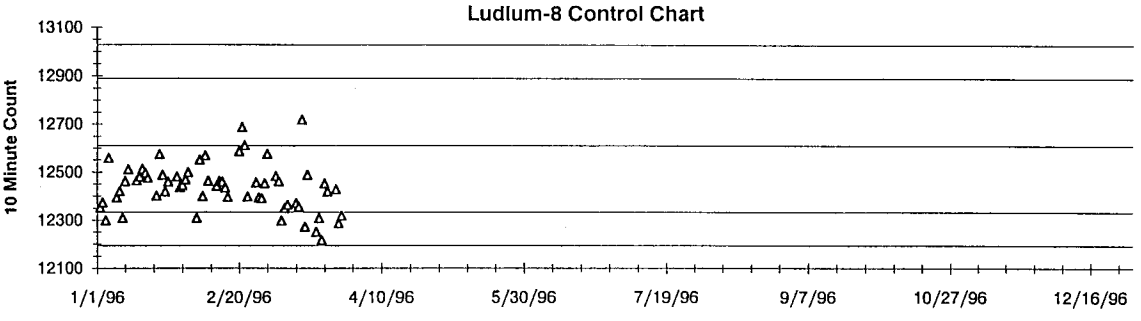


T. Thomas 3/27/96

Ludlum-8 WA94743

High Voltage 3.30

T1350 NBS Calibration Summary

24.90μL 3321 ± 35.4 d/m
24.92μL 3324 ± 35.5 d/m
} HEDL-N-3219 page 3

$\overline{X}_2$ = 3322.5 ± 25.067 d/m

Observed Counts:

$\overline{X}_{16}$ = 1434.831 c/m ± 21.933 c/m

Calculation:

3322.5 ± 25.067 d/m ÷ 1434.831 c/m ± 21.933 c/m = d/c

2.315603 ± 0.039474 = 0.4319 ~~d/c~~ c/d ± 1.70%

MK 3/29/93

Reviewed LR Greenwood date 2/12/93

BNW
54273
p. 13 9 of 13

HV	Ludlum-8 WA94743	Ludlum-9 WA94745	Ludlum-10 WA94746	Ludlum-7 WB76864
180	367	845	304	867
190	1200	1550	1151	1480
200	1789	1950	1747	1912
210	2274	2400	2093	2204
220	2551	2443	2445	2584
230	2675	2600	2622	2637
240	2807	2640	2724	2804
250	2898	2777	2924	2908
260	2838	2778	2860	2991
270	2891	2904	2844	2958
280	2975	2830	2988	3019
290	3003	2794	2931	2979
300	3034	2868	3005	3099
310	3006	2943	2995	3073
320	3070	2955	2892	3071
330	3047	2821	3080	3126
340	2963	2919	3093	3039
350	2965	2865	2982	3277
360	3031	2867	3037	3837
370	3039	2895	3028	4514
380	3045	2875	2958	
390	2992	2854	3074	
400	2978	2904	3046	
410	3107	2989	3099	
420	3246	3358	3463	
430	3845	4538	4694	
440	5123			
450				
460				

Anne E Kozelisky 11/9/92

BATTELLE-NORTHWEST
RICHLAND, WASHINGTON

ALPHA COUNTER DATA SHEET

SAMPLE

SUBMITTED BY

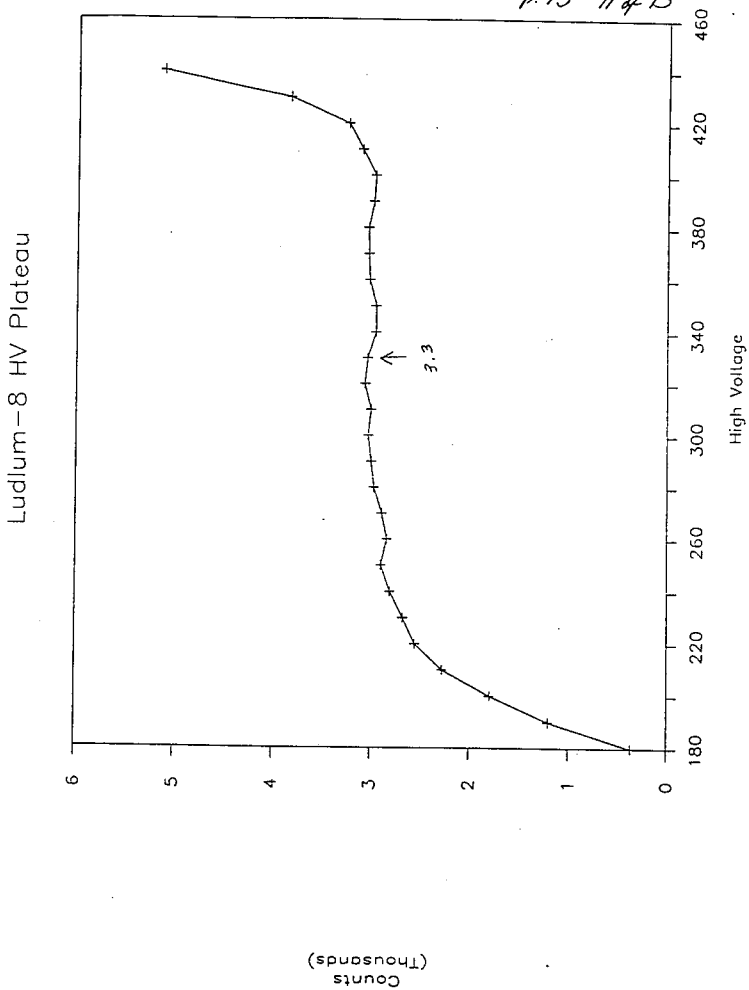
COUNTED BY

REMARKS Ludlum - 8 Voltage @ 3.3 (WA94243)
Calibration Counts with T-1350 ^{239}Pu

SAMPLE NUMBER		DATE 19 93	INST. NO.	INT. (MIN.) T	RECORDER READING SCALE OF:	TOTAL COUNTS N	RECORDED RATE R = N/T	COINC. CORR'N. C	BGD B	NET RATE X = R − B + C	GEOMETRY %	DISINTEGRATION RATE d/m
24.902	1	2/5	L-8	10	+	14534	1453.4		0.070	1453.3		
	2				+	14444	1444.4			1444.3		
	3				+	14349	1434.9			1434.8		
	4				+	14565	1456.5			1456.4		
					+							
24.922	1				+	14367	1436.7			1436.6		
	2				+	14049	1404.9			1404.8		
	3				+	14238	1423.8			1423.7		
	4				+	14201	1420.9			1420.8		
					+							
					+							
					+							
					+							
					+							
					+							
24.902	1	2/8			+	14777	1477.7		0.066	1477.6		
	2				+	14202	1420.2			1420.1		
	3				+	14450	1445.0			1444.9		
	4				+	14640	1464.0			1463.9		
					+							
24.922	1				+	14471	1447.1			1447.0		
	2				+	14059	1405.9			1405.8		
	3				+	14075	1407.5			1407.4		
	4				+	14160	1416.0			1415.9		
					+							

BNW 54273
p. 13 4 of 13

BNW
54273
p. 13 11 of 13



BNW
54273
p.13 9 of 13

HV	Ludlum-8 WA94743	Ludlum-9 WA94745	Ludlum-10 WA94746	Ludlum-7 WB76864
180	367	845	304	867
190	1200	1550	1151	1480
200	1789	1950	1747	1912
210	2274	2400	2093	2204
220	2551	2443	2445	2584
230	2675	2600	2622	2637
240	2807	2640	2724	2804
250	2898	2777	2924	2908
260	2838	2778	2860	2991
270	2891	2904	2844	2958
280	2975	2830	2988	3019
290	3003	2794	2931	2979
300	3034	2868	3005	3099
310	3006	2943	2995	3073
320	3070	2955	2892	3071
330	3047	2821	3080	3126
340	2963	2919	3093	3039
350	2965	2865	2982	3277
360	3031	2867	3037	3837
370	3039	2895	3028	4514
380	3045	2875	2958	
390	2992	2854	3074	
400	2978	2904	3046	
410	3107	2989	3099	
420	3246	3358	3463	
430	3845	4538	4694	
440	5123			
450				
460				

Anne E Kozelisky 11/9/92

LUDLUM 9

2-1584

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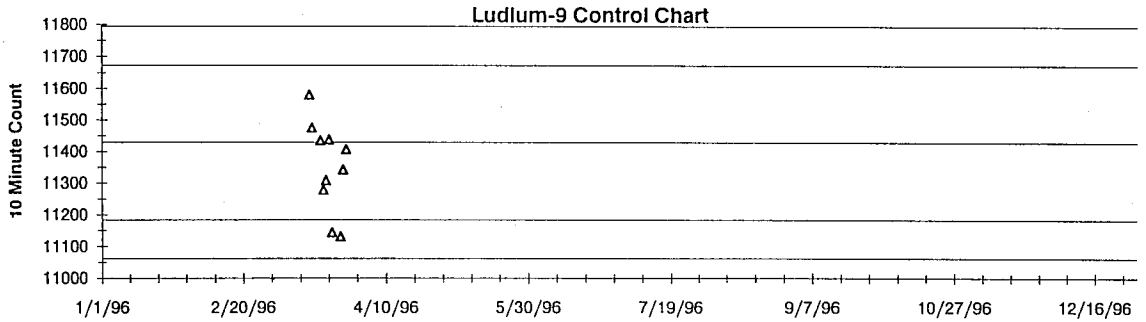


*Broken Switch on L9 on 3/13/96 fixed by Kevin P. Detector out of service prior to 3/13/96.

K. Thomas 3/27/96

3/27/96

BNW 54273 page 13 5 of 13

Ludlum-9 WA94745

High Voltage 3.30

T1350 NBS Calibration Summary

24.90μL 3321 ± 35.4 d/m
24.92μL 3324 ± 35.5 d/m
} HEDL-N-3219 page 3

$\bar{X}_2$ = 3322.5 ± 25.067 d/m

Observed Counts:

$\bar{X}_{16}$ = 1422.719 c/m ± 15.587 c/m

Calculation:

3322.5 ± 25.067 d/m ÷ 1422.719 c/m ± 15.587 c/m = d/c

2.335175 ± 0.031065 = 0.4282 ~~d/c~~ c/d ± 1.33%

HJK 3/29/93

Reviewed LR Greenwood date 2/12/93

BATTELLE-NORTHWEST
RICHLAND, WASHINGTON

ALPHA COUNTER DATA SHEET

SAMPLE

SUBMITTED BY

COUNTED BY

REMARKS Cadlum-9 Voltage @ 3.3 (WA 91995)
Calibration Counts with T-1350 ^{237}Pu

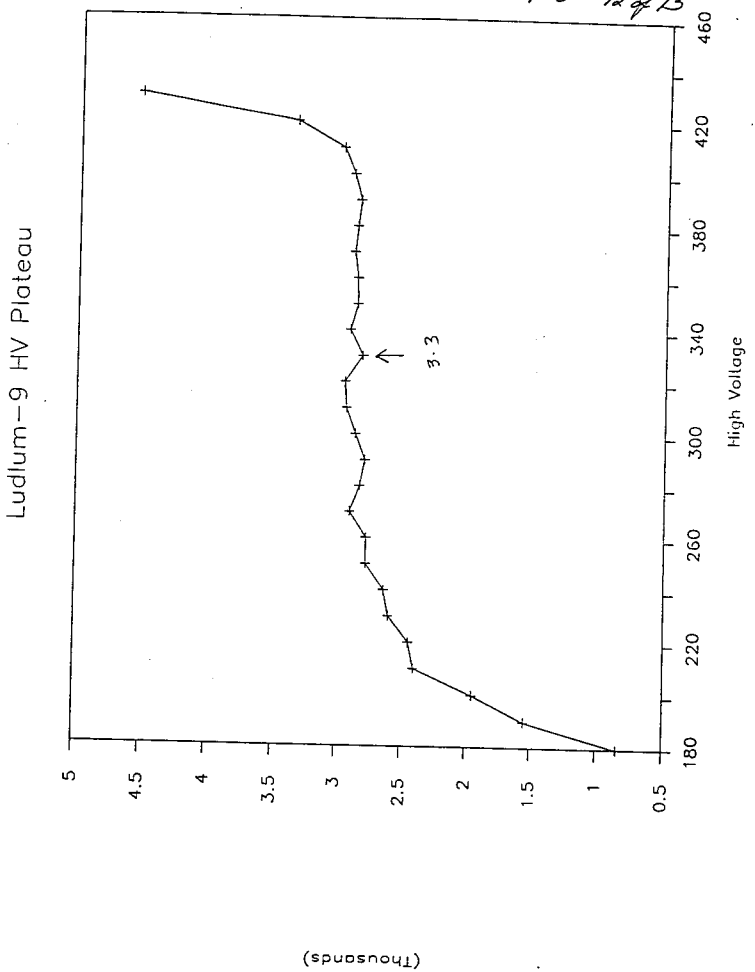
SAMPLE NUMBER		DATE 19 93	INST. NO.	INT. (MIN.) T	RECORDER READING SCALE OF1	TOTAL COUNTS N	RECORDED RATE R = N/T	COINC. CORR'N. C	BGD B	NET RATE X = R − B + C	GEOMETRY %	DISINTEGRATION RATE d/m
21.902	1	2/5	L-9	10	+	14097	1409.7		0.092	1409.6		
	2				+	14258	1425.8			1425.7		
	3				+	14115	1411.5			1411.4		
	4				+	14153	1415.3			1415.2		
					+							
21.922	1				+	14337	1433.7			1433.6		
	2				+	14115	1411.5			1411.4		
	3				+	14017	1401.7			1401.6		
	4				+	14053	1405.3			1405.2		
					+							
					+							
					+							
					+							
					+							
					+							
21.902	1	2/9			+	14135	1423.8		0.081	1423.7		
	2				+	14337	1433.7			1433.6		
	3				+	14262	1426.2			1426.1		
	4				+	14435	1443.5			1443.4		
					+							
21.922	1				+	14141	1414.1			1414.0		
	2				+	13983	1398.3			1398.2		
	3				+	14123	1412.3			1412.2		
	4				+	14357	1435.7			1435.6		
					+							

BNW 54273

2-1587

WHC-SD-WM-DP-171, REV. 1

BNW
54273
p.13 12 of 13



BNW
54273
p. 13 9 of 13

HV	Ludlum-8 WA94743	Ludlum-9 WA94745	Ludlum-10 WA94746	Ludlum-7 WB76864
180	367	845	304	867
190	1200	1550	1151	1480
200	1789	1950	1747	1912
210	2274	2400	2093	2204
220	2551	2443	2445	2584
230	2675	2600	2622	2637
240	2807	2640	2724	2804
250	2898	2777	2924	2908
260	2838	2778	2860	2991
270	2891	2904	2844	2958
280	2975	2830	2988	3019
290	3003	2794	2931	2979
300	3034	2868	3005	3099
310	3006	2943	2995	3073
320	3070	2955	2892	3071
330	3047	2821	3080	3126
340	2963	2919	3093	3039
350	2965	2865	2982	3277
360	3031	2867	3037	3837
370	3039	2895	3028	4514
380	3045	2875	2958	
390	2992	2854	3074	
400	2978	2904	3046	
410	3107	2989	3099	
420	3246	3358	3463	
430	3845	4538	4694	
440	5123			
450				
460				

Diane E Kozelisky 11/9/92

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WHC-SD-WM-DP-171, REV. 1

LUDLUM 10

2-1590

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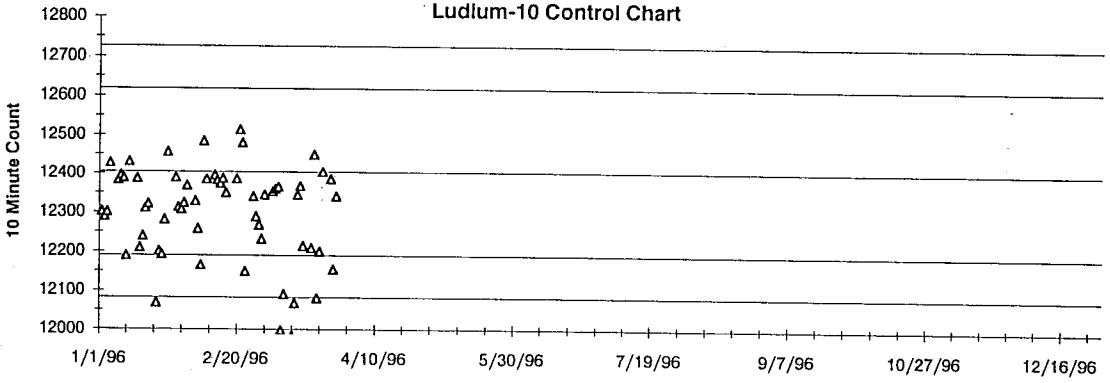


Detector out of service on some dates.

K. Thomas 3/27/96

BNW 54273 page 13 7 of 13

Ludlum-10 WA94746

High Voltage 3.30

T1350 NBS Calibration Summary

24.90μL 3321 ± 35.4 d/m
24.92μL 3324 ± 35.5 d/m
} HEDL-N-3219 page 3

$\overline{X}_2$ = 3322.5 ± 25.067 d/m

Observed Counts:

$\overline{X}_{16}$ = 1402.781 c/m ± 16.529 c/m

Calculation:

3322.5 ± 25.067 d/m ÷ 1402.781 c/m ± 16.529 c/m = d/c

2.368509 ± 0.033139 = 0.4222 d/c ± 1.40% 3/29/93 AVC
c/d

Reviewed LR Greenwood date 2/12/93

BATTELLE-NORTHWEST
RICHLAND, WASHINGTON

ALPHA COUNTER DATA SHEET

SAMPLE
SUBMITTED BY
COUNTED BY

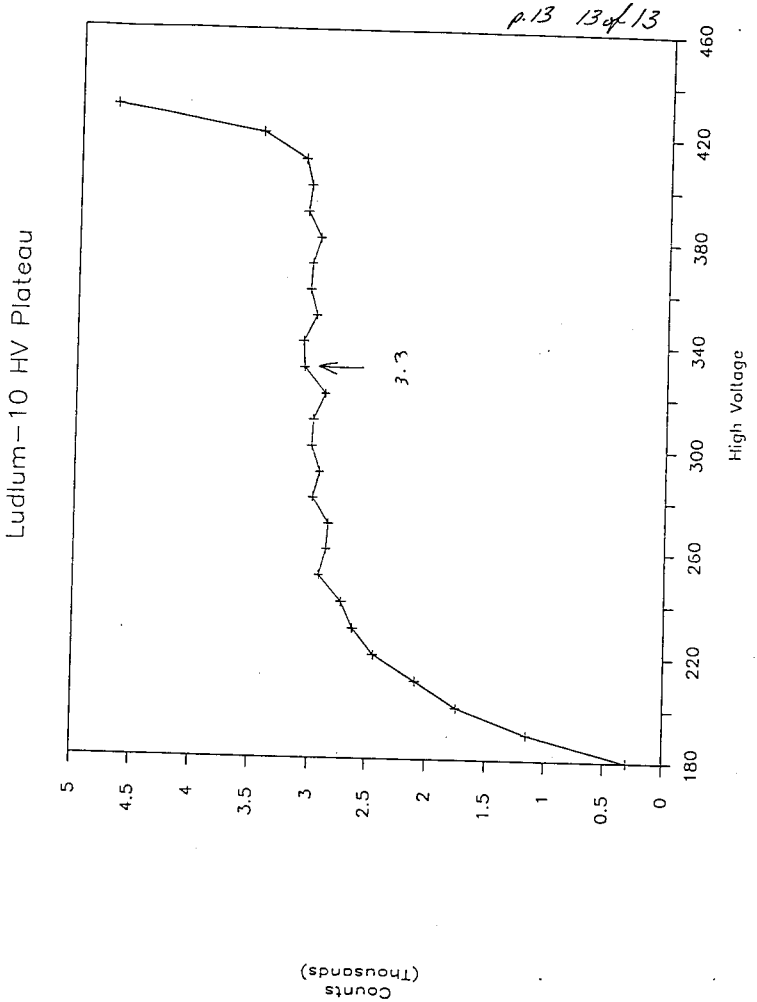
REMARKS Ludlum-10 Voltage @ 3.3 (WA94746)
Calibration Counts with T-1350 ^{239}Pu

SAMPLE NUMBER		DATE 19 93	INST. NO.	INT. (MIN.) T	RECORDER READING SCALE OF:	TOTAL COUNTS N	RECORDED RATE R = N/T	COINC. CORR'N. C	BGD B	NET RATE X = R − B + C	GEOMETRY %	DISINTEGRATION RATE d/m
24.90λ	1	2/5	L-10	10	+	13948	1394.8		0.078	1394.7		
	2				+	13958	1395.8			1395.7		
	3				+	13953	1395.3			1395.2		
	4				+	14375	1437.5			1437.4		
					+							
24.92λ	1				+	14020	1402.0			1401.9		
	2				+	13707	1370.7			1370.6		
	3				+	13820	1382.0			1381.9		
	4				+	13913	1391.3			1391.2		
					+							
					+							
					+							
					+							
					+							
					+							
24.90λ	1	2/8			+	14232	1423.2		0.059	1423.1		
	2				+	14029	1402.9			1402.8		
	3				+	13949	1394.8			1394.7		
	4				+	14185	1418.5			1418.4		
					+							
24.92λ	1				+	14055	1405.5			1405.4		
	2				+	14022	1402.2			1402.1		
	3				+	14221	1422.1			1422.0		
	4				+	14075	1407.5			1407.4		
					+							

BNW 54273
p 13 8 of 13

BB-1700-132 (5-66) AEC-GE RICHLAND, WASH

BNW
54273
p.13 13 of 13



BNW
54273
p. 13 9 of 13

HV	Ludlum-8 WA94743	Ludlum-9 WA94745	Ludlum-10 WA94746	Ludlum-7 WB76864
180	367	845	304	867
190	1200	1550	1151	1480
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250	2898	2777	2924	2908
260	2838	2778	2860	2991
270	2891	2904	2844	2958
280	2975	2830	2988	3019
290	3003	2794	2931	2979
300	3034	2868	3005	3099
310	3006	2943	2995	3073
320	3070	2955	2892	3071
330	3047	2821	3080	3126
340	2963	2919	3093	3039
350	2965	2865	2982	3277
360	3031	2867	3037	3837
370	3039	2895	3028	4514
380	3045	2875	2958	
390	2992	2854	3074	
400	2978	2904	3046	
410	3107	2989	3099	
420	3246	3358	3463	
430	3845	4538	4694	
440	5123			
450				
460				

Anne E Kozelisky 11/9/92

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GEA
CALIBRATION AND CONTROL CHARTS
DETECTOR G
DETECTOR H

2-1598

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CERTIFIED COPY: Standards Laboratory Radiochemical Preparation Data Base

Printed By: R.G. SWOBODA

Signature: R.G. Swoboda 10/2/95

Printing Date: Oct 2, 1995

Rec_118
Initiated 08-11-95
Entered by R.G. Swoboda

Gamma Source Preparations
for
Initial Efficiency Calibration

Dilutions of Vendor Supplied (Amersham QCY.48) Mixed-Gamma Calibration sources were prepared in a number of various geometries for initial calibration and/or calibration verification of several 325 Bldg. gamma detectors.

Preparation work for the gamma efficiency calibrations was initiated with the receipt of the standard material on 5-3-95. The last source was prepared on 8-11-95.

Work Plan Description:

-Two QCY.48 Mixed-Gamma Sources received from Amersham on 5-2-95 were assigned sequential Certificate #'s RS-126 and RS-127. which are specific to Amersham Solution Source Numbers R5/130/51 and R5/130/50 respectively. The certificates for the two QCY.48 standards used for source preparation of several gamma geometries are photoscanned into this document (see below).

- Projections for proper aliquot sizes were planned based on estimated counting efficiencies. The GEASOURC.XLS spreadsheet was used to transcribe and document the requirements for proper aliquots to use of the QCY.48 source. The efficiency sources were required to be prepared at an activity level which would provide a minimum of 10,000 counts at each energy line when counted for a nominal 30 min to 1 hr count.

- Aliquots of these sources were directly added to each preparation with accurate weights taken and recorded (if at all possible) to insure the integrity of each preparation. This information was transferred to the preparation spreadsheet as each geometry was initiated. -- see the following GEAPREP.XLS

- Using the certificate information from the QCY.48 sources and the specific aliquot vol/wt. information from the prepared gamma standards, Efficiency File data was uploaded into the Canberra GENIE Gamma Efficiency Library for each source that was prepared at a different aliquot size. Thus, each geometry source was cross-referenced to a unique Certificate File. Examples of two Cert. Files are included in this document following the prepsheet information. The only information that would appear different for subsequent certificate files would be the extension on the Standard ID which changes to depict a different aliquot size (Quantity).

-The Canberra GENIE system automatically calibrates the detector for the particular geometry and generates a "best fit" efficiency curve for each geometry based on one or more counts. The Calibration File for each source clearly identifies the source description and the Certificate File used to generate the efficiency curve. These data files are stored on the Gamma counting systen with backup files located in the initial and continuing calibration records for each detector. The actual calibrations are continuing as time permits with those geometries used most often taking precident over seldom used geometries.

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2-1598

RS-126

Amersham International plc
Amersham UK

NAMAS
CALIBRATION
No 3146

[redacted]

Description Product code: QCY.48 Solution number: RS/130/51

This mixed radionuclide gamma-ray reference standard consists of a solution in 4M HCl of the ten radionuclides listed below.

Measurement and Accuracy Reference time: 1200 GMT on 1 May 1995

Mass of solution: 5.3877 grams Density: 1.073 g/ml at 20°C

35
@ 99.7% Cl

Parent radionuclide	Gamma-ray energy (keV)	Gamma-rays per second per gram of solution	Random uncertainty	Systematic uncertainty	Overall uncertainty
Americium-241	59.54	1092	± 0.2 %	± 1.9 %	± 2.1 %
Cadmium-109	88.03	620	± 0.3 %	± 3.3 %	± 3.6 %
Cobalt-57	122.1	561	± 0.1 %	± 1.6 %	± 1.7 %
Cerium-139	165.9	679	± 0.2 %	± 1.3 %	± 1.5 %
Mercury-203	279.2	1916	± 0.3 %	± 2.0 %	± 2.3 %
Tin-113	391.7	2015	± 0.1 %	± 4.3 %	± 4.4 %
Strontium-85	514.0	3769	± 0.3 %	± 1.6 %	± 1.9 %
Caesium-137	661.7	2339	± 0.2 %	± 1.9 %	± 2.1 %
Yttrium-88	898.0	5988	± 0.2 %	± 3.5 %	± 3.7 %
Cobalt-60	1173	3211	± 0.2 %	± 0.4 %	± 0.6 %
Cobalt-60	1333	3313	± 0.2 %	± 0.4 %	± 0.6 %
Yttrium-88	1836	6346	± 0.2 %	± 3.5 %	± 3.7 %

Purity At the reference time the solution also contained the following impurities:

Iron-55 equal to 5.3 becquerels (0.14 nanocuries) per gram.

Remarks Further details, including composition of the solution, methods of measurement, decay scheme assumptions, decay tables and definitions of uncertainties, are given in the data sheet accompanying this certificate.

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving explicit NIST traceability as defined in NCRP58 (1985).

Approved Signatory

P.O. # 705917

RS-126
Barcode # 108455

W. F. Case

Accepted 5-3-95

W F Case

Page 1 of 1

Amersham

This certificate is issued in accordance with the conditions of accreditation granted by the National Measurement Accreditation Service, which has assessed the measurement capability of the laboratory and its traceability to recognised national standards and to the units of measurement realised at the corresponding national standards laboratory. Copyright of this certificate is owned jointly by the British Crown and the issuing laboratory and may not be reproduced other than in full except with the prior written approval of the Head of NAMAS and the issuing laboratory.

2-1599

RS-127

Amersham International plc
Amersham UK

[redacted]

NAMAS
CALIBRATION
No. 0148

Description Product code: QCY.49 Solution number: RS/130/50

This mixed radionuclide gamma-ray reference standard consists of a solution in 4M HCl of the ten radionuclides listed below.

Measurement and Accuracy Reference time: 1200 GMT on 1 May 1995

Mass of solution: 5.4941 grams Density: 1.073 g/ml at 20°C

Parent radionuclide	Gamma-ray energy (keV)	Gamma-rays per second per g.m. of solution	Random uncertainty	Systematic uncertainty	Overall uncertainty
Americium-241	59.54	1092	± 0.2 %	± 1.9 %	± 2.1 %
Cadmium-109	88.03	620	± 0.3 %	± 3.3 %	± 3.6 %
Cobalt-57	122.1	561	± 0.1 %	± 1.6 %	± 1.7 %
Cerium-139	165.9	679	± 0.2 %	± 1.3 %	± 1.5 %
Mercury-203	278.2	1916	± 0.3 %	± 2.0 %	± 2.3 %
Tin-113	391.7	7015	± 0.1 %	± 4.3 %	± 4.4 %
Strontium-85	514.0	3769	± 0.3 %	± 1.6 %	± 1.9 %
Caesium-137	661.7	2339	± 0.2 %	± 1.9 %	± 2.1 %
Yttrium-88	898.0	5988	± 0.2 %	± 3.5 %	± 3.7 %
Cobalt-60	1173	3311	± 0.2 %	± 0.4 %	± 0.6 %
Cobalt-60	1333	3313	± 0.2 %	± 0.4 %	± 0.6 %
Yttrium-88	1836	6346	± 0.2 %	± 3.5 %	± 3.7 %

235 @ 99.7% cl

Purity At the reference time the solution also contained the following impurities:

Iron-55 equal to 5.3 becquerels (0.14 nanocuries) per gram.

Remarks Further details, including composition of the solution, methods of measurement, decay scheme assumptions, decay tables and definitions of uncertainties, are given in the data sheet accompanying this certificate.

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving explicit NIST traceability as defined in NCRPSE (1985).

Approved Signatory

P.O. # 705917

RS-127
Barcode # 108456

W F Case

Accepted 5-3-95

W F Case

Page 1 of 1

Amersham

The certificate is issued in accordance with the conditions of accreditation granted by the National Measurement Accreditation Service, which has assessed the measurement capability of the laboratory and its traceability to recognised national standards and to the units of measurement realised at the participating national standards laboratory. Copyright of the certificate is owned jointly by the British Crown and the issuing laboratory and may not be reproduced other than in full except with the prior written approval of the Head of NAMAS and the issuing laboratory.

Traceability is the ability to relate the accuracy of measurement of radionuclides to the National Institute of Standards and Technology (NIST). Traceability is achieved by participation in a Measurements Assurance Program linked to NIST and production of certified materials in accordance with a quality assurance program.

Amersham participates in measurement assurance programs conducted by NIST in cooperation with the Nuclear Energy Institute (NEI, formerly USCEA). Additionally, our production facilities and measurement laboratories operate under routinely audited quality assurance programs.

Therefore, Amersham certified standardized products meet or exceed, the NRC requirements for measurements traceable to NIST.

GEASOURC.XLS

Aerosphere (QCY 48) GEA calibration standard, ref. date = 3/1/95																									
nominal load volume = 10 mL				clapsed days =	21					Density = 1.073 g/mL															
	intensity %	1/2			g/sec/g	error %	g/g/g	gamma/g at T=	5/22/95	gamma/g/sec	0.25	gamma/g vol taken mL	60	gamma at T=counting		efficiency	total gammas	counting error %	estimated counting
Am-241	33.7	1322	yrs		1.09E-09	2.1	1.09E-09	1,092	1,092	1,092	1,092	273	982,799		0.1		98,231		0.33
Cs-106	81.5	1.02E+07	yrs		1.09E-09	1.5	8.87E-10	828	828	601	150	203	546,715		0.06		32,443		0.56
Ce-137	84	9.2	hrs		1.09E-09	1.5	9.16E-10	855	855	621	155	210	564,469		0.0855		36,331		0.62
Ce-139	166	138	days		6.29E-10	1.5	6.29E-10	587	587	426	106	144	387,549		0.0585		22,676		0.47
Ru-103	10	47	days		1.91E-09	2.3	1.91E-09	1,784	1,784	1,296	324	438	1,176,930		0.1755		206,530		0.60
Sn-113	64	115.09	days		3.01E-09	4.4	2.01E-09	1,876	1,876	1,362	341	461	1,236,130		0.1845		341,031		0.42
Sr-85	99	64.84	days		3.76E-09	1.9	3.76E-09	3,511	3,511	2,550	638	862	2,314,803		0.3534		817,922		0.40
Y-88	83	30	years		2.33E-09	2.1	2.33E-09	2,176	2,176	1,580	395	534	1,434,084		0.2139		306,665		0.23
Cs-137	99	106.61	days		6.14E-09	3.7	6.14E-09	5,734	5,734	4,163	1,041	1,407	3,778,103		0.5634		2,128,660		0.19
Co-60	99	5.271	yrs		3.31E-09	0.6	3.31E-09	3,286	3,286	2,386	597	807	2,167,435		0.81		29,375		0.38
* Efficiency estimate based on previous Cs-137 Gold calibrations in 10 cm ESC geometry.																									
NAS GEA calibration standard, reference date =					3/1/95																				
nominal load volume = 10 mL				clapsed days =	40																				
	intensity %	1/2			g/sec/g	error %	g/g/g	gamma/g at T=	4/10/95	gamma/g/sec	0.25	gamma/g vol taken mL	60	gamma at T=counting		efficiency	total gammas	counting error %	estimated counting
Am-241	33.7	432.7	yrs		6.59E-10	2.16	6.59E-10	395,510	395,511	2,353	588	6.25	1,411,759		0.09		137,058		0.26
Cs-109	3.5	1.26E+13	yrs		3.73E-10	2.18	2.24E-10	2,112,899	1,268	317	79	0.84	760,640		0.09		68,458		0.38
Cs-137	85.1	30.17	years		1.33E-09	2.2	7.98E-10	752,860	1,027	257	64	0.68	616,116		0.085		33,886		0.34
Ba-133m	84	38.9	days		1.54E-09	2.21	9.25E-10	872,680	1,191	298	74	0.79	714,737		0.0985		39,276		0.34
Cs-131	10	27.7604	days		1.54E-09	2.21	1.54E-09	1,453,400	1,988	497	124	1.32	1,192,233		0.165		146,136		0.47
Sn-113	64	115.09	days		2.09E-09	2.28	1.25E-09	1,179,460	1,613	403	101	1.07	969,319		0.133		74,517		0.44
Sr-85	99	64.84	days		2.23E-09	2.24	1.33E-09	1,255,540	1,717	429	107	1.14	1,032,046		0.1419		73,142		0.43
Cs137	85	30	years		1.76E-09	2.33	1.05E-09	990,660	1,355	339	85	0.90	814,936		0.1125		32,624		0.27
Y-88	99	106.61	days		3.97E-09	2.24	2.38E-09	2,244,440	3,069	767	192	2.04	1,845,986		0.2538		226,600		0.26
Co-60	99	5.271	yrs		1.87E-09	2.28	1.12E-09	1,057,380	1,446	362	90	0.96	871,554		0.1193		73,875		0.27

Prepsheet for QCY.48 (RS-126 and RS-127 Standards) at specific geometries.

QCYPREP.XLS

GEA standards---Prepared from Amersham QCY.48 Sources -- Ref Date 5-1-95

Density of QCY.48 Standard in g/mL = 1.073

Actual measured density of 4 M HCl = 1.0393

Date Prepared for Counting Rm.	Source description	Standard used	Vol (ml) of Std	Measured Mass wt. of standard (g)	Calculated Expected Weight (g)	Bias meas./calc.
5-15-95	point sources (pill vial)	RS-126	0.25	0.26769	0.26404	0.0138
5-15-95	2-mL in glass LSC vial	RS-126	0.25	0.26701	0.26404	0.0113
5-15-95	5-mL in glass LSC vial	RS-126	0.25	0.2677	0.26404	0.0139
5-15-95	10-mL in glass LSC vial	RS-126	0.25	0.26767	0.26404	0.0137
5-15-95	50-mL in 4 oz PC jar (PSJ)	RS-126	0.25	0.26314	0.26404	-0.0034
5-15-95	100-mL poly bottle	RS-126	0.25	0.26745	0.26404	0.0129
5-15-95	1000-mL marinelli beaker	RS-126a	0.5	not possible	0.51965	
5-15-95	100-mL water in 4oz PC jar	RS-126a	0.5	0.5228	0.51965	0.0061
5-15-95	100 mL in 8oz PC jar	RS-126a	0.5	0.5131	0.51965	-0.0126
5-15-95	500 mL in 8oz PC Jar	RS-126a	0.5	0.5119	0.51965	-0.0149
Additional Sources Prepared as Requested by Richard Ratner						
8-10-95	10-mL in glass LSC vial	RS-126b	1.5	1.56633	1.55895	0.0047
8-11-95	2-mL in glass LSC vial	RS-127a	1.5	1.53612	1.55895	-0.0146

Opted to use the density of 4 M HCl for Bias Calc.
A bias greater than 2% (+/- 0.02) between the actual measured weight and the expected weight based on the measured density of 4 M HCl was considered unacceptable and a repreparation of the geometry source was made.

Certificate Files for RS-126b and RS-127a as they appear in the Canberra GENIE Gamma Library

DKA200:[GAMMA.EFF]RS-126-B.CER;1
2-OCT-1995 11:22

Title : QCY.48 Amersham standard RS/130/S1 RS-126
Quantity : 1.6 Assay date : 1-MAY-1995 12:00:00.

Nuclide Name	Half Life	Energy (keV)	Rate	% Err	% Abn	CAL/INIT?
Am-241	432.70Y	59.5	1092.	0.70	35.7	Yes
Cd-109	1.27Y	88.0	620.	1.20	3.6	Yes
Co-57	271.77D	122.1	561.	0.57	85.5	Yes
Ce-139	138.00D	165.9	679.	0.50	84.0	Yes
Hg-203	47.00D	279.2	1916.	0.77	10.0	Yes
Sn-113	115.09D	391.7	2015.	1.47	64.0	Yes
Sr-85	64.84D	514.0	3769.	0.63	99.3	Yes
Cs-137	30.00Y	661.7	2339.	0.70	85.2	Yes
Y-88	106.61D	898.1	5988.	1.23	92.7	Yes
Co-60	5.27Y	1173.2	3311.	0.20	99.9	Yes
Co-60	5.27Y	1332.5	3313.	0.20	100.0	Yes
Y-88	106.61D	1836.1	6346.	1.23	99.3	Yes

DKA200:[GAMMA.EFF]RS-127-A.CER;1
2-OCT-1995 11:22

Title : QCY.48 Amersham standard RS/130/S0 RS-127 FOR TRACK DETECTOR
Quantity : 1.5 Assay date : 1-MAY-1995 12:00:00.

Nuclide Name	Half Life	Energy (keV)	Rate	% Err	% Abn	CAL/INIT?
Am-241	432.70Y	59.5	1092.	0.70	35.7	Yes
Cd-109	1.27Y	88.0	620.	1.20	3.6	Yes
Co-57	271.77D	122.1	561.	0.57	85.5	Yes
Ce-139	138.00D	165.9	679.	0.50	84.0	Yes
Hg-203	47.00D	279.2	1916.	0.77	10.0	Yes
Sn-113	115.09D	391.7	2015.	1.47	64.0	Yes
Sr-85	64.84D	514.0	3769.	0.63	99.3	Yes
Cs-137	30.00Y	661.7	2339.	0.70	85.2	Yes
Y-88	106.61D	898.1	5988.	1.23	92.7	Yes
Co-60	5.27Y	1173.2	3311.	0.20	99.9	Yes
Co-60	5.27Y	1332.5	3313.	0.20	100.0	Yes
Y-88	106.61D	1836.1	6346.	1.23	99.3	Yes

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DETECTOR G

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VMS Calibration Report V1.5 Generated 2-OCT-1995 11:06:24

Configuration : MCA0:[USER]G$1
Analyses by : SCRCAL V1.1
Detector Name : G
Efficiency type : Empirical
Detector Geometry: PO-4PC-100ML-W

Energy Calib Time: 10-JUL-1995 08:56:39
Effncy Calib Time: 9-AUG-1995 16:41:15
Shelf : 0

Energy Calibration Report

Energy = 0.3639 + 0.3753*Channel + 0.0000E+00*(Channel**2)

Nbr	Centroid Channel	True Energy	Computed Energy	Difference
1	158.07	59.50	59.68	-0.184
2	233.97	88.00	88.17	-0.166
3	324.57	122.10	122.17	-0.065
4	441.27	165.90	165.96	-0.059
5	743.09	279.20	279.22	-0.020
6	1042.56	391.70	391.60	0.097
7	1368.37	514.00	513.87	0.129
8	1761.68	661.70	661.46	0.236
9	2391.66	898.10	897.88	0.223
10	3125.06	1173.20	1173.10	0.101
11	3549.87	1332.50	1332.51	-0.013
12	4892.55	1836.10	1836.38	-0.280

FWHM Calibration Report

FWHM = 0.5296 + 5.1664E-02*(Energy**1/2)

Nbr	Energy	True FWHM	Computed FWHM	Difference
1	59.50	1.06	0.93	0.136
2	88.00	1.10	1.01	0.083
3	122.10	1.13	1.10	0.031
4	165.90	1.19	1.20	-0.002
5	279.20	1.29	1.39	-0.105
6	391.70	1.50	1.55	-0.055
7	514.00	1.59	1.70	-0.110
8	661.70	1.74	1.86	-0.123
9	898.10	2.02	2.08	-0.060
10	1173.20	2.38	2.30	0.086
11	1332.50	2.40	2.42	-0.015
12	1836.10	2.88	2.74	0.135

Approved by: Richard T. R Approval Date: 10/2/95

Additional print-out of July 10 energy & FWHM calibration.

R-TR
2

VMS Calibration Report V1.5 Generated 2-OCT-1995 11:11:51

Configuration : DKA200:[USER.SCUSR.EFF]EFF_GOGSV1OMLW_M.CNF;1
Analyses by : CALIBRATE V1.7,PEAK V16.5
Detector Name : G
Efficiency type : Empirical
Detector Geometry: PO-GSV-1OML-W
Energy Calib Time: 10-JUL-1995 08:56:39
Effncy Calib Time: 7-AUG-1995 15:13:59
Shelf : 0

Efficiency Calibration Report

Eff = exp(a2 + a3*x + a4*x**2 + a5*x**3 + a6*x**4 + a7*x**5), x=ln(a1/energy)

a1	a2	a3	a	a5	a6	a7
947.8	-3.812	0.9890	-3.0955E-02	-0.1698	0.1510	-4.3621E-02

Average Deviation = 1.57 % Reduced Chi-Square = 4.20

Nbr	Energy (keV)	Measured Efficiency	Efficiency Error	Computed Efficiency	Diff/ /Error	% Diff
1	59.54	4.42E-02	2.24E-04	4.36E-02	2.84	1.44
2	88.03	8.70E-02	5.06E-04	9.03E-02	-6.51	-3.79
3	122.06	1.03E-01	4.80E-04	1.01E-01	3.18	1.48
4	165.85	9.45E-02	4.70E-04	9.17E-02	6.01	2.99
5	279.19	6.45E-02	3.90E-04	6.45E-02	0.15	0.09
6	391.69	4.89E-02	2.77E-04	4.92E-02	-1.29	-0.73
7	514.00	3.88E-02	1.58E-04	3.92E-02	-2.03	-0.83
8	661.66	3.23E-02	1.11E-04	3.12E-02	9.76	3.35
9	898.07	2.26E-02	1.06E-04	2.33E-02	-6.95	-3.28
10	1173.24	1.80E-02	5.06E-05	1.79E-02	1.14	0.32
11	1332.50	1.60E-02	4.60E-05	1.59E-02	2.55	0.73
12	1836.08	1.25E-02	6.06E-05	1.23E-02	2.70	1.31

Approved by: Richard T. Ress Approval Date: 10/ 2/ 95

This is an additional print-out of Aug-7-1995 efficiency calibration of GΦGSV1ΦMLW. RTR

VMS Calibration Report V1.5 Generated 2-OCT-1995 11:12:52

Configuration : DKA200:[USER.SCUSR.EFF]EFF_G3GSV2MLW_M.CNF;1
Analyses by : CALIBRATE V1.7,PEAK V16.5
Detector Name : G
Efficiency type : Empirical
Detector Geometry: P3-GSV-2ML-W
Energy Calib Time: 10-JUL-1995 08:56:39
Effncy Calib Time: 2-AUG-1995 17:02:20
Shelf : 3

Efficiency Calibration Report

Eff = exp(a2 + a3*x + a4*x**2 + a5*x**3 + a6*x**4 + a7*x**5), x=ln(a1/energy)

a1	a2	a3	a4	a5	a6	a7
947.8	-5.469	0.7929	-2.0840E-02	4.4022E-02	-2.7428E-03	-1.2491E-02

Average Deviation = 1.55 % Reduced Chi-Square = 3.08

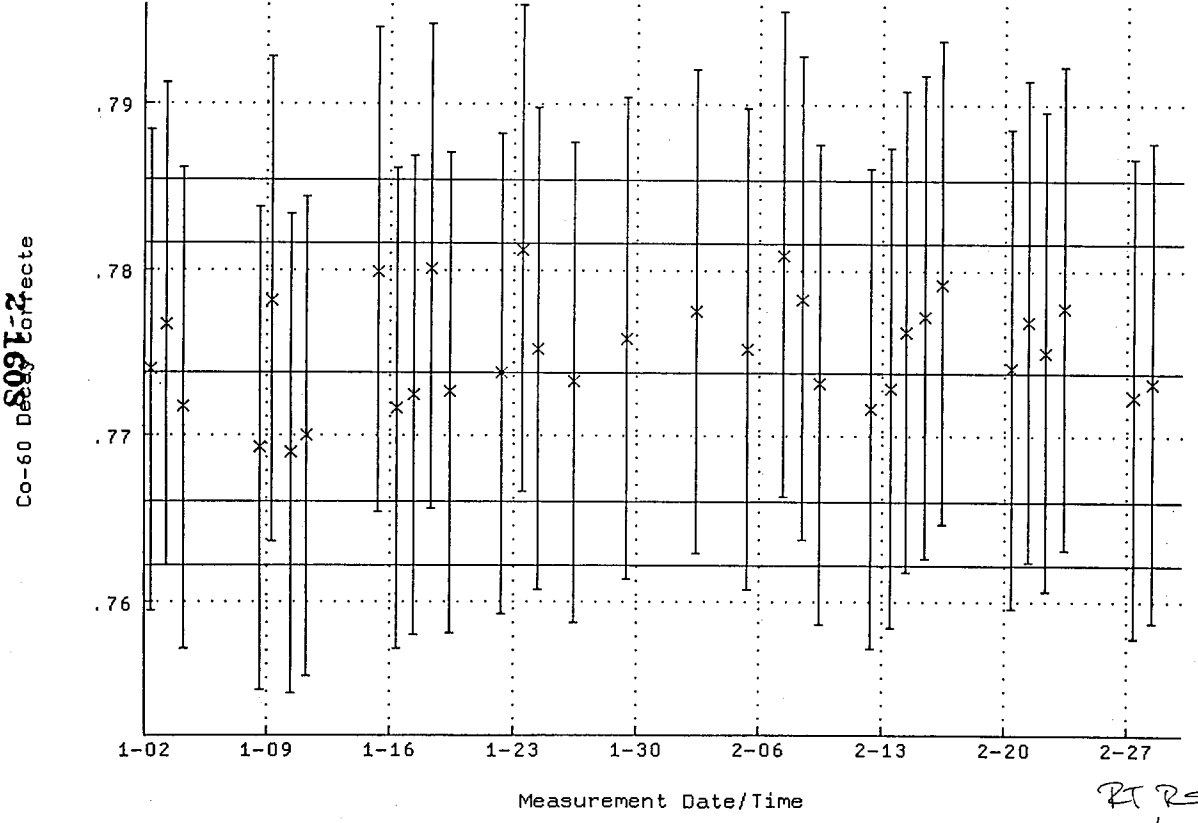
Nbr	Energy (keV)	Measured Efficiency	Efficiency Error	Computed Efficiency	Diff/ /Error	% Diff
1	59.54	9.18E-03	4.63E-05	9.19E-03	-0.20	-0.10
2	88.03	1.55E-02	9.86E-05	1.58E-02	-3.25	-2.06
3	122.06	1.74E-02	9.65E-05	1.74E-02	0.22	0.12
4	165.85	1.61E-02	9.33E-05	1.59E-02	2.89	1.67
5	279.19	1.12E-02	7.29E-05	1.12E-02	-0.06	-0.04
6	391.69	8.48E-03	5.38E-05	8.54E-03	-1.12	-0.71
7	514.00	6.69E-03	2.99E-05	6.85E-03	-5.47	-2.45
8	661.66	5.67E-03	2.16E-05	5.60E-03	3.19	1.21
9	898.07	4.39E-03	2.23E-05	4.40E-03	-0.44	-0.22
10	1173.24	3.56E-03	1.01E-05	3.55E-03	0.10	0.03
11	1332.50	3.20E-03	9.27E-06	3.20E-03	-0.71	-0.21
12	1836.08	2.49E-03	1.29E-05	2.44E-03	3.30	1.72

Approved by: Richard T. R[illegible] Approval Date: 10/2/95

This is an additional print-out of the Aug-2-1995 efficiency calibration of G3GSV2MLW.

RTR

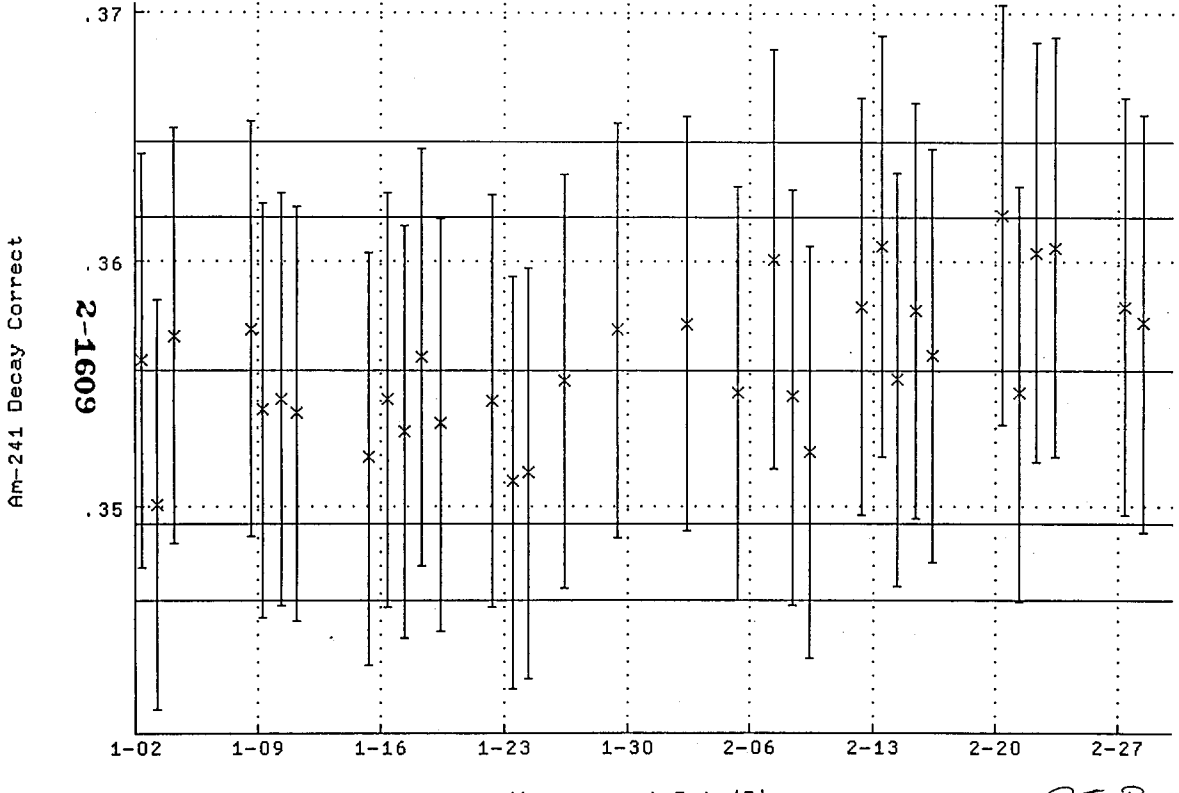
QA filename : DKA200:[GAMMA.QA]DET_G.QAF;1
Parameter Name : NLACTVTY-CO (Co-60 Decay Corrected Activity)
Start/End Dates : 2-JAN-1996 10:14:57 through 1-MAR-1996 00:00:00
Mean +- Std Dev : 0.773854 +- 3.898136E-03 (0.50 %)



WHC-SD-WM-DP-171, REV. 1

RT RS 3/28/96
L R Leonard 3/28/96

QA filename : DKA200:[GAMMA.QA]DET_G.QAF;1
Parameter Name : NLACTVTY-AM (Am-241 Decay Corrected Activity)
Start/End Dates : 2-JAN-1996 10:14:57 through 1-MAR-1996 00:00:00
Mean +- Std Dev : 0.355571 +- 3.105503E-03 (0.87 %)



2-1609

WHC-SD-WM-DP-171, REV. 1

RT R 3/28/96
J R Greenwood 3/28/96

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WHC-SD-WM-DP-171, REV. 1

DECTECTOR H

2-1610

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VMS Calibration Report V1.5 Generated 2-OCT-1995 11:06:09

Configuration : MCA0:[USER]H$1
Analyses by : SCRCAL V1.1
Detector Name : H
Efficiency type : Empirical
Detector Geometry: PO-4PC-100ML-W

Energy Calib Time: 10-JUL-1995 14:06:54
Effncy Calib Time: 7-AUG-1995 11:58:19
Shelf : 0

Energy Calibration Report

Energy = 0.1326 + 0.3749*Channel + 0.0000E+00*(Channel**2)

Nbr	Centroid Channel	True Energy	Computed Energy	Difference
1	158.77	59.54	59.66	-0.117
2	234.85	88.03	88.18	-0.147
3	325.58	122.06	122.19	-0.131
4	442.39	165.85	165.98	-0.132
5	744.42	279.19	279.21	-0.022
6	1044.23	391.69	391.61	0.078
7	1370.18	514.00	513.81	0.191
8	1763.92	661.66	661.42	0.238
9	2394.48	898.07	897.82	0.253
10	3128.72	1173.24	1173.08	0.161
11	3554.20	1332.50	1332.59	-0.090
12	4897.96	1836.08	1836.36	-0.282

FWHM Calibration Report

FWHM = 0.2752 + 6.4642E-02*(Energy**1/2)

Nbr	Energy	True FWHM	Computed FWHM	Difference
1	59.54	0.98	0.77	0.201
2	88.03	0.99	0.88	0.107
3	122.06	1.03	0.99	0.041
4	165.85	1.11	1.11	0.002
5	279.19	1.27	1.36	-0.088
6	391.69	1.42	1.55	-0.132
7	514.00	1.58	1.74	-0.156
8	661.66	1.81	1.94	-0.127
9	898.07	2.06	2.21	-0.148
10	1173.24	2.50	2.49	0.007
11	1332.50	2.71	2.63	0.078
12	1836.08	3.26	3.05	0.215

Approved by: Richard T Ross Approval Date: 10/2/95

This is an additional print-out of the July 10, 1995 energy & FWHM calibration of ~~Aug-7-1995 efficiency position PO-4PC-100ML-W detector~~ Detector H

10/2/95 RTR

10/2/95 RTR

VMS Calibration Report V1.5 Generated 2-OCT-1995 11:14:00

Configuration : DKA200:[USER.SCUSR.EFF]EFF_HOGSV10MLW_M.CNF;1
Analyses by : CALIBRATE V1.7,PEAK V16.5
Detector Name : H Energy Calib Time: 10-JUL-1995 14:06:54
Efficiency type : Empirical Effncy Calib Time: 15-AUG-1995 17:07:06
Detector Geometry: P0-GSV-10ML-W Shelf : 0

Efficiency Calibration Report

Eff = exp(a2 + a3*x + a4*x**2 + a5*x**3 + a6*x**4 + a7*x**5), x=ln(a1/energy)

a1	a2	a3	a	a5	a6	a7
947.8	-4.007	0.9588	-2.9952E-02	-0.1462	0.1413	-4.4620E-02

Average Deviation = 1.14 % Reduced Chi-Square = 2.89

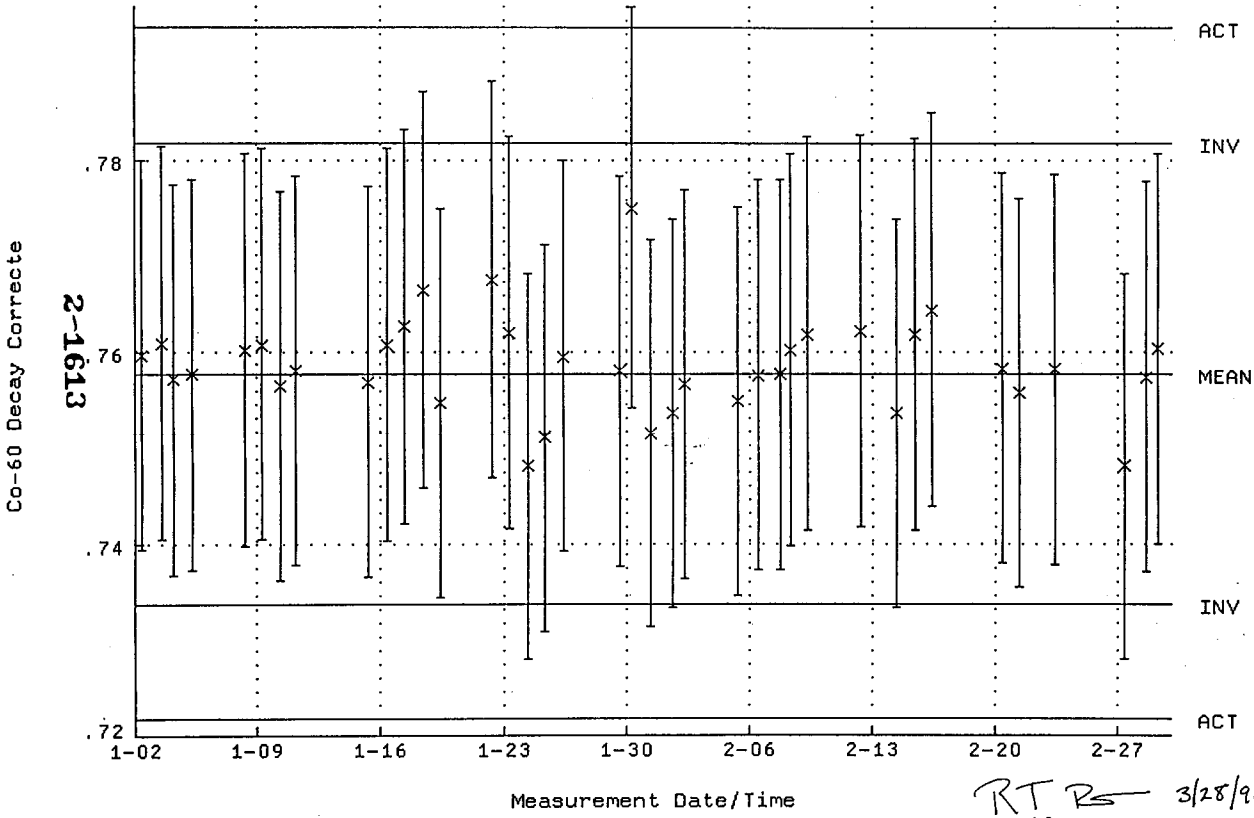
Nbr	Energy (keV)	Measured Efficiency	Efficiency Error	Computed Efficiency	Diff/ /Error	% Diff
1	59.54	2.64E-02	1.91E-04	2.63E-02	0.67	0.48
2	88.03	6.43E-02	4.78E-04	6.49E-02	-1.21	-0.90
3	122.06	7.82E-02	4.84E-04	7.83E-02	-0.25	-0.15
4	165.85	7.44E-02	4.75E-04	7.32E-02	2.49	1.59
5	279.19	5.10E-02	4.20E-04	5.22E-02	-2.78	-2.29
6	391.69	3.90E-02	2.93E-04	3.99E-02	-3.07	-2.30
7	514.00	3.16E-02	1.72E-04	3.18E-02	-1.33	-0.72
8	661.66	2.61E-02	1.20E-04	2.55E-02	5.46	2.50
9	898.07	1.86E-02	1.16E-04	1.92E-02	-4.38	-2.74
10	1173.24	1.51E-02	5.49E-05	1.48E-02	4.31	1.57
11	1332.50	1.32E-02	5.10E-05	1.32E-02	0.77	0.30
12	1836.08	1.04E-02	6.57E-05	1.03E-02	1.55	0.98

Approved by: Richard T. Ross Approval Date: 10/2/95

This is an additional print-out of the 15-Aug-1995 efficiency calibration of position P0GSV10MLW.

RTR
2

QA filename : DKA200:[GAMMA.QA]DET_H.QAF;1
Parameter Name : NLACTVTY-CO (Co-60 Decay Corrected Activity)
Start/End Dates : 2-JAN-1996 10:15:00 through 1-MAR-1996 00:00:00
Mean +- Std Dev : 0.757858 +- 1.199753E-02 (1.58 %)

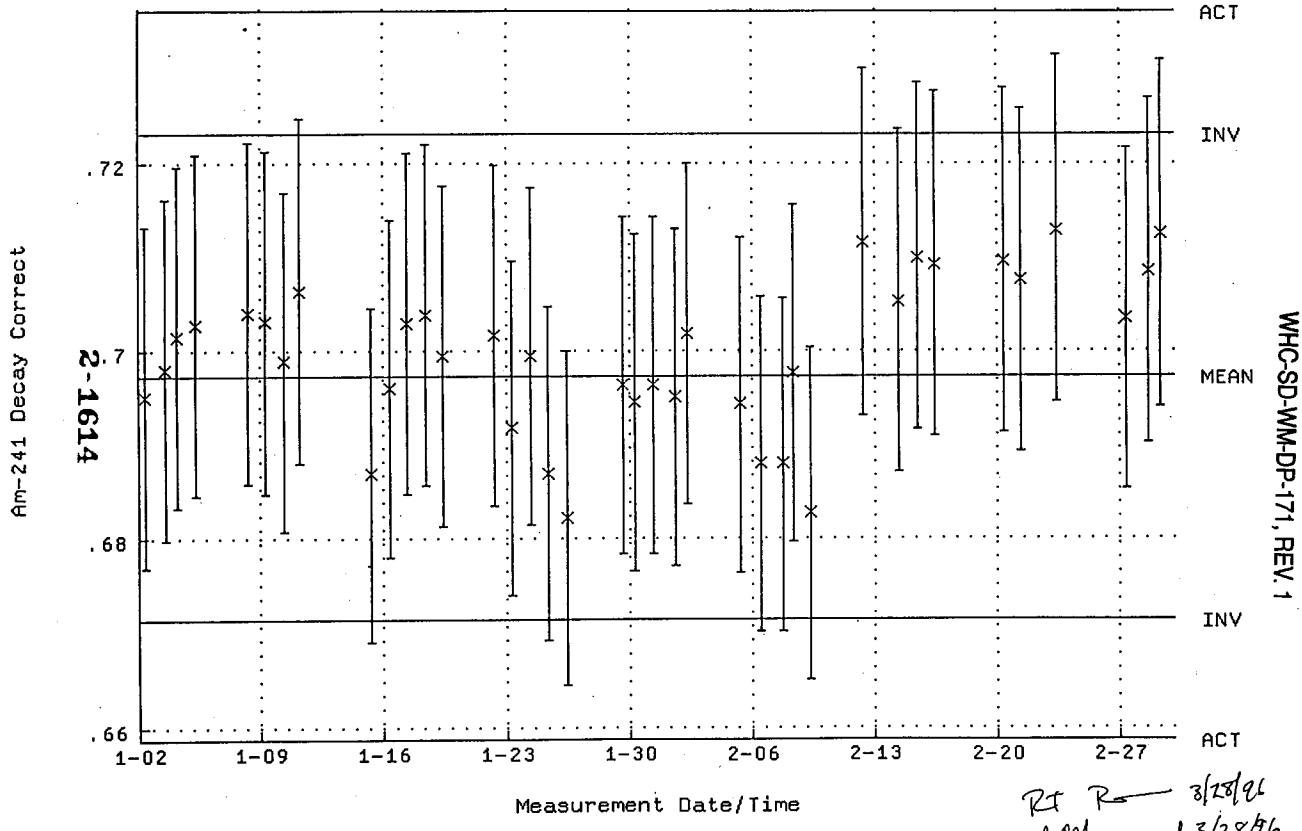


2-1613

WHC-SD-WM-DP-171, REV. 1

RT R 3/28/96
L R Greenwood 3/28/96

QA filename : DKA200:[GAMMA.QA]DET_H.QAF;1
Parameter Name : NLACTVTY-AM (Am-241 Decay Corrected Activity)
Start/End Dates : 2-JAN-1996 10:15:00 through 1-MAR-1996 00:00:00
Mean +- Std Dev : 0.697342 +- 1.286680E-02 (1.85 %)



2-1614

WHC-SD-WM-DP-171, REV. 1

RT R 3/28/96
LDGreenwood 3/28/96

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