UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: NOV 01 1994

Subject: Review of Region 5 Data for ALCO STEEL

From: Charles T. Elly, Director Chuck Elly
Region 5 Central Regional Laboratory

To:

Attached are the results for ALCO STEEL
CRL request number 940152
for analyses for Mercury and Cyanide.
Results are reported for sample designations: 94ZB19S01, 94ZB19S02, 94ZB19S03, 94ZB19S05, 94ZB19S06, 94ZB19S08, and 94ZB19R07.

Results Status:
(X) Acceptable for Use: Mercury and Cyanide
( ) Data Qualified, but Acceptable for use:
( ) Data Unacceptable for Use:

( ) Sewer Disposal Criteria Met;

The portion of samples 94ZB19S01, 94ZB19S02, 94ZB19S03, 94ZB19S05, 94ZB19S06, 94ZB19S08, and 94ZB19R07 which were collected and analyzed for mercury should be disposed of in a drum. The acid/dichromate preservative used is toxic.

The portion of samples 94ZB19S01, 94ZB19S02, 94ZB19S03, 94ZB19S05, 94ZB19S06, 94ZB19S08, and 94ZB19R07 which were collected and analyzed for Cyanide are preserved with sodium hydroxide. All the samples should be neutralized prior to disposal down the drain. The concentration of Cyanide in those samples are less than detection.

Comments on Data Quality by Reviewer:

All the Mercury and Cyanide results are acceptable for use.

Comments by Laboratory Director or Quality Control Coordinator:

Francis A. Awanya 11/1/94

Team Leader and Date (X) Reviewed ( ) Unreviewed

Charles J. Elbz

Section Chief and Date (✓) Reviewed ( ) Unreviewed

Charles J. Elbz

QC Coordinator and Date (✓) Reviewed ( ) Unreviewed

Sylvia Griffin NOV01 1994

Data Management Coordinator and Date Received

Date Transmitted NOV01 1994

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
SL - 10C

Received by and Date

Comments:

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 31-OCT-94

Sample Organization: **B & V**
Sample Requestor: **B & V**
Laboratory: **ESAT**

Sample Batch ID: **940152**
Account NO: **TFA301**
Facility: **ALCO STEEL**

Sample: **94ZB19R07**

Field: **94ZB19R07**

Collected: **21-SEP-94 /**

Received: **22-SEP-94**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide	5	(ug/L)	U	27-SEP-94	J. Rollin
Mercury	0.1	(ug/L)	U	28-SEP-94	J. Rollin

Reviewed by : Francis A. Amonya 11/1/94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 31-OCT-94

Sample Organization: **B & V**
Sample Requestor: **B & V**
Laboratory: **ESAT**

Sample Batch ID: **940152**
Account NO: **TFA301**
Facility: **ALCO STEEL**

Sample: **94ZB19S01**

Field: **94ZB19S01**

Collected: **21-SEP-94 /**

Received: **22-SEP-94**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide	5	(ug/L)	U	27-SEP-94	J. Rodh
Mercury	0.1	(ug/L)	U	28-SEP-94	J. Rodh

Reviewed by : Francis A. Awanga 11/1/94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 31-OCT-94

Sample Organization: **B & V**
Sample Requestor: **B & V**
Laboratory: **ESAT**

Sample Batch ID: **940152**
Account NO: **TFA301**
Facility: **ALCO STEEL**

Sample: **94ZB19S02**

Field: **94ZB19S02**

Collected: **21-SEP-94 /**

Received: **22-SEP-94**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide	5	(ug/L)	U	27-SEP-94	J. Rollin
Mercury	0.1	(ug/L)	U	28-SEP-94	J. Rollin

Reviewed by : Francis A. Awanga 11/1/94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 31-OCT-94

Sample Organization: **B & V**
Sample Requestor: **B & V**
Laboratory: **ESAT**

Sample Batch ID: **940152**
Account NO: **TFA301**
Facility: **ALCO STEEL**

Sample: **94ZB19S03**

Field: **94ZB19S03**

Collected: **21-SEP-94 /**

Received: **22-SEP-94**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide	5	(ug/L)	U	27-SEP-94	J. Rodlin
Mercury	0.1	(ug/L)	U	28-SEP-94	J. Rodlin

Reviewed by : Francis A. Awanya 11/1/94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 31-OCT-94

Sample Organization: **B & V**
Sample Requestor: **B & V**
Laboratory: **ESAT**

Sample Batch ID: **940152**
Account NO: **TFA301**
Facility: **ALCO STEEL**

Sample: **94ZB19S05**

Field: **94ZB19S05**

Collected: **21-SEP-94 /**

Received: **22-SEP-94**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide	5	(ug/L)	U	27-SEP-94	J. Rodlin
Mercury	0.1	(ug/L)	U	28-SEP-94	J. Rodlin

Reviewed by : Francis A. Arranga 11/1/94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 31-OCT-94

Sample Organization: **B & V**
Sample Requestor: **B & V**
Laboratory: **ESAT**

Sample Batch ID: **940152**
Account NO: **TFA301**
Facility: **ALCO STEEL**

Sample: **94ZB19S06**

Field: **94ZB19S06**

Collected: **21-SEP-94 /**

Received: **22-SEP-94**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide	5	(ug/L)	U	27-SEP-94	J. Rodlin
Mercury	0.1	(ug/L)	U	28-SEP-94	J. Rodlin

Reviewed by : Francis A. Awanya 11/1/94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS

Report produced on: 31-OCT-94

Sample Organization: **B & V**
Sample Requestor: **B & V**
Laboratory: **ESAT**

Sample Batch ID: **940152**
Account NO: **TFA301**
Facility: **ALCO STEEL**

Sample: **94ZB19S08**

Field: **94ZB19S08**

Collected: **21-SEP-94 /**

Received: **22-SEP-94**

Parameter	Result	(Units)	QUALIFIERS	Anal. Date	Analyst
Cyanide	5	(ug/L)	U	27-SEP-94	J. Rodlin
Mercury	0.1	(ug/L)	U	28-SEP-94	J. Rodlin

Reviewed by : Francis A. Arranza 11/1/94

ESAT-5-014.6

LOCKHEED ESAT CONTRACT
DATA SET CUSTODY TRANSFER FORM

DATA SET NUMBER 940152 CHARGE NUMBER 233-51-187

SITE NAME: Alco Steel Service TID NUMBER 0594-0906

PARAMETER: CN MATRIX: Water

SF DU/ACT NO: TFA 301 Y _____ /C _____

SAMPLE NUMBERS: 94ZB19501-503, 505-506, 508 & 94ZB19R07

NUMBER OF SAMPLES: 7

ESAT APPROVALS:

J. Redlin	9/29/94	Timothy J. Mazzara	9/29/94
Analyst	Date	Task Group Leader	Date
Lewis Kray	9/30/94	Dennis Miller	9-30-94
QA/QC Coordinator	Date	ESAT Team Manager	Date

COMMENTS: _____

The above identified data set was transferred from ESAT custody to the custody of the U.S. EPA Region V Central Regional Laboratory in its entirety on the indicated date relinquished.

James Redlin	9/30/94	Francis A. Awanya	9/30/94
Relinquished by	Date	Received by	Date

EPA APPROVALS:

Francis A. Awanya	10/19/94
EPA Task Monitor	Date

[X] Reviewed
[ ] Unreviewed
[X] Accepted
[ ] Rejected
[ ] Returned: _____ Date

COMMENTS: _____

_____ Section Chief Date

[ ] Reviewed [ ] Unreviewed

_____ ESAT DPO Date

_____/_____/_____ DATA COORDINATOR/RECD/TRANSMTD

A COPY OF THIS CUSTODY TRANSFER FORM WITH A RECEIVED BY EPA SIGNATURE IS TO BE FILED WITH THE AOC IN THE TID FILE. THE ORIGINAL CUSTODY TRANSFER ACCOMPANIES THE DATA SET TO BE APPROVED BY THE EPA AND A COMPLETED COPY RETURNED TO ESAT.

Data Set: 940152 **Site Name:** ALCO STEEL SERVICE

Date Generated: 09-27-94 **Method Number:** EPA 335.3 NS

Charge Number: 233-51-187 **TID Number:** 05-94-09-06

Author: JAMES REDLIN

CASE NARRATIVE

CYANIDE ANALYSES:

There were no problems in the analyses of the 7 water samples from data set 940152 [94ZB19S01, 94ZB19S02, 94ZB19S03, 94ZB19S05, 94ZB19S06, 94ZB19R07 and 94ZB19S08] for Cyanide.

All samples were assayed within the holding time for cyanide and the sample results are acceptable.

The CN concentration for the performance evaluation sample PE-578 is 720 µg/L.

Reviewed by: James Redlin Lockheed/ESAT
Date: 9/27/94

FBA 10/19/94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS
Report Produced On: 28-SEP-94

Sample Organization: **B & V**
Sample Requestor: **B & V**
Laboratory: **ESAT**

Sample Batch ID: **940152**
Account No: **TFA301**
Facility: **ALCO STEEL**

Parameter	Sample Id	Collected	Received	Result	Units	Qualifier	Anal. Date	Analyst
Cyanide	94ZB19R07	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rodlin
Cyanide	94ZB19S01	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rodlin
Cyanide	94ZB19S02	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rodlin
Cyanide	94ZB19S03	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rodlin
Cyanide	94ZB19S05	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rodlin
Cyanide	94ZB19S06	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rodlin
Cyanide	94ZB19S08	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rodlin

Reviewed By: _____

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS
Report Produced On: 28-SEP-94

J. Rodlin 9/29/94

Sample Organization: **B & V**
Sample Requestor: **B & V**
Laboratory: **ESAT**

Sample Batch ID: **940152**
Account No: **TFA301**
Facility: **ALCO STEEL**

Parameter	Sample Id	Collected	Received	Result	Units	Qualifier	Anal. Date	Analyst
Cyanide	94ZB19R07	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rodlin
Cyanide	94ZB19S01	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rodlin
Cyanide	94ZB19S02	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rodlin
Cyanide	94ZB19S03	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rodlin
Cyanide	94ZB19S05	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rodlin
Cyanide	94ZB19S06	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rodlin
Cyanide	94ZB19S08	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rodlin

Reviewed By: _____

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS
Report Produced On: 28-SEP-94

J. Rollin 9/29/94

Sample Organization: B & V
Sample Requestor: B & V
Laboratory: ESAT

Sample Batch ID: 940152
Account No: TFA301
Facility: ALCO STEEL

Parameter	Sample Id	Collected	Received	Result	Units	Qualifier	Anal. Date	Analyst
Cyanide	94ZB19R07	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rollin
Cyanide	94ZB19S01	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rollin
Cyanide	94ZB19S02	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rollin
Cyanide	94ZB19S03	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rollin
Cyanide	94ZB19S05	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rollin
Cyanide	94ZB19S06	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rollin
Cyanide	94ZB19S08	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	J. Rollin

Reviewed By: _____

J. Redlin 9/27/94

* REGRESSION ANALYSIS * CSC VERSION 2.00 *

NAME OF ANALYST ---: J REDLIN
PARAMETER NAME ----: CN
DATE OF ANALYSIS --: 09-27-1994

DATA SET NUMBER ---: 940152
DU NUMBER ---------: TFA 301

DEGREE OF FIT : 1

EQUATION : CONCENTRATION = -4.67278E-01
+6.42116E-01 * SIGNAL

COEFFICIENT OF DETERMINATION : .9996524

T-A-B-L-E O-F S-T-A-N-D-A-R-D-S

STANDARD	SIGNAL	CONCENTRATION, µg/L	CALCULATED
1	+1.500	+0.000	+0.495
2	+8.400	+5.000	+4.926
3	+15.900	+10.000	+9.742
4	+39.000	+25.000	+24.575
5	+79.000	+50.000	+50.259

T-A-B-L-E O-F S-A-M-P-L-E-S

SAMPLE I.D.	SIGNAL	DILUTION FACTOR	CONCENTRATION, µg/L		Limits µg/L	
BLANK	+0.500		-0.147		0±5	
BLANK	+0.000		-0.468		0±5	
AQC 5	+7.000		+4.027 rec=4		positive results	
AQC 20	+31.200		+19.566 rec=20		20±5	
94ZB19S01	+1.000		+0.174 5u			940152
94ZB19S01 LAB DUP	+0.800		+0.046	Δ=0.12	Δ<5	
94ZB19S01 LAB SPK	+25.500		+15.906	R=79.6%	100±25%	
94ZB19S02	+3.000		+1.459 5u			
94ZB19S03	+0.000		-0.468 5u			
94ZB19S05	+0.000		-0.468 5u			
94ZB19S06	+1.000		+0.174 5u			
94ZB19R07	+0.200		-0.339 5u			
94ZB19S08	+3.000		+1.459 5u			
PE 578	+45.500	25	+28.749	720 µg/L		
BLANK	+0.600		-0.083		0±5	
BLANK	+0.300		-0.275		0±5	
AQC 5	+7.800		+4.541 rec=5		positive results	
AQC 20	+31.500		+19.759 rec=20		20±5	

FAA 10-19-94

CYANIDE AUTO UV METHOD

Element: cyanide

Analyst J. Redlin

Date 9-27-94

Data Set 940152

Pos	ID	Spike	DF	Comment
1	Prim			
2	Prim			
3	Blank			
4	Blank			
5	Standard 0 ug/l			undistilled
6	Standard 5 ug/l			undistilled
7	Standard 10 ug/l			undistilled
8	Standard 25 ug/l			undistilled
9	Standard 50 ug/l			undistilled
10	Blank			
11	Blank			
12	CS 5 ug/l			undistilled
13	CS 20 ug/l			undistilled
14	94ZB19S01			940152
15	94ZB19S01 Dup			Lab dup
16	94ZB19S01 spk	20ug/L		Redo - spiked at wrong level
17	94ZB19S02			940152
18	94ZB19S03			
19	94ZB19S05			
20	94ZB19S06			
21	94ZB19R07			
22	94ZB19S08			
23	94ZB19S01 spk	20ug/L		
24	PE 57B		25	For information only
25	Blank			
26	Blank			
27	CS 5ug/L			undistilled

cn1

FAA 10/19/94

CYANIDE AUTO UV METHOD

Element: cyanide

Analyst J. Rodlin

Date 9-27-94

Data Set 940152

Pos	ID	Spike	DF	Comment
28	CS 20 µg/L			undist. Hcl
29	PE 578		10	off-scale
30	PE 578			off-scale
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
	Start Wheel 2			
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				

cn2

FAA 10/19/94

U.S. Environmental Protection Agency Region V

Superfund Document Management System (SDMS)

Lab Data Reference Sheet

Please contact the Superfund Records Manager for further information.

I. Unscannable item due to format

X Graph

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II. Image Quality (Pages follow / No. of pages ____)

___ Resolution / Contrast

INSTRUMENT RUN REPORT

J. Redlin 9/28/94

28-SEP-94

Instrument Run: **ECN09R5** Instrument Id: **T11** Analyst: **JREDLIN**

Start Date: **27-SEP-94** Template: **335.3NSTEMPL**
End Date: **27-SEP-94** Source:

Event: **1** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
5			STD0	CYANIDE	1	.495
No	Sample ID	Parameter	Cont Type		Dilute	Result

Event: **2** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
5			STD1	CYANIDE	1	4.926
No	Sample ID	Parameter	Cont Type		Dilute	Result

Event: **3** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
5			STD2	CYANIDE	1	9.742
No	Sample ID	Parameter	Cont Type		Dilute	Result

Event: **4** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
5			STD3	CYANIDE	1	25.575
No	Sample ID	Parameter	Cont Type		Dilute	Result

Event: **5** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
5			STD4	CYANIDE	1	50.259
No	Sample ID	Parameter	Cont Type		Dilute	Result

PRA 10/19/94

INSTRUMENT RUN REPORT

J. Redlin 9/28/94

28-SEP-94

Instrument Run: **ECN09R5** Instrument Id: **T11** Analyst: **JREDLIN**

Start Date: **27-SEP-94** Template: **335.3NSTEMPL**
End Date: **27-SEP-94** Source:

Event: **6** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
5			LRB	CYANIDE	1	5 U
No	Sample ID	Parameter	Cont Type		Dilute	Result

Event: **7** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
5			LRB	CYANIDE	1	5 U
No	Sample ID	Parameter	Cont Type		Dilute	Result

Event: **8** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
5			LCML	CYANIDE	1	4.03
No	Sample ID	Parameter	Cont Type		Dilute	Result

Event: **9** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
5			LCMH	CYANIDE	1	19.6
No	Sample ID	Parameter	Cont Type		Dilute	Result

Event: **10** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
5	94ZB19S02	CYANIDE	SAM	CYANIDE	1	5 U
No			Cont Type	Prompt	Dilute	Result
No	Sample ID	Parameter	Cont Type		Dilute	Result

FAA 10/19/94

INSTRUMENT RUN REPORT

J. Redlin 9/28/94

28-SEP-94

Instrument Run: **ECN09R5** Instrument Id: **T11** Analyst: **JREDLIN**

Start Date: **27-SEP-94** Template: **335.3NSTEMPL**
End Date: **27-SEP-94** Source:

Event: **11** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
5	94ZB19S03	CYANIDE	SAM	CYANIDE	1	5 U

No	Cont Type	Prompt	Dilute	Result

No	Sample ID	Parameter	Cont Type	Dilute	Result

Event: **12** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
5	94ZB19S01	CYANIDE	SAM	CYANIDE	1	5 U

No	Cont Type	Prompt	Dilute	Result

No	Sample ID	Parameter	Cont Type	Dilute	Result

Event: **13** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
5	94ZB19S01	CYANIDE	LD1	CYANIDE	1	5 U
6	94ZB19S01	CYANIDE	LD1	CYANIDE ABSOLUTE DIFFERENCE	1	0.128

No	Cont Type	Prompt	Dilute	Result

No	Sample ID	Parameter	Cont Type	Dilute	Result

Event: **14** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
5	94ZB19S01	CYANIDE	LF2	CYANIDE	1	15.9
7	94ZB19S01	CYANIDE	LF2	CYANIDE SPIKE RECOVERY	1	79.5

No	Cont Type	Prompt	Dilute	Result

No	Sample ID	Parameter	Cont Type	Dilute	Result

FAA 10/19/94

INSTRUMENT RUN REPORT

28-SEP-94

J. Redlin 9/28/94

Instrument Run: **ECN09R5** Instrument Id: **T11** Analyst: **JREDLIN**

Start Date: **27-SEP-94** Template: **335.3NSTEMPL**
End Date: **27-SEP-94** Source:

Event: **15** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
5	94ZB19S05	CYANIDE	SAM	CYANIDE	1	5 U

No	Cont Type	Prompt	Dilute	Result

No	Sample ID	Parameter	Cont Type	Dilute	Result

Event: **16** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
5	94ZB19S06	CYANIDE	SAM	CYANIDE	1	5 U

No	Cont Type	Prompt	Dilute	Result

No	Sample ID	Parameter	Cont Type	Dilute	Result

Event: **17** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
5	94ZB19R07	CYANIDE	SAM	CYANIDE	1	5 U

No	Cont Type	Prompt	Dilute	Result

No	Sample ID	Parameter	Cont Type	Dilute	Result

Event: **18** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
5	94ZB19S08	CYANIDE	SAM	CYANIDE	1	5 U

No	Cont Type	Prompt	Dilute	Result

No	Sample ID	Parameter	Cont Type	Dilute	Result

Event: **19** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result

No	Cont Type	Prompt	Dilute	Result
5	LRB	CYANIDE	1	5 U

No	Sample ID	Parameter	Cont Type	Dilute	Result

FAA 10/19/94

INSTRUMENT RUN REPORT

J. Redlin 9/28/94

28-SEP-94

Instrument Run: **ECN09R5** Instrument Id: **T11** Analyst: **JREDLIN**

Start Date: **27-SEP-94** Template: **335.3NSTEMPL**
End Date: **27-SEP-94** Source:

Event: **20** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
5			LRB	CYANIDE	1	5 U
No	Sample ID	Parameter	Cont Type		Dilute	Result

Event: **21** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
5			LCML	CYANIDE	1	4.54
No	Sample ID	Parameter	Cont Type		Dilute	Result

Event: **22** Method: **335.3NS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
5			LCMH	CYANIDE	1	19.8
No	Sample ID	Parameter	Cont Type		Dilute	Result

FHF 10/19/94

J. Redlin 9/29/94

9/26/94 CN water 940152

make up

Distillation reagent
Pyridine - barbituric acid sol
sampler wash
Chloramine - T
Phos. Buffer

Sample	pH	Cl	Sulfide
94ZB19501	>12	negative	negative
94ZB19502	↓	↓	↓
94ZB19503			
94ZB19505			
94ZB19506			
94ZB19R07			
94ZB19508			
PE ~~576~~ 578			

JR 9/26/94

J. Redlin
9/26/94

FOB 10/14/94

J. Redlin 9/27/94
J. Redlin 9/29/94

* REGRESSION ANALYSIS * CSC VERSION 2.00 *

NAME OF ANALYST ---: J REDLIN
PARAMETER NAME ----: CN
DATE OF ANALYSIS --: 09-27-1994

DATA SET NUMBER ---: 940152
DU NUMBER ---------: TFA 301

DEGREE OF FIT : 1

EQUATION : CONCENTRATION = -4.67278E-01
+6.42116E-01 * SIGNAL

COEFFICIENT OF DETERMINATION : .9996524

T-A-B-L-E O-F S-T-A-N-D-A-R-D-S

STANDARD	SIGNAL	CONCENTRATION, µg/L	CALCULATED
1	+1.500	+0.000	+0.495
2	+8.400	+5.000	+4.926
3	+15.900	+10.000	+9.742
4	+39.000	+25.000	+24.575
5	+79.000	+50.000	+50.259

T-A-B-L-E O-F S-A-M-P-L-E-S

SAMPLE I.D.	SIGNAL	DILUTION FACTOR	CONCENTRATION, µg/L		Limits µg/L
BLANK	+0.500		-0.147		0±5
BLANK	+0.000		-0.468		0±5
AQC 5	+7.000		+4.027 rec=4		positive results
AQC 20	+31.200		+19.566 rec=20		20±5
94ZB19S01	+1.000		+0.174 5u		940152
94ZB19S01 LAB DUP	+0.800		+0.046	Δ=0.12	Δ<5
94ZB19S01 LAB SPK	+25.500		+15.906	R=79.6%	100±25%
94ZB19S02	+3.000		+1.459 5u		
94ZB19S03	+0.000		-0.468 5u		
94ZB19S05	+0.000		-0.468 5u		
94ZB19S06	+1.000		+0.174 5u		
94ZB19R07	+0.200		-0.339 5u		
94ZB19S08	+3.000		+1.459 5u		
PE 578	+45.500	25	+28.749	720 µg/L	
BLANK	+0.600		-0.083		0±5
BLANK	+0.300		-0.275		0±5
AQC 5	+7.800		+4.541 rec=5		positive results
AQC 20	+31.500		+19.759 rec=20		20±5

FAA 10/19/94

J. Rodlin 9/29/94

CYANIDE AUTO UV METHOD

Element: cyanide

Analyst J. Rodlin

Date 9-27-94

Data Set 940152

Pos	ID	Spike	DF	Comment
1	Prim			
2	Prim			
3	Blank			
4	Blank			
5	Standard 0 ug/l			undistilled
6	Standard 5 ug/l			undistilled
7	Standard 10 ug/l			undistilled
8	Standard 25 ug/l			undistilled
9	Standard 50 ug/l			undistilled
10	Blank			
11	Blank			
12	CS 5 ug/l			undistilled
13	CS 20 ug/l			undistilled
14	94ZB19S01			940152
15	94ZB19S01 Dup			Lab dup
16	94ZB19S01 spk	20ug/L		Redo - spiked at wrong level
17	94ZB19S02			940152
18	94ZB19S03			
19	94ZB19S05			
20	94ZB19S06			
21	94ZB19R07			
22	94ZB19S08			
23	94ZB19S01 spk	20ug/L		
24	PE 578		25	For information only
25	Blank			
26	Blank			
27	CS 5ug/L			undistilled

cn1

FOB 10/19/94

J. Rodlin 9/29/94

CYANIDE AUTO UV METHOD

Element: cyanide

Analyst J. Rodlin

Date 9-27-94

Data Set 940152

Pos	ID	Spike	DF	Comment
28	CS 20 µg/L			undistilled
29	PE 578		10	off-scale
30	PE 578			off-scale
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
	Start Wheel 2			
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				

cn2

F 10/19/94

J. Redli 9/29/94 046

9/26/94 CN water 940152

make up

Distillation reagent
Pyridine - barbituric acid sol
sampler wash
Chloramine - T
Phos. Buffer

Sample	pH	Cl	Sulfide
94ZB19501	>12	negative	negative
94ZB19502	↓	↓	↓
94ZB19503	↓	↓	↓
94ZB19505	↓	↓	↓
94ZB19506	↓	↓	↓
94ZB19R07	↓	↓	↓
94ZB19508	↓	↓	↓
PE ~~576~~ 578 JR 9/26/94	↓	↓	↓

J. Redli
9/26/94

FWA 10/19/94

LOCKHEED ESAT CONTRACT
DATA SET CUSTODY TRANSFER FORM

DATA SET NUMBER 940152 CHARGE NUMBER 233-51-187

SITE NAME: Alco Steel Service TID NUMBER 05 94-0906

PARAMETER: Hg MATRIX: water

SF DU/ACT NO: TFA 301 Y ____ /C ____

SAMPLE NUMBERS: 94ZB19501-503, 505-506 & 508 & 94ZB19R07

NUMBER OF SAMPLES: 7

ESAT APPROVALS:

J. Rodlin	9/29/94	Timothy J. Mazaros	9/29/94
Analyst	Date	Task Group Leader	Date
Lewis Kranz	9/30/94	Dennis Mellen	9-30-94
QA/QC Coordinator	Date	ESAT Team Manager	Date

COMMENTS: ____

The above identified data set was transferred from ESAT custody to the custody of the U.S. EPA Region V Central Regional Laboratory in its entirety on the indicated date relinquished.

James Rodlin	9/30/94	Francis A. Awanya	9/30/94
Relinquished by	Date	Received by	Date

EPA APPROVALS:

Francis A. Awanya 10/19/94
EPA Task Monitor Date

[X] Reviewed
[ ] Unreviewed
[X] Accepted
[ ] Rejected
[ ] Returned: ____ Date

COMMENTS: ____

Section Chief Date

[ ] Reviewed [ ] Unreviewed

ESAT DPO Date

____/____/____
DATA COORDINATOR/RECD/TRANSMTD

A COPY OF THIS CUSTODY TRANSFER FORM WITH A RECEIVED BY EPA SIGNATURE IS TO BE FILED WITH THE AOC IN THE TID FILE. THE ORIGINAL CUSTODY TRANSFER ACCOMPANIES THE DATA SET TO BE APPROVED BY THE EPA AND A COMPLETED COPY RETURNED TO ESAT.

Data Set: 940152 **Site Name:** ALCO STEEL SERVICE

Date Generated: 09-28-94 **Method Number:** EPA 245.2 DNS

Charge Number: 233-51-187 **TID Number:** 05-94-09-06

Author: JAMES REDLIN

CASE NARRATIVE

MERCURY ANALYSES:

There were no problems in the analyses of the 7 water samples from data set 940152 [94ZB19S01, 94ZB19S02, 94ZB19S03, 94ZB19S05, 94ZB19S06, 94ZB19R07 and 94ZB19S08] for Mercury.

There were no separate chromium preserved samples sent for mercury analyses. On 9/23/94, from the total metals sample, the analyst transferred a 300 ml aliquot into a clean, rinsed 500 ml polyethylene bottle. A chromium-nitric acid preservative solution was then added to the sample, which was set aside for at least 24 hours before analyses.

All samples were assayed within the holding time for mercury and the sample results are acceptable.

FAA 10/19/94

Reviewed by: James Redlin Lockheed/ESAT
Date: 9/28/94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS
Report Produced On: 29-SEP-94

J. Rodlin 9/29/94

Sample Organization: **B & V**
Sample Requestor: **B & V**
Laboratory: **ESAT**

Sample Batch ID: **940152**
Account No: **TFA301**
Facility: **ALCO STEEL**

Parameter	Sample Id	Collected	Received	Result	Units	Qualifier	Anal. Date	Analyst
Cyanide	94ZB19R07	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19R07	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin
Cyanide	94ZB19S01	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19S01	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin
Cyanide	94ZB19S02	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19S02	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin
Cyanide	94ZB19S03	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19S03	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin
Cyanide	94ZB19S05	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19S05	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin
Cyanide	94ZB19S06	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19S06	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin
Cyanide	94ZB19S08	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19S08	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin

pm1#0503

Reviewed By: _____

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS J. Rodlin 9/29/94
Report Produced On: 29-SEP-94

Sample Organization: **B & V**
Sample Requestor: **B & V**
Laboratory: **ESAT**

Sample Batch ID: **940152**
Account No: **TFA301**
Facility: **ALCO STEEL**

Parameter	Sample Id	Collected	Received	Result	Units	Qualifier	Anal. Date	Analyst
Cyanide	94ZB19R07	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19R07	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin
Cyanide	94ZB19S01	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19S01	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin
Cyanide	94ZB19S02	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19S02	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin
Cyanide	94ZB19S03	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19S03	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin
Cyanide	94ZB19S05	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19S05	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin
Cyanide	94ZB19S06	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19S06	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin
Cyanide	94ZB19S08	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19S08	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin

pm1#0503

Reviewed By: _____

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT for the team: MINERALS-NUTRIENTS
Report Produced On: 29-SEP-94

Sample Organization: **B & V**
Sample Requestor: **B & V**
Laboratory: **ESAT**

Sample Batch ID: **940152**
Account No: **TFA301**
Facility: **ALCO STEEL**

Parameter	Sample Id	Collected	Received	Result	Units	Qualifier	Anal. Date	Analyst
Cyanide	94ZB19R07	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19R07	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin
Cyanide	94ZB19S01	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19S01	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin
Cyanide	94ZB19S02	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19S02	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin
Cyanide	94ZB19S03	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19S03	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin
Cyanide	94ZB19S05	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19S05	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin
Cyanide	94ZB19S06	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19S06	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin
Cyanide	94ZB19S08	21-SEP-94	22-SEP-94	5 U	ug/L	U	27-SEP-94	
Mercury	94ZB19S08	21-SEP-94	22-SEP-94	0.1	ug/L	U	28-SEP-94	J. Rodlin

pm1#0503

Reviewed By: _____

J. Redlin 9/29/94
J. Redlin 9/29/94

* REGRESSION ANALYSIS * CSC VERSION 2.00 *

NAME OF ANALYST ---: J REDLIN
PARAMETER NAME ----: Hg JR 9/29/94
DATE OF ANALYSIS --: ~~09-29-1994~~ 09-28-1994

DATA SET NUMBER ---: 940152
DU NUMBER ---------: TFA 301

DEGREE OF FIT : 1

EQUATION : CONCENTRATION = -2.24700E-02
+3.34141E-02 * SIGNAL

COEFFICIENT OF DETERMINATION : .9997486

T-A-B-L-E O-F S-T-A-N-D-A-R-D-S

STANDARD	SIGNAL	CONCENTRATION, µg/L	CALCULATED
1	+0.900	+0.000	+0.007
2	+15.200	+0.500	+0.485
3	+31.000	+1.000	+1.013
4	+45.200	+1.500	+1.487
5	+60.700	+2.000	+2.005

T-A-B-L-E O-F S-A-M-P-L-E-S

SAMPLE I.D.	SIGNAL	CONCENTRATION, µg/L		Limits µg/L	
BLANK	+1.800	+0.037		<0.1	
CS-1 ORGANIC	+43.500	+1.431 rec=1.4		1.5±0.2	
CS-2 INORGANIC	+43.300	+1.424 rec=1.4		1.5±0.2	
94ZB19S01	+2.400	+0.057 0.1u			940152
94ZB19S01 LAB DUP	+1.000	+0.010	Δ=0.05		
94ZB19S01 LAB SPK	+27.900	+0.909	R=90.9%		
94ZB19S02	+1.600	+0.030 0.1u			
94ZB19S03	+0.500	-0.006 0.1u			
94ZB19S05	+0.300	-0.013 0.1u			
BLANK	+0.800	+0.004		<0.1	
CS-1 ORGANIC	+44.600	+1.467 rec=1.5		1.5±0.2	
CS-2 INORGANIC	+43.000	+1.414 rec=1.4		1.5±0.2	
BLANK	+0.800	+0.004		<0.1	
CS-1 ORGANIC	+42.800	+1.407 rec=1.4		1.5±0.2	
CS-2 INORGANIC	+41.200	+1.354 rec=1.4		1.5±0.2	
94ZB19S06	+1.100	+0.014 0.1u			940152
94ZB19R07	+0.400	-0.010 0.1u			
94ZB19S08	+1.000	+0.010 0.1u			
BLANK	+1.000	+0.010		<0.1	
CS-1 ORGANIC	+44.700	+1.471 rec=1.5		1.5±0.2	
CS-2 INORGANIC	+43.600	+1.434 rec=1.4		1.5±0.2	

FAT 10/19/94

J. Redlin 9/29/94

MERCURY by AUTOMATED COLD VAPOR

Element: mercury **Analyst** J. Redlin

Date 9/28/94 **Data Set** 940152

Pos	ID	Spike	DF	Comment
1	Standard 0 ug/l			
2	Standard 0 ug/l			
3	Standard 0.5 ug/l			
4	Standard 0.5 ug/l			
5	Standard 1.0 ug/l			
6	Standard 1.0 ug/l			
7	Standard 1.5 ug/l			
8	Standard 1.5 ug/l			
9	Standard 2.0 ug/l			
10	Standard 2.0 ug/l			
11	Blank			
12	Blank			
13	CS-1 -organic			1.5 ug/l
14	CS-1 -organic			1.5 ug/l
15	CS-2 -inorganic			1.5 ug/l
16	CS-2 -inorganic			1.5 ug/l
17	94ZB19S01			940152
18	94ZB19S01			
19	94ZB19S01 Dup			Lab dup
20	94ZB19S01 Dup			Lab dup
21	94ZB19S01 spk	1.0 µg/L		Lab spike
22	94ZB19S01 spk	1.0 µg/L		Lab spike
23	94ZB19S02			
24	94ZB19S02			
25	94ZB19S03			FA 10/14/94
26	94ZB19S03			
27	94ZB19S05			

hgl

J. Rollin 9/29/94

MERCURY by AUTOMATED COLD VAPOR
Waters

Element: mercury

Analyst J. Rollin

Date 9/28/94

Data Set 940152

Pos	ID	Spike	DF	Pk Ht	Comment
28	94ZB19 S05				940152
29	Blank				
30	Blank				
31	CS-1 organic				1.5 ug/L
32	CS-1 organic				1.5 ug/L
33	CS-2 inorganic				1.5 ug/L
34	CS-2 inorganic				1.5 ug/L
35	94ZB19 S06				Do not use
36	94ZB19 S06				Do not use
37	94ZB19 R07				Do not use
38	94ZB19 R07				Do not use
39	94ZB19 S08				Do not use
40	94ZB19 S08				Do not use
Start Wheel 2					
1	Blank				Base line readjusted
2	Blank				
3	CS-1 organic				
4	CS-1 organic				
5	CS-2 inorganic				
6	CS-2 inorganic				
7	94ZB19S06				940152
8	94ZB19 S06				
9	94ZB19 R07				
10	94ZB19 R07				
11	94ZB19 S08				
12	94ZB19 S08				
13	Blank				

hg4

FAA 10/19/94

J. Rodlin 9/29/94

MERCURY- AUTO UV METHOD

Element: Mercury

Analyst J. Rodlin

Date 9/28/94

Data Set 940152

Pos	ID	Spike	DF	Comment
14	Blank			
15	CS-1 organic			1.5 ug/L
16	CS-1 organic			1.5 ug/L
17	CS-2 inorganic			1.5 ug/L
18	CS-2 inorganic			1.5 ug/L
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				

FBB 10/19/94

J. Redlin 9/29/94

* REGRESSION ANALYSIS * CSC VERSION 2.00 *

NAME OF ANALYST ---: J REDLIN
PARAMETER NAME ----: Hg JR 9/29/94
DATE OF ANALYSIS --: ~~09-29-1994~~ 09-28-1994

DATA SET NUMBER ---: 940152
DU NUMBER ---------: TFA 301

DEGREE OF FIT : 1

EQUATION : CONCENTRATION = -2.24700E-02
+3.34141E-02 * SIGNAL

COEFFICIENT OF DETERMINATION : .9997486

T-A-B-L-E O-F S-T-A-N-D-A-R-D-S

STANDARD	SIGNAL	CONCENTRATION, µg/L	CALCULATED
1	+0.900	+0.000	+0.007
2	+15.200	+0.500	+0.485
3	+31.000	+1.000	+1.013
4	+45.200	+1.500	+1.487
5	+60.700	+2.000	+2.005

T-A-B-L-E O-F S-A-M-P-L-E-S

SAMPLE I.D.	SIGNAL	CONCENTRATION, µg/L		Limits µg/L	
BLANK	+1.800	+0.037		<0.1	
CS-1 ORGANIC	+43.500	+1.431 rec=1.4		1.5±0.2	
CS-2 INORGANIC	+43.300	+1.424 rec=1.4		1.5±0.2	
94ZB19S01	+2.400	+0.057 0.1u			940152
94ZB19S01 LAB DUP	+1.000	+0.010	Δ=0.05		
94ZB19S01 LAB SPK	+27.900	+0.909	R=90.9%		
94ZB19S02	+1.600	+0.030 0.1u			
94ZB19S03	+0.500	-0.006 0.1u			
94ZB19S05	+0.300	-0.013 0.1u			
BLANK	+0.800	+0.004		<0.1	
CS-1 ORGANIC	+44.600	+1.467 rec=1.5		1.5±0.2	
CS-2 INORGANIC	+43.000	+1.414 rec=1.4		1.5±0.2	
BLANK	+0.800	+0.004		<0.1	
CS-1 ORGANIC	+42.800	+1.407 rec=1.4		1.5±0.2	
CS-2 INORGANIC	+41.200	+1.354 rec=1.4		1.5±0.2	
94ZB19S06	+1.100	+0.014 0.1u			940152
94ZB19R07	+0.400	-0.010 0.1u			
94ZB19S08	+1.000	+0.010 0.1u			
BLANK	+1.000	+0.010		<0.1	
CS-1 ORGANIC	+44.700	+1.471 rec=1.5		1.5±0.2	
CS-2 INORGANIC	+43.600	+1.434 rec=1.4		1.5±0.2	

FAA 10/19/94

MERCURY by AUTOMATED COLD VAPOR

Element: mercury

Analyst J. Redlin

Date 9/28/94

Data Set 940152

Pos	ID	Spike	DF	Comment
1	Standard 0 ug/l			
2	Standard 0 ug/l			
3	Standard 0.5 ug/l			
4	Standard 0.5 ug/l			
5	Standard 1.0 ug/l			
6	Standard 1.0 ug/l			
7	Standard 1.5 ug/l			
8	Standard 1.5 ug/l			
9	Standard 2.0 ug/l			
10	Standard 2.0 ug/l			
11	Blank			
12	Blank			
13	CS-1 -organic			1.5 ug/l
14	CS-1 -organic			1.5 ug/l
15	CS-2 -inorganic			1.5 ug/l
16	CS-2 -inorganic			1.5 ug/l
17	94ZB19S01			940152
18	94ZB19S01			
19	94ZB19S01 Dup			Lab dup
20	94ZB19S01 Dup			Lab dup
21	94ZB19S01 spk	1.0 µg/l		Lab spike
22	94ZB19S01 spk	1.0 µg/l		Lab spike
23	94ZB19S02			
24	94ZB19S02			
25	94ZB19S03			
26	94ZB19S03			
27	94ZB19S05			

hgl

FAA 10/19/94

MERCURY by AUTOMATED COLD VAPOR
Waters

Element: mercury

Analyst J. Rollin

Date 9/28/94

Data Set 940152

Pos	ID	Spike	DF	Pk Ht	Comment
28	94ZB19 S05				940152
29	Blank				
30	Blank				
31	CS-1 organic				1.5 ug/L
32	CS-1 organic				1.5 ug/L
33	CS-2 inorganic				1.5 ug/L
34	CS-2 inorganic				1.5 ug/L
35	94ZB19 S06				Do not use
36	94ZB19 S06				Do not use
37	94ZB19 R07				Do not use
38	94ZB19 R07				Do not use
39	94ZB19 S08				Do not use
40	94ZB19 S08				Do not use
	Start Wheel 2				
1	Blank				Base line readjusted
2	Blank				
3	CS-1 organic				
4	CS-1 organic				
5	CS-2 inorganic				
6	CS-2 inorganic				
7	94ZB19 S06				940152
8	94ZB19 S06				
9	94ZB19 R07				
10	94ZB19 R07				
11	94ZB19 S08				
12	94ZB19 S08				
13	Blank				

hg4

FOA 10/19/94

MERCURY- AUTO UV METHOD

Element: Mercury

Analyst J. Rodlin

Date 9/28/94

Data Set 940152

Pos	ID	Spike	DF	Comment
14	Blank			
15	CS-1 organic			1.5 ug/L
16	CS-1 organic			1.5 ug/L
17	CS-2 inorganic			1.5 ug/L
18	CS-2 inorganic			1.5 ug/L
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				

FAA 10/19/94

INSTRUMENT RUN REPORT

29-SEP-94

J. Redlin 9/29/94

Instrument Run: **EHG09R3** Instrument Id: **T1(#1)** Analyst: **JREDLIN**

Start Date: **28-SEP-94** Template: **245.2 DNSTEM**
End Date: **28-SEP-94** Source:

Event: **1** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
1			STD0	MERCURY	1	0.01

No	Sample ID	Parameter	Cont Type	Dilute	Result

Event: **2** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
1			STD1	MERCURY	1	0.48

No	Sample ID	Parameter	Cont Type	Dilute	Result

Event: **3** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
1			STD2	MERCURY	1	1.01

No	Sample ID	Parameter	Cont Type	Dilute	Result

Event: **4** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
1			STD3	MERCURY	1	1.49

No	Sample ID	Parameter	Cont Type	Dilute	Result

Event: **5** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
1			STD4	MERCURY	1	2.00

No	Sample ID	Parameter	Cont Type	Dilute	Result

FAA 10/19/94

INSTRUMENT RUN REPORT

J. Redlin 9/29/94

29-SEP-94

Instrument Run: **EHG09R3** Instrument Id: **T1(#1)** Analyst: **JREDLIN**

Start Date: **28-SEP-94** Template: **245.2 DNSTEM**
End Date: **28-SEP-94** Source:

Event: **6** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
1			LRB	MERCURY	1	0.04
No	Sample ID	Parameter	Cont Type		Dilute	Result

Event: **7** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
1			LCMO	MERCURY	1	1.4
No	Sample ID	Parameter	Cont Type		Dilute	Result

Event: **8** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
1			LCMI	MERCURY	1	1.4
No	Sample ID	Parameter	Cont Type		Dilute	Result

Event: **9** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
1	94ZB19S01	MERCURY	SAM	MERCURY	1	0.1
No			Cont Type	Prompt	Dilute	Result
No	Sample ID	Parameter	Cont Type		Dilute	Result

FAA 10/19/94

INSTRUMENT RUN REPORT

J. Redlin 9/29/94

29-SEP-94

Instrument Run: **EHG09R3** Instrument Id: **T1(#1)** Analyst: **JREDLIN**

Start Date: **28-SEP-94** Template: **245.2 DNSTEM**
End Date: **28-SEP-94** Source:

Event: **10** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
1	94ZB19S01	MERCURY	LD1	MERCURY	1	0.01
2	94ZB19S01	MERCURY	LD1	MERCURY ABSOLUTE DIFFERENCE	1	0.05

No	Cont Type	Prompt	Dilute	Result

No	Sample ID	Parameter	Cont Type	Dilute	Result

Event: **11** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
1	94ZB19S01	MERCURY	LF1	MERCURY	1	0.909
3	94ZB19S01	MERCURY	LF1	MERCURY SPIKE RECOVERY	1	90.9 %

No	Cont Type	Prompt	Dilute	Result

No	Sample ID	Parameter	Cont Type	Dilute	Result

Event: **12** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
1	94ZB19S02	MERCURY	SAM	MERCURY	1	0.1

No	Cont Type	Prompt	Dilute	Result

No	Sample ID	Parameter	Cont Type	Dilute	Result

Event: **13** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
1	94ZB19S03	MERCURY	SAM	MERCURY	1	0.1

No	Cont Type	Prompt	Dilute	Result

No	Sample ID	Parameter	Cont Type	Dilute	Result

FAA 10/19/94

INSTRUMENT RUN REPORT

J. Redlin 9/29/94

29-SEP-94

Instrument Run: **EHG09R3** Instrument Id: **T1(#1)** Analyst: **JREDLIN**

Start Date: **28-SEP-94** Template: **245.2 DNSTEM**
End Date: **28-SEP-94** Source:

Event: **14** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
1	94ZB19S05	MERCURY	SAM	MERCURY	1	0.1

No	Cont Type	Prompt	Dilute	Result

No	Sample ID	Parameter	Cont Type	Dilute	Result

Event: **15** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result

No	Cont Type	Prompt	Dilute	Result
1	LRB	MERCURY	1	0.00

No	Sample ID	Parameter	Cont Type	Dilute	Result

Event: **16** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result

No	Cont Type	Prompt	Dilute	Result
1	LCMO	MERCURY	1	1.5

No	Sample ID	Parameter	Cont Type	Dilute	Result

Event: **17** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result

No	Cont Type	Prompt	Dilute	Result
1	LCMI	MERCURY	1	1.4

No	Sample ID	Parameter	Cont Type	Dilute	Result

Event: **18** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result

No	Cont Type	Prompt	Dilute	Result
1	LRB	MERCURY	1	0.00

No	Sample ID	Parameter	Cont Type	Dilute	Result

FHA 10/19/94

INSTRUMENT RUN REPORT

J. Redlin 9/29/94

29-SEP-94

Instrument Run: **EHG09R3** Instrument Id: **T1(#1)** Analyst: **JREDLIN**

Start Date: **28-SEP-94** Template: **245.2 DNSTEM**
End Date: **28-SEP-94** Source:

Event: **19** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
1			LCMO	MERCURY	1	1.4
No	Sample ID	Parameter	Cont Type		Dilute	Result

Event: **20** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
1			LCMI	MERCURY	1	1.4
No	Sample ID	Parameter	Cont Type		Dilute	Result

Event: **21** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
1	94ZB19S06	MERCURY	SAM	MERCURY	1	0.1
No			Cont Type	Prompt	Dilute	Result
No	Sample ID	Parameter	Cont Type		Dilute	Result

Event: **22** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
1	94ZB19R07	MERCURY	SAM	MERCURY	1	0.1
No			Cont Type	Prompt	Dilute	Result
No	Sample ID	Parameter	Cont Type		Dilute	Result

Event: **23** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
1	94ZB19S08	MERCURY	SAM	MERCURY	1	0.1
No			Cont Type	Prompt	Dilute	Result
No	Sample ID	Parameter	Cont Type		Dilute	Result

FAA 10/19/94

INSTRUMENT RUN REPORT

29-SEP-94

J. Redlin 9/29/94

Instrument Run: **EHG09R3** Instrument Id: **T1(#1)** Analyst: **JREDLIN**

Start Date: **28-SEP-94** Template: **245.2 DNSTEM**
End Date: **28-SEP-94** Source:

Event: **24** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
1			LRB	MERCURY	1	0.01
No	Sample ID	Parameter	Cont Type		Dilute	Result

Event: **25** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
1			LCMO	MERCURY	1	1.5
No	Sample ID	Parameter	Cont Type		Dilute	Result

Event: **26** Method: **245.2 DNS** Default Dilution Factor: **1**

Sample/QC/TIC Results

No	Sample Id	Parameter	Cont Type	Prompt	Dilute	Result
No			Cont Type	Prompt	Dilute	Result
1			LCMI	MERCURY	1	1.4
No	Sample ID	Parameter	Cont Type		Dilute	Result

FAA 10/19/94

U.S. Environmental Protection Agency Region V

Superfund Document Management System (SDMS)

Lab Data Reference Sheet

Please contact the Superfund Records Manager for further information.

I. Unscannable item due to format

X Graph

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___ Resolution / Contrast

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: OCT 1 1 1994

Subject: Review of Region 5 Data for Alco Steel 4TFA05WUZZ

From: Charles T. Elly, Director
Region 5 Central Regional Laboratory

To:

Attached are the results for Alco Steel 4TFA05WUZZ
CRL request number 940152
for analyses for ICP
Results are reported for sample designations: 94ZB10S01, 94ZB10S02, 94ZB10S03, 94ZB10S05, 94ZB10S06, 94ZB10R07 and 94ZB10S08

Results Status:
(x) Acceptable for Use
( ) Data Qualified, but Acceptable for use
( ) Data Unacceptable for Use

(x) Sewer Disposal Criteria Met; Exceptions: Acid preserved samples must be neutralized prior to disposal.

Comments on Data Quality by Reviewer

The nickel channel was drifting in a negative direction. It was restandardized and it was verified that nickel was less than detection in all samples.

Comments by Laboratory Director or Quality Control Coordinator

Review Record for Alco Steel 4TFA05WUZZ

7 Oct 94

Team Leader and Date (X) Reviewed ( ) Unreviewed

Charles J. Elly 10/11/94

Section Chief and Date ( ) Reviewed (X) Unreviewed

Charles J. Elly 10/11/94

QC Coordinator and Date ( ) Reviewed (X) Unreviewed

Sylvia Griffin OCT 11 1994

Data Management Coordinator and Date Received

Date Transmitted OCT 11 1994

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
SL - 10C

Received by and Date

Comments:

LOCKHEED ESAT CONTRACT
DATA SET CUSTODY TRANSFER FORM

DATA SET NUMBER 940152 CHARGE NUMBER 233-51-187

SITE NAME: ALCO STEEL SERVICE TID NUMBER 05-94-04-06

PARAMETER: ICAP METALS MATRIX: WATER

SF DU/ACT NO: TFA 301 Y _____ /C _____

SAMPLE NUMBERS: 94ZB19 S01, S02, S03, S05, S06, R07, S08

NUMBER OF SAMPLES: 7

ESAT APPROVALS:

Analyst	9-29-94 Date	Task Group Leader	9/29/94 Date
QA/QC Coordinator	9/30/94 Date	ESAT Team Manager	9-30-94 Date

COMMENTS: _____

The above identified data set was transferred from ESAT custody to the custody of the U.S. EPA Region V Central Regional Laboratory in its entirety on the indicated date relinquished.

Relinquished by	9/30/94 Date	Received by	30 Sept 94 Date

EPA APPROVALS:

EPA Task Monitor	7 Oct 94 Date

[X] Reviewed
[ ] Unreviewed
[X] Accepted
[ ] Rejected
[ ] Returned: _____ Date

COMMENTS: _____

Section Chief _____ Date

[ ] Reviewed [ ] Unreviewed

ESAT DPO _____ Date

DATA COORDINATOR/RECD/TRANSMTD

A COPY OF THIS CUSTODY TRANSFER FORM WITH A RECEIVED BY EPA SIGNATURE IS TO BE FILED WITH THE AOC IN THE TID FILE. THE ORIGINAL CUSTODY TRANSFER ACCOMPANIES THE DATA SET TO BE APPROVED BY THE EPA AND A COMPLETED COPY RETURNED TO ESAT.

(28)
9-29-94

ESAT-5-007.0

Method Number: _200.7_____ Site Name: Alco Steel Service_
Date Generated: September 28, 1994 Charge Number: _233-51-187____
Author: _Lockheed ESAT_____ TID Number: _05-94-09-06_____

ICAP NARRATIVE

The sample set for data set 940152 consisted of seven water samples: 94BZ19S01, S02, S03, S05, S06, R07, and S08.

These samples were prepared by using CRL microwave digestion methods for all samples.

The TJA 61 ICAP instrument was used along with ICAP analysis run method "WATER1". Analysis run results were stored in the data file named RUN 267.

Per WUD instruction, final sample analysis reports were ones generated from RLIMS information.

RUN 267

As, Cd, and Pb sample results were too low to be reported by ICAP analysis; GFAA results will be used to report As, Cd, and Pb values for the samples.

A total of five sets of instrument QC audit samples were analyzed during the course of RUN 267. Also during the course of the run, three standardizations were performed - the first done prior to running the first set of QC audits, the second done prior to the second set of QC audits, and the third done prior to the fourth set of QC audits.

The main reason for the restandardizations was due to the normally and frequently encountered upward signal response (drift) that once again was experienced for this run. Because of this and the low biased and noisy Ni response at low Ni concentrations, restandardization of the TJA61 was performed as mentioned above.

The remainder of this narrative will not address all of the out-of-control audits noted in the QC delivery package but only those affecting the outcome of the sample analyte values reported in the RLIMS reports.

RUN 267 - continued

Usable analyte data for all ICAP reported sample analytes except for Ba, Be, and Ni was obtained for the samples analyzed between the second and the third sets of QC audits. Out-of-control audit values were found for Ni (-43 µg/L for the third instrument blank check, +5.1 %R for the third mid range QC check); for Ba (+5.5 %R for the third mid range QC check); and for Be (+5.4 %R for the third mid range QC check). Usable sample analyte data for Ba was obtained and reported from the Ba values resulting from rerunning the samples between the fourth and fifth sets of QC audits. Out-of-control audit values for Ni (-21.8 µg/L for the fifth instrument blank check and Be (+5.2 %R for the fourth mid range QC check audit) were still encountered even with restandardization. However, the rerun analysis of the samples did verify that all Be and Ni sample results were indeed below the detection limit levels for these two elements.

In the strictest sense, Ni results may be biased low because of the final (fifth) instrument blank QC check value for Ni was just past the lower QC blank range value. However, it should be noted from the raw data, that the individual "burn" values were steadily increasing from a low of -29 µg/L to a final of -13 µg/L Ni. All the Ni data from the entire run would suggest that the analysis run conditions were too noisy to support a detection limit of 20 µg/L; a limit of from anywhere from 20 up to 40 µg/L might have been more reflective of the noisy conditions for Ni.

In the QC deliverables' package, two reports each for the duplicate, matrix spike, spiked blank LCS, and the MDL / LCS check samples were provided. The first report of each was taken from the first run (between the second and third QC cheeck audits) and the second report was taken from the second run (between the fourth and fifth QC check audits). The reason for providing both reports was to demonstrate the validity of the sample analyte results reported, especially those for Be and Ni. As metioned previously, except for Ba, Be, and Ni, all sample analyte values were reported using results obtained from running samples between the second and third QC check audits. Ba results were reported from samples analyzed between the fourth and fifth QC check audits. Both sample analysis runs (the ones run between the second and third QC check audits AND the ones run between the fourth and the fifth QC check audits) were used to substantiate the Be and Ni sample results reported.

RUN 267 - continued

For Ni, a duplicate difference of 45 µg/L for sample 94ZB19S01 was found initially but was found to give a within control limits difference value of 10 µg/L after restandardization and rerunning. As mentioned previously, all Ni sample results were demonstrated (verified) to be below the limit of detection.

QC reports entitled "LCS / MDL CHECK SOLUTION REPORT" were generated to account for the recoveries of the analytes for the WUD specified digested LCS check sample. Most analytes, except some of those for the As1890, Cu3247, and the Pb1822 channels, were within the ± 20 percent deviation criteria. Sample analysis data from the As and Pb channels not within the criteria will not be reported as mentioned toward the beginning of this narrative. The reports were included as part of the QC deliverables' package. Cu sample results may be biased high.

For the spiked blank LCS analyses, all of the normally reported ICAP analytes were recovered within a ± 20 percent deviation except for Cu. There are no formal CRL QC criteria for this analysis.

RX
9-29-94

940152

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: METALS

TFA301

DIVISION/BRANCH SUPERFUND SAMPLE DATE 9/21/94 LAB ARRIVAL DATE 9/22/94 DUE DATE 10/13/94

DU NUMBER TFA DATA SET NUMBER 940152 STUDY ALCO STEEL SERVICE PRIORITY N CONTRACTOR BLACK + VEATCH

CRL LOG NUMBER	SAMPLE DESCRIPTION	TOTAL METALS WATER TOTAL ICAP UG/L MET111	TOTAL METALS WATER AS UG/L MET161	TOTAL METALS WATER PB UG/L MET1101	TOTAL METALS WATER SB UG/L MET1201	TOTAL METALS WATER SE UG/L MET1211	TOTAL METALS WATER TL UG/L MET1221
94ZB19S01	AS-RW01-001 5022955	X	X	X	X	X	X
94ZB19S02	AS-RW02-001 5022961	X	X	X	X	X	X
94ZB19S03	AS-RW04-001 5022974	X	X	X	X	X	X
94ZB19S05	AS-RW05-001 5022985	X	X	X	X	X	X
94ZB19S06	AS-RW06-001 5022991	X	X	X	X	X	X
94ZB19R07	AS-FB01-201 5022997	X	X	X	X	X	X
94ZB19S08	AS-RW02-101 5022967	X	X	X	X	X	X

940152 TFA301

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: METALS

DIVISION/BRANCH SUPERFUND SAMPLING DATE 9/21/94 LAB ARRIVAL DATE 9/22/94 DUE DATE 10/13/94

DU NUMBER TFA DATASET NUMBER 940152 STUDY ALCO STEEL SERVICE PRIORITY N CONTRACTOR BLACK & VEATCH

MATRIX WATER
TEST CADMIUM
UNITS ug/L
ME1235826

CRL LOG NUMBER	SAMPLE DESCRIPTION	
942619		
S01	AS-RW01-001	5022955
S02	AS-RW02-001	5022961
S03	AS-RW04-001	5022979
S05	AS-RW05-001	5022985
S06	AS-RW06-001	5022991
R07	AS-FB01-201	5022997
S08	AS-RW02-101	5022967

CRL V.2: 3/85

RE
9-29-94

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 29-SEP-94

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: B & V
LABORATORY: ESAT

SAMPLE BATCH ID: 940152
ACCOUNT NO: TFA301
FACILITY: ALCO STEEL

SAMPLE: 94ZB19R07 FIELD: 94ZB19R07

COLLECTED: 21-SEP-94 RECEIVED: 22-SEP-94 ANALYZED: 26-SEP-94

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	6U	(ug/L)	BDL	7440-39-3
Beryllium	2U	(ug/L)	BDL	7440-41-7
Calcium	500U	(ug/L)	BDL	7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	80U	(ug/L)	BDL	7439-89-6
Magnesium	100U	(ug/L)	BDL	7439-95-4
Manganese	5U	(ug/L)	BDL	7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	1000U	(ug/L)	BDL	7440-23-5
Vanadium	8U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: RL 9-29-94
AMM 9/29/94

JVM
7/04/94

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 29-SEP-94

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: B & V
LABORATORY: ESAT

SAMPLE BATCH ID: 940152
ACCOUNT NO: TFA301
FACILITY: ALCO STEEL

SAMPLE: 94ZB19S01 FIELD: 94ZB19S01

COLLECTED: 21-SEP-94 RECEIVED: 22-SEP-94 ANALYZED: 26-SEP-94

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	212	(ug/L)		7440-39-3
Beryllium	2U	(ug/L)	BDL	7440-41-7
Calcium	133000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	37	(ug/L)		7440-50-8
Iron	668	(ug/L)		7439-89-6
Magnesium	57000	(ug/L)		7439-95-4
Manganese	213	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	14000	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	114000	(ug/L)		7440-23-5
Vanadium	8U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: R.D. 9-29-94 JVM
AMM 9/29/94 7 Oct 94

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 29-SEP-94

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: B & V
LABORATORY: ESAT

SAMPLE BATCH ID: 940152
ACCOUNT NO: TFA301
FACILITY: ALCO STEEL

SAMPLE: 94ZB19S02 FIELD: 94ZB19S02

COLLECTED: 21-SEP-94 RECEIVED: 22-SEP-94 ANALYZED: 26-SEP-94

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	103	(ug/L)		7440-39-3
Beryllium	2U	(ug/L)	BDL	7440-41-7
Calcium	98000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	8	(ug/L)		7440-50-8
Iron	1230	(ug/L)		7439-89-6
Magnesium	50000	(ug/L)		7439-95-4
Manganese	235	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	18000	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	111000	(ug/L)		7440-23-5
Vanadium	8U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: R.D. 9-29-94

JVM
7 Oct 94

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 29-SEP-94

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: B & V
LABORATORY: ESAT

SAMPLE BATCH ID: 940152
ACCOUNT NO: TFA301
FACILITY: ALCO STEEL

SAMPLE: 94ZB19S03 FIELD: 94ZB19S03

COLLECTED: 21-SEP-94 RECEIVED: 22-SEP-94 ANALYZED: 26-SEP-94

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	38	(ug/L)		7440-39-3
Beryllium	2U	(ug/L)	BDL	7440-41-7
Calcium	136000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	18	(ug/L)		7440-50-8
Iron	474	(ug/L)		7439-89-6
Magnesium	62000	(ug/L)		7439-95-4
Manganese	81	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	34000	(ug/L)		7440-23-5
Vanadium	11	(ug/L)		7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: RD 9-29-94 JVM 7 Oct 94
PMM 9/29/94

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 29-SEP-94

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: B & V
LABORATORY: ESAT

SAMPLE BATCH ID: 940152
ACCOUNT NO: TFA301
FACILITY: ALCO STEEL

SAMPLE: 94ZB19S05 FIELD: 94ZB19S05

COLLECTED: 21-SEP-94 RECEIVED: 22-SEP-94 ANALYZED: 26-SEP-94

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	105	(ug/L)		7440-39-3
Beryllium	2U	(ug/L)	BDL	7440-41-7
Calcium	13000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	10	(ug/L)		7440-50-8
Iron	226	(ug/L)		7439-89-6
Magnesium	7000	(ug/L)		7439-95-4
Manganese	5U	(ug/L)	BDL	7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	8000	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	202000	(ug/L)		7440-23-5
Vanadium	8U	(ug/L)	BDL	7440-62-2
Zinc	205	(ug/L)		7440-66-6

ANALYZED BY: [signature] 9-29-94 JVM 7 Oct 94

JMM 9/29/94

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 29-SEP-94

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: B & V
LABORATORY: ESAT

SAMPLE BATCH ID: 940152
ACCOUNT NO: TFA301
FACILITY: ALCO STEEL

SAMPLE: 94ZB19S06 FIELD: 94ZB19S06

COLLECTED: 21-SEP-94 RECEIVED: 22-SEP-94 ANALYZED: 26-SEP-94

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	6U	(ug/L)	BDL	7440-39-3
Beryllium	2U	(ug/L)	BDL	7440-41-7
Calcium	2000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	14	(ug/L)		7440-50-8
Iron	80U	(ug/L)	BDL	7439-89-6
Magnesium	1000	(ug/L)		7439-95-4
Manganese	5U	(ug/L)	BDL	7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	395000	(ug/L)		7440-23-5
Vanadium	8U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: 4-29-94 JVM 7 Oct 94

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 29-SEP-94

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: B & V
LABORATORY: ESAT

SAMPLE BATCH ID: 940152
ACCOUNT NO: TFA301
FACILITY: ALCO STEEL

SAMPLE: 94ZB19S08 FIELD: 94ZB19S08

COLLECTED: 21-SEP-94 RECEIVED: 22-SEP-94 ANALYZED: 26-SEP-94

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	97	(ug/L)		7440-39-3
Beryllium	2U	(ug/L)	BDL	7440-41-7
Calcium	98000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	10	(ug/L)		7440-50-8
Iron	1010	(ug/L)		7439-89-6
Magnesium	50000	(ug/L)		7439-95-4
Manganese	238	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	18000	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	112000	(ug/L)		7440-23-5
Vanadium	8	(ug/L)		7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: RK 9-29-94
PMM 9/29/94

JVM
7 Oct 94

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 29-SEP-94

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: B & V
LABORATORY: ESAT

SAMPLE BATCH ID: 940152
ACCOUNT NO: TFA301
FACILITY: ALCO STEEL

SAMPLE: 94ZB19R07 FIELD: 94ZB19R07

COLLECTED: 21-SEP-94 RECEIVED: 22-SEP-94 ANALYZED: 26-SEP-94

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	6U	(ug/L)	BDL	7440-39-3
Beryllium	2U	(ug/L)	BDL	7440-41-7
Calcium	500U	(ug/L)	BDL	7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	6U	(ug/L)	BDL	7440-50-8
Iron	80U	(ug/L)	BDL	7439-89-6
Magnesium	100U	(ug/L)	BDL	7439-95-4
Manganese	5U	(ug/L)	BDL	7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	1000U	(ug/L)	BDL	7440-23-5
Vanadium	8U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: [illegible] 9-29-94 JVM 7 Oct 94
AMM 9/29/94

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 29-SEP-94

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: B & V
LABORATORY: ESAT

SAMPLE BATCH ID: 940152
ACCOUNT NO: TFA301
FACILITY: ALCO STEEL

SAMPLE: 94ZB19S01 FIELD: 94ZB19S01

COLLECTED: 21-SEP-94 RECEIVED: 22-SEP-94 ANALYZED: 26-SEP-94

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	212	(ug/L)		7440-39-3
Beryllium	2U	(ug/L)	BDL	7440-41-7
Calcium	133000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	37	(ug/L)		7440-50-8
Iron	668	(ug/L)		7439-89-6
Magnesium	57000	(ug/L)		7439-95-4
Manganese	213	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	14000	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	114000	(ug/L)		7440-23-5
Vanadium	8U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: R.D. 9-29-94 JVM
AMM 9/29/94 7 Oct 94

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 29-SEP-94

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: B & V
LABORATORY: ESAT

SAMPLE BATCH ID: 940152
ACCOUNT NO: TFA301
FACILITY: ALCO STEEL

SAMPLE: 94ZB19S02 FIELD: 94ZB19S02

COLLECTED: 21-SEP-94 RECEIVED: 22-SEP-94 ANALYZED: 26-SEP-94

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	103	(ug/L)		7440-39-3
Beryllium	2U	(ug/L)	BDL	7440-41-7
Calcium	98000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	8	(ug/L)		7440-50-8
Iron	1230	(ug/L)		7439-89-6
Magnesium	50000	(ug/L)		7439-95-4
Manganese	235	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	18000	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	111000	(ug/L)		7440-23-5
Vanadium	8U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: R.D. 9-29-94 pm
PMM 9/29/94
7 Oct 94

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 29-SEP-94

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: B & V
LABORATORY: ESAT

SAMPLE BATCH ID: 940152
ACCOUNT NO: TFA301
FACILITY: ALCO STEEL

SAMPLE: 94ZB19S03 FIELD: 94ZB19S03

COLLECTED: 21-SEP-94 RECEIVED: 22-SEP-94 ANALYZED: 26-SEP-94

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	38	(ug/L)		7440-39-3
Beryllium	2U	(ug/L)	BDL	7440-41-7
Calcium	136000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	18	(ug/L)		7440-50-8
Iron	474	(ug/L)		7439-89-6
Magnesium	62000	(ug/L)		7439-95-4
Manganese	81	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000U	(ug/L)	BDL	7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	34000	(ug/L)		7440-23-5
Vanadium	11	(ug/L)		7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: RD 9-29-94 JVM 7 Oct 94
Ann 9/29/94

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 29-SEP-94

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: B & V
LABORATORY: ESAT

SAMPLE BATCH ID: 940152
ACCOUNT NO: TFA301
FACILITY: ALCO STEEL

SAMPLE: 94ZB19S05 FIELD: 94ZB19S05

COLLECTED: 21-SEP-94 RECEIVED: 22-SEP-94 ANALYZED: 26-SEP-94

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	105	(ug/L)		7440-39-3
Beryllium	2U	(ug/L)	BDL	7440-41-7
Calcium	13000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	10	(ug/L)		7440-50-8
Iron	226	(ug/L)		7439-89-6
Magnesium	7000	(ug/L)		7439-95-4
Manganese	5U	(ug/L)	BDL	7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	8000	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	202000	(ug/L)		7440-23-5
Vanadium	8U	(ug/L)	BDL	7440-62-2
Zinc	205	(ug/L)		7440-66-6

ANALYZED BY: DK 9-29-94 JVM 7 Oct 94
JMM 9/29/94

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 29-SEP-94

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: B & V
LABORATORY: ESAT

SAMPLE BATCH ID: 940152
ACCOUNT NO: TFA301
FACILITY: ALCO STEEL

SAMPLE: 94ZB19S06 FIELD: 94ZB19S06

COLLECTED: 21-SEP-94 RECEIVED: 22-SEP-94 ANALYZED: 26-SEP-94

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	6U	(ug/L)	BDL	7440-39-3
Beryllium	2U	(ug/L)	BDL	7440-41-7
Calcium	2000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	14	(ug/L)		7440-50-8
Iron	80U	(ug/L)	BDL	7439-89-6
Magnesium	1000	(ug/L)		7439-95-4
Manganese	5U	(ug/L)	BDL	7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	5000	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	395000	(ug/L)		7440-23-5
Vanadium	8U	(ug/L)	BDL	7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: [signature] 9-29-94 JWM
PMM 9/29/94
7 Oct 94

EPA RLIMS CRL - REGION V
FINAL RESULTS REPORT
REPORT PRODUCED ON: 29-SEP-94

SAMPLE ORGANIZATION: B & V
SAMPLE REQUESTOR: B & V
LABORATORY: ESAT

SAMPLE BATCH ID: 940152
ACCOUNT NO: TFA301
FACILITY: ALCO STEEL

SAMPLE: 94ZB19S08 FIELD: 94ZB19S08

COLLECTED: 21-SEP-94 RECEIVED: 22-SEP-94 ANALYZED: 26-SEP-94

COMPOUND	AMOUNT	(Units)	QUALIFIERS	CAS NUMBER
Aluminum	80U	(ug/L)	BDL	7429-90-5
Barium	97	(ug/L)		7440-39-3
Beryllium	2U	(ug/L)	BDL	7440-41-7
Calcium	98000	(ug/L)		7440-70-2
Chromium	10U	(ug/L)	BDL	7440-47-3
Cobalt	6U	(ug/L)	BDL	7440-48-4
Copper	10	(ug/L)		7440-50-8
Iron	1010	(ug/L)		7439-89-6
Magnesium	50000	(ug/L)		7439-95-4
Manganese	238	(ug/L)		7439-96-5
Nickel	20U	(ug/L)	BDL	7440-02-0
Potassium	18000	(ug/L)		7440-09-7
Silver	6U	(ug/L)	BDL	7440-22-4
Sodium	112000	(ug/L)		7440-23-5
Vanadium	8	(ug/L)		7440-62-2
Zinc	40U	(ug/L)	BDL	7440-66-6

ANALYZED BY: RX 9-29-94 JVM
PMM 9/29/94 7 Oct 94

R.D.
9-27-94

Samples analyzed by WATER1 on 09/26/94 stored in file RUN267 .

Data set	Sample id	Correction Factor	Dig QC	Ins QC
20 ppm	MO IEC	1.00000	IEC	S
400 ppm	AL IEC	0.00250	IEC	S
400 ppm	FE IEC	0.00250	IEC	S
20 ppm	AS IEC	1.00000	IEC	S
20 ppm	BA IEC	1.00000	IEC	S
20 ppm	CU IEC	1.00000	IEC	S
20 ppm	NI IEC	1.00000	IEC	S
20 ppm	MN IEC	1.00000	IEC	S
20 ppm	TI IEC	1.00000	IEC	S
20 ppm	ZN IEC	1.00000	IEC	S
20 ppm	V IEC	1.00000	IEC	S
	INSTR BLANK 1	1.00000		B
	AQC EV1&2 1	1.00000		Q
	HIGH AQC EV3 1	1.00000		Q
	INSTR BLANK 2	1.00000		B restandardized
	AQC EV1&2 2	1.00000		Q
	HIGH AQC EV3 2	1.00000		Q
RUN 267	LCS - SPIKED BLANK	1.52000		S
RUN 267	MDL - LCS Check	1.32000		S
RUN 267	DIGESTION BLANK	1.22000		B
RUN 267	PE PN808	1.22000		S
940152	94ZB19S01	1.22000	SMP1	S
940152	94ZB19S01	1.22000	DUP1	S
940152	94ZB19S01	1.52000	SPK1	S
940152	94ZB19S02	1.22000		S
940152	94ZB19S03	1.22000		S
940152	94ZB19S05	1.22000		S
940152	94ZB19S06	1.22000		S
940152	94ZB19R07	1.22000		S
940152	94ZB19S08	1.22000		S
	INSTR BLANK 3	1.00000		B
	AQC EV1&2 3	1.00000		Q
	HIGH AQC EV3 3	1.00000		Q
	INSTR BLANK 4	1.00000		B restandardized
	AQC EV1&2 4	1.00000		Q
	HIGH AQC EV3 4	1.00000		Q
RUN 267	LCS - SPIKED BLANK	1.52000		S
RUN 267	MDL - LCS Check	1.32000		S
RUN 267	DIGESTION BLANK	1.22000		B
RUN 267	PE PN80	1.22000		S
940152	94ZB19S01	1.22000	SMP2	S
940152	94ZB19S01	1.22000	DUP2	S
940152	94ZB19S01	1.52000	SPK2	S
940152	94ZB19S02	1.22000		S
940152	94ZB19S03	1.22000		S
940152	94ZB19S05	1.22000		S

most normal ICAP analytes reported except for Ba; see below for Be & Ni verification

Ba analyte data reported; Be & Ni analyte data verified

R.B.
9-27-94

940152	94ZB19S06	1.22000	S
940152	94ZB19R07	1.22000	S
940152	94ZB19S08	1.22000	S
	INSTR BLANK 5	1.00000	B
	AQC EV1&2 5	1.00000	Q
	HIGH AQC EV3 5	1.00000	Q

QX
9-27-94

DIGESTION RECORD

Prepared by: PMM Date: 9/25/94 Run Number: 267

Vessel Number	Data Set	Sample Number	Notes	Vessel Number	Data Set	Sample Number	Notes
68	LCS PMM 9/25/94	LCS	+5mL A,B,C				
54		MDL-LCS	+5mL MDL spike				
55		Digest Blank					
56	940152	94ZB19 S01					
53		94ZB19 S01D					
52		94ZB19 S01S	+5mL A,B,C				
67		94ZB19 S02					
66		94ZB19 S03					
65		94ZB19 S05					
64		94ZB19 S06					
63		94ZB19 R07					
62		94ZB19 S08					
76	✓	PE PN 808					

COMMENTS:

R.D.
9-27-94

BLANK REPORT

Blank name INSTR BLANK 1

Date analyzed 09/26/94 File name RUN267

Element	Blank Value	Detection limit	Units
Al3082	35.00	20000.0	ug/L
Al308L	35.40	80.0	ug/L
Ba4554	1.18	6.0	ug/L
Be3130	0.66	2.0	ug/L
Ca3179	32.90	500.0	ug/L
Cr2677	3.34	10.0	ug/L
Co2286	0.40	6.0	ug/L
Cu3247	2.38	6.0	ug/L
Fe2599	11.96	80.0	ug/L
Fe2714	233.80	20000.0	ug/L
Mg2795	5.50	100.0	ug/L
Mg3832	103.80	200.0	ug/L
Mn2576	1.27	5.0	ug/L
Ni2316	-26.18 *	20.0	ug/L
K_7664	789.90	5000.0	ug/L
Ag3280	2.03	6.0	ug/L
Na5895	58.70	1000.0	ug/L
V_2908	2.28	8.0	ug/L
Zn2138	6.99	40.0	ug/L

Some elements have blank values greater than detection limit.

These elements are Ni

R.D.
9-27-94

BLANK REPORT

Blank name INSTR BLANK 2

Date analyzed 09/26/94 File name RUN267

Element	Blank Value	Detection limit	Units
Al3082	20.50	20000.0	ug/L
Al308L	20.86	80.0	ug/L
Ba4554	0.52	6.0	ug/L
Be2130	0.39	2.0	ug/L
Ca3179	25.80	500.0	ug/L
Cr2677	1.06	10.0	ug/L
Co2286	2.77	6.0	ug/L
Cu3247	2.82	6.0	ug/L
Fe2599	14.25	80.0	ug/L
Fe2714	-26.40	20000.0	ug/L
Mg2795	3.90	100.0	ug/L
Mg3832	23.80	200.0	ug/L
Mn2576	0.40	5.0	ug/L
Ni2316	-13.57	20.0	ug/L
K_7664	182.00	5000.0	ug/L
Ag3280	-0.91	6.0	ug/L
Na5895	17.60	1000.0	ug/L
V_2908	1.47	8.0	ug/L
Zn2138	2.19	40.0	ug/L

All values for the blank are less than detection limit.

R.D.
9-27-94

BLANK REPORT

Blank name INSTR BLANK 3

Date analyzed 09/26/94 File name RUN267

Element	Blank Value	Detection limit	Units
Al3082	50.10	20000.0	ug/L
Al308L	51.03	80.0	ug/L
Ba4554	0.56	6.0	ug/L
Be3130	0.58	2.0	ug/L
Ca3179	22.00	500.0	ug/L
Cr2677	4.23	10.0	ug/L
Co2286	3.38	6.0	ug/L
Cu3247	1.97	6.0	ug/L
Fe2599	6.36	80.0	ug/L
Fe2714	61.50	20000.0	ug/L
Mg2795	10.70	100.0	ug/L
Mg3832	29.30	200.0	ug/L
Mn2576	1.48	5.0	ug/L
Ni2316	-43.14 *	20.0	ug/L
K_7664	650.60	5000.0	ug/L
Ag3280	-1.84	6.0	ug/L
Na5895	44.80	1000.0	ug/L
V_2908	4.93	8.0	ug/L
Zn2138	4.42	40.0	ug/L

Some elements have blank values greater than detection limit.

These elements are Ni

Q.D.
9-27-94

BLANK REPORT

Blank name INSTR BLANK 4

Date analyzed 09/26/94 File name RUN267

Element	Blank Value	Detection limit	Units
Al3082	64.90	20000.0	ug/L
Al308L	66.03	80.0	ug/L
Ba4554	1.93	6.0	ug/L
Be3130	0.64	2.0	ug/L
Ca3179	7.20	500.0	ug/L
Cr2677	4.24	10.0	ug/L
Co2286	0.21	6.0	ug/L
Cu3247	4.17	6.0	ug/L
Fe2599	13.51	80.0	ug/L
Fe2714	193.40	20000.0	ug/L
Mg2795	12.90	100.0	ug/L
Mg3832	71.30	200.0	ug/L
Mn2576	2.21	5.0	ug/L
Ni2316	-8.21	20.0	ug/L
K_7664	1355.50	5000.0	ug/L
Ag3280	-0.27	6.0	ug/L
Na5895	74.60	1000.0	ug/L
V_2908	3.66	8.0	ug/L
Zn2138	3.77	40.0	ug/L

All values for the blank are less than detection limit.

RD
9-27-94

BLANK REPORT

Blank name INSTR BLANK 5

Date analyzed 09/26/94 File name RUN267

Element	Blank Value	Detection limit	Units
Al3082	60.40	20000.0	ug/L
Al308L	61.44	80.0	ug/L
Ba4554	0.41	6.0	ug/L
Be3130	0.33	2.0	ug/L
Ca3179	25.80	500.0	ug/L
Cr2677	4.58	10.0	ug/L
Co2286	-0.40	6.0	ug/L
Cu3247	4.06	6.0	ug/L
Fe2599	12.72	80.0	ug/L
Fe2714	254.90	20000.0	ug/L
Mg2795	5.60	100.0	ug/L
Mg3832	91.40	200.0	ug/L
Mn2576	2.09	5.0	ug/L
Ni2316	-21.88 *	20.0	ug/L
K_7664	1443.40	5000.0	ug/L
Ag3280	-2.25	6.0	ug/L
Na5895	80.00	1000.0	ug/L
V_2908	8.70 *	8.0	ug/L
Zn2138	6.94	40.0	ug/L

Some elements have blank values greater than detection limit.

These elements are Ni, V

9-27-94

BLANK REPORT

Blank name DIGESTION BLANK RUN 267

Date analyzed 09/26/94 File name RUN267

Element	Blank Value	Detection limit	Units
A13082	-4.20	20000.0	ug/L
A1308L	-4.31	80.0	ug/L
Ba4554	0.58	6.0	ug/L
Be3130	0.22	2.0	ug/L
Ca3179	46.40	500.0	ug/L
Cr2677	-0.43	10.0	ug/L
Co2286	2.44	6.0	ug/L
Cu3247	2.10	6.0	ug/L
Fe2599	1.37	80.0	ug/L
Fe2714	0.00	20000.0	ug/L
Mg2795	6.30	100.0	ug/L
Mg3832	46.90	200.0	ug/L
Mn2576	1.39	5.0	ug/L
Ni2316	-28.38 *	20.0	ug/L
K_7664	1071.90	5000.0	ug/L
Ag3280	-1.35	6.0	ug/L
Na5895	51.30	1000.0	ug/L
V_2908	4.22	8.0	ug/L
Zn2138	1.39	40.0	ug/L

Some elements have blank values greater than detection limit.

These elements are Ni

X.D.
9-27-94

BLANK REPORT

Blank name DIGESTION BLANK RUN 267

Date analyzed 09/26/94 File name RUN267

Element	Blank Value	Detection limit	Units
Al3082	19.50	20000.0	ug/L
Al308L	19.76	80.0	ug/L
Ba4554	0.05	6.0	ug/L
Be3130	0.49	2.0	ug/L
Ca3179	44.80	500.0	ug/L
Cr2677	1.29	10.0	ug/L
Co2286	-2.74	6.0	ug/L
Cu3247	0.15	6.0	ug/L
Fe2599	3.20	80.0	ug/L
Fe2714	235.90	20000.0	ug/L
Mg2795	7.90	100.0	ug/L
Mg3832	35.70	200.0	ug/L
Mn2576	1.80	5.0	ug/L
Ni2316	3.89	20.0	ug/L
K_7664	995.30	5000.0	ug/L
Ag3280	-1.88	6.0	ug/L
Na5895	44.70	1000.0	ug/L
V_2908	2.94	8.0	ug/L
Zn2138	0.62	40.0	ug/L

All values for the blank are less than detection limit.

RJ
9-27-94

QUALITY CONTROL SAMPLE REPORT

QC ID AQC EV1&2 1 Operator RJD

Date analyzed 09/26/94 File name RUN267

Element	Found Value	True Value	Percent Deviation	Units
Al308L	5201.0	5000.0	4.0%	ug/L
Ba4554	5371.5	5000.0	7.4% *	ug/L
Be3130	5442.1	5000.0	8.8% *	ug/L
Cr2677	5360.8	5000.0	7.2% *	ug/L
Co2286	5362.9	5000.0	7.3% *	ug/L
Cu3247	5346.3	5000.0	6.9% *	ug/L
Fe2599	5283.2	5000.0	5.7% *	ug/L
Mg2795	5324.8	5000.0	6.5% *	ug/L
Mn2576	5325.1	5000.0	6.5% *	ug/L
Ni2316	5323.8	5000.0	6.5% *	ug/L
Ag3280	517.9	500.0	3.6%	ug/L
V_2908	5267.5	5000.0	5.4% *	ug/L
Zn2138	5370.5	5000.0	7.4% *	ug/L

Some elements are outside of 5 % limit. These elements are Ba, Be, Cr, Co, Cu, Fe, Mg, Mn, Ni, V, and Zn

These elements must be removed from the reported samples affected by this audit or some explaination of validity offered. RESTANDARDIZED.

R.D.
9-27-94

QUALITY CONTROL SAMPLE REPORT

QC ID AQC EV1&2 2 Operator RJD

Date analyzed 09/26/94 File name RUN267

Element	Found Value	True Value	Percent Deviation	Units
A1308L	4982.5	5000.0	0.4%	ug/L
Ba4554	5117.1	5000.0	2.3%	ug/L
Be3130	5220.7	5000.0	4.4%	ug/L
Cr2677	5129.3	5000.0	2.6%	ug/L
Co2286	5092.3	5000.0	1.8%	ug/L
Cu3247	5113.8	5000.0	2.3%	ug/L
Fe2599	5042.7	5000.0	0.9%	ug/L
Mg2795	5153.2	5000.0	3.1%	ug/L
Mn2576	5083.6	5000.0	1.7%	ug/L
Ni2316	5170.9	5000.0	3.4%	ug/L
Ag3280	509.2	500.0	1.8%	ug/L
V_2908	5088.0	5000.0	1.8%	ug/L
Zn2138	5119.9	5000.0	2.4%	ug/L

All elements within 5 % of the true value.

R.D
9-27-94

QUALITY CONTROL SAMPLE REPORT

QC ID AQC EV1&2 3 Operator RJD

Date analyzed 09/26/94 File name RUN267

Element	Found Value	True Value	Percent Deviation	Units
Al308L	5052.2	5000.0	1.0%	ug/L
Ba4554	5274.7	5000.0	5.5% *	ug/L
Be3130	5267.6	5000.0	5.4% *	ug/L
Cr2677	5097.2	5000.0	1.9%	ug/L
Co2286	5170.1	5000.0	3.4%	ug/L
Cu3247	5247.4	5000.0	4.9%	ug/L
Fe2599	5061.1	5000.0	1.2%	ug/L
Mg2795	5240.2	5000.0	4.8%	ug/L
Mn2576	5142.5	5000.0	2.9%	ug/L
Ni2316	5255.2	5000.0	5.1% *	ug/L
Ag3280	515.4	500.0	3.1%	ug/L
V_2908	5093.9	5000.0	1.9%	ug/L
Zn2138	5237.2	5000.0	4.7%	ug/L

Some elements are outside of 5 % limit. These elements are Ba, Be, Ni

These elements must be removed from the reported samples affected by this audit or some explaination of validity offered. RESTANDARDIZED.

RJD
9-27-94

QUALITY CONTROL SAMPLE REPORT

QC ID AQC EV1&2 4 Operator RJD

Date analyzed 09/26/94 File name RUN267

Element	Found Value	True Value	Percent Deviation	Units
Al308L	5110.7	5000.0	2.2%	ug/L
Ba4554	5165.2	5000.0	3.3%	ug/L
Be3130	5257.9	5000.0	5.2% *	ug/L
Cr2677	5160.9	5000.0	3.2%	ug/L
Co2286	5250.8	5000.0	5.0% *	ug/L
Cu3247	5351.0	5000.0	7.0% *	ug/L
Fe2599	5150.6	5000.0	3.0%	ug/L
Mg2795	5336.8	5000.0	6.7% *	ug/L
Mn2576	5234.6	5000.0	4.7%	ug/L
Ni2316	5128.6	5000.0	2.6%	ug/L
Ag3280	521.3	500.0	4.3%	ug/L
V_2908	5162.8	5000.0	3.3%	ug/L
Zn2138	5347.8	5000.0	7.0% *	ug/L

Some elements are outside of 5 % limit. These elements are Be, Co, Cu, Mg, Zn

These elements must be removed from the reported samples affected by this audit or some explaination of validity offered. See ICAP Narrative.

R.D
9-27-94

QUALITY CONTROL SAMPLE REPORT

QC ID AQC EV1&2 5 Operator RJD

Date analyzed 09/26/94 File name RUN267

Element	Found Value	True Value	Percent Deviation	Units
Al308L	4972.7	5000.0	0.5%	ug/L
Ba4554	5109.3	5000.0	2.2%	ug/L
Be3130	5111.1	5000.0	2.2%	ug/L
Cr2677	4958.3	5000.0	0.8%	ug/L
Co2286	5152.6	5000.0	3.1%	ug/L
Cu3247	5280.5	5000.0	5.6% *	ug/L
Fe2599	5017.6	5000.0	0.4%	ug/L
Mg2795	5218.8	5000.0	4.4%	ug/L
Mn2576	5131.0	5000.0	2.6%	ug/L
Ni2316	5070.2	5000.0	1.4%	ug/L
Ag3280	510.9	500.0	2.2%	ug/L
V_2908	5000.9	5000.0	0.0%	ug/L
Zn213B	5284.4	5000.0	5.7% *	ug/L

Some elements are outside of 5 % limit. These elements are Cu, Zn

These elements must be removed from the reported samples affected by this audit or some explaination of validity offered. See ICAP Narrative.

9-27-94

QUALITY CONTROL SAMPLE REPORT

QC ID HIGH AQC EV3 1 Operator RJD

Date analyzed 09/26/94 File name RUN267

Element	Found Value	True Value	Percent Deviation	Units
Al3082	101120.2	100000.0	1.1%	ug/L
Ca3179	105076.3	100000.0	5.1%	ug/L
Fe2714	101162.1	100000.0	1.2%	ug/L
Mg3832	61712.7	60000.0	2.9%	ug/L
K_7664	106549.2	100000.0	6.5%	ug/L
Na5895	106219.1	100000.0	6.2%	ug/L

All elements within 10 % of true value.

9-27-94

QUALITY CONTROL SAMPLE REPORT

QC ID HIGH AQC EV3 2 Operator RJD

Date analyzed 09/26/94 File name RUN267

Element	Found Value	True Value	Percent Deviation	Units
Al3082	97168.2	100000.0	2.8%	ug/L
Ca3179	100047.0	100000.0	0.0%	ug/L
Fe2714	97694.7	100000.0	2.3%	ug/L
Mg3832	59659.1	60000.0	0.6%	ug/L
K_7664	103194.2	100000.0	3.2%	ug/L
Na5895	103891.8	100000.0	3.9%	ug/L

All elements within 10 % of true value.

L.D
9-27-94

QUALITY CONTROL SAMPLE REPORT

QC ID HIGH AOC EV3 3 Operator RJD

Date analyzed 09/26/94 File name RUN267

Element	Found Value	True Value	Percent Deviation	Units
Al3082	96839.1	100000.0	3.2%	ug/L
Ca3179	100266.2	100000.0	0.3%	ug/L
Fe2714	94301.7	100000.0	5.7%	ug/L
Mg3832	59564.0	60000.0	0.7%	ug/L
K_7664	103219.3	100000.0	3.2%	ug/L
Na5895	104401.9	100000.0	4.4%	ug/L

All elements within 10 % of true value.

RJD
9-27-94

QUALITY CONTROL SAMPLE REPORT

QC ID HIGH AQC EV3 4 Operator RJD

Date analyzed 09/26/94 File name RUN267

Element	Found Value	True Value	Percent Deviation	Units
Al3082	98421.0	100000.0	1.6%	ug/L
Ca3179	101963.6	100000.0	2.0%	ug/L
Fe2714	94451.1	100000.0	5.5%	ug/L
Mg3832	60549.7	60000.0	0.9%	ug/L
K_7664	105673.0	100000.0	5.7%	ug/L
Na5895	106180.2	100000.0	6.2%	ug/L

All elements within 10 % of true value.

R.D.
9-27-94

QUALITY CONTROL SAMPLE REPORT

QC ID HIGH AQC EV3 5 Operator RJD

Date analyzed 09/26/94 File name RUN267

Element	Found Value	True Value	Percent Deviation	Units
A13082	97175.0	100000.0	2.8%	ug/L
Ca3179	101016.8	100000.0	1.0%	ug/L
Fe2714	90847.2	100000.0	9.2%	ug/L
Mg3832	60010.2	60000.0	0.0%	ug/L
K_7664	104597.8	100000.0	4.6%	ug/L
Na5895	105093.7	100000.0	5.1%	ug/L

All elements within 10 % of true value.

R.K.
9-27-94

DUPLICATE

Sample 940152 942B19S01 Operator RJD

Date Analyzed 09/26/94 Correction 1.22000 File RUN267

Element	Units	Sample	Duplicate	Difference	Detect Limit	RPD
Al3082	ug/L	-19	-6	14	20000	0%
Al308L	ug/L	-20	-6	14	80	-110%
Ba4554	ug/L	214	215	1	6	1%
Be3130	ug/L	0	0	0	2	0%
Ca3179	ug/L	132848	133471	623	500	0%
Cr2677	ug/L	1	-3	-5	10	474%
Co2286	ug/L	1	-4	-6	6	277%
Cu3247	ug/L	37	36	0	6	-1%
Fe2599	ug/L	668	673	5	80	1%
Fe2714	ug/L	1834	1920	86	20000	4%
Mg2795	ug/L	57255	57484	229	100	0%
Mg3832	ug/L	56933	57205	272	200	0%
Mn2576	ug/L	213	213	0	5	0%
Ni2316	ug/L	-47	-2	45	20	-180% *
K_7664	ug/L	14031	14057	26	5000	0%
Ag3280	ug/L	-2	-4	-1	6	49%
Na5895	ug/L	114424	114885	462	1000	0%
V_2908	ug/L	5	4	-1	8	-22%
Zn2138	ug/L	34	34	0	40	0%

Some duplicate values are not within 10% RPD or detection limit of each other. The affected elements are Ni

R.D.
9-27-94

DUPLICATE

Sample 940152 942B19S01 Operator RJD

Date Analyzed 09/26/94 Correction 1.22000 File RUN267

Element	Units	Sample	Duplicate	Difference	Detect Limit	RPD
Al3082	ug/L	47	32	-15	20000	0%
Al308L	ug/L	48	32	-16	80	-39%
Ba4554	ug/L	212	213	2	6	1%
Be3130	ug/L	0	0	0	2	0%
Ca3179	ug/L	134188	135338	1150	500	1%
Cr2677	ug/L	3	3	1	10	29%
Co2286	ug/L	-2	1	3	6	0%
Cu3247	ug/L	34	35	1	6	3%
Fe2599	ug/L	675	676	1	80	0%
Fe2714	ug/L	1952	1898	-54	20000	-3%
Mg2795	ug/L	58241	58740	499	100	1%
Mg3832	ug/L	57468	57830	361	200	1%
Mn2576	ug/L	216	219	3	5	1%
Ni2316	ug/L	1	11	10	20	167%
K_7664	ug/L	14690	14416	-273	5000	-2%
Ag3280	ug/L	-2	-3	-1	6	48%
Na5895	ug/L	115905	116928	1023	1000	1%
V_2908	ug/L	8	9	1	8	11%
Zn2138	ug/L	39	36	-3	40	-7%

All duplicates values are within either 10% relative percent difference or the detection limit of each other.

R.D.
9-27-94

SPIKE COMPARISON

Sample 940152 942B19S01 Analyzed by RJD

Date Analyzed 09/26/94 Spike Correction 1.52000 File RUN267

Element	Units	Sample	Spike	Spike Added	Recovery
A13082	ug/L	-19	1000	1000	102%
A1308L	ug/L	-20	813	800	104%
Ba4554	ug/L	214	428	200	107%
Be3130	ug/L	0	11	10	109%
Ca3179	ug/L	132848	185000	50000	104% #
Cr2677	ug/L	1	104	100	103%
Co2286	ug/L	1	109	100	108%
Cu3247	ug/L	37	86	50	99%
Fe2599	ug/L	668	1495	800	103%
Fe2714	ug/L	1834	3000	0	0% #
Mg2795	ug/L	57255	83000	25000	103% #
Mg3832	ug/L	56933	83000	25000	104% #
Mn2576	ug/L	213	318	100	105% #
Ni2316	ug/L	-47	123	150	114%
K_7664	ug/L	14031	41000	25000	108%
Ag3280	ug/L	-2	50	50	105%
Na5895	ug/L	114424	169000	50000	109% #
V_2908	ug/L	5	62	50	115%
Zn2138	ug/L	34	444	400	102%

All spike recoveries are within 15% of the expected value.

Sample value is greater than twice the spike amount added;

the spike is invalid as an audit. There are 6 of these.

R.D.
9-27-94

SPIKE COMPARISON

Sample 940152 94ZB19S01 Analyzed by RJD

Date Analyzed 09/26/94 Spike Correction 1.52000 File RUN267

Element	Units	Sample	Spike	Spike Added	Recovery	
Al3082	ug/L	47	1000	1000	95%	
Al308L	ug/L	48	868	800	102%	
Ba4554	ug/L	212	423	200	106%	
Be3130	ug/L	0	11	10	109%	
Ca3179	ug/L	134188	187000	50000	106%	#
Cr2677	ug/L	3	103	100	100%	
Co2286	ug/L	-2	107	100	109%	
Cu3247	ug/L	34	89	50	109%	
Fe2599	ug/L	675	1508	800	104%	
Fe2714	ug/L	1952	3000	0	0%	#
Mg2795	ug/L	58241	85000	25000	107%	#
Mg3832	ug/L	57468	84000	25000	106%	#
Mn2576	ug/L	216	323	100	107%	#
Ni2316	ug/L	1	134	150	89%	
K_7664	ug/L	14690	42000	25000	109%	
Ag3280	ug/L	-2	50	50	104%	
Na5895	ug/L	115905	171000	50000	110%	#
V_2908	ug/L	8	62	50	108%	
Zn2138	ug/L	39	464	400	106%	

All spike recoveries are within 15% of the expected value.

Sample value is greater than twice the spike amount added;

the spike is invalid as an audit. There are 6 of these.

P.K.
9-27-94

ICP TOTAL METALS ANALYSIS REPORT

Sample RUN 267 PE PN808 Operator RJD

Date analyzed 09/26/94 Correction 1.22000 File name RUN267

Element	Concentration		Units
Aluminum	399.		micrograms/liter
Barium	7.0	U	micrograms/liter
Beryllium	2.0	U	micrograms/liter
Calcium	610.	U	micrograms/liter
Chromium	13.2		micrograms/liter
Cobalt	7.0	U	micrograms/liter
Copper	16.3		micrograms/liter
Iron	63400.		micrograms/liter
Magnesium	122.	U	micrograms/liter
Manganese	25.4		micrograms/liter
Nickel	24.0	U	micrograms/liter
Potassium	6100.	U	micrograms/liter
Silver	7.0	U	micrograms/liter
Sodium	1220.	U	micrograms/liter
Vanadium	258.		micrograms/liter
Zinc	49.0	U	micrograms/liter

R.L.
9-27-94

LABORATORY CONTROL STANDARD REPORT

Sample name LCS - SPIKED BLANK Date 09/26/94 File RUN267

Correction factor 1.52000

Element	Found value	True value	Percent Recovery	Units
Al3082	803.2	800	100.4%	micrograms/Liter
Al308L	816.7	800	102.1%	micrograms/Liter
Ba4554	209.4	200	104.7%	micrograms/Liter
Be3130	10.8	10	108.0%	micrograms/Liter
Ca3179	51366.9	50000	102.7%	micrograms/Liter
Cr2677	103.1	100	103.1%	micrograms/Liter
Co2286	104.2	100	104.2%	micrograms/Liter
Cu3247	63.2	50	126.4%	micrograms/Liter
Fe2599	857.3	800	107.2%	micrograms/Liter
Mg2795	26005.0	25000	104.0%	micrograms/Liter
Mg3832	25558.5	25000	102.2%	micrograms/Liter
Mn2576	105.1	100	105.1%	micrograms/Liter
Ni2316	145.1	150	96.7%	micrograms/Liter
K_7664	27106.0	25000	108.4%	micrograms/Liter
Ag3280	51.9	50	103.8%	micrograms/Liter
Na5895	51349.2	50000	102.7%	micrograms/Liter
V_2908	56.4	50	112.8%	micrograms/Liter
Zn2138	432.4	400	108.1%	micrograms/Liter

R.L.
9-27-94

LABORATORY CONTROL STANDARD REPORT

Sample name LCS - SPIKED BLANK Date 09/26/94 File RUN267

Correction factor 1.52000

Element	Found value	True value	Percent Recovery	Units
Al3082	879.4	800	109.9%	micrograms/Liter
Al308L	894.1	800	111.8%	micrograms/Liter
Ba4554	210.8	200	105.4%	micrograms/Liter
Be3130	10.7	10	107.0%	micrograms/Liter
Ca3179	52699.1	50000	105.4%	micrograms/Liter
Cr2677	110.1	100	110.1%	micrograms/Liter
Co2286	108.1	100	108.1%	micrograms/Liter
Cu3247	61.0	50	122.0%	micrograms/Liter
Fe2599	890.4	800	111.3%	micrograms/Liter
Mg2795	26844.2	25000	107.4%	micrograms/Liter
Mg3832	26142.2	25000	104.6%	micrograms/Liter
Mn2576	109.6	100	109.6%	micrograms/Liter
Ni2316	166.3	150	110.9%	micrograms/Liter
K_7664	27996.2	25000	112.0%	micrograms/Liter
Ag3280	52.0	50	104.0%	micrograms/Liter
Na5895	52839.9	50000	105.7%	micrograms/Liter
V_2908	66.7	50	133.4%	micrograms/Liter
Zn2138	460.9	400	115.2%	micrograms/Liter

R.L.
9-27-94

LCS / MDL CHECK SOLUTION REPORT

Sample name MDL - LCS Check Date 09/26/94 File RUN267

Correction factor 1.32000

Element	Found value	True value	Percent Deviation	Units
As1890	303.2	250	21.3%	ug/L
Ba4554	31.5	30	5.0%	ug/L
Be3130	5.4	5	8.0%	ug/L
Cd2144	49.1	50	-1.8%	ug/L
Cd2288	54.4	50	8.8%	ug/L
Cr2061	43.4	50	-13.2%	ug/L
Cr2677	51.7	50	3.4%	ug/L
Cu3247	34.2	30	14.0%	ug/L
Pb1822	286.0	400	-28.5%	ug/L
Pb2203	376.5	400	-5.9%	ug/L
Mn2576	26.9	25	7.6%	ug/L
Ni2316	66.5	80	-16.9%	ug/L

R.K.
9-27-94

LCS / MDL CHECK SOLUTION REPORT

Sample name MDL - LCS Check Date 09/26/94 File RUN267

Correction factor 1.32000

Element	Found value	True value	Percent Deviation	Units
As1890	217.8	250	-12.9%	ug/L
Ba4554	30.7	30	2.3%	ug/L
Be3130	5.5	5	10.0%	ug/L
Cd2144	50.5	50	1.0%	ug/L
Cd2288	60.7	50	21.4%	ug/L
Cr2061	40.3	50	-19.4%	ug/L
Cr2677	48.9	50	-2.2%	ug/L
Cu3247	40.0	30	33.3%	ug/L
Pb1822	325.1	400	-18.7%	ug/L
Pb2203	393.8	400	-1.6%	ug/L
Mn2576	28.9	25	15.6%	ug/L
Ni2316	74.6	80	-6.8%	ug/L

Run 267
Q.D. 9-27-94

Method: WATER1 Standard: blnk

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Avge	.01527	.00060	.01527	-.00133	-.0013	.14240	.00340
SDev	.00058	.00087	.00058	.00201	.0006	.00183	.00140
%RSD	3.7818	145.30	3.7818	-151.00	-48.22	1.2872	41.176
#1	.01560	.00160	.01560	-.00320	-.0006	.14280	.00280
#2	.01460	.00000	.01460	-.00160	-.0016	.14400	.00500
#3	.01560	.00020	.01560	.00080	-.0018	.14040	.00240

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Avge	.00173	.00580	.00400	.00207	.00313	.02327	.00840
SDev	.00023	.00262	.00160	.00310	.00012	.00631	.00106
%RSD	13.323	45.224	40.000	150.03	3.6852	27.133	12.599
#1	.00200	.00860	.00400	.00200	.00320	.02740	.00960
#2	.00160	.00340	.00240	.00520	.00320	.02640	.00760
#3	.00160	.00540	.00560	-.00100	.00300	.01600	.00800

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Avge	.06873	.07247	.00153	.01302	.01667	.00040	.17413
SDev	.00031	.00023	.00050	.00255	.00012	.00000	.00031
%RSD	.44448	.31868	32.825	19.577	.69282	.00000	.17544
#1	.06900	.07260	.00200	.01111	.01680	.00040	.17440
#2	.06880	.07220	.00160	.01591	.01660	.00040	.17380
#3	.06840	.07260	.00100	.01203	.01660	.00040	.17420

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Avge	.06567	.00080	-.00300	1.5881	-.00100	.08747	.02580
SDev	.00050	.00284	.00430	.0155	.00847	.00046	.00000
%RSD	.76648	354.44	-143.45	.97425	-846.64	.52806	.00000
#1	.06620	.00180	-.00320	1.5946	.00540	.08720	.02580
#2	.06520	.00300	-.00720	1.5704	-.01060	.08720	.02580
#3	.06560	-.00240	.00140	1.5992	.00220	.08800	.02580

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Avge	.00060	.00940	-.00200	-.00027	.01647
SDev	.00035	.00069	.00111	.00012	.00253
%RSD	57.735	7.3704	-55.678	-43.301	15.379
#1	.00080	.00900	-.00220	-.00020	.01740
#2	.00020	.00900	-.00080	-.00040	.01360
#3	.00080	.01020	-.00300	-.00020	.01840

Method: WATER1 Standard: ten1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Avge	.02080	.00080	.02080	.22353	.0009	.13913	.00433
SDev	.00087	.00020	.00087	.00387	.0001	.00179	.00186
%RSD	4.1912	25.000	4.1912	1.7311	13.32	1.2884	42.884
#1	.02140	.00080	.02140	.22120	.0008	.13820	.00220
#2	.02120	.00060	.02120	.22140	.0008	.14120	.00560
#3	.01980	.00100	.01980	.22800	.0010	.13800	.00520

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Avge	.00167	.11447	.22120	2.7217	1.8038	8.0256	.01233
SDev	.00012	.00301	.00209	.0122	.0041	.0269	.00050
%RSD	6.9282	2.6286	.94397	.44797	.22911	.33460	4.0810
#1	.00160	.11600	.22360	2.7282	1.8050	8.0324	.01180
#2	.00160	.11640	.21980	2.7292	1.8072	8.0484	.01280
#3	.00180	.11100	.22020	2.7076	1.7992	7.9960	.01240

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Avge	.07393	.08193	.21207	1.9690	.49053	1.4647	.52347
SDev	.00050	.00042	.00192	.0108	.00202	.0057	.00099
%RSD	.68078	.50814	.90623	.54899	.41245	.38845	.18847
#1	.07340	.08160	.21380	1.9794	.49160	1.4674	.52460
#2	.07400	.08180	.21000	1.9698	.49180	1.4686	.52300
#3	.07440	.08240	.21240	1.9578	.48820	1.4582	.52280

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Avge	.06813	2.6748	-.00280	1.6044	3.2923	4.7430	9.3985
SDev	.00023	.0158	.00131	.0221	.0116	.0195	.0454
%RSD	.33895	.59070	-46.839	1.3746	.35156	.41201	.48349
#1	.06800	2.6828	-.00400	1.5978	3.2998	4.7506	9.4252
#2	.06800	2.6850	-.00300	1.5864	3.2982	4.7576	9.4242
#3	.06840	2.6566	-.00140	1.6290	3.2790	4.7208	9.3460

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Avge	.36767	.01140	.00727	1.3107	.01993
SDev	.00083	.00106	.00150	.0053	.00250
%RSD	.22647	9.2833	20.657	.40553	12.545
#1	.36860	.01260	.00640	1.3140	.02000
#2	.36740	.01100	.00640	1.3136	.02240
#3	.36700	.01060	.00900	1.3046	.01740

Method: WATER1 Standard: ten2

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Avge	.03100	.00187	.03100	-.00140	.0003	76.114	1.2503
SDev	.00053	.00023	.00053	.00053	.0005	.253	.0025
%RSD	1.7069	12.372	1.7069	-37.796	188.7	.33257	.19743
#1	.03140	.00160	.03140	-.00100	-.0002	76.235	1.2496
#2	.03040	.00200	.03040	-.00200	.0008	75.823	1.2482
#3	.03120	.00200	.03120	-.00120	.0002	76.284	1.2530

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Avge	.55833	4.6694	1.9626	.00807	.00527	.02680	5.0327
SDev	.00099	.0064	.0070	.00114	.00064	.00703	.0205
%RSD	.17670	.13686	.35710	14.098	12.207	26.236	.40725
#1	.55880	4.6622	1.9622	.00840	.00480	.01880	5.0384
#2	.55720	4.6716	1.9558	.00680	.00500	.02960	5.0100
#3	.55900	4.6744	1.9698	.00900	.00600	.03200	5.0498

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Avge	.07527	.10353	-.00060	.01330	.01693	.00480	.18093
SDev	.00064	.00012	.00035	.00509	.00023	.00000	.00050
%RSD	.85417	.11153	-57.735	38.242	1.3638	.00000	.27818
#1	.075	.10340	-.00080	.01463	.01680	.00480	.18100
#2	.07480	.10360	-.00080	.01760	.01720	.00480	.18140
#3	.07600	.10360	-.00020	.00769	.01680	.00480	.18040

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Avge	10.996	-.00007	1.2704	4.6266	.00947	.09267	.02907
SDev	.031	.00083	.0120	.0099	.00392	.00099	.00031
%RSD	.28313	-1249.0	.94156	.21392	41.418	1.0647	1.0511
#1	11.013	.00060	1.2608	4.6216	.00900	.09200	.02940
#2	10.960	.00020	1.2838	4.6202	.01360	.09220	.02900
#3	11.015	-.00100	1.2666	4.6380	.00580	.09380	.02880

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Avge	.00093	.01000	6.0959	-.00007	6.8346
SDev	.00110	.00069	.0164	.00012	.0080
%RSD	118.02	6.9282	.26898	-173.21	.11691
#1	.00020	.01040	6.1054	.00000	6.8414
#2	.00220	.01040	6.0770	-.00020	6.8258
#3	.00040	.00920	6.1054	.00000	6.8366

Method: WATER1 Standard: ten3

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Avge	.55893	.16480	.55893	-.00127	14.11	.16533	.01153
SDev	.00101	.00284	.00101	.00114	.03	.00186	.00155
%RSD	.18010	1.7206	.18010	-89.783	.1910	1.1240	13.470
#1	.56000	.16160	.56000	.00000	14.14	.16620	.00980
#2	.55880	.16700	.55880	-.00220	14.10	.16660	.01200
#3	.55800	.16580	.55800	-.00160	14.09	.16320	.01280

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Avge	.00193	.00767	.01633	.00173	.00380	.03780	.00900
SDev	.00012	.00031	.00046	.00257	.00069	.00191	.00156
%RSD	5.9726	3.9849	2.8278	148.36	18.232	5.0473	17.356
#1	.00200	.00740	.01660	.00360	.00300	.03560	.00820
#2	.00200	.00760	.01580	-.00120	.00420	.03880	.01080
#3	.00180	.00800	.01660	.00280	.00420	.03900	.00800

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Avge	1.7450	.15113	.00080	.00763	.01680	7.4076	1.9090
SDev	.0036	.00012	.00080	.00556	.00000	.0157	.0024
%RSD	.20374	.07640	100.00	72.853	.00000	.21184	.12352
#1	1.7490	.15100	.00160	.00771	.01680	7.4256	1.9096
#2	1.7422	.15120	.00000	.01314	.01680	7.4004	1.9110
#3	1.7438	.15120	.00080	.00203	.01680	7.3968	1.9064

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Avge	.07493	.00087	-.00393	1.6189	.00073	.09173	.02673
SDev	.00031	.00162	.00081	.0086	.00261	.00092	.00012
%RSD	.40770	186.53	-20.550	.53143	355.94	1.0070	.43193
#1	.07520	.00260	-.00380	1.6138	.00280	.09120	.02680
#2	.075	-.00060	-.00320	1.6288	.00160	.09120	.02680
#3	.07460	.00060	-.00480	1.6140	-.00220	.09280	.02660

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Avge	.00133	5.7313	-.00973	-.00047	.02073
SDev	.00110	.0131	.00018	.00012	.00076
%RSD	82.614	.22862	-1.1863	-24.744	3.6520
#1	.00260	5.7446	-.00980	-.00040	.02040
#2	.00080	5.7310	-.00960	-.00060	.02020
#3	.00060	5.7184	-.00980	-.00040	.02160

Method: WATER1 Standard: Ca

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Avge	.01353	.00033	.01353	-.00053	.0110	.14647	.00380
SDev	.00090	.00031	.00090	.00023	.0002	.00046	.00350
%RSD	6.6639	91.652	6.6639	-43.301	1.818	.31535	92.218
#1	.01360	.00060	.01360	-.00040	.0112	.14700	.00360
#2	.01260	.00040	.01260	-.00080	.0110	.14620	.00740
#3	.01440	.00000	.01440	-.00040	.0108	.14620	.00040

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Avge	.00173	.00627	78.530	-.00013	.00213	.02353	.00853
SDev	.00012	.00258	.623	.00306	.00070	.00569	.00092
%RSD	6.6617	40.159	.79365	-2296.2	32.924	24.177	10.825
#1	.00180	.00860	77.811	-.00360	.00280	.02740	.00960
#2	.00180	.00660	78.857	.00100	.00220	.01700	.00800
#3	.00160	.00360	78.921	.00220	.00140	.02620	.00800

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Avge	.08333	.08427	-.00053	.01718	.01673	.00273	.26913
SDev	.00081	.00046	.00076	.00947	.00012	.00023	.00076
%RSD	.96995	.54812	-141.97	55.139	.69006	8.4490	.28135
#1	.08260	.08480	.00000	.00626	.01660	.00260	.26880
#2	.08320	.08400	-.00140	.02214	.01680	.00300	.26860
#3	.08420	.08400	-.00020	.02314	.01680	.00260	.27000

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Avge	.07993	.00040	-.00647	1.5927	-.01180	.09480	.03293
SDev	.00023	.00080	.00358	.0066	.00544	.00035	.00023
%RSD	.28892	200.00	-55.354	.41351	-46.138	.36541	.70123
#1	.07980	.00120	-.00340	1.5880	-.00560	.09460	.03280
#2	.07980	.00040	-.00560	1.5898	-.01580	.09460	.03280
#3	.08020	-.00040	-.01040	1.6002	-.01400	.09520	.03320

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Avge	-.00013	.01287	-.00107	-.00047	.01700
SDev	.00012	.00133	.00244	.00012	.00087
%RSD	-86.603	10.350	-229.13	-24.744	5.1281
#1	.00000	.01320	.00160	-.00040	.01600
#2	-.00020	.01400	-.00320	-.00040	.01760
#3	-.00020	.01140	-.00160	-.00060	.01740

Method: WATER1 Standard: al400

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Avge	22.125	5.8118	22.125	-.00167	.0019	.14333	.00440
SDev	.028	.0392	.028	.00247	.0003	.00103	.00040
%RSD	.12674	.67388	.12674	-148.11	15.80	.71604	9.0909
#1	22.154	5.7714	22.154	.00040	.0016	.14360	.00400
#2	22.098	5.8144	22.098	-.00440	.0022	.14420	.00440
#3	22.123	5.8496	22.123	-.00100	.0020	.14220	.00480

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Avge	.00567	.00587	.02927	.00507	.00607	.02207	.00920
SDev	.00012	.00180	.00522	.00272	.00070	.00523	.00069
%RSD	2.0377	30.745	17.825	53.593	11.578	23.710	7.5307
#1	.00580	.00600	.03500	.00540	.00680	.02140	.00840
#2	.00560	.00400	.02800	.00760	.00600	.02760	.00960
#3	.00560	.00760	.02480	.00220	.00540	.01720	.00960

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Avge	.08500	.07507	.00080	-.14018	.01720	.00180	.17967
SDev	.00020	.00012	.00100	.00281	.00000	.00020	.00081
%RSD	.23529	.15382	125.00	-2.0021	.00000	11.111	.44988
#1	.08480	.075	-.00020	-.13723	.01720	.00200	.17980
#2	.08500	.07520	.00180	-.14050	.01720	.00180	.18040
#3	.08520	.075	.00080	-.14281	.01720	.00160	.17880

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Avge	.08367	.00507	-.00427	1.6399	.00400	.10113	.02680
SDev	.00064	.00192	.00352	.0038	.00140	.00042	.00000
%RSD	.76842	37.930	-82.576	.23278	35.000	.41167	.00000
#1	.08440	.00680	-.00640	1.6356	.00260	.10160	.02680
#2	.08320	.00540	-.00620	1.6428	.00540	.10080	.02680
#3	.08340	.00300	-.00020	1.6414	.00400	.10100	.02680

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Avge	.00007	.01053	-.00387	-.00047	.01727
SDev	.00103	.00110	.00023	.00012	.00180
%RSD	1539.5	10.457	-5.9726	-24.744	10.446
#1	-.00020	.01160	-.00400	-.00040	.01900
#2	-.00080	.01060	-.00400	-.00060	.01740
#3	.00120	.00940	-.00360	-.00040	.01540

Method: WATER1 Standard: fe400

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Avge	.01713	.01987	.01713	-.00313	.0023	.14153	-.00107
SDev	.00151	.00162	.00151	.00090	.0008	.00023	.00185
%RSD	8.8388	8.1372	8.8388	-28.782	36.74	.16317	-173.21
#1	.01820	.02080	.01820	-.00320	.0016	.14140	.00000
#2	.01780	.01800	.01780	-.00220	.0020	.14180	.00000
#3	.01540	.02080	.01540	-.00400	.0032	.14140	-.00320

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Avge	.00560	.00547	.01387	.00360	.00220	.05093	.00613
SDev	.00000	.00145	.00076	.00106	.00069	.00291	.00083
%RSD	.00000	26.467	5.4605	29.397	31.492	5.7219	13.576
#1	.00560	.00620	.01300	.00480	.00140	.05000	.00640
#2	.00560	.00640	.01440	.00320	.00260	.05420	.00680
#3	.00560	.00380	.01420	.00280	.00260	.04860	.00520

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Avge	66.779	3.0383	.03167	.01511	.01687	.00180	.18067
SDev	.124	.0067	.00230	.00195	.00012	.00000	.00114
%RSD	.18544	.21925	7.2654	12.933	.68461	.00000	.62947
#1	66.889	3.0436	.03160	.01480	.01680	.00180	.18100
#2	66.803	3.0404	.03400	.01333	.01700	.00180	.17940
#3	66.645	3.0308	.02940	.01720	.01680	.00180	.18160

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Avge	.08880	.00500	-.00460	1.6263	-.03573	.09073	.02673
SDev	.00000	.00072	.00299	.0046	.00352	.00114	.00012
%RSD	.00000	14.422	-64.927	.28106	-9.8599	1.2534	.43193
#1	.08880	.00480	-.00240	1.6316	-.03620	.08980	.02680
#2	.08880	.00580	-.00340	1.6234	-.03200	.09040	.02660
#3	.08880	.00440	-.00800	1.6240	-.03900	.09200	.02680

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Avge	-.00333	.01013	.01100	-.00020	.04447
SDev	.00090	.00099	.00389	.00000	.00095
%RSD	-27.055	9.7360	35.396	.00000	2.1256
#1	-.00340	.00900	.00660	-.00020	.04480
#2	-.00240	.01060	.01400	-.00020	.04520
#3	-.00420	.01080	.01240	-.00020	.04340

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Method: WATER1

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Al3082	308.215	al400	blnk	18.0916	-.276199	09/26/94 10:14:37
Al1670	167.081	ten3	blnk	60901.3	-36.5408	09/26/94 10:06:57
Al308L	308.215	ten3	blnk	18393.6	-280.809	09/26/94 10:06:57
As1890	189.042	ten1	blnk	44470.8	59.2944	09/26/94 09:58:09
Ba4554	455.403	ten3	blnk	708.570	.944760	09/26/94 10:06:57
Be3130	313.042	ten2	blnk	131.628	-18.7438	09/26/94 10:01:53
B_2496	249.678	ten2	blnk	8020.10	-27.2684	09/26/94 10:01:53
Cd2144	214.438	ten2	blnk	17966.2	-31.1415	09/26/94 10:01:53
Cd2288	228.802	ten2	blnk	2144.27	-12.4367	09/26/94 10:01:53
Ca3179	317.933	Ca	blnk	5.09388	-.020376	09/26/94 10:10:40
Cr2061	206.149	ten1	blnk	3677.01	-7.59916	09/26/94 09:58:09
Cr2677	267.716	ten1	blnk	5553.50	-17.4010	09/26/94 09:58:09
Co2286	228.616	ten1	blnk	1249.64	-29.0749	09/26/94 09:58:09
Cu3247	324.765	ten2	blnk	1990.31	-16.7186	09/26/94 10:01:53
Fe2599	259.940	ten3	blnk	5965.64	-410.038	09/26/94 10:06:57
Fe2714	271.441	fe400	blnk	134.871	-9.77364	09/26/94 10:18:06
Pb1822	182.203	ten1	blnk	47498.4	-72.8309	09/26/94 09:58:09
Pb2203	220.353	ten1	blnk	5112.52	-66.5602	09/26/94 09:58:09
Li6707	670.780	ten1	blnk	21103.0	-351.716	09/26/94 09:58:09
Mg2795	279.553	ten1	blnk	6.82905	-.002732	09/26/94 09:58:09
Mg3832	383.231	ten3	blnk	28.8207	-5.01864	09/26/94 10:06:57
Mn2576	257.610	ten2	blnk	914.908	-60.0789	09/26/94 10:01:53
Mo2020	202.030	ten1	blnk	3739.72	-2.99177	09/26/94 09:58:09
Ni2316	231.604	ten2	blnk	7852.99	23.5590	09/26/94 10:01:53
K_7664	766.490	ten2	blnk	32.9106	-52.2643	09/26/94 10:01:53
Ag3280	328.068	ten1	blnk	303.644	.303644	09/26/94 09:58:09
Na5895	589.590	ten1	blnk	21.4798	-1.87877	09/26/94 09:58:09
Sr4215	421.552	ten1	blnk	1066.93	-27.5268	09/26/94 09:58:09
Sn1899	189.989	ten1	blnk	27243.0	-16.3458	09/26/94 09:58:09
Ti3372	337.280	ten3	blnk	1747.66	-16.4280	09/26/94 10:06:57
V_2908	290.882	ten2	blnk	1639.90	3.27980	09/26/94 10:01:53
Y_3710	371.080	ten1	blnk	7627.77	2.03407	09/26/94 09:58:09
Zn2138	213.856	ten2	blnk	1466.68	-24.1513	09/26/94 10:01:53

Method: WATER1 Sample Name: MO IEC Operator: RJD
Run Time: 09/26/94 10:26:21
Comment: 20 ppm
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.20142	L20.300	204.78	L41.506	L.9448	L-.01755	L-29.942
SDev	.00724	39.154	7.36	17.788	.1417	.28149	24.867
%RSD	3.5928	192.87	3.5928	42.857	15.00	-1603.9	-83.050
#1	L.19418	L-24.361	197.42	L59.294	L.8030	L-.34223	L-1.6040
#2	L.20866	L36.541	212.14	L41.506	L1.086	L.13163	L-40.101
#3	L.20142	L48.721	204.78	L23.718	L.9448	L.15795	L-48.121

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L1.1977	L.28590	L.03328	L1.2257	L-15.550	L5.9149	16.984
SDev	.0000	7.6995	.01000	2.6515	1.697	1.8022	2.298
%RSD	.00000	2693.1	30.046	216.33	-10.911	30.469	13.532
#1	L1.1977	L-2.5731	L.02751	L4.1673	L-17.401	7.9144	18.311
#2	L1.1977	L-5.5751	L.02751	L-.98054	L-14.069	L5.4151	14.330
#3	L1.1977	L9.0059	L.04483	L.49027	L-15.180	L4.4154	18.311

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L54.486	L.50352	L-136.16	L51.758	L8.4412	L.00410	L.16524
SDev	6.571	.04672	85.14	49.404	4.8735	.00000	.02599
%RSD	12.060	9.2789	-62.532	95.452	57.735	.00000	15.730
#1	L57.668	L.47654	L-91.830	L1.3634	L2.8138	L.00410	L.14026
#2	L58.861	L.55747	L-82.331	100.11	L11.255	L.00410	L.19214
#3	L46.930	L.47654	L-234.33	L53.803	L11.255	L.00410	L.16332

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L1.3419	20583.	L14.135	L1.3098	L-1.2753	L.14606	L.64016
SDev	.2795	81.	13.602	.1863	1.4281	.00894	.00000
%RSD	20.830	.39212	96.225	14.225	-111.98	6.1225	.00000
#1	L1.0369	20601.	L-1.5706	L1.2089	L-2.9150	L.13604	L.64016
#2	L1.5858	20495.	L21.988	L1.1958	L-.60729	L.15322	L.64016
#3	L1.4029	20654.	L21.988	L1.5249	L-.30364	L.14893	L.64016

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-19.978	L.81558	23.724	L-1.0170	L2.2489
SDev	20.628	1.0678	.757	.0000	2.8890
%RSD	-103.25	130.93	3.1927	.00000	128.46
#1	L-43.589	L1.0486	23.287	L-1.0170	L-.97779
#2	L-5.4486	L-.34953	23.287	L-1.0170	L3.1289
#3	L-10.897	L1.7477	24.598	L-1.0170	L4.5956

Method: WATER1 Sample Name: AL IEC Operator: RJD

Run Time: 09/26/94 10:31:27
Comment: 400 ppm
Mode: CONC Corr. Factor: .0025

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L1.0252	1073.7	1042.3	L-.00741	L.0015	L.00044	L-.05480
SDev	.0025	3.4	2.5	.13525	.0004	.00051	.02578
%RSD	.23944	.31405	.23945	-1824.8	26.65	116.51	-47.042
#1	L1.0275	1077.4	1044.6	L-.09635	L.0013	L-.00013	L-.03609
#2	L1.0254	1070.9	1042.6	L.14824	L.0013	L.00086	L-.08421
#3	L1.0226	1072.6	1039.6	L-.07412	L.0020	L.00059	L-.04411

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L.16768	L-.00143	L.00002	L.02451	L.01111	L.00479	L.00597
SDev	.00519	.00973	.00002	.01475	.00424	.01145	.00000
%RSD	3.0929	-680.53	123.72	60.156	38.188	239.09	.00000
#1	L.16469	L.00965	L.00003	L.01042	L.01203	L-.00771	L.00597
#2	L.17367	L-.00536	L.00003	L.03983	L.00648	L.00729	L.00597
#3	L.16469	L-.00858	L-.00001	L.02329	L.01481	L.01479	L.00597

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L.06860	L.00056	L-.39582	L-2.0913	L.02462	L.00001	L.00031
SDev	.00621	.00020	.08563	.0986	.00609	.00000	.00010
%RSD	9.0507	34.641	-21.633	-4.7142	24.743	.00000	30.731
#1	L.06363	L.00045	L-.41957	L-2.0867	L.02814	L.00001	L.00025
#2	L.06662	L.00045	L-.30082	L-2.1921	L.01759	L.00001	L.00026
#3	L.07556	L.00079	L-.46707	L-1.9950	L.02814	L.00001	L.00042

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L.03919	L.03428	L-.12565	L.00196	L.00526	L.00041	L.00124
SDev	.00229	.00286	.08771	.00042	.00144	.00013	.00031
%RSD	5.8366	8.3320	-69.807	21.594	27.416	31.879	24.744
#1	L.03690	L.03366	L-.22381	L.00171	L.00380	L.00030	L.00107
#2	L.03919	L.03740	L-.05497	L.00172	L.00531	L.00038	L.00107
#3	L.04148	L.03179	L-.09816	L.00245	L.00668	L.00055	L.00160

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.06357	L.00204	L-.00055	L-.00509	L.00538
SDev	.05157	.00497	.00125	.00220	.00331
%RSD	-81.127	243.70	-229.13	-43.301	61.490
#1	L-.02724	L-.00350	L-.00164	L-.00254	L.00196
#2	L-.04086	L.00350	L.00082	L-.00636	L.00562
#3	L-.12259	L.00612	L-.00082	L-.00636	L.00856

Method: WATER1 Sample Name: FE IEC Operator: RJD
Run Time: 09/26/94 10:35:43

Comment: 400 ppm
Mode: CONC Corr. Factor: .0025

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.00006	L3.7048	L.06438	L-.10377	L-.0001	L.00024	L.00267
SDev	.00006	.0176	.05913	.26806	.0004	.00040	.02730
%RSD	91.844	.47453	91.844	-258.33	-300.0	166.64	1021.0
#1	L.00011	L3.7150	L.10730	L-.07412	L-.0001	L-.00020	L.01203
#2	L.00009	L3.6845	L.08890	L.14824	L-.0005	L.00033	L.02406
#3	L.00000	L3.7150	L-.00307	L-.38541	L.0002	L.00059	L-.02807

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L.17367	L-.00715	L.00012	L.00981	L-.00648	L.08081	L-.01095
SDev	.00000	.02080	.00002	.00907	.00424	.01299	.00653
%RSD	.00000	-290.99	14.583	92.492	-65.465	16.077	-59.613
#1	L.17367	L-.03109	L.00010	L.01410	L-.01018	L.08602	L-.01791
#2	L.17367	L.00643	L.00012	L.01593	L-.00740	L.09039	L-.00995
#3	L.17367	L.00322	L.00014	L-.00061	L-.00185	L.06602	L-.00498

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	1006.4	L1.0060	L3.4753	L.02501	L.01759	L.00003	L.00038
SDev	3.5	.0040	.3032	.05026	.01055	.00000	.00003
%RSD	.34650	.39417	8.7247	200.90	60.000	.00000	8.6604
#1	1003.4	L1.0027	L3.2141	L-.02818	L.01759	L.00003	L.00037
#2	1010.2	L1.0104	L3.4041	L.07170	L.00703	L.00003	L.00037
#3	1005.7	L1.0048	L3.5078	L.03153	L.02814	L.00003	L.00042

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L.05367	L.04986	L-.07199	L.00235	L-.02535	L.00012	L.00267
SDev	.00070	.03046	.09410	.00020	.00289	.00005	.00000
%RSD	1.3019	61.084	-130.72	8.3430	-11.409	40.993	.00000
#1	L.05291	L.07105	L-.01571	L.00241	L-.02368	L.00011	L.00267
#2	L.05383	L.06358	L-.18062	L.00213	L-.02869	L.00007	L.00267
#3	L.05428	L.01496	L-.01963	L.00251	L-.02368	L.00017	L.00267

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.21794	L.00350	L.03662	L.00127	L.10927
SDev	.04086	.00660	.00762	.00000	.01489
%RSD	-18.750	188.75	20.802	.00000	13.628
#1	L-.21794	L.00437	L.03444	L.00127	L.09216
#2	L-.17708	L-.00350	L.03034	L.00127	L.11929
#3	L-.25881	L.00961	L.04510	L.00127	L.11636

Method: WATER1 Sample Name: AS IEC Operator: RJD
Run Time: 09/26/94 10:39:40
Comment: 20 ppm

Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.05669	101.50	L57.633	20563.	L.0945	L.04388	L9.0894
SDev	.01305	7.03	13.264	201.	.2834	.10960	14.014
%RSD	23.014	6.9282	23.014	.97519	300.0	249.80	154.18
#1	L.05307	97.442	L53.955	20356.	L-.1890	L.07898	L20.852
#2	L.04583	109.62	L46.597	20578.	L.3779	L.13163	L12.832
#3	L.07116	97.442	L72.348	20756.	L.0945	L-.07898	L-6.4161

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L4.7910	460.59	L.02751	L-10.296	L1.4809	L2.9991	L5.0421
SDev	3.5933	2.57	.01175	5.320	5.0899	12.052	.8286
%RSD	75.000	.55866	42.713	-51.673	343.69	401.85	16.434
#1	L8.3842	460.59	L.03668	L-16.424	L.37023	15.662	L4.7768
#2	L1.1977	458.02	L.01426	L-6.8638	L-2.9619	L1.6662	L5.9709
#3	L4.7910	463.16	L.03158	L-7.5992	7.0344	L-8.3309	L4.3787

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	105.00	L.26974	L-60.165	L-11.491	L11.255	L.08195	.21904
SDev	21.09	.04120	23.907	44.024	.000	.00000	.04659
%RSD	20.083	15.275	-39.736	-383.12	.00000	.00000	21.271
#1	129.26	L.26075	L-63.331	L-62.324	L11.255	L.08195	.22672
#2	94.655	L.31470	L-34.832	L13.633	L11.255	L.08195	L.16908
#3	91.075	L.23378	L-82.331	L14.218	L11.255	L.08195	.26131

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L2.0738	L2.7425	L1.0471	L1.5139	L1.6397	L.08449	L1.0669
SDev	.3809	7.1087	24.145	.0402	.2647	.03437	.0000
%RSD	18.368	259.21	2306.0	2.6566	16.144	40.678	.00000
#1	L1.7688	L-4.4877	L-26.700	L1.4788	L1.9433	L.11886	L1.0669
#2	L1.9518	L2.9918	L12.565	L1.5578	L1.5182	L.05012	L1.0669
#3	L2.5007	L9.7233	L17.277	L1.5051	L1.4575	L.08449	L1.0669

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-7.2648	L5.7090	L-5.4663	L-2.5426	L6.0623
SDev	15.7288	.4036	2.0830	.0000	.7761
%RSD	-216.51	7.0696	-38.105	.00000	12.802
#1	L-16.346	L5.9420	L-4.2637	L-2.5426	L6.3556
#2	L-16.346	L5.9420	L-4.2637	L-2.5426	L6.6489
#3	L10.897	L5.2430	L-7.8715	L-2.5426	L5.1823

Method: WATER1 Sample Name: BA IEC Operator: RJD
Run Time: 09/26/94 10:42:48
Comment: 20 ppm
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.01809	L52.781	L18.394	L-29.647	20570.	L-.03510	L-1.0693
SDev	.00418	25.355	4.248	17.788	124.	.09245	20.3106
%RSD	23.094	48.038	23.094	-60.000	.6032	-263.39	-1899.3
#1	L.02050	L24.361	L20.846	L-47.436	20580.	L-.13163	L-19.248
#2	L.01327	L60.901	L13.489	L-11.859	20700.	L-.02633	L20.852
#3	L.02050	L73.082	L20.846	L-29.647	20450.	L.05265	L-4.8121

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L4.7910	L.00000	L.01494	L-17.895	L1.8512	13.163	L1.7249
SDev	.0000	2.2693	.01950	6.740	7.8013	3.782	3.3855
%RSD	.00000	-408e6	130.50	-37.665	421.43	28.733	196.27
#1	L4.7910	L-1.7154	L-.00306	L-23.778	L-6.2940	10.164	L-.79613
#2	L4.7910	L2.5731	L.01223	L-19.366	L2.5916	11.913	L.39806
#3	L4.7910	L-.85771	L.03566	L-10.541	9.2558	17.412	L5.5729

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L41.759	L.27873	L18.999	L18.600	L9.8481	L.00410	L.14026
SDev	3.835	.10902	71.300	14.497	6.4471	.00000	.03506
%RSD	9.1844	39.111	375.28	77.939	65.465	.00000	24.998
#1	L44.543	L.26075	L22.166	L7.9366	L11.255	L.00410	L.11720
#2	L43.350	L.17983	L-53.832	L12.757	L2.8138	L.00410	L.12297
#3	L37.385	L.39562	L88.664	L35.106	L15.476	L.00410	L.18061

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L1.4638	L5.4849	L-3.1412	L1.5051	L.91093	L.07160	L.99580
SDev	.7395	7.4919	8.3108	.3322	2.1011	.01137	.12320
%RSD	50.518	136.59	-264.58	22.070	230.65	15.874	12.372
#1	L1.0369	L-2.9918	L-12.565	L1.2484	L-.72874	L.06730	L1.0669
#2	L1.0369	L11.219	L3.1412	L1.3866	L.18219	L.06301	L.85354
#3	L2.3178	L8.2274	L.00000	L1.8803	L3.2794	L.08449	L1.0669

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-14.530	L-.23302	L-5.2477	L-1.5256	L4.4000
SDev	25.749	.53392	5.5175	.8808	1.3549
%RSD	-177.22	-229.13	-105.14	-57.735	30.792
#1	L5.4486	L-.34953	L-9.5114	L-2.5426	L5.1823
#2	L-5.4486	L-.69906	L-7.2156	L-1.0170	L2.8356
#3	L-43.589	L.34953	L.98394	L-1.0170	L5.1823

Method: WATER1 Sample Name: CU IEC Operator: RJD
Run Time: 09/26/94 10:46:32
Comment: 20 ppm
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496

Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.01689	L-16.240	L-17.167	L-53.365	7.038	L.16673	L-8.0201
SDev	.00418	14.065	4.248	54.344	.750	.27400	9.7569
%RSD	-24.744	-86.603	-24.744	-101.84	10.65	164.34	-121.66
#1	L-.01930	L-24.361	L-19.620	L-100.80	7.605	L-.05265	L-1.6040
#2	L-.01206	L.00000	L-12.262	L-65.224	7.322	L.47386	L-19.248
#3	L-.01930	L-24.361	L-19.620	L5.9294	6.188	L.07898	L-3.2080

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L4.7910	L-3.7167	L.00204	L-12.257	L.74047	L.74978	20872.
SDev	3.5933	8.1857	.00882	8.101	3.5704	3.7931	149.
%RSD	75.000	-220.24	433.01	-66.091	482.18	505.89	.71435
#1	L1.1977	L-6.8617	L.01223	L-12.747	L-1.8512	L4.1654	20928.
#2	L4.7910	L5.5751	L-.00306	L-20.101	L4.8130	L1.4163	20703.
#3	L8.3842	L-9.8636	L-.00306	L-3.9221	L-.74047	L-3.3324	20985.

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L8.7496	L.21579	L.00000	L-.34083	L11.255	L.00000	L.13258
SDev	3.1567	.05615	42.836	8.19223	.000	.0000	.00881
%RSD	36.078	26.021	-54e9	-2403.6	.00000	.00000	6.6415
#1	L5.1702	L.23378	L3.1666	L-4.6256	L11.255	L.00000	L.12297
#2	L11.136	L.26075	L41.165	L9.1052	L11.255	L.00000	L.14026
#3	L9.9427	L.15285	L-44.332	L-5.5021	L11.255	L.00000	L.13450

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L1.5858	L4.4877	L-12.041	L1.4283	L3.2591	L.05442	L.64016
SDev	.4841	3.4275	34.601	.5003	1.3448	.01137	.00000
%RSD	30.528	76.376	-287.35	35.024	41.261	20.888	.00000
#1	L1.0369	L1.4959	L-45.547	L.92588	L2.3077	L.05012	L.64016
#2	L1.9518	L8.2274	L23.559	L1.4327	L2.6721	L.06730	L.64016
#3	L1.7688	L3.7397	L-14.135	L1.9264	L4.7976	L.04582	L.64016

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-3.6324	L.58255	L-.87461	L-2.5426	L30.702
SDev	3.1458	1.2275	3.47618	.0000	2.053
%RSD	-86.603	210.71	-397.45	.00000	6.6879
#1	L.00000	L-.69906	L-4.5917	L-2.5426	L28.356
#2	L-5.4486	L1.7477	L2.2959	L-2.5426	L32.169
#3	L-5.4486	L.69907	L-.32798	L-2.5426	L31.582

Method: WATER1 Sample Name: NI IEC Operator: RJD
Run Time: 09/26/94 10:49:42
Comment: 20 ppm
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

Avge	L-.00844	L24.361	L-8.5837	L-11.859	L2.882	L.26326	L-9.0895
SDev	.02260	12.180	22.9736	92.431	.295	.24128	30.1083
%RSD	-267.64	50.000	-267.64	-779.42	10.24	91.652	-331.24
#1	L.01689	L12.180	L17.167	L-65.224	L3.212	L.52651	L25.664
#2	L-.02653	L24.361	L-26.977	L-65.224	L2.787	L.05265	L-27.268
#3	L-.01568	L36.541	L-15.941	94.871	L2.645	L.21060	L-25.664

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L4.7910	L-4.4315	L.02988	L-6.1284	L1.8512	L1.4163	L4.2460
SDev	.0000	5.1164	.00678	4.4124	2.3121	2.7034	1.6573
%RSD	.00000	-115.46	22.699	-72.000	124.90	190.88	39.031
#1	L4.7910	L-6.0039	L.02547	L-10.541	L3.7023	L2.1660	L5.5729
#2	L4.7910	L-8.5771	L.03769	L-6.1284	L-.74047	L-1.5829	L4.7768
#3	L4.7910	L1.2866	L.02649	L-1.7159	L2.5916	L3.6656	L2.3884

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L26.647	L.17084	L-148.83	L-27.510	L9.8481	L.00410	L.14026
SDev	2.386	.01557	71.72	22.482	2.4368	.00000	.03600
%RSD	8.9552	9.1159	-48.190	-81.724	24.743	.00000	25.664
#1	L29.033	L.15285	L-224.83	L-52.829	L7.0344	L.00410	L.09991
#2	L26.647	L.17983	L-139.33	L-9.8842	L11.255	L.00410	L.15179
#3	L24.260	L.17983	L-82.331	L-19.817	L11.255	L.00410	L.16908

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L1.4029	L-3.9890	21042.	L1.2045	L.16194	L.07160	L.92467
SDev	.4841	6.0456	162.	.2991	1.4077	.02392	.24640
%RSD	34.510	-151.55	.77051	24.834	869.27	33.407	26.647
#1	L1.0369	L-10.471	21225.	L.93246	L-1.4575	L.09738	L.64016
#2	L1.9518	L1.4959	20986.	L1.1563	L.85020	L.05012	L1.0669
#3	L1.2199	L-2.9918	20916.	L1.5249	L1.0931	L.06730	L1.0669

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-10.897	L-2.5632	L-3.9358	L-2.5426	56.516
SDev	5.449	.8072	.6560	.0000	2.977
%RSD	-50.000	-31.492	-16.667	.00000	5.2676
#1	L-10.897	L-2.0972	L-4.5917	L-2.5426	59.156
#2	L-5.4486	L-3.4953	L-3.9358	L-2.5426	57.103
#3	L-16.346	L-2.0972	L-3.2798	L-2.5426	53.289

Method: WATER1 Sample Name: MN IEC Operator: RJD
Run Time: 09/26/94 10:53:41
Comment: 20 ppm
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.01206	L20.300	L12.262	L47.436	L1.086	L.11408	L-9.6241

SDev	.00553	28.129	5.619	54.344	.491	.11871	20.0983
%RSD	45.826	138.56	45.826	114.56	45.18	104.06	-208.83
#1	L.00603	L-12.180	L6.1312	94.871	L1.370	L.23693	L-11.228
#2	L.01689	L36.541	L17.167	L-11.859	L.5196	L.00000	L11.228
#3	L.01327	L36.541	L13.489	L59.294	L1.370	L.10530	L-28.872

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L4.7910	L-3.5738	L.00577	L-7.8443	L.00000	L-3.5823	L.26537
SDev	3.5933	1.3102	.00791	3.3161	4.2050	1.5202	2.0035
%RSD	75.000	-36.661	137.07	-42.274	331e6	-42.438	754.98
#1	L4.7910	L-2.1443	L.00815	L-11.276	L-2.9619	L-1.8328	L.00000
#2	L8.3842	L-3.6597	L.01223	L-4.6575	L-1.8512	L-4.5820	L-1.5923
#3	L1.1977	L-4.7174	L-.00306	L-7.5992	L4.8130	L-4.3321	L2.3884

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L47.725	L.29672	L-107.66	L-13.195	L12.662	L.00000	L.15563
SDev	.689	.06788	105.93	9.381	2.437	.0000	.02330
%RSD	1.4434	22.878	-98.387	-71.094	19.245	.00000	14.968
#1	L46.930	L.36865	L12.666	L-2.7266	L11.255	L.00000	L.18061
#2	L48.123	L.23378	L-148.83	L-16.019	L15.476	L.00000	L.13450
#3	L48.123	L.28773	L-186.83	L-20.840	L11.255	L.00000	L.15179

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	21111.	L11.468	L36.124	L1.2703	L3.3198	L.05442	L.71129
SDev	90.	2.627	32.983	.0568	1.7667	.02817	.12320
%RSD	.42800	22.904	91.304	4.4673	53.217	51.769	17.321
#1	21008.	L11.219	69.106	L1.3208	L3.1579	L.02864	L.85354
#2	21148.	L8.9753	L3.1412	L1.2813	L1.6397	L.08449	L.64016
#3	21177.	L14.211	L36.124	L1.2089	L5.1619	L.05012	L.64016

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-16.346	L.93209	L-3.9358	L-2.0341	L-2.8356
SDev	5.449	.53392	2.6033	.8808	1.4470
%RSD	-33.333	57.282	-66.144	-43.301	-51.030
#1	L-16.346	L.34953	L-4.9197	L-1.0170	L-2.1511
#2	L-21.794	L1.3981	L-.98394	L-2.5426	L-4.4978
#3	L-10.897	L1.0486	L-5.9036	L-2.5426	L-1.8578

Method: WATER1 Sample Name: TI IEC Operator: RJD
Run Time: 09/26/94 10:56:53
Comment: 20 ppm
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.01327	L20.300	L-13.489	L-41.506	L2.693	L.72834	L-19.248
SDev	.00836	25.355	8.496	20.540	.537	.17528	8.488

%RSD	-62.984	124.90	-62.984	-49.487	19.93	24.066	-44.096
#1	L-.02292	L12.180	L-23.299	L-29.647	L2.929	L.57916	L-9.6241
#2	L-.00844	L48.721	L-8.5837	L-29.647	L3.070	L.92139	L-22.456
#3	L-.00844	L.00000	L-8.5837	L-65.224	L2.078	L.68446	L-25.664

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-3.5932	L-3.7167	L.02004	L-1.4708	L4.0726	35.573	L-8.4920
SDev	2.0746	5.8540	.00311	12.3568	2.7952	.629	1.7950
%RSD	-57.735	-157.50	15.534	-840.14	68.635	1.7681	-21.137
#1	L-2.3955	L-7.7194	L.01936	L1.2257	L1.4809	35.656	L-6.7671
#2	L-2.3955	L-6.4328	L.02343	L-14.953	L3.7023	36.156	L-10.350
#3	L-5.9887	L3.0020	L.01732	9.3151	7.0344	34.906	L-8.3593

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L23.067	L.34167	L-98.163	L-.68163	L12.662	L.00546	L.17485
SDev	2.067	.02697	27.423	32.4934	2.437	.00000	.03600
%RSD	8.9589	7.8947	-27.936	-4767.0	19.245	.00000	20.588
#1	L20.681	L.36865	L-82.331	L-36.615	L11.255	L.00546	.21519
#2	L24.260	L.34167	L-129.83	L26.634	L15.476	L.00546	L.14602
#3	L24.260	L.31470	L-82.331	L7.9366	L11.255	L.00546	L.16332

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	10.369	L5.9835	L-4.1883	L1.4898	L3.0769	L.05012	L1.0669
SDev	1.498	5.8416	18.1357	.1444	.5443	.01873	.0000
%RSD	14.445	97.628	-433.01	9.6933	17.690	37.362	.00000
#1	11.650	L2.9918	L-25.130	L1.4064	L2.7328	L.02864	L1.0669
#2	10.735	L2.2438	L6.2824	L1.4064	L3.7045	L.05871	L1.0669
#3	8.7221	L12.715	L6.2824	L1.6565	L2.7935	L.06301	L1.0669

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L14.530	20731.	L-28.534	L-1.0170	L2.4445
SDev	40.162	34.	3.782	.0000	2.2211
%RSD	276.42	.16618	-13.256	.00000	90.863
#1	L-16.346	20691.	L-32.142	L-1.0170	L-.09778
#2	L.00000	20753.	L-28.862	L-1.0170	L3.4222
#3	59.935	20747.	L-24.598	L-1.0170	L4.0089

Method: WATER1 Sample Name: ZN IEC Operator: RJD
Run Time: 09/26/94 11:01:22
Comment: 20 ppm
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.00121	L8.1202	L-1.2262	L8.8942	L1.370	L.07020	L6.9508
SDev	.00627	28.129	6.3717	22.383	.375	.21441	13.829
%RSD	-519.61	346.41	-519.62	251.66	27.37	305.42	198.96

#1	L.00603	L24.361	L6.1312	L5.9294	L1.512	L-.07898	L9.6241
#2	L-.00482	L24.361	L-4.9050	L32.612	L.9448	L-.02633	L-8.0201
#3	L-.00482	L-24.361	L-4.9050	L-11.859	L1.653	L.31591	L19.248

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L.00000	L-1.2866	L.01630	44.614	L.74047	L-4.0821	L-3.4499
SDev	2.0746	2.2284	.00870	5.303	1.2825	9.9595	.4596
%RSD	-261e6	-173.20	53.400	11.886	173.20	-243.98	-13.323
#1	L-2.3955	L.00000	L.00815	50.498	L1.4809	L1.4163	L-3.1845
#2	L1.1977	L.00000	L.02547	43.144	L1.4809	L-15.579	L-3.9806
#3	L1.1977	L-3.8597	L.01528	40.202	L-.74047	L1.9161	L-3.1845

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L6.7610	L.31470	L-79.164	L8.5209	L11.255	L.00228	L.16524
SDev	2.7554	.05395	27.423	24.280	.000	.00079	.02599
%RSD	40.754	17.143	-34.641	284.94	.00000	34.641	15.730
#1	L5.1702	L.36865	L-63.331	L.92515	L11.255	L.00273	L.14026
#2	L5.1702	L.31470	L-110.83	L35.690	L11.255	L.00137	L.16332
#3	L9.9427	L.26075	L-63.331	L-11.053	L11.255	L.00273	L.19214

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L3.0497	L9.9726	L2.6177	L1.3625	L-.30364	L.08162	L.92467
SDev	.3660	12.343	52.335	.2837	2.01506	.03017	.24640
%RSD	12.000	123.77	1999.3	20.820	-663.63	36.967	26.647
#1	L3.4157	L9.7233	L10.994	L1.3406	L-.54656	L.05012	L1.0669
#2	L3.0497	22.438	L-53.400	L1.0904	L-2.1862	L.11026	L.64016
#3	L2.6837	L-2.2438	50.259	L1.6565	L1.8219	L.08449	L1.0669

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-18.162	L6.8741	L-2.7332	L-2.0341	21426.
SDev	3.146	1.3233	3.3501	.8808	58.
%RSD	-17.321	19.251	-122.57	-43.301	.27054
#1	L-21.794	L8.3888	L-1.3119	L-1.0170	21362.
#2	L-16.346	L5.9420	L-.32798	L-2.5426	21474.
#3	L-16.346	L6.2916	L-6.5596	L-2.5426	21443.

Method: WATER1 Sample Name: V IEC Operator: RJD
Run Time: 09/26/94 11:04:59
Comment: 20 ppm
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.37389	L-16.240	380.13	L11.859	14.22	119.97	L-25.664
SDev	.01462	25.355	14.87	31.235	1.27	.64	8.488
%RSD	3.9111	-156.12	3.9111	263.39	8.933	.53617	-33.072

#1	L.38957	L12.180	396.08	L-20.753	13.56	119.52	L-35.288
#2	L.36063	L-24.361	366.65	L41.506	13.42	119.68	L-19.248
#3	L.37148	L-36.541	377.68	L14.824	15.68	120.70	L-22.456

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-2.3955	L.71475	L.01121	L1.4708	8.1451	L-2.0827	L-1.3269
SDev	6.2237	1.0793	.00270	13.607	4.4428	7.2090	.4596
%RSD	-259.81	151.00	24.052	925.11	54.545	-346.13	-34.641
#1	L-9.5820	L1.7154	L.01019	10.050	12.588	L-.08331	L-1.5923
#2	L1.1977	L.85771	L.01426	L-14.218	L3.7023	L-10.080	L-.79613
#3	L1.1977	L-.42885	L.00917	8.5797	8.1451	L3.9155	L-1.5923

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L14.715	L9.1263	L.00000	L-13.487	L11.255	L.00000	L.13642
SDev	3.579	.0311	21.939	32.280	.000	.0000	.03378
%RSD	24.324	.34130	-863e6	-239.33	.00000	.00000	24.758
#1	L14.715	L9.1083	L12.666	L23.274	L11.255	L.00000	L.17485
#2	L11.136	L9.1622	L12.666	L-26.536	L11.255	L.00000	L.12297
#3	L18.295	L9.1083	L-25.332	L-37.200	L11.255	L.00000	L.11144

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L2.8057	L6.7315	L-16.230	L1.3691	L2.2470	L.05871	L.71129
SDev	.2795	4.5496	17.372	.2507	3.0102	.00000	.12320
%RSD	9.9621	67.586	-107.04	18.309	133.97	.00000	17.321
#1	L2.5007	L3.7397	L-14.135	L1.5907	L5.7085	L.05871	L.85354
#2	L3.0497	L11.967	L-34.553	L1.4195	L.24291	L.05871	L.64016
#3	L2.8667	L4.4877	L.00000	L1.0970	L.78947	L.05871	L.64016

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-7.2648	L3.1458	21095.	L-1.0170	L5.3778
SDev	6.2915	.9248	98.	.0000	1.7681
%RSD	-86.603	29.397	.46476	.00000	32.878
#1	L-10.897	L3.4953	21028.	L-1.0170	L7.2356
#2	L-10.897	L2.0972	21050.	L-1.0170	L5.1823
#3	L.00000	L3.8449	21208.	L-1.0170	L3.7156

Element:	Al	Al	2Al	As	Ba
Wavelength:	308.215	167.081/2	308.215	189.042/2	455.403
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	0	2	2	0	0
Affecting Element:	--n/a--	Fe2714	Mo2020	--n/a--	--n/a--
k1 factor:	--n/a--	0	.010239	--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--	Be3130	V_2908	--n/a--	--n/a--
k1 factor:	--n/a--	0	.019007	--n/a--	--n/a--
k2 factor:	--n/a--	0	0	--n/a--	--n/a--
use?:	--n/a--	YES	YES	--n/a--	--n/a--

Element:	Be	B	Cd	Cd	Ca
Wavelength:	313.042	249.678/2	214.438	228.802/2	317.933
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	1	0	3	2	0
Affecting Element:	V_2908	--n/a--	Al3082	As1890	--n/a--
k1 factor:	.005999	--n/a--	.16768	.02303	--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--	Fe2714	Ni2316	--n/a--
k1 factor:	--n/a--	--n/a--	.17367	-.00022	--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--	Ti3372	--n/a--	--n/a--
k1 factor:	--n/a--	--n/a--	-.00018	--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:	Cr	Cr	Co	Cu	Fe
Wavelength:	206.149	267.716	228.616	324.765	259.940
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	1	2	3	2	3
Affecting Element:	Zn2138	V_2908	Fe2714	Mo2020	Al3082
k1 factor:	.002231	.000407	.08081	.000849	.0686
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	YES	YES

Affecting Element:	--n/a--	Mo2020	Ba4554	Ti3372	Mo2020
k1 factor:	--n/a--	-.00078	.000658	-.00042	-.00272
k2 factor:	--n/a--	0	0	0	0
use?:	--n/a--	YES	YES	YES	YES

Affecting Element:	--n/a--	--n/a--	Ti3372	--n/a--	Mn2576
k1 factor:	--n/a--	--n/a--	.001779	--n/a--	.002386
k2 factor:	--n/a--	--n/a--	0	--n/a--	0
use?:	--n/a--	--n/a--	YES	--n/a--	YES

Element:	Fe	Pb	Pb	Li	Mg
Wavelength:	271.441	182.203	220.353	670.780	279.553
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	1	1	1	0	0
Affecting Element:	V_2908	Fe2714	Al3082	--n/a--	--n/a--
k1 factor:	0	3.4753	-2.0913	--n/a--	--n/a--
k2 factor:	0	0	0	--n/a--	--n/a--
use?:	NO	YES	YES	--n/a--	--n/a--

Element:	Mg	Mn	Mo	Ni	K
Wavelength:	383.231	257.610	202.030	231.604/2	766.490
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	0	2	0	0	0
Affecting Element:	--n/a--	Al3082	--n/a--	--n/a--	--n/a--
k1 factor:	--n/a--	.03919	--n/a--	--n/a--	--n/a--
k2 factor:	--n/a--	0	--n/a--	--n/a--	--n/a--
use?:	--n/a--	YES	--n/a--	--n/a--	--n/a--

Affecting Element:	--n/a--	Fe2714	--n/a--	--n/a--	--n/a--
k1 factor:	--n/a--	.05367	--n/a--	--n/a--	--n/a--
k2 factor:	--n/a--	0	--n/a--	--n/a--	--n/a--
use?:	--n/a--	YES	--n/a--	--n/a--	--n/a--

Element:	Ag	Na	Sr	Sn	Ti
Wavelength:	328.068	589.590	421.552	189.989	337.280
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	2	0	0	1	0

Affecting Element:	Fe2714	--n/a--	--n/a--	Fe2714	--n/a--
k1 factor:	-.02535	--n/a--	--n/a--	-.21794	--n/a--
k2 factor:	0	--n/a--	--n/a--	0	--n/a--
use?:	YES	--n/a--	--n/a--	YES	--n/a--
Affecting Element:	Mn2576	--n/a--	--n/a--	--n/a--	--n/a--
k1 factor:	.000166	--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--

Element:	V	Y	Zn
Wavelength:	290.882	371.080	213.856/2
Use IECs:	YES	YES	YES
Number of IECs:	2	0	3
Affecting Element:	Mo2020	--n/a--	Fe2714
k1 factor:	.001186	--n/a--	.10927
k2 factor:	0	--n/a--	0
use?:	YES	--n/a--	YES
Affecting Element:	Ti3372	--n/a--	Cu3247
k1 factor:	-.00143	--n/a--	.001535
k2 factor:	0	--n/a--	0
use?:	YES	--n/a--	YES
Affecting Element:	--n/a--	--n/a--	Ni2316
k1 factor:	--n/a--	--n/a--	.002826
k2 factor:	--n/a--	--n/a--	0
use?:	--n/a--	--n/a--	YES

Method: WATER1 Sample Name: INSTR BLANK 1 Operator: RJD
Run Time: 09/26/94 11:19:14
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.03498	L48.721	L35.400	L41.506	L1.181	L.66199	L-19.783
SDev	.00957	.000	9.822	92.431	.295	.13420	19.337
%RSD	27.370	.00000	27.747	222.69	24.98	20.272	-97.747
#1	L.02412	L48.721	L24.276	148.24	L.9448	L.81695	L-1.6040
#2	L.03860	L48.721	L39.049	L-11.859	L1.086	L.58392	L-17.644
#3	L.04221	L48.721	L42.876	L-11.859	L1.512	L.58510	L-40.101

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L5.9424	L-1.8194	L.03294	L5.1322	L3.3401	L.39522	L2.3790
SDev	2.0741	2.1749	.00623	3.7740	2.3113	1.3212	.0044
%RSD	34.903	-119.54	18.897	73.536	69.198	334.29	.18428
#1	L4.7606	L-4.2830	L.02751	9.3006	L1.4920	L-.59800	L2.3748
#2	L8.3374	L-1.0096	L.03158	L4.1487	L5.9316	L1.8946	L2.3787
#3	L4.7294	L-.16547	L.03973	L1.9474	L2.5967	L-.11098	L2.3836

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L11.957	L.23378	L-127.47	L-12.489	L12.662	L.00546	L.10375
SDev	2.480	.08092	87.99	5.317	2.437	.00000	.02330
%RSD	20.741	34.615	-69.029	-42.574	19.245	.00000	22.453
#1	L9.9839	L.15285	L-225.36	L-16.407	L11.255	L.00546	L.07686
#2	L14.741	L.23378	L-102.14	L-14.624	L15.476	L.00546	L.11720
#3	L11.146	L.31470	L-54.925	L-6.4363	L11.255	L.00546	L.11720

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L1.2670	L11.468	L-26.177	L.78985	L2.0300	L.05871	L.78242
SDev	.4585	5.253	37.836	.67467	1.5627	.03437	.24640
%RSD	36.192	45.807	-144.54	85.417	76.981	58.536	31.492
#1	L.84476	16.455	L-51.830	L.03730	L1.2183	L.05871	L.64016
#2	L1.7548	L11.967	L17.277	L1.3406	L3.8315	L.02434	L.64016
#3	L1.2013	L5.9835	L-43.977	L.99170	L1.0402	L.09308	L1.0669

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-7.2139	L.93209	L2.2836	L-1.5256	L6.9870
SDev	8.3171	.20180	2.8537	.8808	1.1757
%RSD	-115.29	21.651	124.96	-57.735	16.827
#1	L.03331	L1.0486	L4.2457	L-2.5426	L6.4817
#2	L-16.295	L1.0486	L3.5951	L-1.0170	L8.3309
#3	L-5.3800	L.69907	L-.99004	L-1.0170	L6.1485

Method: WATER1 Sample Name: AQC EV1&2 1 Operator: RJD

Run Time: 09/26/94 11:23:34
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q5.2683	8993.1	5201.0	Q5526.2	Q5372.	Q5442.1	Q5336.6
SDev	.0137	154.2	12.5	124.9	47.	50.4	62.8
%RSD	.26003	1.7150	.24050	2.2609	.8747	.92689	1.1768
#1	Q5.2526	8818.5	5186.6	Q5395.8	Q5328.	Q5394.4	Q5286.9
#2	Q5.2743	9049.9	5207.0	Q5538.1	Q5365.	Q5437.0	Q5315.7
#3	Q5.2779	9110.8	5209.3	Q5644.8	Q5422.	Q5494.9	Q5407.2

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	Q5517.9	Q5404.0	Q5.4043	Q5545.0	Q5360.8	Q5362.9	Q5346.3
SDev	34.5	45.2	.0594	31.0	40.6	57.9	53.0
%RSD	.62535	.83644	1.0999	.55990	.75806	1.0798	.99051
#1	Q5486.7	Q5358.1	Q5.3414	Q5510.0	Q5321.5	Q5303.6	Q5294.7
#2	Q5511.9	Q5405.4	Q5.4117	Q5555.5	Q5358.2	Q5366.0	Q5343.6
#3	Q5555.0	Q5448.4	Q5.4596	Q5569.4	Q5402.7	Q5419.3	Q5400.6

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	5283.2	Q8.2811	5572.9	Q5344.6	5195.6	5.3248	5.3280
SDev	41.3	.1648	149.8	51.1	42.3	.0465	.0458
%RSD	.78216	1.9903	2.6876	.95521	.81370	.87410	.85870
#1	5246.9	Q8.1372	5408.7	Q5285.7	5151.9	5.2802	5.2934
#2	5274.5	Q8.2451	5607.8	Q5374.6	5198.4	5.3212	5.3107
#3	5328.2	Q8.4609	5702.1	Q5373.7	5236.4	5.3731	5.3799

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	Q5325.1	Q5386.2	Q5323.8	.89517	517.89	.13317	5258.3
SDev	51.6	69.9	106.6	.04383	3.53	.01789	45.5
%RSD	.96858	1.2971	2.0018	4.8957	.68199	13.430	.86550
#1	Q5277.4	Q5310.4	Q5264.6	.90614	514.55	.11886	5215.2
#2	Q5318.2	Q5400.1	Q5259.9	.84690	517.53	.12745	5253.8
#3	Q5379.8	Q5448.0	Q5446.8	.93246	521.59	.15322	5305.9

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q5544.8	Q5313.1	Q5267.5	Q-1.5256	Q5370.5
SDev	116.4	50.5	42.7	1.7616	52.2
%RSD	2.0997	.95066	.81063	-115.47	.97153
#1	Q5477.6	Q5266.4	5226.3	Q-2.5426	Q5323.5
#2	Q5477.6	Q5306.2	Q5264.6	Q.50852	Q5361.3
#3	Q5679.3	Q5366.7	Q5311.5	Q-2.5426	Q5426.6

Method: WATER1 Sample Name: HIGH AQC EV3 1 Operator: RJD
Run Time: 09/26/94 11:26:51

Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q101.12	170150.	Q102810.	Q-29.647	Q2.456	Q2.0098	Q13.367
SDev	.31	440.	313.	124.518	.433	.2881	8.231
%RSD	.30504	.25841	.30493	-420.00	17.63	14.335	61.579
#1	Q101.47	170650.	Q103160.	Q23.718	Q2.362	Q2.2499	Q6.4161
#2	Q101.00	169820.	Q102680.	Q59.294	Q2.929	Q2.0891	Q11.228
#3	Q100.89	169980.	Q102580.	Q-171.95	Q2.078	Q1.6903	Q22.456

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	Q-2.1846	Q7.1172	Q105.08	Q29.964	Q.37675	Q2.0620	Q1.7160
SDev	2.1399	9.8543	.22	7.158	1.1057	2.0322	1.1561
%RSD	-97.955	138.46	.21374	23.888	293.48	98.554	67.373
#1	Q-4.6551	Q8.8900	Q105.32	Q26.082	Q-.72872	Q.22737	Q.38102
#2	Q-.99075	Q-3.5032	Q105.02	Q25.585	Q1.4826	Q1.7123	Q2.3864
#3	Q-.90795	Q15.965	Q104.88	Q38.224	Q.37633	Q4.2463	Q2.3804

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	101730.	Q101.16	-44.412	Q22.114	Q12.662	61.627	61.713
SDev	233.	.20	108.881	10.055	2.437	.123	.090
%RSD	.22870	.20190	-245.16	45.467	19.245	.19917	.14590
#1	101990.	Q101.25	-35.225	Q31.710	Q15.476	61.763	61.816
#2	101670.	Q101.31	59.584	Q11.656	Q11.255	61.591	61.655
#3	101540.	Q100.93	-157.60	Q22.977	Q11.255	61.526	61.667

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	Q8.9059	Q12.964	Q7.3295	106.55	2.0367	106.22	7.0418
SDev	.0904	7.529	22.007	.30	1.1258	.17	.4268
%RSD	1.0148	58.076	300.26	.28126	55.274	.16063	6.0606
#1	Q9.0093	Q20.942	Q6.2824	106.82	.98630	106.41	7.4685
#2	Q8.8420	Q5.9835	Q29.841	106.60	1.8986	106.15	7.0418
#3	Q8.8664	Q11.967	Q-14.135	106.23	3.2251	106.10	6.6150

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q18.415	Q4.7769	Q8.7376	Q-1.0170	Q102170.
SDev	30.053	2.8252	2.0960	.0000	85.
%RSD	163.20	59.143	23.989	.00000	.08334
#1	Q32.964	Q1.7477	Q11.129	Q-1.0170	Q102260.
#2	Q38.424	Q7.3402	Q7.2189	Q-1.0170	Q102160.
#3	Q-16.144	Q5.2430	Q7.8648	Q-1.0170	Q102100.

Method: WATER1 Standard: blnk

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Avge	.01747	.00147	.01747	-.00140	-.0013	.14780	.00193

SDev	.00050	.00042	.00050	.00193	.0001	.00111	.00192
%RSD	2.8816	28.386	2.8816	-137.77	-9.116	.75342	99.404
#1	.01740	.00160	.01740	.00080	-.0014	.14680	.00160
#2	.01800	.00100	.01800	-.00280	-.0012	.14760	.00400
#3	.01700	.00180	.01700	-.00220	-.0012	.14900	.00020

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Avge	.00207	.00400	.00487	.00000	.00320	.02167	.00820
SDev	.00012	.00111	.00182	.00243	.00069	.00358	.00151
%RSD	5.5873	27.839	37.289	6270e6	21.651	16.521	18.414
#1	.00220	.00300	.00620	-.00280	.00400	.02560	.00800
#2	.00200	.00520	.00560	.00120	.00280	.01860	.00980
#3	.00200	.00380	.00280	.00160	.00280	.02080	.00680

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Avge	.07080	.07433	.00060	.01353	.01733	.00060	.17660
SDev	.00053	.00064	.00035	.00331	.00012	.00000	.00092
%RSD	.74739	.86490	57.735	24.426	.66617	.00000	.51897
#1	.07040	.07360	.00080	.01311	.01720	.00060	.17560
#2	.07060	.07480	.00020	.01703	.01740	.00060	.17680
#3	.07140	.07460	.00080	.01046	.01740	.00060	.17740

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Avge	.06740	.00227	-.00267	1.6037	.00313	.09040	.02640
SDev	.00060	.00201	.00316	.0037	.00463	.00060	.00000
%RSD	.89021	88.822	-118.66	.23175	147.82	.66372	.00000
#1	.06680	.00200	-.00340	1.6048	.00440	.09040	.02640
#2	.06800	.00440	.00080	1.5996	.00700	.08980	.02640
#3	.06740	.00040	-.00540	1.6068	-.00200	.09100	.02640

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Avge	.00173	.00913	-.00627	-.00047	.01733
SDev	.00237	.00129	.00332	.00023	.00095
%RSD	136.69	14.078	-53.053	-49.487	5.4529
#1	.00300	.01060	-.00580	-.00020	.01700
#2	.00320	.00860	-.00320	-.00060	.01660
#3	-.00100	.00820	-.00980	-.00060	.01840

Method: WATER1 Standard: ten1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Avge	.02407	.00187	.02407	.24820	.0006	.14620	.00480
SDev	.00081	.00031	.00081	.00180	.0000	.00173	.00072
%RSD	3.3585	16.366	3.3585	.72522	.0000	1.1847	15.023
#1	.02420	.00220	.02420	.25	.0006	.14820	.00540
#2	.02320	.00180	.02320	.24640	.0006	.14520	.00500
#3	.02480	.00160	.02480	.24820	.0006	.14520	.00400

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Avge	.00193	.11967	.21853	3.0429	1.8903	8.6920	.01280

SDev	.00012	.00314	.00266	.0105	.0047	.0177	.00000
%RSD	5.9726	2.6231	1.2153	.34589	.24866	.20365	.00000
#1	.00200	.11720	.21700	3.0374	1.8902	8.6922	.01280
#2	.00200	.12320	.21700	3.0362	1.8856	8.6742	.01280
#3	.00180	.11860	.22160	3.0550	1.8950	8.7096	.01280
Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Avge	.07653	.08393	.24607	2.1164	.52280	1.5546	.53833
SDev	.00050	.00081	.00202	.0087	.00288	.0050	.00116
%RSD	.65765	.96301	.82222	.41160	.55173	.32137	.21449
#1	.07660	.08380	.24500	2.1137	.52200	1.5520	.53700
#2	.07700	.08480	.24480	2.1094	.52040	1.5506	.53900
#3	.07600	.08320	.24840	2.1262	.52600	1.5602	.53900
Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Avge	.07000	3.0020	-.00320	1.6115	3.3732	5.0050	9.8088
SDev	.00069	.0028	.00390	.0070	.0199	.0181	.0359
%RSD	.98974	.09327	-122.00	.43728	.59104	.36166	.36577
#1	.06960	3.0052	-.00300	1.6072	3.3526	5.0048	9.8014
#2	.07080	3.0008	.00060	1.6196	3.3746	4.9870	9.7778
#3	.06960	3.0000	-.00720	1.6076	3.3924	5.0232	9.8478
Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138		
Avge	.40733	.01093	.00760	1.3649	.02113		
SDev	.00319	.00130	.00333	.0044	.00103		
%RSD	.78303	11.902	43.798	.31912	4.8564		
#1	.41000	.01100	.01140	1.3636	.02000		
#2	.40380	.01220	.00620	1.3614	.02140		
#3	.40820	.00960	.00520	1.3698	.02200		

Method: WATER1 Standard: ten2

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Avge	.03420	.00520	.03420	-.00173	.0005	81.472	1.3487
SDev	.00100	.00040	.00100	.00110	.0006	.190	.0121
%RSD	2.9240	7.6923	2.9240	-63.549	123.7	.23304	.89494
#1	.03520	.00520	.03520	-.00180	-.0002	81.691	1.3464
#2	.03420	.00480	.03420	-.00280	.0008	81.366	1.3380
#3	.03320	.00560	.03320	-.00060	.0008	81.359	1.3618
Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Avge	.62853	5.0922	2.1132	.00880	.00533	.02767	5.4378
SDev	.00081	.0142	.0010	.00191	.00042	.00361	.0146
%RSD	.12860	.27960	.04917	21.680	7.8062	13.039	.26846
#1	.62840	5.0934	2.1126	.01000	.00520	.02420	5.4546
#2	.62780	5.0774	2.1126	.00660	.00500	.03140	5.4306
#3	.62940	5.1058	2.1144	.00980	.00580	.02740	5.4282
Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Avge	.07720	.11080	-.00060	.01313	.01760	.00520	.18220

SDev	.00040	.00035	.00122	.00654	.00000	.00000	.00122
%RSD	.51813	.31264	-202.76	49.814	.00000	.00000	.66770
#1	.07680	.11060	.00000	.00754	.01760	.00520	.18140
#2	.07720	.11120	-.00200	.02033	.01760	.00520	.18160
#3	.07760	.11060	.00020	.01153	.01760	.00520	.18360

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Avge	11.759	.00080	1.3727	4.7907	.00280	.09567	.02980
SDev	.030	.00243	.0106	.0102	.00469	.00129	.00053
%RSD	.25550	304.14	.77044	.21293	167.36	1.3441	1.7757
#1	11.793	.00200	1.3776	4.8010	-.00260	.09420	.03000
#2	11.735	.00240	1.3606	4.7906	.00520	.09620	.03020
#3	11.750	-.00200	1.3800	4.7806	.00580	.09660	.02920

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Avge	.00047	.00993	6.3571	.00000	7.4758
SDev	.00031	.00150	.0170	.00000	.0173
%RSD	65.465	15.112	.26792	.00000	.23077
#1	.00020	.00840	6.3768	.00000	7.4560
#2	.00080	.01000	6.3474	.00000	7.4876
#3	.00040	.01140	6.3472	.00000	7.4838

Method: WATER1 Standard: ten3

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Avge	.59167	.34400	.59167	.00053	15.46	.18033	.01313
SDev	.00477	.00183	.00477	.00061	.18	.00234	.00201
%RSD	.80656	.53285	.80656	114.56	1.162	1.2997	15.330
#1	.58780	.34240	.58780	.00040	15.28	.18300	.01340
#2	.59020	.34360	.59020	.00000	15.46	.17860	.01500
#3	.59700	.34600	.59700	.00120	15.64	.17940	.01100

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Avge	.00213	.00607	.01873	.00107	.00467	.04307	.00893
SDev	.00012	.00289	.00081	.00147	.00023	.00386	.00083
%RSD	5.4127	47.698	4.3147	138.21	4.9487	8.9610	9.3209
#1	.00200	.00420	.01920	.00220	.00440	.04000	.00960
#2	.00220	.00460	.01780	-.00060	.00480	.04180	.00800
#3	.00220	.00940	.01920	.00160	.00480	.04740	.00920

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Avge	1.8485	.15487	.00113	.00954	.01760	7.9693	1.9994
SDev	.0176	.00099	.00081	.00409	.00000	.0824	.0133
%RSD	.95376	.63705	71.320	42.923	.00000	1.0341	.66661
#1	1.8322	.15420	.00100	.01397	.01760	7.8876	1.9866
#2	1.8460	.15440	.00040	.00590	.01760	7.9680	1.9984
#3	1.8672	.15600	.00200	.00874	.01760	8.0524	2.0132

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Avge	.07893	-.00033	-.00287	1.6275	.00273	.09400	.02740

SDev	.00031	.00042	.00212	.0089	.00076	.00035	.00000
%RSD	.38704	-124.90	-73.945	.54756	27.702	.36852	.00000
#1	.07920	-.00080	-.00060	1.6320	.00220	.09420	.02740
#2	.07860	-.00020	-.00320	1.6332	.00360	.09420	.02740
#3	.07900	.00000	-.00480	1.6172	.00240	.09360	.02740

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Avge	.00147	6.1960	-.00827	-.00027	.02153
SDev	.00147	.0632	.00462	.00012	.00208
%RSD	100.52	1.0198	-55.873	-43.301	9.6672
#1	.00260	6.1358	-.00560	-.00020	.01920
#2	-.00020	6.1904	-.00560	-.00040	.02320
#3	.00200	6.2618	-.01360	-.00020	.02220

Method: WATER1 Standard: Ca

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Avge	.01633	.00067	.01633	-.00040	.0122	.15440	.00453
SDev	.00162	.00023	.00162	.00300	.0013	.00255	.00230
%RSD	9.8974	34.641	9.8974	-750.00	10.75	1.6538	50.751
#1	.01460	.00080	.01460	-.00340	.0136	.15660	.00460
#2	.01660	.00080	.01660	.00260	.0120	.15500	.00220
#3	.01780	.00040	.01780	-.00040	.0110	.15160	.00680

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Avge	.00200	.00567	84.922	.00133	.00213	.02313	.00947
SDev	.00000	.00114	.061	.00186	.00185	.00281	.00023
%RSD	.00000	20.069	.07213	139.37	86.603	12.145	2.4395
#1	.00200	.00660	84.859	.00080	.00000	.02340	.00960
#2	.00200	.00440	84.981	-.00020	.00320	.02580	.00960
#3	.00200	.00600	84.925	.00340	.00320	.02020	.00920

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Avge	.08533	.08607	-.00027	.01816	.01760	.00293	.27427
SDev	.00031	.00101	.00175	.00929	.00000	.00070	.00061
%RSD	.35802	1.1696	-655.27	51.132	.00000	23.945	.22278
#1	.08500	.08500	.00020	.00840	.01760	.00360	.27360
#2	.08560	.08620	-.00220	.02689	.01760	.00300	.27480
#3	.08540	.08700	.00120	.01920	.01760	.00220	.27440

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Avge	.08267	.00200	-.00560	1.5992	-.01053	.09800	.03380
SDev	.00031	.00053	.00295	.0116	.00352	.00122	.00000
%RSD	.36956	26.458	-52.610	.72504	-33.449	1.2414	.00000
#1	.08240	.00220	-.00880	1.5894	-.00860	.09720	.03380
#2	.08300	.00140	-.00300	1.5962	-.01460	.09740	.03380
#3	.08260	.00240	-.00500	1.6120	-.00840	.09940	.03380

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Avge	.00093	.01273	-.00133	-.00073	.01593

SDev	.00050	.00050	.00214	.00012	.00205
%RSD	53.927	3.9528	-160.39	-15.746	12.883
#1	.00100	.01280	-.00180	-.00080	.01420
#2	.00040	.01220	.00100	-.00060	.01540
#3	.00140	.01320	-.00320	-.00080	.01820

Method: WATER1 Standard: a1400

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Avge	23.433	10.828	23.433	-.00147	.0030	.14887	.00293
SDev	.230	.106	.230	.00140	.0002	.00155	.00090
%RSD	.98295	.97793	.98295	-95.779	6.667	1.0435	30.745
#1	23.231	10.708	23.231	-.00160	.0028	.15060	.00200
#2	23.382	10.871	23.382	.00000	.0032	.14840	.00300
#3	23.684	10.906	23.684	-.00280	.0030	.14760	.00380

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Avge	.00573	.00473	.03027	.00660	.00680	.02153	.00927
SDev	.00012	.00261	.00406	.00020	.00053	.00490	.00130
%RSD	2.0140	55.146	13.418	3.0303	7.7816	22.757	14.043
#1	.00580	.00560	.03300	.00680	.00700	.02640	.00920
#2	.00560	.00180	.03220	.00640	.00720	.01660	.01060
#3	.00580	.00680	.02560	.00660	.00620	.02160	.00800

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Avge	.08673	.07593	-.00147	-.14593	.01767	.00200	.17920
SDev	.00046	.00050	.00277	.00598	.00012	.00000	.00139
%RSD	.53253	.66284	-189.11	-4.1004	.65360	.00000	.77324
#1	.08700	.07640	-.00380	-.13946	.01760	.00200	.18000
#2	.08700	.07600	-.00220	-.14709	.01780	.00200	.18000
#3	.08620	.07540	.00160	-.15126	.01760	.00200	.17760

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Avge	.08673	.00440	-.00253	1.6315	.00387	.10347	.02720
SDev	.00031	.00211	.00272	.0156	.00578	.00042	.00020
%RSD	.35223	47.889	-107.19	.95559	149.40	.40238	.73529
#1	.08640	.00460	-.00220	1.6334	-.00280	.10380	.02720
#2	.08700	.00220	-.00540	1.6460	.00700	.10360	.02740
#3	.08680	.00640	.00000	1.6150	.00740	.10300	.02700

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Avge	.00067	.01033	-.00287	-.00033	.01920
SDev	.00212	.00050	.00061	.00012	.00223
%RSD	317.96	4.8709	-21.314	-34.641	11.600
#1	.00260	.00980	-.00300	-.00040	.01680
#2	-.00160	.01040	-.00220	-.00020	.02120
#3	.00100	.01080	-.00340	-.00040	.01960

Method: WATER1 Standard: fe400

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Avge	.01847	.03747	.01847	-.00280	.0010	.15000	.00227
SDev	.00061	.00170	.00061	.00174	.0005	.00131	.00273
%RSD	3.3087	4.5400	3.3087	-62.270	52.92	.87432	120.44
#1	.01860	.03940	.01860	-.00200	.0006	.15140	.00540
#2	.01780	.03620	.01780	-.00160	.0008	.14880	.00040
#3	.01900	.03680	.01900	-.00480	.0016	.14980	.00100

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Avge	.00573	.00553	.01507	.00273	.00247	.04980	.00687
SDev	.00012	.00122	.00212	.00266	.00050	.00211	.00050
%RSD	2.0140	22.085	14.069	97.164	20.405	4.2312	7.3299
#1	.00580	.00420	.01700	.00120	.00300	.05200	.00640
#2	.00580	.00580	.01540	.00580	.00240	.04960	.00740
#3	.00560	.00660	.01280	.00120	.00200	.04780	.00680

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Avge	70.792	3.1080	.03433	.01899	.01760	.00200	.18060
SDev	.265	.0099	.00261	.00444	.00000	.00000	.00156
%RSD	.37495	.31741	7.6026	23.368	.00000	.00000	.86492
#1	70.963	3.1118	.03140	.02026	.01760	.00200	.17880
#2	70.487	3.0968	.03640	.01406	.01760	.00200	.18140
#3	70.927	3.1154	.03520	.02266	.01760	.00200	.18160

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Avge	.09247	.00693	-.00280	1.6177	-.04120	.09147	.02707
SDev	.00050	.00391	.00383	.0042	.00583	.00081	.00012
%RSD	.54433	56.404	-136.84	.25737	-14.144	.88370	.42661
#1	.09300	.00320	-.00720	1.6130	-.04760	.09100	.02700
#2	.09200	.01100	-.00100	1.6190	-.03620	.09100	.02700
#3	.09240	.00660	-.00020	1.6210	-.03980	.09240	.02720

Elem	Sn1899•	Ti3372	V_2908	Y_3710	Zn2138
Avge	-.00273	.01013	.00640	-.00013	.04480
SDev	.00012	.00031	.00131	.00023	.00120
%RSD	-4.2245	3.0149	20.492	-173.21	2.6786
#1	-.00280	.01040	.00660	.00000	.04480
#2	-.00260	.00980	.00760	-.00040	.04360
#3	-.00280	.01020	.00500	.00000	.04600

Method: WATER1

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Al3082	308.215	al400	blnk	17.0830	-.298383	09/26/94 12:28:40
Al1670	167.081	ten3	blnk	29194.2	-42.8182	09/26/94 12:21:57
Al308L	308.215	ten3	blnk	17415.5	-304.191	09/26/94 12:21:57
As1890	189.042	ten1	blnk	40064.1	56.0897	09/26/94 12:14:59
Ba4554	455.403	ten3	blnk	646.725	.819184	09/26/94 12:21:57
Be3130	313.042	ten2	blnk	123.702	-18.2831	09/26/94 12:18:34
B_2496	249.678	ten2	blnk	7425.01	-14.3550	09/26/94 12:18:34
Cd2144	214.438	ten2	blnk	15962.5	-32.9893	09/26/94 12:18:34
Cd2288	228.802	ten2	blnk	1964.90	-7.85959	09/26/94 12:18:34
Ca3179	317.933	Ca	blnk	4.71049	-.022924	09/26/94 12:25:19
Cr2061	206.149	ten1	blnk	3286.37	.000000	09/26/94 12:14:59
Cr2677	267.716	ten1	blnk	5295.11	-16.9444	09/26/94 12:14:59
Co2286	228.616	ten1	blnk	1153.36	-24.9894	09/26/94 12:14:59
Cu3247	324.765	ten2	blnk	1841.76	-15.1024	09/26/94 12:18:34
Fe2599	259.940	ten3	blnk	5625.35	-398.275	09/26/94 12:21:57
Fe2714	271.441	fe400	blnk	131.854	-9.80112	09/26/94 12:32:17
Pb1822	182.203	ten1	blnk	40738.7	-24.4432	09/26/94 12:14:59
Pb2203	220.353	ten1	blnk	4755.36	-64.3559	09/26/94 12:14:59
Li6707	670.780	ten1	blnk	19783.7	-342.917	09/26/94 12:14:59
Mg2795	279.553	ten1	blnk	6.43501	-.003861	09/26/94 12:14:59
Mg3832	383.231	ten3	blnk	27.4303	-4.84420	09/26/94 12:21:57
Mn2576	257.610	ten2	blnk	855.310	-57.6479	09/26/94 12:18:34
Mo2020	202.030	ten1	blnk	3333.63	-7.55623	09/26/94 12:14:59
Ni2316	231.604	ten2	blnk	7270.61	19.3883	09/26/94 12:18:34
K_7664	766.490	ten2	blnk	31.3775	-50.3211	09/26/94 12:18:34
Ag3280	328.068	ten1	blnk	296.730	-.929754	09/26/94 12:14:59
Na5895	589.590	ten1	blnk	20.3475	-1.83942	09/26/94 12:14:59
Sr4215	421.552	ten1	blnk	1022.24	-26.9872	09/26/94 12:14:59
Sn1899	189.989	ten1	blnk	24654.8	-42.7350	09/26/94 12:14:59
Ti3372	337.280	ten3	blnk	1616.33	-14.7625	09/26/94 12:21:57
V_2908	290.882	ten2	blnk	1571.49	9.84798	09/26/94 12:18:34
Y_3710	371.080	ten1	blnk	7323.86	3.41780	09/26/94 12:14:59
Zn2138	213.856	ten2	blnk	1346.60	-23.3412	09/26/94 12:18:34

Method: WATER1 Sample Name: INSTR BLANK 2 Operator: RJD
Run Time: 09/26/94 12:42:02
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.02050	L9.7314	L20.857	L-13.355	L.5174	L.38705	L-6.4350
SDev	.01381	5.8388	14.006	60.672	.4158	.21990	3.7372
%RSD	67.358	60.000	67.151	-454.31	80.36	56.815	-58.076
#1	L.02278	L9.7314	L23.187	L-40.064	L.8192	L.39523	L-2.4750
#2	L.00569	L3.8926	L5.8326	L56.090	L.0431	L.60275	L-9.9000
#3	L.03303	L15.570	L33.552	L-56.090	L.6898	L.16317	L-6.9300

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-4.2555	L3.5794	L.02575	L-6.1395	L1.0595	L2.7691	L2.8231
SDev	5.5302	2.6276	.00713	6.3847	3.6639	2.5696	.4206
%RSD	-129.95	73.408	27.702	-103.99	345.82	92.796	14.899
#1	L-7.4452	L.91891	L.02889	L-.66239	L3.1794	L.84747	L2.5761
#2	L2.1302	L6.1727	L.03078	L-4.6042	L3.1701	L1.7720	L2.5844
#3	L-7.4514	L3.6465	L.01759	L-13.152	L-3.1712	L5.6878	L3.3087

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L14.252	L-.02637	L-103.11	L2.8508	L3.9567	L.00386	L.02377
SDev	3.253	.01522	23.55	14.808	2.2844	.00000	.05185
%RSD	22.823	-57.733	-22.836	519.44	57.735	.00000	218.11
#1	L18.008	L-.04395	L-89.472	L17.348	L1.3189	L.00386	L-.01646
#2	L12.355	L-.01758	L-89.564	L3.4539	L5.2756	L.00386	L.00549
#3	L12.394	L-.01758	L-130.30	L-12.250	L5.2756	L.00386	L.08229

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L.39976	L1.3335	L-13.572	L.18199	L-.91071	L.01763	L.13630
SDev	.69051	8.1475	3.659	.24194	2.18539	.01308	.23608
%RSD	172.73	611.01	-26.964	132.94	-239.97	74.182	173.21
#1	L.00147	L3.1114	L-16.965	L.02092	L.13736	L.01221	L.00000
#2	L.00072	L-7.5562	L-9.6942	L.06485	L-3.4227	L.03256	L.00000
#3	L1.1971	L8.4452	L-14.057	L.46020	L.55325	L.00814	L.40890

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-34.523	L.43102	L1.4658	L-.48826	L2.1915
SDev	7.532	1.4814	1.2743	.84569	.6846
%RSD	-21.816	343.69	86.939	-173.21	31.239
#1	L-32.883	L.75429	L.10215	L-.97651	L2.2931
#2	L-27.946	L-1.1853	L2.6264	L-.97651	L1.4617
#3	L-42.739	L1.7241	L1.6687	L.48826	L2.8195

Method: WATER1 Sample Name: AOC EV1&2 2 Operator: RJD

Run Time: 09/26/94 12:45:59
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q5.0327	5198.5	4982.5	5211.0	5117.	5220.7	5121.3
SDev	.0086	41.0	8.5	40.3	6.	9.2	40.8
%RSD	.17085	.78889	.17130	.77395	.1164	.17597	.79640
#1	Q5.0418	5159.6	4991.6	5168.3	5116.	5226.9	5108.9
#2	Q5.0247	5241.3	4974.8	5248.4	5112.	5210.2	5166.8
#3	Q5.0315	5194.6	4981.0	5216.3	5124.	5225.2	5088.1

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	5109.8	5110.3	5.1131	5219.4	5129.3	5092.3	5113.8
SDev	16.1	7.6	.0061	15.6	10.6	9.1	4.9
%RSD	.31449	.14783	.11846	.29851	.20691	.17789	.09566
#1	5112.0	5112.7	5.1106	5229.1	5141.3	5085.2	5117.9
#2	5092.8	5101.8	5.1087	5201.4	5125.4	5089.2	5108.4
#3	5124.7	5116.3	5.1200	5227.7	5121.2	5102.5	5115.0

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	5042.7	Q8.2628	5020.2	5044.9	5017.1	5.1532	5.0984
SDev	13.9	.0457	100.7	28.4	18.7	.0056	.0321
%RSD	.27491	.55277	2.0055	.56252	.37270	.10886	.63050
#1	5048.3	Q8.2101	5104.5	5066.8	5010.6	5.1557	5.1350
#2	5026.9	Q8.2892	4908.7	5012.9	5002.6	5.1467	5.0746
#3	5052.8	Q8.2892	5047.2	5055.2	5038.2	5.1570	5.0856

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	5083.6	5024.7	5170.9	.60872	509.19	.05833	5097.3
SDev	8.1	20.6	65.9	.14587	1.43	.00622	8.2
%RSD	.15873	.41034	1.2746	23.964	.27990	10.657	.16023
#1	5090.2	5035.6	5133.5	.49786	509.52	.06511	5101.4
#2	5074.6	5000.9	5132.1	.77398	510.42	.05290	5087.9
#3	5086.1	5037.6	5247.0	.55434	507.63	.05697	5102.6

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	5141.5	5044.6	5088.0	Q1.4648	5119.9
SDev	35.6	7.8	9.9	.8457	10.6
%RSD	.69177	.15517	.19437	57.735	.20766
#1	5102.1	5047.9	5087.9	Q1.9530	5107.9
#2	5151.4	5035.6	5078.2	Q.48826	5123.3
#3	5171.1	5050.2	5098.0	Q1.9530	5128.3

Method: WATER1 Sample Name: HIGH AQC EV3 2 Operator: RJD
Run Time: 09/26/94 12:49:20

Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q97.168	98052.	Q99059.	Q-16.026	Q1.940	Q1.6698	Q21.285
SDev	.149	214.	152.	92.408	.454	.3691	7.858
%RSD	.15348	.21818	.15357	-576.63	23.41	22.105	36.917
#1	Q97.006	97828.	Q98894.	Q-48.077	Q2.371	Q2.0652	Q27.225
#2	Q97.198	98254.	Q99089.	Q-88.141	Q1.983	Q1.6101	Q12.375
#3	Q97.300	98073.	Q99194.	Q88.141	Q1.466	Q1.3342	Q24.255

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	Q-9.8474	Q1.8015	Q100.05	Q15.986	Q-1.4070	Q4.1687	Q3.7967
SDev	1.8641	2.7226	.23	6.928	2.4484	2.6775	2.1213
%RSD	-18.930	151.13	.22842	43.341	-174.02	64.228	55.873
#1	Q-8.6900	Q2.6721	Q99.792	Q16.786	Q.01100	Q6.8093	Q6.2461
#2	Q-11.998	Q3.9823	Q100.11	Q22.480	Q.00218	Q4.2412	Q2.5716
#3	Q-8.8543	Q-1.2499	Q100.23	Q8.6921	Q-4.2342	Q1.4557	Q2.5723

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	97504.	Q97.695	-92.370	Q23.750	Q9.2324	59.860	59.659
SDev	229.	.340	123.441	25.273	.0000	.110	.107
%RSD	.23439	.34813	-133.64	106.41	.00000	.18426	.17862
#1	97255.	Q97.317	28.444	Q25.404	Q9.2324	59.743	59.568
#2	97554.	Q97.791	-87.275	Q48.155	Q9.2324	59.876	59.634
#3	97703.	Q97.976	-218.28	Q-2.3098	Q9.2324	59.961	59.776

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	Q7.8838	Q13.335	Q-38.292	103.19	-.61074	103.89	6.3379
SDev	.6104	7.314	15.684	.61	.50299	.11	.3541
%RSD	7.7419	54.848	-40.959	.58854	-82.358	.10395	5.5872
#1	Q8.2526	Q21.780	Q-31.506	102.53	-.06649	103.78	6.5424
#2	Q8.2196	Q9.1119	Q-56.226	103.72	-.70725	103.90	6.5424
#3	Q7.1793	Q9.1119	Q-27.144	103.33	-1.0585	104.00	5.9290

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q-23.087	Q3.9869	Q13.086	Q.48826	Q97533.
SDev	7.499	2.1198	1.303	.00000	201.
%RSD	-32.482	53.168	9.9582	.00000	.20618
#1	Q-21.526	Q6.2498	Q14.546	Q.48826	Q97370.
#2	Q-16.491	Q2.0473	Q12.040	Q.48826	Q97470.
#3	Q-31.244	Q3.6637	Q12.671	Q.48826	Q97758.

Method: WATER1 Sample Name: LCS - SPIKED BLANK Operator: RJD
Run Time: 09/26/94 12:54:34
Comment: RUN 267

Mode: CONC Corr. Factor: 1.52

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.80322	852.00	816.72	113.68	209.4	10.755	829.90
SDev	.02077	13.56	21.06	7.03	.5	.108	94.95
%RSD	2.5862	1.5912	2.5786	6.1859	.2168	1.0046	11.441
#1	L.78245	840.17	795.48	109.62	209.6	10.682	732.09
#2	L.82399	849.05	837.60	109.62	209.6	10.879	921.69
#3	L.80322	866.80	817.09	121.79	208.9	10.704	835.92

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	48.152	54.758	51.367	101.94	103.08	104.16	63.223
SDev	2.803	4.063	.190	11.51	2.79	10.02	1.933
%RSD	5.8203	7.4195	.37028	11.293	2.7076	9.6172	3.0569
#1	51.388	58.430	51.573	110.91	101.47	113.75	62.098
#2	46.536	55.450	51.197	105.95	106.30	104.98	65.455
#3	46.532	50.393	51.331	88.957	101.46	93.761	62.117

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	857.31	L1.4831	655.36	838.05	66.157	26.005	25.558
SDev	2.01	.0231	136.50	20.77	6.945	.077	.076
%RSD	.23498	1.5604	20.828	2.4782	10.497	.29725	.29903
#1	858.47	L1.4965	589.26	815.59	62.147	26.088	25.642
#2	858.47	L1.4564	812.32	856.57	62.147	25.936	25.542
#3	854.98	L1.4965	564.49	841.97	74.176	25.991	25.492

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	105.11	103.37	145.14	27.106	51.889	51.349	1045.8
SDev	.40	14.42	22.14	.316	4.014	.068	4.1
%RSD	.37759	13.945	15.254	1.1641	7.7351	.13269	.38782
#1	104.67	110.13	120.09	26.778	49.754	51.353	1050.4
#2	105.20	113.17	153.25	27.131	56.518	51.279	1042.6
#3	105.45	86.817	162.09	27.408	49.393	51.415	1044.5

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	375.08	101.88	56.395	54.919	432.44
SDev	52.65	.85	10.499	2.571	9.76
%RSD	14.037	.83539	18.618	4.6812	2.2578
#1	430.04	101.38	56.068	56.403	443.29
#2	325.10	102.86	67.054	51.951	424.37
#3	370.08	101.38	46.063	56.403	429.67

Method: WATER1 Sample Name: MDL - LCS Check Operator: RJD
Run Time: 09/26/94 12:58:18
Comment: RUN 267
Mode: CONC Corr. Factor: 1.32

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.00902	L-15.415	L-9.2392	303.21	31.53	5.3561	L-11.761
SDev	.00521	8.900	5.1160	58.25	.36	.4526	7.922
%RSD	-57.735	-57.735	-55.373	19.212	1.127	8.4508	-67.358
#1	L-.01503	L-10.276	L-15.147	243.27	31.64	5.0308	L-13.068
#2	L-.00601	L-25.691	L-6.2831	359.62	31.13	5.1646	L-18.949
#3	L-.00601	L-10.276	L-6.2878	306.73	31.81	5.8731	L-3.2670

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	49.124	54.415	L.02404	43.373	51.713	L-.95364	34.205
SDev	4.216	6.545	.01258	10.838	2.799	2.16511	3.421
%RSD	8.5825	12.028	52.324	24.989	5.4123	-227.03	10.003
#1	44.903	61.845	L.03192	52.050	48.914	L-2.8872	37.454
#2	53.335	51.899	L.00953	46.844	54.511	L1.3856	30.634
#3	49.134	49.502	L.03067	31.224	51.713	L-1.3594	34.528

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L10.307	L.24367	285.95	376.55	L17.410	L.01246	L.08690
SDev	3.943	.05317	198.93	11.81	5.223	.00098	.04749
%RSD	38.258	21.822	69.569	3.1354	30.000	7.8730	54.645
#1	L7.3166	L.29008	482.97	377.91	L12.187	L.01359	L.07966
#2	L14.776	L.25527	L85.153	387.61	L17.410	L.01189	L.04345
#3	L8.8293	L.18565	289.74	364.12	22.633	L.01189	L.13759

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	26.858	L-9.0941	66.541	L1.6043	L-1.4083	L.05014	L.89958
SDev	.227	6.9854	39.399	.3743	1.6439	.03238	.15581
%RSD	.84361	-76.812	59.211	23.329	-116.73	64.583	17.320
#1	26.630	L-17.015	56.304	L1.2122	L-.12763	L.08058	L.80962
#2	27.083	L-3.8137	L33.270	L1.6429	L-3.2621	L.01612	L.80962
#3	26.861	L-6.4539	110.05	L1.9577	L-.83534	L.05372	L1.0795

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-45.509	L-.14224	7.2017	L1.9335	L3.2879
SDev	19.883	2.84118	6.5120	1.1163	.9257
%RSD	-43.691	-1997.5	90.423	57.735	28.155
#1	L-62.856	L.56895	L-.25559	L2.5780	L2.7142
#2	L-23.810	L-3.2714	10.095	L.64450	L2.7936
#3	L-49.861	L2.2758	11.766	L2.5780	L4.3558

Method: WATER1 Sample Name: DIGESTION BLANK Operator: RJD
Run Time: 09/26/94 13:02:02
Comment: RUN 267
Mode: CONC Corr. Factor: 1.22

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496

Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.00417	L-35.617	L-4.3129	L3.2585	L.5786	L.21615	L-7.8507
SDev	.00868	29.657	8.7666	37.010	.3644	.24230	20.9980
%RSD	-208.17	-83.267	-203.26	1135.8	62.98	112.10	-267.47
#1	L-.01389	L-59.362	L-14.139	L19.551	L.3682	L-.06114	L6.0390
#2	L.00278	L-2.3745	L2.7060	L29.327	L.9994	L.32253	L2.4156
#3	L-.00139	L-45.115	L-1.5055	L-39.103	L.3682	L.38707	L-32.007

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-3.8941	L-3.4374	L.04636	L-5.6162	L-.43365	L2.4384	L2.0986
SDev	2.2628	6.5566	.01043	6.2686	6.36585	4.6237	1.8158
%RSD	-58.109	-190.74	22.497	-111.62	-1468.0	189.63	86.527
#1	L-1.2812	L-2.3563	L.03870	L-9.6340	L2.5819	L-.08524	L.00186
#2	L-5.2062	L-10.265	L.05823	L-8.8216	L3.8641	7.7748	L3.1546
#3	L-5.1950	L2.8094	L.04214	L1.6069	L-7.7469	L-.37446	L3.1393

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L1.3651	L.00000	L-135.85	L13.362	L16.091	L.00628	L.04685
SDev	1.3503	.0810	41.61	33.358	.000	.00000	.03067
%RSD	98.912	-14e6	-30.628	249.64	.00000	.00000	65.465
#1	L1.3632	L-.08579	L-89.164	L-9.7535	L16.091	L.00628	L.02008
#2	L2.7164	L.07507	L-149.36	L-1.7623	L16.091	L.00628	L.08032
#3	L.01583	L.01072	L-169.02	L51.603	L16.091	L.00628	L.04016

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L1.3915	L-1.6268	L-28.384	L1.0719	L-1.3517	L.05130	L.49885
SDev	.1162	8.1881	20.485	.5061	1.9326	.05071	.00000
%RSD	8.3501	-503.32	-72.169	47.220	-142.97	98.849	.00000
#1	L1.2573	L-2.7114	L-40.211	L.78347	L-3.5260	L.02979	L.49885
#2	L1.4567	L-9.2186	L-4.7307	L1.6563	L.17060	L.10923	L.49885
#3	L1.4603	L7.0495	L-40.211	L.77582	L-.69986	L.01489	L.49885

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-22.058	L.13146	L4.2200	L1.1913	L1.3913
SDev	15.915	2.0493	6.4418	1.0317	3.3952
%RSD	-72.151	1558.8	152.65	86.603	244.04
#1	L-28.092	L-1.0517	L.12953	L.59567	L5.1611
#2	L-34.073	L2.4978	11.646	L2.3827	L.43842
#3	L-4.0082	L-1.0517	L.88484	L.59567	L-1.4257

Method: WATER1 Sample Name: PE PN808 Operator: RJD
Run Time: 09/26/94 13:06:06
Comment: RUN 267
Mode: CONC Corr. Factor: 1.22

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

Avge	L.39598	622.11	398.80	L-42.361	L.2104	L.14308	L-3.6234
SDev	.01464	47.43	14.95	28.220	.4175	.19982	22.9403
%RSD	3.6967	7.6240	3.7494	-66.617	198.4	139.65	-633.11
#1	L.38209	645.85	384.63	L-58.654	L-.2630	L.16711	L16.909
#2	L.41127	652.98	414.43	L-9.7756	L.5260	L-.06766	L.60390
#3	L.39459	567.50	397.32	L-58.654	L.3682	L.32981	L-28.383

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-3.2915	L1.4588	L.03486	15.999	13.245	L4.2579	16.328
SDev	2.2249	1.6011	.00351	7.734	1.973	2.5115	1.372
%RSD	-67.595	110.13	10.072	48.344	14.898	58.985	8.4038
#1	L-.72590	L1.3544	L.03180	10.384	15.397	L4.8972	14.832
#2	L-4.4587	L3.1023	L.03870	24.820	12.820	6.3881	16.623
#3	L-4.6899	L-.09525	L.03410	12.791	11.519	L1.4885	17.528

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	64234.	63.422	L-54.741	L-1[illegible].985	L9.6544	L.00733	L.06470
SDev	550.	.696	75.225	22.405	2.7[illegible]	.00091	.01546
%RSD	.85647	1.0974	-137.42	-172.54	28.868	12.372	23.890
#1	64174.	63.615	L-141.56	L5.5785	L6.4363	L.00628	L.07362
#2	63717.	62.650	L-8.9829	L-37.872	L11.263	L.00785	L.07362
#3	64812.	64.001	L-13.679	L-6.6616	L11.263	L.00785	L.04685

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	25.381	L-.54227	L-5.3221	L1.0770	L-2.7406	L.07447	L.49885
SDev	.389	3.75696	26.5710	.2300	1.0626	.00497	.00000
%RSD	1.5333	-692.82	-499.26	21.355	-38.773	6.6667	.00000
#1	25.579	L-2.7114	L16.558	L.93660	L-1.6980	L.07447	L.49885
#2	25.630	L3.7959	L2.3654	L1.3424	L-3.8221	L.07944	L.49885
#3	24.932	L-2.7114	L-34.889	L.95191	L-2.7017	L.06951	L.49885

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-30.293	L-1.4461	257.93	L1.1913	L17.484
SDev	33.232	2.0493	4.69	1.0317	.586
%RSD	-109.70	-141.71	1.8194	86.603	3.3514
#1	L3.8380	L-.26292	258.95	L.59567	L18.060
#2	L-62.546	L-3.8124	252.81	L2.3827	L16.889
#3	L-32.173	L-.26292	262.02	L.59567	L17.502

Method: WATER1 Sample Name: 942B19S01 Operator: RJD
Run Time: 09/26/94 13:10:43
Comment: 940152
Mode: CONC Corr. Factor: 1.22

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.01945	L-7.1234	L-19.970	L42.361	213.8	L.09240	776.01

SDev	.02139	22.8985	21.826	58.925	.4	.38602	30.48
%RSD	-109.96	-321.45	-109.29	139.10	.1858	417.78	3.9275
#1	L-.04307	L-16.621	L-44.082	97.756	214.2	L-.34627	786.88
#2	L-.00139	L-23.745	L-1.5606	L48.878	213.4	L.38019	799.56
#3	L-.01389	L18.996	L-14.268	L-19.551	213.7	L.24327	741.59

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L.98314	L3.9681	132.85	L5.2692	L1.2939	L1.1175	36.696
SDev	5.9571	1.6675	.23	12.064	3.4167	4.6799	1.368
%RSD	605.93	42.023	.17179	228.95	264.07	418.78	3.7287
#1	L6.1837	L5.8840	133.08	L6.3372	L-1.2927	L-2.6307	36.397
#2	L2.2819	L3.1772	132.62	L-7.2931	L.00718	L-.37953	38.189
#3	L-5.5162	L2.8432	132.84	16.763	L5.1672	6.3628	35.502

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	667.96	L1.8338	L10.194	L-9.3784	77.236	57.255	56.933
SDev	2.76	.0371	40.109	34.8450	2.787	.127	.204
%RSD	.41303	2.0258	393.45	-371.54	3.6084	.22114	.35780
#1	667.95	L1.8124	L33.462	L22.840	78.845	57.393	57.165
#2	670.72	L1.8124	L-36.119	L-46.360	74.017	57.145	56.783
#3	665.20	L1.8767	L33.239	L-4.6151	78.845	57.225	56.850

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	212.98	L4.8804	L-47.307	14.031	L-2.3298	114.42	537.85
SDev	1.37	4.7661	25.585	.173	.3993	.39	1.37
%RSD	.64279	97.658	-54.083	1.2302	-17.140	.34087	.25541
#1	214.23	L2.9825	L-68.596	14.197	L-2.7891	114.85	539.26
#2	211.52	L10.303	L-54.404	13.852	L-2.0647	114.33	536.52
#3	213.19	L1.3557	L-18.923	14.044	L-2.1357	114.09	537.77

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-23.663	L.39438	L4.7239	L.59567	L34.377
SDev	15.132	2.1721	2.6882	.00000	.437
%RSD	-63.946	550.76	56.906	.00000	1.2712
#1	L-9.6313	L-1.0517	7.4082	L.59567	L34.878
#2	L-21.663	L-.65731	L2.0319	L.59567	L34.178
#3	L-39.696	L2.8921	L4.7316	L.59567	L34.075

Method: WATER1 Sample Name: 94ZB19S01 Operator: RJD
Run Time: 09/26/94 13:13:55
Comment: 940152
Mode: CONC Corr. Factor: 1.22

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.00556	L-18.996	L-5.7110	L39.103	215.0	L.22851	745.21
SDev	.02501	25.017	25.5161	59.463	.2	.36209	28.24

%RSD	-450.00	-131.70	-446.79	152.07	.1121	158.46	3.7897
#1	L.01945	L4.7489	L19.804	107.53	215.0	L.61927	728.91
#2	L-.03057	L-16.621	L-31.229	L.00000	215.3	L.16192	728.91
#3	L-.00556	L-45.115	L-5.7083	L9.7756	214.8	L-.09567	777.82

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-1.6307	L5.3316	133.47	L4.7349	L-3.4490	L-4.4246	36.403
SDev	3.9057	1.9928	.22	.8061	9.3501	8.0424	2.378
%RSD	-239.51	37.377	.16516	17.024	-271.09	-181.77	6.5318
#1	L-1.6442	L7.5922	133.22	L4.7347	L1.2895	L4.3892	39.098
#2	L2.2817	L3.8293	133.56	L3.9289	L2.5831	L-6.2981	34.603
#3	L-5.5296	L4.5733	133.63	L5.5410	L-14.220	L-11.365	35.507

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	672.97	L1.9196	L-96.133	L-29.185	75.626	57.484	57.205
SDev	6.90	.0670	146.198	12.078	2.787	.129	.228
%RSD	1.0254	3.4888	-152.08	-41.386	3.6852	.22452	.39866
#1	666.57	L1.9732	L32.903	L-15.485	78.845	57.346	57.105
#2	672.06	L1.8445	L-254.92	L-38.299	74.017	57.503	57.044
#3	680.28	L1.9411	L-66.387	L-33.771	74.017	57.602	57.466

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	212.56	L-2.7114	L-2.3654	14.057	L-3.7998	114.89	540.68
SDev	1.26	3.7275	23.4235	.403	1.6947	.35	1.87
%RSD	.59117	-137.48	-990.27	2.8668	-44.599	.30278	.34625
#1	211.30	L-1.8979	L2.3654	14.442	L-1.2434	114.50	538.76
#2	213.82	L.54227	L-27.793	14.090	L-4.7431	114.97	540.76
#3	212.56	L-6.7784	L18.332	13.638	L-4.8129	115.18	542.50

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-27.655	L.26292	L3.8380	L.59567	L34.241
SDev	15.903	1.7784	1.8141	.00000	1.880
%RSD	-57.504	676.39	47.266	.00000	5.4898
#1	L-33.659	L.13146	L2.4309	L.59567	L34.327
#2	L-9.6243	L2.1034	L3.1977	L.59567	L36.076
#3	L-39.682	L-1.4461	L5.8854	L.59567	L32.320

Method: WATER1 Sample Name: 94ZB19S01 Operator: RJD
Run Time: 09/26/94 13:17:13
Comment: 940152
Mode: CONC Corr. Factor: 1.52

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.79976	831.30	813.06	L-4.0598	427.9	10.634	1537.2
SDev	.01199	40.67	12.29	61.3021	.4	.151	52.3
%RSD	1.4996	4.8924	1.5118	-1510.0	.0919	1.4195	3.4039

#1	L.79283	866.80	806.00	L-60.897	428.3	10.471	1585.3
#2	L.81361	840.17	827.25	L-12.179	427.5	10.769	1481.5
#3	L.79283	786.92	805.92	L60.897	427.9	10.662	1544.7

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	44.619	58.659	185.34	108.24	104.15	108.55	85.617
SDev	5.599	3.341	.32	15.16	6.70	9.47	2.966
%RSD	12.549	5.6964	.17143	14.006	6.4361	8.7228	3.4640
#1	41.382	62.360	185.70	121.88	109.52	99.082	83.375
#2	51.084	55.864	185.17	110.92	106.30	118.02	88.980
#3	41.389	57.753	185.14	91.918	96.639	108.56	84.497

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	1495.3	L3.2067	781.47	845.27	138.33	83.385	83.074
SDev	3.6	.0231	77.42	20.23	3.47	.112	.176
%RSD	.23858	.72170	9.9070	2.3928	2.5102	.13490	.21159
#1	1499.3	L3.2200	756.65	854.96	140.33	83.514	83.221
#2	1494.1	L3.2200	719.50	858.82	134.32	83.305	83.121
#3	1492.4	L3.1800	868.25	822.02	140.33	83.338	82.880

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	317.53	106.41	123.04	41.083	50.243	168.56	1588.6
SDev	.26	4.10	29.68	.304	1.128	.39	3.4
%RSD	.08177	3.8490	24.124	.74055	2.2458	.22909	.21518
#1	317.27	110.13	135.56	41.420	50.214	169.00	1592.0
#2	317.79	102.02	144.40	40.829	51.386	168.29	1585.2
#3	317.54	107.09	89.147	41.001	49.130	168.40	1588.6

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	410.43	103.19	61.967	54.177	443.88
SDev	24.10	1.02	3.180	.000	6.74
%RSD	5.8707	.99127	5.1319	.00000	1.5177
#1	437.91	104.33	59.894	54.177	449.58
#2	392.94	102.37	60.378	54.177	436.44
#3	400.43	102.86	65.628	54.177	445.62

Method: WATER1 Sample Name: 94ZB19S02 Operator: RJD
Run Time: 09/26/94 13:20:34
Comment: 940152
Mode: CONC Corr. Factor: 1.22

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.00417	L-9.4979	L4.0153	L58.654	113.4	L.27525	448.70
SDev	.01464	14.2468	15.062	105.74	2.3	.31023	8.37
%RSD	351.19	-150.00	375.10	180.28	2.051	112.71	1.8649

#1	L-.00973	L-9.4979	L-10.228	L-58.654	113.8	L.49896	453.53
#2	L.00278	L4.7489	L2.4941	87.981	110.8	L-.07891	453.53
#3	L.01945	L-23.745	L19.780	146.63	115.4	L.40568	439.04

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-1.7013	L1.9952	98.105	L-1.8764	L.86470	L-4.3895	8.2317
SDev	3.9070	4.6598	.391	4.7010	2.9855	2.5297	1.0448
%RSD	-229.66	233.55	.39833	-250.54	345.26	-57.631	12.692
#1	L2.2106	L7.0967	98.495	L1.6002	L2.5941	L-1.4728	7.6249
#2	L-5.6034	L-2.0370	98.105	L-.00435	L-2.5826	L-5.9853	7.6321
#3	L-1.7110	L.92597	97.714	L-7.2249	L2.5827	L-5.7104	9.4381

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	1233.9	L2.3164	L8.5169	L15.590	93.326	50.763	50.061
SDev	13.8	.0743	64.687	.686	.000	.207	.171
%RSD	1.1161	3.2075	759.52	4.3995	.00000	.40685	.34199
#1	1247.2	L2.2306	L12.128	L16.113	93.326	50.953	50.224
#2	1234.8	L2.3593	L-57.901	L14.814	93.326	50.793	50.077
#3	1219.7	L2.3593	L71.323	L15.843	93.326	50.543	49.883

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	235.28	L8.4052	L-45.533	18.153	L-2.8764	111.01	323.09
SDev	.76	8.5440	11.079	.297	2.8005	.52	1.87
%RSD	.32159	101.65	-24.331	1.6348	-97.360	.47031	.57943
#1	236.12	16.810	L-33.115	18.385	L-2.5650	111.48	325.00
#2	234.66	L8.6763	L-49.081	17.818	L-5.8196	111.10	323.01
#3	235.07	L-.27114	L-54.404	18.255	L-.24466	110.45	321.26

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-31.579	L.13146	7.7869	L.59567	L2.3820
SDev	13.877	1.4220	5.1811	.00000	1.0745
%RSD	-43.942	1081.7	66.536	.00000	45.112
#1	L-15.556	L-1.0517	7.3918	L.59567	L1.5905
#2	L-39.591	L-.26292	13.154	L.59567	L1.9501
#3	L-39.591	L1.7090	L2.8147	L.59567	L3.6053

Method: WATER1 Sample Name: 942B19S03 Operator: RJD
Run Time: 09/26/94 13:23:50
Comment: 940152
Mode: CONC Corr. Factor: 1.22

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.02362	L26.119	L23.866	L48.878	37.61	L.03236	202.91
SDev	.00834	25.684	8.558	89.595	.47	.21056	24.13
%RSD	35.294	98.333	35.857	183.30	1.259	650.64	11.890
#1	L.01528	L18.996	L15.340	L-29.327	37.14	L-.06263	208.95

#2	L.03196	L54.613	L32.455	L29.327	37.61	L.27368	223.44
#3	L.02362	L4.7489	L23.805	146.63	38.08	L-.11397	176.34

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-2.9206	L4.6179	136.36	L-4.0656	L3.0098	L.48027	17.827
SDev	5.9593	1.9792	.24	11.6453	5.9596	1.1698	.524
%RSD	-204.04	42.859	.17914	-286.44	198.00	243.56	2.9376
#1	L-1.6154	L6.8960	136.35	7.1589	L6.4497	L1.4222	17.531
#2	L-9.4244	L3.6365	136.12	L-3.2652	L6.4514	L.84772	18.431
#3	L2.2780	L3.3212	136.61	L-16.090	L-3.8717	L-.82910	17.518

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	473.80	L1.8445	L-52.798	L-23.129	25.745	62.461	61.917
SDev	4.20	.0557	135.496	41.374	.000	.075	.066
%RSD	.88543	3.0210	-256.63	-178.88	.00000	.11988	.10647
#1	469.22	L1.8124	L-115.64	L-67.459	25.745	62.446	61.897
#2	477.45	L1.9089	L102.71	L14.460	25.745	62.394	61.863
#3	474.75	L1.8124	L-145.46	L-16.388	25.745	62.542	61.991

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	80.596	L-.27113	L-43.759	4.5707	L-2.0180	34.300	160.80
SDev	.522	9.16662	26.492	.2653	2.8996	.133	.52
%RSD	.64829	-3380.8	-60.540	5.8033	-143.69	.38848	.32291
#1	80.041	L-5.1516	L-54.404	4.3206	L-.95683	34.252	160.63
#2	81.079	L-5.9650	L-13.601	4.5426	L-5.2987	34.198	160.38
#3	80.667	L10.303	L-63.274	4.8489	L.20150	34.451	161.38

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-39.703	L1.4461	11.378	L.00000	L25.195
SDev	12.042	1.2678	3.568	1.0317	1.278
%RSD	-30.330	87.669	31.362	865e6	5.0736
#1	L-39.710	L.92023	15.473	L.59567	L25.995
#2	L-27.658	L2.8921	9.7251	L-1.1913	L25.868
#3	L-51.742	L.52585	8.9355	L.59567	L23.721

Method: WATER1 Sample Name: 942B19S05 Operator: RJD
Run Time: 09/26/94 13:27:06
Comment: 940152
Mode: CONC Corr. Factor: 1.22

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.03890	L14.247	L39.550	L42.361	12.73	L.30059	1625.1
SDev	.01340	14.829	13.703	68.662	.51	.09455	10.0
%RSD	34.442	104.08	34.647	162.09	3.985	31.454	.61400
#1	L.04863	L18.996	L49.471	L-29.327	12.52	L.21775	1625.7
#2	L.04446	L-2.3745	L45.265	L48.878	13.31	L.40359	1634.8

#3	L.02362	L26.119	L23.915	107.53	12.36	L.28044	1614.8

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-5.2724	L4.4509	12.956	L-3.9327	L2.1521	L2.7730	10.035
SDev	3.8906	6.6861	.042	7.1912	4.1502	4.3638	3.165
%RSD	-73.792	150.22	.32279	-182.85	192.85	157.37	31.537
#1	L-5.2764	L9.7789	12.908	L4.3580	L-2.5833	L-.41205	10.332
#2	L-1.3798	L-3.0519	12.982	L-7.6775	L5.1575	L.98401	13.041
#3	L-9.1610	L6.6255	12.979	L-8.4786	L3.8819	7.7469	6.7325

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	226.47	L.41824	L-24.647	L-39.038	115.85	7.0028	6.8648
SDev	3.61	.01857	124.247	16.981	5.57	.0303	.0409
%RSD	1.5958	4.4411	-504.10	-43.498	4.8112	.43303	.59572
#1	229.22	L.42896	L117.79	L-38.299	112.64	6.9699	6.8202
#2	227.81	L.42896	L-81.013	L-56.375	122.29	7.0091	6.8737
#3	222.37	L.39679	L-110.72	L-22.438	112.64	7.0295	6.9005

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L4.8456	L1.0845	L-32.524	8.0083	L-.88316	201.54	242.28
SDev	.6704	9.4975	6.230	.5125	2.62320	.94	1.26
%RSD	13.835	875.71	-19.156	6.3992	-297.02	.46458	.51817
#1	L4.3577	L2.9825	L-26.019	8.5927	L-.54493	200.53	240.95
#2	5.6100	L-9.2186	L-38.437	7.6357	L1.5545	201.70	242.44
#3	L4.5691	L9.4897	L-33.115	7.7965	L-3.6591	202.39	243.44

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-25.977	L-.52584	L5.2383	L2.3827	205.28
SDev	13.895	2.96007	2.5675	.0000	1.83
%RSD	-53.489	-562.92	49.014	.00000	.89000
#1	L-33.996	L-3.4180	L3.9538	L2.3827	203.18
#2	L-9.9328	L2.4978	8.1946	L2.3827	206.49
#3	L-34.003	L-.65731	L3.5666	L2.3827	206.16

Method: WATER1 Sample Name: 942B19S06 Operator: RJD
Run Time: 09/26/94 13:30:29
Comment: 940152
Mode: CONC Corr. Factor: 1.22

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.03751	L11.872	L38.153	L9.7756	L1.578	L.42429	907.66
SDev	.01578	18.847	16.040	39.103	.482	.18898	30.33
%RSD	42.066	158.75	42.041	400.00	30.55	44.540	3.3420
#1	L.04446	L18.996	L45.193	L-29.327	L1.473	L.32693	890.15
#2	L.01945	L-9.4979	L19.797	L9.7756	L1.157	L.64209	942.69
#3	L.04863	L26.119	L49.469	L48.878	L2.104	L.30384	890.15

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-2.6322	L6.1603	1.9397	L.23859	L3.8773	L-.86384	13.929
SDev	5.9515	2.9166	.0224	8.4278	3.8715	6.57930	3.590
%RSD	-226.10	47.345	1.1566	3532.3	99.849	-761.64	25.775
#1	L-1.3185	L6.4166	1.9616	8.7967	L-.00071	L4.9624	17.525
#2	L2.5527	L3.1240	1.9409	L-.02819	L3.8904	L.44547	13.919
#3	L-9.1307	L8.9403	1.9167	L-8.0527	7.7422	L-7.9993	10.344

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L43.009	L.17159	L-136.45	L20.909	125.51	.56996	.62245
SDev	3.965	.08512	49.33	10.326	2.79	.00720	.02677
%RSD	9.2196	49.608	-36.152	49.387	2.2206	1.2624	4.3011
#1	L38.431	L.07507	L-79.783	L30.813	127.12	.57781	.59568
#2	L45.331	L.23593	L-169.80	L10.207	122.29	.56839	.62245
#3	L45.266	L.20376	L-159.75	L21.706	127.12	.56368	.64922

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L1.9371	L3.2536	L-31.933	5.2623	L-1.6371	394.63	10.642
SDev	.3183	11.426	22.181	.4611	2.4325	3.56	.144
%RSD	16.431	351.19	-69.463	8.7633	-148.58	.90179	1.3532
#1	L1.8725	L2.1691	L-54.404	4.7570	L-1.8567	398.25	10.476
#2	L1.6561	15.184	L-31.341	5.6604	L-3.9523	394.51	10.725
#3	L2.2828	L-7.5918	L-10.053	5.3695	L.89775	391.13	10.725

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-32.047	L2.6292	L3.0674	L1.1913	L12.864
SDev	29.683	1.6420	8.4269	2.0635	2.244
%RSD	-92.624	62.450	274.72	173.21	17.447
#1	L-52.120	L1.3146	L5.8788	L-1.1913	L10.742
#2	L-46.070	L2.1034	L-6.4057	L2.3827	L12.637
#3	L2.0497	L4.4697	9.7293	L2.3827	L15.214

Method: WATER1 Sample Name: 942B19R07 Operator: RJD
Run Time: 09/26/94 13:34:08
Comment: 940152
Mode: CONC Corr. Factor: 1.22

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.04446	L33.243	L45.240	L3.2585	L.5260	L.77409	L30.195
SDev	.00834	12.338	8.513	53.840	.5690	.09231	8.562
%RSD	18.750	37.115	18.818	1652.3	108.2	11.925	28.355
#1	L.04446	L47.489	L45.197	L-58.654	L.9994	L.74701	L20.533
#2	L.03612	L26.119	L36.748	L29.327	L.6838	L.69835	L36.838
#3	L.05280	L26.119	L53.775	L39.103	L-.1052	L.87691	L33.215

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.02278	L-1.3547	L.15861	L4.2593	L1.2953	L-3.1925	L5.0877
SDev	2.25880	2.9575	.00066	5.0858	2.2333	3.2506	2.6323
%RSD	-9916.5	-218.31	.41837	119.40	172.42	-101.82	51.738
#1	L-1.3248	L1.3587	L.15823	L-1.6133	L.00749	L-5.7275	L4.0348
#2	L-1.3290	L-4.5072	L.15938	7.1970	L3.8740	L-4.3221	L3.1448
#3	L2.5855	L-.91567	L.15823	7.1942	L.00432	L.47221	8.0834

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L-1.8219	L.08579	L6.3287	L-10.046	L12.873	L.02198	L.04908
SDev	.8054	.06697	73.503	23.339	2.787	.00157	.01393
%RSD	-44.205	78.063	1161.4	-232.32	21.651	7.1429	28.386
#1	L-1.3505	L.10724	L-20.253	L16.227	L11.263	L.02355	L.03347
#2	L-2.7518	L.13941	L-50.186	L-28.380	L11.263	L.02198	L.05354
#3	L-1.3634	L.01072	L89.425	L-17.985	L16.091	L.02041	L.06024

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L1.1763	L5.1516	L-5.3221	L.75030	L-2.0011	L.63053	L.58200
SDev	.3155	5.2923	55.6585	.21523	2.5617	.01986	.14401
%RSD	26.825	102.73	-1045.8	28.686	-128.01	3.1496	24.744
#1	L1.2447	L10.303	L36.072	L.99784	L.82307	L.63053	L.49885
#2	L1.4520	L-.27114	L16.558	L.64566	L-2.6515	L.61067	L.49885
#3	L.83214	L5.4227	L-68.596	L.60739	L-4.1751	L.65039	L.74828

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-32.065	L-2.3663	L1.7799	L.59567	L7.7740
SDev	18.370	.2277	2.3469	.00000	3.1041
%RSD	-57.289	-9.6225	131.85	.00000	39.929
#1	L-52.113	L-2.2348	L1.2627	L.59567	L4.2611
#2	L-28.043	L-2.6292	L4.3423	L.59567	L8.9141
#3	L-16.040	L-2.2348	L-.26525	L.59567	L10.147

Method: WATER1 Sample Name: 942B19S08 Operator: RJD
Run Time: 09/26/94 13:37:55
Comment: 940152
Mode: CONC Corr. Factor: 1.22

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.03335	L40.366	L33.756	L.00000	101.3	L.27371	429.37
SDev	.01880	18.847	19.216	16.932	.1	.22103	19.87
%RSD	56.366	46.690	56.927	-533e6	.0900	80.755	4.6285
#1	L.01528	L54.613	L15.295	L9.7756	101.2	L.42724	422.73
#2	L.03196	L47.489	L32.325	L-19.551	101.4	L.02037	413.67
#3	L.05280	L18.996	L53.648	L9.7756	101.2	L.37352	451.72

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247

Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-2.9504	L-.32877	98.109	L1.8300	L-2.5808	L-3.8878	10.179
SDev	2.2459	4.79688	.449	5.1561	6.7177	.3263	3.198
%RSD	-76.122	-1459.0	.45762	281.75	-260.30	-8.3920	31.416
#1	L-5.5437	L-5.0295	98.014	L3.9720	L1.2872	L-3.7025	13.032
#2	L-1.6576	L-.51554	98.597	L-4.0518	L1.3082	L-4.2646	6.7223
#3	L-1.6499	L4.5588	97.715	L5.5699	L-10.338	L-3.6964	10.783

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	1008.3	L2.0054	L-43.417	L-6.7816	99.763	50.935	50.182
SDev	3.7	.0322	84.626	22.0190	2.787	.260	.311
%RSD	.36310	1.6043	-194.92	-324.69	2.7936	.51043	.62020
#1	1005.5	L2.0054	L-106.37	L-1.9019	98.154	50.865	50.184
#2	1012.5	L2.0376	L-76.663	L12.388	102.98	51.223	50.492
#3	1006.9	L1.9732	L52.784	L-30.831	98.154	50.717	49.870

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	237.53	L8.4052	L-41.394	18.244	L-3.5845	112.18	324.67
SDev	.73	11.513	8.751	.294	.5928	.65	2.40
%RSD	.30803	136.97	-21.141	1.6124	-16.539	.57622	.73821
#1	237.60	L1.3557	L-45.533	18.584	L-2.9329	111.82	324.26
#2	238.22	21.691	L-31.341	18.086	L-3.7286	112.93	327.25
#3	236.76	L2.1691	L-47.307	18.063	L-4.0920	111.80	322.51

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-31.647	L.39438	8.0429	L.00000	L18.392
SDev	9.196	1.1385	6.3413	1.0317	1.429
%RSD	-29.058	288.68	78.844	865e6	7.7684
#1	L-33.652	L1.7090	14.316	L.59567	L16.756
#2	L-21.614	L-.26292	L1.6355	L-1.1913	L19.022
#3	L-39.675	L-.26292	8.1772	L.59567	L19.397

Method: WATER1 Sample Name: INSTR BLANK 3 Operator: RJD
Run Time: 09/26/94 13:42:26
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.05011	L7.7851	L51.033	L42.735	L.5605	L.58071	L-13.860
SDev	.00683	6.7421	6.798	12.240	.1293	.04783	13.718
%RSD	13.636	86.603	13.320	28.641	23.08	8.2358	-98.974
#1	L.05694	L3.8926	L57.856	L40.064	L.4311	L.55928	L-21.780
#2	L.04328	L15.570	L44.261	L32.051	L.5605	L.54735	L-21.780
#3	L.05011	L3.8926	L50.982	L56.090	L.6898	L.63551	L1.9800

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L

Avge	L-4.2760	L2.5431	L.02198	L5.4674	L4.2310	L3.3805	L1.9673
SDev	.0053	3.2982	.00613	2.6559	2.7993	3.8813	.5622
%RSD	-.12316	129.69	27.885	48.576	66.162	114.81	28.575
#1	L-4.2771	L1.0388	L.02795	7.8786	L3.1813	L-1.0027	L1.8341
#2	L-4.2703	L6.3253	L.02230	L5.9030	L2.1082	6.3814	L1.4837
#3	L-4.2807	L.26520	L.01570	L2.6207	7.4034	L4.7629	L2.5841

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L6.3576	L.06153	L13.366	L12.695	L14.508	L.01073	L.02926
SDev	3.4376	.02637	89.699	27.162	4.569	.00197	.02217
%RSD	54.071	42.857	671.11	213.96	31.492	18.330	75.777
#1	L5.6416	L.06153	L-73.544	L41.196	L17.146	L.01030	L.00549
#2	L3.3343	L.03516	L8.0255	L9.7824	L9.2324	L.01287	L.03292
#3	L10.097	L.08790	L105.62	L-12.893	L17.146	L.00901	L.04937

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L1.4773	L-4.0004	L-43.139	L.65056	L-1.8384	L.04476	L.47705
SDev	.4926	11.1032	26.295	.31964	1.8792	.00000	.11804
%RSD	33.344	-277.56	-60.954	49.133	-102.22	.00000	24.744
#1	L1.1919	L8.4452	L-15.511	L.79280	L.13984	L.04476	L.40890
#2	L1.1939	L-12.890	L-46.047	L.28449	L-3.5996	L.04476	L.40890
#3	L2.0461	L-7.5562	L-67.859	L.87439	L-2.0554	L.04476	L.61335

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-44.365	L-1.5086	L4.9266	L.97651	L4.4213
SDev	7.527	.3233	5.0758	.84569	1.0229
%RSD	-16.965	-21.429	103.03	86.603	23.135
#1	L-42.722	L-1.1853	L5.7504	L.48826	L3.8946
#2	L-37.796	L-1.5086	L-.51069	L.48826	L5.6002
#3	L-52.578	L-1.8318	9.5400	L1.9530	L3.7691

Method: WATER1 Sample Name: AQC EV1&2 3 Operator: RJD
Run Time: 09/26/94 13:46:13
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q5.1021	5671.5	5052.2	Q5381.9	Q5275.	Q5267.6	Q5263.3
SDev	.0200	58.8	19.9	122.7	31.	31.8	51.5
%RSD	.39238	1.0364	.39348	2.2791	.5811	.60349	.97899
#1	Q5.1101	5679.3	5060.8	Q5336.5	Q5261.	Q5254.9	Q5275.2
#2	Q5.1169	5726.0	5066.3	Q5520.8	Q5310.	Q5303.8	Q5307.9
#3	Q5.0794	5609.2	5029.4	Q5288.5	Q5254.	5244.1	5206.9

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	5226.9	5217.8	5.1705	Q5343.1	5097.2	5170.1	5247.4

SDev	49.9	30.0	.0310	17.1	28.7	39.1	27.5
%RSD	.95419	.57546	.59888	.32096	.56271	.75677	.52438
#1	5201.3	5220.4	5.1445	Q5335.3	5090.5	5145.7	5231.7
#2	Q5284.4	5246.4	5.2048	Q5362.8	5128.7	5215.2	Q5279.2
#3	5195.0	5186.6	5.1624	Q5331.3	5072.5	5149.4	5231.4

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	5061.1	Q8.2540	5223.9	5100.5	5158.3	5.2402	5.1258
SDev	28.8	.0152	151.4	47.8	36.6	.0295	.0302
%RSD	.56857	.18445	2.8978	.93756	.70858	.56346	.58947
#1	5051.7	Q8.2628	5397.7	5073.2	5137.2	5.2265	5.0966
#2	5093.5	Q8.2365	5120.8	5155.7	5200.5	5.2741	5.1569
#3	5038.3	Q8.2628	5153.3	5072.5	5137.2	5.2201	5.1240

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	5142.5	5121.8	Q5255.2	.97898	515.37	.07868	5129.3
SDev	31.1	44.4	19.8	.15630	3.72	.00622	29.9
%RSD	.60489	.86675	.37771	15.966	.72085	7.9010	.58228
#1	5127.6	5092.9	5232.4	1.0815	513.08	.07732	5118.0
#2	5178.3	5172.9	Q5264.4	1.0564	519.66	.07325	5163.2
#3	5121.6	5099.6	Q5268.8	.79908	513.38	.08546	5106.7

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q5282.9	5115.1	5093.9	Q.97651	5237.2
SDev	42.5	30.5	21.3	1.6914	20.0
%RSD	.80479	.59594	.41735	173.21	.38241
#1	Q5328.9	5101.6	5082.9	Q-.97651	5220.0
#2	5245.1	5150.0	5118.4	Q1.9530	Q5259.2
#3	Q5274.6	5093.8	5080.4	Q1.9530	5232.3

Method: WATER1 Sample Name: HIGH AQC EV3 3 Operator: RJD
Run Time: 09/26/94 13:51:10
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q96.839	106200.	Q98724.	Q-13.355	Q1.595	Q1.2861	Q10.890
SDev	.544	435.	554.	9.252	.224	.2160	18.248
%RSD	.56148	.40946	.56163	-69.282	14.04	16.799	167.57
#1	Q96.603	106080.	Q98483.	Q-8.0128	Q1.725	Q1.3173	Q24.255
#2	Q96.453	105830.	Q98330.	Q-8.0128	Q1.725	Q1.4848	Q18.315
#3	Q97.461	106680.	Q99358.	Q-24.038	Q1.337	Q1.0561	Q-9.9000

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	Q-12.396	Q4.3586	Q100.27	Q8.5386	Q3.5320	Q4.2155	Q4.5357
SDev	3.831	2.6682	.48	9.7838	1.6136	6.5231	1.7048

%RSD	-30.902	61.217	.47523	114.[illegible]	45.685	154.74	37.575
#1	Q-14.477	Q6.4585	Q100.18	Q-.72411	Q2.1224	Q-3.3165	Q2.5678
#2	Q-7.9751	Q1.3562	Q99.837	Q18.771	Q3.1816	Q8.0297	Q5.5139
#3	Q-14.735	Q5.2611	Q100.78	Q7.5685	Q5.2921	Q7.9334	Q5.5253

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	97113.	Q94.302	52.501	Q27.817	Q17.146	60.353	59.564
SDev	450.	.595	58.256	30.655	3.957	.308	.360
%RSD	.46347	.63049	110.96	110.20	23.077	.50990	.60370
#1	97039.	Q94.258	112.40	Q52.210	Q13.189	60.243	59.365
#2	96704.	Q93.730	49.055	Q37.833	Q17.146	60.115	59.348
#3	97595.	Q94.917	-3.9554	Q-6.5935	Q21.103	60.700	59.979

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	Q8.3069	Q9.7786	Q-44.108	103.22	-.85508	104.40	5.6564
SDev	.4084	7.5136	15.684	.45	.91803	.43	.1180
%RSD	4.9160	76.837	-35.558	.43522	-107.36	.41374	2.0868
#1	Q8.7747	Q13.779	Q-62.043	102.73	-1.0343	104.22	5.7246
#2	Q8.1246	Q14.446	Q-32.960	103.31	.13935	104.09	5.7246
#3	Q8.0214	Q1.1112	Q-37.322	103.62	-1.6703	104.90	5.5201

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q-48.481	Q2.2629	Q13.821	Q.48826	Q98907.
SDev	27.916	.1866	3.741	.00000	472.
%RSD	-57.580	8.2478	27.065	.00000	.47703
#1	Q-56.709	Q2.3706	Q15.492	Q.48826	Q98738.
#2	Q-17.376	Q2.0473	Q16.434	Q.48826	Q98543.
#3	Q-71.358	Q2.3706	Q9.5357	Q.48826	Q99440.

Method: WATER1 Standard: blnk

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Avge	.01940	.00160	.01940	-.00100	-.0007	.15060	.00353
SDev	.00053	.00020	.00053	.00020	.0006	.00302	.00214
%RSD	2.7276	12.500	2.7276	-20.000	-83.32	2.0053	60.525
#1	.01880	.00160	.01880	-.00100	-.0014	.15100	.00240
#2	.01960	.00180	.01960	-.00080	-.0002	.14740	.00600
#3	.01980	.00140	.01980	-.00120	-.0006	.15340	.00220

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Avge	.00167	.00500	.00720	.00100	.00420	.02193	.00873
SDev	.00023	.00053	.00080	.00212	.00053	.00462	.00081
%RSD	13.856	10.583	11.111	211.66	12.599	21.078	9.2552
#1	.00180	.00440	.00640	-.00140	.00480	.02680	.00800
#2	.00140	.00520	.00800	.00260	.00380	.02140	.00860
#3	.00180	.00540	.00720	.00180	.00400	.01760	.00960

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Avge	.07347	.07553	.00160	.01205	.01827	.00173	.17927
SDev	.00031	.00042	.00144	.00386	.00012	.00023	.00090
%RSD	.41584	.55119	90.139	32.033	.63213	13.323	.50308
#1	.07380	.07520	.00000	.01511	.01840	.00200	.17920
#2	.07320	.07540	.00200	.00771	.01820	.00160	.17840
#3	.07340	.07600	.00280	.01331	.01820	.00160	.18020

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Avge	.06927	.00280	-.00687	1.6375	-.00520	.09267	.02713
SDev	.00023	.00174	.00291	.0119	.00211	.00083	.00012
%RSD	.33341	62.270	-42.442	.72712	-40.522	.89856	.42556
#1	.06900	.00200	-.01020	1.6284	-.00300	.09240	.02700
#2	.06940	.00160	-.00480	1.6510	-.00540	.09360	.02720
#3	.06940	.00480	-.00560	1.6332	-.00720	.09200	.02720

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Avge	.00093	.00840	-.00573	-.00020	.02400
SDev	.00083	.00164	.00083	.00000	.00295
%RSD	89.214	19.489	-14.523	.00000	12.276
#1	.00000	.00700	-.00480	-.00020	.02720
#2	.00120	.00800	-.00640	-.00020	.02340
#3	.00160	.01020	-.00600	-.00020	.02140

Method: WATER1 Standard: ten1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Avge	.02640	.00280	.02640	.26167	.0006	.15160	.00493
SDev	.00100	.00020	.00100	.00511	.0005	.00111	.00133
%RSD	3.7879	7.1429	3.7879	1.9522	88.19	.73453	26.993
#1	.02640	.00280	.02640	.26660	.0000	.15060	.00580
#2	.02740	.00260	.02740	.26200	.0010	.15140	.00340
#3	.02540	.00300	.02540	.25640	.0008	.15280	.00560

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Avge	.00187	.11860	.20807	3.1865	1.8827	8.9521	.01313
SDev	.00012	.00457	.00099	.0305	.0143	.0644	.00031
%RSD	6.1859	3.8565	.47416	.95571	.76135	.71918	2.3262
#1	.00180	.12040	.20760	3.1830	1.8838	8.9650	.01280
#2	.00180	.11340	.20740	3.1580	1.8678	8.8822	.01340
#3	.00200	.12200	.20920	3.2186	1.8964	9.0090	.01320

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Avge	.07853	.08507	.25527	2.1673	.54620	1.6056	.54613
SDev	.00050	.00031	.00550	.0138	.00530	.0135	.00223
%RSD	.64090	.35914	2.1547	.63762	.97086	.84254	.40834
#1	.07860	.08480	.25520	2.1609	.54740	1.6066	.54700
#2	.07800	.08540	.24980	2.1578	.54040	1.5916	.54360
#3	.07900	.08500	.26080	2.1832	.55080	1.6186	.54780

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Avge	.07133	3.1521	-.00680	1.6425	3.4416	5.1456	9.9327
SDev	.00023	.0279	.00538	.0082	.0190	.0402	.0960
%RSD	.32375	.88382	-79.084	.50152	.55142	.78193	.96672
#1	.07120	3.1630	-.00060	1.6356	3.4492	5.1494	9.9442
#2	.07120	3.1204	-.01020	1.6516	3.4200	5.1036	9.8314
#3	.07160	3.1728	-.00960	1.6402	3.4556	5.1838	10.022

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Avge	.42593	.01100	.00593	1.4005	.02560
SDev	.00424	.00203	.00092	.0139	.00087
%RSD	.99645	18.453	15.569	.98950	3.4054
#1	.42720	.01140	.00540	1.4020	.02620
#2	.42120	.01280	.00700	1.3860	.02460
#3	.42940	.00880	.00540	1.4136	.02600

Method: WATER1 Standard: ten2

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Avge	.03833	.00600	.03833	-.00247	.0010	83.115	1.4067
SDev	.00064	.00035	.00064	.00064	.0009	.226	.0049
%RSD	1.6772	5.7735	1.6772	-26.064	87.18	.27201	.34952
#1	.03860	.00620	.03860	-.00220	.0014	82.858	1.4010
#2	.03760	.00560	.03760	-.00320	.0000	83.284	1.4092
#3	.03880	.00620	.03880	-.00200	.0016	83.204	1.4098

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Avge	.65627	5.3265	2.1593	.00700	.00560	.02907	5.6772
SDev	.00145	.0167	.0042	.00140	.00020	.00489	.0109
%RSD	.22046	.31358	.19458	20.000	3.5714	16.817	.19124
#1	.65460	5.3096	2.1552	.00700	.00540	.02800	5.6650
#2	.65700	5.3430	2.1592	.00560	.00560	.02480	5.6858
#3	.65720	5.3268	2.1636	.00840	.00580	.03440	5.6808

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Avge	.07893	.11640	-.00100	.01456	.01833	.00553	.18307
SDev	.00076	.00069	.00131	.00044	.00012	.00012	.00031
%RSD	.95928	.59521	-131.15	3.0481	.62984	2.0868	.16688
#1	.07840	.11600	-.00080	.01443	.01820	.00560	.18280
#2	.07860	.11600	-.00240	.01506	.01840	.00560	.18300
#3	.07980	.11720	.00020	.01420	.01840	.00540	.18340

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Avge	12.039	.00127	1.4554	4.8677	.00927	.09673	.02987
SDev	.028	.00142	.0046	.0098	.00830	.00070	.00046
%RSD	.23553	112.02	.31427	.20172	89.545	.72610	1.5465
#1	12.007	.00100	1.4520	4.8568	.00780	.09600	.03040
#2	12.055	.00280	1.4536	4.8758	.00180	.09680	.02960
#3	12.056	.00000	1.4606	4.8706	.01820	.09740	.02960

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Avge	.00067	.00900	6.3980	-.00007	7.8165
SDev	.00127	.00092	.0137	.00012	.0137
%RSD	190.53	10.184	.21392	-173.21	.17475
#1	.00140	.00880	6.3822	.00000	7.8012
#2	.00140	.00820	6.4062	-.00020	7.8274
#3	-.00080	.01000	6.4056	.00000	7.8210

Method: WATER1 Standard: ten3

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Avge	.59867	.40480	.59867	-.00267	16.25	.19047	.01693
SDev	.00076	.00197	.00076	.00122	.01	.00521	.00197
%RSD	.12648	.48660	.12648	-45.826	.0637	2.7328	11.652
#1	.59780	.40420	.59780	-.00400	16.25	.19580	.01600
#2	.59900	.40320	.59900	-.00240	16.24	.19020	.01920
#3	.59920	.40700	.59920	-.00160	16.26	.18540	.01560

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Avge	.00220	.00707	.02033	-.00073	.00493	.04160	.01000
SDev	.00020	.00110	.00163	.00168	.00083	.00684	.00080
%RSD	9.0909	15.587	8.0110	-228.72	16.878	16.431	8.0000
#1	.00220	.00760	.01920	-.00180	.00520	.04080	.01000
#2	.00200	.00780	.02220	.00120	.00560	.03520	.00920
#3	.00240	.00580	.01960	-.00160	.00400	.04880	.01080

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Avge	1.8603	.15220	.00073	.01088	.01833	8.1599	2.0147
SDev	.0017	.00100	.00133	.00219	.00012	.0074	.0014
%RSD	.09144	.65703	181.59	20.152	.62984	.09093	.07043
#1	1.8620	.15120	.00160	.00889	.01820	8.1614	2.0160
#2	1.8586	.15220	.00140	.01323	.01840	8.1518	2.0150
#3	1.8602	.15320	-.00080	.01053	.01840	8.1664	2.0132

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Avge	.08073	.00180	-.00687	1.6428	.00013	.09647	.02800
SDev	.00095	.00035	.00363	.0049	.00450	.00042	.00000
%RSD	1.1707	19.245	-52.857	.29521	3375.3	.43158	.00000
#1	.08180	.00160	-.00740	1.6456	-.00340	.09680	.02800
#2	.08040	.00220	-.01020	1.6372	-.00140	.09660	.02800
#3	.08000	.00160	-.00300	1.6456	.00520	.09600	.02800

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Avge	.00127	6.3280	-.00893	.00000	.02440
SDev	.00050	.0039	.00336	.00000	.00200
%RSD	39.736	.06153	-37.618	.00000	8.1967
#1	.00120	6.3324	-.00820	.00000	.02640
#2	.00080	6.3266	-.01260	.00000	.02240
#3	.00180	6.3250	-.00600	.00000	.02440

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Method: WATER1

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
As1890	189.042	ten1	blnk	38071.1	38.0711	09/26/94 02:00:06
Ba4554	455.403	ten3	blnk	615.433	.451317	09/26/94 02:07:34
Be3130	313.042	ten2	blnk	121.256	-18.2612	09/26/94 02:04:14
B_2496	249.678	ten2	blnk	7126.91	-25.1817	09/26/94 02:04:14
Cr2061	206.149	ten1	blnk	3139.19	-3.13919	09/26/94 02:00:06
Ni2316	231.604	ten2	blnk	6838.70	46.9591	09/26/94 02:04:14
Sn1899	189.989	ten1	blnk	23529.4	-21.9608	09/26/94 02:00:06
WATER1		CONC F:1		SN:HIGH AQC EV3 3		09/26/94 13:51:10

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Avge	97113.	Q94.302	52.501	Q27.817	Q17.146	60.353	59.564
SDev	450.	.595	58.256	30.655	3.957	.308	.360
%RSD	.46347	.63049	110.96	110.20	23.077	.50990	.60370
#1	97039.	Q94.258	112.40	Q52.210	Q13.189	60.243	59.365
#2	96704.	Q93.730	49.055	Q37.833	Q17.146	60.115	59.348
#3	97595.	Q94.917	-3.9554	Q-6.5935	Q21.103	60.700	59.979

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Avge	Q8.3069	Q9.7786	Q-12.766	103.22	-.85508	104.40	5.6564
SDev	.4084	7.5136	14.752	.45	.91803	.43	.1180
%RSD	4.9160	76.837	-115:56	.43522	-107.36	.41374	2.0868
#1	Q8.7747	Q13.779	Q-29.634	102.73	-1.0343	104.22	5.7246
#2	Q8.1246	Q14.446	Q-2.2796	103.31	.13935	104.09	5.7246
#3	Q8.0214	Q1.1112	Q-6.3828	103.62	-1.6703	104.90	5.5201

Method: WATER1 Sample Name: INSTR BLANK 4 Operator: RJD
Run Time: 09/26/94 14:12:06
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.06492	L25.302	L66.032	L25.381	L1.928	L.64091	L6.1767
SDev	.01098	13.484	11.230	72.368	.444	.10259	14.254
%RSD	16.919	53.294	17.007	285.13	23.01	16.007	230.77
#1	L.05694	L9.7314	L57.929	L22.843	L2.051	L.66335	L6.1767
#2	L.07744	L33.087	L78.851	98.985	L2.298	L.73042	L-8.0772
#3	L.06036	L33.087	L61.316	L-45.685	L1.436	L.52895	L20.430

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-4.3008	L2.6885	L.00722	L4.8050	L4.2405	L.21052	L4.1690
SDev	.0136	3.6505	.00000	6.5298	3.8192	5.1391	2.0250
%RSD	-.31664	135.78	.00000	135.90	90.066	2441.2	48.573
#1	L-4.2856	L2.2134	L.00722	10.035	L.00446	L-5.6278	L5.1519
#2	L-4.3120	L-.70120	L.00722	L-2.5137	L5.2961	L4.0496	L1.8401
#3	L-4.3048	L6.5533	L.00722	L6.8941	7.4209	L2.2098	L5.5150

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L13.512	L.19338	L-30.547	L2.3096	L19.784	L.01287	L.07132
SDev	1.119	.06977	65.157	29.875	2.284	.00223	.00549
%RSD	8.2831	36.079	-213.30	1293.5	11.547	17.321	7.6921
#1	L14.637	L.11427	L-98.170	L-32.172	L17.146	L.01416	L.06583
#2	L13.500	L.24613	L-25.299	L18.685	21.103	L.01416	L.07681
#3	L12.399	L.21976	L31.827	L20.416	21.103	L.01030	L.07132

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L2.2109	L7.5562	L-8.2064	L1.3555	L-.27241	L.07461	L.88595
SDev	.5915	4.6829	40.6735	.2278	1.84391	.02616	.11804
%RSD	26.755	61.974	-495.63	16.803	-676.88	35.068	13.323
#1	L1.8733	L7.1117	L-51.518	L1.1882	L-2.1734	L.08546	L.81780
#2	L1.8654	L3.1114	L29.178	L1.6149	L-.15233	L.09360	L1.0222
#3	L2.8939	L12.446	L-2.2796	L1.2635	L1.5085	L.04476	L.81780

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-25.056	L1.8318	L3.6605	L2.4413	L3.7662
SDev	29.881	.9332	1.0991	.8457	2.3709
%RSD	-119.26	50.943	30.025	34.641	62.952
#1	L-7.8182	L2.3706	L2.6141	L1.9530	L4.7934
#2	L-7.7895	L2.3706	L3.5617	L1.9530	L1.0549
#3	L-59.560	L.75429	L4.8055	L3.4178	L5.4502

Method: WATER1 Sample Name: AQC EV1&2 4 Operator: RJD

Run Time: 09/26/94 14:15:37
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q5.1625	5910.9	5110.7	5208.1	5165.	Q5257.9	5174.1
SDev	.0378	69.7	38.0	79.5	29.	35.2	41.7
%RSD	.73199	1.1785	.74438	1.5264	.5710	.66924	.80662
#1	Q5.1272	5854.4	5075.1	5116.8	5140.	5228.4	5136.1
#2	Q5.2023	5889.5	5150.8	5246.2	5197.	Q5296.8	5218.8
#3	Q5.1579	5988.7	5106.3	Q5261.4	5159.	5248.4	5167.5

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	Q5348.2	Q5361.7	Q5.2600	5198.3	5160.9	Q5250.8	Q5351.0
SDev	30.4	37.6	.0308	29.8	39.3	15.2	30.2
%RSD	.56923	.70214	.58486	.57287	.76154	.29016	.56494
#1	Q5319.5	Q5335.5	5.2312	5197.2	5123.4	Q5252.4	Q5323.0
#2	Q5380.1	Q5404.8	Q5.2924	5228.6	5201.8	Q5265.2	Q5383.0
#3	Q5345.0	Q5344.7	Q5.2566	5169.1	5157.3	5234.8	Q5346.9

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	5150.6	Q8.4035	5334.7	5215.6	5249.3	5.3368	5.2026
SDev	21.0	.1066	129.6	42.1	36.8	.0326	.0302
%RSD	.40796	1.2682	2.4291	.80758	.70037	.61072	.58076
#1	5135.3	Q8.2892	5185.7	5173.2	5224.2	5.3076	5.1734
#2	5174.6	Q8.4211	5397.1	5216.3	Q5291.5	5.3719	5.2008
#3	5142.0	Q8.5002	5421.3	Q5257.4	5232.1	5.3308	5.2337

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	5234.6	Q5286.9	5128.6	.70913	521.29	.07461	5216.0
SDev	28.8	9.7	50.1	.21742	2.89	.00622	33.2
%RSD	.54963	.18318	.97782	30.660	.55531	8.3320	.63681
#1	5210.6	Q5277.6	5158.2	.46020	519.77	.06918	5189.7
#2	Q5266.5	Q5296.9	5156.8	.80536	524.63	.07325	5253.3
#3	5226.8	Q5286.2	5070.7	.86183	519.48	.08139	5204.9

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	5197.1	5222.8	5162.8	Q1.9530	Q5347.8
SDev	26.7	32.0	21.1	.0000	25.5
%RSD	.51452	.61298	.40779	.00000	.47601
#1	5226.9	5198.2	5148.2	Q1.9530	Q5348.9
#2	5175.2	Q5259.0	5186.9	Q1.9530	Q5372.7
#3	5189.3	5211.1	5153.2	Q1.9530	Q5321.8

Method: WATER1 Sample Name: HIGH AQC EV3 4 Operator: RJD
Run Time: 09/26/94 14:19:43

Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q98.421	111270.	Q100340.	Q-76.142	Q1.108	Q1.1390	Q17.105
SDev	.651	909.	664.	57.486	.678	.2492	18.105
%RSD	.66151	.81722	.66155	-75.498	61.20	21.879	105.85
#1	Q98.110	110950.	Q100020.	Q-15.228	Q1.805	Q1.3827	Q27.557
#2	Q97.984	110570.	Q99891.	Q-129.44	Q1.067	Q1.1497	Q27.557
#3	Q99.169	112300.	Q101100.	Q-83.756	Q.4513	Q.88461	Q-3.8010

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	Q-14.816	Q3.5909	Q101.96	Q.73794	Q1.0600	Q-1.7902	Q2.3259
SDev	.211	1.0983	.59	4.0685	3.8241	2.6180	2.9954
%RSD	-1.4245	30.586	.58201	551.33	360.75	-146.24	128.79
#1	Q-14.702	Q4.2851	Q101.59	Q3.1779	Q4.2444	Q-1.6873	Q4.4046
#2	Q-14.685	Q4.1630	Q101.65	Q2.9946	Q2.1172	Q-4.4581	Q3.6806
#3	Q-15.059	Q2.3247	Q102.65	Q-3.9587	Q-3.1815	Q.77478	Q-1.1076

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	98698.	Q94.451	-37.643	Q3.1135	Q18.465	61.448	60.550
SDev	664.	.586	105.650	34.543	2.284	.397	.399
%RSD	.67236	.62076	-280.66	1109.4	12.372	.64579	.65936
#1	98256.	Q94.100	-131.48	Q42.590	Q17.146	61.214	60.330
#2	98376.	Q94.126	-58.240	Q-11.682	Q21.103	61.224	60.308
#3	99461.	Q95.128	76.789	Q-21.567	Q17.146	61.906	61.011

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	Q8.4080	Q8.4452	Q15.957	105.67	-2.0184	106.18	6.2016
SDev	.2761	9.3342	4.397	1.04	.6779	.68	.2361
%RSD	3.2836	110.53	27.553	.98273	-33.587	.63666	3.8067
#1	Q8.7241	Q19.113	Q20.972	104.79	-1.8692	105.93	6.3379
#2	Q8.2145	Q4.4448	Q14.133	105.41	-2.7586	105.67	6.3379
#3	Q8.2853	Q1.7779	Q12.766	106.82	-1.4276	106.95	5.9290

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q-20.200	Q.32327	Q13.610	Q-.48826	Q101090.
SDev	47.168	2.4477	2.872	.84569	525.
%RSD	-233.51	757.19	21.104	-173.21	.51938
#1	Q-20.276	Q1.4008	Q16.113	Q-.97651	Q100740.
#2	Q-67.329	Q2.0473	Q10.474	Q-.97651	Q100830.
#3	Q27.007	Q-2.4784	Q14.243	Q.48826	Q101690.

Method: WATER1 Sample Name: LCS - SPIKED BLANK Operator: RJD
Run Time: 09/26/94 14:24:15
Comment: RUN 267

Mode: CONC Corr. Factor: 1.52

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.87939	982.17	894.09	L-46.294	210.8	10.732	806.69
SDev	.02454	46.96	25.24	61.242	1.2	.218	35.67
%RSD	2.7908	4.7815	2.8227	-132.29	.5820	2.0327	4.4213
#1	L.90709	999.92	922.55	L-92.589	209.5	10.980	785.02
#2	L.86035	1017.7	874.43	L-69.442	211.0	10.645	847.85
#3	L.87073	928.92	885.28	L23.147	211.9	10.571	787.19

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	48.109	56.854	52.699	103.95	110.06	108.12	60.977
SDev	5.614	7.777	.182	2.86	4.05	5.16	4.876
%RSD	11.670	13.679	.34539	2.7503	3.6768	4.7692	7.9963
#1	51.326	50.559	52.505	103.94	109.52	111.27	57.619
#2	51.376	65.548	52.727	106.81	106.30	102.17	66.570
#3	41.627	54.454	52.866	101.09	114.34	110.92	58.742

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	890.38	L1.6568	819.88	838.58	80.190	26.844	26.142
SDev	5.51	.1389	61.29	17.42	.000	.098	.104
%RSD	.61931	8.3809	7.4756	2.0773	.00000	.36381	.39840
#1	892.65	L1.7370	749.42	821.64	80.190	26.736	26.025
#2	894.40	L1.4965	849.33	856.44	80.190	26.871	26.176
#3	884.09	L1.7370	860.88	837.67	80.190	26.926	26.226

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	109.60	112.15	166.32	27.996	52.043	52.840	1067.2
SDev	1.18	7.31	25.99	.710	4.624	.292	3.5
%RSD	1.0799	6.5161	15.629	2.5370	8.8846	.55211	.32427
#1	110.64	110.13	196.12	27.732	57.246	52.603	1063.4
#2	108.31	120.26	154.54	28.801	50.475	52.751	1067.8
#3	109.86	106.07	148.30	27.456	48.406	53.166	1070.3

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	420.00	103.68	66.738	54.177	460.89
SDev	39.38	1.42	9.745	.000	3.82
%RSD	9.3757	1.3681	14.601	.00000	.82953
#1	374.72	102.86	56.070	54.177	464.76
#2	446.19	105.32	75.171	54.177	460.79
#3	439.09	102.86	68.974	54.177	457.11

Method: WATER1 Sample Name: MDL - LCS Check Operator: RJD
Run Time: 09/26/94 14:27:52
Comment: RUN 267
Mode: CONC Corr. Factor: 1.32

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.03458	L-7.7073	L35.014	217.77	30.71	5.5307	L8.1532
SDev	.01193	11.7731	12.262	124.05	.25	.5666	42.615
%RSD	34.510	-152.75	35.021	56.965	.8082	10.244	522.68
#1	L.02556	L5.1382	L25.701	251.27	30.98	6.0268	L53.309
#2	L.03007	L-17.984	L30.434	80.406	30.65	5.6521	L-31.358
#3	L.04811	L-10.276	L48.907	321.62	30.49	4.9133	L2.5087

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	50.507	60.708	L.03814	40.316	48.923	L3.4059	40.031
SDev	2.416	1.087	.01119	4.853	1.386	5.7381	2.030
%RSD	4.7827	1.7905	29.348	12.037	2.8326	168.47	5.0701
#1	49.140	61.667	L.03814	34.795	47.539	7.1769	38.397
#2	49.085	60.929	L.02694	42.246	48.919	L-3.1977	42.303
#3	53.296	59.527	L.04933	43.907	50.310	6.2385	39.394

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L19.237	L.32489	325.11	393.79	27.855	L.01416	L.12552
SDev	1.443	.18088	52.69	67.17	.000	.00354	.03988
%RSD	7.5020	55.673	16.206	17.056	.00000	24.980	31.774
#1	L17.799	L.11603	289.98	469.82	27.855	L.01529	L.07966
#2	L19.227	L.42932	299.65	342.49	27.855	L.01699	L.15207
#3	L20.686	L.42932	385.69	369.07	27.855	L.01019	L.14483

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	28.884	L.88008	74.624	L2.2946	L-2.5817	L.12534	L1.3494
SDev	.669	14.892	9.553	.4352	2.0804	.02650	.0000
%RSD	2.3147	1692.1	12.802	18.967	-80.583	21.141	.00000
#1	28.218	17.308	81.846	L1.7920	L-4.9108	L.10743	L1.3494
#2	28.878	L-2.9336	63.791	L2.5458	L-1.9262	L.11281	L1.3494
#3	29.555	L-11.734	78.235	L2.5458	L-.90795	L.15578	L1.3494

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-8.2115	L-.85342	11.891	L1.2890	L7.3948
SDev	31.2607	.98544	2.302	2.2326	1.7927
%RSD	-380.69	-115.47	19.357	173.21	24.243
#1	L-4.1159	L-.28447	9.2445	L2.5780	L5.5037
#2	L-41.318	L-1.9913	13.000	L-1.2890	L9.0695
#3	L20.799	L-.28447	13.428	L2.5780	L7.6111

Method: WATER1 Sample Name: DIGESTION BLANK Operator: RJD
Run Time: 09/26/94 14:31:44
Comment: RUN 267
Mode: CONC Corr. Factor: 1.22

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496

Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.01945	L-18.996	L19.764	L34.061	L.0501	L.48535	L-26.664
SDev	.02535	4.113	25.696	51.162	.3779	.20002	13.052
%RSD	130.34	-21.651	130.02	150.21	755.0	41.211	-48.949
#1	L.04863	L-23.745	L49.313	L.00000	L.4004	L.33295	L-27.244
#2	L.00278	L-16.621	L2.6681	L9.2893	L.1001	L.41126	L-13.332
#3	L.00695	L-16.621	L7.3094	92.893	L-.3504	L.71185	L-39.417

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-5.2376	L.01551	L.04483	L-13.533	L1.2917	L-2.7374	L.14837
SDev	3.8814	3.5278	.00978	16.087	3.4079	5.3977	1.0385
%RSD	-74.106	22742.	21.807	-118.87	263.84	-197.18	699.90
#1	L-5.2592	L1.9145	L.05594	L2.2932	L2.5789	L2.1316	L1.3474
#2	L-1.3455	L2.1871	L.03755	L-13.024	L-2.5724	L-1.8022	L-.46273
#3	L-9.1081	L-4.0551	L.04099	L-29.869	L3.8685	L-8.5415	L-.43958

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L3.2001	L.23593	L-63.775	L-19.132	24.136	L.00785	L.03570
SDev	4.8581	.11600	147.188	47.531	2.787	.00000	.03435
%RSD	151.81	49.167	-230.79	-248.44	11.547	.00000	96.217
#1	L2.7379	L.33245	L98.247	L4.6324	20.918	L.00785	L.02677
#2	L8.2727	L.26810	L-100.33	L11.830	25.745	L.00785	L.07362
#3	L-1.4105	L.10724	L-189.24	L-73.858	25.745	L.00785	L.00669

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L1.7953	L1.0845	L3.8935	L.99529	L-1.8768	L.04468	L.74828
SDev	.4281	13.836	16.434	.50683	2.9857	.01720	.24943
%RSD	23.847	1275.7	422.09	50.922	-159.09	38.490	33.333
#1	L2.2759	L.54227	L-14.462	L.72988	L.39419	L.05461	L.74828
#2	L1.6551	15.184	L17.243	L1.5797	L-.76577	L.05461	L.99771
#3	L1.4548	L-12.472	L8.8994	L.67629	L-5.2587	L.02482	L.49885

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L3.8789	L-1.1832	L2.9368	L1.7870	L.62013
SDev	18.430	.6024	9.6233	1.0317	1.9318
%RSD	475.14	-50.918	327.69	57.735	311.51
#1	L-9.4962	L-.65731	13.547	L2.3827	L2.0834
#2	L-3.7690	L-1.0517	L.49175	L.59567	L1.3465
#3	L24.902	L-1.8405	L-5.2282	L2.3827	L-1.5695

Method: WATER1 Sample Name: PE PN80 Operator: RJD
Run Time: 09/26/94 14:34:45
Comment: RUN 267
Mode: CONC Corr. Factor: 1.22

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

Avge	L.42516	676.72	428.50	L.00000	L.5006	L.58870	L-7.5355
SDev	.01273	35.14	12.99	58.012	.8670	.04121	10.1894
%RSD	2.9952	5.1925	3.0305	-9124e6	173.2	7.0002	-135.22
#1	L.42794	717.09	431.24	L18.579	L1.001	L.57700	L-11.593
#2	L.43628	660.10	439.91	L46.447	L1.001	L.63450	L4.0576
#3	L.41127	652.98	414.37	L-65.025	L-.5006	L.55461	L-15.071

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-1.5045	L3.8399	L.03984	L4.5641	16.271	L1.0165	19.314
SDev	2.2184	4.6632	.00304	11.046	2.985	3.1330	1.557
%RSD	-147.44	121.44	7.6320	242.01	18.349	308.20	8.0635
#1	L-.26453	L.53630	L.04099	L1.4976	12.823	L-1.9179	20.212
#2	L-4.0657	L1.8093	L.03640	L-4.6244	17.996	L4.3161	17.516
#3	L-.18344	L9.1741	L.04214	16.819	17.993	L.65151	20.214

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	64157.	60.580	L-15.044	L25.670	22.527	L.00942	L.06693
SDev	441.	.292	51.919	24.040	2.787	.00000	.01159
%RSD	.68756	.48188	-345.13	93.651	12.372	.00000	17.321
#1	64610.	60.913	L-72.527	L52.833	20.918	L.00942	L.06024
#2	63729.	60.366	L-1.0445	L17.046	20.918	L.00942	L.08032
#3	64133.	60.462	L28.441	L7.1312	25.745	L.00942	L.06024

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	26.993	L10.845	L20.024	L1.0285	L-3.5128	L.10757	L.74828
SDev	.568	1.242	8.231	.3632	.9726	.01034	.00000
%RSD	2.1036	11.456	41.107	35.319	-27.688	9.6077	.00000
#1	26.349	L11.117	L23.917	L.61504	L-4.4455	L.09930	L.74828
#2	27.421	L11.930	L10.568	L1.2964	L-2.5047	L.11916	L.74828
#3	27.208	L9.4897	L25.586	L1.1739	L-3.5882	L.10426	L.74828

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-5.9344	L-1.4461	253.70	L1.7870	L14.213
SDev	23.1483	.3944	4.85	1.0317	1.277
%RSD	-390.07	-27.273	1.9137	57.735	8.9853
#1	L-30.740	L-1.8405	258.94	L.59567	L15.369
#2	L-2.1537	L-1.0517	249.35	L2.3827	L12.842
#3	L15.091	L-1.4461	252.80	L2.3827	L14.428

Method: WATER1 Sample Name: 942B19S01 Operator: RJD
Run Time: 09/26/94 14:38:43
Comment: 940152
Mode: CONC Corr. Factor: 1.22

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.04724	L.00000	L48.023	L6.1929	211.8	L.14894	721.67

SDev	.01340	14.829	13.709	5.3632	1.8	.08040	25.34
%RSD	28.364	-549e6	28.547	86.603	.8400	53.985	3.5112
#1	L.05697	L4.7489	L57.909	L9.2893	209.7	L.23990	750.07
#2	L.03196	L-16.621	L32.373	L9.2893	212.7	L.08738	701.38
#3	L.05280	L11.872	L53.788	L.00000	212.9	L.11953	713.56

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2266	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-1.6453	L.81650	134.19	L-1.8734	L2.5795	L-1.8904	34.304
SDev	.0045	1.4472	.59	4.6228	5.6304	8.1691	2.078
%RSD	-.27600	177.25	.43876	-246.77	218.28	-432.14	6.0565
#1	L-1.6453	L-.69656	133.52	L2.9820	L5.1634	L-1.5111	35.502
#2	L-1.6408	L2.1874	134.42	L-2.3803	L-3.8791	6.0825	31.905
#3	L-1.6499	L.95862	134.62	L-6.2219	L6.4541	L-10.243	35.506

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	675.25	L1.9518	L-116.13	L13.056	86.890	58.241	57.468
SDev	2.85	.0186	60.49	21.158	7.374	.294	.318
%RSD	.42177	.95166	-52.092	162.06	8.4862	.50492	.55420
#1	676.17	L1.9411	L-155.85	L-8.4450	93.326	57.907	57.118
#2	672.05	L1.9411	L-46.507	L33.854	78.845	58.354	57.546
#3	677.52	L1.9732	L-146.02	L13.758	88.499	58.461	57.741

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	215.75	L-1.6268	L1.1124	14.690	L-2.0136	115.90	542.42
SDev	1.05	3.2873	16.797	.195	1.9882	.71	2.98
%RSD	.48655	-202.07	1510.0	1.3281	-98.739	.61135	.54861
#1	214.64	L-1.0845	L-14.462	14.465	L-1.4103	115.09	539.01
#2	215.89	L1.3557	L18.911	14.817	L-.39689	116.22	543.75
#3	216.73	L-5.1516	L-1.1124	14.786	L-4.2335	116.40	544.50

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-1.4884	L-.78877	8.0531	L.59567	L38.612
SDev	11.9473	.91079	2.8991	.00000	3.134
%RSD	-802.72	-115.47	36.000	.00000	8.1171
#1	L8.0779	L-1.8405	9.3291	L.59567	L36.684
#2	L2.3368	L-.26292	10.095	L.59567	L36.924
#3	L-14.880	L-.26292	L4.7349	L.59567	42.228

Method: WATER1 Sample Name: 94ZB19S01 Operator: RJD
Run Time: 09/26/94 14:42:04
Comment: 940152
Mode: CONC Corr. Factor: 1.22

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.03196	L-14.247	L32.340	L27.868	213.5	L.42886	732.68
SDev	.00722	17.927	7.337	98.309	1.8	.17087	37.42

%RSD	22.592	-125.83	22.688	352.77	.8528	39.843	5.1070
#1	L.03612	L4.7489	L36.493	139.34	211.4	L.62193	730.95
#2	L.03612	L-30.868	L36.658	L-46.447	214.5	L.29713	770.94
#3	L.02362	L-16.621	L23.868	L-9.2893	214.5	L.36751	696.17

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-2.9316	L5.9129	135.34	L1.9624	L3.4467	L1.4884	35.197
SDev	2.2458	2.5099	.90	2.9008	3.9500	3.4393	3.156
%RSD	-76.608	42.447	.66763	147.82	114.60	231.07	8.9681
#1	L-5.5248	L3.9776	134.30	L5.2842	L-.00177	L-1.5133	35.498
#2	L-1.6301	L8.7488	135.83	L-.07054	7.7562	L.73739	31.900
#3	L-1.6398	L5.0125	135.89	L.67336	L2.5857	L5.2412	38.192

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	676.18	L1.8982	L-13.224	L-12.144	86.890	58.740	57.830
SDev	7.13	.0371	86.723	37.128	2.787	.425	.415
%RSD	1.0549	1.9571	-655.83	-305.73	3.2075	.72398	.71732
#1	672.06	L1.8767	L-86.044	L-53.160	88.499	58.249	57.352
#2	684.41	L1.8767	L-36.343	L-2.4385	83.672	58.995	58.035
#3	672.06	L1.9411	L82.716	L19.167	88.499	58.976	58.102

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	218.96	L6.5072	L11.124	14.416	L-2.9808	116.93	547.33
SDev	1.39	1.2425	30.783	.341	2.8697	.77	4.41
%RSD	.63429	19.094	276.72	2.3657	-96.271	.65715	.80539
#1	217.36	L5.4227	L-22.805	14.434	L-5.9737	116.08	542.26
#2	219.86	L7.8629	L37.266	14.748	L-2.7160	117.57	550.24
#3	219.65	L6.2361	L18.911	14.067	L-.25271	117.13	549.49

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-3.4138	L.00000	9.0671	L.59567	L35.960
SDev	15.1844	2.3109	5.1088	.00000	5.057
%RSD	-444.80	447e6	56.344	.00000	14.063
#1	L13.805	L1.7090	14.695	L.59567	L34.743
#2	L-9.1596	L.92023	L4.7211	L.59567	L31.622
#3	L-14.887	L-2.6292	7.7855	L.59567	41.514

Method: WATER1 Sample Name: 94ZB19S01 Operator: RJD
Run Time: 09/26/94 14:45:20
Comment: 940152
Mode: CONC Corr. Factor: 1.52

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.85342	949.63	867.78	L-50.152	422.6	11.090	1539.0
SDev	.02454	22.34	24.94	70.716	4.7	.272	33.8
%RSD	2.8757	2.3520	2.8739	-141.00	1.123	2.4567	2.1990

#1	L.88112	946.67	895.87	L-34.721	428.0	11.405	1578.0
#2	L.83438	973.30	848.24	L-127.31	419.2	10.932	1517.3
#3	L.84477	928.92	859.24	L11.574	420.5	10.935	1521.7

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	47.845	58.528	187.36	103.62	102.54	106.92	89.352
SDev	2.772	10.443	1.94	6.35	5.64	11.53	3.933
%RSD	5.7935	17.842	1.0346	6.1289	5.5047	10.783	4.4013
#1	46.242	69.523	189.57	96.308	96.644	94.528	93.452
#2	51.046	57.318	185.92	107.74	103.08	108.89	85.611
#3	46.247	48.743	186.60	106.82	107.89	117.33	88.995

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	1507.8	L3.2067	814.49	841.35	154.37	84.916	83.772
SDev	16.8	.1851	119.51	41.69	3.47	.878	.758
%RSD	1.1172	5.7735	14.673	4.9552	2.2494	1.0337	.90485
#1	1526.6	L3.0998	794.22	889.32	152.36	85.904	84.631
#2	1494.1	L3.4205	706.42	820.87	158.38	84.228	83.196
#3	1502.6	L3.0998	942.84	813.87	152.36	84.615	83.488

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	323.25	104.04	133.75	41.735	49.671	170.97	1601.6
SDev	3.41	15.80	5.50	.496	5.012	1.84	19.0
%RSD	1.0534	15.184	4.1126	1.1896	10.090	1.0769	1.1841
#1	327.16	113.17	139.98	41.850	47.052	173.06	1622.5
#2	320.90	113.17	131.67	41.192	55.450	169.59	1585.5
#3	321.70	85.803	129.59	42.164	46.511	170.27	1596.7

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	410.80	104.82	62.290	55.661	463.77
SDev	.04	2.74	4.147	1.285	7.01
%RSD	.00982	2.6099	6.6579	2.3094	1.5109
#1	410.78	107.77	65.150	56.403	462.66
#2	410.85	102.37	64.187	56.403	471.26
#3	410.78	104.33	57.534	54.177	457.38

Method: WATER1 Sample Name: 94ZB19S02 Operator: RJD
Run Time: 09/26/94 14:48:31
Comment: 940152
Mode: CONC Corr. Factor: 1.22

Elem	Al3082	Al1670	Al3082	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.03890	L-9.4979	L39.480	L40.254	103.4	L.45865	432.42
SDev	.01578	18.8467	15.988	46.755	.3	.20858	21.25
%RSD	40.564	-198.43	40.497	116.15	.3024	45.476	4.9143

#1	L.02779	L11.872	L28.192	L46.447	103.7	L.69285	437.06
#2	L.05697	L-16.621	L57.775	L-9.2893	103.3	L.39021	409.24
#3	L.03196	L-23.745	L32.472	83.604	103.1	L.29289	450.97

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-4.2961	L2.9097	99.874	L-4.3423	L6.8938	L-4.7556	11.379
SDev	4.4954	6.5517	.440	11.5048	2.9873	4.0646	1.812
%RSD	-104.64	225.17	.44010	-264.95	43.332	-85.469	15.925
#1	L-1.7064	L-3.9469	100.35	L-3.8309	L5.1640	L-7.1114	10.339
#2	L-1.6951	L3.5694	99.778	L6.8984	L5.1743	L-.06224	13.471
#3	L-9.4869	L9.1066	99.490	L-16.094	10.343	L-7.0932	10.327

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	1257.2	L2.2735	L8.6660	L-2.5708	104.59	52.072	50.925
SDev	.8	.0491	92.347	21.0621	2.79	.194	.208
%RSD	.06127	2.1616	1065.6	-819.28	2.6647	.37350	.40771
#1	1258.1	L2.3271	L-18.028	L-26.242	102.98	52.275	51.128
#2	1256.7	L2.2306	L-67.394	L14.098	107.81	52.055	50.934
#3	1256.7	L2.2628	L111.42	L4.4318	102.98	51.887	50.713

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	241.20	L7.0495	L5.5621	18.426	L-4.2782	113.56	329.08
SDev	1.69	7.2297	14.451	.628	2.6531	.51	1.77
%RSD	.69861	102.56	259.81	3.4086	-62.014	.45290	.53774
#1	243.00	L-1.0845	L-2.7811	19.043	L-1.7672	114.13	330.99
#2	240.92	L12.743	L-2.7811	17.788	L-4.0138	113.42	328.75
#3	239.67	L9.4897	L22.249	18.446	L-7.0537	113.13	327.50

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L2.4092	L.65731	L5.7442	L.59567	L.81363
SDev	5.7377	3.5568	4.5803	.00000	3.0983
%RSD	238.16	541.11	79.738	.00000	380.80
#1	L2.4209	L4.0753	7.8038	L.59567	L.50437
#2	L8.1410	L.92023	8.9332	L.59567	L-2.1185
#3	L-3.3343	L-3.0236	L.49569	L.59567	L4.0550

Method: WATER1 Sample Name: 942B19S03 Operator: RJD
Run Time: 09/26/94 14:52:24
Comment: 940152
Mode: CONC Corr. Factor: 1.22

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.04446	L.00000	L45.169	L15.482	38.19	L.29343	183.75
SDev	.01103	29.657	11.306	93.048	.92	.07545	13.05
%RSD	24.804	-9329e6	25.030	601.00	2.402	25.713	7.1030
#1	L.04863	L33.243	L49.466	L-74.315	37.19	L.26677	176.22

#2	L.03196	L-9.4979	L32.345	L9.2893	38.39	L.23494	176.22
#3	L.05280	L-23.745	L53.697	111.47	38.99	L.37859	198.82

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-6.8250	L2.0390	140.14	L4.0299	L.41756	L-2.4263	19.931
SDev	2.2466	7.2606	2.07	7.8185	3.9463	4.9698	2.078
%RSD	-32.917	356.08	1.4806	194.01	945.08	-204.83	10.424
#1	L-5.5331	L9.8583	137.88	L-1.5706	L1.2732	L.01216	21.135
#2	L-9.4191	L.74875	140.59	12.962	L3.8659	L.85331	21.126
#3	L-5.5227	L-4.4899	141.96	L.69792	L-3.8863	L-8.1443	17.532

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	486.12	L1.8767	L-33.029	L2.5794	32.181	64.686	63.543
SDev	5.21	.0322	15.111	27.283	2.787	1.021	1.048
%RSD	1.0722	1.7143	-45.750	1057.7	8.6603	1.5783	1.6487
#1	480.16	L1.9089	L-16.574	L33.972	35.400	63.577	62.412
#2	489.80	L1.8767	L-46.283	L-10.818	30.572	64.894	63.737
#3	488.41	L1.8445	L-36.231	L-15.416	30.572	65.586	64.480

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	83.306	L-9.7609	L-7.2308	4.2389	L-2.6210	35.303	165.12
SDev	1.151	5.9957	21.4557	.6661	.3314	.548	2.78
%RSD	1.3811	-61.426	-296.73	15.714	-12.643	1.5524	1.6821
#1	82.748	L-16.539	L-16.130	4.2440	L-2.5477	34.684	162.13
#2	82.541	L-5.1516	L17.243	4.9025	L-2.9829	35.498	165.62
#3	84.629	L-7.5918	L-22.805	3.5703	L-2.3324	35.727	167.62

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L6.1502	L-1.0517	13.558	L.00000	L24.756
SDev	3.3147	1.7191	2.336	1.0317	6.746
%RSD	53.896	-163.46	17.227	865e6	27.250
#1	L8.0709	L-1.8405	14.716	L.59567	L17.328
#2	L2.3227	L.92023	15.090	L-1.1913	L26.438
#3	L8.0569	L-2.2348	10.870	L.59567	L30.503

Method: WATER1 Sample Name: 94ZB19S05 Operator: RJD
Run Time: 09/26/94 14:55:47
Comment: 940152
Mode: CONC Corr. Factor: 1.22

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.07225	L14.247	L73.554	L-3.0964	104.6	L.27650	1610.9
SDev	.00868	20.564	8.822	45.8232	8.3	.04747	15.2
%RSD	12.010	144.34	11.994	-1479.9	7.887	17.169	.94111
#1	L.06947	L26.119	L70.692	L18.579	114.1	L.32402	1603.9
#2	L.06530	L26.119	L66.519	L-55.736	100.9	L.22908	1628.3

#3	L.08198	L-9.4979	83.452	L27.868	98.91	L.27639	1600.4

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-5.2858	L4.7031	13.307	L-6.8559	L6.0250	L-1.7897	11.835
SDev	6.7573	4.3023	.033	10.2015	1.9733	2.3916	1.873
%RSD	-127.84	91.478	.24556	-148.80	32.751	-133.63	15.824
#1	L-1.3902	L1.0065	13.344	L4.8895	7.7433	L-2.7370	11.239
#2	L-1.3788	L3.6772	13.298	L-11.951	L6.4618	L-3.5625	10.332
#3	L-13.088	L9.4257	13.280	L-13.506	L3.8700	L.93039	13.933

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	234.69	L.46114	L-77.811	L-16.121	128.73	7.2509	6.9920
SDev	2.73	.06434	89.081	22.935	2.79	.0190	.0253
%RSD	1.1641	13.953	-114.48	-142.27	2.1651	.26255	.36241
#1	237.42	L.46114	L-180.53	L-41.073	127.12	7.2682	6.9741
#2	231.96	L.39679	L-31.200	L-11.328	127.12	7.2541	6.9808
#3	234.68	L.52548	L-21.707	L4.0391	131.94	7.2305	7.0210

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	5.3289	L-2.1691	L-12.237	8.0134	L-1.8475	208.08	250.09
SDev	.4787	4.6252	8.231	.2512	.5053	.60	.63
%RSD	8.9838	-213.23	-67.267	3.1345	-27.353	.28888	.25099
#1	5.6073	L-5.9650	L-17.799	7.8424	L-1.6304	208.33	250.67
#2	L4.7761	L2.9825	L-16.130	7.8960	L-1.4870	208.51	250.18
#3	5.6034	L-3.5248	L-2.7811	8.3018	L-2.4251	207.39	249.43

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-17.123	L-2.7607	L6.5172	L2.3827	212.00
SDev	33.653	1.4931	4.6455	.0000	5.07
%RSD	-196.54	-54.085	71.282	.00000	2.3921
#1	L-3.7270	L-1.0517	10.103	L2.3827	211.69
#2	L-55.412	L-3.8124	L1.2692	L2.3827	207.10
#3	L7.7694	L-3.4180	8.1794	L2.3827	217.22

Method: WATER1 Sample Name: 942B19S06 Operator: RJD
Run Time: 09/26/94 14:59:16
Comment: 940152
Mode: CONC Corr. Factor: 1.22

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.05141	L2.3745	L52.192	L37.157	L4.155	L.35982	874.70
SDev	.02296	4.1127	23.193	58.012	.541	.28287	30.54
%RSD	44.656	173.21	44.438	156.12	13.03	78.615	3.4909
#1	L.02779	L4.7489	L28.272	L-27.868	L4.755	L.12647	845.72
#2	L.05280	L4.7489	L53.722	83.604	L3.704	L.67442	871.80
#3	L.07364	L-2.3745	L74.583	L55.736	L4.004	L.27855	906.58

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-6.5729	L3.9410	1.9432	L-9.2182	L4.7370	L.43461	13.627
SDev	4.5054	3.5460	.0172	5.0246	3.2479	4.5292	3.151
%RSD	-68.545	89.979	.88327	-54.507	68.565	1042.1	23.124
#1	L-9.1787	L4.9576	1.9305	L-3.8570	L1.2897	L-.13352	16.628
#2	L-1.3705	L-.00233	1.9363	L-9.9780	7.7398	L-3.7837	10.344
#3	L-9.1695	L6.8677	1.9627	L-13.820	L5.1816	L5.2210	13.910

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L51.244	L.41824	L-77.662	L-3.8983	141.60	.57834	.67376
SDev	.782	.06697	84.729	38.4467	.00	.00327	.01022
%RSD	1.5252	16.013	-109.10	-986.23	.00000	.56516	1.5174
#1	L52.145	L.49331	L-140.88	L28.624	141.60	.57467	.68269
#2	L50.747	L.36462	L18.613	L-46.330	141.60	.57938	.67599
#3	L50.839	L.39679	L-110.72	L6.0107	141.60	.58095	.66261

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L3.3147	L4.3382	L10.568	6.3418	L-1.8000	398.44	11.058
SDev	.3588	17.715	11.561	.1128	1.8891	3.19	.144
%RSD	10.824	408.36	109.39	1.7784	-104.95	.80015	1.3023
#1	L3.7290	L-1.0845	L3.8935	6.3188	L-3.2945	394.86	11.224
#2	L3.1088	L-10.032	L23.917	6.2423	L-2.4288	399.50	10.975
#3	L3.1063	24.131	L3.8935	6.4643	L.32329	400.97	10.975

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L5.8323	L-1.1832	9.0680	L1.1913	L11.951
SDev	14.453	.8210	4.8465	1.0317	2.660
%RSD	247.82	-69.389	53.446	86.603	22.253
#1	L7.7624	L-1.8405	L3.5775	L2.3827	L12.176
#2	L-9.4892	L-.26292	10.876	L.59567	L9.1862
#3	L19.224	L-1.4461	12.751	L.59567	L14.491

Method: WATER1 Sample Name: 942B19R07 Operator: RJD
Run Time: 09/26/94 15:03:02
Comment: 940152
Mode: CONC Corr. Factor: 1.22

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.06808	L33.243	L69.207	L-12.386	L.5506	L.28924	L-16.810
SDev	.00637	12.338	6.497	35.169	.0000	.22495	19.364
%RSD	9.3522	37.115	9.3879	-283.95	.0000	77.771	-115.20
#1	L.06113	L26.119	L62.066	L-27.868	L.5506	L.10549	L-20.288
#2	L.06947	L26.119	L70.788	L27.868	L.5506	L.22213	L-34.200
#3	L.07364	L47.489	L74.768	L-37.157	L.5506	L.54010	L4.0576

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L2.5364	L4.4410	L.15593	L-5.3807	L6.8886	L5.1400	6.7381
SDev	3.8983	7.7051	.01494	11.4882	1.9732	3.8322	.0027
%RSD	153.70	173.50	9.5823	-213.51	28.645	74.557	.04044
#1	L6.4343	13.116	L.15593	L-16.867	9.0415	9.4557	6.7375
#2	L-1.3623	L-1.6057	L.14099	L-5.3840	L6.4582	L2.1355	6.7411
#3	L2.5372	L1.8121	L.17087	L6.1092	L5.1661	L3.8287	6.7358

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L8.2293	L.27883	L-34.103	L32.797	25.745	L.01989	L.13609
SDev	1.3731	.01858	56.460	45.284	.000	.00091	.01546
%RSD	16.686	6.6619	-165.56	138.07	.00000	4.5580	11.358
#1	L6.8615	L.26810	L-50.633	L7.4765	25.745	L.02041	L.12717
#2	L8.2189	L.30027	L28.777	L5.8363	25.745	L.02041	L.12717
#3	L9.6077	L.26810	L-80.454	85.077	25.745	L.01884	L.15394

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L3.1128	L2.1691	L2.7811	L1.9089	L-.59680	L.64211	L1.1640
SDev	.7515	2.9328	34.696	.3773	2.82383	.01034	.1440
%RSD	24.144	135.21	1247.6	19.763	-473.16	1.6095	12.372
#1	L2.2789	L2.9825	42.272	L1.5567	L2.6370	L.64542	L1.2471
#2	L3.7377	L-1.0845	L-22.805	L2.3070	L-2.5754	L.65039	L1.2471
#3	L3.3219	L4.6093	L-11.124	L1.8630	L-1.8521	L.63053	L.99771

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L19.198	L-1.9719	9.3251	L2.9784	L8.4942
SDev	37.644	.6024	6.0221	1.0317	1.4130
%RSD	196.08	-30.551	64.580	34.641	16.634
#1	59.384	L-1.8405	12.008	L2.3827	L7.1790
#2	L-15.244	L-1.4461	L2.4277	L2.3827	L9.9880
#3	L13.455	L-2.6292	13.539	L4.1697	L8.3156

Method: WATER1 Sample Name: 94ZB19S08 Operator: RJD
Run Time: 09/26/94 15:06:35
Comment: 940152
Mode: CONC Corr. Factor: 1.22

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.08475	L42.740	86.153	L24.772	97.31	L.32397	420.25
SDev	.01578	16.451	16.076	103.58	.68	.29526	13.51
%RSD	18.619	38.490	18.660	418.14	.6959	91.138	3.2141
#1	L.07781	L61.736	L79.164	L65.025	97.26	L.58379	435.32
#2	L.07364	L33.243	L74.754	102.18	96.66	L.38524	416.19
#3	L.10282	L33.243	104.54	L-92.893	98.01	L.00288	409.24

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247

Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-5.5930	L2.4658	98.400	L-1.5753	L-1.7254	L-.33653	12.730
SDev	.0235	2.2759	.459	4.2677	1.9707	6.15981	2.074
%RSD	-.42062	92.299	.46596	-270.91	-114.22	-1830.4	16.288
#1	L-5.5660	L-.06018	98.495	L-6.1773	L-3.8756	L-7.0752	13.927
#2	L-5.6096	L4.3568	97.902	L2.2520	L-1.2950	L1.0614	13.928
#3	L-5.6032	L3.1009	98.804	L-.80072	L-.00541	L5.0042	10.336

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	1017.9	L2.2199	L-54.103	L-5.1546	111.03	51.300	50.001
SDev	5.0	.1339	80.166	16.4220	2.79	.273	.314
%RSD	.48637	6.0338	-148.17	-318.59	2.5102	.53163	.62818
#1	1023.4	L2.0698	L22.628	L-9.9761	112.64	51.399	50.137
#2	1013.8	L2.3271	L-137.31	L13.138	107.81	50.992	49.642
#3	1016.5	L2.2628	L-47.625	L-18.626	112.64	51.510	50.224

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	241.41	L2.7114	L-.55621	19.515	L-3.6039	111.90	324.09
SDev	.84	1.8785	11.3582	.142	2.7262	.88	2.02
%RSD	.34831	69.282	-2042.1	.72586	-75.647	.78652	.62208
#1	240.93	L3.7959	L-4.4497	19.426	L-6.6968	112.39	325.25
#2	240.92	L3.7959	L-9.4556	19.441	L-1.5497	110.88	321.76
#3	242.38	L.54227	L12.237	19.679	L-2.5652	112.42	325.25

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L2.3975	L-.39438	11.755	L.00000	L19.454
SDev	9.9360	1.64195	4.767	1.0317	3.453
%RSD	414.42	-416.33	40.551	865e6	17.749
#1	L8.1060	L-2.2348	L6.2552	L-1.1913	L22.217
#2	L8.1621	L.13146	14.694	L.59567	L20.561
#3	L-9.0755	L.92023	14.316	L.59567	L15.583

Method: WATER1 Sample Name: INSTR BLANK 5 Operator: RJD
Run Time: 09/26/94 15:13:48
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.06036	L23.355	L61.436	L-20.305	L.4103	L.32774	L-9.0274
SDev	.00592	3.371	6.145	15.850	.0711	.29868	5.3964
%RSD	9.8041	14.434	10.002	-78.062	17.32	91.135	-59.778
#1	L.05694	L27.248	L57.787	L-15.228	L.3282	L.66475	L-6.6518
#2	L.05694	L21.409	L57.990	L-7.6142	L.4513	L.22273	L-15.204
#3	L.06719	L21.409	L68.530	L-38.071	L.4513	L.09574	L-5.2264

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L

Avge	L-2.1830	L4.1306	L.02575	L-9.6423	L4.5805	L-.40283	L4.0567
SDev	1.8493	7.8148	.00465	4.2785	3.0491	4.73846	1.9593
%RSD	-84.713	189.19	18.047	-44.372	66.566	-1176.3	48.298
#1	L-1.1122	L-.83478	L.02041	L-14.461	L1.0598	L3.5986	L1.8356
#2	L-4.3183	13.139	L.02889	L-8.1766	L6.3453	L-5.6353	L4.7945
#3	L-1.1185	L.08788	L.02795	L-6.2894	L6.3366	L.82829	L5.5401

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	L12.724	L.25492	L-33.477	L-16.133	26.378	L.00558	L.09143
SDev	2.569	.04028	113.093	3.958	4.569	.00074	.01142
%RSD	20.191	15.802	-337.82	-24.536	17.320	13.323	12.490
#1	L11.260	L.21976	L-163.72	L-16.411	21.103	L.00644	L.08229
#2	L11.222	L.29887	L23.405	L-19.944	29.016	L.00515	L.08778
#3	L15.691	L.24613	L39.883	L-12.042	29.016	L.00515	L.10424

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	L2.0937	L-6.4450	L-21.884	L1.4434	L-2.2490	L.08003	L.88595
SDev	.3952	12.3719	8.244	.2149	1.0115	.01923	.11804
%RSD	18.877	-191.96	-37.673	14.887	-44.975	24.030	13.323
#1	L1.8677	L6.4450	L-29.634	L1.2446	L-1.6960	L.06511	L.81780
#2	L1.8634	L-7.5562	L-22.796	L1.6714	L-1.6346	L.10174	L.81780
#3	L2.5501	L-18.224	L-13.221	L1.4141	L-3.4165	L.07325	L1.0222

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-10.925	L-1.4008	8.7012	L.97651	L6.9403
SDev	26.758	.1866	1.6019	.84569	2.2045
%RSD	-244.93	-13.323	18.410	86.603	31.764
#1	L11.028	L-1.5086	10.467	L1.9530	L9.3036
#2	L-3.0721	L-1.1853	7.3409	L.48826	L6.5779
#3	L-40.731	L-1.5086	8.2960	L.48826	L4.9395

Method: WATER1 Sample Name: AQC EV1&2 5 Operator: RJD
Run Time: 09/26/94 15:21:18
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q5.0235	6276.8	4972.7	5091.4	5109.	5111.1	5170.3
SDev	.0188	27.6	19.4	53.5	16.	15.7	4.9
%RSD	.37458	.43961	.38914	1.0504	.3156	.30756	.09549
#1	Q5.0452	6286.5	4994.9	5147.2	5104.	5103.4	5167.5
#2	Q5.0110	6298.2	4959.5	5040.6	5127.	5129.2	5167.5
#3	Q5.0144	6245.6	4963.6	5086.3	5097.	5100.7	5176.0

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	Q5266.3	Q5323.5	5.1228	5098.4	4958.3	5152.6	Q5280.5

SDev	43.3	52.2	.0118	42.3	9.2	16.5	13.6
%RSD	.82302	.98136	.23043	.83053	.18655	.32052	.25834
#1	5239.7	Q5282.9	5.1115	5078.2	4954.0	5141.9	Q5274.7
#2	Q5316.3	Q5382.4	5.1351	5147.1	4968.9	5171.6	Q5296.1
#3	5242.9	Q5305.1	5.1219	5069.9	4951.9	5144.2	Q5270.7

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	5017.6	Q8.2189	5294.6	5092.6	5162.2	5.2188	5.1057
SDev	23.1	.0403	87.0	18.6	22.8	.0179	.0440
%RSD	.46018	.49011	1.6428	.36551	.44253	.34260	.86183
#1	5004.8	Q8.1837	5218.7	5072.3	5149.0	5.2072	5.0636
#2	5044.3	Q8.2628	5389.5	5096.4	5188.6	5.2394	5.1514
#3	5003.7	Q8.2101	5275.6	5109.0	5149.0	5.2098	5.1020

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	5131.0	5232.9	5070.2	1.3283	510.90	.09360	5076.7
SDev	18.9	27.1	37.6	.2273	.55	.01865	14.9
%RSD	.36767	.51723	.74090	17.115	.10768	19.924	.29407
#1	5120.4	5208.9	5026.9	1.0878	510.29	.10988	5071.8
#2	5152.8	Q5262.2	5089.8	1.5396	511.35	.09767	5093.4
#3	5119.8	5227.6	5093.9	1.3576	511.06	.07325	5064.8

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	5074.7	5102.9	5000.9	Q.97651	Q5284.4
SDev	45.2	14.8	7.5	.84569	43.0
%RSD	.89124	.28975	.15065	86.603	.81410
#1	5033.9	5091.9	5005.4	Q1.9530	5243.7
#2	5123.4	5119.7	5005.1	Q.48826	Q5329.4
#3	5066.9	5097.0	4992.2	Q.48826	Q5279.9

Method: WATER1 Sample Name: HIGH AQC EV3 5 Operator: RJD
Run Time: 09/26/94 15:25:47
Comment:
Mode: CONC Corr. Factor: 1

Elem	Al3082	Al1670	Al308L	As1890	Ba4554	Be3130	B_2496
Units	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q97.175	120140.	Q99066.	Q-12.690	Q.9847	Q.84149	Q7.6020
SDev	.565	480.	576.	131.295	.1880	.15971	6.2131
%RSD	.58169	.39986	.58172	-1034.6	19.09	18.980	81.729
#1	Q97.369	120650.	Q99264.	Q129.44	Q.9437	Q.94635	Q3.3259
#2	Q97.618	120060.	Q99518.	Q-38.071	Q.8206	Q.65768	Q4.7513
#3	Q96.538	119700.	Q98417.	Q-129.44	Q1.190	Q.92044	Q14.729

Elem	Cd2144	Cd2288	Ca3179	Cr2061	Cr2677	Co2286	Cu3247
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	Q-13.981	Q1.7336	Q101.02	Q-.69374	Q2.1193	Q-1.8828	Q.60901
SDev	3.002	4.7624	.57	6.18430	2.8015	2.3995	1.1266

%RSD	-21.472	274.72	.56131	-891.45	132.19	-127.45	184.99
#1	Q-14.047	Q-3.7650	Q101.30	Q-6.6177	Q.00218	Q-2.8195	Q-.37645
#2	Q-10.946	Q4.4134	Q101.39	Q5.7216	Q5.2961	Q.84383	Q.36630
#3	Q-16.949	Q4.5524	Q100.36	Q-1.1850	Q1.0596	Q-3.6726	Q1.8372

Elem	Fe2599	Fe2714	Pb1822	Pb2203	Li6707	Mg2795	Mg3832
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	Mg/L	Mg/L
Avge	97847.	Q90.847	-.67498	Q17.899	Q21.103	61.172	60.010
SDev	545.	.604	48.4559	17.499	.000	.357	.335
%RSD	.55658	.66469	-7178.9	97.765	.00000	.58355	.55851
#1	98111.	Q91.041	-47.518	Q-2.0988	Q21.103	61.335	60.122
#2	98210.	Q91.331	49.247	Q25.392	Q21.103	61.420	60.275
#3	97221.	Q90.170	-3.7545	Q30.404	Q21.103	60.763	59.634

Elem	Mn2576	Mo2020	Ni2316	K_7664	Ag3280	Na5895	Sr4215
Units	ug/L	ug/L	ug/L	Mg/L	ug/L	Mg/L	ug/L
Avge	Q8.9353	Q5.7783	Q1.8237	104.60	-3.0199	105.09	5.7927
SDev	.4505	3.0553	5.9618	.62	2.0650	.53	.1180
%RSD	5.0415	52.876	326.92	.59648	-68.382	.50521	2.0377
#1	Q9.4306	Q9.1119	Q8.6624	105.08	-2.5996	105.17	5.9290
#2	Q8.5499	Q3.1114	Q-.91183	104.82	-5.2627	105.58	5.7246
#3	Q8.8255	Q5.1116	Q-2.2796	103.89	-1.1973	104.53	5.7246

Elem	Sn1899	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q7.2502	Q.00000	Q7.9553	Q.00000	Q101260.
SDev	38.388	1.2239	4.2466	1.6914	462.
%RSD	529.47	280e6	53.380	.00000	.45609
#1	Q-2.1194	Q-.86204	Q12.036	Q1.9530	Q101480.
#2	Q-25.586	Q1.4008	Q3.5603	Q-.97651	Q101570.
#3	Q49.456	Q-.53878	Q8.2697	Q-.97651	Q100730.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: OCT 11 1994

Subject: Review of Region 5 Data for Alco Steel 4TFA05WUZZ

From: Charles T. Elly, Director
Region 5 Central Regional Laboratory

To:

Attached are the results for Alco Steel 4TFA05WUZZ
CRL request number 940152
for analyses for Antimony, Arsenic, Cadmium, Lead, Selenium and Thallium
Results are reported for sample designations: 94ZB10S01, 94ZB10S02, 94ZB10S03, 94ZB10S05, 94ZB10S06, 94ZB10R07 and 94ZB10S08

Results Status:
(x) Acceptable for Use
( ) Data Qualified, but Acceptable for use
( ) Data Unacceptable for Use

(x) Sewer Disposal Criteria Met; Exceptions: Acid preserved samples must be neutralized prior to disposal.

Comments on Data Quality by Reviewer

The 10 μg/L laboratory control standard was outside the $\pm$20% limits for antimony, primarily because it was diluted. The data for antimony need not be qualified because of this. All other QC were in control.

Comments by Laboratory Director or Quality Control Coordinator

Review Record for Alco Steel 4TFA05WUZZ

John U. Moore 7 Oct 94

Team Leader and Date (X) Reviewed ( ) Unreviewed

Charles J. Elly 10/11/94

Section Chief and Date ( ) Reviewed (X) Unreviewed

Charles J. Elly 10/11/94

QC Coordinator and Date ( ) Reviewed (X) Unreviewed

Sylvia Griffin OCT 11 1994

Data Management Coordinator and Date Received

Date Transmitted OCT 11 1994

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
SL - 10C

Received by and Date

Comments:

LOCKHEED ESAT CONTRACT
DATA SET CUSTODY TRANSFER FORM

DATA SET NUMBER 940152 CHARGE NUMBER 233-51-187

SITE NAME: Alco Steel Service TID NUMBER 0594-0906

PARAMETER: As, Sb, Pb, Cd, Se, Tl MATRIX: water

SF DU/ACT NO: (TFA) 05W4ZZY ____ /C ____

SAMPLE NUMBERS: 94ZB19801-S03, S05, S06, R07 and S08 + PE Sample (PN 808)

NUMBER OF SAMPLES: 8

ESAT APPROVALS:

L. Leonard/M. Knapp 9/30/94
Analyst Date

Timothy J. Mazzaro 9/30/94
Task Group Leader Date

Lewis King 9/30/94
QA/QC Coordinator Date

Dennis Miller 9-30-94
ESAT Team Manager Date

COMMENTS: ____

The above identified data set was transferred from ESAT custody to the custody of the U.S. EPA Region V Central Regional Laboratory in its entirety on the indicated date relinquished.

Timothy J. Mazzaro 9/30/94
Relinquished by Date

John V. Moore 30 Sept 94
Received by Date

EPA APPROVALS:

John V. Moore 7 Oct 94
EPA Task Monitor Date

[✓] Reviewed
[ ] Unreviewed
[✓] Accepted
[ ] Rejected
[ ] Returned: ____ Date

COMMENTS: ____

Section Chief Date

[ ] Reviewed [ ] Unreviewed

ESAT DPO Date

____/____/____
DATA COORDINATOR/RECD/TRANSMTD

A COPY OF THIS CUSTODY TRANSFER FORM WITH A RECEIVED BY EPA SIGNATURE IS TO BE FILED WITH THE AOC IN THE TID FILE. THE ORIGINAL CUSTODY TRANSFER ACCOMPANIES THE DATA SET TO BE APPROVED BY THE EPA AND A COMPLETED COPY RETURNED TO ESAT.

ESAT-5-007.0

Method Number: GFAA FOR WATER

Site Name: ALCO STEEL

Date Generated: 09-21-94

Charge Number(S): 233-51-187

Author: MATTHEW KNOPP

TID Number: 05-94-09-06

CASE NARRATIVE

This package (SF940152) contains 7 water samples (94ZB19S01, S02, S03, S05, S06, S08 and R07). All samples were analyzed for As, Sb, Pb, Cd, Se and Tl. The samples were digested along with a Laboratory Control Sample (LCS) and a Performance Evaluation Sample (PES). The As, Pb, Cd, Se and Tl analyses were run without incident. All digestion QC for As, Pb, Cd, Se and Tl were within the specified control limits. The LCS recovery for Sb (75%) is outside the control limits of 80-120%. This was discussed with Dr. John Morris and it was determined that the Sb data will not be qualified on this basis. All other digestion QC for Sb were within the specified control limits. All As, Sb, Pb, Cd, Se and Tl are acceptable for use.

Matthew Knopp

Matthew A. Knopp

08-16-94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 30-SEP-94

Sample organization: **B & V**
Sample Requestor: **B & V**
Facility: **ALCO STEEL**
Matrix: **DRINKING**
Date Collected: **21-SEP-94**

Sample Batch ID: **940152**
Account No: **TFA301**
Sample ID: **94ZB19S01**
Units: **ug/L**
Date Received: **22-SEP-94**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony Concentration	2U	27-SEP-94	M. Knopp	
Arsenic Concentration	2U	26-SEP-94	M. Knopp	
Cadmium Concentration	.2U	27-SEP-94	L. Leonova	
Lead Concentration	2U	26-SEP-94	L. Leonova	
Selenium Concentration	2U	28-SEP-94	M. Knopp	
Thallium Concentration	2U	27-SEP-94	L. Leonova	

Team Leader: JVM 7 Oct 94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 30-SEP-94

Sample organization: **B & V**
Sample Requestor: **B & V**
Facility: **ALCO STEEL**
Matrix: **DRINKING**
Date Collected: **21-SEP-94**

Sample Batch ID: **940152**
Account No: **TFA301**
Sample ID: **94ZB19S02**
Units: **ug/L**
Date Received: **22-SEP-94**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony Concentration	2U	27-SEP-94	M. Knapp	
Arsenic Concentration	2U	26-SEP-94	M. Knapp	
Cadmium Concentration	.2U	27-SEP-94	L. Leonova	
Lead Concentration	2U	26-SEP-94	L. Leonova	
Selenium Concentration	2U	28-SEP-94	M. Knapp	
Thallium Concentration	2U	27-SEP-94	L. Leonova	

Team Leader: JVM 7 Oct 94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 30-SEP-94

Sample organization: **B & V**
Sample Requestor: **B & V**
Facility: **ALCO STEEL**
Matrix: **DRINKING**
Date Collected: **21-SEP-94**

Sample Batch ID: **940152**
Account No: **TFA301**
Sample ID: **94ZB19S03**
Units: **ug/L**
Date Received: **22-SEP-94**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony Concentration	2U	27-SEP-94	M. Knopp	
Arsenic Concentration	2U	26-SEP-94	M. Knopp	
Cadmium Concentration	.2U	27-SEP-94	L. Leonova	
Lead Concentration	2U	26-SEP-94	L. Leonova	
Selenium Concentration	2U	28-SEP-94	M. Knopp	
Thallium Concentration	2U	27-SEP-94	L. Leonova	

Team Leader: JVM 7 Oct 94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 30-SEP-94

Sample organization: **B & V**
Sample Requestor: **B & V**
Facility: **ALCO STEEL**
Matrix: **DRINKING**
Date Collected: **21-SEP-94**

Sample Batch ID: **940152**
Account No: **TFA301**
Sample ID: **94ZB19S05**
Units: **ug/L**
Date Received: **22-SEP-94**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony Concentration	2U	27-SEP-94	M. Knopp	
Arsenic Concentration	2U	27-SEP-94	M. Knopp	
Cadmium Concentration	.2U	27-SEP-94	L. Leonova	
Lead Concentration	2U	26-SEP-94	L. Leonova	
Selenium Concentration	2U	28-SEP-94	M. Knopp	
Thallium Concentration	2U	27-SEP-94	L. Leonova	

Team Leader: Jvm 7 Oct 94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 30-SEP-94

Sample organization: **B & V**
Sample Requestor: **B & V**
Facility: **ALCO STEEL**
Matrix: **DRINKING**
Date Collected: **21-SEP-94**

Sample Batch ID: **940152**
Account No: **TFA301**
Sample ID: **94ZB19S06**
Units: **ug/L**
Date Received: **22-SEP-94**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony Concentration	2U	27-SEP-94	M. Knopp	
Arsenic Concentration	2U	26-SEP-94	M. Knopp	
Cadmium Concentration	.2U	27-SEP-94	L. Leonova	
Lead Concentration	2U	26-SEP-94	L. Leonova	
Selenium Concentration	2U	28-SEP-94	M. Knopp	
Thallium Concentration	2U	27-SEP-94	L. Leonova	

Team Leader: JVM 7 Oct 94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 30-SEP-94

Sample organization: **B & V**
Sample Requestor: **B & V**
Facility: **ALCO STEEL**
Matrix: **DRINKING**
Date Collected: **21-SEP-94**

Sample Batch ID: **940152**
Account No: **TFA301**
Sample ID: **94ZB19R07**
Units: **ug/L**
Date Received: **22-SEP-94**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony Concentration	2U	27-SEP-94	M. Knopp	
Arsenic Concentration	2U	26-SEP-94	M. Knopp	
Cadmium Concentration	.2U	27-SEP-94	L. Leonova	
Lead Concentration	2U	26-SEP-94	L. Leonova	
Selenium Concentration	2U	28-SEP-94	M. Knopp	
Thallium Concentration	2U	27-SEP-94	L. Leonova	

Team Leader: JVM 7 Oct 94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 30-SEP-94

Sample organization: **B & V**
Sample Requestor: **B & V**
Facility: **ALCO STEEL**
Matrix: **DRINKING**
Date Collected: **21-SEP-94**

Sample Batch ID: **940152**
Account No: **TFA301**
Sample ID: **94ZB19S08**
Units: **ug/L**
Date Received: **22-SEP-94**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony Concentration	2U	27-SEP-94	M. Knapp	
Arsenic Concentration	2U	26-SEP-94	M. Knapp	
Cadmium Concentration	.2U	27-SEP-94	L. Leonova	
Lead Concentration	2U	26-SEP-94	L. Leonova	
Selenium Concentration	2U	28-SEP-94	M. Knapp	
Thallium Concentration	2U	27-SEP-94	L. Leonova	

Team Leader: Jim 7 Oct 94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 30-SEP-94

Sample organization: **B & V**
Sample Requestor: **B & V**
Facility: **ALCO STEEL**
Matrix: **DRINKING**
Date Collected: **21-SEP-94**

Sample Batch ID: **940152**
Account No: **TFA301**
Sample ID: **94ZB19S01**
Units: **ug/L**
Date Received: **22-SEP-94**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony Concentration	2U	27-SEP-94	M. Knopp	
Arsenic Concentration	2U	26-SEP-94	M. Knopp	
Cadmium Concentration	.2U	27-SEP-94	L. Leonova	
Lead Concentration	2U	26-SEP-94	L. Leonova	
Selenium Concentration	2U	28-SEP-94	M. Knopp	
Thallium Concentration	2U	27-SEP-94	L. Leonova	

Team Leader: JVM 7 Oct 94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 30-SEP-94

Sample organization: **B & V**
Sample Requestor: **B & V**
Facility: **ALCO STEEL**
Matrix: **DRINKING**
Date Collected: **21-SEP-94**

Sample Batch ID: **940152**
Account No: **TFA301**
Sample ID: **94ZB19S02**
Units: **ug/L**
Date Received: **22-SEP-94**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony Concentration	2U	27-SEP-94	M. Knapp	
Arsenic Concentration	2U	26-SEP-94	M. Knapp	
Cadmium Concentration	.2U	27-SEP-94	L. Leonova	
Lead Concentration	2U	26-SEP-94	L. Leonova	
Selenium Concentration	2U	28-SEP-94	M. Knapp	
Thallium Concentration	2U	27-SEP-94	L. Leonova	

Team Leader: JVM 7 Oct 94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 30-SEP-94

Sample organization: **B & V**
Sample Requestor: **B & V**
Facility: **ALCO STEEL**
Matrix: **DRINKING**
Date Collected: **21-SEP-94**

Sample Batch ID: **940152**
Account No: **TFA301**
Sample ID: **94ZB19S03**
Units: **ug/L**
Date Received: **22-SEP-94**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony Concentration	2U	27-SEP-94	M. Knopp	
Arsenic Concentration	2U	26-SEP-94	M. Knopp	
Cadmium Concentration	.2U	27-SEP-94	L. Leonova	
Lead Concentration	2U	26-SEP-94	L. Leonova	
Selenium Concentration	2U	28-SEP-94	M. Knopp	
Thallium Concentration	2U	27-SEP-94	L. Leonova	

Team Leader: JVM 7 Oct 94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 30-SEP-94

Sample organization: **B & V**
Sample Requestor: **B & V**
Facility: **ALCO STEEL**
Matrix: **DRINKING**
Date Collected: **21-SEP-94**

Sample Batch ID: **940152**
Account No: **TFA301**
Sample ID: **94ZB19S05**
Units: **ug/L**
Date Received: **22-SEP-94**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony Concentration	2U	27-SEP-94	M. Knapp	
Arsenic Concentration	2U	27-SEP-94	M. Knapp	
Cadmium Concentration	.2U	27-SEP-94	L. Leonova	
Lead Concentration	2U	26-SEP-94	L. Leonova	
Selenium Concentration	2U	28-SEP-94	M. Knapp	
Thallium Concentration	2U	27-SEP-94	L. Leonova	

Team Leader: JVM 7 Oct 94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 30-SEP-94

Sample organization: **B & V**
Sample Requestor: **B & V**
Facility: **ALCO STEEL**
Matrix: **DRINKING**
Date Collected: **21-SEP-94**

Sample Batch ID: **940152**
Account No: **TFA301**
Sample ID: **94ZB19S06**
Units: **ug/L**
Date Received: **22-SEP-94**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony Concentration	2U	27-SEP-94	M. Knopp	
Arsenic Concentration	2U	26-SEP-94	M. Knopp	
Cadmium Concentration	.2U	27-SEP-94	L. Leonova	
Lead Concentration	2U	26-SEP-94	L. Leonova	
Selenium Concentration	2U	28-SEP-94	M. Knopp	
Thallium Concentration	2U	27-SEP-94	L. Leonova	

Team Leader: JW 7 Oct 94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 30-SEP-94

Sample organization: **B & V**
Sample Requestor: **B & V**
Facility: **ALCO STEEL**
Matrix: **DRINKING**
Date Collected: **21-SEP-94**

Sample Batch ID: **940152**
Account No: **TFA301**
Sample ID: **94ZB19R07**
Units: **ug/L**
Date Received: **22-SEP-94**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony Concentration	2U	27-SEP-94	M. Knopp	
Arsenic Concentration	2U	26-SEP-94	M. Knopp	
Cadmium Concentration	.2U	27-SEP-94	L. Leonova	
Lead Concentration	2U	26-SEP-94	L. Leonova	
Selenium Concentration	2U	28-SEP-94	M. Knopp	
Thallium Concentration	2U	27-SEP-94	L. Leonova	

Team Leader: NM 7 Oct 94

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY

Single Analyte Result Report, produced on: 30-SEP-94

Sample organization: **B & V**
Sample Requestor: **B & V**
Facility: **ALCO STEEL**
Matrix: **DRINKING**
Date Collected: **21-SEP-94**

Sample Batch ID: **940152**
Account No: **TFA301**
Sample ID: **94ZB19S08**
Units: **ug/L**
Date Received: **22-SEP-94**

Parameter	Result	Anal. Date	Analyst	Comments
Antimony Concentration	2U	27-SEP-94	M. Knapp	
Arsenic Concentration	2U	26-SEP-94	M. Knapp	
Cadmium Concentration	.2U	27-SEP-94	L. Leonova	
Lead Concentration	2U	26-SEP-94	L. Leonova	
Selenium Concentration	2U	28-SEP-94	M. Knapp	
Thallium Concentration	2U	27-SEP-94	L. Leonova	

Team Leader: JVM 7 Oct 94

DIGESTION RECORD

Prepared by: LL Date 9/25/94 Run Number 266

Vessel Number	Data Set	Sample Number	Notes	Vessel Number	Data Set	Sample Number	Notes
1	94ZB19S01						
2	S02						
3	S03						
4	S05						
5	S06						
6	R07						
7	S08						
8	PES	*					
9	S02	Dup					
10	S02	Spk **					
11	LCS	***					
12	DIG. Blk						
13	Spk Blk	**					

COMMENTS: * (1/10 dilution of PN 808)

** 1ml of 5 ppm As, Sb, Se, Pb, Te, 5ml of 100ppb Cd — final volume 100ml

*** 200 µl of 5ppm As, Sb, Se, Pb, Te, 1 ml of 100ppb Cd — " —

M. Knopp
9-28-94

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* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: MAK
DATE OF ANALYSIS --: 09-27-1994
PARAMETER NAME ----: SB
DATA SET # --------: 94.152

SAMPLE NO.	CONC.	R VALUE	SLOPE	
BLANK	-.9068657	.9998919	.00408	ZW, LIMIT = ± ZW/2
AQC 25	32.74051	.990258	.00343	NOT USED, SEE RE-RUN
AQC 25	25.88542	.9984306	.00384	%R=103.5 LIMIT = 100 ± 10%
DIG BLK.	1	1.701412E+38	1.701412E+38	ERROR DURING ENTRY
DIG BLK.	-.6024097	.998176	.00415	ZW, LIMIT = ± ZW/2 (SAMPLE IS < IDL and is acceptable).
94ZB19 S02 SPK X4	12.35733	.9993665	NOT USED. .00403	Adj. Conc = 49, SPIKE TV. = 50
AQC 25	28.82187	.9991928	3.479998E-03	MATRIXSPK %R = 99 LIMIT = 100 ± 15%

%R = 115, LIMIT = 100 ± 10%
FAILED HIGH

BLANK

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.003	-3.700012E-03	-7.000121E-04	18.91918 %
10	.036	.0371	1.099996E-03	2.96495 %
20	.078	.0779	-1.000017E-04	-.1283719 %
30	.119	.1187	-3.000051E-04	-.2527423 %

AQC 25

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.117	.1123	-4.700043E-03	-4.185258 %
10	.143	.1466	3.599957E-03	2.455633 %
20	.174	.1809	6.899968E-03	3.814245 %
30	.221	.2152	-5.800039E-03	-2.695186 %

AQC 25

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.102	9.939999E-02	-2.600007E-03	-2.615701 %
10	.134	.1378	3.79999E-03	2.757613 %
20	.176	.1762	2.000034E-04	.1135093 %
30	.216	.2146	-1.400009E-03	-.6523806 %

DIG BLK.

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	1.701412E+38	1.701412E+38	1 %
0	0	1.701412E+38	1.701412E+38	1 %
0	0	1.701412E+38	1.701412E+38	1 %
0	0	1.701412E+38	1.701412E+38	1 %

DIG BLK.

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-.0025	-.0025	100 %
10	.037	.039	1.999997E-03	5.128197 %
20	.077	.0805	3.499992E-03	4.347817 %
30	.125	.122	-3.000006E-03	-2.459022 %

94ZB19 S02 SPK

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.049	4.980002E-02	8.00021E-04	1.606467 %
10	9.000001E-02	9.010002E-02	1.000166E-04	.1110062 %
20	.133	.1304	-2.599985E-03	-1.993853 %
30	.169	.1707	1.700014E-03	.9959073 %

AQC 25

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.102	.1003	-1.699977E-03	-1.694892 %
10	.133	.1351	2.100006E-03	1.554408 %
20	.169	.1699	8.999705E-04	.5297061 %
30	.206	.2047	-1.300052E-03	-.6351012 %

M. Knopp
9-28-94

M. Knopp
9-28-94

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* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: MAK
DATE OF ANALYSIS --: 09-27-1994
PARAMETER NAME ----: SB
DATA SET # --------: 940152

SAMPLE NO.	CONC.	R VALUE	SLOPE
BLANK	-.2756908	.9990779	.00399 Zu, LIMIT = ±2ug/L
AQC 25	26.53228	.9981414	3.719999E-03 %R = 106.1, LIMIT = 100±10%
94ZB19 S03	.589885	.9996687	.00356 Zu
S02 SPK. X4	25.94205	.9822128	2.759999E-03 ERROR DURING ENTRY
S02 SPK X4	13.82514	.9981234	.00366 ADJ. CONC = 55, %R = 110, LIMIT = 100±1
LCS X2	3.733683	.9997069	.00383 ADJ. CONC = 7.5, T.V. = 10, %R = 75% LIMIT = 100 ± 20%
S01	.1315789	.9993772	.0038 Zu
PES	12.32558	.9999552	.00516 Z
AQC 25	27.32395	.9998814	3.549999E-03 %R = 109, LIMIT = 100±10%
S05	-.2439024	.9997621	4.100001E-03 Zu
S06	-1.682246	.9997381	.00214 Zu
R07	-.1928366	.9974071	.00363 Zu
S08	-.3674564	.9996762	.00381 Zu
AQC 25	33.63343	.9995148	3.110001E-03 %R = 134, LIMIT = 100 ±10% FAILED HIGH

< IDL AND ARE ACCEPTABLE.

BLANK

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-1.100006E-03	-1.100006E-03	100 %
10	.036	3.879999E-02	2.799992E-03	7.216475 %
20	.081	.0787	-2.300009E-03	-2.922503 %
30	.118	.1186	5.999804E-04	.5058857 %

AQC 25

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.101	9.870004E-02	-2.299965E-03	-2.330257 %
10	.134	.1359	1.900032E-03	1.39811 %
20	.17	.1731	3.100023E-03	1.790885 %
30	.213	.2103	-2.699986E-03	-1.283874 %

94ZB19 S03

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	2.099991E-03	9.999075E-05	4.761485 %
10	.037	3.769999E-02	6.999932E-04	1.856746 %
20	.075	.0733	-1.700006E-03	-2.319245 %
30	.108	.1089	9.000003E-04	.8264466 %

S02 SPK. X4

SPIKE	MEASURED	CALC.	ERROR	PER CENT

0	.078	7.160004E-02	-6.399967E-03	-8.938497 %
10	9.000001E-02	9.920002E-02	9.200022E-03	9.274213 %
20	.126	.1268	8.000285E-04	.6309371 %
30	.158	.1544	-3.599987E-03	-2.331597 %

A. Knopp 7-28-94

S02 SPK X4

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.048	5.060001E-02	2.600007E-03	5.138353 %
10	9.000001E-02	8.720001E-02	-2.799995E-03	-3.211003 %
20	.126	.1238	-2.199993E-03	-1.777054 %
30	.158	.1604	2.399996E-03	1.496257 %

LCS X2

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.015	.0143	-6.99997E-04	-4.895083 %
10	.051	5.260001E-02	1.600005E-03	3.041834 %
20	.092	9.090001E-02	-1.099996E-03	-1.210117 %
30	.129	.1292	2.000034E-04	.1548014 %

S01

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.002	.0005	-.0015	-300 %
10	.036	.0385	2.500005E-03	6.493519 %
20	.077	7.650001E-02	-4.999936E-04	-.6535863 %
30	.115	.1145	-4.999936E-04	-.4366756 %

PES

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.063	6.360001E-02	6.000027E-04	.9434004 %
10	.116	.1152	-7.999987E-04	-.6944433 %
20	.167	.1668	-2.000034E-04	-.1199061 %
30	.218	.2184	4.000068E-04	.1831533 %

AQC 25

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.097	.097	0	0 %
10	.133	.1325	-5.000085E-04	-.3773649 %
20	.167	.168	9.999871E-04	.5952305 %
30	.204	.2035	-5.000234E-04	-.2457118 %

S05

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	-.001	.001	-100 %
10	.041	4.000001E-02	-9.999946E-04	-2.499986 %
20	.082	8.100001E-02	-9.999946E-04	-1.234561 %
30	.121	.122	1.00001E-03	.8196799 %

S06

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.004	-3.600006E-03	3.999942E-04	-11.11093 %
10	.018	.0178	-2.000034E-04	-1.123615 %
20	.04	.0392	-8.000024E-04	-2.040823 %
30	.06	.0606	5.999953E-04	.9900912 %

R07

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-6.99997E-04	-6.99997E-04	100 %
10	.037	.0356	-1.400001E-03	-3.932588 %
20	.067	.0719	4.899994E-03	6.815013 %
30	.111	.1082	-2.80001E-03	-2.58781 %

S08

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	-1.400009E-03	-4.000091E-04	28.57189 %
10	.037	.0367	-3.000051E-04	-.8174526 %
20	.073	.0748	1.800001E-03	2.406418 %
30	.114	.1129	-1.099996E-03	-.9743102 %

AQC 25

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.105	.1046	-4.000217E-04	-.38243 %
10	.136	.1357	-3.0002E-04	-.2210907 %
20	.165	.1668	1.799986E-03	1.079128 %
30	.199	.1979	-1.100004E-03	-.5558382 %

M. Knapp
9-28-94

M. Knapp
9-27-94

PERKIN-ELMER FIAS 94/09/27 PAGE 1

Sb	AA-BG	BG	Sb	AA-BG	BG
MAIN:-3.000	PA-3.000		MAIN:-2.998	PA-2.998	
Sb	AA-BG	BG	Sb	AA-BG	BG
MAIN: 0.000	PA 0.000		MAIN: 0.000	PA 0.000	

9-27-94 MK

0.000 AUTOZERO

Sb	AA-BG	BG	Sb	AA-BG	BG
MAIN:-0.004	PA-0.004		MAIN: 0.038	PA 0.038	
Sb	AA-BG	BG	Sb	AA-BG	BG
MAIN: 0.080	PA 0.080		MAIN: 0.123	PA 0.123	
Sb	AA-BG	BG	Sb	AA-BG	BG
MAIN: 0.080	PA 0.080		MAIN: 0.117	PA 0.117	
Sb	AA-BG	BG	Sb	AA-BG	BG
MAIN: 0.155	PA 0.155		MAIN: 0.198	PA 0.198	
Sb	AA-BG	BG			
MAIN:-0.001	PA-0.001				

NOT USED

0.000 AUTOZERO

Sb	AA-BG	BG	Sb	AA-BG	BG	BLANK
MAIN:-0.002	PA-0.003		MAIN: 0.037	PA 0.036		
to			to			
Sb	AA-BG	BG	Sb	AA-BG	BG	
MAIN: 0.079	PA 0.078		MAIN: 0.120	PA 0.119		
+20			+30			
Sb	AA-BG	BG	Sb	AA-BG	BG	AQC 25
MAIN: 0.118	PA 0.117		MAIN: 0.144	PA 0.143		
to			to			
Sb	AA-BG	BG	Sb	AA-BG	BG	NOT USED SEE RE-RUN
MAIN: 0.175	PA 0.174		MAIN: 0.222	PA 0.221		
+20			+30			
Sb	AA-BG	BG	Sb	AA-BG	BG	AQC
MAIN: 0.103	PA 0.102		MAIN: 0.135	PA 0.134		
to			to			

Sb				Sb		AA-BG	BG
MAIN: 0.177		PA		MAIN: 0.217		PA 0.216	
	+20				+30		
Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.001		PA 0.000		MAIN: 0.038	+10	PA 0.037	
	+0						

25

M. Knapp 9-27-94

PERKIN-ELMER FIAS 94/09/27 PAGE 2

DIG BLK

Sb		AA-BG	BG				
MAIN: 0.078		PA 0.077		Sb		AA-BG	BG
				MAIN: 0.126		PA 0.125	
	+20				+30		
Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.050		PA 0.049		MAIN: 0.091		PA 0.090	
	+0				+10		
Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.134		PA 0.133		MAIN: 0.170		PA 0.169	
	+20				+30		

94-0819 SO2 SPK X4 NOT USED

Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.103		PA 0.102		MAIN: 0.134		PA 0.133	
	+0				+10		
Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.170		PA 0.169		MAIN: 0.207		PA 0.206	
	+20				+30		

ACQC 25 FAILED

Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.002		PA 0.001		MAIN: 0.000		PA 0.000	

BLK. CUP

0.000 AUTOZERO

Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.002		PA 0.002		MAIN: 0.0[illegible]		PA 0.039	
Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.074		PA 0.074		MAIN: 0.123		PA 0.123	
Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.099		PA 0.099		MAIN: 0.001		PA 0.001	

NOT USED 9-27-94 MK

0.000 AUTOZERO

Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN:-0.001		PA 0.000		MAIN: 0.035		PA 0.036	
	+0				+10		
Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.080		PA 0.081		MAIN: 0.117		PA 0.118	
	+20				+30		

BLANK

Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.100		PA 0.101		MAIN: 0.133		PA 0.134	

ACQC

+0 +10

Sb AA-BG BG Sb AA-BG BG
MAIN: 0.169 PA 0.170 MAIN: 0.212 PA 0.213

+20 +30

25

Sb AA-BG BG Sb AA-BG BG
MAIN: 0.001 PA 0.002 MAIN: 0.036 PA 0.037

+0 +10 M. K 9-27-94

PERKIN-ELMER FIAS 94/09/27 PAGE 3

Sb AA-BG BG Sb AA-BG BG
MAIN: 0.074 PA 0.075 MAIN: 0.107 PA 0.108

+20 +30

S03

Sb AA-BG BG Sb AA-BG BG
MAIN: 0.047 PA 0.048 MAIN: 0.089 PA 0.090

+0 +10

S02 SPK

Sb AA-BG BG Sb AA-BG BG
MAIN: 0.125 PA 0.126 MAIN: 0.157 PA 0.158

+20 +30

X4

Sb AA-BG BG Sb AA-BG BG
MAIN: 0.014 PA 0.015 MAIN: 0.050 PA 0.051

+0 +10

Sb AA-BG BG Sb AA-BG BG
MAIN: 0.091 PA 0.092 MAIN: 0.128 PA 0.129

+20 +30

LCS X2

Sb AA-BG BG Sb AA-BG BG
MAIN: 0.001 PA 0.002 MAIN: 0.035 PA 0.036

+0 +10

Sb AA-BG BG Sb AA-BG BG
MAIN: 0.076 PA 0.077 MAIN: 0.114 PA 0.115

+20 +30

S01

Sb AA-BG BG Sb AA-BG BG
MAIN: 0.062 PA 0.063 MAIN: 0.115 PA 0.116

+0 +10

Sb AA-BG BG Sb AA-BG BG
MAIN: 0.166 PA 0.167 MAIN: 0.217 PA 0.218

+20 +30

PES

Sb AA-BG BG
MAIN: 0.096 PA 0.097

+0

Sb AA-BG BG
MAIN: 0.132 PA 0.133

+10

AQC 25

Sb AA-BG BG
MAIN: 0.166 PA 0.167

+20

Sb AA-BG BG
MAIN: 0.203 PA 0.204

+30

Sb AA-BG BG Sb AA-BG BG
MAIN: -0.002 PA -0.001 MAIN: 0.001 PA 0.002

BLK CUP

Sb
MAIN:-0.003 +0 PA-[illegible]

Sb
MAIN: 0.04[illegible] +10 [illegible]

Sb
MAIN: 0.081 AA-BG BG
PA 0.082
+20

Sb AA-BG BG
MAIN: 0.120 PA 0.121
+30

S05

Sb AA-BG BG
MAIN:-0.005 PA-0.004
+0

Sb AA-BG BG
MAIN: 0.017 PA 0.018
+10

M. Knopp
9-27-94.

S06

PERKIN-ELMER FIAS 94/09/27 PAGE 4

Sb AA-BG BG
MAIN: 0.039 PA 0.040
+20

Sb AA-BG BG
MAIN: 0.059 PA 0.060
+30

Sb AA-BG BG
MAIN:-0.001 PA 0.000
+0

Sb AA-BG BG
MAIN: 0.036 PA 0.037
+10

Sb AA-BG BG
MAIN: 0.066 PA 0.067
+20

Sb AA-BG BG
MAIN: 0.110 PA 0.111
+30

R07

Sb AA-BG BG
MAIN:-0.002 PA-0.001
+0

Sb AA-BG BG
MAIN: 0.036 PA 0.037
+10

Sb AA-BG BG
MAIN: 0.072 PA 0.073
+20

Sb AA-BG BG
MAIN: 0.113 PA 0.114
+30

S08

Sb AA-BG BG
MAIN: 0.104 PA 0.105
+0

Sb AA-BG BG
MAIN: 0.135 PA 0.136
+10

AQC 25

Sb AA-BG BG
MAIN: 0.164 PA 0.165
+20

Sb AA-BG BG
MAIN: 0.198 PA 0.199
+30

FAILED

BLK. CUP.

Sb AA-BG BG
MAIN:-0.001 PA 0.000

①

AAS RUN LOG

ELEMENT Sb ANALYST M. Knopp

DATE 9-29-94 DATA SET NUMBER 940152

POSITION NUMBER	IDENTIFICATION	SPIKE	COMMENT
Auto Zero		0	
1	Blank	0	
2		10	
3		20	
4		30	
5	AQC 25	0	NOT USED
6		10	
7		20	
8		30	
9	AQC 25	0	
10		10	
11		20	
12		30	
13	DIG. BIK	0	
14		10	
15		20	
16		30	
17	SOZ SPK. X4	0	NOT USED
18		10	
19		20	
20		30	
21	AQC 25	0	
22		10	
23		20	
24		30	
25	BLANK CUP	0	
26	BLANK CUP	~~10~~ 0 9-29-94 MK	
27		20	
28		30	
29		0	

M. Knopp
9-29-94

AAS RUN LOG

ELEMENT Sb ANALYST M. Knopp

DATE 9-29-94 DATA SET NUMBER 940152

POSITION NUMBER	IDENTIFICATION	SPIKE	COMMENT
Auto Zero		0	
1	Blank	0	
2		10	
3		20	
4		30	
5	AQC 25	0	
6		10	
7		20	
8		30	
9	9426A 503	0	
10		10	
11		20	
12		30	
13	502 SPK X4	0	
14		10	
15		20	
16		30	
17	LCS X2	0	
18		10	
19		20	
20		30	
21	501	0	
22		10	
23		20	
24		30	
25	PES	0	
26		10	
27		20	
28		30	
29	AQC 25	0	

M. Knopp
9-29-94

AAS RUN LOG

(3)

ELEMENT Sb ANALYST M. Knapp

DATE 9-29-94 DATA SET NUMBER 940152

POSITION NUMBER	IDENTIFICATION	SPIKE	COMMENT
30	AQC 25	10	
31		20	
32		30	
33	BLANK CUP	0	
34	BLANK CUP	0	
35	S05	0	
36		10	
37		20	
38		30	
39	S06	0	
40		10	
41		20	
42		30	
43	R07	0	
44		10	
45		20	
46		30	
47	S08	0	
48		10	
49		20	
50		30	
51	AQC 25	0	
52		10	
53		20	
54		30	
55	BLANK CUP	0	

M. Knapp 9-29-94

Element	Instrument	QC Source
☐ Ag	☐ 5100 A3	☐ CLP-40
☐ As	☐ 5100 A6	☐ CLP-70
☐ Cd	☒ 5000 A4	☐ CLP-80
☐ Cr	☐ 5000 A5	☐ EPA-V-1
☐ Pb	☐	☒ CLPF-CAL-1
☒ Sb	☐	☐
☐ Se		☐
☐ Tl		☐

Analyst M. Knopp

Date 9-27-94

Lamp # 303-6010 53932

Energy 47

Expansion 3

Stock 4-188 SB

op. 5-11-94

9-30-94 mK ~~ck. 5-15-94~~ 5-15-95

☐ platform ☐ MSC

☒ wall ☒ MSA

Blank	Slope	AQC	Digestion QC
-.907	.00408		- Matrix Spk. % R = 110
	.00384	25.88	LIMIT = 100 ± 15%
	.00348	28.82	- Dig. Blank = < 2ug/L
-.276	.00379		limit = ± 2ug/L
	.00372	26.53	
	.00355	27.32	
	.00311	33.63	

Blank cup absorbance

~~.002~~ 9-28-94 mK

.000

.002

.000

M. Knopp

9-27-94

M. Knopp
9-28-94

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* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: MAK
DATE OF ANALYSIS --: 09-27-1994
PARAMETER NAME ----: SB
DATA SET # --------: 940152

SAMPLE NO.	CONC.	R VALUE	SLOPE	
BLANK	-.9427643	.9992866	2.970001E-03	Zu, LIMIT = ± 2ug/L
AQC 18	18.5145	.9984021	2.759999E-03	%R = 102.8, LIMIT = 100 ± 10%
94ZB19 S02	-1.027193	.998116	3.310001E-03	Zu, < IDL AND ACCEPTABLE.
S02 DUP.	-.2446446	.9994114	.00327	Zu, < IDL AND ACCEPTABLE.
S02 SPK. X3	18.83333	.9976751	.003	Adj. Conc. = 56, SPIKE T.V. = 50, MATRIX SPK %R = 113 LIMIT = 100 ± 15%
DIG BLK.	-.2230478	.9938793	.00269	NOT USED SEE RE-RUN
PES	8.021577	.9966781	2.780001E-03	NOT USED SEE RE-RUN
AQC 18	23.69566	.9960536	2.299999E-03	%R = 132, LIMIT = 100 ± 10% FAILED HIGH

NOT USED SEE RE-RUN

BLANK

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.002	-2.800011E-03	-8.000105E-04	28.5717 %
10	.025	.0269	1.899997E-03	7.063186 %
20	.058	5.660001E-02	-1.399994E-03	-2.473487 %
30	.086	8.630001E-02	3.000051E-04	.3476304 %

AQC 18

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.05	5.110001E-02	1.100004E-03	2.152649 %
10	7.900001E-02	.0787	-3.000051E-04	-.3812009 %
20	.109	.1063	-2.700001E-03	-2.539982 %
30	.132	.1339	1.899988E-03	1.41896 %

94ZB19 S02

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	-3.400009E-03	-2.400009E-03	70.58831 %
10	.026	.0297	3.699996E-03	12.4579 %
20	.063	6.280001E-02	-1.999959E-04	-.3184649 %
30	.097	.0959	-1.100004E-03	-1.147032 %

S02 DUP.

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-7.999878E-04	-7.999878E-04	100 %
10	.03	3.190001E-02	1.900008E-03	5.956137 %
20	.066	.0646	-1.400001E-03	-2.167185 %
30	.097	9.729999E-02	2.999902E-04	.3083147 %

S02 SPK. X3

SPIKE	MEASURED	CALC.	ERROR	PER CENT

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.058	.0565	-1.499999E-03	-2.654866 %
10	.086	8.650001E-02	5.00001E-04	.5780358 %
20	.113	.1165	3.500007E-03	3.004298 %
30	.149	.1465	-2.499998E-03	-1.706483 %

DIG BLK.

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.003	-5.999985E-04	-3.599999E-03	600.0013 %
10	.021	.0263	5.299997E-03	20.15208 %
20	.053	5.319999E-02	1.999922E-04	.3759253 %
30	.082	8.009999E-02	-1.900017E-03	-2.372057 %

PES

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.021	2.229999E-02	1.299989E-03	5.829548 %
10	.05	.0501	9.999424E-05	.1995893 %
20	.082	.0779	-4.100002E-03	-5.263161 %
30	.103	.1057	2.700009E-03	2.554407 %

AQC 18

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.053	.0545	1.499999E-03	2.752293 %
10	.078	.0775	-5.000085E-04	-.6451723 %
20	.104	.1005	-3.500015E-03	-3.482602 %
30	.121	.1235	2.499983E-03	2.024278 %

M. Knopp
9-28-94

9-27-94
M. Knapp

Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.008	PA	0.008		MAIN: -0.008	PA	-0.008	
Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.001	PA	0.001		MAIN: 0.000	PA	0.000	
0.000 AUTOZERO							
Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: -0.010	PA	-0.010		MAIN: 0.051	PA	0.051	
Sb		AA-BG	BG				
MAIN: 0.095	PA	0.095		Sb		AA-BG	BG
				MAIN: 0.151	PA	0.151	
Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.109	PA	0.109		MAIN: 0.162	PA	0.162	
Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.199	PA	0.199		MAIN: 0.279	PA	0.279	
Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.100	PA	0.100		MAIN: -0.002	PA	-0.002	
0.000 AUTOZERO							
Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.006	PA	0.004		MAIN: 0.030	PA	0.028	
Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.064	PA	0.062		MAIN: 0.094	PA	0.092	
Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.064	PA	0.062		MAIN: 0.004	PA	0.004	
0.000 AUTOZERO							
Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: -0.005	PA	-0.001		MAIN: 0.023	PA	0.027	
Sb		AA-BG	BG				
MAIN: 0.052	PA	0.056		Sb		AA-BG	BG
				MAIN: 0.082	PA	0.086	

NOT USED 9-27-94 MK

Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.054	PA	0.058		MAIN: 0.079	PA	0.083	

9-27-94 MK

Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.109	PA	0.113		MAIN: 0.138	PA	0.142	

NOT USED

Sb		AA-BG	BG				
MAIN:-0.002	PA	-0.002					

M. Knapp 9-27-94

0.000 AUTOZERO

Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.001	PA	-0.001		MAIN: 0.024	PA	0.022	

Sb		AA-BG	BG	Sb		AA-BG	BG
MAIN: 0.058	PA	0.056		MAIN: 0.089	PA	0.087	

Sb	AA-BG	BG	
MAIN: 0.001	PA 0.001		

0.000 AUTOZERO

Sb		AA-BG	BG	Sb		AA-BG	BG	BLANK
MAIN:-0.003	PA	-0.002		MAIN: 0.024	PA	0.025		
+0				+10				
Sb		AA-BG	BG	Sb		AA-BG	BG	
MAIN: 0.057	PA	0.058		MAIN: 0.085	PA	0.086		
+20				+30				
Sb		AA-BG	BG	Sb		AA-BG	BG	AQC 18
MAIN: 0.049	PA	0.050		MAIN: 0.078	PA	0.079		
+0				+10				
Sb		AA-BG	BG	Sb		AA-BG	BG	
MAIN: 0.108	PA	0.109		MAIN: 0.131	PA	0.132		
+20				+30				
Sb		AA-BG	BG	Sb		AA-BG	BG	94ZB19 SO2
MAIN:-0.002	PA	-0.001		MAIN: 0.025	PA	0.026		
+0				+10				
Sb		AA-BG	BG	Sb		AA-BG	BG	
MAIN: 0.062	PA	0.063		MAIN: 0.096	PA	0.097		
+20				+30				
Sb		AA-BG	BG	Sb		AA-BG	BG	
MAIN:-0.001	PA	0.000		MAIN: 0.029	PA	0.030		

+0 +10

SO2 DUP.

Sb	AA-BG	BG	Sb	AA-BG	BG
MAIN: 0.065	PA 0.066		MAIN: 0.096	PA 0.097	

+20 +30

Sb	AA-BG	BG	Sb	AA-BG	BG
MAIN: 0.057	PA 0.058		MAIN: 0.085	PA 0.086	

+0 +10

SO2 SPK. X3

PERKIN-ELMER FIAS 94/09/26 PAGE 3

Sb	AA-BG	BG	Sb	AA-BG	BG
MAIN: 0.112	PA 0.113		MAIN: 0.148	PA 0.149	

+20 +30

NOT USED SEE RE-RUN

Sb	AA-BG	BG	Sb	AA-BG	BG
MAIN: 0.002	PA 0.003		MAIN: 0.020	PA 0.021	

+0 +10

DIG. BLK

Sb	AA-BG	BG	Sb	AA-BG	BG
MAIN: 0.052	PA 0.053		MAIN: 0.081	PA 0.082	

+20 +30

NOT USED SEE-RE-RU

Sb	AA-BG	BG	Sb	AA-BG	BG
MAIN: 0.020	PA 0.021		MAIN: 0.049	PA 0.050	

+0 +10

PES

Sb	AA-BG	BG	Sb	AA-BG	BG
MAIN: 0.081	PA 0.082		MAIN: 0.102	PA 0.103	

+20 +30

NOT USED SEE RE-RUN

Sb	AA-BG	BG	Sb	AA-BG	BG
MAIN: 0.052	PA 0.053		MAIN: 0.077	PA 0.078	

+0 +10

AQC 18

Sb	AA-BG	BG	Sb	AA-BG	BG
MAIN: 0.103	PA 0.104		MAIN: 0.120	PA 0.121	

+20 +30

FAILED

Sb	AA-BG	BG	Sb	AA-BG	BG
MAIN: 0.004	PA 0.005		MAIN:-0.001	PA 0.000	

BLANK CUP

H. Knapp 9-27-94

Sb	AA-BG	BG
MAIN:-0.002	PA-0.002	

0.000 AUTOZERO

9-27-94 MK

NOT USED

Sb	AA-BG	BG	Sb	AA-BG	BG
MAIN: 0.002	PA 0.000		MAIN: 0.029	PA 0.027	

Sb	AA-BG	BG	Sb	AA-BG	BG
MAIN: 0.057	PA 0.055		MAIN: 0.088	PA 0.086	

Sb	AA-BG	BG	Sb	AA-BG	BG
MAIN: 0.059	PA 0.057		MAIN: 0.079	PA 0.077	

①

AAS RUN LOG

ELEMENT Sb ANALYST M. Knapp

DATE 9-29-94 DATA SET NUMBER 940152

POSITION NUMBER	IDENTIFICATION	SPIKE	COMMENT
Auto Zero		0	
1	Blank	0	
2		10	
3		20	
4		30	
5	AQC 18	0	
6		10	
7		20	
8		30	
9	94ZB19 SO2	0	
10		10	
11		20	
12		30	
13	SO2 DUP	0	
14		10	
15		20	
16		30	
17	SO2 SPK. X3	0	NOT USED
18		10	
19		20	
20		30	
21	DIG. BLK	0	NOT USED
22		10	
23		20	
24		30	
25	PES	0	
26		10	
27		20	
28		30	
29	AQC 18	0	

M. Knapp
9-29-94

AAS RUN LOG

(2)

ELEMENT Sb ANALYST M. Knopp

DATE 9-29-94 DATA SET NUMBER 940124

POSITION NUMBER	IDENTIFICATION	SPIKE	COMMENT
30	AQC 18	10	
31		20	
32		30	
33	BLANK CUP	0	
34	BLANK CUP	0	

M. Knopp
9-29-94

Element	Instrument	QC Source
☐ Ag	☐ 5100 A3	☐ CLP-40
☐ As	☐ 5100 A6	☑ CLP-70
☐ Cd	☑ 5000 A4	☐ CLP-80
☐ Cr	☐ 5000 A5	☐ EPA-V-1
☐ Pb	☐	☐
☑ Sb	☐	☐
☐ Se		☐
☐ Tl		☐

Analyst M. Knapp

Date 9-26-94

Lamp # 303-6010 53932

Energy 417 9-26-94 MK

Expansion 3 ~~7~~ 8

Stock 4-188SB
op. 5-11-94
ex. 5-15-95

☐ platform ☐ MSC

☑ wall ☑ MSA

Blank	Slope	AQC	Digestion QC
-.943	.00297		- Duplicate Diff = < 2ug/L
	.00276	18.51	Limit = ± 2ug/L
	.0023	23.70	

Blank cup absorbance
.000

M. Knapp
9-26-94

Perkin-Elmer Model 5100 PC
Report Of Analytical Results
September 27, 1994

M. Knopp 9-28-94

Data File: ASMK0927.DAT
Data Collected: 09/27/94 At: 08:46:47 By: BAI

940152

	As ug/L	
Blank Mean Conc.	0.00	
Standard 1 Mean Conc.	40.00	
Standard 2 Mean Conc.	30.00	r = .99940
Standard 3 Mean Conc.	20.00	Slope = 0.0025
Standard 4 Mean Conc.	10.00	
AQC 25 UG/L Mean Conc.	26.78	%R = 107.1, LIMIT = 100 ± 10%
Recovery		
CCB1 Mean Conc.	0.45	2u, LIMIT = ± 2ug/L
Recovery	90.8%	
DIG BLK Mean Conc.	0.01	NOT USED
Recovery	89.2%	SEE RE-RUN
LCS X2 Mean Conc.	4.39	ADJ. CONC = 9, T.V. = 10, %R = 90%
Recovery	101.%	LIMIT = 100 ± 20%
94ZB19 S05 Mean Conc.	0.29	2u
Recovery	92.8%	
BLANK WASH 9/27/94 MK Mean Conc.	-0.08	
Recovery		
DIG. BLK X2 9/27/94 MK Mean Conc.	0.74	4u
Recovery	90.0%	
AQC 25 UG/L Mean Conc.	26.07	%R = 104.3, LIMIT = 100 ± 10%
Recovery		
CCB Mean Conc.	-0.32	2u, LIMIT = ± 2ug/L
Recovery	91.7%	

Analyst: M. Knopp 9-28-94 Supervisor: _____

M. Knopp
9-28-94

M. Knapp
9-28-94

Element File: ASMSC.GEL
Element: As
Date: 09/27/94
Time: 08:44
Data Storage File: ASMK0927.DAT
ID/Weight File: ASLL901.A60
Technique: HGA
Calibration Type: Linear

~~~~~~

ID: Blank Seq. No.: 00001 A/S Pos.: 1 Date: 09/27/94

uL dispensed: 10 from 1, 5 from 36, 10 from 1
Replicate 1
Time: 08:46
Peak Area (A-s): 0.007
Peak Height (A): 0.010
Background Pk Area (A-s): 0.021
Background Pk Height (A): 0.009
Blank Corrected Pk Area (A-s): 0.007

Auto-zero performed.

~~~~~~

ID: Standard 1 Seq. No.: 00002 A/S Pos.: 2 Date: 09/27/94

uL dispensed: 10 from 1, 5 from 36, 10 from 2

Peak Area (A-s): 0.107 Peak Height (A): 0.141
Background Pk Area (A-s): 0.030 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.100

Standard number 1 applied. [40.00]
Correlation coefficient: 1.00000 Slope: 0.0025 Int: -0.000

~~~~~~

ID: Standard 2 Seq. No.: 00003 A/S Pos.: 3 Date: 09/27/94

uL dispensed: 10 from 1, 5 from 36, 10 from 3
Replicate 1 Time: 08:52
Peak Area (A-s): 0.083 Peak Height (A): 0.113
Background Pk Area (A-s): 0.027 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.076
Concentration (ug/L): 30.25

Standard number 2 applied. [30.00]
Correlation coefficient: 0.99998 Slope: 0.0025 Int: 0.000

~~~~~~

ID: Standard 3 Seq. No.: 00004 A/S Pos.: 4 Date: 09/27/94

uL dispensed: 10 from 1, 5 from 36, 10 from 4
Replicate 1 Time: 08:55
Peak Area (A-s): 0.058 Peak Height (A): 0.076
Background Pk Area (A-s): 0.026 Background Pk Height (A): 0.015
Blank Corrected Pk Area (A-s): 0.050
Concentration (ug/L): 20.11

Standard number 3 applied. [20.00]
Correlation coefficient: 0.99997 Slope: 0.0025 Int: 0.000

~~~~~~

ID: Standard 4 Seq. No.: 00005 A/S Pos.: 5 Date: 09/27/94

uL dispensed: 10 from 1, 5 from 36, 10 from 5
Replicate 1 Time: 08:58
Peak Area (A-s): 0.036 Peak Height (A): 0.045
Background Pk Area (A-s): 0.024 Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): 0.028
Concentration (ug/L): 11.26

Standard number 4 applied. [10.00]
Correlation coefficient: 0.99940 Slope: 0.0025 Int: 0.001

~~~~~~

ID: AQC 25 UG/L Seq. No.: 00006 A/S Pos.: 37 Date: 09/27/94

uL dispensed: 10 from 1, 5 from 36, 10 from 37
Replicate 1 Time: 09:06
Peak Area (A-s): 0.075 Peak Height (A): 0.105
Background Pk Area (A-s): 0.027 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.068
Concentration (ug/L): 26.78

Check sample is within range 22.50 - 27.50

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~~~~~~

ID: CCB1 Seq. No.: 00007 A/S Pos.: 6 Date: 09/27/94

uL dispensed: 10 from 1, 5 from 36, 10 from 6
Replicate 1 Time: 09:09
Peak Area (A-s): 0.010 Peak Height (A): 0.011
Background Pk Area (A-s): 0.022 Background Pk Height (A): 0.010
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.45

~~~~~~

ID: CCB1 Seq. No.: 00008 A/S Pos.: 6 Date: 09/27/94

uL dispensed: 5 from 36, 10 from 4, 10 from 6
Replicate 1 Time: 09:12
Peak Area (A-s): 0.055 Peak Height (A): 0.081
Background Pk Area (A-s): 0.022 Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): 0.047
Concentration (ug/L): 18.61

Recovery is 90.8%

~~~~~~

ID: DIG BLK Seq. No.: 00009 A/S Pos.: 7 Date: 09/27/94

uL dispensed: 10 from 1, 5 from 36, 10 from 7
Replicate 1 Time: 09:15
Peak Area (A-s): 0.009 Peak Height (A): 0.013
Background Pk Area (A-s): 0.021 Background Pk Height (A): 0.010
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.01

~~~~~~

ID: DIG BLK Seq. No.: 00010 A/S Pos.: 7 Date: 09/27/94

uL dispensed: 5 from 36, 10 from 4, 10 from 7
Replicate 1 Time: 09:18

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Peak Area (A-s): 0.053 Peak Height (A): 0.078
Background Pk Area (A-s): 0.022 Background Pk Height (A): 0.014
Blank Corrected Pk Area (A-s): 0.046
Concentration (ug/L): 17.86

Recovery is 89.2%

~~~~~~

ID: LCS X2 Seq. No.: 00011 A/S Pos.: 8 Date: 09/27/94

uL dispensed: 10 from 1, 5 from 36, 10 from 8
Replicate 1 Time: 09:21
Peak Area (A-s): 0.020 Peak Height (A): 0.024
Background Pk Area (A-s): 0.021 Background Pk Height (A): 0.010
Blank Corrected Pk Area (A-s): 0.012
Concentration (ug/L): 4.39

~~~~~~

ID: LCS X2 Seq. No.: 00012 A/S Pos.: 8 Date: 09/27/94

uL dispensed: 5 from 36, 10 from 4, 10 from 8

Replicate ...
Peak Area (A-s): 0.069
Peak Height (A): 0.093
Background Pk Area (A-s): 0.020
Background Pk Height (A): 0.015
Blank Corrected Pk Area (A-s): 0.062
Concentration (ug/L): 24.51

Recovery is 100.6%

~~~~~~

ID: 94ZB19 S05 Seq. No.: 00013 A/S Pos.: 9 Date: 09/27/94

uL dispensed: 10 from 1, 5 from 36, 10 from 9
Replicate 1
Time: 09:27
Peak Area (A-s): 0.009
Peak Height (A): 0.010
Background Pk Area (A-s): 0.024
Background Pk Height (A): 0.011
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.29

~~~~~~

ID: 94ZB19 S05 Seq. No.: 00014 A/S Pos.: 9 Date: 09/27/94

uL dispensed: 5 from 36, 10 from 4, 10 from 9
Replicate 1
Time: 09:30
Peak Area (A-s): 0.055
Peak Height (A): 0.070
Background Pk Area (A-s): 0.025
Background Pk Height (A): 0.015
Blank Corrected Pk Area (A-s): 0.048
Concentration (ug/L): 18.85

Recovery is 92.8%

~~~~~~

ID: Seq. No.: 00015 A/S Pos.: 10 Date: 09/27/94

uL dispensed: 10 from 1, 5 from 36, 10 from 10
Replicate 1
Time: 09:33
Peak Area (A-s): 0.009
Peak Height (A): 0.012
Background Pk Area (A-s): 0.023
Background Pk Height (A): 0.010
Blank Corrected Pk Area (A-s): 0.001

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Concentration (ug/L): -0.08

~~~~~~

ID: AQC 25 UG/L Seq. No.: 00016 A/S Pos.: 37 Date: 09/27/94

uL dispensed: 10 from 1, 5 from 36, 10 from 37

~~~~~~

ID: Dig. Blk X2 9/27/94 MK Seq. No.: 00017 A/S Pos.: 11 Date: 09/27/94

uL dispensed: 10 from 1, 5 from 36, 10 from 11
Replicate 1
Time: 09:37
Peak Area (A-s): 0.011
Peak Height (A): 0.012
Background Pk Area (A-s): 0.020
Background Pk Height (A): 0.010
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.74

~~~~~~

ID: Dig. Blk X2 9/27/94 MK Seq. No.: 00018 A/S Pos.: 11 Date: 09/27/94

uL dispensed: 5 from 36, 10 from 4, 10 from 11
Replicate 1
Time: 09:40

Peak Area (A-s): [illegible] | Peak Height (A): [illegible]
Background Pk Area (A-s): 0.021 | Background Pk Height (A): 0.011
Blank Corrected Pk Area (A-s): 0.048
Concentration (ug/L): 18.75

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Recovery is 90.0%

~~~~~~

ID: AQC 25 UG/L   Seq. No.: 00019   A/S Pos.: 37   Date: 09/27/94

uL dispensed: 10 from 1, 5 from 36, 10 from 37
Replicate 1   Time: 09:43
Peak Area (A-s): 0.073   Peak Height (A): 0.107
Background Pk Area (A-s): 0.028   Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.066
Concentration (ug/L): 26.07

Check sample is within range 22.50 - 27.50

~~~~~~

ID: CCB   Seq. No.: 00020   A/S Pos.: 12   Date: 09/27/94

uL dispensed: 10 from 1, 5 from 36, 10 from 12
Replicate 1   Time: 09:46
Peak Area (A-s): 0.008   Peak Height (A): 0.011
Background Pk Area (A-s): 0.021   Background Pk Height (A): 0.010
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): -0.32

~~~~~~

ID: CCB   Seq. No.: 00021   A/S Pos.: 12   Date: 09/27/94

uL dispensed: 5 from 36, 10 from 4, 10 from 12
Replicate 1   Time: 09:48
Peak Area (A-s): 0.053   Peak Height (A): 0.073
Background Pk Area (A-s): 0.022   Background Pk Height (A): 0.011
Blank Corrected Pk Area (A-s): 0.046
Concentration (ug/L): 18.01

Recovery is 91.7%
~~~~~~

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Element	Instrument	QC Source
☐ Ag	☐ 5100 A3	☐ CLP-40
☑ As	☑ 5100 A6	☐ CLP-70
☐ Cd	☐ 5000 A4	☐ CLP-80
☐ Cr	☐ 5000 A5	☐ EPA-V-1
☐ Pb	☐	☐ CLPF-CAL-1
☐ Sb	☐	☐
☐ Se		☐
☐ Tl		☐

Analyst M. Knapp
Date 9-26-94
Lamp # N066-1224 2773
Energy 56
Expansion 1
Stock 4-135AS
op. 5-11-94
ex. 5-15-95

☑ platform ☑ MSC
☐ wall ☐ MSA

Blank	Slope	AQC	Digestion QC
0.007	.0025	26.78 26.07	- Digestion Blank = 4u LIMIT = ± 2ug/l

Blank cup absorbance
.003
.001

M. Knapp
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M. Knapp
9-28-94

Element File: ASMSC.GEL Element: As
Date: 09/26/94 Time: 14:08
Data Storage File: ASMK0926.DAT ID/Weight File: ASLL901.A60
Technique: HGA Calibration Type: Linear

~~~~~~

ID: 36 Seq. No.: 00001 A/S Pos.: 36 Date: 09/26/94

uL dispensed: 10 from 1, 10 from 1, 5 from 36
Replicate 1 Time: 14:11
Peak Area (A-s): 0.010 Peak Height (A): 0.015
Background Pk Area (A-s): 0.026 Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): 0.010

uL dispensed: 10 from 1, 10 from 1, 5 from 36
Replicate 2 Time: 14:13
Peak Area (A-s): 0.009 Peak Height (A): 0.016
Background Pk Area (A-s): 0.022 Background Pk Height (A): 0.011
Blank Corrected Pk Area (A-s): 0.009

uL dispensed: 10 from 1, 10 from 1, 5 from 36
Replicate 3 Time: 14:16
Peak Area (A-s): 0.007 Peak Height (A): 0.014
Background Pk Area (A-s): 0.022 Background Pk Height (A): 0.009
Blank Corrected Pk Area (A-s): 0.007

Mean Pk Area (A-s): 0.009 SD: 0.0014 RSD(%): 15.56

~~~~~~

ID: Blank Seq. No.: 00002 A/S Pos.: 1 Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 1
Replicate 1 Time: 14:19
Peak Area (A-s): 0.006 Peak Height (A): 0.015
Background Pk Area (A-s): 0.022 Background Pk Height (A): 0.010
Blank Corrected Pk Area (A-s): 0.006

Auto-zero performed.

~~~~~~

ID: Standard 1 Seq. No.: 00003 A/S Pos.: 2 Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 2
Replicate 1 Time: 14:22
Peak Area (A-s): 0.114 Peak Height (A): 0.181
Background Pk Area (A-s): 0.029 Background Pk Height (A): 0.021
Blank Corrected Pk Area (A-s): 0.108

Standard number 1 applied. [40.00]
Correlation coefficient: 1.00000 Slope: 0.0027 Int: 0.000

~~~~~~

ID: Standard 2 Seq. No.: 00004 A/S Pos.: 3 Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 3
Replicate 1 Time: 14:25
Peak Area (A-s): 0.087 Peak Height (A): 0.139

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Background Pk Area (A-s): 0.027 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.081
Concentration (ug/L): 30.04

Standard number 2 applied. [30.00]
Correlation coefficient: 1.00000 Slope: 0.0027 Int: 0.000

~~~~~~

ID: Standard 3 Seq. No.: 00005 A/S Pos.: 4 Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 4
Replicate 1 Time: 14:28
Peak Area (A-s): 0.065 Peak Height (A): 0.093
Background Pk Area (A-s): 0.024 Background Pk Height (A): 0.014
Blank Corrected Pk Area (A-s): 0.059
Concentration (ug/L): 21.73

Standard number 3 applied. [20.00]
Correlation coefficient: 0.99871 Slope: 0.0027 Int: 0.001

~~~~~~

ID: Standard 4 Seq. No.: 00006 A/S Pos.: 5 Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 5
Replicate 1 Time: 14:30
Peak Area (A-s): 0.038 Peak Height (A): 0.055
Background Pk Area (A-s): 0.021 Background Pk Height (A): 0.011
Blank Corrected Pk Area (A-s): 0.032
Concentration (ug/L): 11.16

Standard number 4 applied. [10.00]
Correlation coefficient: 0.99837 Slope: 0.0027 Int: 0.003

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ID: CCB1 Seq. No.: 00007 A/S Pos.: 6 Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 6

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ID: AQC 25 UG/L Seq. No.: 00008 A/S Pos.: 37 Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 37
Replicate 1 Time: 14:34
Peak Area (A-s): 0.080 Peak Height (A): 0.121
Background Pk Area (A-s): 0.026 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.074
Concentration (ug/L): 26.92

Check sample is within range 22.50 - 27.50

~~~~~~

ID: CCB1 Seq. No.: 00009 A/S Pos.: 6 Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 6
Replicate 1 Time: 14:37
Peak Area (A-s): 0.009 Peak Height (A): 0.015
Background Pk Area (A-s): 0.023 Background Pk Height (A): 0.010
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.07
~~~~~~

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ID: CCB1 Seq. No.: 00010 A/S Pos.: 6 Date: 09/26/94

uL dispensed: 5 from 36, 10 from 4, 10 from 6
Replicate 1 Time: 14:40
Peak Area (A-s): 0.060 Peak Height (A): 0.096
Background Pk Area (A-s): 0.023 Background Pk Height (A): 0.013
Blank Corrected Pk Area (A-s): 0.054
Concentration (ug/L): 19.27

Recovery is 96.0%

~~~~~~

ID: 94ZB19 S01 Seq. No.: 00011 A/S Pos.: 7 Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 7
Replicate 1 Time: 14:43
Peak Area (A-s): 0.012 Peak Height (A): 0.016
Background Pk Area (A-s): 0.031 Background Pk Height (A): 0.015
Blank Corrected Pk Area (A-s): 0.006
Concentration (ug/L): 1.10

~~~~~~

ID: 94ZB19 S01 Seq. No.: 00012 A/S Pos.: 7 Date: 09/26/94

uL dispensed: 5 from 36, 10 from 4, 10 from 7
Replicate 1 Time: 14:46
Peak Area (A-s): 0.060 Peak Height (A): 0.104
Background Pk Area (A-s): 0.032 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.054
Concentration (ug/L): 19.36

Recovery is 91.3%

~~~~~~

ID: S02 Seq. No.: 00013 A/S Pos.: 8 Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 8
Replicate 1 Time: 14:49
Peak Area (A-s): 0.016 Peak Height (A): 0.022
Background Pk Area (A-s): 0.033 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.010
Concentration (ug/L): 2.59

~~~~~~

ID: S02 Seq. No.: 00014 A/S Pos.: 8 Date: 09/26/94

uL dispensed: 5 from 36, 10 from 4, 10 from 8
Replicate 1 Time: 14:52
Peak Area (A-s): 0.063 Peak Height (A): 0.116
Background Pk Area (A-s): 0.034 Background Pk Height (A): 0.022
Blank Corrected Pk Area (A-s): 0.057
Concentration (ug/L): 20.45

Recovery is 89.3%

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ID: S02 DUP Seq. No.: 00015 A/S Pos.: 9 Date: 09/26/94

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uL dispensed: 10 from 1, 5 from 36, 10 from 9
Replicate 1 Time: 14:55
Peak Area (A-s): 0.015 Peak Height (A): 0.023
Background Pk Area (A-s): 0.032 Background Pk Height (A): 0.016
Blank Corrected Pk Area (A-s): 0.009
Concentration (ug/L): 2.52

~~~~~~

ID: S02 DUP Seq. No.: 00016 A/S Pos.: 9 Date: 09/26/94

uL dispensed: 5 from 36, 10 from 4, 10 from 9
Replicate 1 Time: 14:58
Peak Area (A-s): 0.064 Peak Height (A): 0.116
Background Pk Area (A-s): 0.032 Background Pk Height (A): 0.021
Blank Corrected Pk Area (A-s): 0.058
Concentration (ug/L): 20.63

Recovery is 90.5%

~~~~~~

ID: S02 SPK X3 Seq. No.: 00017 A/S Pos.: 10 Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 10
Replicate 1 Time: 15:01
Peak Area (A-s): 0.057 Peak Height (A): 0.094
Background Pk Area (A-s): 0.030 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.051
Concentration (ug/L): 18.14

~~~~~~

ID: S02 SPK X3 Seq. No.: 00018 A/S Pos.: 10 Date: 09/26/94

uL dispensed: 5 from 36, 10 from 4, 10 from 10
Replicate 1 Time: 15:04
Peak Area (A-s): 0.109 Peak Height (A): 0.197
Background Pk Area (A-s): 0.030 Background Pk Height (A): 0.024
Blank Corrected Pk Area (A-s): 0.103
Concentration (ug/L): 37.51

Recovery is 96.9%

~~~~~~

ID: DIG BLK Seq. No.: 00019 A/S Pos.: 11 Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 11
Replicate 1 Time: 15:07
Peak Area (A-s): 0.012 Peak Height (A): 0.014
Background Pk Area (A-s): 0.020 Background Pk Height (A): 0.009
Blank Corrected Pk Area (A-s): 0.006
Concentration (ug/L): 1.12

~~~~~~

ID: DIG BLK Seq. No.: 00020 A/S Pos.: 11 Date: 09/26/94

uL dispensed: 5 from 36, 10 from 4, 10 from 11
Replicate 1 Time: 15:10
Peak Area (A-s): 0.057 Peak Height (A): 0.090
Background Pk Area (A-s): 0.021 Background Pk Height (A): 0.012
~~~~~~

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Blank Corrected Pk Area (A-s): 0.051
Concentration (ug/L): 18.16

Recovery is 85.2%

~~~~~~

ID: AQC 25 UG/L   Seq. No.: 00021   A/S Pos.: 37   Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 37
Replicate 1   Time: 15:13
Peak Area (A-s): 0.080   Peak Height (A): 0.118
Background Pk Area (A-s): 0.031   Background Pk Height (A): 0.019
Blank Corrected Pk Area (A-s): 0.074
Concentration (ug/L): 26.84

Check sample is within range 22.50 - 27.50

~~~~~~

ID: CCB   Seq. No.: 00022   A/S Pos.: 12   Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 12
Replicate 1   Time: 15:16
Peak Area (A-s): 0.011   Peak Height (A): 0.015
Background Pk Area (A-s): 0.023   Background Pk Height (A): 0.011
Blank Corrected Pk Area (A-s): 0.005
Concentration (ug/L): 0.93

~~~~~~

ID: CCB   Seq. No.: 00023   A/S Pos.: 12   Date: 09/26/94

uL dispensed: 5 from 36, 10 from 4, 10 from 12
Replicate 1   Time: 15:19
Peak Area (A-s): 0.057   Peak Height (A): 0.089
Background Pk Area (A-s): 0.025   Background Pk Height (A): 0.013
Blank Corrected Pk Area (A-s): 0.051
Concentration (ug/L): 18.28

Recovery is 86.8%

~~~~~~

ID: AQC 25 UG/L   Seq. No.: 00024   A/S Pos.: 37   Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 37

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ID: PES   Seq. No.: 00025   A/S Pos.: 13   Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 13
Replicate 1   Time: 15:22
Peak Area (A-s): 0.021   Peak Height (A): 0.031
Background Pk Area (A-s): 0.029   Background Pk Height (A): 0.020
Blank Corrected Pk Area (A-s): 0.015
Concentration (ug/L): 4.65

~~~~~~

ID: PES   Seq. No.: 00026   A/S Pos.: 13   Date: 09/26/94

uL dispensed: 5 from 36, 10 from 4, 10 from 13
Replicate 1   Time: 15:25
Peak Area (A-s): 0.074   Peak Height (A): 0.122

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```
Background Pk Area (A-s): 0.028        Background Pk Height (A): 0.024
Blank Corrected Pk Area (A-s): 0.068
Concentration (ug/L  ):       24.60

Recovery is 99.8%

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
ID: LCS                 Seq. No.: 00027      A/S Pos.: 14      Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 14
Replicate  1                           Time: 15:28
Peak Area (A-s): 0.034                 Peak Height (A): 0.051
Background Pk Area (A-s): 0.024        Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): 0.028
Concentration (ug/L  ):        9.63

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
ID: LCS                 Seq. No.: 00028      A/S Pos.: 14      Date: 09/26/94

uL dispensed: 5 from 36, 10 from 4, 10 from 14
Replicate  1                           Time: 15:31
Peak Area (A-s): 0.080                 Peak Height (A): 0.123
Background Pk Area (A-s): 0.024        Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.074
Concentration (ug/L  ):       26.79

Recovery is 85.8%

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
ID: S03                 Seq. No.: 00029      A/S Pos.: 15      Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 15
Replicate  1                           Time: 15:34
Peak Area (A-s): 0.008                 Peak Height (A): 0.016
Background Pk Area (A-s): 0.040        Background Pk Height (A): 0.019
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L  ):       -0.10

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
ID: S03                 Seq. No.: 00030      A/S Pos.: 15      Date: 09/26/94

uL dispensed: 5 from 36, 10 from 4, 10 from 15
Replicate  1                           Time: 15:37
Peak Area (A-s): 0.058                 Peak Height (A): 0.097
Background Pk Area (A-s): 0.038        Background Pk Height (A): 0.022
Blank Corrected Pk Area (A-s): 0.052
Concentration (ug/L  ):       18.38

Recovery is 92.4%

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
ID: S05                 Seq. No.: 00031      A/S Pos.: 16      Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 16
Replicate  1                           Time: 15:40
Peak Area (A-s): 0.011                 Peak Height (A): 0.016
Background Pk Area (A-s): 0.028        Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): 0.005
Concentration (ug/L  ):        0.95
```

M. Knopp
9-28-94

~~~~~~

ID: S05 Seq. No.: 00032 A/S Pos.: 16 Date: 09/26/94

uL dispensed: 5 from 36, 10 from 4, 10 from 16
Replicate 1 Time: 15:43
Peak Area (A-s): 0.059 Peak Height (A): 0.091
Background Pk Area (A-s): 0.026 Background Pk Height (A): 0.016
Blank Corrected Pk Area (A-s): 0.053
Concentration (ug/L): 18.88

Recovery is 89.7%

~~~~~~

ID: S06 Seq. No.: 00033 A/S Pos.: 17 Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 17
Replicate 1 Time: 15:46
Peak Area (A-s): 0.012 Peak Height (A): 0.018
Background Pk Area (A-s): 0.031 Background Pk Height (A): 0.014
Blank Corrected Pk Area (A-s): 0.006
Concentration (ug/L): 1.17

~~~~~~

ID: S06 Seq. No.: 00034 A/S Pos.: 17 Date: 09/26/94

uL dispensed: 5 from 36, 10 from 4, 10 from 17
Replicate 1 Time: 15:49
Peak Area (A-s): 0.062 Peak Height (A): 0.095
Background Pk Area (A-s): 0.030 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.056
Concentration (ug/L): 20.05

Recovery is 94.4%

~~~~~~

ID: AQC 25 UG/L Seq. No.: 00035 A/S Pos.: 37 Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 37
Replicate 1 Time: 15:51
Peak Area (A-s): 0.075 Peak Height (A): 0.110
Background Pk Area (A-s): 0.029 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.069
Concentration (ug/L): 24.92

Check sample is within range 22.50 - 27.50

~~~~~~

ID: CCB Seq. No.: 00036 A/S Pos.: 18 Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 18
Replicate 1 Time: 15:54
Peak Area (A-s): 0.010 Peak Height (A): 0.014
Background Pk Area (A-s): 0.024 Background Pk Height (A): 0.011
Blank Corrected Pk Area (A-s): 0.004
Concentration (ug/L): 0.30

~~~~~~

ID: CCB Seq. No.: 00037 A/S Pos.: 18 Date: 09/26/94

M. Knopp
9-28-94

uL dispensed: 5 from 36, 10 from 4, 10 from 18
Replicate 1 Time: 15:57
Peak Area (A-s): 0.052 Peak Height (A): 0.082
Background Pk Area (A-s): 0.024 Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): 0.046
Concentration (ug/L): 16.40

Recovery is 80.5%

~~~~~~

ID: R07 Seq. No.: 00038 A/S Pos.: 19 Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 19
Replicate 1 Time: 16:00
Peak Area (A-s): 0.009 Peak Height (A): 0.012
Background Pk Area (A-s): 0.024 Background Pk Height (A): 0.010
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.08

~~~~~~

ID: R07 Seq. No.: 00039 A/S Pos.: 19 Date: 09/26/94

uL dispensed: 5 from 36, 10 from 4, 10 from 19
Replicate 1 Time: 16:03
Peak Area (A-s): 0.061 Peak Height (A): 0.081
Background Pk Area (A-s): 0.023 Background Pk Height (A): 0.013
Blank Corrected Pk Area (A-s): 0.055
Concentration (ug/L): 19.53

Recovery is 97.2%

~~~~~~

ID: S08 Seq. No.: 00040 A/S Pos.: 20 Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 20
Replicate 1 Time: 16:06
Peak Area (A-s): 0.012 Peak Height (A): 0.019
Background Pk Area (A-s): 0.037 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): 0.006
Concentration (ug/L): 1.10

~~~~~~

ID: S08 Seq. No.: 00041 A/S Pos.: 20 Date: 09/26/94

uL dispensed: 5 from 36, 10 from 4, 10 from 20
Replicate 1 Time: 16:09
Peak Area (A-s): 0.062 Peak Height (A): 0.097
Background Pk Area (A-s): 0.033 Background Pk Height (A): 0.022
Blank Corrected Pk Area (A-s): 0.056
Concentration (ug/L): 19.90

Recovery is 94.0%

~~~~~~

ID: S02 Seq. No.: 00042 A/S Pos.: 21 Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 21
Replicate 1 Time: 16:11
~~~~~~

9-28-94
M. Knopp

Peak Area (A-s): 0.009 | Peak Height (A): 0.017
Background Pk Area (A-s): 0.037 | Background Pk Height (A): 0.019
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.10

~~~~~~

ID: S02 Seq. No.: 00043 A/S Pos.: 21 Date: 09/26/94

uL dispensed: 5 from 36, 10 from 4, 10 from 21
Replicate 1 | Time: 16:14
Peak Area (A-s): 0.066 | Peak Height (A): 0.102
Background Pk Area (A-s): 0.037 | Background Pk Height (A): 0.023
Blank Corrected Pk Area (A-s): 0.060
Concentration (ug/L): 21.69

Recovery is 108.0%

~~~~~~

ID: DIG. BLK. Seq. No.: 00044 A/S Pos.: 22 Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 22
Replicate 1 | Time: 16:17
Peak Area (A-s): 0.009 | Peak Height (A): 0.013
Background Pk Area (A-s): 0.025 | Background Pk Height (A): 0.010
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.26

~~~~~~

ID: DIG. BLK. Seq. No.: 00045 A/S Pos.: 22 Date: 09/26/94

uL dispensed: 5 from 36, 10 from 4, 10 from 22
Replicate 1 | Time: 16:20
Peak Area (A-s): 0.052 | Peak Height (A): 0.077
Background Pk Area (A-s): 0.024 | Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): 0.046
Concentration (ug/L): 16.34

Recovery is 80.4%

~~~~~~
9-26-94 MK

ID: LCS X2 ———→ ID: LCS X2 Seq. No.: 0046 A/S Pos.: 23 Date: 09/26/94

Replicate 1 | Time: 16:23
Peak Area (A-s): 0.019 | Peak Height (A): 0.029
Background Pk Area (A-s): 0.025 | Background Pk Height (A): 0.012
Blank Corrected Pk Area (A-s): 0.013
Concentration (ug/L): 4.02

~~~~~~

ID: LCS X2 Seq. No.: 00047 A/S Pos.: 23 Date: 09/26/94

uL dispensed: 5 from 36, 10 from 4, 10 from 23
Replicate 1 | Time: 16:26
Peak Area (A-s): 0.066 | Peak Height (A): 0.093
Background Pk Area (A-s): 0.024 | Background Pk Height (A): 0.014
Blank Corrected Pk Area (A-s): 0.060
Concentration (ug/L): 21.48
~~~~~~

Jt Knopp
9-28-94

Recovery is 87.3%

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ID: AQC 25 UG/L   Seq. No.: 00048   A/S Pos.: 37   Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 37
Replicate 1   Time: 16:28
Peak Area (A-s): 0.077   Peak Height (A): 0.110
Background Pk Area (A-s): 0.028   Background Pk Height (A): 0.016
Blank Corrected Pk Area (A-s): 0.071
Concentration (ug/L): 25.63

Check sample is within range 22.50 - 27.50

~~~~~~

ID: CCB   Seq. No.: 00049   A/S Pos.: 24   Date: 09/26/94

uL dispensed: 10 from 1, 5 from 36, 10 from 24

Replicate 1
Peak Area (A-s): 0.009
Background Pk Area (A-s): 0.024
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): -0.06

Time: 16:..
Peak Height (A): 0.012
Background Pk Height (A): 0.010

M. Knapp
9-28-91

M. Knopp
9-28-94

Perkin-Elmer Model 5100 PC
Report Of Analytical Results
September 26, 1994

Data File: ASMK0926.DAT
Data Collected: 09/26/94 At: 14:11:05 By: BAI

940152

	As ug/L	
Blank		
Mean Conc.	0.00	
Standard 1		
Mean Conc.	40.00	
Standard 2		r = .99837
Mean Conc.	30.00	SLOPE = .0027
Standard 3		
Mean Conc.	20.00	
Standard 4		
Mean Conc.	10.00	
36		
Mean Conc.	----	
Recovery		
AQC 25 UG/L		
Mean Conc.	26.92	%R = 107.7, LIMIT = 100 ± 10%
Recovery		
CCB1		
Mean Conc.	0.07	2u, LIMIT = ±2ug/L
Recovery	96.0%	
94ZB19 S01		
Mean Conc.	1.10	2u
Recovery	91.3%	
S02		
Mean Conc.	2.59	NOT USED
Recovery	89.3%	RE-RUN BELOW
S02 DUP		
Mean Conc.	2.52	~~3~~ 2 9-29-94 mk Dup. diff = < 2.0u
Recovery	90.5%	Limit = ± 2ug/L
S02 SPK X3		
Mean Conc.	18.14	Adj. Conc. = 54, MATRIX SPK %R = 108
Recovery	96.9%	LIMIT = 100 ± 15%
DIG BLK		
Mean Conc.	1.12	NOT USED
Recovery	85.2%	SEE RE-RUN
AQC 25 UG/L		
Mean Conc.	26.84	%R = 107.4, LIMIT = 100 ± 10%
Recovery		

M. Knopp
9-28-94

	As ug/L	
CCB		
Mean Conc.	0.93	2u, LIMIT = ± 2ug/L
Recovery	86.8%	
PES		
Mean Conc.	4.65	5
Recovery	99.8%	
LCS		
Mean Conc.	9.63	NOT USED
Recovery	85.8%	SEE RE-RUN.
S03		
Mean Conc.	-0.10	2u
Recovery	92.4%	
S05		
Mean Conc.	0.95	NOT USED
Recovery	89.7%	SEE RE-RUN

S08			
	Mean Conc.	1.17	2u
	Recovery	94.4%	
AQC 25 UG/L			
	Mean Conc.	24.92	%R = 99.7, LIMIT = 100 ± 10%
	Recovery		
CCB			
	Mean Conc.	0.30	2u, LIMIT = ± 2ug/L
	Recovery	80.5%	
R07			
	Mean Conc.	0.08	2u
	Recovery	97.2%	
S08			
	Mean Conc.	1.10	2u
	Recovery	94.0%	
S02			
	Mean Conc.	0.10	2u
	Recovery	108.%	
DIG. BLK.			
	Mean Conc.	0.26	NOT USED SEE RE-RUN
	Recovery	80.4%	
LCS X2			
	Mean Conc.	4.02	NOT USED SEE RE-RUN
	Recovery	87.3%	
AQC 25 UG/L			
	Mean Conc.	25.63	%R = 102.5, LIMIT = 100 ± 10%
	Recovery		

9-28-94
M. Knopp

		As ug/L
CCB		
	Mean Conc.	-0.06
	Recovery	

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Analyst: M. Knopp 9-27-94 Supervisor: _____

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Element	Instrument	QC Source
☐ Ag	☐ 5100 A3	☐ CLP-40
☒ As	☒ 5100 A6	☐ CLP-70
☐ Cd	☐ 5000 A4	☐ CLP-80
☐ Cr	☐ 5000 A5	☐ EPA-V-1
☐ Pb	☐	☒ CLPF-CAL-1
☐ Sb	☐	☐
☐ Se		☐
☐ Tl		☐

Analyst M. Knopp
Date 9-27-94
Lamp # NO66-1224 2773
Energy 56
Expansion 1
Stock 4-135AS
op. 5-11-94
Ex. 5-15-95

☒ platform ☒ MSC
☐ wall ☐ MSA

Blank	Slope	AQC	Digestion QC
0.006	.0027		— DIGESTION BLANK NONE THIS RUN
		26.92	
		26.84	
		24.92	— MATRIX SPK %R = 108
		25.63	SPK. SAMPLE ADJ. CONC = 54
			SPK. CONC = 50
			LIMIT = 100 ± 15%
			— Duplicate Dig = < 2ug/L
			limit = ± 2ug/L

Blank cup absorbance
0.003
0.005
0.004
0.003

M. Knopp
9-27-94

Perkin-Elmer Model 5100 PC
Report Of Analytical Results
September 27, 1994

SF 940152

Data File: CDLL0927.DAT
Data Collected: 09/27/94 At: 10:58:10 By: ~~BAZ~~ L. Leonova 9/28/94

L. Leonova 9/28/94

	Cd ug/L		Cd ug/L	
Blank Mean Conc.	0.000	r=.99909	0.000	r=.99906
Standard 1 Mean Conc.	2.000		2.000	
Standard 2 Mean Conc.	1.500		1.500	
Standard 3 Mean Conc.	1.000		1.000	
Standard 4 Mean Conc.	0.500		0.500	
AQC 1.25 UG/L Mean Conc.	1.321		1.231	
Recovery	%R=106%		%R=98.5	Limit = 100±10%
CCB Mean Conc.	-0.037		0.039	
Recovery	0.2u		0.2u	Limit = ± 0.2 µg/L
94zb19s01 Mean Conc.	0.123	0.2u	----	
Recovery		%R=109%		
S01+1 Mean Conc.	1.213		----	
Recovery				
S02 Mean Conc.	-0.028	0.2u	----	
Recovery		%R=116%		Result is acceptable → less than IDL.
S02+1 Mean Conc.	1.132		----	
Recovery				
S03 Mean Conc.	-0.022	0.2u	----	
Recovery		%R=103%		
S03+1 Mean Conc.	1.006		----	
Recovery				
S05 Mean Conc.	0.062	0.2u	----	
Recovery				

L. Leonova
9/28/94

L. Leonova
9/28/94

	Cd ug/L	Cd ug/L	
S05+1			
Mean Conc.	1.117	----	
Recovery	%R = 106%		
S06			
Mean Conc.	-0.027	----	
Recovery	0.2u %R = 111%		Result is acceptable => less than IDL.
S06+1			
Mean Conc.	1.084	----	
Recovery			
AQC 1.25 UG/L			
Mean Conc.	1.332	1.246	Limit = 100 ± 10%
Recovery	%R = 106.6		
CCB			
Mean Conc.	-0.043	----	Limit = ± 0.2 µg/L
Recovery	0.2u		
R07			
Mean Conc.	0.036	0.016	0.2u %R = 105
Recovery			
R07+1			
Mean Conc.	1.069	1.065	
Recovery			
S08	Data are not used, LCS-out.		
Mean Conc.	0.011	0.125	0.2u %R = 97.1
Recovery	L.L 9/28/94		
S08+1			
Mean Conc.	1.115	1.096	
Recovery			

Mean Conc.	-0.002	-0.017	0.2u; %R=114; Result is acceptable, because it is less than IDL. Dupl. diff=0. — L. Leonora 9/28/94
Recovery			
SO2DUP+1			
Mean Conc.	1.040	1.127	
Recovery			
PES			
Mean Conc.	0.188	0.252	0.3; %R = 98%. — L. Leonora 9/28/94
Recovery			
PES+1			
Mean Conc.	1.212	1.232	
Recovery			
LCS			
Mean Conc.	1.072	1.081	1.1; %R=107.3; True value = 1ppb; %R=110%; Limit = 100 ±20%.
Recovery			
	Data are not used, LCS – out. 9/28/94		
	Cd ug/L	Cd ug/L	
LCS+1			
Mean Conc.	2.213	2.154	
Recovery			
AQC 1.25 UG/L			
Mean Conc.	1.384	1.253	%R=100%. Limit = 100±10%.
Recovery			
SO2SPKx4			
Mean Conc.	----	1.370	Adj. conc = 5.48; %R = 79.2; Spk. conc = 5ppb; Sp %R=109.6%; Limit=100±15%.
Recovery			
SO2SPKx4+1			
Mean Conc.	----	2.362	
Recovery			
D.BL			
Mean Conc.	----	0.016	0.2u; %R=109.3; Limit = ±0.2 µg/L
Recovery			
D.BL+1			
Mean Conc.	----	1.077	
Recovery			
Mean Conc.	----	-0.028	not used.
Recovery			
Mean Conc.	----	-0.029	
Recovery			
Mean Conc.	----	0.033	
Recovery			

Mean Conc.	----	-0.005	not used.
Recovery			
CCB			
Mean Conc.	----	0.022	0.2u Limit = ±0.2 µg/L
Recovery			

==========

Analyst: L. Leonova 9/28/94 Supervisor: _____

==========

L. Leonova
9/28/94

Element	Instrument	QC Source
[ ] Ag	[ ] 5100 A3	[ ] CLP-40
[ ] As	[X] 5100 A6	[ ] CLP-70
[X] Cd	[ ] 5000 A4	[ ] CLP-80
[ ] Cr	[ ] 5000 A5	[ ] EPA-V-1
[ ] Pb	[ ]	[X] CLPF-CAL-1
[ ] Sb	[ ]	[ ]
[ ] Se		[ ]
[ ] Tl		[ ]

Analyst L. Leonard

Date 9-27-94

Lamp # WL-36016

Energy 51

Expansion 1

Stock 4-187Cd op. 6-29-94 exp 6-15-95

[X] platform [X] MSC

[ ] wall [ ] MSA

Blank	Slope	AQC	Digestion QC
-0.037	0.055	1.321	① Dig. Blk 0.2u Limit = ±0.2 µg/L
-0.043		1.332	② SO2 Dup: Dupl. diff = 0.
0.039		1.231	③ SO2 Spk: Y.R = 109.6 Sp. conc = 5ppb
0.022		1.246	Limit = 100 ± 15%
		1.253	④ LCS: True value = 1ppb
			Y.R = 110% Limit = 100 ± 20%

Blank cup absorbance
0.008

L. Leonard
9/28/94

L. Leonova
9/28/94
SF 940152

Element File: CDMSC.GEL
Element: Cd
Date: 09/27/94
Time: 10:55
Data Storage File: CDLL0927.DAT
ID/Weight File: CDLL415.A60
Technique: HGA
Calibration Type: Linear

~~~~~~

ID: Blank Seq. No.: 00001 A/S Pos.: 1 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 1
Replicate 1
Time: 10:58
Peak Area (A-s): 0.008
Peak Height (A): 0.011
Background Pk Area (A-s): 0.035
Background Pk Height (A): 0.015
Blank Corrected Pk Area (A-s): 0.008

Auto-zero performed.

~~~~~~

ID: Standard 1 Seq. No.: 00002 A/S Pos.: 2 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 2
Replicate 1
Time: 11:01
Peak Area (A-s): 0.118
Peak Height (A): 0.148
Background Pk Area (A-s): 0.065
Background Pk Height (A): 0.052
Blank Corrected Pk Area (A-s): 0.110

Standard number 1 applied. [2.000]
Correlation coefficient: 1.00000
Slope: 0.0552
Int: 0.000

~~~~~~

ID: Standard 2 Seq. No.: 00003 A/S Pos.: 3 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 3
Replicate 1
Time: 11:04
Peak Area (A-s): 0.093
Peak Height (A): 0.113
Background Pk Area (A-s): 0.054
Background Pk Height (A): 0.042
Blank Corrected Pk Area (A-s): 0.085
Concentration (ug/L): 1.550

Standard number 2 applied. [1.500]
Correlation coefficient: 0.99965
Slope: 0.0556
Int: 0.000

~~~~~~

ID: Standard 3 Seq. No.: 00004 A/S Pos.: 4 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 4
Replicate 1
Time: 11:07
Peak Area (A-s): 0.067
Peak Height (A): 0.080
Background Pk Area (A-s): 0.043
Background Pk Height (A): 0.032
Blank Corrected Pk Area (A-s): 0.059
Concentration (ug/L): 1.062

Standard number 3 applied. [1.000]
Correlation coefficient: 0.99899
Slope: 0.0554
Int: 0.002

~~~~~~

ID: Standard 4 Seq. No.: 00005 A/S Pos.: 5 Date: 09/27/94
~~~~~~

T. Korova
9/28/94

uL dispensed: 5 from 36, 15 from 5
Replicate 1 — Time: 11:10
Peak Area (A-s): 0.038 — Peak Height (A): 0.042
Background Pk Area (A-s): 0.037 — Background Pk Height (A): 0.023
Blank Corrected Pk Area (A-s): 0.030
Concentration (ug/L): 0.514

Standard number 4 applied. [0.500]
Correlation coefficient: 0.99909 — Slope: 0.0552 — Int: 0.002

ID: AQC 1.25 UG/L — Seq. No.: 00006 — A/S Pos.: 37 — Date: 09/27/94

uL dispensed: 5 from 36, 15 from 37
Replicate 1 — Time: 11:13
Peak Area (A-s): 0.083 — Peak Height (A): 0.094
Background Pk Area (A-s): 0.046 — Background Pk Height (A): 0.036
Blank Corrected Pk Area (A-s): 0.075
Concentration (ug/L): 1.321

Check sample is within range 1.125 - 1.375

ID: CCB — Seq. No.: 00007 — A/S Pos.: 6 — Date: 09/27/94

uL dispensed: 5 from 36, 15 from 6
Replicate 1 — Time: 11:16
Peak Area (A-s): 0.008 — Peak Height (A): 0.010
Background Pk Area (A-s): 0.027 — Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.037

ID: 94zb19s01 — Seq. No.: 00008 — A/S Pos.: 7 — Date: 09/27/94

uL dispensed: 5 from 36, 15 from 7

Replicate 1 — Time: 11:20
Peak Area (A-s): 0.017 — Peak Height (A): 0.022
Background Pk Area (A-s): 0.114 — Background Pk Height (A): 0.073
Blank Corrected Pk Area (A-s): 0.009
Concentration (ug/L): 0.123

ID: S01+1 — Seq. No.: 00009 — A/S Pos.: 8 — Date: 09/27/94

uL dispensed: 5 from 36, 15 from 8
Replicate 1 — Time: 11:23
Peak Area (A-s): 0.077 — Peak Height (A): 0.097
Background Pk Area (A-s): 0.127 — Background Pk Height (A): 0.095
Blank Corrected Pk Area (A-s): 0.069
Concentration (ug/L): 1.213

ID: S02 — Seq. No.: 00010 — A/S Pos.: 9 — Date: 09/27/94

uL dispensed: 5 from 36, 15 from 9

Replicate 1 — Time: 11:26

Peak Area (A-s): [illegible]   Peak Height (A): 0.014
Background Pk Area (A-s): 0.099   Background Pk Height (A): 0.066

Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L):   -0.028

~~~~~~

ID: S02+1   Seq. No.: 00011   A/S Pos.: 10   Date: 09/27/94

uL dispensed: 5 from 36, 15 from 10
Replicate 1   Time: 11:29
Peak Area (A-s): 0.072   Peak Height (A): 0.092
Background Pk Area (A-s): 0.116   Background Pk Height (A): 0.091
Blank Corrected Pk Area (A-s): 0.064
Concentration (ug/L):   1.132

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ID: S03   Seq. No.: 00012   A/S Pos.: 11   Date: 09/27/94

uL dispensed: 5 from 36, 15 from 11
Replicate 1   Time: 11:32
Peak Area (A-s): 0.009   Peak Height (A): 0.010
Background Pk Area (A-s): 0.078   Background Pk Height (A): 0.037
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L):   -0.022

~~~~~~

ID: S03+1   Seq. No.: 00013   A/S Pos.: 12   Date: 09/27/94

uL dispensed: 5 from 36, 15 from 12
Replicate 1   Time: 11:36
Peak Area (A-s): 0.065   Peak Height (A): 0.078
Background Pk Area (A-s): 0.102   Background Pk Height (A): 0.059
Blank Corrected Pk Area (A-s): 0.057
Concentration (ug/L):   1.006

~~~~~~

ID: S05   Seq. No.: 00014   A/S Pos.: 13   Date: 09/27/94

uL dispensed: 5 from 36, 15 from 13
Replicate 1   Time: 11:39
Peak Area (A-s): 0.013   Peak Height (A): 0.015
Background Pk Area (A-s): 0.114   Background Pk Height (A): 0.086
Blank Corrected Pk Area (A-s): 0.005
Concentration (ug/L):   0.062

~~~~~~

ID: S05+1   Seq. No.: 00015   A/S Pos.: 14   Date: 09/27/94

uL dispensed: 5 from 36, 15 from 14
Replicate 1   Time: 11:42
Peak Area (A-s): 0.071   Peak Height (A): 0.093
Background Pk Area (A-s): 0.127   Background Pk Height (A): 0.097
Blank Corrected Pk Area (A-s): 0.063
Concentration (ug/L):   1.117

L. Leonova 9/28/94

~~~~~~

ID: S06   Seq. No.: 00016   A/S Pos.: 15   Date: 09/27/94

uL dispensed: 5 from 36, 15 from 15
Replicate 1   Time: 11:45

Peak Area (A-s): 0.008 Peak Height (A): 0.011

L. Leonore 9/28/94

Background Pk Area (A-s): 0.194 Background Pk Height (A): 0.140
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): -0.027

~~~~~~

ID: S06+1 Seq. No.: 00017 A/S Pos.: 16 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 16
Replicate 1 Time: 11:48
Peak Area (A-s): 0.070 Peak Height (A): 0.098
Background Pk Area (A-s): 0.214 Background Pk Height (A): 0.198
Blank Corrected Pk Area (A-s): 0.062
Concentration (ug/L): 1.084

~~~~~~

ID: AQC 1.25 UG/L Seq. No.: 00018 A/S Pos.: 37 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 37
Replicate 1 Time: 11:51
Peak Area (A-s): 0.083 Peak Height (A): 0.098
Background Pk Area (A-s): 0.041 Background Pk Height (A): 0.038
Blank Corrected Pk Area (A-s): 0.075
Concentration (ug/L): 1.332

Check sample is within range 1.125 - 1.375

~~~~~~

ID: CCB Seq. No.: 00019 A/S Pos.: 17 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 17
Replicate 1 Time: 11:55
Peak Area (A-s): 0.007 Peak Height (A): 0.009
Background Pk Area (A-s): 0.024 Background Pk Height (A): 0.015
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.043

~~~~~~

ID: R07 Seq. No.: 00020 A/S Pos.: 18 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 18
Replicate 1 Time: 11:58
Peak Area (A-s): 0.012 Peak Height (A): 0.010
Background Pk Area (A-s): 0.023 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.004
Concentration (ug/L): 0.036

~~~~~~

ID: R07+1 Seq. No.: 00021 A/S Pos.: 19 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 19 *not used, AQC out L. Leonore 9/28/94*
Replicate 1 Time: 12:01
Peak Area (A-s): 0.069 Peak Height (A): 0.087
Background Pk Area (A-s): 0.039 Background Pk Height (A): 0.033
Blank Corrected Pk Area (A-s): 0.061
Concentration (ug/L): 1.069

~~~~~~

ID: S08 Seq. No.: 00022 A/S Pos.: 20 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 20
Replicate 1 Time: 12:04
Peak Area (A-s): 0.010 Peak Height (A): 0.012
Background Pk Area (A-s): 0.105 Background Pk Height (A): 0.062
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.011

~~~~~~

ID: S08+1 Seq. No.: 00023 A/S Pos.: 21 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 21
Replicate 1 Time: 12:07
Peak Area (A-s): 0.071 Peak Height (A): 0.079
Background Pk Area (A-s): 0.126 Background Pk Height (A): 0.078
Blank Corrected Pk Area (A-s): 0.063
Concentration (ug/L): 1.115

~~~~~~

ID: S02DUP Seq. No.: 00024 A/S Pos.: 22 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 22
Replicate 1 Time: 12:10
Peak Area (A-s): 0.010 Peak Height (A): 0.010
Background Pk Area (A-s): 0.108 Background Pk Height (A): 0.054
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): -0.002

~~~~~~

ID: S02DUP+1 Seq. No.: 00025 A/S Pos.: 23 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 23
Replicate 1 Time: 12:13
Peak Area (A-s): 0.067 Peak Height (A): 0.075
Background Pk Area (A-s): 0.121 Background Pk Height (A): 0.076
Blank Corrected Pk Area (A-s): 0.059
Concentration (ug/L): 1.040

~~~~~~

ID: PES Seq. No.: 00026 A/S Pos.: 24 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 24
Replicate 1 Time: 12:16
Peak Area (A-s): 0.020 Peak Height (A): 0.021
Background Pk Area (A-s): 0.031 Background Pk Height (A): 0.019
Blank Corrected Pk Area (A-s): 0.012
Concentration (ug/L): 0.188

~~~~~~

ID: PES+1 Seq. No.: 00027 A/S Pos.: 25 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 25
Replicate 1 Time: 12:19
Peak Area (A-s): 0.077 Peak Height (A): 0.089
Background Pk Area (A-s): 0.044 Background Pk Height (A): 0.034
Blank Corrected Pk Area (A-s): 0.069
Concentration (ug/L): 1.212

not used, last AQC out. L. Leorova 9/28/94

~~~~~~

ID: LCS   Seq. No.: 00028   A/S Pos.: 26   Date: 09/27/94

L. Leonora
9/28/94

uL dispensed: 5 from 36, 15 from 26
Replicate 1   Time: 12:23
Peak Area (A-s): 0.069   Peak Height (A): 0.097
Background Pk Area (A-s): 0.040   Background Pk Height (A): 0.036
Blank Corrected Pk Area (A-s): 0.061
Concentration (ug/L): 1.072

~~~~~~

ID: LCS+1   Seq. No.: 00029   A/S Pos.: 27   Date: 09/27/94

uL dispensed: 5 from 36, 15 from 27
Sample abs. is greater than that of the largest standard.
Replicate 1   Time: 12:26
Peak Area (A-s): 0.132   Peak Height (A): 0.173
Background Pk Area (A-s): 0.049   Background Pk Height (A): 0.053
Blank Corrected Pk Area (A-s): 0.124
Concentration (ug/L): 2.213

~~~~~~

ID: AQC 1.25 UG/L   Seq. No.: 00030   A/S Pos.: 37   Date: 09/27/94

uL dispensed: 5 from 36, 15 from 37
Replicate 1   Time: 12:29
Peak Area (A-s): 0.086   Peak Height (A): 0.104
Background Pk Area (A-s): 0.038   Background Pk Height (A): 0.036
Blank Corrected Pk Area (A-s): 0.078
Concentration (ug/L): 1.384

Check sample is out of range 1.125 - 1.375

not used, AQC out. 9/28/94
L. Leonora

~~~~~~

ID: Blank   Seq. No.: 00031   A/S Pos.: 1   Date: 09/27/94

uL dispensed: 5 from 36, 15 from 1
Replicate 1   Time: 12:32
Peak Area (A-s): 0.009   Peak Height (A): 0.009
Background Pk Area (A-s): 0.024   Background Pk Height (A): 0.014
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): -0.019

Auto-zero performed.

~~~~~~

ID: Standard 1   Seq. No.: 00032   A/S Pos.: 2   Date: 09/27/94

uL dispensed: 5 from 36, 15 from 2
Replicate 1   Time: 12:35
Peak Area (A-s): 0.122   Peak Height (A): 0.146
Background Pk Area (A-s): 0.052   Background Pk Height (A): 0.045
Blank Corrected Pk Area (A-s): 0.114
Concentration (ug/L): 2.022

Standard number 1 applied. [2.000]
Correlation coefficient: 1.00000   Slope: 0.0568   Int: 0.000

~~~~~~

ID: Standard 2   Seq. No.: 00033   A/S Pos.: 3   Date: 09/27/94
~~~~~~

L. Leonae
9/28/94

uL dispensed: 5 from 36, 15 from 3
Replicate 1 Time: 12:38
Peak Area (A-s): 0.092 Peak Height (A): 0.113
Background Pk Area (A-s): 0.049 Background Pk Height (A): 0.038
Blank Corrected Pk Area (A-s): 0.083
Concentration (ug/L): 1.463

Standard number 2 applied. [1.500]
Correlation coefficient: 0.99980 Slope: 0.0564 Int: -0.000

~~~~~~

ID: Standard 3 Seq. No.: 00034 A/S Pos.: 4 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 4
Replicate 1 Time: 12:41
Peak Area (A-s): 0.063 Peak Height (A): 0.079
Background Pk Area (A-s): 0.042 Background Pk Height (A): 0.031
Blank Corrected Pk Area (A-s): 0.054
Concentration (ug/L): 0.967

Standard number 3 applied. [1.000]
Correlation coefficient: 0.99961 Slope: 0.0565 Int: -0.001

~~~~~~

ID: Standard 4 Seq. No.: 00035 A/S Pos.: 5 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 5
Replicate 1 Time: 12:44
Peak Area (A-s): 0.032 Peak Height (A): 0.039
Background Pk Area (A-s): 0.034 Background Pk Height (A): 0.021
Blank Corrected Pk Area (A-s): 0.024
Concentration (ug/L): 0.433

Standard number 4 applied. [0.500]
Correlation coefficient: 0.99906 Slope: 0.0573 Int: -0.002

~~~~~~

ID: AQC 1.25 UG/L Seq. No.: 00036 A/S Pos.: 37 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 37
Replicate 1 Time: 12:47
Peak Area (A-s): 0.077 Peak Height (A): 0.094
Background Pk Area (A-s): 0.046 Background Pk Height (A): 0.034
Blank Corrected Pk Area (A-s): 0.068
Concentration (ug/L): 1.231

Check sample is within range 1.125 - 1.375

~~~~~~

ID: CCB Seq. No.: 00037 A/S Pos.: 28 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 28
Replicate 1 Time: 12:51
Peak Area (A-s): 0.009 Peak Height (A): 0.010
Background Pk Area (A-s): 0.027 Background Pk Height (A): 0.016
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): 0.039

~~~~~~

L. Lorova
9/28/94

ID: S02SPKx4   Seq. No.: 00038   A/S Pos.: 29   Date: 09/27/94

uL dispensed: 5 from 36, 15 from 29
Replicate 1   Time: 12:54
Peak Area (A-s): 0.085   Peak Height (A): 0.094
Background Pk Area (A-s): 0.059   Background Pk Height (A): 0.043
Blank Corrected Pk Area (A-s): 0.076
Concentration (ug/L):   1.370

~~~~~~

ID: S02SPKx4+1   Seq. No.: 00039   A/S Pos.: 30   Date: 09/27/94

uL dispensed: 5 from 36, 15 from 30
Sample abs. is greater than that of the largest standard.
Replicate 1   Time: 12:57
Peak Area (A-s): 0.142   Peak Height (A): 0.162
Background Pk Area (A-s): 0.071   Background Pk Height (A): 0.058
Blank Corrected Pk Area (A-s): 0.133
Concentration (ug/L):   2.362

~~~~~~

ID: D.BL   Seq. No.: 00040   A/S Pos.: 31   Date: 09/27/94

uL dispensed: 5 from 36, 15 from 31
Replicate 1   Time: 13:00
Peak Area (A-s): 0.007   Peak Height (A): 0.009
Background Pk Area (A-s): 0.025   Background Pk Height (A): 0.015
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L):   0.016

~~~~~~

ID: D.BL+1   Seq. No.: 00041   A/S Pos.: 32   Date: 09/27/94

uL dispensed: 5 from 36, 15 from 32
Replicate 1   Time: 13:03
Peak Area (A-s): 0.068   Peak Height (A): 0.079
Background Pk Area (A-s): 0.039   Background Pk Height (A): 0.029
Blank Corrected Pk Area (A-s): 0.059
Concentration (ug/L):   1.077

~~~~~~

ID: Seq. No.: 00042   A/S Pos.: 33   Date: 09/27/94

uL dispensed: 5 from 36, 15 from 33
Replicate 1   Time: 13:07
Peak Area (A-s): 0.005   Peak Height (A): 0.009
Background Pk Area (A-s): 0.023   Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): -0.004
Concentration (ug/L):   -0.028

Data are not used, blank cups. L. L. 9/28/94

~~~~~~

ID: Seq. No.: 00043   A/S Pos.: 34   Date: 09/27/94

uL dispensed: 5 from 36, 15 from 34
Replicate 1   Time: 13:10
Peak Area (A-s): 0.005   Peak Height (A): 0.008
Background Pk Area (A-s): 0.026   Background Pk Height (A): 0.020
Blank Corrected Pk Area (A-s): -0.004

Concentration (ug/L): -0.029

L. Leonova
9/28/94

~~~~~~

ID: Seq. No.: 00044 A/S Pos.: 35 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 35
Replicate 1 Time: 13:13
Peak Area (A-s): 0.008 Peak Height (A): 0.009
Background Pk Area (A-s): 0.023 Background Pk Height (A): 0.018
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): 0.033

~~~~~~

ID: CCB Seq. No.: 00045 A/S Pos.: 38 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 38
Replicate 1 Time: 13:16
Peak Area (A-s): 0.006 Peak Height (A): 0.011
Background Pk Area (A-s): 0.028 Background Pk Height (A): 0.021
Blank Corrected Pk Area (A-s): -0.003
Concentration (ug/L): -0.005

Data are not used, blank cups. LL 9/28/94

~~~~~~

ID: AQC 1.25 UG/L Seq. No.: 00046 A/S Pos.: 37 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 37
Replicate 1 Time: 13:19
Peak Area (A-s): 0.078 Peak Height (A): 0.094
Background Pk Area (A-s): 0.046 Background Pk Height (A): 0.038
Blank Corrected Pk Area (A-s): 0.069
Concentration (ug/L): 1.246

Check sample is within range 1.125 - 1.375

~~~~~~

ID: R07 Seq. No.: 00047 A/S Pos.: 18 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 18
Replicate 1 Time: 13:23
Peak Area (A-s): 0.007 Peak Height (A): 0.012
Background Pk Area (A-s): 0.027 Background Pk Height (A): 0.015
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): 0.016

~~~~~~

ID: R07+1 Seq. No.: 00048 A/S Pos.: 19 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 19
Replicate 1 Time: 13:26
Peak Area (A-s): 0.067 Peak Height (A): 0.085
Background Pk Area (A-s): 0.038 Background Pk Height (A): 0.032
Blank Corrected Pk Area (A-s): 0.059
Concentration (ug/L): 1.065

~~~~~~

ID: S08 Seq. No.: 00049 A/S Pos.: 20 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 20
Replicate 1 Time: 13:29

Peak Area (A-s): 0.013 Peak Height (A): 0.011

L. Leonova
9/28/94

Background Pk Area (A-s): 0.092 Background Pk Height (A): 0.048
Blank Corrected Pk Area (A-s): 0.005
Concentration (ug/L): 0.125

~~~~~~

ID: S08+1 Seq. No.: 00050 A/S Pos.: 21 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 21
Replicate 1 Time: 13:32
Peak Area (A-s): 0.069 Peak Height (A): 0.069
Background Pk Area (A-s): 0.115 Background Pk Height (A): 0.066
Blank Corrected Pk Area (A-s): 0.060
Concentration (ug/L): 1.096

~~~~~~

ID: S02DUP Seq. No.: 00051 A/S Pos.: 22 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 22
Replicate 1 Time: 13:35
Peak Area (A-s): 0.005 Peak Height (A): 0.009
Background Pk Area (A-s): 0.100 Background Pk Height (A): 0.060
Blank Corrected Pk Area (A-s): -0.003
Concentration (ug/L): -0.017

~~~~~~

ID: S02DUP+1 Seq. No.: 00052 A/S Pos.: 23 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 23
Replicate 1 Time: 13:38
Peak Area (A-s): 0.071 Peak Height (A): 0.086
Background Pk Area (A-s): 0.114 Background Pk Height (A): 0.080
Blank Corrected Pk Area (A-s): 0.062
Concentration (ug/L): 1.127

~~~~~~

ID: PES Seq. No.: 00053 A/S Pos.: 24 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 24
Replicate 1 Time: 13:41
Peak Area (A-s): 0.021 Peak Height (A): 0.023
Background Pk Area (A-s): 0.033 Background Pk Height (A): 0.020
Blank Corrected Pk Area (A-s): 0.012
Concentration (ug/L): 0.252

~~~~~~

ID: PES+1 Seq. No.: 00054 A/S Pos.: 25 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 25
Replicate 1 Time: 13:44
Peak Area (A-s): 0.077 Peak Height (A): 0.088
Background Pk Area (A-s): 0.049 Background Pk Height (A): 0.035
Blank Corrected Pk Area (A-s): 0.068
Concentration (ug/L): 1.232

~~~~~~

ID: LCS Seq. No.: 00055 A/S Pos.: 26 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 26

Replicate 1 Time: 13:47

Peak Area (A-s): 0.068 Peak Height (A): 0.085
Background Pk Area (A-s): 0.042 Background Pk Height (A): 0.033
Blank Corrected Pk Area (A-s): 0.060
Concentration (ug/L): 1.081

~~~~~~

ID: LCS+1 Seq. No.: 00056 A/S Pos.: 27 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 27
Replicate 1 Time: 13:51
Peak Area (A-s): 0.130 Peak Height (A): 0.172
Background Pk Area (A-s): 0.056 Background Pk Height (A): 0.054
Blank Corrected Pk Area (A-s): 0.121
Concentration (ug/L): 2.154

~~~~~~

ID: AQC 1.25 UG/L Seq. No.: 00057 A/S Pos.: 37 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 37
Replicate 1 Time: 14:05
Peak Area (A-s): 0.078 Peak Height (A): 0.098
Background Pk Area (A-s): 0.047 Background Pk Height (A): 0.034
Blank Corrected Pk Area (A-s): 0.069
Concentration (ug/L): 1.253

Check sample is within range 1.125 - 1.375

~~~~~~

ID: R07 Seq. No.: 00058 A/S Pos.: 18 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 18

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ID: CCB Seq. No.: 00059 A/S Pos.: 28 Date: 09/27/94

uL dispensed: 5 from 36, 15 from 28
Replicate 1 Time: 14:09
Peak Area (A-s): 0.008 Peak Height (A): 0.010
Background Pk Area (A-s): 0.029 Background Pk Height (A): 0.015
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): 0.022

T. Leava
9/28/94

Perkin-Elmer Model 5100 PC
Report Of Analytical Results
September 27, 1994

SF 940152

Data File: CDLL0927.DAT
Data Collected: 09/27/94 At: 10:58:10 By: ~~BAK~~ T. Leonova 9/28/94

	Cd ug/L	Cd ug/L
Blank		
Mean Conc.	0.000	0.000
Standard 1		
Mean Conc.	2.000	2.000
Standard 2		
Mean Conc.	1.500	1.500
Standard 3		
Mean Conc.	1.000	1.000
Standard 4		
Mean Conc.	0.500	0.500
	r=.99909	r=.99906
AQC 1.25 UG/L		
Mean Conc.	1.321	1.231
Recovery	%R=106%	%R=98.5
CCB		
Mean Conc.	-0.037	0.039
Recovery	0.2u	0.2u
94zb19s01		
Mean Conc.	0.123	----
Recovery	0.2u	
S01+1		
Mean Conc.	1.213	----
Recovery	%R=109%	
S02		
Mean Conc.	-0.028	----
Recovery	0.2u	
S02+1		
Mean Conc.	1.132	----
Recovery	%R=116%	
S03		
Mean Conc.	-0.022	----
Recovery	0.2u	
S03+1		
Mean Conc.	1.006	----
Recovery	%R=103%	
S05		
Mean Conc.	0.062	----
Recovery	0.2u	

Limit = 100±10%

Limit = ± 0.2 µg/L

Result is acceptable → less than IDL.

L. Leonova
9/28/94

	Cd ug/L	Cd ug/L	
S05+1			
Mean Conc.	1.117	----	
Recovery	%R = 106%		
S06			
Mean Conc.	-0.027	----	
Recovery	0.2u %R = 111%		Result is acceptable => less than IDL.
S06+1			
Mean Conc.	1.084	----	
Recovery			
AQC 1.25 UG/L			
Mean Conc.	1.332	1.246	Limit = 100 ± 10%
Recovery	%R = 106.6		
CCB			
Mean Conc.	-0.043	----	Limit = ± 0.2 µg/L
Recovery	0.2u		
R07			
Mean Conc.	0.036	0.016	0.2u %R = 105
Recovery			
R07+1			
Mean Conc.	1.069	1.065	
Recovery			
S08	Data are not used, LCS - out.		
Mean Conc.	0.011	0.125	0.2u %R = 97.1
Recovery	L.L 9/28/94		
S08+1			
Mean Conc.	1.115	1.096	
Recovery			
S02DUP			

Mean Conc.	-0.002	-0.017	
Recovery			
SO2DUP+1			
Mean Conc.	1.040	1.127	0.2u %.R=114 Result is acceptable, because it is less than IDL. Dupl. diff = 0.
Recovery			
PES			
Mean Conc.	0.188	0.252	0.3 %.R = 98%.
Recovery			
PES+1			
Mean Conc.	1.212	1.232	
Recovery			
LCS			
Mean Conc.	1.072	1.081	
Recovery			
	Data are not used, LCS — out. LL 9/28/94		1.1 %.R=107.3 True value = 1ppb %.R=110%. Limit = 100 ±20%.
	Cd ug/L	Cd ug/L	
LCS+1			
Mean Conc.	2.213	2.154	
Recovery			
AQC 1.25 UG/L			
Mean Conc.	1.384	1.253	%.R=100%. Limit = 100±10%.
Recovery			
SO2SPKx4			
Mean Conc.	----	1.370	Adg. conc = 5.48 Spx. conc = 5ppb Sp %.R=109.6%. Limit=100±15%.
Recovery			%.R = 99.2
SO2SPKx4+1			
Mean Conc.	----	2.362	
Recovery			
D.BL			
Mean Conc.	----	0.016	0.2u Limit = ±0.2 µg/L
Recovery			%.R = 109.3
D.BL+1			
Mean Conc.	----	1.077	
Recovery			
Mean Conc.	----	-0.028	not used.
Recovery			
Mean Conc.	----	-0.029	
Recovery			
Mean Conc.	----	0.033	
Recovery			

L. Leonova 9/28/94

Mean Conc.	----	-0.005	– not used.	
Recovery				
CCB				
Mean Conc.	----	0.022	0.2u	Limit = ±0.2 µg/L
Recovery				

Analyst: L. Scorova 9/22/94 Supervisor: _____

Element	Instrument	QC Source
[ ] Ag	[ ] 5100 A3	[ ] CLP-40
[ ] As	[X] 5100 A6	[ ] CLP-70
[X] Cd	[ ] 5000 A4	[ ] CLP-80
[ ] Cr	[ ] 5000 A5	[ ] EPA-V-1
[ ] Pb	[ ]	[X] CLPF-CAL-1
[ ] Sb	[ ]	[ ]
[ ] Se		[ ]
[ ] Tl		[ ]

Analyst L. Leonova

Date 9-27-94

Lamp # WL-36016

Energy 51

Expansion 1

Stock 4-187Cd op. 6-29-94 exp 6-15-95

[X] platform [X] MSC

[ ] wall [ ] MSA

Blank	Slope	AQC	Digestion QC	
-0.037	0.055	1.321	① Dig. Blk	0.2u Limit = ±0.2 µg/L
-0.043		1.332	② SO2 Dup:	Dupl. diff = 0.
0.039		1.231	③ SO2 Spk:	Y.R = 109.6 Sp. conc = 5ppb Limit = 100±15%
0.022		1.246		
		1.253	④ LCS:	True value = 1ppb Y.R = 110% Limit = 100±20%

Blank cup absorbance
0.008

L. Leonova
9/28/94

8F 940152
9.28.94 L. Leonara
4-204Pb, op. 7-12-94
exp. 7-15-95
LAMP # L1788-82 NQ

Element File: PBMSC.GEL Element: Pb Wavelength: 283.3
Date: 09/26/94 Time: 09:47 Slit: 0.70
Data File: PBLL0926.DAT ID/Wt File: PB729.IDW Lamp Current: 14
Technique: HGA Calib. Type: Linear Energy: 62

Pb ID: Blank Seq. No.: 00001 A/S Pos.: 1 Date: 09/26/94

uL dispensed: 15 from 0, 5 from 36, 10 from 1
Replicate 1 Time: 09:49
Peak Area (A-s): 0.007 Peak Height (A): 0.014
Background Pk Area (A-s): 0.027 Background Pk Height (A): 0.033
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): -0.25

Auto-zero performed.

Pb ID: Standard 1 Seq. No.: 00002 A/S Pos.: 2 Date: 09/26/94

uL dispensed: 15 from 0, 5 from 36, 10 from 2
Replicate 1 Time: 09:52

Peak Area [illegible] 75
Background Pk Area (A-s): 0.047
Blank Corrected Pk Area (A-s): 0.068
Concentration (ug/L): 42.21

Peak Height (A): 0.138
Background Pk Height (A): 0.064

Standard number 1 applied. [40.00]
Correlation coefficient: 1.00000   Slope: 0.0017   Int: -0.000

~~~~~~

Pb   ID: Standard 2   Seq. No.: 00003   A/S Pos.: 3   Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 3
Replicate 1   Time: 09:55
Peak Area (A-s): 0.056   Peak Height (A): 0.101
Background Pk Area (A-s): 0.039   Background Pk Height (A): 0.053
Blank Corrected Pk Area (A-s): 0.049
Concentration (ug/L): 28.82

Standard number 2 applied. [30.00]
Correlation coefficient: 0.99950   Slope: 0.0017   Int: -0.000

~~~~~~

Pb   ID: Standard 3   Seq. No.: 00004   A/S Pos.: 4   Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 4
Replicate 1   Time: 09:58
Peak Area (A-s): 0.042   Peak Height (A): 0.076
Background Pk Area (A-s): 0.032   Background Pk Height (A): 0.046
Blank Corrected Pk Area (A-s): 0.035
Concentration (ug/L): 21.17

Standard number 3 applied. [20.00]
Correlation coefficient: 0.99892   Slope: 0.0017   Int: 0.000

~~~~~~

Pb   ID: Standard 4   Seq. No.: 00005   A/S Pos.: 5   Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 5
Replicate 1   Time: 10:02
Peak Area (A-s): 0.023   Peak Height (A): 0.044
Background Pk Area (A-s): 0.030   Background Pk Height (A): 0.040
Blank Corrected Pk Area (A-s): 0.016
Concentration (ug/L): 9.22

Standard number 4 applied. [10.00]
Correlation coefficient: 0.99886   Slope: 0.0017   Int: -0.000

~~~~~~

Pb   ID: AQC 25 UG/L   Seq. No.: 00006   A/S Pos.: 37   Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 37
Replicate 1   Time: 10:05
Peak Area (A-s): 0.048   Peak Height (A): 0.091
Background Pk Area (A-s): 0.043   Background Pk Height (A): 0.056
Blank Corrected Pk Area (A-s): 0.041
Concentration (ug/L): 24.21

L. Leonova
9/28-94

Check sample is within range 22.5 - 27.5

~~~~~~
~~~~~~

Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 1
Replicate 1 Time: 10:08
Peak Area (A-s): 0.008 Peak Height (A): 0.015
Background Pk Area (A-s): 0.029 Background Pk Height (A): 0.034
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.60

Check sample is within range -2.00 - 2.00

Pb ID: 94ZB19S01 Seq. No.: 00008 A/S Pos.: 6 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 6
Replicate 1 Time: 10:11
Peak Area (A-s): 0.007 Peak Height (A): 0.015
Background Pk Area (A-s): 0.161 Background Pk Height (A): 0.190
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.24

Pb ID: 94ZB19S01 Seq. No.: 00009 A/S Pos.: 6 Date: 09/26/9

uL dispensed: 10 from 0, 5 from 36, 5 from 2, 10 from 6
Replicate 1 Time: 10:14
Peak Area (A-s): 0.043 Peak Height (A): 0.105
Background Pk Area (A-s): 0.177 Background Pk Height (A): 0.129
Blank Corrected Pk Area (A-s): 0.037
Concentration (ug/L): 21.77

Recovery is 107.7%

Pb ID: 94ZB19S02 Seq. No.: 00010 A/S Pos.: 7 Date: 09/26/9

L. Leonova
9-28-94

uL dispensed: 15 from 0, 5 from 36, 10 from 7
Replicate 1 Time: 10:18
Peak Area (A-s): 0.012 Peak Height (A): 0.023
Background Pk Area (A-s): 0.145 Background Pk Height (A): 0.097
Blank Corrected Pk Area (A-s): 0.005
Concentration (ug/L): 3.00

Pb ID: 94ZB19S02 Seq. No.: 00011 A/S Pos.: 7 Date: 09/26/9

uL dispensed: 10 from 0, 5 from 36, 5 from 2, 10 from 7
Replicate 1 Time: 10:21
Peak Area (A-s): 0.045 Peak Height (A): 0.099
Background Pk Area (A-s): 0.165 Background Pk Height (A): 0.125
Blank Corrected Pk Area (A-s): 0.038
Concentration (ug/L): 22.39

Recovery is 96.9%

Pb ID: 94ZB19S03 Seq. No.: 00012 A/S Pos.: 8 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 8

Replicate
Peak Area (A-s): 0.009 | Time: 10:24
Peak Height (A): 0.022
Background Pk Area (A-s): 0.176
Background Pk Height (A): 0.122
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 1.68

~~~~~~

Pb ID: 94ZB19S03 Seq. No.: 00013 A/S Pos.: 8 Date: 09/26/9

uL dispensed: 10 from 0, 5 from 36, 5 from 2, 10 from 8
Replicate 1 Time: 10:28
Peak Area (A-s): 0.045 Peak Height (A): 0.092
Background Pk Area (A-s): 0.159 Background Pk Height (A): 0.119
Blank Corrected Pk Area (A-s): 0.038
Concentration (ug/L): 22.70

Recovery is 105.1%

~~~~~~

Pb ID: 94ZB19S05 Seq. No.: 00014 A/S Pos.: 9 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 9
Replicate 1 Time: 10:31
Peak Area (A-s): 0.009 Peak Height (A): 0.018
Background Pk Area (A-s): 0.109 Background Pk Height (A): 0.102
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 1.21

~~~~~~

Pb ID: 94ZB19S05 Seq. No.: 00015 A/S Pos.: 9 Date: 09/26/9

uL dispensed: 10 from 0, 5 from 36, 5 from 2, 10 from 9
Replicate 1 Time: 10:34
Peak Area (A-s): 0.044 Peak Height (A): 0.100
Background Pk Area (A-s): 0.126 Background Pk Height (A): 0.121
Blank Corrected Pk Area (A-s): 0.037

L. Leonova
9-28-94

Concentration (ug/L): 22.12

Recovery is 104.5%

~~~~~~

Pb ID: 94ZB19S06 Seq. No.: 00016 A/S Pos.: 10 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 10
Replicate 1 Time: 10:37
Peak Area (A-s): 0.005 Peak Height (A): 0.014
Background Pk Area (A-s): 0.217 Background Pk Height (A): 0.169
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -1.05

~~~~~~

Pb ID: 94ZB19S06 Seq. No.: 00017 A/S Pos.: 10 Date: 09/26/9

uL dispensed: 10 from 0, 5 from 36, 5 from 2, 10 from 10
Replicate 1 Time: 10:41
Peak Area (A-s): 0.041 Peak Height (A): 0.096
Background Pk Area (A-s): 0.232 Background Pk Height (A): 0.184
Blank Corrected Pk Area (A-s): 0.034
Concentration (ug/L): 20.26
~~~~~~

Recovery is 106.5%

~~~~~~

Pb ID: AQC 25 UG/L Seq. No.: 00018 A/S Pos.: 37 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 37
Replicate 1 Time: 10:44
Peak Area (A-s): 0.049 Peak Height (A): 0.085
Background Pk Area (A-s): 0.045 Background Pk Height (A): 0.048
Blank Corrected Pk Area (A-s): 0.042
Concentration (ug/L): 25.00

Check sample is within range 22.5 - 27.5

~~~~~~

Pb ID: CCB Seq. No.: 00019 A/S Pos.: 1 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 1

Replicate 1 Time: 10:47
Peak Area (A-s): 0.007 Peak Height (A): 0.012
Background Pk Area (A-s): 0.031 Background Pk Height (A): 0.029
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.43

Check sample is within range -2.00 - 2.00

~~~~~~

Pb ID: 94ZB19R07 Seq. No.: 00020 A/S Pos.: 11 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 11
Replicate 1 Time: 10:50
Peak Area (A-s): 0.008 Peak Height (A): 0.014
Background Pk Area (A-s): 0.026 Background Pk Height (A): 0.026
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.78

Data not used, last AQC out.
I. Leonova 9-28-94

~~~~~~

Pb ID: 94ZB19R07 Seq. No.: 00021 A/S Pos.: 11 Date: 09/26/9

uL dispensed: 10 from 0, 5 from 36, 5 from 2, 10 from 11
Replicate 1 Time: 10:54
Peak Area (A-s): 0.044 Peak Height (A): 0.081
Background Pk Area (A-s): 0.041 Background Pk Height (A): 0.041
Blank Corrected Pk Area (A-s): 0.037
Concentration (ug/L): 21.83

Recovery is 105.2%

~~~~~~

Pb ID: 94ZB18S08 Seq. No.: 00022 A/S Pos.: 12 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 12
Replicate 1 Time: 10:57
Peak Area (A-s): 0.007 Peak Height (A): 0.017
Background Pk Area (A-s): 0.163 Background Pk Height (A): 0.122
~~~~~~

Blank Corrected Pk Area (A-s): [illegible]
Concentration (ug/L): 0.1[illegible]

~~~~~~

Pb ID: 94ZB18S08 Seq. No.: 00023 A/S Pos.: 12 Date: 09/26/9

uL dispensed: 10 from 0, 5 from 36, 5 from 2, 10 from 12
Replicate 1 Time: 11:00
Peak Area (A-s): 0.044 Peak Height (A): 0.093
Background Pk Area (A-s): 0.192 Background Pk Height (A): 0.144
Blank Corrected Pk Area (A-s): 0.037
Concentration (ug/L): 21.90

Recovery is 108.1%

~~~~~~

Pb ID: 94ZB19S02DUP Seq. No.: 00024 A/S Pos.: 13 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 13
Replicate 1 Time: 11:04
Peak Area (A-s): 0.011 Peak Height (A): 0.020
Background Pk Area (A-s): 0.165 Background Pk Height (A): 0.096
Blank Corrected Pk Area (A-s): 0.004
Concentration (ug/L): 2.62

~~~~~~

Pb ID: 94ZB19S02DUP Seq. No.: 00025 A/S Pos.: 13 Date: 09/26/9

uL dispensed: 10 from 0, 5 from 36, 5 from 2, 10 from 13
Replicate 1 Time: 11:07
Peak Area (A-s): 0.047 Peak Height (A): 0.103
Background Pk Area (A-s): 0.180 Background Pk Height (A): 0.127
Blank Corrected Pk Area (A-s): 0.040
Concentration (ug/L): 23.76

Recovery is 105.7%

~~~~~~

Pb ID: D.BL Seq. No.: 00026 A/S Pos.: 14 Date: 09/26/9

Data not used.
L. Leonora
9-28-94

uL dispensed: 15 from 0, 5 from 36, 10 from 14
Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 11:10
Peak Area (A-s): 0.120 Peak Height (A): 0.248
Background Pk Area (A-s): 0.069 Background Pk Height (A): 0.082
Blank Corrected Pk Area (A-s): 0.113
Concentration (ug/L): 66.83

~~~~~~

Pb ID: D.BL Seq. No.: 00027 A/S Pos.: 14 Date: 09/26/9

uL dispensed: 20 from 0, 5 from 36, 5 from 14
Replicate 1 Time: 11:13
Peak Area (A-s): 0.006 Peak Height (A): 0.012
Background Pk Area (A-s): 0.031 Background Pk Height (A): 0.026
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.41 Corrected Conc (ug/L): -0.82
~~~~~~

~~~~~~

Pb ID: D.BL Seq. No.: 00028 A/S Pos.: 14 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 5 from 2, 5 from 14
Replicate 1 Time: 11:17
Peak Area (A-s): 0.046 Peak Height (A): 0.075
Background Pk Area (A-s): 0.039 Background Pk Height (A): 0.039
Blank Corrected Pk Area (A-s): 0.039
Concentration (ug/L): 23.01 Corrected Conc (ug/L): 46.02

Recovery is 117.1%

~~~~~~

Pb ID: PES Seq. No.: 00029 A/S Pos.: 15 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 15
Replicate 1 Time: 11:20
Peak Area (A-s): 0.009 Peak Height (A): 0.015
Background Pk Area (A-s): 0.058 Background Pk Height (A): 0.036
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 1.71

~~~~~~

Pb ID: PES Seq. No.: 00030 A/S Pos.: 15 Date: 09/26/9

uL dispensed: 10 from 0, 5 from 36, 5 from 2, 10 from 15
Replicate 1 Time: 11:23
Peak Area (A-s): 0.048 Peak Height (A): 0.082
Background Pk Area (A-s): 0.059 Background Pk Height (A): 0.048
Blank Corrected Pk Area (A-s): 0.042
Concentration (ug/L): 24.70

Recovery is 114.9%

~~~~~~

Pb ID: AQC 25 UG/L Seq. No.: 00031 A/S Pos.: 37 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 37
Replicate 1 Time: 11:26
Peak Area (A-s): 0.054 Peak Height (A): 0.089
Background Pk Area (A-s): 0.045 Background Pk Height (A): 0.045

Data not used.
L. Leonova
9-28-94

Blank Corrected Pk Area (A-s): 0.048
Concentration (ug/L): 28.20

Check sample is out of range 22.5 - 27.5

~~~~~~

Pb ID: Blank Seq. No.: 00032 A/S Pos.: 1 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 1
Replicate 1 Time: 11:30
Peak Area (A-s): 0.008 Peak Height (A): 0.014
Background Pk Area (A-s): 0.031 Background Pk Height (A): 0.029
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 1.07
~~~~~~

Auto-zero performed.

~~~~~~

Pb ID: Standard 1 Seq. No.: 00033 A/S Pos.: 2 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 2
Replicate 1 Time: 11:33
Peak Area (A-s): 0.084 Peak Height (A): 0.136
Background Pk Area (A-s): 0.046 Background Pk Height (A): 0.056
Blank Corrected Pk Area (A-s): 0.076
Concentration (ug/L): 44.78

Standard number 1 applied. [40.00]
Correlation coefficient: 1.00000 Slope: 0.0019 Int: -0.000

~~~~~~

Pb ID: Standard 2 Seq. No.: 00034 A/S Pos.: 3 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 3
Replicate 1 Time: 11:36
Peak Area (A-s): 0.063 Peak Height (A): 0.105
Background Pk Area (A-s): 0.040 Background Pk Height (A): 0.046
Blank Corrected Pk Area (A-s): 0.055
Concentration (ug/L): 28.94

Standard number 2 applied. [30.00]
Correlation coefficient: 0.99959 Slope: 0.0019 Int: -0.000

~~~~~~

Pb ID: Standard 3 Seq. No.: 00035 A/S Pos.: 4 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 4
Replicate 1 Time: 11:39
Peak Area (A-s): 0.045 Peak Height (A): 0.078
Background Pk Area (A-s): 0.037 Background Pk Height (A): 0.041
Blank Corrected Pk Area (A-s): 0.036
Concentration (ug/L): 19.54

Standard number 3 applied. [20.00]
Correlation coefficient: 0.99951 Slope: 0.0019 Int: -0.001

~~~~~~

Pb ID: Standard 4 Seq. No.: 00036 A/S Pos.: 5 Date: 09/26/9

L. Leonard
9-28-94

uL dispensed: 15 from 0, 5 from 36, 10 from 5
Replicate 1 Time: 11:42
Peak Area (A-s): 0.027 Peak Height (A): 0.043
Background Pk Area (A-s): 0.031 Background Pk Height (A): 0.034
Blank Corrected Pk Area (A-s): 0.018
Concentration (ug/L): 9.95

Standard number 4 applied. [10.00]
Correlation coefficient: 0.99957 Slope: 0.0019 Int: -0.001

~~~~~~

Pb ID: AQC 25 UG/L Seq. No.: 00037 A/S Pos.: 37 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 37
~~~~~~

Rep[illegible] [illegible]

Peak Area (A-s): 0.055 Peak Height (A): 0.092

Background Pk Area (A-s): 0.045 Background Pk Height (A): 0.044

Blank Corrected Pk Area (A-s): 0.046

Concentration (ug/L): 24.93

Check sample is within range 22.5 - 27.5

~~~~~~

Pb ID: CCB Seq. No.: 00038 A/S Pos.: 1 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 1

Replicate 1 Time: 11:49

Peak Area (A-s): 0.010 Peak Height (A): 0.014

Background Pk Area (A-s): 0.033 Background Pk Height (A): 0.029

Blank Corrected Pk Area (A-s): 0.001

Concentration (ug/L): 1.08

Check sample is within range -2.00 - 2.00

~~~~~~

Pb ID: 94ZB19R07 Seq. No.: 00039 A/S Pos.: 11 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 11

Replicate 1 Time: 11:52

Peak Area (A-s): 0.008 Peak Height (A): 0.013

Background Pk Area (A-s): 0.038 Background Pk Height (A): 0.031

Blank Corrected Pk Area (A-s): -0.000

Concentration (ug/L): 0.24

~~~~~~

Pb ID: 94ZB19R07 Seq. No.: 00040 A/S Pos.: 11 Date: 09/26/9

uL dispensed: 10 from 0, 5 from 36, 5 from 2, 10 from 11

Replicate 1 Time: 11:55

Peak Area (A-s): 0.044 Peak Height (A): 0.080

Background Pk Area (A-s): 0.046 Background Pk Height (A): 0.047

Blank Corrected Pk Area (A-s): 0.036

Concentration (ug/L): 19.28

Recovery is 95.2%

~~~~~~

Pb ID: 94ZB18S08 Seq. No.: 00041 A/S Pos.: 12 Date: 09/26/9

L. Leonova
9-28-94

uL dispensed: 15 from 0, 5 from 36, 10 from 12

Replicate 1 Time: 11:59

Peak Area (A-s): 0.008 Peak Height (A): 0.016

Background Pk Area (A-s): 0.176 Background Pk Height (A): 0.140

Blank Corrected Pk Area (A-s): -0.000

Concentration (ug/L): 0.26

~~~~~~

Pb ID: 94ZB18S08 Seq. No.: 00042 A/S Pos.: 12 Date: 09/26/9

uL dispensed: 10 from 0, 5 from 36, 5 from 2, 10 from 12

Replicate 1 Time: 12:02

Peak Area (A-s): 0.045 Peak Height (A): 0.092

Background Pk Area (A-s): 0.198 Background Pk Height (A): 0.156
~~~~~~

Blank Corrected Pk Area
Concentration (ug/L): 19.53

Recovery is 96.3%

~~~~~~

Pb ID: 94ZB19S02DUP Seq. No.: 00043 A/S Pos.: 13 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 13
Replicate 1 Time: 12:05
Peak Area (A-s): 0.010 Peak Height (A): 0.020
Background Pk Area (A-s): 0.196 Background Pk Height (A): 0.143
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 1.30

~~~~~~

Pb ID: 94ZB19S02DUP Seq. No.: 00044 A/S Pos.: 13 Date: 09/26/9

uL dispensed: 10 from 0, 5 from 36, 5 from 2, 10 from 13
Replicate 1 Time: 12:09
Peak Area (A-s): 0.047 Peak Height (A): 0.094
Background Pk Area (A-s): 0.221 Background Pk Height (A): 0.166
Blank Corrected Pk Area (A-s): 0.038
Concentration (ug/L): 20.67

Recovery is 96.9%

~~~~~~

Pb ID: D.BL Seq. No.: 00045 A/S Pos.: 14 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 14

Replicate 1 Time: 12:12
Peak Area (A-s): 0.011 Peak Height (A): 0.019
Background Pk Area (A-s): 0.033 Background Pk Height (A): 0.019
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 1.69

~~~~~~

Pb ID: D.BL Seq. No.: 00046 A/S Pos.: 14 Date: 09/26/9

uL dispensed: 10 from 0, 5 from 36, 5 from 2, 10 from 14
Replicate 1 Time: 12:15
Peak Area (A-s): 0.048 Peak Height (A): 0.081
Background Pk Area (A-s): 0.046 Background Pk Height (A): 0.029
Blank Corrected Pk Area (A-s): 0.040

L. Kovova
9/28/94

Concentration (ug/L): 21.32

Recovery is 98.2%

~~~~~~

Pb ID: PES Seq. No.: 00047 A/S Pos.: 15 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 15
Replicate 1 Time: 12:18
Peak Area (A-s): 0.009 Peak Height (A): 0.013
Background Pk Area (A-s): 0.072
~~~~~~

Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.69

~~~~~~

Pb ID: PES Seq. No.: 00048 A/S Pos.: 15 Date: 09/26/9

uL dispensed: 10 from 0, 5 from 36, 5 from 2, 10 from 15

Replicate 1 Time: 12:22
Peak Area (A-s): 0.048 Peak Height (A): 0.084
Background Pk Area (A-s): 0.076 Background Pk Height (A): 0.059
Blank Corrected Pk Area (A-s): 0.040
Concentration (ug/L): 21.61

Recovery is 104.6%

~~~~~~

Pb ID: AQC 25 UG/L Seq. No.: 00049 A/S Pos.: 37 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 37

Replicate 1 Time: 12:25
Peak Area (A-s): 0.052 Peak Height (A): 0.088
Background Pk Area (A-s): 0.050 Background Pk Height (A): 0.050
Blank Corrected Pk Area (A-s): 0.043
Concentration (ug/L): 23.26

Check sample is within range 22.5 - 27.5

~~~~~~

Pb ID: CCB Seq. No.: 00050 A/S Pos.: 1 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 1
Replicate 1 Time: 12:28
Peak Area (A-s): 0.008 Peak Height (A): 0.015
Background Pk Area (A-s): 0.038 Background Pk Height (A): 0.032
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.07

Check sample is within range -2.00 - 2.00

~~~~~~

Pb ID: LCS Seq. No.: 00051 A/S Pos.: 16 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 16
Replicate 1 Time: 12:31
Peak Area (A-s): 0.026 Peak Height (A): 0.047
Background Pk Area (A-s): 0.051 Background Pk Height (A): 0.036
Blank Corrected Pk Area (A-s): 0.018
Concentration (ug/L): 9.69

L. Fonova
9/28/94

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Pb ID: LCS Seq. No.: 00052 A/S Pos.: 16 Date: 09/26/9

uL dispensed: 10 from 0, 5 from 36, 5 from 2, 10 from 16
Replicate 1 Time: 12:34
Peak Area (A-s): 0.066 Peak Height (A): 0.117
Background Pk Area (A-s): 0.061 Background Pk Height (A): 0.057
Blank Corrected Pk Area (A-s): 0.057
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Concentration (ug/L): 30.84

Recovery is 105.7%

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Pb ID: 94ZB19S02SPK Seq. No.: 00053 A/S Pos.: 17 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 17
Replicate 1 Time: 12:38
Peak Area (A-s): 0.055 Peak Height (A): 0.119
Background Pk Area (A-s): 0.116 Background Pk Height (A): 0.141
Blank Corrected Pk Area (A-s): 0.047
Concentration (ug/L): 25.23

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Pb ID: 94ZB19S02SPK Seq. No.: 00054 A/S Pos.: 17 Date: 09/26/9

uL dispensed: 10 from 0, 5 from 36, 5 from 2, 10 from 17
Replicate 1 Time: 12:41
Peak Area (A-s): 0.092 Peak Height (A): 0.190
Background Pk Area (A-s): 0.131 Background Pk Height (A): 0.151
Blank Corrected Pk Area (A-s): 0.083
Concentration (ug/L): 44.48

Recovery is 96.2%

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Pb ID: 94ZB19S02 Seq. No.: 00055 A/S Pos.: 18 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 18
Replicate 1 Time: 12:44
Peak Area (A-s): 0.010 Peak Height (A): 0.022
Background Pk Area (A-s): 0.195 Background Pk Height (A): 0.133
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 1.13

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Pb ID: 94ZB19S02 Seq. No.: 00056 A/S Pos.: 18 Date: 09/26/9

uL dispensed: 10 from 0, 5 from 36, 5 from 2, 10 from 18
Replicate 1 Time: 12:47
Peak Area (A-s): 0.047 Peak Height (A): 0.098
Background Pk Area (A-s): 0.219 Background Pk Height (A): 0.162
Blank Corrected Pk Area (A-s): 0.038
Concentration (ug/L): 20.69

Recovery is 97.8%

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Pb ID: AQC 25 UG/L Seq. No.: 00057 A/S Pos.: 37 Date: 09/26/9

L. Feorova
9-28-94

uL dispensed: 15 from 0, 5 from 36, 10 from 37
Replicate 1 Time: 12:51
Peak Area (A-s): 0.051
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Background Pk Area (A-s): 0.058 Background Pk Height (A): 0.052
Blank Corrected Pk Area (A-s): 0.042
Concentration (ug/L): 22.89

Check sample is within range 22.5 - 27.5

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Pb ID: CCB Seq. No.: 00058 A/S Pos.: 1 Date: 09/26/9

uL dispensed: 15 from 0, 5 from 36, 10 from 1
Replicate 1 Time: 12:54
Peak Area (A-s): 0.007 Peak Height (A): 0.013
Background Pk Area (A-s): 0.040 Background Pk Height (A): 0.031
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.17

Check sample is within range -2.00 - 2.00

9-28-94
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Report Of Analytical Results
September 26, 1994

SF 940152

Data File: PBLL0926.DAT
Data Collected: 09/26/94 At: 09:49:37 By: [redacted]

L. Leonard
9-28-94

	Pb ug/L	
Blank Mean Conc.	0.00	
Standard 1 Mean Conc.	40.00	
Standard 2 Mean Conc.	30.00	r = .99886
Standard 3 Mean Conc.	20.00	r = .99957
Standard 4 Mean Conc.	10.00	
AQC 25 UG/L Mean Conc.	24.21	% R = 96.8 Limit = 100 ± 10%
Recovery		
CCB Mean Conc.	0.60	2u Limit = ± 2 µg/L
Recovery		
94ZB19S01 Mean Conc.	0.24	2u
Recovery	108.%	
94ZB19S02 Mean Conc.	3.00	RERUN below; HBA problem.
Recovery	96.9%	
94ZB19S03 Mean Conc.	1.68	2u
Recovery	105.%	
94ZB19S05 Mean Conc.	1.21	2u
Recovery	105.%	
94ZB19S06 Mean Conc.	-1.05	2u
Recovery	107.%	
AQC 25 UG/L Mean Conc.	25.00	% R = 100 Limit = 100 ± 10%
Recovery		
CCB Mean Conc.	0.43	2u Limit = ± 2 µg/L
Recovery		

L. Leonova
9-28-94

	ug/L Pb		
94ZB19R07			
Mean Conc.	0.78		
Recovery	105.%		
94ZB18S08			
Mean Conc.	0.28		
Recovery	108.%		
94ZB19S02DUP			
Mean Conc.	2.62		
Recovery	106.%		
D.BL			
Mean Conc.	66.83		
Recovery			
D.BL			
Mean Conc.	-0.82		
Recovery	117.%		
PES			
Mean Conc.	1.71		
Recovery	115.%		
AQC 25 UG/L			
Mean Conc.	28.20		
Recovery	Data not used. LL 9/28/94		
AQC 25 UG/L			
Mean Conc.	24.93		
Recovery	Y.R = 99.7		Limit = 100 ± 10%
CCB			
Mean Conc.	1.08	2u	Limit = ± 2 µg/L
Recovery			
94ZB19R07			
Mean Conc.	0.24	2u	
Recovery	95.2%		
94ZB18S08			

Mean Conc.		2u	
Recovery	[illegible]%		
94ZB19S02DUP			
Mean Conc.	1.30	2u	
Recovery	96.9%		
D.BL			
Mean Conc.	1.69	2u	Limit = ±2 µg/L
Recovery	98.2%		
PES			
Mean Conc.	0.69	2u	
Recovery	105.%		

	Pb ug/L		
AQC 25 UG/L			
Mean Conc.	23.26	% R = 93.0	Limit = 100 ± 10%
Recovery			
CCB			
Mean Conc.	-0.07	2u	Limit = ±2 µg/L
Recovery			
LCS			
Mean Conc.	9.69	Th. v = 10 ppb	% R = 96.9 Limit = 100 ± 20%
Recovery	106.%		
94ZB19S02SPK			
Mean Conc.	25.23	Adj. conc = 50.46	Sp. conc = 50 ppb % R = 101%
Recovery	96.2%		Limit = 100 ± 15%
94ZB19S02			
Mean Conc.	1.13	2u	
Recovery	97.8%		
AQC 25 UG/L			
Mean Conc.	22.89	% R = 91.6	Limit = 100 ± 10%
Recovery			
CCB			
Mean Conc.	-0.17	2u	Limit = ±2 µg/L
Recovery			

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Analyst: I. Lorova 9-28-94 Supervisor: _____

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Element	Instrument	QC Source
[ ] Ag	[ ] 5100 A3	[ ] CLP-40
[ ] As	[X] 5100 A6	[ ] CLP-70
[ ] Cd	[ ] 5000 A4	[ ] CLP-80
[ ] Cr	[ ] 5000 A5	[ ] EPA-V-1
[X] Pb	[ ]	[X] CLPF-CAL-1
[ ] Sb	[ ]	[ ]
[ ] Se		[ ]
[ ] Tl		[ ]

Analyst L. Leonard

Date 9-28-94

Lamp # L 1788-82 NQ

Energy 62

Expansion 1

Stock 4-204Pb op. 7-12-94 exp 7-15-95

[X] platform [X] MSC

[ ] wall [ ] MSA

Blank	Slope	AQC	Digestion QC
0.60	0.0017	24.21	① LCS 10ppb tr. val; % R = 96.9
0.43		25.0	Limit = 100 ± 20%
1.08		24.93	② Dig. blk = 2u Limit = ±2 µg/L
−0.07		23.26	③ SO2 dupl; Dupl. diff = 0.
−0.17		22.89	④ SO2 spk; 50ppb - tr. val
			% R = 101% Limit = 100 ± 15%

Blank cup absorbance
−0.25

L. Leonard
9-28-94

M. Knopp
9-29-94

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* FLAMELESS * CSC VERSION 1.00 *

NAME OF ANALYST ---: MAK
DATE OF ANALYSIS --: 09-29-1994
PARAMETER NAME ----: SE
DATA SET # --------: 940152

940152

SAMPLE NO.	CONC.	R VALUE	SLOPE
BLANK	.2234603	.9991583	.00179 2u LIMIT = ± 2ug/L
AQC 25	23.95348	.9983817	.00172 %R = 95.8, LIMIT = 100 ± 10%
94ZB19 S01	.8783804	.9991792	.00148 2u
S02	.1960754	.9998718	.00153 2u
S02 DUP	.131582	.9987903	.00152 2u, % Pdiff = <2u, LIMIT = ±2ug/L
S02 SPK. X4	13.21637	.9990778	1.710001E-03 ADJ. CONC. = 53, SPK. CONC = 50
DIG. BLK.	-.179638	.9991763	.00167 2u MATRIX SPK %R = 106, LIMIT = 100 ± 15%
AQC 25	23.77245	.9991767	1.670001E-03 %R = 95, LIMIT = 100 ± 10%
PES	24.45782	.9995639	1.660001E-03 24
LCS	8.924732	.9996533	.00186 9
S03	.5511787	.9985767	.00127 2u
S05	-.3550243	.9997551	.00169 2u
S06	0	.9976646	.0016 2u
R07	-.1123621	.9997476	.00178 2u
AQC 25	24.79288	.9969672	1.690001E-03 %R = 99.2, LIMIT = 100 ± 10%
S08	.5228728	.9990189	.00153 2u
AQC 25	25.43213	.9989349	1.619999E-03 %R = 102, LIMIT = 100 ± 10%

BLANK

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.001	3.999939E-04	-6.000062E-04	-150.0038 %
10	.017	1.829999E-02	1.299992E-03	7.103785 %
20	.037	.0362	-8.000061E-04	-2.209962 %
30	.054	.0541	9.999424E-05	.1848323 %

AQC 25

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.04	.0412	1.199998E-03	2.912617 %
10	.06	.0584	-1.600001E-03	-2.739728 %
20	.076	.0756	-3.999993E-04	-.5290996 %
30	.092	9.280001E-02	8.000061E-04	.8620754 %

94ZB19 S01

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.001	1.300003E-03	3.00003E-04	23.0771 %
10	.016	.0161	1.000017E-04	.6211285 %
20	.032	.0309	-1.099998E-03	-3.559864 %
30	.045	.0457	7.000007E-04	1.53173 %

SO2

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	2.999954E-04	2.999954E-04	100 %
10	.016	.0156	-4.000031E-04	-2.564123 %
20	.031	.0309	-9.999983E-05	-.3236241 %
30	.046	.0462	1.999997E-04	.4328997 %

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9-29-94

SO2 DUP

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	2.000046E-04	2.000046E-04	100 %
10	.015	.0154	4.00004E-04	2.597428 %
20	.032	3.060001E-02	-1.399998E-03	-4.575156 %
30	.045	.0458	7.999987E-04	1.746722 %

SO2 SPK. X4

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.022	2.259999E-02	5.999916E-04	2.654831 %
10	.04	.0397	-3.000014E-04	-.755671 %
20	.058	5.680001E-02	-1.199994E-03	-2.112666 %
30	.073	7.390001E-02	9.000078E-04	1.217872 %

DIG. BLK.

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	-2.999954E-04	7.000047E-04	-233.3385 %
10	.017	.0164	-6.000009E-04	-3.658542 %
20	.034	.0331	-9.000078E-04	-2.719057 %
30	.049	.0498	7.999949E-04	1.606416 %

AQC 25

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.039	.0397	6.99997E-04	1.763217 %
10	.057	5.640001E-02	-5.999953E-04	-1.063821 %
20	.074	7.310001E-02	-8.999854E-04	-1.23117 %
30	.089	8.980001E-02	8.000136E-04	.8908835 %

PES

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.041	4.059999E-02	-4.000105E-04	-.9852478 %
10	.057	.0572	1.999997E-04	.3496498 %
20	.073	7.380001E-02	8.000061E-04	1.084019 %
30	.091	9.040001E-02	-5.999878E-04	-.6637033 %

LCS

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.017	.0166	-4.000031E-04	-2.409657 %
10	.035	3.519999E-02	1.999922E-04	.5681598 %

20	.053	5.379999E-02	7.999912E-04	1.486973 %
30	.073	7.239999E-02	-6.000102E-04	-.8287435 %

M. Knopp 9-29-94

S03

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	6.99997E-04	6.99997E-04	100 %
10	.014	.0134	-6.000037E-04	-4.47764 %
20	.027	.0261	-9.000041E-04	-3.448292 %
30	.038	.0388	7.999987E-04	2.061852 %

S05

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	-.001	-5.999909E-04	4.000092E-04	-66.66922 %
10	.017	.0163	-6.99997E-04	-4.294459 %
20	.033	.0332	1.999997E-04	.6024086 %
30	.05	.0501	9.999424E-05	.1995893 %

S06

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	0	0	1.701412E+38 %
10	.015	.016	9.999992E-04	6.249995 %
20	.034	.032	-2.000004E-03	-6.250013 %
30	.047	.048	1.000002E-03	2.083338 %

R07

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	-2.000046E-04	-2.000046E-04	100 %
10	.017	.0176	5.999953E-04	3.409065 %
20	.036	.0354	-6.000027E-04	-1.694923 %
30	.053	.0532	1.999997E-04	.3759392 %

AQC 25

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.041	4.189998E-02	8.99978E-04	2.14792 %
10	.059	5.879998E-02	-2.000183E-04	-.3401673 %
20	.078	7.569999E-02	-2.300017E-03	-3.038332 %
30	.091	9.259999E-02	1.599997E-03	1.727859 %

S08

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	0	7.999955E-04	7.999955E-04	100 %
10	.017	.0161	-9.000041E-04	-5.590089 %
20	.032	.0314	-6.000027E-04	-1.910837 %
30	.046	.0467	7.000007E-04	1.498931 %

AQC 25

SPIKE	MEASURED	CALC.	ERROR	PER CENT
0	.041	4.120003E-02	2.000257E-04	.4854991 %
10	.057	5.740002E-02	4.00018E-04	.6968952 %
20	.075	7.360001E-02	-1.399994E-03	-1.902165 %
30	.089	.0898	7.999987E-04	.8908671 %

M. Knopp
9-29-94

M. Knopp
9-28-94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 1

ID: Blank Seq. No.: 00041 A/S Pos.: 1 Date: 09/28/94

Replicate 1 Time: 12:47
Peak Area (A-s): 0.001 Peak Height (A): 0.004
Background Pk Area (A-s): 0.014 Background Pk Height (A): 0.011
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.62

Auto-zero performed.

ID: Standard 1 Seq. No.: 00042 A/S Pos.: 2 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 2
Replicate 1 Time: 12:50
Peak Area (A-s): 0.054 Peak Height (A): 0.114
Background Pk Area (A-s): 0.034 Background Pk Height (A): 0.045
Blank Corrected Pk Area (A-s): 0.054
Concentration (ug/L): 28.64

Standard number 1 applied. [30.00]

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9-29-94

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ID: Standard 2 Seq. No.: 00043 A/S Pos.: 3 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 3
Replicate 1 Time: 12:52
Peak Area (A-s): 0.038 Peak Height (A): 0.079
Background Pk Area (A-s): 0.029 Background Pk Height (A): 0.033
Blank Corrected Pk Area (A-s): 0.037
Concentration (ug/L): 20.81

Standard number 2 applied. [20.00]

~~~~~~

ID: Standard 3 Seq. No.: 00044 A/S Pos.: 4 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 4
Replicate 1 Time: 12:55
Peak Area (A-s): 0.018 Peak Height (A): 0.041
Background Pk Area (A-s): 0.020 Background Pk Height (A): 0.019
Blank Corrected Pk Area (A-s): 0.017
Concentration (ug/L): 9.43

Standard number 3 applied. [10.00]

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ID: AQC 0 Seq. No.: 00045 A/S Pos.: 5 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 5
Replicate 1 Time: 12:59
Peak Area (A-s): 0.041 Peak Height (A): 0.085
Background Pk Area (A-s): 0.028 Background Pk Height (A): 0.035
Blank Corrected Pk Area (A-s): 0.040
Concentration (ug/L): 22.27

~~~~~~

ID: AQC 10 Seq. No.: 00046 A/S Pos.: 6 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 6
Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 13:01
Peak Area (A-s): 0.061 Peak Height (A): 0.121
Background Pk Area (A-s): 0.034 Background Pk Height (A): 0.048
Blank Corrected Pk Area (A-s): 0.060
Concentration (ug/L): 33.11

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ID: AQC 20 Seq. No.: 00047 A/S Pos.: 7 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 7
Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 13:04
Peak Area (A-s): 0.077 Peak Height (A): 0.156
Background Pk Area (A-s): 0.042 Background Pk Height (A): 0.061
Blank Corrected Pk Area (A-s): 0.076
Concentration (ug/L): 41.93

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ID: AQC 30 Seq. No.: 00048 A/S Pos.: 8 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 8

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Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 13:07
Peak Area (A-s): 0.092 Peak Height (A): 0.189
Background Pk Area (A-s): 0.046 Background Pk Height (A): 0.074
Blank Corrected Pk Area (A-s): 0.092
Concentration (ug/L): 50.59

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ID: 94ZB19 S01 0 Seq. No.: 00049 A/S Pos.: 9 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 9
Replicate 1 Time: 13:10
Peak Area (A-s): 0.002 Peak Height (A): 0.005
Background Pk Area (A-s): 0.058 Background Pk Height (A): 0.031
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.84

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ID: S01 10 Seq. No.: 00050 A/S Pos.: 10 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 10
Replicate 1 Time: 13:13
Peak Area (A-s): 0.017 Peak Height (A): 0.037
Background Pk Area (A-s): 0.061 Background Pk Height (A): 0.040
Blank Corrected Pk Area (A-s): 0.016
Concentration (ug/L): 8.82

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ID: S01 20 Seq. No.: 00051 A/S Pos.: 11 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 11
Replicate 1 Time: 13:16
Peak Area (A-s): 0.033 Peak Height (A): 0.075
Background Pk Area (A-s): 0.064 Background Pk Height (A): 0.053
Blank Corrected Pk Area (A-s): 0.032
Concentration (ug/L): 17.96

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ID: S01 30 Seq. No.: 00052 A/S Pos.: 12 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 12
Replicate 1 Time: 13:19
Peak Area (A-s): 0.046 Peak Height (A): 0.103
Background Pk Area (A-s): 0.066 Background Pk Height (A): 0.063
Blank Corrected Pk Area (A-s): 0.045
Concentration (ug/L): 25.04

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ID: S02 0 Seq. No.: 00053 A/S Pos.: 13 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 13
Replicate 1 Time: 13:22
Peak Area (A-s): 0.000 Peak Height (A): 0.004
Background Pk Area (A-s): 0.057 Background Pk Height (A): 0.035
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.09

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ID: S02 10 Seq. No.: 00054 A/S Pos.: 14 Date: 09/28/94

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9-28-94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 14
Replicate 1 Time: 13:25
Peak Area (A-s): 0.017 Peak Height (A): 0.032
Background Pk Area (A-s): 0.063 Background Pk Height (A): 0.045
Blank Corrected Pk Area (A-s): 0.016
Concentration (ug/L): 8.83

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ID: S02 20 Seq. No.: 00055 A/S Pos.: 15 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 15
Replicate 1 Time: 13:28
Peak Area (A-s): 0.031 Peak Height (A): 0.062
Background Pk Area (A-s): 0.070 Background Pk Height (A): 0.056
Blank Corrected Pk Area (A-s): 0.031
Concentration (ug/L): 17.02

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ID: S02 30 Seq. No.: 00056 A/S Pos.: 16 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 16
Replicate 1 Time: 13:30
Peak Area (A-s): 0.047 Peak Height (A): 0.093
Background Pk Area (A-s): 0.076 Background Pk Height (A): 0.066
Blank Corrected Pk Area (A-s): 0.046
Concentration (ug/L): 25.51

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ID: S02 DUP 0 Seq. No.: 00057 A/S Pos.: 17 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 17
Replicate 1 Time: 13:33
Peak Area (A-s): 0.000 Peak Height (A): 0.006
Background Pk Area (A-s): 0.064 Background Pk Height (A): 0.037
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.18

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ID: S02 DUP 10 Seq. No.: 00058 A/S Pos.: 18 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 18
Replicate 1 Time: 13:36
Peak Area (A-s): 0.016 Peak Height (A): 0.033
Background Pk Area (A-s): 0.065 Background Pk Height (A): 0.049
Blank Corrected Pk Area (A-s): 0.015
Concentration (ug/L): 8.42

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ID: S02 DUP 20 Seq. No.: 00059 A/S Pos.: 19 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 19

PRINTER OUT OF PAPER
9-28-94 MK
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M. Knopf
9-28-94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 20

9-28-94 MK
PRINTER RE-STARTED

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ID: S02 DUP 20   Seq. No.: 00061   A/S Pos.: 19   Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 19
Replicate 1   Time: 13:52
Peak Area (A-s): 0.033   Peak Height (A): 0.065

Background Pk Area (A-s): 0.065   Background Pk Height (A): 0.055
Blank Corrected Pk Area (A-s): 0.032
Concentration (ug/L): 17.86

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ID: S02 DUP 30   Seq. No.: 00062   A/S Pos.: 20   Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 20
Replicate 1   Time: 13:55
Peak Area (A-s): 0.045   Peak Height (A): 0.090
Background Pk Area (A-s): 0.071   Background Pk Height (A): 0.067
Blank Corrected Pk Area (A-s): 0.045
Concentration (ug/L): 24.69

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ID: S02 SPK X4 0   Seq. No.: 00063   A/S Pos.: 21   Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 21
Replicate 1   Time: 13:58
Peak Area (A-s): 0.023   Peak Height (A): 0.048
Background Pk Area (A-s): 0.028   Background Pk Height (A): 0.028
Blank Corrected Pk Area (A-s): 0.022
Concentration (ug/L): 12.38

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ID: S02 SPK X4 10   Seq. No.: 00064   A/S Pos.: 22   Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 22
Replicate 1   Time: 14:00
Peak Area (A-s): 0.040   Peak Height (A): 0.083
Background Pk Area (A-s): 0.035   Background Pk Height (A): 0.038
Blank Corrected Pk Area (A-s): 0.040
Concentration (ug/L): 21.91

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ID: S02 SPK X4 20   Seq. No.: 00065   A/S Pos.: 23   Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 23
Replicate 1   Time: 14:03
Peak Area (A-s): 0.058   Peak Height (A): 0.120
Background Pk Area (A-s): 0.041   Background Pk Height (A): 0.052
Blank Corrected Pk Area (A-s): 0.058
Concentration (ug/L): 31.84
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ID: S02 SPK X4 30 Seq. No.: 00066 A/S Pos.: 24 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 24
Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 14:06
Peak Area (A-s): 0.074 Peak Height (A): 0.153
Background Pk Area (A-s): 0.048 Background Pk Height (A): 0.065
Blank Corrected Pk Area (A-s): 0.073
Concentration (ug/L): 40.48

ID: D BLK 0 Seq. No.: 00067 A/S Pos.: 25 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 25

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Replicate 1 Time: 14:09
Peak Area (A-s): -0.000 Peak Height (A): 0.004
Background Pk Area (A-s): 0.012 Background Pk Height (A): 0.009
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.32

ID: D BLK 10 Seq. No.: 00068 A/S Pos.: 26 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 26
Replicate 1 Time: 14:12
Peak Area (A-s): 0.017 Peak Height (A): 0.037
Background Pk Area (A-s): 0.019 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.017
Concentration (ug/L): 9.22

ID: D BLK 20 Seq. No.: 00069 A/S Pos.: 27 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 27
Replicate 1 Time: 14:15
Peak Area (A-s): 0.035 Peak Height (A): 0.074
Background Pk Area (A-s): 0.025 Background Pk Height (A): 0.031
Blank Corrected Pk Area (A-s): 0.034
Concentration (ug/L): 18.85

ID: D BLK 30 Seq. No.: 00070 A/S Pos.: 28 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 28
Replicate 1 Time: 14:18
Peak Area (A-s): 0.050 Peak Height (A): 0.107
Background Pk Area (A-s): 0.030 Background Pk Height (A): 0.042
Blank Corrected Pk Area (A-s): 0.049
Concentration (ug/L): 27.13

ID: AQC 0 Seq. No.: 00071 A/S Pos.: 29 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 29
Replicate 1 Time: 14:21
Peak Area (A-s): 0.040 Peak Height (A): 0.085
Background Pk Area (A-s): 0.025 Background Pk Height (A): 0.033

Blank Corrected Pk Area (A-s): 0.039
Concentration (ug/L): 21.49

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ID: AQC 10 Seq. No.: 00072 A/S Pos.: 30 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 30
Replicate 1 Time: 14:24
Peak Area (A-s): 0.058 Peak Height (A): 0.117
Background Pk Area (A-s): 0.033 Background Pk Height (A): 0.045
Blank Corrected Pk Area (A-s): 0.057
Concentration (ug/L): 31.74

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ID: AQC 20 Seq. No.: 00073 A/S Pos.: 31 Date: 09/28/94

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uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 31
Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 14:26
Peak Area (A-s): 0.075 Peak Height (A): 0.153
Background Pk Area (A-s): 0.039 Background Pk Height (A): 0.059
Blank Corrected Pk Area (A-s): 0.074
Concentration (ug/L): 40.78

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ID: AQC 30 Seq. No.: 00074 A/S Pos.: 32 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 32
Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 14:29
Peak Area (A-s): 0.089 Peak Height (A): 0.178
Background Pk Area (A-s): 0.046 Background Pk Height (A): 0.069
Blank Corrected Pk Area (A-s): 0.089
Concentration (ug/L): 49.04

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ID: BLK CUP Seq. No.: 00075 A/S Pos.: 33 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 33
Replicate 1 Time: 14:32
Peak Area (A-s): 0.000 Peak Height (A): 0.004
Background Pk Area (A-s): 0.012 Background Pk Height (A): 0.008
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.16

~~~~~~

ID: PES 0 Seq. No.: 00076 A/S Pos.: 5 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 5
Replicate 1 Time: 14:39
Peak Area (A-s): 0.041 Peak Height (A): 0.083
Background Pk Area (A-s): 0.032 Background Pk Height (A): 0.034
Blank Corrected Pk Area (A-s): 0.041
Concentration (ug/L): 22.48

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ID: PES 10 Seq. No.: 00077 A/S Pos.: 6 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 6

Replicate 1 Time: 14:42
Peak Area (A-s): 0.057 Peak Height (A): 0.116
Background Pk Area (A-s): 0.038 Background Pk Height (A): 0.045
Blank Corrected Pk Area (A-s): 0.057
Concentration (ug/L): 31.31

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ID: PES 20 Seq. No.: 00078 A/S Pos.: 7 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 7
Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 14:45
Peak Area (A-s): 0.074 Peak Height (A): 0.148
Background Pk Area (A-s): 0.044 Background Pk Height (A): 0.057
Blank Corrected Pk Area (A-s): 0.073
Concentration (ug/L): 40.49

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ID: PES 30 Seq. No.: 00079 A/S Pos.: 8 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 8
Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 14:48
Peak Area (A-s): 0.091 Peak Height (A): 0.184
Background Pk Area (A-s): 0.052 Background Pk Height (A): 0.071
Blank Corrected Pk Area (A-s): 0.091
Concentration (ug/L): 50.02

~~~~~~

ID: LCS 0 Seq. No.: 00080 A/S Pos.: 9 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 9
Replicate 1 Time: 14:51
Peak Area (A-s): 0.018 Peak Height (A): 0.037
Background Pk Area (A-s): 0.019 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.017
Concentration (ug/L): 9.38

~~~~~~

ID: LCS 10 Seq. No.: 00081 A/S Pos.: 10 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 10
Replicate 1 Time: 14:54
Peak Area (A-s): 0.036 Peak Height (A): 0.076
Background Pk Area (A-s): 0.026 Background Pk Height (A): 0.030
Blank Corrected Pk Area (A-s): 0.035
Concentration (ug/L): 19.48

~~~~~~

ID: LCS 20 Seq. No.: 00082 A/S Pos.: 11 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 11
Replicate 1 Time: 14:57
Peak Area (A-s): 0.053 Peak Height (A): 0.114
Background Pk Area (A-s): 0.032 Background Pk Height (A): 0.043
Blank Corrected Pk Area (A-s): 0.053
Concentration (ug/L): 29.13

~~~~~~

ID: LCS 30 Seq. No.: 00083 A/S Pos.: 12 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 12
Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 15:00
Peak Area (A-s): 0.073 Peak Height (A): 0.146
Background Pk Area (A-s): 0.038 Background Pk Height (A): 0.057
Blank Corrected Pk Area (A-s): 0.073
Concentration (ug/L): 40.12

~~~~~~

ID: 94ZB19 S03 0 Seq. No.: 00084 A/S Pos.: 13 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 13
Replicate 1 Time: 15:03
Peak Area (A-s): 0.001 Peak Height (A): 0.005

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Background Pk Area (A-s): 0.046 Background Pk Height (A): 0.028
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.14

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ID: S03 10 Seq. No.: 00085 A/S Pos.: 14 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 14
Replicate 1 Time: 15:06
Peak Area (A-s): 0.014 Peak Height (A): 0.031
Background Pk Area (A-s): 0.051 Background Pk Height (A): 0.035
Blank Corrected Pk Area (A-s): 0.014
Concentration (ug/L): 7.63

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ID: S03 20 Seq. No.: 00086 A/S Pos.: 15 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 15
Replicate 1 Time: 15:08
Peak Area (A-s): 0.028 Peak Height (A): 0.056
Background Pk Area (A-s): 0.057 Background Pk Height (A): 0.044
Blank Corrected Pk Area (A-s): 0.027
Concentration (ug/L): 15.20

~~~~~~

ID: S03 30 Seq. No.: 00087 A/S Pos.: 16 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 16
Replicate 1 Time: 15:11
Peak Area (A-s): 0.039 Peak Height (A): 0.080
Background Pk Area (A-s): 0.062 Background Pk Height (A): 0.051
Blank Corrected Pk Area (A-s): 0.038
Concentration (ug/L): 21.24

~~~~~~

ID: S05 0 Seq. No.: 00088 A/S Pos.: 17 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 17
Replicate 1 Time: 15:14
Peak Area (A-s): -0.000 Peak Height (A): 0.003
Background Pk Area (A-s): 0.050 Background Pk Height (A): 0.027
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.47
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ID: S05 10 Seq. No.: 00089 A/S Pos.: 18 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 18
Replicate 1 Time: 15:17
Peak Area (A-s): 0.018 Peak Height (A): 0.033
Background Pk Area (A-s): 0.053 Background Pk Height (A): 0.036
Blank Corrected Pk Area (A-s): 0.017
Concentration (ug/L): 9.42

~~~~~~

ID: S05 20 Seq. No.: 00090 A/S Pos.: 19 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 19
Replicate 1 Time: 15:20

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Peak Area (A-s): 0.034 Peak Height (A): 0.067
Background Pk Area (A-s): 0.059 Background Pk Height (A): 0.049
Blank Corrected Pk Area (A-s): 0.033
Concentration (ug/L): 18.49

~~~~~~

ID: S05 30 Seq. No.: 00091 A/S Pos.: 20 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 20
Replicate 1 Time: 15:23
Peak Area (A-s): 0.050 Peak Height (A): 0.096
Background Pk Area (A-s): 0.062 Background Pk Height (A): 0.058
Blank Corrected Pk Area (A-s): 0.050
Concentration (ug/L): 27.49

~~~~~~

ID: S06 0 Seq. No.: 00092 A/S Pos.: 21 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 21
Replicate 1 Time: 15:25
Peak Area (A-s): 0.000 Peak Height (A): 0.004
Background Pk Area (A-s): 0.086 Background Pk Height (A): 0.046
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.21

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ID: S06 10 Seq. No.: 00093 A/S Pos.: 22 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 22
Replicate 1 Time: 15:28
Peak Area (A-s): 0.015 Peak Height (A): 0.038
Background Pk Area (A-s): 0.102 Background Pk Height (A): 0.057
Blank Corrected Pk Area (A-s): 0.015
Concentration (ug/L): 8.08

~~~~~~

ID: S06 20 Seq. No.: 00094 A/S Pos.: 23 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 23
Replicate 1 Time: 15:31
Peak Area (A-s): 0.034 Peak Height (A): 0.077
Background Pk Area (A-s): 0.107 Background Pk Height (A): 0.069
Blank Corrected Pk Area (A-s): 0.034

Concentration (ug/L): 18.65

~~~~~~

ID: S06 30 Seq. No.: 00095 A/S Pos.: 24 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 24
Replicate 1 Time: 15:34
Peak Area (A-s): 0.048 Peak Height (A): 0.109
Background Pk Area (A-s): 0.116 Background Pk Height (A): 0.079
Blank Corrected Pk Area (A-s): 0.047
Concentration (ug/L): 26.22

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ID: R07 0 Seq. No.: 00096 A/S Pos.: 25 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 25

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Replicate 1 Time: 15:37
Peak Area (A-s): 0.001 Peak Height (A): 0.005
Background Pk Area (A-s): 0.013 Background Pk Height (A): 0.009
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): -0.03

~~~~~~

ID: R07 10 Seq. No.: 00097 A/S Pos.: 26 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 26
Replicate 1 Time: 15:40
Peak Area (A-s): 0.018 Peak Height (A): 0.037
Background Pk Area (A-s): 0.020 Background Pk Height (A): 0.017
Blank Corrected Pk Area (A-s): 0.017
Concentration (ug/L): 9.63

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ID: R07 20 Seq. No.: 00098 A/S Pos.: 27 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 27
Replicate 1 Time: 15:43
Peak Area (A-s): 0.037 Peak Height (A): 0.073
Background Pk Area (A-s): 0.027 Background Pk Height (A): 0.030
Blank Corrected Pk Area (A-s): 0.036
Concentration (ug/L): 19.93

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ID: R07 30 Seq. No.: 00099 A/S Pos.: 28 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 28
Replicate 1 Time: 15:46
Peak Area (A-s): 0.054 Peak Height (A): 0.110
Background Pk Area (A-s): 0.034 Background Pk Height (A): 0.044
Blank Corrected Pk Area (A-s): 0.053
Concentration (ug/L): 29.35

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ID: AQC 0 Seq. No.: 00100 A/S Pos.: 29 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 29
Replicate 1 Time: 15:48
Peak Area (A-s): 0.042 Peak Height (A): 0.083
Background Pk Area (A-s): 0.028 Background Pk Height (A): 0.035

Blank Corrected Pk Area (A-s): 0.041
Concentration (ug/L): 22.80

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ID: AQC 10 Seq. No.: 00101 A/S Pos.: 30 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 30
Replicate 1 Time: 15:51
Peak Area (A-s): 0.059 Peak Height (A): 0.118
Background Pk Area (A-s): 0.033 Background Pk Height (A): 0.046
Blank Corrected Pk Area (A-s): 0.059
Concentration (ug/L): 32.49

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ID: AQC 20 Seq. No.: 00102 A/S Pos.: 31 Date: 09/28/94

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9-29-94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 31
Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 15:54
Peak Area (A-s): 0.078 Peak Height (A): 0.157
Background Pk Area (A-s): 0.041 Background Pk Height (A): 0.059
Blank Corrected Pk Area (A-s): 0.078
Concentration (ug/L): 42.82

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ID: AQC 30 Seq. No.: 00103 A/S Pos.: 32 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 32
Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 15:57
Peak Area (A-s): 0.092 Peak Height (A): 0.183
Background Pk Area (A-s): 0.047 Background Pk Height (A): 0.070
Blank Corrected Pk Area (A-s): 0.091
Concentration (ug/L): 50.22

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ID: BLK CUP Seq. No.: 00104 A/S Pos.: 33 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 33
Replicate 1 Time: 16:00
Peak Area (A-s): -0.000 Peak Height (A): 0.005
Background Pk Area (A-s): 0.014 Background Pk Height (A): 0.010
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.48

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ID: 94ZB19 S08 0 Seq. No.: 00105 A/S Pos.: 5 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 5
Replicate 1 Time: 16:03
Peak Area (A-s): 0.001 Peak Height (A): 0.005
Background Pk Area (A-s): 0.060 Background Pk Height (A): 0.035
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.25

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ID: S08 10 Seq. No.: 00106 A/S Pos.: 6 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 6

Replicate 1 Time: [illegible]
Peak Area (A-s): 0.017 Peak Height (A): 0.032
Background Pk Area (A-s): 0.064 Background Pk Height (A): 0.045
Blank Corrected Pk Area (A-s): 0.017
Concentration (ug/L): 9.24

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ID: S08 20 Seq. No.: 00107 A/S Pos.: 7 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 7
Replicate 1 Time: 16:09
Peak Area (A-s): 0.032 Peak Height (A): 0.058
Background Pk Area (A-s): 0.066 Background Pk Height (A): 0.051
Blank Corrected Pk Area (A-s): 0.032
Concentration (ug/L): 17.47

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ID: S08 30 Seq. No.: 00108 A/S Pos.: 8 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 8
Replicate 1 Time: 16:12
Peak Area (A-s): 0.046 Peak Height (A): 0.085
Background Pk Area (A-s): 0.072 Background Pk Height (A): 0.061
Blank Corrected Pk Area (A-s): 0.046
Concentration (ug/L): 25.25

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ID: AQC 0 Seq. No.: 00109 A/S Pos.: 9 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 9
Replicate 1 Time: 16:15
Peak Area (A-s): 0.041 Peak Height (A): 0.077
Background Pk Area (A-s): 0.029 Background Pk Height (A): 0.033
Blank Corrected Pk Area (A-s): 0.041
Concentration (ug/L): 22.40

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ID: AQC 10 Seq. No.: 00110 A/S Pos.: 10 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 10
Replicate 1 Time: 16:18
Peak Area (A-s): 0.058 Peak Height (A): 0.117
Background Pk Area (A-s): 0.034 Background Pk Height (A): 0.044
Blank Corrected Pk Area (A-s): 0.057
Concentration (ug/L): 31.60

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ID: AQC 20 Seq. No.: 00111 A/S Pos.: 11 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 11
Sample abs. is greater than that of the largest standard.
Replicate 1 Time: 16:21
Peak Area (A-s): 0.076 Peak Height (A): 0.152
Background Pk Area (A-s): 0.039 Background Pk Height (A): 0.057
Blank Corrected Pk Area (A-s): 0.075
Concentration (ug/L): 41.58

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ID: AQC 30 Seq. No.: 00112 A/S Pos.: 12 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 12

Sample abs. is greater than that of the largest standard.

Replicate 1 Time: 16:24

Peak Area (A-s): 0.090 Peak Height (A): 0.184

Background Pk Area (A-s): 0.046 Background Pk Height (A): 0.068

Blank Corrected Pk Area (A-s): 0.089

Concentration (ug/L): 49.07

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ID: BLANK CUP Seq. No.: 00113 A/S Pos.: 13 Date: 09/28/94

uL dispensed: 4 from 1, 3 from 36, 5 from 40, 20 from 13

Replicate 1 Time: 16:26

Peak Area (A-s): -0.001 Peak Height (A): 0.004

Background Pk Area (A-s): 0.014 Background Pk Height (A): 0.009

Blank Corrected Pk Area (A-s): -0.002

Concentration (ug/L): -0.78

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9-29-94
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Element	Instrument	QC Source
☐ Ag	☐ 5100 A3	☐ CLP-40
☐ As	☒ 5100 A6	☐ CLP-70
☐ Cd	☐ 5000 A4	☐ CLP-80
☐ Cr	☐ 5000 A5	☐ EPA-V-1
☐ Pb	☐	☒ CLPF-CAL-1
☐ Sb	☐	☐
☒ Se		☐
☐ Tl		☐

Analyst M. Knopp
Date 9-28-94
Lamp # N066-1218 1311
Energy 64
Expansion 1
Stock 4-21852
op. 7-7-94
ex. 6-30-95

☒ platform ☒ MSC
☐ wall ☐ MSA

Blank	Slope	AQC
~~0.62~~ 0.22	.00179	
	.00172	23.95
	.00167	23.77
	.00169	24.79
	.00162	25.43

Digestion QC

- DUP. DIFF = < 2U
  LIMIT = ± 2ug/L
- MATRIX SPK. %R = 106
  LIMIT = 100 ± 15%
- DIG. BLK = < 2U
  LIMIT = ± 2ug/L

Blank cup absorbance

- 0.000
- 0.001
- 0.002

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9-29-94

SF 940152
L. Leonard
9/28/94

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Report Of Analytical Results
September 27, 1994

Data File: TLLL0927.DAT
Data Collected: 09/27/94 At: 09:16:54 By: LL

==========

	Tl ug/L	Tl ug/L	
Blank Mean Conc.	0.00	0.00	
Standard 1 Mean Conc.	40.00	40.00	
Standard 2 Mean Conc.	30.00	30.00	
Standard 3 Mean Conc.	20.00	20.00	
Standard 4 Mean Conc.	10.00	10.00	
	r = .99913	r = .99994	
AQC 25 UG/L Mean Conc.	24.86	25.80	
Recovery	%R = 99.4	%R = 103.2	Limit = 100 ±10%
AS Position 40 Mean Conc.	0.14	0.47	
Recovery	2u	2u	Limit = ±2 µg/L
94ZB19S02SPKx2.5 JJ 9/28/94 Mean Conc.	20.62	----	Result not used, see 1:1 dil. below.
Recovery	101.%		
LCS Mean Conc.	7.62	----	Rerun below;
Recovery	105.%		
D.BL Mean Conc.	0.50	----	
Recovery	103.%		2u Limit = ±2 µg/L
S02SPKX2 Mean Conc.	23.40	----	Adj. con = 46.8 Sp. conc = 50ppb
Recovery	96.0%		%R = 93.6% Limit = 100±15%
LCSx2 Mean Conc.	4.77	----	Adj. conc = 9.54 True val = 10ppb
Recovery	106.%		%R = 95.4% Limit = 100±20%
AQC 25 UG/L Mean Conc.	23.05	----	
Recovery	%R = 92.2		Limit = 100 ± 10%
AS Position 40 Mean Conc.	0.72	----	
Recovery			2u Limit = ±2 µg/L

Blank Corrected Pk Area [illegible]
Concentration (ug/L): [illegible]

Check sample is out of range 22.50 - 27.50

SF 940152
L. Lorora

Element File: TLMSC.GEL	Element: Tl	Wavelength: 276.8
Date: 09/27/94	Time: 09:14	Slit: 0.70
Data File: TLLL0927.DAT	ID/Wt File: TLLL70.IDW	Lamp Current: 18
Technique: HGA	Calib. Type: Linear	Energy: 51

Remark 1: NICKEL NITRATE MODIFIER AT 36
Remark 2: CITRIC ACID MODOFIER AT 38

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Tl ID: Blank Seq. No.: 00001 A/S Pos.: 1 Date: 09/27/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 1

Replicate 1	Time: 09:16
Peak Area (A-s): -0.000	Peak Height (A): 0.008
Background Pk Area (A-s): 0.027	Background Pk Height (A): 0.118

Blank Corrected Pk Area [illegible]
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Blank Corrected Pk Area (A-s): ...
Concentration (ug/L): -0.16

Auto-zero performed.

~~~~~~

Tl ID: Standard 1 Seq. No.: 00002 A/S Pos.: 2 Date: 09/27/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 2
Replicate 1 Time: 09:19
Peak Area (A-s): 0.221 Peak Height (A): 0.165
Background Pk Area (A-s): 0.224 Background Pk Height (A): 0.149
Blank Corrected Pk Area (A-s): 0.222
Concentration (ug/L): 42.35

Standard number 1 applied. [40.00]
Correlation coefficient: 1.00000 Slope: 0.0055 Int: -0.000

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Tl ID: Standard 2 Seq. No.: 00003 A/S Pos.: 3 Date: 09/27/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 3
Replicate 1 Time: 09:21
Peak Area (A-s): 0.158 Peak Height (A): 0.126
Background Pk Area (A-s): 0.171 Background Pk Height (A): 0.174
Blank Corrected Pk Area (A-s): 0.158
Concentration (ug/L): 28.54

Standard number 2 applied. [30.00]
Correlation coefficient: 0.99922 Slope: 0.0055 Int: -0.001

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Tl ID: Standard 3 Seq. No.: 00004 A/S Pos.: 4 Date: 09/27/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 4
Replicate 1 Time: 09:24
Peak Area (A-s): 0.106 Peak Height (A): 0.080
Background Pk Area (A-s): 0.116 Background Pk Height (A): 0.147
Blank Corrected Pk Area (A-s): 0.106
Concentration (ug/L): 19.57

Standard number 3 applied. [20.00]
Correlation coefficient: 0.99916 Slope: 0.0055 Int: -0.002

T. Teorao
9/28/94

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Tl ID: Standard 4 Seq. No.: 00005 A/S Pos.: 5 Date: 09/27/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 5
Replicate 1 Time: 09:26
Peak Area (A-s): 0.056 Peak Height (A): 0.048
Background Pk Area (A-s): 0.075 Background Pk Height (A): 0.153
Blank Corrected Pk Area (A-s): 0.056
Concentration (ug/L): 10.59

Standard number 4 applied. [10.00]
Correlation coefficient: 0.99913 Slope: 0.0055 Int: -0.001

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Tl ID: AQC 25 UG/L Seq. No.: 00006 A/S Pos.: 37 Date: 09/27/9
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uL dispensed: 5 from 0, 12 from 36, 6 from 38, 2[illegible]
Replicate 1 Time: 09:28
Peak Area (A-s): 0.134 Peak Height (A): 0.104
Background Pk Area (A-s): 0.139 Background Pk Height (A): 0.129
Blank Corrected Pk Area (A-s): 0.135
Concentration (ug/L): 24.86

Check sample is within range 22.50 - 27.50

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Tl ID: AS Position 40 Seq. No.: 00007 A/S Pos.: 40 Date: 09/27/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 40
Replicate 1 Time: 09:31
Peak Area (A-s): -0.000 Peak Height (A): 0.010
Background Pk Area (A-s): 0.025 Background Pk Height (A): 0.086
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.14

Check sample is within range -2.00 - 2.00

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Tl ID: 94ZB19S02SPKx2.5 Seq. No.: 00008 A/S Pos.: 6 Date: 09/27/9
ZZ 9/28/94

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 6
Replicate 1 Time: 09:33
Peak Area (A-s): 0.111 Peak Height (A): 0.117
Background Pk Area (A-s): 0.127 Background Pk Height (A): 0.112
Blank Corrected Pk Area (A-s): 0.112
Concentration (ug/L): 20.62

~~~~~~

Tl ID: 94ZB19S02SPKx2.5 Seq. No.: 00009 A/S Pos.: 6 Date: 09/27/9
ZZ 9/28/94

uL dispensed: 12 from 36, 6 from 38, 5 from 39, 20 from 6
Replicate 1 Time: 09:36
Peak Area (A-s): 0.222 Peak Height (A): 0.215
Background Pk Area (A-s): 0.231 Background Pk Height (A): 0.218
Blank Corrected Pk Area (A-s): 0.222
Concentration (ug/L): 40.85

Recovery is 101.2%

Z. Kozova
9/28/94

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Tl ID: LCS Seq. No.: 00010 A/S Pos.: 7 Date: 09/27/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 7
Replicate 1 Time: 09:38
Peak Area (A-s): 0.040 Peak Height (A): 0.037
Background Pk Area (A-s): 0.044 Background Pk Height (A): 0.048
Blank Corrected Pk Area (A-s): 0.041
Concentration (ug/L): 7.62

~~~~~~

Tl ID: LCS Seq. No.: 00011 A/S Pos.: 7 Date: 09/27/9

uL dispensed: 12 from 36, 6 from 38, 5 from 39, 20 from 7
Replicate 1 Time: 09:41
Peak Area (A-s): 0.155
~~~~~~

[illegible] ak Hei[illegible]
Background Pk Area (A-s): 0.143 Background Pk Height (A): 0.105
Blank Corrected Pk Area (A-s): 0.156
Concentration (ug/L): 28.66

Recovery is 105.2%

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Tl ID: D.BL Seq. No.: 00012 A/S Pos.: 8 Date: 09/27/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 8
Replicate 1 Time: 09:43
Peak Area (A-s): 0.002 Peak Height (A): 0.011
Background Pk Area (A-s): 0.011 Background Pk Height (A): 0.056
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.50

~~~~~~

Tl ID: D.BL Seq. No.: 00013 A/S Pos.: 8 Date: 09/27/9

uL dispensed: 12 from 36, 6 from 38, 5 from 39, 20 from 8
Replicate 1 Time: 09:46
Peak Area (A-s): 0.114 Peak Height (A): 0.095
Background Pk Area (A-s): 0.112 Background Pk Height (A): 0.081
Blank Corrected Pk Area (A-s): 0.115
Concentration (ug/L): 21.17

Recovery is 103.3%

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Tl ID: S02SPKX2 Seq. No.: 00014 A/S Pos.: 9 Date: 09/27/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 9
Replicate 1 Time: 09:48
Peak Area (A-s): 0.127 Peak Height (A): 0.100
Background Pk Area (A-s): 0.115 Background Pk Height (A): 0.086
Blank Corrected Pk Area (A-s): 0.127
Concentration (ug/L): 23.40

~~~~~~

Tl ID: S02SPKX2 Seq. No.: 00015 A/S Pos.: 9 Date: 09/27/9

uL dispensed: 12 from 36, 6 from 38, 5 from 39, 20 from 9
Replicate 1 Time: 09:50

Peak Area (A-s): 0.231 Peak Height (A): 0.179
Background Pk Area (A-s): 0.209 Background Pk Height (A): 0.160
Blank Corrected Pk Area (A-s): 0.232
Concentration (ug/L): 42.61

L. Leonova
9/28/94

Recovery is 96.0%

~~~~~~

Tl ID: LCSx2 Seq. No.: 00016 A/S Pos.: 10 Date: 09/27/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 10
Replicate 1 Time: 09:53
Peak Area (A-s): 0.025 Peak Height (A): 0.024
Background Pk Area (A-s): 0.030 Background Pk Height (A): 0.051
Blank Corrected Pk Area (A-s): 0.025
Concentration (ug/L): [illegible]
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Concentration (ug/

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Tl ID: LCSx2 Seq. No.: 00017 A/S Pos.: 10 Date: 09/27/9

uL dispensed: 12 from 36, 6 from 38, 5 from 39, 20 from 10

Replicate 1 Time: 09:55
Peak Area (A-s): 0.141 Peak Height (A): 0.114
Background Pk Area (A-s): 0.134 Background Pk Height (A): 0.103
Blank Corrected Pk Area (A-s): 0.142
Concentration (ug/L): 26.06

Recovery is 106.4%

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Tl ID: AQC 25 UG/L Seq. No.: 00018 A/S Pos.: 37 Date: 09/27/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 37
Replicate 1 Time: 09:58
Peak Area (A-s): 0.125 Peak Height (A): 0.104
Background Pk Area (A-s): 0.120 Background Pk Height (A): 0.089
Blank Corrected Pk Area (A-s): 0.125
Concentration (ug/L): 23.05

Check sample is within range 22.50 - 27.50

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Tl ID: AS Position 40 Seq. No.: 00019 A/S Pos.: 40 Date: 09/27/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 40
Replicate 1 Time: 10:00
Peak Area (A-s): 0.003 Peak Height (A): 0.009
Background Pk Area (A-s): 0.015 Background Pk Height (A): 0.034
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.72

Check sample is within range -2.00 - 2.00

~~~~~~

Tl ID: AS Position 11 Seq. No.: 00020 A/S Pos.: 11 Date: 09/27/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 11
Replicate 1 Time: 10:03
Peak Area (A-s): 0.001 Peak Height (A): 0.009

Data are not used L. Leonova
9/28/94

Background Pk Area (A-s): 0.025 Background Pk Height (A): 0.102
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.33

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Element	Instrument	QC Source
[ ] Ag	[X] 5100 A3	[ ] CLP-40
[ ] As	[ ] 5100 A6	[ ] CLP-70
[ ] Cd	[ ] 5000 A4	[ ] CLP-80
[ ] Cr	[ ] 5000 A5	[ ] EPA-V-1
[ ] Pb	[ ]	[X] CLPF-CAL-1
[ ] Sb	[ ]	[ ]
[ ] Se		[ ]
[X] Tl		[ ]

Analyst L. Leonova

Date 9-27-94

Lamp # 384272

Energy 51

Expansion 1

Stock 4-213 TL exp 7-15-94
exp 7-15-95

[X] platform [X] MSC

[ ] wall [ ] MSA

Blank	Slope	AQC	Digestion QC
0.14	0.0055	24.86	① Dig. blk 2u Limit = ±2 µg/L
0.72		23.05	② LCS 9.54 Tr. val = 10ppb % R = 95.4% Limit = 100 ± 20%
			③ SO2 spk % R = 93.6% Sp. conc = 50ppb Limit = 100 ± 15%

Blank cup absorbance
−0.16

L. Leonova
9/28/94

8F 940152
9/28/94

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Report Of Analytical Results
September 27, 1994

Data File: TLLL0926.DAT
Data Collected: 09/26/94 At: 13:26:10 By: ~~BAI~~ L. Leonova

==========

	Tl ug/L	Tl ug/L	
Blank Mean Conc.	0.00	0.00	
Standard 1 Mean Conc.	40.00	40.00	r=.99972 / r=.99895
Standard 2 Mean Conc.	30.00	30.00	
Standard 3 Mean Conc.	20.00	20.00	
Standard 4 Mean Conc.	10.00	10.00	
AQC 25 UG/L Mean Conc.	24.44	24.24	Limit = 100 ± 10%
Recovery	%R = 97.8	%R = 97	
AS Position 40 Mean Conc.	0.34	1.28	Limit = ± 2 µg/L
Recovery	2u	2u	
94ZB19S01 Mean Conc.	0.95	----	
Recovery	111.%		2u
94ZB19S02 Mean Conc.	0.26	----	
Recovery	116.%		2u
94ZB19S03 Mean Conc.	1.36	----	
Recovery	107.%		2u
94ZB19S05 Mean Conc.	-0.03	----	
Recovery	125.%		2u
94ZB19S06 Mean Conc.	0.20	----	
Recovery	117.%		2u
AQC 25 UG/L Mean Conc.	23.42	----	
Recovery	%R = 93.7		Limit = 100 ± 10%
AS Position 40 Mean Conc.	1.32	----	
Recovery	2u		Limit = ± 2 µg/L

Results are acceptable, because they are less than IDL.

Results are acceptable, because they are less, than IDL.

L. Lorova 9/28/94

	Tl ug/L	Tl ug/L		
94ZB19R07				
Mean Conc.	1.23	1.30	2u	
Recovery	102.%	98.1%		
94ZB19S08				
Mean Conc.	1.48	0.64	2u	
Recovery	98.7%	102.%		
S02DUP				
Mean Conc.	0.13	1.59	2u	Dupl. diff=0.
Recovery	107.%	90.8%		
D.BL				
Mean Conc.	1.01	1.40	RERUN	
Recovery	79.8%	83.4%		
PES				
Mean Conc.	0.86	-1.30	2u	
Recovery	83.0%	101.%		
AQC 25 UG/L				
Mean Conc.	20.74	24.70		
Recovery		Y.R = 98.8		Limit = 100 ± 10%
AS Position 40				
Mean Conc.	0.94	0.39		
Recovery	Data not used. I.I 9/28/94	2u		Limit = ±2 µg/L
LCS				
Mean Conc.		4.69		
Recovery		66.5%		
S02SPKx2				
Mean Conc.	----	15.20		
Recovery		266.%		
D.BL				
Mean Conc.	----	1.70		
Recovery		194.%		
LCS				
Mean Conc.	----	13.08		
Recovery				
AQC 25 UG/L				
Mean Conc.	----	17.73		
Recovery		Data not used. I.I 9/28/94		

Analyst: L. Lorova Supervisor: _____

SF 940152
L. Leonard
9/28/94

Element File: TLMSC.GEL Element: Tl Wavelength: 276.8
Date: 09/26/94 Time: 13:23 Slit: 0.70
Data File: TLLL0926.DAT ID/Wt File: TLLL70.IDW Lamp Current: 18
Technique: HGA Calib. Type: Linear Energy: 51
Remark 1: NICKEL NITRATE MODIFIER AT 36
Remark 2: CITRIC ACID MODOFIER AT 38

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Tl ID: Blank Seq. No.: 00001 A/S Pos.: 1 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 1
Replicate 1 Time: 13:26
Peak Area (A-s): -0.002 Peak Height (A): 0.011
Background Pk Area (A-s): 0.030 Background Pk Height (A): 0.129
Blank Corrected Pk Area (A-s): -0.004
Concentration (ug/L): -1.61

Auto-zero performed.

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Tl ID: Standard 1 Seq. No.: 00002 A/S Pos.: 2 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 2
Replicate 1 Time: 13:28
Peak Area (A-s): 0.125 Peak Height (A): 0.110
Background Pk Area (A-s): 0.137 Background Pk Height (A): 0.133
Blank Corrected Pk Area (A-s): 0.127
Concentration (ug/L): 41.61

Standard number 1 applied. [40.00]
Correlation coefficient: 1.00000 Slope: 0.0032 Int: -0.000

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Tl ID: Standard 2 Seq. No.: 00003 A/S Pos.: 3 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 3
Replicate 1 Time: 13:30
Peak Area (A-s): 0.095 Peak Height (A): 0.088
Background Pk Area (A-s): 0.105 Background Pk Height (A): 0.128
Blank Corrected Pk Area (A-s): 0.097
Concentration (ug/L): 30.47

Standard number 2 applied. [30.00]
Correlation coefficient: 0.99992 Slope: 0.0032 Int: 0.000

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Tl ID: Standard 3 Seq. No.: 00004 A/S Pos.: 4 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 4
Replicate 1 Time: 13:33
Peak Area (A-s): 0.061 Peak Height (A): 0.056
Background Pk Area (A-s): 0.079 Background Pk Height (A): 0.131
Blank Corrected Pk Area (A-s): 0.063
Concentration (ug/L): 19.67

Standard number 3 applied. [20.00]

Correlation coefficient: [illegible]   Slope: [illegible].0032   Int: -0.000

L. Lecava
9.28.94

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Tl   ID: Standard 4   Seq. No.: 00005   A/S Pos.: 5   Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 5
Replicate 1   Time: 13:35
Peak Area (A-s): 0.032   Peak Height (A): 0.034
Background Pk Area (A-s): 0.062   Background Pk Height (A): 0.129
Blank Corrected Pk Area (A-s): 0.034
Concentration (ug/L): 10.70

Standard number 4 applied. [10.00]
Correlation coefficient: 0.99972   Slope: 0.0032   Int: 0.001

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Tl   ID: AQC 25 UG/L   Seq. No.: 00006   A/S Pos.: 37   Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 37
Replicate 1   Time: 13:38
Peak Area (A-s): 0.076   Peak Height (A): 0.078
Background Pk Area (A-s): 0.094   Background Pk Height (A): 0.111
Blank Corrected Pk Area (A-s): 0.078
Concentration (ug/L): 24.44

Check sample is within range 22.50 - 27.50

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Tl   ID: AS Position 40   Seq. No.: 00007   A/S Pos.: 40   Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 40
Replicate 1   Time: 13:40
Peak Area (A-s): -0.000   Peak Height (A): 0.008
Background Pk Area (A-s): 0.032   Background Pk Height (A): 0.120
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.34

Check sample is within range -2.00 - 2.00

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Tl   ID: 94ZB19S01   Seq. No.: 00008   A/S Pos.: 6   Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 6
Replicate 1   Time: 13:43
Peak Area (A-s): 0.002   Peak Height (A): 0.009
Background Pk Area (A-s): 0.064   Background Pk Height (A): 0.080
Blank Corrected Pk Area (A-s): 0.004
Concentration (ug/L): 0.95

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Tl   ID: 94ZB19S01   Seq. No.: 00009   A/S Pos.: 6   Date: 09/26/9

uL dispensed: 12 from 36, 6 from 38, 5 from 39, 20 from 6
Replicate 1   Time: 13:45
Peak Area (A-s): 0.072   Peak Height (A): 0.080
Background Pk Area (A-s): 0.129   Background Pk Height (A): 0.116
Blank Corrected Pk Area (A-s): 0.074
Concentration (ug/L): 23.07
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Recovery is 110.6%

L. Tenova
9.28.94

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Tl ID: 94ZB19S02 Seq. No.: 00010 A/S Pos.: 7 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 7
Replicate 1 Time: 13:47
Peak Area (A-s): -0.001 Peak Height (A): 0.012
Background Pk Area (A-s): 0.059 Background Pk Height (A): 0.116
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 0.26

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Tl ID: 94ZB19S02 Seq. No.: 00011 A/S Pos.: 7 Date: 09/26/9

uL dispensed: 12 from 36, 6 from 38, 5 from 39, 20 from 7
Replicate 1 Time: 13:50
Peak Area (A-s): 0.073 Peak Height (A): 0.074
Background Pk Area (A-s): 0.120 Background Pk Height (A): 0.117
Blank Corrected Pk Area (A-s): 0.075
Concentration (ug/L): 23.52

Recovery is 116.3%

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Tl ID: 94ZB19S03 Seq. No.: 00012 A/S Pos.: 8 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 8
Replicate 1 Time: 13:52
Peak Area (A-s): 0.003 Peak Height (A): 0.010
Background Pk Area (A-s): 0.036 Background Pk Height (A): 0.109
Blank Corrected Pk Area (A-s): 0.005
Concentration (ug/L): 1.36

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Tl ID: 94ZB19S03 Seq. No.: 00013 A/S Pos.: 8 Date: 09/26/9

uL dispensed: 12 from 36, 6 from 38, 5 from 39, 20 from 8
Replicate 1 Time: 13:55
Peak Area (A-s): 0.071 Peak Height (A): 0.078
Background Pk Area (A-s): 0.102 Background Pk Height (A): 0.102
Blank Corrected Pk Area (A-s): 0.073
Concentration (ug/L): 22.82

Recovery is 107.3%

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Tl ID: 94ZB19S05 Seq. No.: 00014 A/S Pos.: 9 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 9
Replicate 1 Time: 13:57
Peak Area (A-s): -0.001 Peak Height (A): 0.009
Background Pk Area (A-s): 0.037 Background Pk Height (A): 0.086
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): -0.03

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Tl ID: 94ZB19S05 Seq. No.: 00015 A/S Pos.: 9 Date: 09/26/9

uL dispensed: 12 from 36, 6 from 38, 5 from 39, 20 from 9
Replicate 1 Time: 14:00

9.28.94

Peak Area (A-s): 0.078 Peak Height (A): 0.075
Background Pk Area (A-s): 0.115 Background Pk Height (A): 0.103
Blank Corrected Pk Area (A-s): 0.080
Concentration (ug/L): 24.98

Recovery is 125.0%

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Tl ID: 94ZB19S06 Seq. No.: 00016 A/S Pos.: 10 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 10
Replicate 1 Time: 14:02
Peak Area (A-s): -0.001 Peak Height (A): 0.011
Background Pk Area (A-s): 0.113 Background Pk Height (A): 0.225
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.20

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Tl ID: 94ZB19S06 Seq. No.: 00017 A/S Pos.: 10 Date: 09/26/9

uL dispensed: 12 from 36, 6 from 38, 5 from 39, 20 from 10
Replicate 1 Time: 14:05
Peak Area (A-s): 0.074 Peak Height (A): 0.079
Background Pk Area (A-s): 0.171 Background Pk Height (A): 0.237
Blank Corrected Pk Area (A-s): 0.076
Concentration (ug/L): 23.60

Recovery is 117.0%

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Tl ID: AQC 25 UG/L Seq. No.: 00018 A/S Pos.: 37 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 37
Replicate 1 Time: 14:07
Peak Area (A-s): 0.073 Peak Height (A): 0.071
Background Pk Area (A-s): 0.088 Background Pk Height (A): 0.101
Blank Corrected Pk Area (A-s): 0.075
Concentration (ug/L): 23.42

Check sample is within range 22.50 - 27.50

~~~~~~

Tl ID: AS Position 40 Seq. No.: 00019 A/S Pos.: 40 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 40
Replicate 1 Time: 14:10
Peak Area (A-s): 0.003 Peak Height (A): 0.009
Background Pk Area (A-s): 0.024 Background Pk Height (A): 0.103
Blank Corrected Pk Area (A-s): 0.005
Concentration (ug/L): 1.32

Check sample is within range -2.00 - 2.00

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Tl ID: 94ZB19R07 Seq. No.: 00020 A/S Pos.: 11 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 11
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Peak Area (A-s): 0.003 Peak Height (A): 0.009

Background Pk Area (A-s): 0.018 Background Pk Height (A): 0.092
Blank Corrected Pk Area (A-s): 0.005
Concentration (ug/L): 1.23

~~~~~~

Tl ID: 94ZB19R07 Seq. No.: 00021 A/S Pos.: 11 Date: 09/26/9

uL dispensed: 12 from 36, 6 from 38, 5 from 39, 20 from 11
Replicate 1 Time: 14:14
Peak Area (A-s): 0.067 Peak Height (A): 0.067
Background Pk Area (A-s): 0.079 Background Pk Height (A): 0.089
Blank Corrected Pk Area (A-s): 0.069
Concentration (ug/L): 21.56

Recovery is 101.6%

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Tl ID: 94ZB19S08 Seq. No.: 00022 A/S Pos.: 12 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 12
Replicate 1 Time: 14:17
Peak Area (A-s): 0.003 Peak Height (A): 0.010
Background Pk Area (A-s): 0.056 Background Pk Height (A): 0.109
Blank Corrected Pk Area (A-s): 0.005
Concentration (ug/L): 1.48

~~~~~~

Tl ID: 94ZB19S08 Seq. No.: 00023 A/S Pos.: 12 Date: 09/26/9

uL dispensed: 12 from 36, 6 from 38, 5 from 39, 20 from 12
Replicate 1 Time: 14:19
Peak Area (A-s): 0.066 Peak Height (A): 0.071
Background Pk Area (A-s): 0.114 Background Pk Height (A): 0.102
Blank Corrected Pk Area (A-s): 0.068
Concentration (ug/L): 21.21

Recovery is 98.7% L. Leonard 9/28/94

~~~~~~

Tl ID: S02DUP Seq. No.: 00024 A/S Pos.: 13 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 13
Replicate 1 Time: 14:22
Peak Area (A-s): -0.001 Peak Height (A): 0.008
Background Pk Area (A-s): 0.060 Background Pk Height (A): 0.076
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 0.13

~~~~~~

Tl ID: S02DUP Seq. No.: 00025 A/S Pos.: 13 Date: 09/26/9

uL dispensed: 12 from 36, 6 from 38, 5 from 39, 20 from 13
Replicate 1 Time: 14:24
Peak Area (A-s): 0.067 Peak Height (A): 0.075
Background Pk Area (A-s): 0.112 Background Pk Height (A): 0.090
Blank Corrected Pk Area (A-s): 0.069
Concentration (ug/L): 21.55
~~~~~~

Recovery is 107.1%

Data are not used, AQC - out. L. Leonova 9/28/97

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Tl   ID: D.BL   Seq. No.: 00026   A/S Pos.: 14   Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 14
Replicate 1   Time: 14:27
Peak Area (A-s): 0.002   Peak Height (A): 0.009
Background Pk Area (A-s): 0.059   Background Pk Height (A): 0.126
Blank Corrected Pk Area (A-s): 0.004
Concentration (ug/L): 1.01

~~~~~~

Tl   ID: D.BL   Seq. No.: 00027   A/S Pos.: 14   Date: 09/26/9

uL dispensed: 12 from 36, 6 from 38, 5 from 39, 20 from 14
Replicate 1   Time: 14:29
Peak Area (A-s): 0.053   Peak Height (A): 0.058
Background Pk Area (A-s): 0.108   Background Pk Height (A): 0.125
Blank Corrected Pk Area (A-s): 0.055
Concentration (ug/L): 16.97

Recovery is 79.8%

~~~~~~

Tl   ID: PES   Seq. No.: 00028   A/S Pos.: 15   Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 15
Replicate 1   Time: 14:32
Peak Area (A-s): 0.001   Peak Height (A): 0.011
Background Pk Area (A-s): 0.030   Background Pk Height (A): 0.090
Blank Corrected Pk Area (A-s): 0.004
Concentration (ug/L): 0.86

~~~~~~

Tl   ID: PES   Seq. No.: 00029   A/S Pos.: 15   Date: 09/26/9

uL dispensed: 12 from 36, 6 from 38, 5 from 39, 20 from 15
Replicate 1   Time: 14:34
Peak Area (A-s): 0.054   Peak Height (A): 0.058
Background Pk Area (A-s): 0.134   Background Pk Height (A): 0.111
Blank Corrected Pk Area (A-s): 0.056
Concentration (ug/L): 17.45

Recovery is 83.0%

~~~~~~

Tl   ID: AQC 25 UG/L   Seq. No.: 00030   A/S Pos.: 37   Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 37
Replicate 1   Time: 14:36
Peak Area (A-s): 0.065   Peak Height (A): 0.064
Background Pk Area (A-s): 0.076   Background Pk Height (A): 0.098
Blank Corrected Pk Area (A-s): 0.067
Concentration (ug/L): 20.74

Check sample is out of range 22.50 - 27.50
~~~~~~

Tl ID: [illegible] Seq. No.: 0003[illegible] A/S Pos.: 40 Date: 09/26/9

L. Leonova
9/28/94

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 40
Replicate 1 Time: 14:39
Peak Area (A-s): 0.002 Peak Height (A): 0.008
Background Pk Area (A-s): 0.020 Background Pk Height (A): 0.069
Blank Corrected Pk Area (A-s): 0.004
Concentration (ug/L): 0.94

Check sample is within range -2.00 - 2.00

~~~~~~

Tl ID: Blank Seq. No.: 00032 A/S Pos.: 1 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 1
Replicate 1 Time: 14:41
Peak Area (A-s): 0.001 Peak Height (A): 0.008
Background Pk Area (A-s): 0.025 Background Pk Height (A): 0.089
Blank Corrected Pk Area (A-s): 0.003
Concentration (ug/L): 0.81

Auto-zero performed.

~~~~~~

Tl ID: Standard 1 Seq. No.: 00033 A/S Pos.: 2 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 2
Replicate 1 Time: 14:44
Peak Area (A-s): 0.094 Peak Height (A): 0.089
Background Pk Area (A-s): 0.108 Background Pk Height (A): 0.096
Blank Corrected Pk Area (A-s): 0.092
Concentration (ug/L): 28.87

Standard number 1 applied. [40.00]
Correlation coefficient: 1.00000 Slope: 0.0023 Int: 0.000

~~~~~~

Tl ID: Standard 2 Seq. No.: 00034 A/S Pos.: 3 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 3
Replicate 1 Time: 14:46
Peak Area (A-s): 0.069 Peak Height (A): 0.069
Background Pk Area (A-s): 0.086 Background Pk Height (A): 0.088
Blank Corrected Pk Area (A-s): 0.068
Concentration (ug/L): 29.28

Standard number 2 applied. [30.00]
Correlation coefficient: 0.99981 Slope: 0.0023 Int: -0.000

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Tl ID: Standard 3 Seq. No.: 00035 A/S Pos.: 4 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 4
Replicate 1 Time: 14:49
Peak Area (A-s): 0.043 Peak Height (A): 0.045
Background Pk Area (A-s): 0.064 Background Pk Height (A): 0.087
Blank Corrected Pk Area (A-s): 0.042
Concentration (ug/L): 18.44

Standard number 3 applied. [20.00]
Correlation coefficient: 0.99880 Slope: 0.0023 Int: -0.001

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Tl ID: Standard 4 Seq. No.: 00036 A/S Pos.: 5 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 5
Replicate 1 Time: 14:51
Peak Area (A-s): 0.023 Peak Height (A): 0.025
Background Pk Area (A-s): 0.040 Background Pk Height (A): 0.083
Blank Corrected Pk Area (A-s): 0.021
Concentration (ug/L): 9.88

Standard number 4 applied. [10.00]
Correlation coefficient: 0.99895 Slope: 0.0023 Int: -0.001

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Tl ID: AQC 25 UG/L Seq. No.: 00037 A/S Pos.: 37 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 37
Replicate 1 Time: 14:53
Peak Area (A-s): 0.056 Peak Height (A): 0.055
Background Pk Area (A-s): 0.071 Background Pk Height (A): 0.078
Blank Corrected Pk Area (A-s): 0.055
Concentration (ug/L): 24.24

Check sample is within range 22.50 - 27.50

~~~~~~

Tl ID: AS Position 40 Seq. No.: 00038 A/S Pos.: 40 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 40
Replicate 1 Time: 14:56
Peak Area (A-s): 0.003 Peak Height (A): 0.009
Background Pk Area (A-s): 0.017 Background Pk Height (A): 0.049
Blank Corrected Pk Area (A-s): 0.001
Concentration (ug/L): 1.28

Check sample is within range -2.00 - 2.00

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Tl ID: 94ZB19R07 Seq. No.: 00039 A/S Pos.: 11 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 11
Replicate 1 Time: 14:58
Peak Area (A-s): 0.003 Peak Height (A): 0.011
Background Pk Area (A-s): 0.019 Background Pk Height (A): 0.057
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 1.30

~~~~~~

Tl ID: 94ZB19R07 Seq. No.: 00040 A/S Pos.: 11 Date: 09/26/9

uL dispensed: 12 from 36, 6 from 38, 5 from 39, 20 from 11
Replicate 1 Time: 15:01
Peak Area (A-s): 0.048 Peak Height (A): 0.049
Background Pk Area (A-s): 0.062 Background Pk Height (A): 0.053
Blank Corrected Pk Area (A-s): 0.047
Concentration (ug/L): 20.91
~~~~~~

Recovery is 98.1%

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Tl ID: 94ZB19S08 Seq. No.: 00041 A/S Pos.: 12 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 12
Replicate 1 Time: 15:03
Peak Area (A-s): 0.001 Peak Height (A): 0.008
Background Pk Area (A-s): 0.052 Background Pk Height (A): 0.069
Blank Corrected Pk Area (A-s): -0.000
Concentration (ug/L): 0.64

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Tl ID: 94ZB19S08 Seq. No.: 00042 A/S Pos.: 12 Date: 09/26/9

uL dispensed: 12 from 36, 6 from 38, 5 from 39, 20 from 12
Replicate 1 Time: 15:06
Peak Area (A-s): 0.048 Peak Height (A): 0.045
Background Pk Area (A-s): 0.096 Background Pk Height (A): 0.067
Blank Corrected Pk Area (A-s): 0.047
Concentration (ug/L): 21.09

Recovery is 102.2%

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Tl ID: S02DUP Seq. No.: 00043 A/S Pos.: 13 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 13
Replicate 1 Time: 15:08
Peak Area (A-s): 0.003 Peak Height (A): 0.010
Background Pk Area (A-s): 0.047 Background Pk Height (A): 0.079
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 1.59

~~~~~~

Tl ID: S02DUP Seq. No.: 00044 A/S Pos.: 13 Date: 09/26/9

uL dispensed: 12 from 36, 6 from 38, 5 from 39, 20 from 13
Replicate 1 Time: 15:10
Peak Area (A-s): 0.045 Peak Height (A): 0.045
Background Pk Area (A-s): 0.089 Background Pk Height (A): 0.068
Blank Corrected Pk Area (A-s): 0.044
Concentration (ug/L): 19.76

Recovery is 90.8%

~~~~~~

Tl ID: D.BL Seq. No.: 00045 A/S Pos.: 14 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 14
Replicate 1 Time: 15:13
Peak Area (A-s): 0.003 Peak Height (A): 0.010
Background Pk Area (A-s): 0.089 Background Pk Height (A): 0.097
Blank Corrected Pk Area (A-s): 0.002
Concentration (ug/L): 1.40

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Tl ID: D.B. Seq. No.: 00046 A/S Pos.: . Date: 09/26/9

uL dispensed: 12 from 36, 6 from 38, 5 from 39, 20 from 14
Replicate 1 Time: 15:15

Peak Area (A-s): 0.042 Peak Height (A): 0.036
Background Pk Area (A-s): 0.098 Background Pk Height (A): 0.093
Blank Corrected Pk Area (A-s): 0.040
Concentration (ug/L): 18.08

Recovery is 83.4%

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Tl ID: PES Seq. No.: 00047 A/S Pos.: 15 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 15
Replicate 1 Time: 15:18
Peak Area (A-s): -0.003 Peak Height (A): 0.009
Background Pk Area (A-s): 0.038 Background Pk Height (A): 0.121
Blank Corrected Pk Area (A-s): -0.005
Concentration (ug/L): -1.30

~~~~~~

Tl ID: PES Seq. No.: 00048 A/S Pos.: 15 Date: 09/26/9

uL dispensed: 12 from 36, 6 from 38, 5 from 39, 20 from 15
Replicate 1 Time: 15:20
Peak Area (A-s): 0.043 Peak Height (A): 0.027
Background Pk Area (A-s): 0.073 Background Pk Height (A): 0.093
Blank Corrected Pk Area (A-s): 0.042
Concentration (ug/L): 18.86

Recovery is 100.8%

~~~~~~

Tl ID: AQC 25 UG/L Seq. No.: 00049 A/S Pos.: 37 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 37
Replicate 1 Time: 15:23
Peak Area (A-s): 0.057 Peak Height (A): 0.037
Background Pk Area (A-s): 0.083 Background Pk Height (A): 0.107
Blank Corrected Pk Area (A-s): 0.056
Concentration (ug/L): 24.70

Check sample is within range 22.50 - 27.50

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Tl ID: AS Position 40 Seq. No.: 00050 A/S Pos.: 40 Date: 09/26/9

uL dispensed: 5 from 0, 12 from 36, 6 from 38, 20 from 40
Replicate 1 Time: 15:25
Peak Area (A-s): 0.001 Peak Height (A): 0.009
Background Pk Area (A-s): 0.036 Background Pk Height (A): 0.103
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): 0.39

L. Leonard
9/28/94

Check sample is within range -2.00 - 2.00

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Element	Instrument	QC Source
[ ] Ag	[X] 5100 A3	[ ] CLP-40
[ ] As	[ ] 5100 A6	[ ] CLP-70
[ ] Cd	[ ] 5000 A4	[ ] CLP-80
[ ] Cr	[ ] 5000 A5	[ ] EPA-V-1
[ ] Pb	[ ]	[X] CLPF-CAL-1
[ ] Sb	[ ]	[ ]
[ ] Se		[ ]
[X] Tl		[ ]

Analyst L. Fenove

Date 9-28-94

Lamp # 384272

Energy 51

Expansion 1

Stock 4-2137L exp 7-15-94
exp 7-15-95

[X] platform [X] MSC

[ ] wall [ ] MSA

Blank	Slope	AQC	Digestion QC
0.34	0.0032	24.44	① Dupl. diff = 0. 802
1.32		23.42	
1.28	0.0023	24.24	
0.39		24.7	

Blank cup absorbance

-1.61

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9.28.94